

THE TRANSFORMATION OF THE U.S. FINANCIAL SERVICES INDUSTRY, 1975–2000: COMPETITION, CONSOLIDATION, AND INCREASED RISKS

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The structure of the U.S. financial services industry has changed dramatically during the past quarter century. Large banks, securities firms, and life insurers have pursued aggressive expansion strategies by merging with direct competitors as well as firms in other financial sectors. The Gramm-Leach-Bliley Act of 1999 has encouraged this consolidation trend by authorizing the creation of financial holding companies that engage in a full range of banking securities, and insurance activities. The Act's proponents have claimed that these new "financial supermarkets" will produce favorable economies of scale and scope, offer convenient "one-stop shopping" to customers, and achieve a safer diversification of risks.

In contrast, Professor Wilmarth contends that the motivations for a probable outcome of financial conglomeration are very different. In his view, managers of large, diversified financial firms have sought growth to build personal empires, to increase market power, and to secure membership in the exclusive club of "too big to fail" institutions. By virtue of their too big to fail status, major financial conglomerates are largely insulated from market discipline and regulatory oversight, and they have perverse incentives to take excessive risks at the expense of the federal "safety net." Based on past experi-

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ence, the new financial megafirms are likely to encounter diseconomies of scale and scope, shrinking profit margins, increased customer dissatisfaction, and greater vulnerability to sudden disruptions in the financial markets. In addition, the federal government will feel compelled to support these risky behemoths during economic crises. Professor Wilmarth calls for fundamental reforms to our system of financial regulation because current regulatory approaches cannot control the potential risks associated with financial conglomeration.

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INTRODUCTION

By enacting the Gramm-Leach-Bliley (GLB) Act¹ in November 1999, Congress opened a new era for the regulation of financial services in the United States. From the Great Depression through the late 1970s, commercial banks were almost entirely separated from securities firms and insurance companies, both by law and by custom.² During the 1980s and 1990s, the barriers between the three financial sectors eroded substantially.³ Nevertheless, until the end of the 1990s, the United States and Japan were the only major developed nations that prevented banks from establishing full-scale affiliations with securities firms and insurance companies.⁴

The GLB Act removed legal restrictions on affiliations between banks and securities firms by repealing two provisions of a 1933 statute popularly known as the “Glass-Steagall Act.”⁵ The GLB Act also elimi-

1. The GLB Act, Pub. L. No. 106-102, 113 Stat. 1338 (1999) (codified in scattered sections of 12, 15 & 19 U.S.C.). For general discussions of the GLB Act, see Michael P. Malloy, *Banking in the Twenty-First Century*, 25 J. CORP. L. 787, 793–819 (2000); Michael K. O’Neal, *Summary and Analysis of the Gramm-Leach-Bliley Act*, 28 SEC. REG. L.J. 95 *passim* (2000).

2. See, e.g., ROBERT E. LITAN, WHAT SHOULD BANKS DO? 25–31 (1987) (describing legal rules that effectively separated commercial banks from securities firms and insurance companies between 1933 and 1980); MARK J. ROE, STRONG MANAGERS, WEAK OWNERS: THE POLITICAL ROOTS OF AMERICAN CORPORATE FINANCE 54–101 (1994) (same, and noting that banking laws passed by Congress during the 1930s and 1950s “cemented” a longstanding policy of “fragmenting” the control of financial institutions, a policy which dated from President Andrew Jackson’s veto of the rechartering of the Second Bank of the United States in 1832); see also Helen A. Garten, *Regulatory Growing Pains: A Perspective on Bank Regulation in a Deregulatory Age*, 57 FORDHAM L. REV. 501, 517–18 & nn.76 & 79 (1989) [hereinafter Garten, *Bank Regulation*] (noting that, in addition to legal constraints, cultural norms discouraged banks from expanding into new lines of business after World War II, particularly the “conservatism” of senior bank executives who had experienced the financial upheavals of the Great Depression).

3. See Lissa L. Broome & Jerry W. Markham, *Banking and Insurance: Before and After the Gramm-Leach-Bliley Act*, 25 J. CORP. L. 723, 743–57 (2000) (discussing erosion of the legal constraints separating banks and insurance companies); *infra* Part I(E)(2)(a)(i) (discussing erosion of the legal restrictions separating banks and securities firms).

4. See James R. Barth et al., *The Repeal of Glass-Steagall and the Advent of Broad Banking*, J. ECON. PERSP., Spring 2000, at 191, 200–01 & tbl.1.

In a manner similar to the United States, Japan has recently enacted legislation repealing its longstanding legal barriers to affiliations among banks, securities firms, and insurance companies. Those barriers were established shortly after World War II, at the insistence of the occupying American forces. The new Japanese laws and regulations permit, as of 2001, the creation of diversified financial holding companies that control banking, securities, and insurance subsidiaries. See, e.g., Valentine V. Craig, *Financial Deregulation in Japan*, FDIC BANKING REV., Dec. 1998, at 1, 1–4; Ernest T. Patrikis, *Japan’s Big Bang Financial Reforms*, 24 BROOK. J. INT’L L. 577, 580–85 (1998).

5. The GLB Act authorized full-scale affiliations between banks and securities firms by repealing sections 20 and 32 of the Banking Act of 1933, popularly called the “Glass-Steagall” Act. How-

nated legal barriers to affiliations between banks and insurance companies.⁶ As a result of the GLB Act, banks can combine with securities firms and insurance companies to organize financial conglomerates under the structure of a “financial holding company.”⁷

Even before the GLB Act was passed, the legal barriers to financial consolidation were “all but render[ed] . . . moot” by the 1998 decision of the Federal Reserve Board’s (FRB) approving a merger between Citicorp and Travelers.⁸ This merger created a \$750 billion diversified financial holding company called “Citigroup,” which currently ranks as the world’s largest financial services organization.⁹ Proponents of financial modernization hailed Citigroup as the first modern American “universal bank,” because it was the first U.S. banking organization since 1933 that could offer comprehensive banking, securities, and insurance services to its customers.¹⁰

ever, the GLB Act did *not* repeal two other provisions of the Glass-Steagall Act—(i) section 16 (codified at 12 U.S.C. § 24 (Seventh) (Supp. V 1999)), which prohibits banks from underwriting and dealing in most types of securities, and (ii) section 21 (codified at 12 U.S.C. § 378 (Supp. V 1999)), which bars securities underwriters and dealers from engaging in the business of accepting deposits. *See* GLB Act, Pub. L. No. 106-102, § 101, 113 Stat. 1338, 1341 (1999) (codified as amended in scattered sections 20 & 32) (repealing sections 20 and 32); *id.* § 151, 113 Stat. 1384 (amending section 16 to permit banks to underwrite and deal in municipal securities). In short, while the GLB Act removed the Glass-Steagall Act’s restrictions on affiliations between banks and securities firms, each industry continues to be barred from engaging *directly* in the other industry’s core activities. *See* PATRICIA L. MCCOY, BANKING LAW MANUAL §§ 7.01, 7.02[1], 7.03[1] & [3] & 7.04 (2000) (describing provisions of the Glass-Steagall Act and their partial repeal by the GLB Act).

6. *See* Broome & Markham, *supra* note 3, at 757–76.

7. The GLB Act allows bank holding companies (viz., companies that control one or more banks) to become financial holding companies by registering with the Federal Reserve Board (FRB). Financial holding companies may establish subsidiaries that engage in any activity designated as “financial in nature” in the GLB Act or in a ruling made by the FRB after consultation with the Treasury Department. *See* GLB Act, Pub. L. No. 106-102, § 103(a), 113 Stat. 1338, 1342–50 (1999) (codified at 12 U.S.C. §§ 1843(k)–(o) (Supp. V 1999)). The GLB Act expressly states that “financial in nature” activities include (i) insurance underwriting, sales, brokerage, and portfolio investments; and (ii) securities underwriting, dealing, market making, brokerage, and merchant banking. *Id.* § 103, 113 Stat. 1343 (codified at 12 U.S.C. §§ 1843(k)(4)(B), (E), (F) (Supp. V 1999)).

The GLB Act also allows national banks and state banks insured by the Federal Deposit Insurance Corporation (FDIC) to establish direct subsidiaries, known as “financial subsidiaries,” that conduct most of the activities permitted to financial holding companies. Financial subsidiaries of banks, however, may not engage in insurance underwriting, insurance company portfolio investments, or merchant banking. *See id.* § 121, 113 Stat. 1373–81 (codified at 12 U.S.C. §§ 24a & 1831w (Supp. V 1999)). For discussions of the foregoing provisions of the GLB Act, see, for example, Barth et al., *supra* note 4, at 191–94; O’Neal, *supra* note 1, at 100–12.

8. O’Neal, *supra* note 1, at 96.

9. Travelers Group, Inc., 84 FED. RES. BULL. 985, at 985–86 (1998) [hereinafter *Travelers*] (noting that Citigroup would initially have assets of about \$750 billion); R. Christian Bruce, *Fed Approves Citicorp-Travelers Merger Creating World’s Largest Bank Company*, 71 Banking Rep. (BNA) No. 449 (1998) [hereinafter Bruce, *Citicorp-Travelers Merger*] (same). In 2001, Citigroup ranked first in the world in terms of both assets and market capitalization. *See* Niamh Ring, *Citi Surpasses Deutsche As No. 1 in Asset Size*, AM. BANKER, July 6, 2001, at 2 (reporting that Citigroup had \$940 billion of assets as of March 31, 2001); *The BusinessWeek Global 1000*, BUS. WK., July 9, 2001, at 75 tbl. (showing that Citigroup had a market capitalization of \$261 billion as of May 31, 2001, compared to \$116 billion for HSBC Holdings, the second most highly valued global bank).

10. *See, e.g.,* Yvette D. Kantrow & Liz Moyer, *Citi, Travelers: A Global Leader Takes Shape*, AM. BANKER, Apr. 7, 1998, at 1; Michael Siconolfi, *Big Umbrella: Travelers and Citicorp Agree to Join*

The FRB approved the Citicorp-Travelers merger even though the proposal “challenge[d] both the statutory letter and regulatory spirit” of existing law and Congress had not yet acted on pending financial modernization bills.¹¹ Based on an exemption in the federal Bank Holding Company (BHC) Act, the FRB allowed Citigroup to offer securities and insurance services beyond the scope of the BHC Act for up to five years after Citicorp merged with Travelers.¹² In practical effect, the FRB’s 1998 order permitted Citigroup to operate as a universal bank for up to five years, without being required to divest any of its securities or insurance activities.¹³

From a political perspective, Citigroup’s leaders “boldly gambled that they [could] dragoon Congress . . . into legalizing their transformation” before the exemption period expired.¹⁴ Citigroup’s gamble proved to be well founded when Congress passed the GLB Act a year after the FRB approved the merger. As further discussed below, the regulatory and legislative responses to the Citicorp-Travelers merger raise troubling questions about (i) the degree of political influence enjoyed by Citigroup and other major financial institutions,¹⁵ and (ii) the FRB’s willingness to pressure Congress by confronting it with the choice of either approving legislation to ratify the Citicorp-Travelers merger or forcing a potentially disruptive breakup of a huge financial conglomerate.¹⁶

Forces in \$83 Billion Merger, WALL ST. J., Apr. 7, 1998, at A1 [hereinafter Siconolfi, *Citigroup*]. See generally Roy C. Smith, *Strategic Directions in Investment Banking—A Retrospective Analysis*, THE BANK OF AM. J. APPLIED CORP. FIN., Spring 2001, at 111 [hereinafter Smith, *Investment Banking*].

11. Edward J. Kane, *Implications of Superhero Metaphors for the Issue of Banking Powers*, 23 J. BANKING & FIN. 663, 666-67 (1999) [hereinafter Kane, *Banking Powers*].

12. Under section 4(a)(2) of the BHC Act, 12 U.S.C. § 1843(a)(2) (Supp. V 1999), a nonbanking company is exempt from the activity restrictions contained in section 4 of the BHC Act for up to two years after it acquires a bank. In addition, section 4(a)(2) permits the FRB to grant up to three one-year extensions of this exemption period. See *Travelers*, *supra* note 9, at 987-88 (relying on exemption provided in section 4(a)(2)). In approving the Citicorp-Travelers merger, the FRB determined that about 25% of Travelers’ assets and 40% of Travelers’ revenues were related to operations that did not conform to the activity restrictions contained in section 4 of the BHC Act (in its pre-GLB Act version). Those nonconforming activities included, *inter alia*, underwriting life, property, and casualty insurance; investing in more than 5% of the voting shares of commercial companies; and controlling and distributing the shares of mutual funds. See *id.* at 985, 988.

A federal appeals court subsequently upheld the FRB’s order. The court concluded that the FRB’s “literal compliance” with the exemption contained in section 4(a)(2) overcame any argument that the FRB had violated the “purposes” of the BHC Act. See *Indep. Cmty. Bankers of America v. Bd. of Governors*, 195 F.3d 28, 31-32 (D.C. Cir. 1999).

13. See, e.g., Bruce, *Citicorp-Travelers Merger*, *supra* note 9, at No. 449.

14. Kane, *Banking Powers*, *supra* note 11, at 666; see also Dean Anason, *Advocates, Skeptics Face Off on Megadeals*, AM. BANKER, Apr. 30, 1998, at 2 [hereinafter Anason, *Megadeals*] (reporting that Citigroup’s formation “was widely seen as a bid to push lawmakers to enact a sweeping overhaul of financial laws,” and quoting Rep. Maurice D. Hinchey’s statement that Citigroup was “essentially playing an expensive game of chicken with Congress”).

15. See Kane, *Banking Powers*, *supra* note 11, at 669; *infra* notes 374-79 and accompanying text.

16. See Bruce, *Citicorp-Travelers Merger*, *supra* note 9, at No. 449 (citing arguments made by critics of the merger); *Fed to Consider Citicorp, Travelers Merger; Big Question is Terms of the Deal*, NEW ORLEANS TIMES-PICAYUNE, Sept. 22, 1998, at C5 (same).

Although the Citigroup merger and the GLB Act were landmark events, in a broader sense they are byproducts of the fundamental restructuring that has occurred in the U.S. financial services industry over the past quarter century. As shown in Parts I and II of this article, the dividing lines between banks, securities firms, and insurance companies began to disappear long before Congress passed the GLB Act.

This growing "homogenization" among the three financial sectors was spurred by rapid improvements in information technology, deregulation, and financial innovations that broke down traditional barriers between the three sectors. For example, sophisticated computer systems and new financial instruments (e.g., commercial paper, junkbonds, and asset-backed securities) made it feasible to "securitize" many types of business and consumer debt. As a result, many customers that previously relied on bank loans gained access to financing from nonbank sources such as finance companies and the public and institutional credit markets. At the same time, advances in information technology and the creation of new financial products enabled aggressive "niche" providers (e.g., credit card banks, discount brokers, and mutual fund companies) to offer low-cost cash management and investment management services to the general public. In response to these developments, consumers shifted a rapidly growing share of their investments from traditional bank deposits and life insurance policies into mutual funds, variable annuities, and other investment vehicles linked to the financial markets.

In combination, these developments caused a dramatic increase in competition and a narrowing of profit margins in the markets traditionally served by banks, securities firms, and life insurance companies. In each of the three financial sectors, incumbent firms encountered declining profit margins from traditional activities, increased competition from outside entrants, higher risks from new lines of business, and growing pressure to consolidate. Each sector is currently far more vulnerable to financial stress than it was during the early 1970s.

Large banks, securities broker-dealers, and life insurers responded to these trends by pursuing a twofold consolidation strategy designed to defend their existing markets and capture new revenue sources. First, leaders within each industry sector sought to enhance their market power by acquiring their traditional competitors. Second, industry leaders tried to diversify their activities by acquiring firms in other sectors.

This consolidation strategy triggered a wave of mergers within and across the banking, securities, and insurance sectors. Since 1980, the number of banking organizations has fallen by nearly half and the market share held by the ten largest banks has more than doubled.¹⁷ Three

17. See *infra* Part I(D)(1) (describing rapid consolidation within the U.S. banking industry). The term "banking organization," as used in this article, includes each independent bank and each bank holding company that controls one or more banks. Unless the context indicates otherwise, the term "bank" is used to refer to both a chartered bank and a bank holding company.

huge bank mergers were announced in 1998, involving six of the nation's twelve largest banks,¹⁸ and four additional mergers of comparable magnitude were agreed to during 1999-2001.¹⁹ As a result of this consolidation, the U.S. banking industry is rapidly developing a two-tiered structure. Within the next decade, it appears likely that a small group of very large banks will control most of the industry's assets, while the remaining competitors will primarily be community-based institutions or specialized niche providers. Similar patterns of consolidation have occurred within the securities and insurance sectors.

Cross-industry acquisitions have also become important in recent years. Even before the GLB Act was passed, favorable rulings issued by federal banking agencies and courts permitted banks to make significant inroads into the securities and insurance sectors.²⁰ At the same time, several large securities firms and insurance companies operated conglomerates that competed with each other and with banks over a wide range of financial businesses.²¹ The GLB Act has given further impetus to cross-industry consolidation. During 2000 alone, two large foreign banks acquired major U.S. securities firms, another leading foreign bank purchased a large U.S. insurance company, and Charles Schwab and MetLife acquired banks.²²

Advocates of "universal banking"²³ contend that the creation of giant financial conglomerates will produce three major benefits: (i) increased efficiency and profitability for financial firms, due to larger economies of scale and scope; (ii) increased safety and soundness for financial firms through a greater diversification of their business lines; and (iii) lower-cost services and improved convenience for consumers based on the concept of "one-stop shopping."²⁴ This article questions

18. See *infra* note 152 and accompanying text (discussing NationsBank-BankAmerica, Bank One-First Chicago NBD, and Norwest-Wells Fargo mergers).

19. See *infra* note 153 and accompanying text (discussing Fleet-BankBoston, J.P. Morgan-Chase, FirstStar-U.S. Bancorp, and First Union-Wachovia mergers).

20. See *infra* notes 418-33, 909-12 and accompanying text.

21. See *infra* Part II(C).

22. See Amy L. Anderson, *Sales at Banks A Key Prize In ING Deal For ReliaStar*, AM. BANKER, May 2, 2000, at 1; Lee Ann Gjertsen, *MetLife Has Big Plans for One-Branch Bank*, AM. BANKER, Aug. 17, 2000, at 1; John Tagliabue, *Swiss Banks Calling Wall St. Home*, N.Y. TIMES, Aug. 31, 2000, at C20 (discussing Credit Suisse's acquisition of Donaldson, Lufkin & Jenrette and UBS' acquisition of PaineWebber); Pui-Wing Tam & Randall Smith, *Deals & Deal Makers: Schwab, Going for High-End Clients, Sets \$2.9 Billion Stock Accord for U.S. Trust*, WALL ST. J., Jan. 14, 2000, at C1.

23. As used in this article, the term "universal banking" refers to a regime under which a single organization can engage, either directly or indirectly through affiliates, in all aspects of the banking, securities, and life insurance businesses. See ANTHONY SAUNDERS & INGO WALTER, UNIVERSAL BANKING IN THE UNITED STATES: WHAT COULD WE GAIN? WHAT COULD WE LOSE? 84-86, 128-29 (1994) [hereinafter SAUNDERS & WALTER, U.S. UNIVERSAL BANKING] (adopting the same definition of "universal banking").

24. See, e.g., S. REP. NO. 106-44, at 4-6 (1999); U.S. TREAS. DEP'T, MODERNIZING THE FINANCIAL SYSTEM: RECOMMENDATIONS FOR SAFER, MORE COMPETITIVE BANKS, at XVIII-12 to XVIII-29 (1991) [hereinafter 1991 TREASURY FINANCIAL MODERNIZATION REPORT]; Barth et al., *supra* note 4, at 198-99; Joao A.C. Santos, *Commercial Banks in the Securities Business: A Review*, 14 J. FIN. SERV. RES. 35, 37-41 (1998) [hereinafter Santos, *Banks in the Securities Business*].

these optimistic forecasts. As discussed below, no domestic or foreign firm has yet realized, on a long-term basis, the theoretical advantages of establishing a “financial supermarket.” In fact, big diversified financial providers have produced a largely disappointing record over the past quarter century. Many domestic and foreign financial conglomerates have encountered serious difficulties since the early 1980s, and several of them have abandoned their efforts to establish universal banks. The generally poor results of these conglomerates are consistent with economic studies and empirical data showing that (i) major U.S. financial institutions and big foreign universal banks suffer from *diseconomies* of scale and scope, and (ii) mergers among large banks, or between banks and other financial institutions, typically have *not* produced improvements in efficiency, profitability, shareholder value, or customer service. In short, the experience of the last twenty-five years provides little support for the optimistic projections offered by advocates of universal banking.

Doubts about the claimed advantages of universal banks are buttressed by concerns that the creation of large financial conglomerates will intensify the “too big to fail” (TBTF) problem in the financial markets. Over the past two decades, leading banks, securities firms, and life insurers have pursued aggressive lending and securitization programs, as well as speculative underwriting and investment activities in the markets for securities and financial derivatives. As a result of these high-risk activities, large financial institutions have become increasingly vulnerable to disruptions in the capital markets.²⁵ Moreover, the growing concentration of securities and derivatives activities within a small group of major financial institutions increases the likelihood that the failure of any big institution could create systemic risk and trigger a costly bailout by federal regulators.

The federal “safety net” for financial institutions includes Federal Deposit Insurance Corporation (FDIC) deposit insurance and FRB payments system guarantees for banks, as well as the FRB’s authority to act as “lender of last resort” (LOLR) for both banks and nonbank institutions.²⁶ These safety net protections have proven to be very costly during financial crises. Between 1980 and 1994, U.S. taxpayers and deposit insurance funds paid out almost \$200 billion to resolve the failures of 3000 banks and thrift institutions.²⁷ In addition, since the early 1970s,

25. The term “capital markets” includes any market in which debt or equity securities or other financial instruments are traded. Capital markets include formal exchanges and informal arrangements among dealers. See Steven L. Schwarcz, *Private Ordering of Public Markets: The Rating Agency Paradox*, 2002 U. ILL. L. REV. (forthcoming 2002) (manuscript at Part II(B), at n.109, on file with author).

26. See *infra* notes 349–64 & 1033–34 and accompanying text (describing the federal safety net for financial institutions).

27. See *infra* notes 148–49, 397 & 589 and accompanying text (reviewing costs of resolving thrift and bank failures during 1980–94).

federal regulators have followed a TBTF policy that protects *uninsured* depositors and payments system creditors at major banks, and the FRB has also intervened in the financial markets on several occasions to prevent short-term financial disruptions from escalating into systemic panics. Many foreign countries and the International Monetary Fund (IMF) have followed comparable policies, with similarly costly results, in dealing with international financial crises since the 1970s. Indeed, the U.S. government strongly supported the IMF's rescue programs for Mexico in 1995 and for Asian countries and Russia in 1997–98. Critics have argued that IMF programs provided de facto protection to large U.S. and international banks, thereby aggravating the tendency of such banks to take excessive risks based on their TBTF status.²⁸

Many observers also believe that the federal government's financial stabilization efforts have impaired market discipline and created significant moral hazard within the financial markets. The growth of huge financial holding companies increases the probability that regulators will feel compelled to prevent the failure of troubled securities firms and life insurers that are affiliated with major banks. As a result, the subsidies provided by the safety net for banks could be extended to entire financial conglomerates, thereby undermining the ability of both regulators and market participants to discipline such institutions. U.S. and international regulators are currently revising their policies in an effort to improve supervisory oversight and market discipline with respect to large diversified banking organizations. For the reasons described in Part III, however, these new regulatory approaches are unlikely to solve the underlying problems of supervisory forbearance and moral hazard, which are the direct consequences of the TBTF policy.²⁹

I. THE RECONSTRUCTION OF THE BANKING INDUSTRY SINCE 1975

In 1975, U.S. banks were largely barred from entering the securities or insurance businesses. The Glass-Steagall Act prohibited banks from underwriting or dealing in securities, except for certain narrowly defined categories of "bank-eligible" securities such as U.S. government bonds and general obligation bonds issued by state and local governments.³⁰

28. See *infra* Parts I(E)(4)(b)(iv), III(B) & III(C) (discussing the TBTF policy, FRB interventions to stabilize the capital markets, and efforts by foreign countries and the IMF to bail out large troubled banks).

29. See *infra* Parts I(E)(4)(b)(iv), III(B) & III(C).

30. As discussed *supra* at note 5, the four provisions popularly known as the "Glass-Steagall Act" were enacted as sections 16, 20, 21, and 32 of the Banking Act of 1933. As described below, the GLB Act amended section 16, left section 21 unchanged, and repealed sections 20 and 32.

Section 16 (codified at 12 U.S.C. § 24(Seventh) (Supp. V 1999)) prohibits national banks from underwriting or dealing in securities except for "bank-eligible" securities such as (i) debt securities issued or guaranteed by U.S. government agencies, and (ii) debt securities issued by state and local governments. See *Sec. Indus. Ass'n v. Bd. of Governors of the Fed. Reserve Sys.*, 839 F.2d 47, 50–62 (2d Cir. 1988), *cert. denied*, 486 U.S. 1059 (1988) (discussing difference between "bank-eligible" securities that national banks are permitted to deal in or underwrite, and "bank-ineligible" securities that national

Federal statutes also largely prevented banks from engaging in the business of underwriting or selling life insurance.³¹

During the late 1960s and early 1970s, federal courts overruled efforts by the Office of the Comptroller of the Currency (OCC) to expand the authority of national banks in the areas of securities underwriting and life insurance sales.³² Federal courts and Congress also placed strict

banks are forbidden to deal in or underwrite); MCCOY, *supra* note 5, §§ 7.03[1] & 7.04[2][a] (same). Under 12 U.S.C. § 335, state banks that are members of the Federal Reserve System ("state member banks") are subject to the same restrictions on securities underwriting and dealing. The GLB Act amended section 16 by adding municipal revenue bonds to the list of "bank eligible" securities that can be underwritten or dealt in by "well capitalized" national and state member banks. See The GLB Act, Pub. L. No. 106-102, 113 Stat. 1338 (1999) (codified as amended at 12 U.S.C. § 24 (Supp. V 1999)).

Section 21 (codified at 12 U.S.C. § 378 (Supp. V 1999)) prohibits any organization engaged in underwriting or dealing in bank-ineligible securities from carrying on, at the same time, a deposit-taking business. Thus, section 21—which was not changed by the GLB Act—forbids securities firms from directly conducting a deposit banking business in the same way that section 16 bars national and state member banks from directly engaging in an investment banking business. See *Sec. Indus. Ass'n*, 839 F.2d at 50–62; MCCOY, *supra* note 5, § 7.03[3].

Prior to the GLB Act, section 20 (previously codified at 12 U.S.C. § 377) barred any national or state member bank from affiliating with any organization that was "engaged principally" in underwriting or dealing in bank-ineligible securities. See *Sec. Indus. Ass'n*, 839 F.2d at 50–63 (discussing scope of section 20); MCCOY, *supra* note 5, § 7.04[2][a] (same). Section 32 (previously codified at 12 U.S.C. § 78) forbade certain kinds of director, officer, and employee "interlocks" between national or state member banks and organizations that were "primarily engaged" in underwriting or dealing in bank-ineligible securities. See *Sec. Indus. Ass'n*, 839 F.2d at 56 (describing scope of section 32). The GLB Act repealed sections 20 and 32 and thereby removed the legal barriers to affiliations between banks and securities firms. See *supra* note 5 and accompanying text; MCCOY, *supra* note 5, § 7.02[1].

For general surveys of the Glass-Steagall Act and the leading cases decided thereunder, see, e.g., MELANIE L. FEIN, *SECURITIES ACTIVITIES OF BANKS* ch. 4 (2d ed. 2000); HOWELL E. JACKSON & EDWARD L. SYMONS, JR., *REGULATION OF FINANCIAL INSTITUTIONS* ch. 15 (1999); MCCOY, *supra* note 5, ch. 7.

31. Under 12 U.S.C. § 92 (Supp. V 1999), originally enacted in 1916, national banks may sell insurance only from banking offices located in towns having a population of not more than 5000. In the late 1960s and early 1970s, federal courts held that, by negative inference, section 92 prohibited national banks from selling insurance out of offices located in towns larger than 5000 or from underwriting any type of insurance. See, e.g., *First Sec. Bank of Utah, N.A. v. Comm'r of Internal Rev.*, 436 F.2d 1192, 1195–96, 1198 (10th Cir. 1971), *aff'd*, 405 U.S. 394 (1972); *Saxon v. Georg. Ass'n of Indep. Ins. Agents, Inc.*, 399 F.2d 1010 (5th Cir. 1968). Nevertheless, by 1980 it was established that national banks had the "incidental power" to use any of their offices to sell "credit-related" life, health, disability, and accident insurance that was directly connected to their extension of loans. See *Indep. Bankers Ass'n of Am. v. Heimann*, 613 F.2d 1164, 1169–70 (D.C. Cir. 1979), *cert. denied*, 449 U.S. 823 (1980).

Under section 4 of the BHC Act, 12 U.S.C. § 1843, as originally enacted in 1956 and amended in 1970, bank holding companies and their subsidiaries could not engage in nonbanking activities unless such activities were determined to be "closely related to banking." See LITAN, *supra* note 2, at 31. Prior to the GLB Act, the FRB prohibited bank holding companies from underwriting any type of insurance except for credit-related insurance. With regard to insurance sales, the FRB ruled in the early 1970s that a bank holding company could sell credit-related insurance as well as property and casualty insurance that was directly connected to real estate loans made by the holding company's subsidiary banks. See *id.* at 30–31. However, in 1982, as discussed *infra* at note 33, Congress sharply curtailed the authority of bank holding companies to underwrite or sell any kind of insurance except for credit-related insurance. See *infra* note 33 and accompanying text.

In 1999, as previously discussed, the GLB Act removed the legal barriers to affiliations between banks and insurance companies by authorizing financial holding companies to own subsidiaries that engage in all types of banking and insurance activities. See *supra* note 6 and accompanying text.

32. See, e.g., *Inv. Co. Inst. v. Camp*, 401 U.S. 617, 639 (1971) (invalidating OCC rulings that permitted national banks to sponsor, manage, and underwrite mutual funds); *Saxon*, 399 F.2d at 1018–

limitations on the ability of bank holding companies to sell insurance products.³³ These legal developments undoubtedly delayed bank expansion into the securities and insurance sectors. It is also true, however, that most banks during the 1960s and early 1970s had little interest in expanding outside the traditional boundaries of commercial banking. Banks at that time could make steady profits by following a simple three-part program: (i) collecting interest-free demand deposits and low-interest time deposits; (ii) investing in safe government securities; and (iii) making low-risk business loans to well-established businesses. In addition, many senior bank managers of that period had experienced the Great Depression of 1929–33, and most of them chose to follow a conservative policy that stayed within the customary business of commercial banking.³⁴

Due to a series of dramatic changes, the banking industry's stability and low-risk profitability have largely vanished since the mid-1970s. The most important of these developments are: (i) declining returns from traditional bank lending, due to the growth of securitized credit and competition from new entrants into commercial and consumer loan markets; (ii) volatile and rising interest rates that encouraged bank customers to shift their funds from bank deposits to investments tied to the capital markets; (iii) rapid consolidation and the development of a two-tiered structure within the banking industry; (iv) pursuit of improved earnings through higher-risk commercial and consumer lending; and (v) expansion into nontraditional activities tied to the capital markets, such as underwriting junk bonds, investing in venture capital deals, trading in derivatives and securities, and securitizing loans. Each of these trends is reviewed below.

A. The Traditional Lending Business of Banks Has Declined Substantially

1. Banks Specialize in Lending to Borrowers that Lack Access to the Capital Markets

Banks have long served as the leading providers of credit to borrowers whose business reputation and financial profile are not suffi-

19 (overturning OCC ruling that allowed national banks to sell all types of insurance "incident to banking transactions" from offices located in towns larger than 5000).

33. See, e.g., *Ala. Ass'n of Ins. Agents v. Bd. of Governors*, 533 F.2d 224, 241–42 (5th Cir. 1976), *modified on reh'g*, 558 F.2d 729 (5th Cir. 1977), *cert. denied*, 435 U.S. 904 (1978) (prohibiting bank holding companies from selling various types of insurance as a "convenience" to their customers). In 1982, Congress amended section 4(c)(8) of the BHC Act to establish a general prohibition against the involvement of bank holding companies in insurance underwriting or sales activities, with certain limited exemptions. These exemptions primarily allowed bank holding companies to underwrite and sell credit-related insurance and to sell other types of insurance from offices located in towns with populations under 5000. See FEIN, *supra* note 30, §§ 8.03–8.06 (discussing 1982 amendment to section 4(c)(8)).

34. See Garten, *Bank Regulation*, *supra* note 2, at 514–19.

ciently established to attract funds from public investors. Finance theory recognizes that lending to such "opaque" borrowers must occur under conditions of asymmetric information.³⁵ Banks have several significant advantages in acting as lenders under these conditions. First, banks provide valuable liquidity and transaction services to depositors by accepting deposits that are payable on demand and that can be transferred to third parties by means of negotiable instruments (e.g., checks) or electronic transfers. These liquidity and transaction services enable banks to assemble large pools of liquid funds for lending to borrowers.³⁶ Second, banks have developed expertise and economies of scale in evaluating the creditworthiness of potential borrowers. By establishing systems for gathering and evaluating information about potential borrowers and their projects, banks greatly diminish the adverse selection problems presented by informationally opaque borrowers.³⁷

35. "Asymmetric information" is said to exist in a credit market when crucial information about potential borrowers (e.g., information regarding the value of their assets and their future earnings prospects) is not publicly available and can be obtained by investors only through costly private negotiations with borrowers. Under such circumstances, investors find it difficult to distinguish between creditworthy borrowers and "lemons." There are two principal reasons why a borrower may prove to be a lemon. First, "adverse selection" may occur *before* a debt contract is made if the borrower misleads the investor about the risks inherent in the borrower's business. Second, "moral hazard" may occur *after* a debt contract is made if the borrower increases the riskiness of its activities without informing the investor. Accordingly, the typical investor confronted with an "informationally opaque" borrower is likely either to deny credit altogether or to demand a significant risk premium to compensate for the possibility that adverse selection or moral hazard may occur. See, e.g., William R. Emmons & Stuart I. Greenbaum, *Twin Information Revolutions and the Future of Financial Intermediation*, in BANK MERGERS AND ACQUISITIONS 37, 41-45 (Yakov Amihud & Geoffrey Miller eds., 1998) [hereinafter BANK MERGERS]; Frederic Mishkin & Philip E. Strahan, *What Will Technology Do to Financial Structure*, in 1999 BROOKINGS-WHARTON PAPERS ON FINANCIAL SERVICES 249, 251-52 (Robert E. Litan & Anthony M. Santomero eds., 1999); Gregory F. Udell, *The Consolidation of the Banking Industry and Small Business Lending*, in BANK MERGERS, *supra*, at 221, 225-26 (describing loan customers of banks as "informationally opaque"); Stewart C. Myers & Nicholas S. Majluf, *Corporate Finance and Investment Decisions When Firms Have Information that Investors Do Not Have*, 13 J. FIN. ECON. 187, 195-98 (1984); Raghuram G. Rajan, *Why Banks Have a Future: Toward a New Theory of Commercial Banking*, THE BANK OF AM. J. OF APPLIED CORP. FIN., Summer 1996, at 114 [hereinafter Rajan, *Commercial Banking*]; MARK CAREY ET AL., THE ECONOMICS OF THE PRIVATE PLACEMENT MARKET, at 34 (Bd. of Governors of Fed. Res. Sys., Staff Study 166, Dec. 1993).

36. See, e.g., JONATHAN R. MACEY & GEOFFREY P. MILLER, BANKING LAW AND REGULATION 42-49 (2d ed. 1997); Douglas W. Diamond, *Financial Intermediation and Delegated Monitoring*, 51 REV. ECON. STUD. 393, 398-400, 404-05 (1984) [hereinafter Diamond, *Delegated Monitoring*]; Rajan, *Commercial Banking*, *supra* note 35, at 118-20.

Banks typically offer a high degree of liquidity to their borrowers. Most bank loans are extended through lines of credit that permit borrowers to make periodic draws against their approved credit lines. In practical effect, a line of credit operates much like an overdraft privilege on a checking account. In contrast to banks, nonbank lenders (e.g., finance companies and insurance companies) are significantly less likely to offer lines of credit, because their sources of funding (e.g., commercial paper and longer-term debt instruments) are less liquid than the transaction deposit accounts offered by banks. ANIL KASHYAP ET AL., BANKS AS LIQUIDITY PROVIDERS: AN EXPLANATION FOR THE COEXISTENCE OF LENDING AND DEPOSIT-TAKING 2-5, 19, 23-25, 34-38 (Nat'l Bur. Econ. Res., Working Paper No. 6962, Feb. 1999).

37. See Diamond, *Delegated Monitoring*, *supra* note 36, at 407-09; Udell, *supra* note 35, at 226-27.

Third, banks have a superior ability to monitor the behavior of borrowers and thereby reduce the incidence of moral hazard.³⁸ The monitoring advantages of banks include the following factors: (i) banks make most of their business loans on a short-term basis, and they can therefore renegotiate or terminate their loans with relatively short notice in response to adverse changes in the borrower; (ii) a single bank can enforce or renegotiate the terms of its loans (including restrictive covenants and collateral requirements) in a unified manner, thereby avoiding the collective action and free rider problems that multiple investors would face in monitoring and dealing with a troubled borrower; and (iii) a bank can evaluate the continuing creditworthiness of a borrower by observing transactions occurring in deposit accounts that the borrower maintains at the bank.³⁹ Fourth, and perhaps most importantly, a bank can reduce the likelihood of catastrophic loan defaults by diversifying its loans across a large set of borrowers with differing risk profiles.⁴⁰ In sum, banks have established themselves as the preeminent financial intermediaries between investors who desire maximum liquidity and safety for their funds (i.e., depositors) and borrowers whose creditworthiness is difficult to determine without continuous and expert monitoring.⁴¹

Most of the lending advantages enjoyed by banks, however, disappear with respect to large, well-established businesses that can provide credible information to institutional or public investors about their current financial condition and future prospects. As a successful firm grows and matures, it can reduce its borrowing from banks by issuing short-term commercial paper or longer-term debt instruments to institutional or public investors.⁴² The transition from bank lending to securitized

38. Moral hazard can arise in principal-agent transactions under conditions of asymmetric information. If the “principal” (e.g., a lender or insurer) cannot fully observe the behavior of the “agent” (e.g., a borrower or insured party), the agent will be tempted to maximize her personal interests by shirking or by taking excessive risks at the principal’s expense. The principal can reduce this potential for moral hazard by carefully monitoring the agent’s conduct and by using incentives (e.g., bonding or collateral requirements or penalties) that encourage the agent to act in accordance with the principal’s interests. See Jonathan R. Macey, *The Business of Banking: Before and After Gramm-Leach-Bliley*, 25 J. CORP. L. 691, 703–06 (2000) [hereinafter Macey, *Business of Banking*]; Edward S. Prescott, *A Primer on Moral-Hazard Models*, FED. RES. BANK OF RICH., ECON. Q. NO. 1, Winter 1999, at 47, 47–51; CAREY ET AL., *supra* note 35, at 34–38.

39. See Leonard I. Nakamura, *Commercial Bank Information: Implications for the Structure of Banking* [hereinafter Nakamura, *Bank Information*], in STRUCTURAL CHANGE IN BANKING 131, 132–39 (Michael Klausner & Lawrence J. White eds., 1993) [hereinafter STRUCTURAL CHANGE]; Eugene F. Fama, *What’s Different About Banks?*, 15 J. MONETARY ECON. 29, 35–38 (1985); Macey, *Business of Banking*, *supra* note 38, at 703, 707–08; CAREY ET AL., *supra* note 35, at 34–38.

40. MACEY & MILLER, *supra* note 36, at 44; Diamond, *Delegated Monitoring*, *supra* note 36, at 403–07.

41. See Sudipto Bhattacharya & Anjan V. Thakor, *Contemporary Banking Theory*, 3 J. FIN. INTERMEDIATION 2, 3–24 (1993); Douglas W. Diamond & Raghuram G. Rajan, *Liquidity Risk, Liquidity Creation, and Financial Fragility: A Theory of Banking*, 109 J. POL. ECON. 287, 287–89, 313–18 (2001); Macey, *Business of Banking*, *supra* note 38, at 695–99, 703–08, 719.

42. See Allen N. Berger & Gregory F. Udell, *Securitization, Risk, and the Liquidity Problem in Banking* [hereinafter Berger & Udell, *Securitization*], in STRUCTURAL CHANGE IN BANKING 227, 232–

debt can be understood conceptually by placing borrowers along a “continuum” with the most “opaque” firms at one end and most “transparent” companies at the other end.⁴³ This continuum separates borrowers into three broad categories: (i) small, relatively new firms that have few tangible assets and an unproven track record and, therefore, are unlikely to obtain financing from any outside sources except trade creditors and venture capital funds; (ii) more established firms of modest size, which offer some evidence of creditworthiness but require extensive monitoring both before and after credit is extended—these firms can obtain bank loans but cannot gain access to the financial markets; and (iii) larger firms with established track records and minimal information problems, which can issue debt directly to institutional or public investors.⁴⁴

A study by Myron Slovin and others provides strong evidence that banks lose their lending advantages over the financial markets as the size of their borrowers increases. This study found that announcements of loan originations and renewals for small publicly traded companies had a significant and positive effect on their stock price, while similar announcements for large publicly held corporations did not have a substantial impact on their stock price. The study concluded that banks possessed “no comparative advantage . . . relative to public securities markets” in evaluating or monitoring the creditworthiness of larger corporations, because those large firms were already “well monitored and ha[d] substantial reputations” in the financial markets.⁴⁵

2. *Securitization and Competition from Nonbank Lenders Have Eroded Significant Portions of the Traditional Bank Lending Franchise*

Revolutionary advances in information technology over the past two decades have allowed the financial markets to evaluate and monitor a much wider spectrum of borrowers. Computer systems and statistical evaluation programs permit securities firms, finance companies, and other nonbank financial service providers to collect, analyze, and disseminate financial data about many kinds of borrowers that previously

35 (Michael Klausner & Lawrence J. White eds., 1993); Douglas W. Diamond, *Monitoring and Reputation: The Choice Between Bank Loans and Directly Placed Debt*, 99 J. POL. ECON. 689, 689–91 (1991).

43. Berger & Udell, *Securitization*, *supra* note 42, at 232 (describing this “continuum”); Emmons & Greenbaum, *supra* note 35, at 41–45 (describing a similar “scale” for borrowers ranging from “opaque” to “transparent”).

44. See Berger & Udell, *Securitization*, *supra* note 42, at 232–34; CAREY ET AL., *supra* note 35, at 41–42; Emmons & Greenbaum, *supra* note 35, at 43–45; Udell, *supra* note 35, at 225–27.

45. Myron B. Slovin et al., *Firm Size and the Information Content of Bank Loan Announcements*, 16 J. BANKING & FIN. 1057, 1059–60, 1065, 1071 (1992). For a similar study showing that large corporations are much less dependent on bank loans than smaller firms, see Christopher James & David C. Smith, *Are Banks Still Special? New Evidence on Their Role in the Corporate Capital-Raising Process*, THE BANK OF AM. J. APPLIED CORP. FIN., Spring 2000, at 52, 54 & tbl.1 (finding that publicly traded firms which relied primarily on bank financing during 1980–93 were smaller and younger and had more volatile stock returns than publicly traded companies that made public offerings of debt securities).

could be evaluated profitably only by banks. At the same time, nonbank firms have developed innovative financing techniques (e.g., asset-backed securities and high-yield debt securities) to securitize a wide variety of debt instruments, thereby linking new classes of borrowers with investors in the financial markets.⁴⁶ In combination, these developments have enabled large groups of borrowers to shift from the bank dependent category on the debt continuum into the category of firms and individuals who can obtain credit directly from the financial markets.⁴⁷

a. Large Firms Have Shifted Much of Their Borrowing from Banks to the Capital Markets

Large corporations were the first major class of borrowers to switch from bank loans to securitized debt, a transition spurred by the rapid growth of the commercial paper market after 1970.⁴⁸ As a source of credit for nonfinancial firms, commercial paper was only one-twentieth the size of the bank commercial loan market in 1970. By 1995, commercial paper had grown to one-fifth the size of the bank commercial loan market.⁴⁹ In addition, medium-term notes emerged after 1980 as a significant new source of borrowing for large, highly rated corporations in the financial markets.⁵⁰

Similarly, lower quality corporate borrowers (e.g., companies with higher leverage) have reduced their reliance on bank loans by issuing

46. For discussions of the impact on bank lending of developments in information technology and the securitization of debt, see, e.g., Berger & Udell, *Securitization*, *supra* note 42, at 230-36; Mark J. Welshimer, *Securitization: Has It Matured?*, in 4 CURRENT LEGAL ISSUES AFFECTING CENTRAL BANKS 487 *passim* (Robert C. Effros ed., 1997); Franklin R. Edwards & Frederic S. Mishkin, *The Decline of Traditional Banking: Implications for Financial Stability and Regulatory Policy*, FED. RES. BANK OF N.Y., ECON. POL'Y REV., July 1995, at 27, 31-32.

47. See, e.g., Berger & Udell, *Securitization*, *supra* note 42, at 233-34; Emmons & Greenbaum, *supra* note 35, at 46-49.

48. See Thomas K. Hahn, *Commercial Paper*, FED. RES. BANK OF RICH., ECON. Q., Spring 1993, at 45, 45-50 (describing commercial paper as short-term debt securities that have a maturity of less than 270 days, and discussing the rapid growth after 1970 in the issuance of commercial paper by large industrial and nonbank financial firms); Jonathan R. Macey & Geoffrey P. Miller, *Bank Mergers and American Bank Competitiveness* [hereinafter Macey & Miller, *Bank Mergers*], in BANK MERGERS, *supra* note 35, at 175, 179-85 (explaining that the commercial paper market became a leading source of short-term financing for large, publicly held corporations after the mid-1970s and replaced much of their former reliance on bank loans).

49. Edwards & Mishkin, *supra* note 46, at 31; see also Dusan Stojanovic & Mark D. Vaughan, *The Commercial Paper Market: Who's Minding the Shop?*, FED. RES. BANK OF ST. LOUIS, REGIONAL ECONOMIST, Apr. 1998, at 4, 6 (reporting that the total amount of outstanding commercial paper increased from \$124 billion in 1980 to \$775 billion in 1996).

50. See generally Leland E. Crabbe, *Anatomy of the Medium-Term Note Market*, 79 FED. RES. BULL. 751 *passim* (1993) (describing medium-term notes as senior debt instruments, with maturities varying between nine months and thirty years, that are issued by large corporations to institutional and public investors, and discussing the rapid growth of the market for these instruments since 1980). Virtually all medium-term notes are issued by firms that can support investment grade ratings. *Id.* at 758. The outstanding amount of medium-term notes issued by U.S. corporations in the domestic market rose from less than \$1 billion in 1981 to \$299 billion in 1999. SEC. INDUS. ASS'N, 2001 SECURITIES INDUSTRY FACT BOOK 12 (2001) [hereinafter 2001 SIA Fact Book].

noninvestment grade, high-yield debt securities (popularly referred to as “junk bonds”). The market for high-yield debt expanded rapidly during the 1980s, and about \$200 billion of junk bonds (representing more than 20% of all publicly issued corporate debt) were outstanding at the end of 1989.⁵¹ The market for high-yield debt suffered a sharp but temporary slump during 1989–91, due to a severe recession and the collapse of Drexel Burnham, the primary originator of junk bond financing.⁵² The market recovered during the 1990s and reached new heights in 1997 and the first half of 1998.⁵³

The junk bond market again suffered a severe setback during the late summer and fall of 1998, when investors in the global markets panicked and sold off all types of higher-risk securities after the Russian government defaulted on a portion of its debt obligations.⁵⁴ The FRB stabilized the capital markets by making three interest rate cuts in rapid succession in late 1998, and the high-yield debt market made a gradual recovery.⁵⁵ By April 2000, almost \$600 billion of junk bonds were outstanding, three times the amount outstanding a decade before. While the junk bond market showed signs of severe strain in 2000, it was still more than half as large as the total amount of commercial and industrial loans held on bank balance sheets.⁵⁶

A majority of junk bond issuers since 1980 have been publicly traded, highly leveraged companies, and a desire to replace bank debt

51. See Lawrence M. Benveniste et al., *The Failure of Drexel Burnham Lambert: Evidence on the Implications for Commercial Banks*, 3 J. FIN. INTERMEDIATION 104, 107 (1993) (providing figures for junk bonds outstanding in 1989); Stuart C. Gilson & Jerold B. Warner, *Junk Bonds, Bank Debt, and Financing Corporate Growth*, § 3.1 & tbl.1 (Oct. 1997) (unpublished manuscript, on file with the University of Illinois Law Review) (showing that the issuance of junk bonds with an investment rating increased from \$1.3 billion in 1980 to approximately \$30 billion annually in 1986–88).

52. See Gilson & Warner, *supra* note 51, § 3.1 & tbl.1 (showing that the issuance of junk bonds with an investment rating declined from \$30 billion annually in 1986–88 to \$1.3 billion in 1990); *infra* notes 461–65 and accompanying text (explaining reasons for the collapse of the junk bond market in 1989–91).

53. See Edwards & Mishkin, *supra* note 46, at 31–32 (stating that the volume of new junk bonds—including rated and unrated issues—rose from \$2.9 billion in 1990 to \$60 billion in 1993); Toddi Gutner, *It's Junk, but not Garbage*, BUS. WK., Sept. 7, 1998, at 84 (reporting that the volume of newly issued junk bonds reached \$120 billion in 1997 and \$117 billion during the first half of 1998).

54. See Henk Bouhuys & Stephan Jaeger, *Recent Developments in the High Yield Market*, THE BANK OF AM. J. APPLIED CORP. FIN., Spring 1999, at 70, 70–72; *infra* notes 78–84, 464–70 and accompanying text (discussing the severe impact on the market for junk bonds caused by the investor “flight to safety” that occurred in the global capital markets following the Russian debt default).

55. See Alan Greenspan, Chairman, Board of Governors of the Federal Reserve System, Statement Before the House Comm. on Banking, Housing and Urban Affairs, (Feb. 23, 1999), in 85 FED. RES. BULL., Apr. 1999, at 245 [hereinafter 1999 Greenspan Monetary Policy Statement]; Bouhuys & Jaeger, *supra* note 54, at 72–77.

56. See FDIC Q. BANKING PROFILE, 1st. Qtr. 2000, at 4 tbl.II-A (reporting that commercial banks held \$1.0 trillion of commercial and industrial loans as of March 31, 2000); Edward I. Altman, *Revisiting the High Yield Bond Market: Mature But Never Dull*, THE BANK OF AM. J. APPLIED CORP. FIN., Spring 2000, at 64, 65 (providing junk bond figures); *infra* notes 454, 469–72 and accompanying text (discussing problems in the junk bond market during 2000).

has been their most frequently stated reason for issuing junk bonds.⁵⁷ These borrowers chose junk bonds as an attractive alternative to bank loans, because junk bonds are typically issued with longer terms, more flexible covenants, and fewer collateral requirements.⁵⁸ Thus, while the market for high-yield debt has been subject to sudden declines during periods of economic stress, it has continued to provide lower-rated corporate borrowers with a significant alternative to bank loans.⁵⁹

Nonbank entrants into the commercial loan markets have also placed significant competitive pressures on U.S. banks. The amount of business credit extended by finance companies has grown rapidly since 1980, particularly with respect to secured loans and leases for equipment and motor vehicles.⁶⁰ As a result, finance companies have become significant competitors for banks in asset-based lending markets.⁶¹ Similarly, major securities firms have aggressively entered the syndicated loan market in recent years, with a particular focus on loans for leveraged corporate buyouts and restructurings.⁶²

As a result of the securitization trend and growing competition from nonbank lenders, the share of total credit provided to U.S. nonfinancial firms by banks declined from 35% in 1974 to 22% in 1995.⁶³ Even in the market for short-term business credit, which banks have traditionally dominated, their share fell from 71% in 1980 to 59% in 1992.⁶⁴ The abil-

57. Gilson & Warner, *supra* note 51, § 3.2 & tbl.1 (showing that 60% of the issuers of junk bonds during 1980-92 were publicly traded corporations, and that 30% of publicly offered junk bonds during 1980-96 were primarily devoted to the repayment of bank debt); *id.* § 3.3.3 (reporting that the median debt-to-equity ratio of firms in the constructed sample of junk bond issuers was 56%, compared to only 35% for firms in a comparable random sample).

58. *Id.* §§ 1, 2, 2.1 & 2.2.

59. See generally Benveniste et al., *supra* note 51.

60. See James D. August et al., *Survey of Finance Companies, 1996*, 83 FED. RES. BULL. 543, 544-46 (1997); Eli M. Remolona & Kurt C. Wulfekuhler, *Finance Companies, Bank Competition, and Niche Markets*, FED. RES. BANK OF N.Y., Q. REV., Summer 1992, at 25, 26-34.

61. See August et al., *supra* note 60, at 546 tbl.3 (showing that finance companies increased their outstanding business loans from \$86 billion in 1980—equal to about 30% of the business loans made by banks—to \$341 billion in 1996, which was equal to more than 50% of the business loans made by banks); *id.* at 545 tbl.2 (showing that loans and leases for equipment and motor vehicles accounted for 86% of all extensions of credit made by finance companies in 1996).

62. See Alissa Liebowitz, *7 Years Later, Merrill in Syndicated's Top 10*, AM. BANKER, Apr. 3, 2001, at 1 (reporting that Merrill Lynch ranked seventh among syndicated lenders during the first quarter of 2001, although its market share of 2.1% was dwarfed by the 68% collective share held by the top three banks); Helen Stock, *Securities Firms Raise Share in Syndicated Loans*, AM. BANKER, Oct. 3, 2000, at 2; David Weidner, *Syndicated Lending Boom Hits a Seventh-Year Glitch*, AM. BANKER, Jan. 11, 1999, at 1 [hereinafter Weidner, *1998 Syndicated Lending*] (reporting that investment banks increased their share of the leveraged syndicated loan market from 9% in 1997 to 13% in 1998).

63. FRANKLIN R. EDWARDS, *THE NEW FINANCE: REGULATION AND FINANCIAL STABILITY* 11, 12 fig.3-1 (1996) [hereinafter EDWARDS, *NEW FINANCE*].

64. George G. Kaufman & Larry R. Mote, *Is Banking a Declining Industry? A Historical Perspective*, FED. RES. BANK OF CHI., ECON. PERSP., May/June 1994, at 2, 5, 6 tbl.1.

ity of larger firms to meet their credit needs through the capital markets accounted for much of this decline in traditional bank lending.⁶⁵

Within the banking sector itself, foreign banks became significant competitors in the syndicated loan market for large U.S. corporations during the 1980s, although the total market share held by foreign banks declined modestly after 1992.⁶⁶ Virtually all of this recent reduction occurred among Japanese banks, which rapidly expanded their U.S. commercial loans during the late 1980s but retreated during the 1990s due to severe loan problems they encountered in their home markets.⁶⁷ In contrast, large Canadian and European banks have continued to increase their lending to U.S. corporations since 1990. Deutsche Bank, for example, has established a substantial presence in the U.S. syndicated lending market through its acquisition of Bankers Trust in 1999.⁶⁸

Foreign banks have generally charged below average interest rates and fees on their loans to corporate borrowers in the United States. Foreign banks have pursued this aggressive pricing strategy to gain a larger share of the domestic syndicated lending market, even at the cost of lower profits.⁶⁹ Aggressive competition by foreign banks is thus an addi-

65. See, e.g., Macey & Miller, *Bank Mergers*, *supra* note 48, at 182–85; Allen N. Berger et al., *The Transformation of the U.S. Banking Industry: What a Long, Strange Trip It's Been*, 2 BROOKINGS PAPERS ON ECON. ACTIVITY 55, 92–93 (1995).

For example, publicly issued corporate bonds, as a share of total credit market debt, rose from 30% in 1977–83 to 54% during 1984–89, while bank loans declined from 37% to 18% of such debt. See generally Benveniste et al., *supra* note 51.

66. See Robert Deyoung & Daniel E. Nolle, *Foreign-Owned Banks in the United States: Earning Market Share or Buying It?*, 28 J. MONEY, CREDIT & BANKING 622, 623 (1996) (reporting that foreign banks increased their share of the market for commercial and industrial loans made to U.S. firms from 14% in 1983 to 32% in 1993, often by purchasing loans in the secondary market); U.S. GEN. ACCOUNTING OFF., FOREIGN BANKS: ASSESSING THEIR ROLE IN THE U.S. BANKING SYSTEM, GAO/GGD-96-26, at 28–31, 35–36, 52–53 (Feb. 1996) (describing role of foreign banks in the United States commercial loan market, and stating that their market share declined slightly from the end of 1992 through the end of 1994); James R. Kraus, *Troubles at Home Take a Toll on Foreign Banks' U.S. Presence*, AM. BANKER, Feb. 20, 1997, at 1 (reporting that U.S. assets held by foreign banks declined by 5% during 1995–96); James R. Kraus, *As Japan's Banks Trim U.S. Assets, Europe, Canada Institutions Gain*, AM. BANKER, Feb. 18, 1999, at 1 [hereinafter Kraus, *U.S. Assets of Foreign Banks*] (reporting that U.S. assets held by foreign banks declined by 3.5% during 1997–98, due primarily to a 24% drop in U.S. assets held by Japanese banks).

67. See Joe Peek & Eric S. Rosengren, *Japanese Banking Problems: Implications for Lending in the United States*, FED. RES. BANK OF BOSTON, NEW ENGLAND ECON. REV., Jan./Feb. 1999, at 25, 32–33 & figs.3, 4 [hereinafter Peek & Rosengren, *Japanese Banking Problems*] (showing that Japanese banks increased their share of the U.S. commercial loan market from about 11% in 1988 to almost 18% in 1991, when they held more than half of all U.S. commercial loans made by foreign banks); *id.* at 26–35 & figs.3, 4 (describing severe problems in the Japanese real estate and securities markets that caused Japanese banks to reduce their presence in the U.S. commercial loan market by more than 50% between 1991 and 1998); Andrew Pollack, *Japanese Banks Cutting Back on U.S. Presence*, N.Y. TIMES, July 10, 1998, at C1 (describing a major retreat by most Japanese banks from the U.S. market).

68. See Kraus, *U.S. Assets of Foreign Banks*, *supra* note 66, at 1, 14, 15; Laura Mandaro & Helen Stock, *Gaming Deals Boost Deutsche, B of A High-Yields*, AM. BANKER, July 6, 2000, at 3; *infra* notes 445, 637 & 679 and accompanying text (discussing Deutsche Bank's acquisition of Bankers Trust in 1999).

69. See Deyoung & Nolle, *supra* note 66, at 622–23 & n.4, 629–30, 634; Joe Peek et al., *The Poor Performance of Foreign Bank Subsidiaries: Were the Problems Acquired or Created?*, 23 J. BANKING & FIN. 579, 602–03 (1999).

tional factor that has eroded American banks' traditional business of lending to major corporations.⁷⁰

b. Banks Continue to Serve as "Standby Sources of Liquidity" to Large Companies and as Primary Lenders to Small Firms

While banks have lost their primary position as direct lenders to large corporations, they continue to serve as "standby sources of liquidity" for large firms.⁷¹ Most large companies maintain lines of credit with banks. The typical line of credit agreement permits the borrower to draw against a specified credit facility during the term of the contract. Lines of credit are usually granted on a relatively short-term basis. The lending bank therefore has frequent opportunities to decide whether to renew the credit line based on the borrower's current financial condition.⁷²

Lines of credit provide borrowers with a qualified assurance of liquidity during adverse credit market conditions. When financial markets are subject to unusual stress, even large, well-established firms may find it difficult to issue commercial paper or other debt securities on reasonable terms. In such circumstances, a firm can meet its funding needs by drawing on an established bank line of credit, as long as the firm's financial position has not deteriorated enough to breach a covenant in the governing agreement.⁷³ Banks are particularly well situated to provide this emergency liquidity service, because (i) banks usually receive a substantial inflow of deposits during financial market disruptions, when investors shift funds from risky securities into the "safe haven" of bank deposits, and (ii) banks can further expand their lending capacity by borrowing from the interbank federal funds market and the FRB's discount window.⁷⁴

The Penn Central bankruptcy of 1970, the stock market crash of 1987, and the Russian debt crisis of 1998 demonstrate the crucial role of banks as emergency suppliers of liquidity to large firms and the capital markets during financial crises. In 1970, the commercial paper market was virtually frozen by Penn Central's default on more than \$200 million of its short-term notes. The FRB urged major banks to provide credit to

70. See Berger et al., *supra* note 65, at 76-78, 92-93.

71. E. Gerald Corrigan, *Are Banks Special?*, 1982 Ann. Rep., Fed. Res. Bank of Minn., MN, in MACEY & MILLER, *supra* note 36, at 75-78; see also E. Gerald Corrigan, *Are Banks Special? A Revisitation*, FED. RES. BANK OF MINN., REGION, Mar. 2000, at 15, 16.

72. See Eugene F. Fama, *What's Different about Banks?*, 15 J. MONETARY ECON. 29, 36-37 (1985); James & Smith, *supra* note 45, at 61-62.

73. See Corrigan, *supra* note 71, at 78; James & Smith, *supra* note 45, at 62-63; Marc R. Saidenberg & Philip E. Strahan, *Are Banks Still Important for Financing Large Businesses?*, FED. RES. BANK OF N.Y., CURRENT ISSUES ECON. & FIN., Aug. 1999, at 1, 2. Most line of credit agreements contain a "material adverse change" clause, which allows the lending bank to cancel the credit line if the borrower's financial condition has declined significantly. See Hahn, *supra* note 48, at 57.

74. See Saidenberg & Strahan, *supra* note 73, at 5; ALFRED STEINHERR, DERIVATIVES: THE WILD BEAST OF FINANCE 53-60 (1998) [hereinafter STEINHERR, DERIVATIVES].

large firms that were unable to roll over their commercial paper, and the banks responded by lending over \$2 billion during a three-week period. The FRB supported the banks by providing almost \$600 million of discount window advances and taking other steps to reduce short-term interest rates.⁷⁵ Since the Penn Central crisis, most large companies have relied on bank lines of credit or other credit enhancements to support their commercial paper issues. These standby arrangements are attractive to banks because they provide fee income and enable banks to maintain long-term relationships with large corporations.⁷⁶

During the 1987 stock market crash, the FRB pressured major banks to make loans to large securities firms that faced a severe liquidity crisis due to unprecedented settlement obligations. Based on the FRB's assurance that it would provide supporting credit through the discount window, banks extended nearly \$8 billion in emergency loans to securities broker-dealers and other investors. As in 1970, the FRB's discount window support and reduction of short-term interest rates enabled the banking industry to forestall widespread failures among nonbanking companies.⁷⁷

During the fall of 1998, banks once again served as a "backup source of liquidity [that] helped insulate many large corporations from market shocks."⁷⁸ In August 1998, the Russian government's default on a portion of its debt, coupled with defaults by Russian banks on obligations owed to foreign banks, triggered a general "flight to safety" among investors and paralyzed the financial markets.⁷⁹ The FRB responded to this serious market disruption by reducing short-term interest rates three

75. See Frederic S. Mishkin, *Asymmetric Information and Financial Crises: A Historical Perspective* [hereinafter Mishkin, *Financial Crises*], in FINANCIAL MARKETS AND FINANCIAL CRISES 69, 98-101 (R. Glenn Hubbard ed., 1991); Andrew F. Brimmer, *Distinguished Lecture on Economics in Government: Central Banking and Systemic Risks in Capital Markets*, J. ECON. PERSP., Spring 1989, at 3, 5-7; Charles W. Calomiris, *Is the Discount Window Necessary? A Penn Central Perspective*, FED. RES. BANK OF ST. LOUIS, REV., May/June 1994, at 31, 37-46 [hereinafter Calomiris, *Discount Window*]. For further discussion of the FRB's authority to make advances to banks and other firms through the discount window, see *infra* notes 369, 1033 and accompanying text.

76. See John H. Boyd & Mark Gertler, *U.S. Commercial Banking: Trends, Cycles and Policy* [hereinafter Boyd & Gertler, *Banking Trends*], in NBER MACROECONOMICS ANNUAL 1993, at 319, 335 (Oliver Jean Blanchard & Stanley Fischer eds., 1993); Stojanovic & Vaughan, *supra* note 49, at 8-9.

77. See E.P. DAVIS, DEBT, FINANCIAL FRAGILITY, AND SYSTEMIC RISK 161-64 (1992); Brimmer, *supra* note 75, at 11-15; Mishkin, *Financial Crises*, *supra* note 75, at 101-04.

78. Saidenberg & Strahan, *supra* note 73, at 1.

79. See 1999 Greenspan Monetary Policy Statement, *supra* note 55, at 245; ROGER LOWENSTEIN, WHEN GENIUS FAILED: THE RISE AND FALL OF LONG-TERM CAPITAL MANAGEMENT 144-45, 158-62, 168 (2000) (discussing the global financial panic triggered by Russia's default, which caused investors to shun all types of risky securities and demand risk-free Treasury bonds); Steven Mufson & David Hoffman, *Russian Crash Shows Risks of Globalization*, WASH. POST, Nov. 8, 1998, at A1 (describing events that led to Russia's decision, on August 17, 1998, to default on \$40 billion of its short-term debt and devalue the ruble); *Swept Away: How Russia Set Off Wave That Swamped Markets World-Wide*, WALL ST. J., Sept. 22, 1998, at A1 [hereinafter *Russian Debt Crisis*] (describing how Russia's default and devaluation triggered a "global flight from financial risk of all kinds" and a "wholesale flight to safety"); *infra* note 391 (discussing events leading to Russia's default and the global financial panic that ensued).

times during a seven-week period.⁸⁰ The FRB's dramatic easing of monetary policy, together with other steps it took to stabilize the financial markets,⁸¹ raised investor confidence and ultimately allowed the markets to recover their lost liquidity.⁸² Meanwhile, banks extended \$20 billion of new commercial loans during the fourth quarter of 1998, primarily by allowing borrowers to draw against existing lines of credit. This expansion of bank lending enabled large firms to obtain funds on reasonable terms until the FRB's policy actions were successful in restoring confidence in the credit markets.⁸³ Thus, major banks, supported by the FRB, play a crucial role as standby sources of liquidity for the financial markets and large corporations.⁸⁴

In addition, the banking industry has continued to serve as the primary source of outside credit for small businesses. Over the past decade, banks have consistently accounted for more than three-fifths of the total credit provided to small firms by persons other than trade creditors.⁸⁵ As discussed below, banks remain the primary lenders to small firms because they continue to hold significant advantages over the public credit markets in evaluating and monitoring the creditworthiness of small firms.⁸⁶ Confirming this view, a recent study showed that Drexel Burn-

80. Jeffrey M. Schaefer, *Explaining Recent Increases in Stock Market Volatility*, SEC. INDUSTRY TRENDS, Sec. Indus. Ass'n, Jan. 29, 1999, at 6; see also 1999 Greenspan Monetary Policy Statement, *supra* note 55, at 245 (explaining reasons for FRB's interest rate reductions).

81. See *infra* notes 673–79 and accompanying text (discussing FRB's arrangement of a privately funded rescue of Long-Term Capital Management and a takeover of Bankers Trust, after both institutions suffered crippling losses during the market disruption following Russia's debt default).

82. Bouhuys & Jaeger, *supra* note 54, at 72–73.

83. The seriousness of the 1998 crisis is shown by the fact that yield spreads on commercial paper over short-term Treasury securities more than doubled, and the outstanding amount of commercial paper declined by almost \$10 billion, during the fall of 1998. Thus, the expansion of bank lending during the 1998 disruption averted a potentially damaging shortage of credit in the financial markets. See Saldenberg & Strahan, *supra* note 73, at 3–5; James & Smith, *supra* note 45, at 62–63; see also Alan Greenspan, Federal Reserve Board Chairman, Remarks Before the World Bank Group and the IMF Program of Seminars (Sept. 27, 1999), at 1, available at <http://www.federalreserve.gov> (stating that bank loans under committed lines of credit, supported by the FRB's interest rate cuts, proved to be “an adequate backstop to business financing” when the “public capital markets in the United States virtually seized up” after Russia's debt default).

84. See STEINHERR, DERIVATIVES, *supra* note 74, at 55–60; Boyd & Gertler, *Banking Trends*, *supra* note 76, at 322–23, 333–35.

85. See BD. OF GOVERNORS OF FED. RES. SYS., REPORT TO THE CONGRESS ON THE AVAILABILITY OF CREDIT TO SMALL BUSINESS 11–13 (Oct. 1997) [hereinafter FRB SMALL BUSINESS CREDIT REPORT], available at www.federalreserve.gov (reporting that banks increased their share of total credit market debt extended to smaller manufacturing firms (i.e., those with assets under \$25 million) from 61% in 1994 to nearly 64% in 1997); Cole et al., *Bank and Nonbank Competition for Small Business Credit: Evidence from the 1987 and 1993 National Surveys of Small Business Finance*, 82 FED. RES. BULL. 983, 983–84, 987–88 (1996) (reporting that the banks' share of total small business credit, excluding trade credit and credit card debt, declined slightly from 63% in 1987 to 61% in 1993, but banks apparently increased their market share after 1993); Louis Whiteman, *Consultant: Banks Leaving Money on Table If They Don't Add Small-Business Products*, AM. BANKER, Nov. 4, 1998, at 8 [hereinafter Whiteman, *Small-Business Products*] (stating that banks controlled 63% of the small business credit market in 1997).

86. See *infra* Part I(D)(3)(c)(i) (discussing importance of banks in providing credit to small businesses).

ham, the leading underwriter of junk bonds during the 1980s, competed primarily with money center banks and large regional banks in arranging credit for large and middle-market companies. In contrast, Drexel Burnham had relatively little impact on the lending business of smaller banks, whose primary business customers were small firms.⁸⁷

c. Banks Face Intense Competition in the Consumer Lending Market

As in the case of loans to large corporations, the twin factors of securitization and nonbank competition have eroded the once dominant position of banks as consumer lenders. Improvements in information technology since 1980 have enabled securities firms to transform a wide array of consumer loans into asset-backed securities, including financial instruments backed by pools of credit card receivables, home mortgages, and motor vehicle loans and leases.⁸⁸ Although banks themselves have become major participants in the securitization trend,⁸⁹ it has caused large amounts of consumer debt to migrate off bank balance sheets and into the portfolios of asset-backed securities held by institutional and public investors.⁹⁰

In addition, finance companies and other nondepository lenders have significantly expanded their presence in the consumer loan market, and their aggregate share of that market now exceeds the share held by banks.⁹¹ As discussed below, large banks continue to hold leading posi-

87. See Benveniste et al., *supra* note 51, at 105–09, 111, 117–18, 124–35.

88. See, e.g., JOHN O. MATTHEWS, STRUGGLE AND SURVIVAL ON WALL STREET 3–4, 10–12, 179–81, 209–10 (1994) [hereinafter MATTHEWS, WALL STREET] (describing the creation and marketing of asset-backed securities by securities firms after 1980); Kenneth A. Carow et al., *A Survey of U.S. Corporate Financing Innovations: 1970–1997*, THE BANK OF AM. J. APPLIED CORP. FIN., Spring 1999, at 55, 58, 67–69 (same); Welshimer, *supra* note 46, *passim* (same); see also Amy C. Bushaw, *Small Business Loan Pools: Testing the Waters*, 2 J. SMALL & EMERGING BUS. L. 197, 220–34 (1998) (describing the development and mechanics of securitization).

89. See FEIN, *supra* note 30, ch. 13 (discussing growing involvement of banks in securitizing assets); *infra* Part I(E)(2)(e)(iv) (discussing same trend).

90. For example, banks increased the securitized share of their nonmortgage consumer loans from about 10% in 1990 to almost 35% in 1998. Antulio N. Bomfim & William R. Nelson, *Profits and Balance Sheet Developments at U.S. Commercial Banks in 1998*, 85 FED. RES. BULL. 369, 374 & chart 10 (1999). The securitized share of residential mortgage loans made by banks and nonbank lenders grew from 10% in 1980 to more than 50% in 1998, while the securitized portion of credit card loans made by both groups expanded from near zero in 1988 to 45% by 1998. Mishkin & Strahan, *supra* note 35, at 259; see also Macey & Miller, *Bank Mergers*, *supra* note 48, at 185–86 (noting that the securitization of home mortgage loans and other consumer loans resulted in a significant decline in the share of consumer debt held by banks).

91. See Arthur B. Kennickell et al., *Recent Changes in U.S. Family Finances: Results from the 1998 Survey of Consumer Finances*, 86 FED. RES. BULL. 1, 24–25 & tbl.13 (2000) (showing that the share of total consumer debt held by nondepository private lenders expanded from 31.5% in 1989 to 48.9% in 1998, while the share held by commercial banks rose at a much lower rate, from 28.2% in 1989 to 32.6% in 1998); see also Gary Gorton & George Pennacchi, *Money Market Funds and Finance Companies: Are They the Banks of the Future?*, in STRUCTURAL CHANGE IN BANKING 173, 194–95, 196 tbl.3–5 (Michael Klausner & Lawrence J. White eds., 1993) (showing that banks' share of the market for three major types of consumer loans generally declined between 1975 and 1990).

tions in the credit card and residential mortgage markets, but their pricing power in those businesses is subject to relentless pressure from the securitization trend and from nonbank competitors.⁹²

B. Bank Profit Margins Have Declined as Investors Have Shifted Funds from Bank Deposits to Capital Markets

Credit intermediation activities produced strong and reliable earnings for banks until the 1970s, as banks collected low-cost deposits and made high-quality loans. For two reasons, however, the traditional intermediation business became far less profitable after 1970. First, as previously discussed, banks confronted rapidly growing competition for their best loan customers.⁹³ Second, banks were forced to pay significantly higher funding costs due to rising interest rates, which ultimately forced Congress to repeal Depression-era interest rate controls over bank deposits.

During the 1960s and early 1970s, those interest rate controls (codified in the FRB's Regulation Q) enabled banks to collect most of their funds by offering interest-free checking accounts (demand deposits) and low-interest savings accounts and certificates of deposit (CDs).⁹⁴ However, in response to high inflation and rising interest rates during the late 1970s and early 1980s, depositors shifted huge amounts of funds from their bank accounts to money market mutual funds (MMMFs) established by securities firms. Unlike bank deposits, MMMFs are not federally insured. However, MMMFs offer considerably higher yields to investors along with many of the liquidity and transactional advantages of bank accounts.⁹⁵

92. See *infra* notes 339–40, 745–56 and accompanying text.

93. See Edwards & Mishkin, *supra* note 46, at 31–32; LITAN, *supra* note 2, at 41–49.

94. See LITAN, *supra* note 2, at 26 (explaining that the FRB adopted Regulation Q's regime of interest rate controls pursuant to the Banking Act of 1933). In 1960, interest-free checking accounts accounted for almost 60% of bank liabilities and small-denomination CDs and savings accounts accounted for another 30%. Boyd & Gertler, *Banking Trends*, *supra* note 76, at 326. During the 1960s, major banks began to offer large-denomination, negotiable CDs that were exempt from Regulation Q and paid rates that were more sensitive to market interest rates. LITAN, *supra* note 2, at 32. Nevertheless, as late as 1979, the total interest expense of U.S. banks, stated as a percentage of their total assets, was less than half the average one-year rate for U.S. Treasury bonds. Berger et al., *supra* note 65, at 79 tbl.5.

95. MMMFs are mutual funds that invest in highly rated, short-term financial instruments and provide a high degree of liquidity to investors by standing ready to redeem their shares on demand at a stable price of \$1 per share. See Timothy Q. Cook & Jeremy G. Duffield, *Money Market Mutual Funds and Other Short-Term Investment Pools*, in *INSTRUMENTS OF THE MONEY MARKET* 156, 157–68 (Fed. Res. Bank of Rich., VA, Timothy Q. Cook & Robert K. LaRoche eds., 7th ed. 1993) [hereinafter *MONEY MARKET*]. Beginning in the late 1970s, Merrill Lynch and other securities firms introduced the “cash management account” (CMA), a type of MMMF that includes check-writing features. CMA accounts provide customers with a liquid investment vehicle that offers market-sensitive yields and many of the transactional advantages of a checking account. Total assets held in CMAs and other MMMFs increased rapidly from \$3 billion in 1977 to \$233 billion in 1982. See Edwards & Mishkin, *supra* note 46, at 31; LITAN, *supra* note 2, at 34–35.

To stem this massive outflow of funds from banks to MMMFs, Congress phased out all interest rate controls on bank deposits (except for demand checking accounts) between 1980 and 1986. Congress also authorized banks to offer (i) negotiable order of withdrawal (NOW) accounts that effectively function as interest-bearing consumer checking accounts, and (ii) money market deposit accounts (MMDAs) that operate as savings accounts with market sensitive yields. The repeal of Regulation Q, and the authorization of NOW accounts and MMDAs, enabled banks to compete with MMMFs for short-term consumer funds. However, banks were compelled to pay much higher interest rates on their consumer deposits.⁹⁶ Moreover, despite the repeal of Regulation Q, MMMFs have continued to grow in significance as a substitute for short-term consumer savings and transaction accounts.⁹⁷

The demand by investors for higher returns caused a dramatic shift in the composition of bank liabilities during the 1980s. By 1990, the banking industry was obliged to secure the majority of its funds from interest-sensitive sources, such as insured CDs, and wholesale money market instruments, such as uninsured CDs, purchased federal funds, and funds borrowed under security repurchase agreements.⁹⁸ Large banks have become heavily dependent on wholesale funds, and only smaller banks continue to rely primarily on low-cost "core deposits" (i.e., transaction accounts, savings accounts, and small-time deposits) to fund their operations.⁹⁹ The ability of banks to attract core deposits continued to decline throughout the 1990s, as consumers shifted from bank deposits to

96. LITAN, *supra* note 2, at 34–35; Arthur E. Wilmarth Jr., *The Expansion of State Bank Powers, the Federal Response, and the Case for Preserving the Dual Banking System*, 58 *FORDHAM L. REV.* 1133, 1143–44, 1156–57 (1990) [hereinafter Wilmarth, *State Bank Powers*]. An important limitation on NOW accounts is that they may not be offered to corporate customers. LITAN, *supra* note 2, at 35.

97. MMMFs have grown steadily over the past two decades and reached \$1.64 trillion at the end of 1999. See *Money-Fund Assets Gain \$12.21 Billion*, *WALL ST. J.*, Jan. 7, 2000, at C15. By comparison, expressed as an annual average, the domestic offices of U.S. banks held about \$1.78 trillion of demand deposits, other checkable deposits, and savings deposits, including MMDAs, during 1999. William F. Bassett & Egon Zakrajšek, *Profits and Balance Sheet Developments at U.S. Commercial Banks in 1999*, 86 *FED. RES. BULL.* 367, 386 tbl.A.2.A. (2000) [hereinafter Bassett & Zakrajšek, *1999 Banking Developments*] (showing that, stated as an annual average, the foregoing classes of domestic bank deposits were equal to 32.7% of the total average assets of \$5.44 trillion for U.S. banks during 1999).

98. See Boyd & Gertler, *Banking Trends*, *supra* note 76, at 326, 327 fig.7, 328. Insured CDs are issued with varying maturities in amounts under \$100,000, while uninsured CDs are issued in larger amounts with maturities typically of less than a year. Most uninsured CDs are issued by major banks and can be traded as negotiable instruments in an over-the-counter secondary market. *Id.* at 326, 328; Marc D. Morris & John R. Walter, *Large Negotiable Certificates of Deposit*, in *MONEY MARKET*, *supra* note 95, at 34, 34–38, 42–46.

99. For example, during 1987–91, wholesale, uninsured money-market instruments accounted for 42% of the liabilities of banks larger than \$5 billion and 54% of the liabilities of the ten largest banks. In contrast, core deposits represented 84% of the liabilities of banks smaller than \$300 million and 67% of the liabilities of banks with assets between \$300 million and \$5 billion. Boyd & Gertler, *Banking Trends*, *supra* note 76, at 330, 331 fig.9, 332. In 2000, the ratio of core deposits to assets for banks larger than \$1 billion was only 44%, compared to 70% for smaller banks. *Condition and Performance of Commercial Banks*, OCC Q.J., Mar. 2001, at 1, 6 [hereinafter *2001 OCC Bank Performance Study*], available at <http://www.occ.treas.gov>.

mutual funds and other higher-yielding investments tied to the capital markets.¹⁰⁰

In tandem, the deregulation of deposit interest rates and competition from MMMFs substantially reduced the banks' traditional cost advantage in funding their lending business.¹⁰¹ The banking industry's total interest expense, expressed as a percentage of the industry's total assets, rose by almost 300 basis points during 1979–94, relative to the one-year Treasury bill rate.¹⁰² Not surprisingly, bank profitability declined significantly during most of the same period.¹⁰³

C. Banks Face Continuing Threats to Their Profitability

The foregoing description of constraints on bank profitability seems inconsistent with the record profits earned by the banking industry from 1992 to 1999.¹⁰⁴ However, the industry's record earnings occurred during a period of regulatory accommodation and unusually favorable economic circumstances.¹⁰⁵ For at least five reasons, bank profits are likely to fall sharply if the U.S. economy experiences a serious and prolonged recession.

First, the FRB significantly improved the profitability of banks (especially larger institutions) by maintaining relatively low short-term interest rates during most of the 1990s.¹⁰⁶ As a result of those favorable

100. See FDIC Q. BANKING PROFILE, 4th Qtr. 1999, at 3 fig. (showing that the portion of bank funds provided by core deposits declined from about 55% in 1990 to 47% in 1999); FDIC, OPTIONS PAPER, 39, 42–43 (Aug. 2000) [hereinafter FDIC OPTIONS PAPER], available at <http://www.fdic.gov> (discussing same trend).

The magnitude of the shift among consumers from bank deposits to the capital markets is confirmed by household financial data. A recent FRB survey found that the share of household financial assets held in transaction accounts and certificates of deposit declined from 29.3% to 15.7% during 1989–98, while the share of such assets held in stocks, bonds, mutual funds, and retirement plans rose from 62% to 77%. Kennickell et al., *supra* note 91, at 8 & tbl.4.

101. See Berger et al., *supra* note 65, at 60–61, 78–79; Edwards & Mishkin, *supra* note 46, at 31.

102. See Berger et al., *supra* note 65, at 78–79 & tbl.5 (showing that banks' total interest expenses, expressed as a percentage of their total assets, were 5.48% below the one-year Treasury bill rate in 1979 but only 2.59% below that rate in 1994).

103. Edwards & Mishkin, *supra* note 46, at 29 & chart 3 (reporting that the banking industry's pretax return on equity declined from an average of 15% during 1970–84 to less than 12% in 1985–91, before recovering in 1992–94); Berger et al., *supra* note 65, at 78–81 & tbl.6 (discussing trends in bank profitability in 1979–94).

104. See Kevin Guerrero, *15.8% Jump Gave Banks Eighth Year of Record Profit*, AM. BANKER, Mar. 17, 2000, at 1 [hereinafter Guerrero, *Bank Profits*] (reporting that banks earned \$71.7 billion in 1999, “setting the eighth consecutive annual earnings record”).

105. See, e.g., *Banking Risk in the New Economy*, FDIC, REGIONAL OUTLOOK, 2d Qtr. 2000, at 3 [hereinafter 2000 FDIC Economic Risk Study] (noting that record bank earnings have occurred during “the longest period of uninterrupted [economic] growth in U.S. history”).

106. See ROBERT E. LITAN & JONATHAN RAUCH, AMERICAN FINANCE FOR THE 21ST CENTURY 76 (1998) (noting that bank profits increased significantly as a result of “the steep drop in short-term interest rates engineered by the Federal Reserve in the beginning of the 1990s”); Allen N. Berger & Loretta J. Mester, *Inside the Black Box: What Explains Differences in the Efficiencies of Financial Institutions?*, 21 J. BANKING & FIN. 895, 928–29 (1997) (explaining that low short-term interest rates during the 1990s were particularly helpful to larger banks, because big banks relied to a much greater extent on interest-sensitive liabilities than smaller banks); Arthur E. Wilmarth Jr., *Too Good to be*

rates, banks reaped the benefits of unusually wide net interest margins.¹⁰⁷ Lending margins, however, have declined substantially since 1993, and many banks have found it increasingly difficult to improve their profits simply by making more loans.¹⁰⁸ Analysts cited declining net interest margins as a significant factor behind the failure of several major banks to meet their profit targets during 1999 and 2000.¹⁰⁹

Second, many large banks used aggressive earnings management techniques to raise their reported profits during the 1990s, and it is highly doubtful whether those institutions can continue to employ such methods in the more challenging economic environment that began to emerge during 2000. Big banks significantly raised their profits after 1992 by cutting their loan loss reserves well below the levels they had established in response to the banking crisis of the late 1980s and early 1990s.¹¹⁰ By 2000, bank loan loss reserves had declined to their lowest level (as a percentage of total loans and leases) since 1986.¹¹¹ Similarly, in order to improve their returns on equity, large banks reduced their capital ratios by making heavy repurchases of their own stock.¹¹² It is widely recognized

True? The Unfulfilled Promises Behind Big Bank Mergers, 2 STAN. J. L. BUS. & FIN. 1, 45-47 (1995) [hereinafter Wilmarth, *Big Bank Mergers*] (contending that the FRB's policy of maintaining unusually low short-term interest rates during the early 1990s was particularly designed to help the largest banks).

107. See William B. English & William R. Nelson, *Profits and Balance Sheet Developments at U.S. Commercial Banks in 1997*, 84 FED. RES. BULL. 391, 401 & chart 14 (1998) (showing that net interest margins for U.S. banks were significantly wider during 1991-97 than they were during 1976-90); *The Trials of Megabanks*, ECONOMIST, Oct. 31, 1998, at 23, 23 (stating that wider net interest margins were one of the three major factors behind the higher profits earned by U.S. banks during 1993-98).

108. See Yvette D. Kantrow, *With More Fees from Risky Lines, Banks Tighten Focus on 'The Mix'*, AM. BANKER, Aug. 13, 1998, at 1 [hereinafter Kantrow, *More Fees*] (reporting that the banking industry's net interest margin declined from 4.4% in 1993 to 4.06% in early 1998, placing significant downward pressure on the profits that banks could earn from traditional loans); FDIC Q. BANKING PROFILE, 4th Qtr. 2000, at 2 (reporting that the industry's net interest margin for 2000 fell to 3.95%, the lowest level since 1990).

109. See Liz Moyer, *Sad Tidings: Wamu, First Union, B of A, Seen Weaker in 4Q*, AM. BANKER, Dec. 15, 1999, at 1 [hereinafter Moyer, *Sad Tidings*] (reporting that several leading banks had missed their profit targets for 1999 due to "margin pressures"); Scott Silvestri, *Big Banks Puncturing Profit Expectations*, AM. BANKER, July 12, 2000, at 1 (reporting that several major banks had disclosed earnings shortfalls, due in part to "slipping loan quality, rising interest rates, and narrowing net interest margins").

110. Aaron Elstein, *Biggest Banks Continue Eating Into Their Loan-Loss Reserves*, AM. BANKER, June 29, 1998, at 33 (reporting that the twenty-two largest U.S. banks steadily reduced their loan loss reserves during 1993-98); *The Trials of Megabanks*, *supra* note 107, at 33 (reporting that "smaller provisions for loan losses" were one of the three major factors explaining the higher profits earned by big U.S. banks during the same period).

111. See William F. Bassett & Egon Zakrajšek, *Profits and Balance Sheet Developments at U.S. Commercial Banks in 2000*, 87 FED. RES. BULL. 367, 382 (2001) [hereinafter Bassett & Zakrajšek, *2000 Banking Developments*]. A prominent analyst has claimed that bank loan loss reserves in 2000 were actually at their lowest level in fifty years, after he adjusted the credit exposures of banks to account for their off-balance-sheet credit commitments and other credit risk exposures. See Andrew Bary, *Ear to the Ground*, BARRON'S, Oct. 23, 2000, at 30 (citing views of Michael Mayo); *The Bigger They Are*, ECONOMIST, Oct. 28, 2000, at 65, 68 [hereinafter *Big Bank Troubles in 2000*] (same).

112. See John C. Coates IV, *Reassessing Risk-based Capital in the 1990s: Encouraging Consolidation and Productivity*, in BANK MERGERS, *supra* note 35, at 207, 209, app. A at 219 (showing that the twenty largest publicly traded banks used stock repurchases and other capital management techniques

that managers of banks and other corporate firms often use these and other discretionary, income smoothing techniques to create unrealistic financial reports that show steady increases in profitability.¹¹³

Over the past five years, many industry observers have warned that large banks were reducing their loan loss reserves and capital ratios to dangerously low levels to meet earnings targets. Regulators and analysts urged banks to increase their capital and reserves to accommodate the

to reduce their risk-adjusted total capital ratios by an average of 100 basis points between 1993 and mid-1996); Beverly Hirtle, *Bank Holding Company Capital Ratios and Shareholder Payouts*, FED. RES. BANK OF N.Y., CURRENT ISSUES IN ECON. & FIN., Sept. 1998, at 1-4, 2 chart 1 (reporting that the twenty-five largest bank holding companies repurchased \$24.6 billion of their stock and paid out dividends of \$13 billion during 1997, causing a significant decline in their capital ratios); Charles Keenan, *25 Biggest Banking Companies Doubled Buybacks Last Year*, AM. BANKER, Jan. 31, 2000, at 18 (reporting that, during 1998-99, the twenty-five largest banking companies repurchased \$33 billion of their stock to "boost earnings per share"); ELIZABETH S. LADERMAN, BANK STOCK REPURCHASES 2-3 (Fed. Res. Bank of S.F., Weekly Letter No. 95-43, Dec. 29, 1995) (reporting that thirty large bank holding companies made most of the bank note repurchases during 1993-94, causing their capital ratios to decline during the same two-year period).

113. See, e.g., David Burgstahler & Ilia Dichev, *Earnings Management to Avoid Earnings Decreases and Losses*, 24 J. ACCT. & ECON. 99, 100 (1997) (noting that managers of banks and other firms have strong incentives to maintain a record of consistent growth in per share earnings and to avoid any reductions in such earnings); *id.* at 101-03, 124-25 (finding that executives in nonbank firms often "managed" discretionary financial expenditures during 1976-94 to avoid earnings decreases or losses); *id.* at 101 n.3 (stating that a separate, unreported study showed "evidence of earnings management similar to the results reported here" among banks and other regulated firms); Mary B. Greenawalt & Joseph P. Sinkey, Jr., *Bank Loan-Loss Provisions and the Income-Smoothing Hypothesis: An Empirical Analysis, 1976-84*, 1 J. FIN. SERV. RES. 301, 301-05, 314-15 (1988); U.S. GEN. ACCT. OFF., DEPOSITORY INSTITUTIONS: DIVERGENT LOAN LOSS METHODS UNDERMINE USEFULNESS OF FINANCIAL REPORTS, GAO/AIMD-95-8, at 12-18, 26-32 (Oct. 1994) (finding that large banks faced few constraints in expanding or cutting their loan loss reserves in order to "manipulate their operating results and capital"); see also Alan Abelson, *Nothing To Bank On*, BARRON'S, July 14, 1997, at 5, 6 (citing analyst Charles Peabody's claim that banks were repurchasing their own stock as part of an "aggressive capital management" program designed "to transform modest increases in revenues into double digit per-share earnings growth").

In 1998, the SEC claimed that some banks were overstating their loan loss reserves, and the SEC forced SunTrust to increase its reported earnings and reduce its reported reserves for 1994-96. Bank regulators and members of Congress strongly criticized the SEC's actions, contending that banks generally needed to strengthen rather than reduce their loan loss reserves. After extensive discussions, the SEC and bank regulators issued a joint statement in July 1999, advising banks that they should maintain "prudent, conservative, but not excessive" reserves based on an identified range of estimated losses. The statement recognized that management's "best estimate" of possible credit losses could appropriately fall "high on the scale." The joint statement was widely viewed as an affirmation of the bank regulators' more conservative standards for loan loss reserves. See Eileen Canning, *Banking Agencies, SEC Clarify Guidance on Loan Loss Reserves, Ease Controversy*, 31 Sec. Reg. & L. Rep. (BNA) 952, 952-53 (1999); Alex D. McElroy, *Bank, Securities Agencies Agree to Develop Consistent Guidance on Loan Loss Reserves*, 71 Banking Rep. (BNA) 817, 817 (1998).

Congress responded to the controversy over loan loss reserves by including a provision in the GLB Act that requires the SEC to consult with federal bank regulators before taking any further action related to the reporting of loan loss reserves by banks. See The GLB Act, Pub. L. No. 106-102, § 241, 113 Stat. 1338, 1407 (1999) (codified in scattered Sections of 12, 15 & 19 U.S.C.) (codified at 15 U.S.C. § 78m, note); H.R. CONF. REP. NO. 106-434, at 166 (1999) (explaining provision). Nevertheless, the controversy over the reporting of loan loss reserves continued in 2000, as the American Institute of Certified Public Accountants considered a proposal to adopt new accounting rules for loan loss reserves. Bank regulators and banking groups strongly opposed the proposal, claiming that it would incorporate the SEC's 1998 position. See Steve Burkholder, *Community Bankers Debate FASB on Loan Loss Reserves, Fair Value*, 75 Banking Rep. (BNA) 427 (2000); Rob Garver, *Regulators Assail Plan to Limit Loss Reserves*, AM. BANKER, July 17, 2000, at 1.

higher credit risks in their loan portfolios.¹¹⁴ In view of growing credit problems caused by recent increases in troubled loans, it seems clear that major banks can no longer expect to boost their reported earnings by repurchasing their stock and cutting their loan loss reserves.¹¹⁵

As a third method for enhancing their profits, large banks have focused on higher-risk activities tied to the capital markets, including underwriting junk bonds, investing in venture capital projects, dealing in derivatives, making leveraged syndicated loans to domestic and foreign borrowers, and securitizing subprime consumer loans. As further discussed below, by 2000, many big banks were generating more than a quarter of their net operating revenues from their market related activities.¹¹⁶ These business lines have proven to be volatile and risky. Many large banks have incurred significant losses from market related ventures since 1993, and several major banks reported a sharp decline in revenues from capital markets activities during the first nine months of 2001. Regulators and analysts warned that big banks were likely to suffer a continuing erosion of their market-related profits, absent a return to the "boom" conditions that prevailed in the capital markets during the late 1990s.¹¹⁷

114. See, e.g., Rob Blackwell, *FDIC Warns Again; This Time There's Evidence*, AM. BANKER, June 20, 2000, at 1 [hereinafter Blackwell, *FDIC Warns Again*] (citing warnings by FDIC officials about increases in problem loans and inadequate loan loss reserves); William M. Isaac, Comment, *Stock Buybacks: Too Much of Good Thing?*, AM. BANKER, May 9, 1996, at 5 (expressing concerns of a former FDIC chairman); Gordon Matthews, *Reserves Seen Skimpy for a Downturn*, AM. BANKER, May 20, 1997, at 22 (citing warnings by analysts that banks had insufficient reserves to offset growing loan risks); Tania Padgett, *Skeptics Say Banks Have Gone Too Far in Buying Back Stock*, AM. BANKER, Mar. 26, 1997, at 1; Sanford Rose, Comment, *Bank Default Risks Remain Outsize*, AM. BANKER, Mar. 30, 1999, at 26 [hereinafter Rose, *Default Risks*] (contending that nine of the fifteen largest U.S. banks were "seriously undercapitalized" and needed to raise their capital by 40% to 100%); Sanford Rose, Comment, *Rising Leverage Lifts Chances of Default*, AM. BANKER, Dec. 17, 1998, at 30 [hereinafter Rose, *Rising Leverage*] (warning that, due to increases in financial leverage, the insolvency risks of the largest U.S. banks had increased substantially during 1998).

115. SIMON KWAN & RANDY O'TOOLE, RECENT DEVELOPMENTS IN LOAN LOSS PROVISIONING AT U.S. COMMERCIAL BANKS 2 (Fed. Res. Bank of S.F., Econ. Letter No. 97-21, July 25, 1997); Abelson, *supra* note 113, at 5; *Banks in Trouble; The Bigger They Are*, ECONOMIST, Oct. 28, 2000, at 65, 68 [hereinafter *Big Banks in Trouble in 2000*]; Rob Garver & Barbara A. Rehm, *Loan-Loss Reserve Hikes Expected; Record Earnings Run May Be Over*, AM. BANKER, June 21, 2000, at 1; Laura Mandaro, *Credit Quality Takes Rising Toll on Profits*, AM. BANKER, Jan. 22, 2001, at 1. Indeed, during the third quarter of 2001, banks increased their loan loss reserves by nearly \$12 billion, the largest quarterly addition to reserves since 1990. This sharp growth in reserves caused the banking industry's earnings to fall substantially below the industry's earnings during the same period in 2000. FDIC Q. BANKING PROFILE, 3d Qtr. 2001, at 1, 2-3.

116. See 2000 FDIC ECONOMIC RISK STUDY, *supra* note 105, at 11; *infra* notes 411-17 and accompanying text.

117. See Joshua Chaffin & Gary Silverman, *JP Morgan Chase Sees Year of Gloom*, FINANCIAL TIMES (London), June 7, 2001, at 32 (reporting on substantial downturns in capital markets earnings at J.P. Morgan Chase and Wells Fargo); Liz Moyer & David Boraks, *Citi, B of A Helped by Cost Cuts, Consumers*, AM. BANKER, July 17, 2001, at 1 (stating that, during the second quarter of 2001, investment banking profits fell 7% at Bank of America, while global corporate and investment banking revenues declined 2% at Citigroup); Liz Moyer, *JPM-Chase, Fleet Feel Pain of Slow Markets*, AM. BANKER, July 19, 2001, at 1 [hereinafter Moyer, *Problems at Chase and Fleet*] (describing sharp declines in market-related revenues at J.P. Morgan Chase and FleetBoston during the second quarter of 2001); Liz Moyer et al., *Profits Off, Citi, B of A Brace for More Pain*, AM. BANKER, Apr. 17, 2001, at 1

Fourth, bank profits have received an artificial boost since 1995 due to the cancellation of deposit insurance premiums for most banks.¹¹⁸ In January 1993, the FDIC instituted a new risk-based assessment policy and charged deposit insurance premiums ranging between twenty-three basis points for the least risky banks and thirty-one basis points for the riskiest banks.¹¹⁹ Congress mandated this risk-based policy as part of the FDIC Act of 1991 (FDICIA),¹²⁰ which abolished the prior system of fixed-rate deposit insurance premiums.¹²¹ The new assessment policy had two major purposes: (i) to recapitalize the Bank Insurance Fund (BIF) following the fund's depletion during the banking crisis of the late 1980s and early 1990s; and (ii) to require banks engaged in riskier activities to pay higher premiums for their deposit insurance.¹²²

By mid-1995, the premiums collected under the new risk-based program had raised the BIF's reserves to the required "designated reserve ratio" of 1.25% of BIF-insured deposits.¹²³ In 1996, the FDIC stopped collecting any risk-based premiums from banks in the lowest-risk category, and a statute passed by Congress later that year has made it very difficult for the FDIC to re-impose premiums on such banks.¹²⁴ Since

(reporting on reductions in profits from capital markets activities at Bank of America and Citigroup during the first quarter of 2001); Patrick Reilly & Liz Moyer, *Capital Markets Pullback at Big Regional Banks*, AM. BANKER, Apr. 18, 2001, at 1 [hereinafter Moyer, *Capital Markets Pullback*] (reporting on significant declines in capital markets income at FleetBoston and U.S. Bancorp during the first quarter of 2001); Jathon Sapsford et al., *Citigroup, J.P. Morgan, Chase and Fleet Boston See Earnings Slump*, WALL ST. J., Oct. 18, 2001, at A4 [hereinafter Sapsford et al., *2001 Bank Earnings*] (describing sharp declines in capital markets revenues at Citicorp, J.P. Morgan, Chase, and Fleet Boston during the third quarter of 2001); *infra* Part I(E)(2) (discussing risks and losses associated with the expansion of capital markets activities at large U.S. banks since 1993); see also Robert Burns & Lisa Ryu, *Risk in the Banking Sector During a Time of Uncertainty*, FDIC, REGIONAL OUTLOOK, 4th Qtr. 2001, at 3, 7–8 [hereinafter *2001 FDIC Banking Risk Study*] (stating that "capital market weakness" in late 2001 were expected to "squeeze earnings" at banks with significant capital markets activities).

118. See *The Trials of Megabanks*, *supra* note 107, at 23 (citing study by First Manhattan finding that one-third of the rise in profits for big U.S. banks during 1993–98 was caused by lower deposit insurance premiums, smaller loan loss provisions, and wider net interest margins).

119. Allan D. Brunner & William B. English, *Profits and Balance Sheet Developments at U.S. Commercial Banks in 1992*, 79 FED. RES. BULL. 649, 662 (1993); Stanley Silverberg, *Weaknesses Identified in FDIC's 'Transitional' Risk-Based Premium Plan*, BANKING POL'Y REP., Nov. 2–16, 1992, at 12, 12–13 (explaining FDIC's risk-based assessment program).

120. FDIC Improvement Act of 1991, Pub. L. No. 102-242, § 302, 105 Stat. 2236, 2345 (codified as amended at 12 U.S.C. § 1817(b)). See Silverberg, *supra* note 119, at 12–13 (explaining FDIC Improvement Act's mandate for the FDIC's risk-based deposit insurance assessment program).

121. See H.R. REP. NO. 102-330, at 96, 109 (1991), reprinted in 1991 U.S.C.C.A.N. 1901, 1909, 1922 (discussing reasons for abolishing fixed-rate deposit insurance and for authorizing the FDIC to charge risk-based premiums).

122. See *id.* at 95–96, reprinted in 1991 U.S.C.C.A.N. at 1908–09; George J. Benston & George G. Kaufman, *FDICIA After Five Years*, J. ECON. PERSP., 1997, at 139, 139–44, 149–50; see also *infra* Part I(E)(1) (discussing banking crisis of the 1980s and early 1990s).

123. See Benston & Kaufman, *supra* note 122, at 149–50 (describing the BIF's recapitalization); see also 12 U.S.C. § 1817(b)(2)(A)(i), (iv) (Supp. V 1999) (establishing the BIF's "designated reserve ratio" at 1.25% of estimated BIF-insured deposits or at any higher ratio that the FDIC determines to be "justified . . . by circumstances raising a significant risk of substantial future losses to the [BIF]").

124. During 1996, the FDIC collected a small annual premium of \$2000 from banks that qualified for the least risky category in its risk-based assessment program. In response to a statute passed in late 1996, the FDIC rescinded even this nominal premium on January 1, 1997. The 1996 law amended the

1995, nearly 95% of U.S. banks have qualified for this blanket exemption from paying deposit insurance premiums.¹²⁵

Based on the premium rate paid by the least risky banks during 1993–95, I estimate that the availability of free deposit insurance for most banks allowed the banking industry to save more than \$22 billion during 1996–2000.¹²⁶ Those estimated savings represented more than 7% of the industry's total profits this period.¹²⁷

Federal Deposit Insurance Act (FDI Act) to prohibit the FDIC from collecting any deposit insurance premiums from banks in the least risky assessment category as long as the BIF remained above its designated reserve ratio. See 12 U.S.C. § 1817(b)(2)(A)(iii) (Supp. V 1999); Assessments; Continuation of Adjusted Rate Schedule for BIF-Assessable Deposits, 61 Fed. Reg. 64,609, at 64,609–10 (Dec. 6, 1996) (discussing changes made by the FDIC to its risk-based assessment program in response to the 1996 statute); Donna Tanoue, FDIC Chairman, Testimony before the Subcomm. on Fin. Insts. and Consumer Credit of the House Fin. Serv. Comm. (May 16, 2001) [hereinafter 2001 Tanoue Deposit Insurance Reform Testimony], available at <http://www.fdic.gov> (discussing the 1996 legislation that severely limits the FDIC's authority to assess premiums on banks that are "well-capitalized" and "well-managed").

125. *Deposit Insurance Funds Continue Growth; FDIC Board Maintains Current Assessments*, 69 Banking Rep. (BNA) 736, 737 (Nov. 17, 1997) [hereinafter *Funds Continue Growth*] (reporting that more than 95% of BIF-insured banks paid no deposit insurance premiums as of November 1997); FDIC Q. BANKING PROFILE, 4th Qtr. 1999, at 19 tbl.VII-C (showing that 93.7% of BIF-insured banks qualified for the least risky, exempt category at the end of 1999); FDIC Q. BANKING PROFILE, 4th Qtr. 2000, at 19 tbl. VII-C (showing that 92.7% of BIF-insured banks qualified for the exempt category at the end of 2000); see also 2001 Tanoue Deposit Insurance Reform Testimony, *supra* note 124 (stating that more than 900 recently chartered banks and thrifts, with more than \$60 billion in deposits, had never paid any premiums to the FDIC, because (i) they qualified as "well-capitalized" and "well-managed" institutions under the FDIC's risk-based assessment program, and (ii) they were chartered after passage of the 1996 legislation that exempted such institutions from paying deposit insurance premiums).

126. The industry's estimated savings of \$4.2 billion for 1996 were derived by multiplying 23 basis points (the FDIC's minimum assessment rate in 1995) by 93.5% (the percentage of banks exempted from deposit insurance premiums in 1996) and by \$1.95 trillion (the amount of BIF-insured deposits at the end of 1995). See FDIC ANNUAL REPORT 1995, at 6, 110 (1995). The estimated savings of \$4.3 billion for 1997 were derived by multiplying the same assessment rate by 95% (the percentage of banks exempted from deposit insurance premiums in 1997) and by \$1.98 trillion (the amount of BIF-insured deposits at the end of 1996). FDIC Q. BANKING PROFILE, 4th Qtr. 1996, at 16 "Estimated FDIC-Insured Deposits by Fund Membership and Type of Institution" tbl. The estimated savings of \$4.5 billion for 1998 were derived by multiplying the same assessment rate by 95% (the percentage of banks exempted from deposit insurance premiums in 1998) and by \$2.06 trillion (the amount of BIF-insured deposits at the end of 1997). See *Funds Continue Growth*, *supra* note 125 (providing percentage of exempt banks in 1997); FDIC Q. BANKING PROFILE, 4th Qtr. 1997, at 15 & "Fund Balance and Insured Deposits" tbl. The estimated savings of \$4.6 billion for 1999 were derived by multiplying the same assessment rate by 95% (the percentage of exempt banks at the end of 1998) and by \$2.1 trillion (the amount of BIF-insured deposits at the end of 1998). See FDIC Q. BANKING PROFILE, 4th Qtr. 1998, at 18 tbl.VI-C, 19 tbl.VII-C. The estimated savings of \$4.7 billion for 2000 were derived by multiplying the same assessment rate by 94% (the percentage of exempt banks at the end of 1999) and by \$2.2 trillion (the amount of BIF-insured deposits at the end of 1999). See FDIC Q. BANKING PROFILE, 4th Qtr. 1999, at 18 tbl.VI-C, 19 tbl.VII-C.

127. The total estimated cost savings of \$22.3 billion would be equal to 7.1% of the banking industry's total profits of \$313.8 billion during 1996–2000. See Bassett & Zakrajšek, 2000 *Banking Developments*, *supra* note 111, at 383 tbl.A.1. (providing industry profits for 1996–2000).

It could be argued that my estimated savings are overstated if the FDIC's assessment rate of 23 basis points for the least risky banks during 1993–95 was higher than a "fair" rate. A recent FDIC study found that the banking industry could have covered the FDIC's operating expenses and insurance losses during 1980–99 if all banks had paid a level premium of 11.2 basis points during that period. FDIC OPTIONS PAPER, *supra* note 100, at 24 & tbl.3. If this rate were accepted as a "fair" rate, then

It is unlikely, however, that banks will continue to receive free deposit insurance indefinitely. Influential commentators have argued that, regardless of the current level of BIF reserves, every bank should pay deposit insurance premiums that fairly reflect its risk of insolvency.¹²⁸ In June 2000, the FDIC revised its risk-based assessment schedule to impose higher premiums on more than 300 banks that were engaged in high-risk activities.¹²⁹ Additionally, in April 2001, the FDIC proposed new legislation that would (i) allow the BIF's designated reserve ratio to vary between 1.15% and 1.35%, and (ii) empower the FDIC to impose risk-based premiums on *all* banks (subject to the possible payment of subsequent rebates).¹³⁰

FDIC officials and industry observers have also warned that the BIF's current reserves may well be insufficient to handle a future banking crisis that resulted in the failure of two or more of the largest U.S. banks.¹³¹ The ten biggest banks presently hold about \$1 trillion of do-

the estimated savings that banks derived from free deposit insurance during 1996–2000 would be about half the amount I have calculated above.

However, I question whether the 11.2 basis point rate is high enough to constitute a “fair” payment for the benefits conferred by deposit insurance, because (i) that rate would not have permitted the FDIC to build any additional reserves during 1980–99, and (ii) as discussed *infra* in notes 131–33 and accompanying text, the BIF's current reserves probably are *not* sufficient to cover the potential costs of a future banking crisis that included the failures of two or more big banks. My doubts about the adequacy of an 11.2 basis point assessment rate, and about the sufficiency of the current level of the FDIC's reserves, are supported by a 1991 study by Sherrill Shaffer. Based on simulations derived from the FDIC's actual loss experience during 1934–88, Shaffer concluded that a taxpayer-financed bailout of the deposit insurance fund would probably occur at some point during a 55-year cycle *unless* the FDIC either (i) raised the premium rate to 19.5 basis points (close to the 23 basis point figure used in my calculations above), or (ii) increased the size of the deposit insurance fund to 2.5% of total insured deposits (*twice* its currently mandated size). Sherrill Shaffer, *Aggregate Deposit Insurance Funding and Taxpayer Bailouts*, 15 J. BANKING & FIN. 1019, 1029–34 (1991).

128. See Susan McInerney, *Carnell Lauds FDICIA Achievements, Laments Backsliding on Deposit Insurance*, 72 Banking Rep. (BNA) 792 (Apr. 26, 1999) (reporting on speech by outgoing Treasury Assistant Secretary Richard Carnell, criticizing 1996 legislation that exempted most banks from paying deposit insurance premiums); *Shadow Regulators Criticize FDIC, Call Zero Premium Stance Poor Policy*, 65 Banking Rep. (BNA) 989 (Dec. 11, 1995) (describing report by the Shadow Financial Regulatory Committee, contending that all banks should pay deposit insurance premiums “commensurate with the risk that they pose to the [FDIC] insurance fund,” and that the 1.25% required reserve ratio for the BIF should not be treated as a “cap” excusing most banks from paying premiums to the FDIC); Rob Blackwell, *Consultant Tells FDIC: Make Banks Ante Up*, AM. BANKER, Aug. 16, 2000, at 1 (reporting on similar conclusions in a study prepared by Oliver, Wyman & Co., consultants to the FDIC).

129. See Rob Blackwell, *FDIC Makes Good on Vow to Punish Riskiest Banks*, AM. BANKER, June 22, 2000, at 4.

130. See FDIC, KEEPING THE PROMISE: RECOMMENDATIONS FOR DEPOSIT INSURANCE REFORM, 1, 7–14, 21 (Apr. 2001), available at <http://www.fdic.gov>.

131. See William M. Isaac, *Financial Reform's Unfinished Agenda*, FED. RES. BANK OF MINNEAPOLIS, REGION, Mar. 2000, at 34, 37 (stating concerns of a former FDIC chairman about the FDIC's ability to handle the failure of a giant banklike Citigroup); ROBERT OSHINSKY, EFFECTS OF BANK CONSOLIDATION ON THE BANK INSURANCE FUND 2, 12–18 (FDIC, Working Paper No. 99-3, 1999), available at <http://www.fdic.gov> (finding that, due to rapid consolidation in the banking industry during the 1990s, (i) “the solvency of the BIF of today is inseparably tied to the health of the largest banking organizations,” and (ii) the failure of any of the ten largest banks would create a 12.5% chance of BIF insolvency); Anason, *Megadeals*, *supra* note 14 (reporting that, during a 1988 congressional hearing FDIC acting chairman Andrew Hove stated that the FDIC's deposit insurance fund

mestic deposits, compared to the BIF's reserves of only \$31 billion.¹³² Under current law, the FDIC may impose additional deposit insurance premiums to raise the BIF's reserves above the designated reserve ratio of 1.25% if the FDIC determines that a higher reserve ratio is "justified for that year by circumstances raising a significant risk of substantial future losses to the fund."¹³³ The FDIC would almost certainly take such action if it believed that a serious downturn in the U.S. economy had exposed the BIF to a material risk due to likely failures among major banks.

The fifth, and probably most important, explanation for the record profits of the banking industry during 1992-99 is that the United States enjoyed an economic expansion of extraordinary proportions during those years.¹³⁴ Unfortunately, the U.S. economy stalled and equity markets slumped during 2000 and the first nine months of 2001. During the same period delinquent bank loans rose rapidly, especially at bigger banks, and large banks incurred more than \$40 billion in charges against earnings to boost their loan loss reserves.¹³⁵ Several major banks also reported substantial declines in their profits from capital markets activities.¹³⁶ As a result of these problems, many of the largest banks missed

"could handle a major hit," but he "was less certain . . . whether the agency could pay for two simultaneous large bank failures"); Rob Blackwell, *As 'Super Banks' Grow, So Do Analysts' Fears*, AM. BANKER, Aug. 7, 2000, at 1 [hereinafter Blackwell, *Super Banks*] (reporting on similar concerns expressed by Mr. Isaac, former FDIC chairman William Seidman, and other industry observers).

132. See Kevin J. Stiroh & Jennifer P. Poole, *Explaining the Rising Concentration of Banking Assets in the 1990s*, FED. RES. BANK OF N.Y., CURRENT ISSUES ECON. & FIN., Aug. 2000, at 1, 2 tbl.1 (showing that the ten largest banks held 33.6% of the banking industry's \$3.08 trillion of domestic deposits in 1999); FDIC Q. BANKING PROFILE, 4th Qtr. 2000, at 17 tbl.III-C (stating that the BIF had \$31 billion of reserves in December 2000). It is true that the foregoing figure for domestic deposits includes a significant amount of uninsured deposits. See *id.* (stating that there were \$2.3 trillion of BIF-insured deposits in December 2000). As discussed *infra* at notes 349-53, 402-04 and accompanying text, however, federal regulators have uniformly protected uninsured depositors in the largest failing banks under the TBTF policy. Thus, the BIF's reserves would probably be used to protect uninsured depositors if any of the ten largest banks were threatened with failure.

133. 12 U.S.C. § 1817(b)(2)(A)(iv) (Supp. IV 1998).

134. See, e.g., John H. Boyd, *Expansion of Commercial Banking Powers . . . or, Universal Banking is the Cart, not the Horse*, 23 J. BANKING & FIN. 655, 656 (1999) (noting that the U.S. banking industry's strong performance had occurred "during one of the longest and strongest economic recoveries in post-war history"); Jacob M. Schlesinger, *Money-Go-Round: Why the Long Boom? It Owes a Big Debt to the Capital Markets*, WALL ST. J., Feb. 1, 2000, at A1 [hereinafter Schlesinger, *Capital Markets*] (reporting that the U.S. economy's expansion had reached a record length of 107 months, but warning that "the same capital markets that have fed the boom may also be planting the seeds of the next bust").

135. See FDIC Q. BANKING PROFILE, 3d Qtr. 2001, at 1-3, 5 & tbl.III-A (showing that, during the first three quarters of 2001, (i) the delinquency rate for bank commercial and industrial loans reached its highest level since 1993, (ii) lending problems were concentrated among the largest banks, and (iii) banks with assets of more than \$10 billion recorded loan loss provisions of \$6 billion); FDIC Q. BANKING PROFILE, 4th Qtr. 2000, at 2, 5 tbl.III-A (reporting that the volume of delinquent bank loans increased by 30% during 2000 and banks larger than \$10 billion recorded loan loss provisions of \$22 billion); see also R. Alton Gilbert, *Problem Business Loans Rise at Large Banks, Monetary Trends*, FED. RES. BANK OF ST. LOUIS, Nov. 2000, available at <http://www.stls.frb.org> [hereinafter Gilbert, *Problem Loans*] (reporting that nonperforming ratios and charge-off ratios for business loans rose rapidly at large banks during 1999 and the first half of 2000).

136. See *supra* note 117 and accompanying text.

their earnings targets, and the banking industry's total profits for 2000 declined slightly from the record level in 1999.¹³⁷ Regulators and industry observers warned that bank profits were likely to fall much more sharply if the economy experienced a severe and prolonged recession.¹³⁸

A recent study of bank earnings, by Allen Berger and others, confirms the close connection between bank profits and the health of the general economy. The authors found that (i) bank profits had the highest degree of “persistence” during the economic “boom” period of 1993–97, and (ii) the “persistence” of bank profits during 1970–97, whether in a positive or negative direction, was “related to the business cycle and macroeconomic conditions.”¹³⁹ The study further concluded that the “sensitivity of relative [bank] performance to regional/macroeconomic shocks appears to be just as strong during the recent boom period as in the pre-boom period,” notwithstanding the geographic expansion and risk management strategies pursued by large banks after 1980.¹⁴⁰

The Berger study also determined that banks with a high proportion of off-balance-sheet activities (e.g., standby letters of credit and derivatives), consumer loans, large business loans, and foreign deposits exhibited a higher degree of risk, and were more sensitive to macroeconomic changes, than banks that focused on collecting core deposits and making small business loans.¹⁴¹ Major U.S. banks fit the Berger study's description of high-risk, vulnerable banks. These large institutions depend heavily on foreign deposits and other volatile purchased funds, and they focus on syndicated loans, securitized consumer loans, capital markets ventures, and off-balance-sheet activities that involve substantial risks and are vulnerable to economic downturns. In contrast, smaller banks meet the Berger study's criteria for lower-risk, stable institutions, be-

137. See FDIC Q. BANKING PROFILE, 4th Qtr. 2000, at 1–3; 2001 OCC Bank Performance Study, *supra* note 99, at 1–4; see also Rob Garver & Nicole Duran, *Business Loans Blamed for Lower Profits*, AM. BANKER, Mar. 8, 2001, at 1 (reporting that three of the five largest U.S. banks, and ten of the twenty largest, had lower earnings in 2000 than in 1999). The poor earnings results posted by many large banks during 2000 reflected a negative profit trend that began at several major banks during 1999. See Amy Kover, *Big Banks Debunked*, FORTUNE, Feb. 21, 2000, at 187, 190 (reporting that profits for Bank of America, Bank One, and First Union fell substantially below their announced profit targets in 1999); Moyer, *Sad Tidings*, *supra* note 109 (discussing failures by eight large banks to meet earnings projections during 1999).

138. See, e.g., 2001 FDIC Banking Risk Study, *supra* note 117, at 7–12; 2000 FDIC Economic Risk Study, *supra* note 105, at 3–13; *Big Banks in Trouble in 2000*, *supra* note 115; Emily Thornton et al., *Financial Institutions: Tearing Up the Street*, BUS. WK., Mar. 26, 2001, at 42 [hereinafter Thornton et al., *Tearing Up the Street*]; Heather Timmons, *Feeling the Telcoms' Pain: Insurers and Banks*, BUS. WK., Apr. 23, 2001, at 110 [hereinafter Timmons, *Telcoms' Pain*].

139. ALLEN BERGER ET AL., WHY ARE BANK PROFITS SO PERSISTENT? THE ROLES OF PRODUCT MARKET COMPETITION, INFORMATIONAL OPACITY, AND REGIONAL/MACROECONOMIC SHOCKS 2–4, 11–13 (Fed. Res. Bd., Working Paper Fin. & Econ. Discussion Ser. 1999-28, Mar. 24, 1999) [hereinafter BERGER ET AL., PROFIT PERSISTENCE]. In most cases, the study found that a bank exhibited “winning persistence” if it consistently performed in the top 10% of the data sample during a specified time period, or “losing persistence” if it consistently performed in the bottom 10% of the data sample during that period. See *id.* at 5–11.

140. *Id.* at 3–4, 21–23, 25.

141. See *id.* at 3–4, 19–21, 23–26.

cause they rely primarily on core deposits and small business lending.¹⁴² The Berger study determined that lower-risk banks are less vulnerable to macroeconomic shocks, because their core deposits and small business loans provide them with “proprietary information” and “market power” that give them a secure competitive advantage within their business markets.¹⁴³

D. Consolidation Is Creating a Two-Tiered Banking Industry

The structure of the U.S. banking industry has been transformed since 1980 by a wave of bank failures and mergers of a magnitude not seen since the Great Depression.¹⁴⁴ The declining profitability of traditional banking activities and increased competition from nonbank firms have been prime motivating forces for this dramatic restructuring of the banking industry.¹⁴⁵ Changes in state and federal laws have also facilitated consolidation by removing legal barriers to bank expansion within and across state lines.¹⁴⁶ Yet another important factor is that federal bank regulators and the Justice Department significantly relaxed their merger review standards after 1980. Federal authorities evidently concluded that a more lenient bank merger policy would encourage competition in local markets by opening those markets to a greater number of potential entrants, and allow larger (and hopefully more efficient) banks to absorb smaller (and presumably less effective) competitors. As a re-

142. See Berger & Udell, *Securitization*, *supra* note 42, at 253, 269, 275, 279; Boyd & Gertler, *Banking Trends*, *supra* note 76, at 331-38; Timothy J. Yeager, *Down, But Not Out: The Future of Community Banks*, FED. RES. BANK OF ST. LOUIS, REGIONAL ECONOMIST, Oct. 1999, at 4, 5-6; see also 2000 FDIC Economic Risk Study, *supra* note 105, at 11 (showing that, unlike smaller banks, major banks rely heavily on revenues from capital markets activities); *infra* Part I(D)(2) (discussing different business strategies pursued by small and big banks); *infra* Part I(E)(2) (describing growing focus of big banks on higher-risk activities such as underwriting and trading in securities, dealing in derivatives, leveraged syndicated lending, and securitized consumer lending).

143. See BERGER ET AL., PROFIT PERSISTENCE, *supra* note 139, at 19-21.

144. See, e.g., Berger et al., *supra* note 65, at 57, 66-72 (describing the extent of consolidation since 1980); STEPHEN A. RHOADES, BANK MERGERS AND BANKING STRUCTURE IN THE UNITED STATES, 1980-98, at 1 (Bd. of Governors of the Fed. Res. Sys., Staff Stud. 174, Aug. 2000) [hereinafter RHOADES, BANK MERGERS], available at <http://www.federalreserve.gov> (same).

145. See, e.g., Macey & Miller, *Bank Mergers*, *supra* note 48, at 175-86; Berger et al., *supra* note 65, at 68-86.

146. Since 1980, most states have removed all restrictions on bank branching within their borders. In addition, between 1980 and 1994, forty-nine states enacted laws allowing out-of-state bank holding companies to acquire local banks, although most of those laws included regional and/or reciprocity conditions. In September 1994, Congress adopted legislation, popularly known as the “Riegle-Neal Act,” which mandated a phased removal of legal barriers to interstate banking and branching. Since September 1995, this new federal law has enabled bank holding companies to acquire banks located anywhere in the nation. In addition, since June 1997, the Riegle-Neal Act has allowed banks to establish interstate branches on a nationwide basis either by opening de novo branches in states that permit such entry, or by merging with banks located in any state. See Eric J. Gouvin, *Of Hungry Wolves and Horizontal Conflicts: Rethinking the Justifications for Bank Holding Company Liability*, 1999 U. ILL. L. REV. 949, 950 n.4 (noting that Montana “opted out” of interstate merger branching until October 2001); Stephen A. Rhoades, *Have Barriers to Entry in Retail Commercial Banking Disappeared?*, 42 ANTITRUST BULL. 997, 997-98, 1000-01 (1997) [hereinafter Rhoades, *Barriers to Entry*]; Wilmarth, *Big Bank Mergers*, *supra* note 106, at 2-3, 8-11.

sult, federal regulators have denied very few merger applications since the early 1980s, although they have frequently required selective branch divestitures as a condition of their approval.¹⁴⁷

As discussed below, consolidation is dividing the banking industry into two distinct sets of institutions. The ten largest banks now hold almost half of the banking industry's assets, and the fifty largest institutions control three-quarters of such assets. These large institutions have shifted away from the traditional, relationship-based business of lending to long-term customers. Instead, big banks are pursuing a transaction-based strategy that emphasizes investment banking, derivatives, syndicated loans, securitized consumer loans, and other activities tied to the capital markets. Each of these lines of business presents significant risks to the banking system.

At the other end of the industry, a shrinking number of smaller, community-oriented banks continue to provide relationship-based banking services to individual customers and small businesses. Notwithstanding its contraction since 1980, the community banking sector appears likely to survive for the foreseeable future. Community banks have shown a continuing ability to provide customized services that appeal to consumers and small business owners who are dissatisfied with the big banks' use of impersonal mass marketing and automated approval methods.

1. *The Banking Industry Has Consolidated Rapidly Since 1980*

Between 1979 and 1999, the number of independent U.S. banking organizations declined by nearly half, falling from 12,500 to 6800.¹⁴⁸ This sharp reduction resulted from 1600 bank failures and 8000 bank acquisitions that were only partially offset by the chartering of 3800 new banks.¹⁴⁹ Banks that failed or were acquired during 1980–98 held more

147. For critical discussions of this trend toward a more liberal federal bank merger policy, see Peter C. Carstensen, *A Time to Return to Competition Goals in Banking Policy and Antitrust Enforcement: A Memorandum to the Antitrust Division*, 41 ANTITRUST BULL. 489 *passim* (1996); Gerald A. Hanweck & Bernard Shull, *The Bank Merger Movement: Efficiency, Stability and Competitive Policy Concerns*, 44 ANTITRUST BULL. 251, 251–52, 256–58, 280–81 (1999); Bernard Shull, *The Origins of Antitrust in Banking: A Historical Perspective*, 41 ANTITRUST BULL. 255, 280–88 (1996).

148. See Lisa M. DeFerrari & David E. Palmer, *Supervision of Large Complex Banking Organizations*, 87 FED. RES. BULL. 47, 47 (2001) (providing 1999 figure); William R. Keeton, *Banking Consolidation in Tenth District States*, FED. RES. BANK OF K.C., ECON. REV., 2d Qtr. 1996, at 29, 30 tbl.1 (providing 1979 figure). As indicated above at note 17, the term “banking organization” includes, as a single entity, each independent bank and each bank holding company that controls one or more banks.

149. See FDIC Q. BANKING PROFILE, 4th Qtr. 1998, at 17 tbl.IV-C (showing that fifteen banks failed during 1995–98); FDIC, 2 MANAGING THE CRISIS: THE FDIC AND RTC EXPERIENCE, 1980–94, at 1 (1998) [hereinafter MANAGING THE FDIC CRISIS] (stating that 1617 banks failed during 1980–94); RHOADES, BANK MERGERS, *supra* note 144, at 2–3, 5 tbl.1, 22–24 tbl.14 (reporting that 7985 healthy banks were acquired and 3814 new banks were chartered during 1980–98).

than \$2.7 trillion in assets and accounted for half of the banking industry's total assets at the end of 1998.¹⁵⁰

This consolidation trend has included more than thirty "megamergers" among very large banks since 1990.¹⁵¹ Three enormous mergers were announced in 1998, involving six of the twelve biggest U.S. banks.¹⁵² Four additional mergers of comparable magnitude were agreed to during 1999 to 2001.¹⁵³ As a result of these huge transactions, the fifty largest banks increased their share of the banking industry's assets from 55% in 1989 to 74% in 1999. All of this relative growth occurred among the ten largest banks, as their combined market share rose from 26% to 49% of total industry assets during the 1990s.¹⁵⁴ As described below, the growing dominance of a small group of megabanks within the U.S. banking industry raises serious policy issues regarding systemic risk and the effectiveness of bank supervision.¹⁵⁵

150. See FDIC Q. BANKING PROFILE, 4th Qtr. 1998, at 17 tbl.IV-C (showing that banks with total assets of \$1.3 billion failed during 1995-98); *id.* at 4 tbl.II-A (stating that the banking industry held total assets of \$5.44 trillion at the end of 1998); MANAGING THE FDIC CRISIS, *supra* note 149, at 4 (reporting that banks with total assets of \$303 billion failed during 1980-94).

151. See Hanweck & Shull, *supra* note 147, at 253, 254-55 tbl.1 (listing twenty-nine "megamergers" announced during 1991-98, in which the acquiring banks and target banks each had assets of more than \$10 billion); *infra* note 153 (discussing four very large mergers announced during 1999-2001). As a consequence of these deals, twenty-seven of the fifty largest banks in 1990 were merged out of existence by 1999. See Stiroh & Poole, *supra* note 132, at 2.

152. See Steven Lipin & Anita Raghavan, *One-Two Punch: NationsBank to Merge With BankAmerica, and That's Not All*, WALL ST. J., Apr. 13, 1998, at A1 (reporting on announcements of the NationsBank-BankAmerica merger, resulting in a \$570 billion bank, and the Bank One-First Chicago NBD merger, resulting in a \$240 billion bank); Matt Murray, *Norwest, Wells Fargo Agree to a Merger*, WALL ST. J., June 9, 1998, at A2 (reporting on announced merger between Norwest and Wells Fargo, resulting in a \$190 billion bank); see also Allen N. Berger et al., *The Consolidation of the Financial Services Industry: Causes, Consequences and Implications for the Future*, 23 J. BANKING & FIN. 135, 138, 140 (1999) (indicating that the three foregoing "supermegamergers," together with the Citicorp-Travelers merger, were the four largest bank mergers in history); *Top 100 Bank Holding Companies in Assets*, AM. BANKER, Sept. 17, 1998, at 8 (showing that the foregoing six banks ranked among the twelve largest U.S. banking organizations as of June 30, 1998).

153. See R. Christian Bruce, *Fed Clears First Union, Wachovia Deal; Combined Institution Ranks Fourth in U.S.*, 77 Banking Rep. (BNA), at 315 (Aug. 27, 2001) [hereinafter Bruce, *Wachovia Deal*] (reporting on merger creating a \$330 billion bank); John Hechinger, *Fleet Financial To Acquire Bank Boston*, WALL ST. J., Mar. 15, 1999, at A3 [hereinafter Hechinger, *FleetBoston*] (describing merger creating a \$180 billion bank); Steven Lipin et al., *Blending Legends: Chase Agrees to Buy J.P. Morgan & Co. in a Historic Linkup*, WALL ST. J., Sept. 13, 2000, at A1 (reporting on merger producing the third largest U.S. bank, with \$675 billion in assets); Liz Moyer & Laura Mandaro, *Firststar to Buy U.S. Bancorp and Invade Wells Country*, AM. BANKER, Oct. 5, 2000, at 1 (reporting on merger creating a \$160 billion bank).

154. See DeFerrari & Palmer, *supra* note 148, at 47. In contrast to the rapid expansion of the ten largest banks during the 1990s, they grew much more slowly during the 1980s; see *id.* (stating that the ten biggest U.S. banks held 26% of all banking assets in 1989); Franklin R. Edwards, *The Future Financial Structure: Fears and Policies*, in RESTRUCTURING BANKING & FINANCIAL SERVICES IN AMERICA 113, 141 tbl.A-1 (William S. Haraf & Rose Marie Kushmeider eds., 1988) (stating that the ten largest U.S. banks held 23% of such assets in 1984). Passage of the Riegle-Neal Act in 1994 greatly encouraged the expansion of the largest banks by removing state regional and reciprocity restrictions that previously limited interstate bank acquisitions. See Wilmarth, *Big Bank Mergers*, *supra* note 106, at 9-12.

155. See *infra* Parts III(B) & (C).

In addition to the rapid rise in nationwide market shares, bank mergers have produced significantly higher concentration levels in urban and statewide markets. During 1984-98, average concentration ratios, measured in accordance with federal bank merger guidelines, rose substantially in metropolitan markets.¹⁵⁶ By the mid-1990s, about one-third of all urban markets were highly concentrated, and most of the largest metropolitan markets were at least moderately concentrated, under federal merger guidelines.¹⁵⁷ By 2000, with only one exception, a majority of the deposits in each of the fifty largest metropolitan markets was controlled by the five biggest banks in the market.¹⁵⁸ In the forty fastest growing urban areas, the average concentration ratio among the five largest banks was 73%.¹⁵⁹

The bank merger trend has caused equally dramatic changes in statewide concentration levels. Between 1984 and 1996, the average Herfindahl-Hirschmann Index (HHI) ratio for statewide deposit markets increased from 804 to 1301.¹⁶⁰ The average deposit share held by the three largest banks in statewide markets rose from 30% to 39% between 1984 and 1994.¹⁶¹ By 2000, 50% or more of the deposits in each of twenty-five states and the District of Columbia were controlled by the

156. RHOADES, *BANK MERGERS*, *supra* note 144, at 27 (reporting that (i) the average concentration ratio measured by the Herfindahl-Hirschmann Index (HHI) for bank deposits in metropolitan markets, with thrift deposits weighted at 50%, rose from 1366 to 1666 during 1984-98; and (ii) federal banking agencies generally assign a 50% weighting factor to thrift deposits in calculating concentration levels in geographic markets); Katerina Simons & Joanna Stavins, *Has Antitrust Policy in Banking Become Obsolete?*, FED. RES. BANK OF BOSTON, NEW ENGLAND ECON. REV., Mar./Apr. 1998, at 13, 14 (explaining that the HHI represents the sum of the squared market shares of all competitors, with thrifts weighted at 50%, in a particular banking market).

During 1984-98, HHI concentration ratios, with thrift deposits weighted at 50%, increased in three-quarters of all metropolitan markets, and larger urban markets were especially likely to experience such increases. RHOADES, *BANK MERGERS*, *supra* note 144, at 28-29.

157. See Stephen A. Rhoades, *Competition and Bank Mergers: Directions for Analysis From Available Evidence*, 41 ANTITRUST BULL. 339, 347 & nn.15-16 (1996) [hereinafter Rhoades, *Competition Analysis*]; Jaret Seiberg, *Deposit Concentration Losing Antitrust Meaning*, AM. BANKER, June 19, 1998, at 1. Under federal merger guidelines, a banking market is considered to be moderately concentrated with an HHI of 1000 to 1800 and highly concentrated with an HHI above 1800. See Arthur E. Wilmarth, Jr., *Too Big to Fail, Too Few to Serve? The Potential Risks of Nationwide Banks*, 77 IOWA L. REV. 957, 1027 n.328 (1992) [hereinafter Wilmarth, *Too Big to Fail*].

158. See John Reosti, MSA Deposit Market Share Concentration (June 12, 2000) (unpublished table based on data provided by Sheshunoff Information Services, on file with the University of Illinois Law Review).

159. See Tania Padgett, *Report Says Good Merger Targets in Short Supply*, AM. BANKER, June 1, 2000, at 24.

160. See William P. Osterberg & James B. Thomson, *Banking Consolidation and Correspondent Banking*, FED. RES. BANK OF CLEVELAND, ECON. REV., 1st Qtr. 1999, at 9, 16 & tbl.7. Statewide HHI ratios are highest in states with statewide branching laws because those states permit the highest degree of consolidation among banks. See *id.* (showing that, in 1996, the average HHI for statewide branching states was 1450 and the average HHI for limited branching states was 693). At the end of 1994, only two states prohibited statewide branching, but some other states allowed banks to expand on a statewide basis only by acquiring other banks or branches. Dean F. Amel, *Trends in the Structure of Federally Insured Depository Institutions, 1984-94*, 82 FED. RES. BULL. 1, 3 (1996).

161. John H. Boyd & Stanley L. Graham, *Consolidation in U.S. Banking: Implications for Efficiency and Risk* [hereinafter Boyd & Graham, *Bank Consolidation*], in *BANK MERGERS AND ACQUISITIONS* 113, 120 (Yakov Amihud & Geoffrey Miller eds., 1998).

five largest banks in the jurisdiction.¹⁶² As discussed below, these increases in local and statewide concentration levels pose potential threats to competition for retail banking services.¹⁶³

2. *The Banking Industry Has Separated into “Global” and “Community” Sectors*

The consolidation trend has transformed the banking industry into a two-tiered structure with a “barbell” shape. Most industry analysts and executives predict that, by the end of this decade, a small group of very large banks will control the great majority of the industry’s assets. At the same time, observers expect that a few thousand smaller, community-oriented banks will continue to provide personalized financial services to small businesses and moderately affluent customers whose financial assets are not large enough to qualify for “high touch” treatment at big banks.¹⁶⁴

In contrast to their larger and smaller competitors, it is increasingly doubtful whether most midsized banks with assets in the \$15–\$50 billion range can remain viable over the long term. The cost structures and organizational complexity of these banks appear to be too great to permit them to match the individually tailored services offered by smaller “niche” banks. At the same time, many midsized banks face significant handicaps in competing with big banks because they do not have sufficient resources to make the large investments in information technology, expert staff, and other resources needed to sell consumer loans and mutual funds on a mass-market basis, or to offer derivatives and other sophisticated capital markets services. Accordingly, most midsized banks will probably be forced to choose either a growth strategy of acquiring other banks, or an exit strategy of merging with a larger bank.¹⁶⁵ In sev-

162. See John Reosti, State Deposit Market Share Concentration (June 12, 2000) (unpublished table based on data provided by Sheshuaoff Information Services, on file with the University of Illinois Law Review) [hereinafter Reosti, Deposit Market Share].

163. See *infra* notes 322–34 and accompanying text (discussing negative implications of increases in concentration within local, statewide, and regional banking markets).

164. See, e.g., Berger et al., *supra* note 65, at 110–20, 129–30; Arnold G. Danielson, *Bankers’ Choice: Adapt to the New Direction or Wait for Last Dance*, BANKING POL’Y REP., Apr. 21, 1997, at 5, 9–10 [hereinafter Danielson, *Bankers’ Choice*]; Timothy H. Hannan & Stephen A. Rhoades, *Future U.S. Banking Structure: 1990 to 2010*, 37 ANTITRUST BULL. 737, 742–44, 787–98 (1992); Nikhil Deogun, *Back to the Fray: Displaced by Mergers, Some Bankers Launch Their Own Start-Ups*, WALL ST. J., Mar. 4, 1996, at A1 (reporting similar prediction that the banking industry will become a “barbell” with “a few big banks at one end, thousands of tiny ones at the other, and little in between”); Gordon Matthews, *NationsBank CEO Says Fla. Deal Sews Up The Southeast*, AM. BANKER, Sept. 3, 1997, at 1, 24 (quoting prediction by NationsBank chairman Hugh McColl of a “barbell-shaped industry” that would be dominated by a few very large banks).

165. For commentaries questioning the long-term competitive viability of midsized banks, see, e.g., Arnold G. Danielson, *U.S. Bank Mergers: A Game of Dominos*, BANKING POL’Y REP., June 15, 1998, at 1, 11–14, 17; Danielson, *Bankers’ Choice*, *supra* note 164, at 5, 9–10; Matt Murray & Raju Narisetti, *Bank Mergers’ Hidden Engine: Technology*, WALL ST. J., Apr. 23, 1998, at B1; Louis White-man & Alan Kline, *Community Bankers Say They Aren’t Afraid of Merging Giants*, AM. BANKER, Apr. 16, 1998, at 1; Craig Woker, *Super Community Banks Bemoan In-Between Status*, AM. BANKER,

eral recent transactions, midsized banks sold out to larger institutions because they could not afford the costly investments needed to upgrade their technology systems and expand their product offerings.¹⁶⁶

Thus, as a practical matter, the U.S. banking system now contains two distinct sectors—a “global banking industry” and a “community banking industry.”¹⁶⁷ Most “global” banks operate as “financial super-markets” offering a wide range of “commodity-like financial products” for consumers and a full menu of capital markets services for midsized and large businesses.¹⁶⁸ In contrast, “community” banks seek to fill market niches that are not well served by big banks, such as furnishing “high-touch” services to (i) consumers who lack the personal wealth needed to command the attention of a private banking department at a big bank, and (ii) small firms that cannot satisfy the standardized lending criteria applied by big banks.¹⁶⁹

Most of the largest banks have chosen to focus their efforts in major metropolitan areas, and they have withdrawn from many rural areas and many smaller cities.¹⁷⁰ Big banks have concluded that their strategy of

Feb. 29, 2000, at 6. *But see* Brett Chase, *Second-Tier Banks Try Harder In Battle to Stay Independent*, AM. BANKER, Mar. 30, 1998, at 1 (quoting arguments made by executives of several midsized banks in support of the long-term viability of their institutions).

166. *See, e.g.*, Martha Brannigan et al., *NationsBank Wins Bidding for Barnett*, WALL ST. J., Sept. 2, 1997, at A3 (reporting that high technology costs encouraged Barnett Banks to merge with NationsBank); Brett Chase, *It Was Acquire or Sell, Ist of America CEO Says*, AM. BANKER, Dec. 10, 1997, at 6 (explaining that First of America, a \$22 billion bank, agreed to merge with National City because it could not buy the technology and marketing systems it needed to compete with larger banks); Joseph N. DiStefano, *FleetBoston Details Proposal to Buy Princeton, N.J.-Based Finance Firm*, PHILA. INQUIRER, Oct. 3, 2000 (reporting that Summit, a \$39 billion bank, agreed to sell out to FleetBoston after Summit failed to boost its profits by expanding its insurance and investment activities); Gordon Matthews, *Oregon Bank Saw a Sale as Inevitable; Persistent Ist Bank CEO Won the Nod*, AM. BANKER, Mar. 21, 1997, at 1, 4 (reporting that U.S. Bancorp agreed to merge with First Bank System because it was unable to make the necessary investments to upgrade its technology and expand its product offerings); Matt Murray, *Technology Costs Become Factor in Bank Mergers*, WALL ST. J., Nov. 20, 1997, at A4 (reporting that heavy technology costs were a major factor behind CoreStates' agreement to merge with First Union and Boatmen's willingness to merge with NationsBank).

167. Hannan & Rhoades, *supra* note 164, at 742–44. FRB Governor Roger Ferguson has similarly observed that the banking sector is divided between “retail” banks, which provide financial services primarily to “households and small businesses,” and “wholesale” banks, which furnish “large-scale corporate financial services.” *Fed's Ferguson: Financial Institutions Should Merge At a Cautious Pace*, BANKING POL'Y REP., Nov. 16, 1998, at 5, 7 [hereinafter *Ferguson Speech*] (reprinting Oct. 27, 1998 speech by FRB Governor Roger Ferguson).

168. *See* Udell, *supra* note 35, at 222, 224–25; Danielson, *Bankers' Choice*, *supra* note 164, at 5–6; Hannan & Rhoades, *supra* note 164, at 742–44, 750–52; Timothy L. O'Brien & Saul Hansell, *Spending It: How Big Banks See the World*, N.Y. TIMES, Apr. 19, 1998, § 3, at 1; Steven Pearlstein & Peter Pae, *Megabank Day*, WASH. POST, Apr. 19, 1998, at H1.

169. *See* Danielson, *Bankers' Choice*, *supra* note 164, at 5, 9–10; Hannan & Rhoades, *supra* note 164, at 744–48; Leonard I. Nakamura, *Small Borrowers and the Survival of the Small Bank: Is Mouse Bank Mighty or Mickey?*, FED. RES. BANK OF PHILA., BUS. REV., Nov./Dec. 1994, at 3, 7–13 [hereinafter Nakamura, *Small Borrowers*]; Yeager, *supra* note 142, at 5–6; John Reosti, *Mom-and-Pops Switching to Small Banks*, AM. BANKER, May 11, 2001, at 5 [hereinafter Reosti, *Small Banks Attract Small Firms*]; Joanna Sullivan, *Small Banks Thrive on Survival Tactics*, AM. BANKER, Mar. 3, 1998, at 15.

170. *See* Veronica Agosta, *Community Bank of N.Y. Buying 36 Fleet Branches*, AM. BANKER, June 12, 2001, at 7; Laura P. Lutton, *Sale of Megabank Branches Opens Door for Small Banks*, AM. BANKER, May 19, 1999, at 18 (reporting on decision by U.S. Bancorp to sell twenty-eight branches in

building a financial “supermarket” for “mass marketing [of] generic products” will not succeed in most smaller communities, because small town residents place a higher premium on personal service.¹⁷¹

In addition, most big banks have established highly centralized management systems for both their consumer and business banking operations. These command structures are designed to ensure a uniform method of operation across the nation, with branch managers and lending officers adhering to standardized policies and procedures that have been established by top-level management.¹⁷² Senior executives at big banks believe that centralized administration will enable their institutions to succeed as “national operations” engaged in “brand-name marketing.”¹⁷³ Most big bank managers have concluded that it would be an “illusory” goal for their banks to pursue a strategy of delivering “community-based service,” because they must centralize and homogenize their operations to take advantage of anticipated “economies of scale.”¹⁷⁴ These executives are convinced that “size buys . . . brand power” and that “brand power” will result in a dominating “market presence.”¹⁷⁵

Iowa and Kansas); Liz Moyer, *NationsBank Retreating from Kentucky Market*, AM. BANKER, Mar. 16, 1998, at 6 [hereinafter Moyer, *Kentucky Market*] (reporting on decision by NationsBank to sell 111 branches in smaller towns); Louis Whiteman, *As Big Banks Leave Small Towns, Local Banks Snap Up Branches*, AM. BANKER, Dec. 8, 1997, at 1 [hereinafter Whiteman, *Small Towns*] (reporting on similar decisions by Bank of America, KeyCorp, and Wells Fargo to sell small town branches).

171. See Matt Murray, *KeyCorp Slashing Work Force, Branches*, WALL ST. J., Nov. 26, 1996, at A3, A10; Whiteman, *Small Towns*, *supra* note 170, at 6; see also Lutton, *supra* note 170, at 18 (quoting analyst Dave Albertson’s view that big banks are leaving smaller communities because they use a “cookie-cutter approach” and offer “standardize[d]” products, while small town customers prefer the more individualized services offered by community banks).

172. See *Roundtable Discussion of Current Issues in Commercial Banking*, THE BANK OF AM. J. APPLIED CORP. FIN., Summer 1996, at 24, 38–40 [hereinafter *Roundtable Discussion*] (discussing centralization strategies pursued by Bank One, First Union, and NationsBank); Brett Chase, *As Milestone Nears, Banks Prepare to Centralize*, AM. BANKER, May 15, 1997, at 4 (reporting on centralization plans of Bank America, First Bank System, First Union, KeyCorp, NationsBank, PNC, and Wells Fargo); Jacqueline S. Gold, *Top 100 Axed 25% of Their Charters in First Half*, AM. BANKER, Sept. 30, 1997, at 1 (reporting that “[d]ecentralization is dying” among the largest banks as they increase their “centralization efforts”).

173. Matt Murray, *Year of Truth: After Long Overhaul, Banc One Now Faces Pressure to Perform*, WALL ST. J., Mar. 10, 1998, at A1 (reporting on Banc One’s decision to transform itself from a decentralized “network of quasi-independent banks” into a highly centralized organization like First Union and NationsBank); see also Saul Hansell, *Keycorp Plans to Shed 280 Branches and Cut 2,700 Jobs*, N.Y. TIMES, Nov. 26, 1996, at D2 (reporting on decision by KeyCorp to adopt a “central national command structure” in place of its previously decentralized management style).

174. Liz Moyer, *Top 100 Chopped Bank Charters by 13% in Year*, AM. BANKER, Sept. 17, 1998, at 1, 6 (quoting analyst Karen Shaw Petrou and Bank One spokesman John Russell). But see *infra* Part I(D)(4)(b)(i) (showing that large banks have not achieved the economies of scale predicted by advocates of consolidation).

175. Jeffrey Kutler, *Bigness Apostles Refine Message: Size Is a Necessity, Not a Virtue*, AM. BANKER, Dec. 11, 1998, at 1 [hereinafter Kutler, *Bigness Apostles*]; see also James R. Gregory, Comment, *Branding Is Key to Successful Mergers*, AM. BANKER, Apr. 23, 1999, at 22 (contending that large bank mergers provide a “tremendous opportunity for branding” and that a “strong brand . . . influences customer preferences, giving the bank an advantage over competitors”).

Citibank, for example, spends \$350 million annually on marketing campaigns. Despite increasing efforts by many large banks and other financial firms to build brand identities, however, only Citibank and American Express have succeeded thus far in establishing distinctive and widely recognized

In contrast, smaller banks have found it profitable to expand their presence within rural communities and smaller urban markets, and they have done so in part by purchasing small town branches from big banks.¹⁷⁶ A recent study confirms that smaller banks tended to gain market share in small towns and rural areas at the expense of large multistate banks during the 1990s.¹⁷⁷ Additionally, smaller banks have differentiated themselves from their larger rivals by stressing personal service, flexibility in lending terms for consumers and small businesses, and continuity in both senior management and staff employees.¹⁷⁸ The sharply different business strategies pursued by big banks and small banks provide further evidence that the banking industry has split into two distinct sectors.

3. *Will Bank Consolidation Reduce the Availability of Credit to Small Businesses?*

The rapid consolidation of the banking industry raises an important issue regarding the continued ability of small firms to obtain credit from banks.¹⁷⁹ Small businesses¹⁸⁰ play a crucial role in the U.S. economy. Currently, these firms produce half of the total private sector output, create more than one-third of all private sector innovations, employ a majority of the private sector workforce, and generate about three-quarters of the growth in private sector employment.¹⁸¹

While banks continue to serve as the primary source of “outside” (i.e., non-owner) credit for small businesses, the emergence of a two-tiered banking structure has led to significant changes in the patterns of

brands. W. A. Lee, *Citi, Amex Only Financials on Brand List*, AM. BANKER, July 20, 2000, at 20; *Financial Brands: Round ‘Em Up*, ECONOMIST, July 31, 1999, at 65.

176. See, e.g., Lutton, *supra* note 170; Moyer, *Kentucky Market*, *supra* note 170; Whiteman, *Small Towns*, *supra* note 170.

177. See Steven J. Pilloff & Stephen A. Rhoades, *Do Large Diversified Banking Organizations Have Competitive Advantages?*, 16 REV. INDUS. ORG. 287, 293–94, 297, 299–301 (2000).

178. See, e.g., Matt Murray & Andrea Petersen, *Small Banks Battle to Survive as Industry Consolidates*, WALL ST. J., Apr. 14, 1998, at C21; Sara Oppenheim, *4 Suburban Banks Succeed By Stressing Personal Touch*, AM. BANKER, Mar. 24, 1997, at 10; Sullivan, *supra* note 169; Whiteman & Kline, *supra* note 165; Wendy Zellner et al., *Little Banks Are Sprouting in the Shadow of Giants*, BUS. WK., May 4, 1998, at 44 [hereinafter Zellner et al., *Little Banks*]. For individual case studies of community-based banks that have competed successfully against larger rivals by stressing personal service and long-term customer relationships, see Jonathan Sapsford, *Local McBanker: A Small Chain Grows by Borrowing Ideas from Burger Joints*, WALL ST. J., May 17, 2000, at A1 (discussing Commerce Bancorp, a \$7 billion bank headquartered in Cherry Hill, New Jersey); Michael Selz, *Enterprise: Greater Bay Takes the Current Toward Smaller Businesses*, WALL ST. J., Mar. 27, 2001, at B2 (discussing Greater Bay Bancorp, a \$5 billion bank centered in the San Francisco Bay area).

179. See, e.g., Udell, *supra* note 35, at 222–23; Berger et al., *supra* note 65, at 56–58, 95–97; Wilmarth, *Big Bank Mergers*, *supra* note 106, at 34–41.

180. Small businesses are generally defined as firms with fewer than 500 employees. See U.S. SMALL BUS. ADMIN., THE THIRD MILLENNIUM: SMALL BUSINESS AND ENTREPRENEURSHIP IN THE 21ST CENTURY 21 (1995) [hereinafter SBA THIRD MILLENNIUM REPORT].

181. See Marianne P. Bitler et al., *Financial Services Used by Small Businesses: Evidence from the 1998 Survey of Small Business Finances*, 87 FED. RES. BULL. 183, 183 (2001); SBA THIRD MILLENNIUM REPORT, *supra* note 180, at 21–22, 45, 48–49.

bank lending to small firms. As discussed below, most small banks make “relationship loans” to entrepreneurs based on personalized methods of credit evaluation and monitoring. In contrast, large banks generally forgo making “relationship” loans to small firms. Instead, large banks extend credit to wealthy entrepreneurs by making “transactional” loans that are marketed and approved in the same automated, impersonal manner as credit card loans.

a. Banks Are the Leading Lenders to Small Firms

Most small businesses are too “informationally opaque” to obtain financing from either the public debt or equity markets.¹⁸² Consistent with the information-based theory of financial intermediation discussed above, banks have long served as the primary source of financing for small businesses. Banks provide more than three-fifths of the credit extended to small businesses by persons other than owners and trade creditors, and banks have maintained this dominant market share despite the significant changes that have occurred in the financial services industry over the past two decades.¹⁸³

In recent years, finance companies have increased their presence in the small business credit market,¹⁸⁴ but their principal role in this market is to extend credit secured by tangible collateral. Several leading finance companies, such as Ford Motor Credit, GMAC, and IBM Credit, provide credit mainly to firms that purchase or lease equipment or motor vehicles from the finance companies’ parent corporations.¹⁸⁵ Recent surveys have shown that motor vehicle loans, equipment loans, and capital leases ac-

182. See Udell, *supra* note 35, at 225–27; see also Charles P. Himmelberg & Donald P. Morgan, *Is Bank Lending Special?*, in *IS BANK LENDING IMPORTANT FOR THE TRANSMISSION OF MONETARY POLICY?* 15, 19–20 tbl.2 (Fed. Res. Bank of Boston, MA, Conf. Ser. No. 39, Joe Peek & Eric S. Rosengren, eds., 1995) (showing that, of more than 5000 firms listed on Standard & Poor’s Computstat database, only 7% were issuers of commercial paper and only 17% issued public debt securities); Allen N. Berger & Gregory F. Udell, *The Economics of Small Business Finance: The Roles of Private Equity and Debt Markets in the Financial Growth Cycle*, 22 J. BANKING & FIN. 613, 628 & n.11 (1998) [hereinafter Berger & Udell, *Small Business Finance*] (stating that the minimum asset size for firms issuing stock to the public is probably about \$10 million, while the minimum asset size for firms issuing debt securities to the public is about \$150 million); Rebel A. Cole & John D. Wolken, *Financial Services Used by Small Businesses: Evidence from the 1993 National Survey of Small Business Finances*, 81 FED. RES. BULL. 629, 632 tbl.1 (1995) (showing that less than 2% of small firms had assets of more than \$5 million in 1993).

183. See Berger & Udell, *Small Business Finance*, *supra* note 182, at 619, 620–21 tbl.1 (showing that banks account for 38% of the 60% of small business credit provided by sources other than owners and trade creditors); Bushaw, *supra* note 88, at 200–16 (discussing reasons for the traditional advantages banks have enjoyed in making loans to small firms); *supra* Part I(A)(1) (discussing financial intermediation and the special role of banks in extending credit to “informationally opaque” firms); *supra* notes 85–87 and accompanying text (discussing banks’ dominant market share for small business credit).

184. See Cole et al., *supra* note 85, at 989 tbl.5 (showing that the finance companies’ share of the small business credit market increased from 11.4% in 1987 to 14.7% in 1993).

185. See Remolona & Wulfekuhler, *supra* note 60, at 25–26 & tbl.1 (describing the twenty largest finance companies, including seven “captive” firms that provide financing primarily to support their parent corporations’ sale or lease of tangible goods).

count for more than three-quarters of the credit extended by finance companies to small businesses.¹⁸⁶ Thus, “for the most part, finance companies [have] avoided head-to-head competition with banks,” and finance companies have instead pursued a “niche” strategy of making specialized loans secured by tangible assets.¹⁸⁷

In contrast to the strategy of finance companies of linking credit to purchases or leases of tangible assets, banks have focused on making “relationship” loans to small firms.¹⁸⁸ For example, banks provide more than 70% of all lines of credit extended to small firms.¹⁸⁹ A line of credit is a classic “relationship” loan, because it represents a “forward commitment to provide working capital financing,” and the lender anticipates a continued course of dealing with the borrower, including periodic renewal and renegotiation of loan terms.¹⁹⁰ Small firms prefer to use bank lines of credit to satisfy their working capital needs, because the alternatives, such as trade credit and credit cards, typically carry much higher effective rates of interest.¹⁹¹

Relationship loans are highly valuable to small businesses. Borrowers who establish long-term relationships with banks are typically rewarded with lower interest rates, fewer collateral requirements, and a

186. See Cole et al., *supra* note 85, at 990 tbl.7, 992 tbl.10; Himmelberg & Morgan, *supra* note 182, at 31-32; see also August et al., *supra* note 60, at 545 tbl.2 (showing that equipment loans and leases and motor vehicle loans accounted for 76% of business loans extended by finance companies in 1990 and 87% of such loans in 1996).

187. Remolona & Wulfekuhler, *supra* note 60, at 25, 29-30, 38; see also KASHYAP ET AL., *supra* note 36, at 23-25 (based on a 1993 survey, unsecured lines of credit accounted for only 5% of all finance company loans to small firms, compared to 31% of all bank loans made to small firms).

188. See Himmelberg & Morgan, *supra* note 182, at 29, 31-32.

189. See Cole et al., *supra* note 85, at 988 tbl.4 (providing data for 1987 and 1993); see also Bitler et al., *supra* note 181, at 198, 200 tbl.6 (showing that banks provided lines of credit to almost 90% of the small businesses receiving credit lines in 1998); KASHYAP ET AL., *supra* note 36, at 23-25 (finding, based on a 1993 survey, that small firms received 95% of their unsecured lines of credit and 81% of their secured lines of credit from banks).

190. See Allen N. Berger & Gregory F. Udell, *Relationship Lending and Lines of Credit in Small Firm Finance*, 68 J. BUS. 351, 355 (1995) [hereinafter Berger & Udell, *Relationship Lending*].

191. See Berger & Udell, *Small Business Finance*, *supra* note 182, at 634-36, 642-46; Mitchell A. Petersen & Raghuram G. Rajan, *The Benefits of Lending Relationships: Evidence from Small Business Data*, 49 J. FIN. 3, 20-25 (1994). A 1993 survey revealed that 70% of small firm owners relied on banks as their primary source of short-term financing when their firms needed immediate credit to cope with seasonal business fluctuations or other unexpected developments. Only 1% of the survey respondents relied on finance companies to provide emergency credit. Apart from banks, the most frequently identified source of emergency credit was “family and friends.” KASHYAP ET AL., *supra* note 36, at 25. Nonbank providers of business credit cards, such as American Express, have significantly expanded their services to small businesses in recent years. See Joseph Kahn, *Banking on the Unbanks*, N.Y. TIMES, Feb. 4, 1999, at C1. However, credit card lenders typically charge high interest rates, and small business owners therefore view credit card loans as “a quick fix, not a long-term solution.” *Id.* (quoting small business owner David Reisner). A recent survey found that credit card debt—exclusive of short-term “float” between the purchase date and the monthly payment due date—accounted for only 0.14% of total small business finance, including both equity and debt sources, while commercial bank debt represented 18.75% of such finance. Berger & Udell, *Small Business Finance*, *supra* note 182, at 619, 636.

greater availability of bank credit.¹⁹² Banks are well positioned to establish long-term lending relationships because they usually provide deposit and cash management services to their small firm borrowers. Banks obtain confidential business information through their borrowers' checking and other deposit accounts, and this information gives them a crucial monitoring advantage over nondepository competitors.¹⁹³

Compelling evidence of this informational advantage is provided by 1993 and 1998 surveys that showed banks provided checking accounts to 86% of small businesses, while no class of nonbanks furnished checking services to even 10% of small firms.¹⁹⁴ The surveys also revealed that banks were the dominant providers of financial management services to small firms in every category except for brokerage, pension, and trust services.¹⁹⁵ In the 1993 survey, 84% of small firms designated a bank as their "primary" financial institution, while less than 10% identified a thrift institution or credit union and less than 3% named a finance company or brokerage firm.¹⁹⁶

The superiority of banks as evaluators and monitors of small businesses is shown by a study of the comparative performance of 280 small business investment companies (SBICs) operated by banks and nonbanks between 1986 and 1993. SBICs are intermediaries chartered by the U.S. Small Business Administration (SBA) to provide equity and debt financing for small firms. Both banks and nonbanks are permitted to establish SBICs.¹⁹⁷ The study found that: (i) bank-owned SBICs grew

192. See Udell, *supra* note 35, at 226–27; Berger & Udell, *Relationship Lending*, *supra* note 190, at 353–56, 370–79; Rebel A. Cole, *The Importance of Relationships to the Availability of Credit*, 22 J. BANKING & FIN. 959, 960–62, 976 (1998); Petersen & Rajan, *supra* note 191, at 16–35.

193. See, e.g., Nakamura, *Bank Information*, *supra* note 39, at 132–37; Fama, *supra* note 72, at 35–39; Himmelberg & Morgan, *supra* note 182, at 31–32. A study of loans provided to small firms during the late 1980s found that banks provided 82% of those loans, while 64% of the firms in the sample maintained a checking or savings account with the lending bank. Petersen & Rajan, *supra* note 191, at 11, 15.

194. Bitler et al., *supra* note 181, at 200 tbl.6 (giving results of 1998 survey); Cole & Wolken, *supra* note 182, at 638 (giving results of 1993 survey); see also Whiteman, *Small-Business Products*, *supra* note 85 (describing survey showing that "banks controlled about 94% of the \$43 billion deposit services market" for small businesses in 1997).

195. Bitler et al., *supra* note 181, at 199 (discussing results of 1998 survey, showing that banks provided financial management services to 38% of small businesses, while no nonbank supplier furnished such services to more than 10% of small firms); Cole & Wolken, *supra* note 182, at 639 (describing results of 1993 survey, showing that banks provided financial management services to 26% of small businesses, while no nonbank supplier furnished such services to more than 7% of small firms); see also *id.*, at 638–39 (finding that a bank is significantly more likely to extend credit to a small firm when the firm establishes deposit accounts or receives financial management services from the bank).

196. Myron L. Kwast et al., *Market Definition and the Analysis of Antitrust in Banking*, 42 ANTITRUST BULL. 973, 981 tbl.1 (1997). A recent study reveals that commercial banks have a much greater commitment to business lending than thrift institutions. During 1991–97, commercial banks invested 14–17% of their average assets in commercial and industrial loans, while the comparable investment rates were less than 4% for savings banks and less than 2% for savings and loans. Steven J. Pilloff & Robin A. Prager, *Thrift Involvement in Commercial and Industrial Lending*, 84 FED. RES. BULL. 1025, 1027 tbl.1 (1998).

197. See FEIN, *supra* note 30, § 5.03[G][3] (discussing authority of banks to establish SBICs); Elijah Brewer III et al., *Performance and Access to Government Guarantees: The Case of Small Busi-*

more quickly and were significantly larger than nonbank-owned SBICs; (ii) bank-owned SBICs were more likely than nonbank-owned SBICs to invest in “relationship-oriented projects” that required careful monitoring, such as research and development projects or marketing ventures; (iii) bank-owned SBICs were less dependent on SBA guarantees than nonbank-owned SBICs; and (iv) bank-owned SBICs had a significantly higher average return on assets and a significantly lower failure rate than nonbank-owned SBICs.¹⁹⁸ Thus, the bank-owned SBICs had a markedly better track record, compared to nonbank-owned SBICs, in terms of fostering the growth of small firms, earning profits, and avoiding failure.¹⁹⁹

b. Large and Small Banks Have Different Approaches to Small Business Lending

Within the banking sector, community-oriented banks continue to provide a majority of the bank credit extended to small firms, notwithstanding their declining share of the industry’s assets.²⁰⁰ In 1997, banks smaller than \$10 billion held two-fifths of the banking industry’s assets but accounted for more than three-fifths of all small business loans made by banks.²⁰¹ Similarly, during 1997–99, the fifty largest banks had a substantially lower growth rate for small business loans than smaller banks.²⁰²

ness Investment Companies, FED. RES. BANK OF CHI., ECON. PERSP., Sept./Oct. 1996, at 16, 16–18 (describing the activities of SBICs, including their authority to make limited-term controlling investments in small businesses).

198. Brewer et al., *supra* note 197 *passim*.

199. The time period covered by the study included the 1990–91 recession and, therefore, the SBICs in the sample did not fare well, on average, in terms of profit performance and failure risk. For example, during 1986–91, the average annual return on assets for bank-owned SBICs was only 1.9%, and 41% of them had failed by 1993. However, the performance of nonbank-owned SBICs was significantly worse. Their average annual return on assets was -1.5% during 1986–91, and 64% of them had failed by 1993. *Id.* at 19.

200. For example, the percentage of domestic banking assets held by banks smaller than \$1 billion declined from 36% in 1984 to 23% in 1995. See Christopher Rhoads, *Banks Need to Know Their Customers and Show Them the Way to the Future*, AM. BANKER, June 6, 1996, at 1. Nevertheless, smaller banks held 54% of all business loans under \$1 million—the conventional definition of small business loans—in 1994. See Joe Peek & Eric Rosengren, *Small Business Credit Availability: How Important is Size of Lender?* [hereinafter Peek & Rosengren, *Credit Availability*], in UNIVERSAL BANKING: FINANCIAL SYSTEM DESIGN RECONSIDERED 628, 632, 633 tbl.1 (Anthony Saunders & Ingo Walter eds., 1996) [hereinafter FINANCIAL SYSTEM DESIGN].

201. See ROBERT B. AVERY & KATHERINE SAMOLYK, BANK CONSOLIDATION AND THE PROVISION OF BANKING SERVICES: THE CASE OF SMALL COMMERCIAL LOANS 30 tbl.1 (FRB, Working Paper 01–01, Dec. 2000), available at <http://www.fdic.gov> (showing that, in June 1997, banks smaller than \$10 billion accounted for 62% of all business loans smaller than \$1 million, even though those banks held only 40% of total banking assets).

202. See Karen Talley, *Small Banks Winning Small-Business Market Share*, AM. BANKER, Dec. 8, 1998, at 1 (reporting that “smaller lenders [were] picking up market share” during 1997–98, because small business lending at the top fifty banks increased by only 2.2% compared to a 5.5% increase for all banks); *Top 50 Banking Companies in Small Business Lending at Midyear 1999*, AM. BANKER, Dec. 16, 1999, at 10 [hereinafter *Top 50 Banks in 1999 Small Business Lending*] (providing data indicating that, during 1998–99, small business lending at the top fifty banks rose by 5.8%, compared to a 9.6% increase in small business lending by smaller banks).

The leading role of smaller banks as lenders to small firms is also demonstrated by two studies of the "credit crunch" caused by the 1989–91 recession.²⁰³ The first study concluded that small business lending declined by a greater percentage at banks larger than \$10 billion compared to banks smaller than \$1 billion.²⁰⁴ The second study found that reductions in capital and lending among small banks during 1989–92 had a much greater depressing effect on smaller firms than did similar reductions at large banks. Moreover, large banks replaced only one-sixth of the loans lost by small firms due to credit cutbacks at small banks.²⁰⁵ The second study concluded that small businesses relied primarily on small banks for credit and often were unable to find alternative sources of credit when small banks curtailed their lending. In contrast, large companies could replace bank loans with credit from other sources, such as finance companies and the commercial paper market. Both of the foregoing studies therefore confirm that smaller, community-oriented banks remain the primary, and frequently the only, outside creditors for small businesses.²⁰⁶

There are at least five reasons for the evident superiority of smaller banks in providing credit to small businesses. First, smaller banks typically possess a superior knowledge of their local economy, including the reputation and creditworthiness of local entrepreneurs, due to the long tenure and prominent community involvement of their senior managers and lending officers. In contrast, larger banks usually have less information about the communities they serve, because they generally rotate their local managers and lending officers through a series of shorter-term assignments in various branch offices.²⁰⁷

Second, most small firms maintain their checking and savings accounts at nearby local banks. The ability of local banks to observe small business deposit accounts provides those banks with a significant monitoring advantage over large banks that are headquartered outside the community and, therefore, are less likely to attract deposits from small firms within the locality.²⁰⁸

203. See *infra* notes 408–10 and accompanying text (describing the "credit crunch" caused by the 1989–91 recession and the accompanying banking crisis).

204. See Selz, *supra* note 178 (citing study by Sheshunoff Information Services, Inc.).

205. Diana Hancock & James A. Wilcox, *The "Credit Crunch" and the Availability of Credit to Small Business*, 22 J. BANKING & FIN. 983, 984, 1007–08 (1998).

206. *Id.* at 984, 987–88, 1008, 1011–12; Selz, *supra* note 178.

207. See, e.g., Robert DeYoung et al., *Youth, Adolescence, and Maturity of Banks: Credit Availability to Small Business in an Era of Banking Consolidation*, 23 J. BANKING & FIN. 463, 466 (1999); Nakamura, *Small Borrowers*, *supra* note 169, at 7–10; Wilmarth, *Big Bank Mergers*, *supra* note 106, at 39–40; Yeager, *supra* note 142, at 6.

208. See Nakamura, *Bank Information*, *supra* note 39, at 132–44; Yeager, *supra* note 142, at 5–6; see also Kwast et al., *supra* note 196, at 982–86 (discussing a 1993 survey showing that small firms rely on local banks for virtually all of their checking and savings accounts and most of their cash management services).

A recent study found that, between the 1970s and the 1990s, the geographic distance between small firms and their lenders increased substantially, and a larger percentage of small business loans was

Third, the ability of smaller banks to finance most of their operations with low cost "core deposits" permits them to earn a higher net interest margin on their loans.²⁰⁹ This added revenue margin enables smaller banks to protect their borrowers by raising loan rates more slowly in response to adverse credit developments, compared with large banks that rely heavily on expensive purchased funds.²¹⁰ Thus, the deposit structure of most small banks provides them with both a monitoring and a funding advantage.

Fourth, smaller banks target small businesses as their primary customers for business lending and related services, while large banks view midsized and larger corporations as their preferred customers for financial services.²¹¹ Large banks generally forgo making "relationship" loans to small businesses, because there are significant organizational diseconomies for banks that attempt to provide both the personalized, "relationship driven" services desired by small firms and the more sophisticated array of "transaction driven" services (including derivatives, securities underwriting, and other capital markets services) demanded by larger businesses.²¹² One study estimated that a large bank would incur operating expenses in making a "relationship" loan to a small business that were four times higher (on a per loan-dollar basis) than the comparable costs for a middle market loan and fifteen times higher than the comparable costs for a large corporate loan.²¹³

made through impersonal methods, such as by phone or mail. The study concluded that advances in information technology and automated loan approval methods made it substantially easier for small businesses to obtain credit from distant lenders. However, the study also found that: (i) banks are geographically closer to small firms than any competing lenders; (ii) banks grant more loans to small firms through personal contact than any competing lenders; and (iii) small firms have the closest lending relationships with local banks at which they maintain checking accounts. These findings indicate that, while lending markets for small business loans have expanded, banks remain the greatest source of outside credit for small firms, especially firms that are "informationally opaque" to lenders. MITCHELL A. PETERSEN & RAGHURAM G. RAJAN, DOES DISTANCE STILL MATTER? THE INFORMATION REVOLUTION IN SMALL BUSINESS LENDING *passim* (Nat'l Bur. Econ. Res., Working Paper No. 7685, May 2000).

209. See Boyd & Gertler, *Banking Trends*, *supra* note 76, at 330-32.

210. See Mitchell Berlin & Loretta J. Mester, *Deposits and Relationship Lending*, 12 REV. FIN. STUD. 579, 580-81, 584-85, 587, 594-96, 605 (1999) (finding that banks funded primarily by "core deposits"—namely, checking and savings accounts—provided greater protection to their loan customers during 1977-89, since those banks raised interest rates more slowly in response to adverse credit shocks than banks which depended more heavily on purchased funds).

211. See Udell, *supra* note 35, at 225-27; Nakamura, *Bank Information*, *supra* note 39, at 133-34, 138-39, 148-51; Hannan & Rhoades, *supra* note 164, at 742-45; Nakamura, *Small Borrowers*, *supra* note 169, at 10-11.

Federal and state laws limit the percentage of a bank's capital that can be loaned to a single borrower. See, e.g., 12 U.S.C. § 84 (1994) (prescribing lending limits for national banks). Lending limits prevent most small banks from being able to meet the credit needs of larger firms, and small banks, therefore, must focus their commercial lending efforts within the small business sector. Peek & Rosengren, *Credit Availability*, *supra* note 200, at 629.

212. Allen N. Berger & Gregory F. Udell, *Universal Banking and the Future of Small Business Lending* [hereinafter Berger & Udell, *Universal Banking*], in FINANCIAL SYSTEM DESIGN, *supra* note 200, at 558, 562-64, 621-24; accord Udell, *supra* note 35, at 225-28; Yeager, *supra* note 142, at 5-6.

213. Michael S. Davies, *Exploiting Opportunities in Small-Business Lending*, J. RETAIL BANKING, Spring 1993, at 33, 33-34; see also David R. Evanson, *Benefiting from Banking Changes*, NATION'S

Fifth, smaller banks usually make loan decisions on a flexible basis that includes a qualitative evaluation of the borrower's reputation, and smaller banks also typically provide substantial discretion to their lending officers.²¹⁴ In contrast, most large banks follow a centralized loan approval process and require their lending officers to adhere to uniform numerical criteria. A large bank rarely gives its lending officers much discretion to make credit decisions based on qualitative "special information" about prospective small firm borrowers.²¹⁵ Not surprisingly, small firm owners generally prefer to borrow from smaller, community-oriented banks, because those banks are viewed as more flexible, more responsive, and more likely to maintain a credit relationship during an economic downturn.²¹⁶

A number of big banks have launched small business lending initiatives in recent years. These new programs, however, generally focus on smaller "micro" loans, with a maximum limit of \$50,000 at several banks and \$100,000 at most other large banks. Approvals for these "micro" loans are based primarily on the personal credit history and financial resources of the business owner, instead of the financial history and future prospects of the business itself. In addition, the approval process relies heavily on automated credit scoring models that evaluate the owner's financial profile according to prescribed quantitative criteria, with little flexibility or discretion for the lending officer.²¹⁷ This automated approach to small business lending offers major attractions for big banks. Credit scoring greatly reduces credit review costs,²¹⁸ because it allows

BUS., Sept. 1995, at 29, 29-30 (explaining that large banks have avoided making small business loans based on the "expensive, relationship-oriented model," because "[i]t just wasn't attractive [for a big bank] to distribute these costs over a \$500,000 loan—not when, for the same effort, they could be distributed over a \$5 million loan").

214. See Nakamura, *Small Borrowers*, *supra* note 169, at 7, 10; Wilmarth, *Big Bank Mergers*, *supra* note 106, at 39-40; Yeager, *supra* note 142, at 6.

215. Nakamura, *Small Borrowers*, *supra* note 169, at 10; accord Wilmarth, *Big Bank Mergers*, *supra* note 106, at 39-40.

Large banks may impose more rigid standards on their lending officers to avoid agency problems that might arise if such officers were given wide discretion in making loans. It is difficult for senior managers in large, organizationally complex banks to monitor the activities of their lending officers. Accordingly, such banks typically establish uniform lending criteria and require approval by senior managers to prevent loan officers from making unduly risky loans or concealing the existence of imprudent loans that have already been made. Nakamura, *Bank Information*, *supra* note 39, at 133-34, 138; Nakamura, *Small Borrowers*, *supra* note 169, at 7, 10; Yeager, *supra* note 142, at 6.

216. See, e.g., Wilmarth, *Big Bank Mergers*, *supra* note 106, at 39-40; James B. Arndorfer, *Merger Windfall for Small Banks: Refugee Customers*, AM. BANKER, Mar. 25, 1996, at 1; Laura P. Lutton, *Small-Bank Edge Seen in Selling to Small Businesses*, AM. BANKER, Feb. 12, 1999, at 9; Selz, *supra* note 178; Whiteman & Kline, *supra* note 165, at 1; Bernard Wysocki, Jr., *Early Withdrawal: After Big Bank Merger, CoreStates Customers Prove Ripe for Taking*, WALL ST. J., July 2, 1998, at A1; Zellner et al., *Little Banks*, *supra* note 178, at 44.

217. See Loretta J. Mester, *What's the Point of Credit Scoring?*, FED. RES. BANK OF PHILA., BUS. REV., Sept./Oct. 1997, at 3 *passim* [hereinafter Mester, *Credit Scoring*]; David S. Neill & John P. Danforth, *Bank Merger Impact on Small Business Services Is Changing*, BANKING POL'Y REP., Apr. 15, 1996, LEXIS, Banking Pol'y Rep.

218. For example, a lending officer using traditional methods of credit analysis typically needs more than twelve hours to approve a small business loan, while a banker using credit scoring can proc-

large banks to evaluate, approve, and monitor “micro” business loans in a faceless manner that does not involve any personal contact with the borrower.²¹⁹ In addition, credit scoring models, automated approval methods, and mass mailings allow a large bank to offer credit cards and lines of credit to entrepreneurs who reside outside the markets where the bank maintains branch offices. In short, big banks can make “micro” business loans by using the same mass-marketing and automated approval systems that those banks have established for consumer loans.²²⁰

Big banks also believe that the use of credit scoring programs will enable them to package small business loans into asset-backed securities, in the same way that they have already securitized residential mortgages, credit card loans, and other types of consumer credit.²²¹ To date, very few lenders have chosen to securitize traditional small business loans except for loans guaranteed by the SBA.²²² The documents for traditional, nonguaranteed loans are too complex and diverse, and the borrowers are too “opaque,” to make securitization feasible in the absence of expensive credit enhancements provided by the lending bank.²²³

Large banks contend that securitizing pools of “micro” business loans should become practicable in the near future, because such loans can be embodied in uniform, simplified documents, approved in accordance with standardized criteria based on the business owner’s credit profile, and processed through credit scoring systems that are familiar to

ess a loan application in less than an hour. See, e.g., Mester, *Credit Scoring*, *supra* note 217, at 8; Neill & Danforth, *supra* note 217.

219. See Neill & Danforth, *supra* note 217 (quoting a Wells Fargo official’s statement that “[w]e’ve convinced small business owners they don’t have to meet us face-to-face” to obtain a loan); Evanson, *supra* note 213, at 30 (describing “faceless” nature of big bank programs, and quoting a Bank One lending officer’s comment that “[a]s long as they keep their credit clean, they won’t ever have to hear from us”); Sara Oppenheim, *Gearing Up for Small-Business Push*, *PNC Building an Assembly Line*, *AM. BANKER*, May 27, 1997, at 1, 9 (quoting PNC lending officer’s remark that “[w]e never have customers in here [and therefore] I can get more work done”).

220. See, e.g., Mester, *Credit Scoring*, *supra* note 217, at 4, 8, 11–12; Neill & Danforth, *supra* note 217; Joe Peek & Eric S. Rosengren, *The Evolution of Bank Lending to Small Business*, *FED. RES. BANK OF BOSTON, NEW ENG. ECON. REV.*, Mar./Apr. 1998, at 27, 29, 33–35 [hereinafter Peek & Rosengren, *Bank Lending*]; Sara Nathan, *Number of Loans Jumps 24%, Spurred by Small Credits*, *AM. BANKER*, Apr. 27, 1998, at 8.

221. See, e.g., Mester, *Credit Scoring*, *supra* note 217, at 13–14; Neill & Danforth, *supra* note 217, at 17–18; Peek & Rosengren, *Bank Lending*, *supra* note 220, at 29, 33–35; Evanson, *supra* note 213, at 30–31; see also *infra* Part I(E)(2)(e)(iv) (describing bank securitization programs for consumer credit).

222. See *BD. OF GOVERNORS OF FED. RES. SYS., REPORT TO THE CONGRESS ON MARKETS FOR SMALL-BUSINESS- AND COMMERCIAL-MORTGAGE-RELATED SECURITIES* 14, 38 Ex.13 (Sept. 1998), available at <http://www.federalreserve.gov> (stating that, apart from SBA-guaranteed loans, only \$2.6 billion of securitized small business loans had been sold since the first securitization occurred in 1992); *id.* at 14 (estimating that financial institutions held more than \$600 billion of small business loans in 1998).

223. For discussion of the obstacles to the securitization of traditional small business loans, see, e.g., Bushaw, *supra* note 88, at 219, 247–51; Wilmarth, *Big Bank Mergers*, *supra* note 106, at 35–36; FRB SMALL BUSINESS CREDIT REPORT, *supra* note 85, at 36–38; John P. LaWare, FRB Governor, Statement Before the House Subcomm. on Telecommunications and Finance (June 14, 1994), in 80 *FED. RES. BULL.* 709, 710–12 (1994) [hereinafter *LaWare Statement*].

investors in securitized mortgages and consumer loans.²²⁴ Nevertheless, some analysts have warned that the risk assumptions used in credit scoring models for automated small business loans have not been tested during an economic downturn. Accordingly, both lending banks and investors in securitized small business loan pools could face unexpected default risks during a severe recession.²²⁵

The above factors demonstrate that small banks and big banks have chosen divergent approaches to small business lending. Most small banks continue to make small business loans based on personalized credit evaluation and monitoring, and small banks also aim to establish long-term relationships with their borrowers. Relatively few small banks rely on automated credit scoring methods.²²⁶ In contrast, big banks provide much of their small business credit in the form of automated “micro” loans.²²⁷ As a result, big banks are unlikely to lend to a small firm unless its owners have substantial personal assets that would satisfy the standardized criteria used in credit scoring models.²²⁸ The more customized and information-intensive lending strategies used by smaller banks may explain why they typically experience a much lower default rate, as compared to large banks, on loans made to small businesses.²²⁹

224. See Mester, *Credit Scoring*, *supra* note 217, at 13–14; Neill & Danforth, *supra* note 217, at 17–18; Evanson, *supra* note 213, at 30–31.

225. See Bushaw, *supra* note 88, at 248–49; Mester, *Credit Scoring*, *supra* note 217, at 10–11; Peek & Rosengren, *Bank Lending*, *supra* note 220, at 35; James B. Arndorfer, *Big Banks Seen Playing with Fire in Drive for Small-Business Loans*, AM. BANKER, June 3, 1996, at 1; see also *infra* notes 789–94 and accompanying text (reviewing evidence indicating that credit scoring models for bank credit card loans proved to be unreliable during 1996–97 in assessing the default risks for such loans).

226. See Yeager, *supra* note 142, at 6, 9; John Reosti, *Online Banking: Credit Scoring Catching On With Small Business Lenders*, AM. BANKER, Aug. 24, 2000, at 22A (reporting that most community banks emphasize “relationship” lending and reject credit scoring systems for small business loans, despite the popularity of credit scoring with larger banks); Louis Whiteman, *Small Banks Say One-on-One Beats Credit Scoring Models*, AM. BANKER, Oct. 8, 1998, at 13 (reporting that only 12% of banks with assets between \$200 million and \$1.5 billion used credit scoring for small business loans in 1998, while more than two-thirds of larger banks used credit scoring); see also Paul Nadler, *Risk Models’ Failure Shows ‘Character’ Lending Viable*, AM. BANKER, Feb. 9, 1999, at 6 (contending that the frequent failures of computerized risk models used by big banks demonstrate the superiority of traditional, character-based lending approaches used by community banks).

227. See David P. Ely & Kenneth J. Robinson, *Consolidation, Technology, and the Changing Structure of Banks’ Small Business Lending*, FED. RES. BANK OF DALLAS, ECON. & FIN. REV., 1st Qtr. 2001, at 23, 23, 25, 29–30. In 1999, all of the twenty largest banks that were active lenders to small firms held small business loan portfolios with average loan balances under \$100,000, and the average loan balances for half of those banks were below \$50,000. See *Top 50 Banks in 1999 Small Business Lending*, *supra* note 202. These small average loan balances indicate that the largest banks provide much of their credit to small firms in the form of automated “micro” loans.

228. See SBA THIRD MILLENNIUM REPORT, *supra* note 180, at 11; U.S. GEN. ACCT. OFF., BANK REGULATION: REGULATORY IMPEDIMENTS TO SMALL BUSINESS LENDING SHOULD BE REMOVED, GAO/GGD-93-121, at 19 (Sept. 1993) [hereinafter GAO SMALL BUSINESS LENDING REPORT]; Bushaw, *supra* note 88, at 249.

229. See Selz, *supra* note 178 (describing study by Sheshunoff Information Services showing that, during the recession of the early 1990s and again during the first nine months of 2000, the percentage of nonperforming small business loans at banks larger than \$10 billion was twice as high as the percentage of such loans at banks smaller than \$1 billion).

The foregoing conclusions are confirmed by recent economic studies. For example, Joe Peek and Eric Rosengren found that banks smaller than \$100 million increased their small business lending by 42% between 1993 and 1996, while banks larger than \$3 billion increased their small business lending by only 3% during the same period.²³⁰ Virtually all of the growth in small business lending among smaller banks occurred in the size categories between \$100,000 and \$1 million, in which traditional, "relationship" lending approaches are typically employed. In contrast, most of the increase in small business lending for the larger banks occurred within the category of loans smaller than \$100,000, where impersonal credit scoring techniques can be used.²³¹ Peek and Rosengren also determined that the typical merger between smaller banks produced an *increase* in the combined institution's small business lending, probably due to the institution's greater financial resources and higher legal lending limit. In contrast, the typical acquisition of a smaller bank by a large bank resulted in a decline in the resulting institution's small business lending.²³²

Mark Levonian found similar small business lending patterns in California and other western states covered by the Twelfth Federal Reserve District. During 1995-96, the fourteen largest banks in this area increased their business lending within the category of loans under \$100,000. The same banks, however, *reduced* their business lending in the size range between \$100,000 and \$1 million, evidently because loans of that size were "not amenable to the new [credit scoring] technology." In contrast, smaller banks in the Twelfth District increased their small business lending more rapidly than the largest banks did, and most of the smaller banks' lending growth occurred in the \$100,000 to \$1 million range.²³³ Four studies by other scholars generally support the findings of Peek, Rosengren, and Levonian.²³⁴

230. Peek & Rosengren, *Bank Lending*, *supra* note 220, at 28.

231. *Id.* at 33-36.

232. *Id.* at 28, 33. Compare Philip E. Strahan & James P. Weston, *Small Business Lending and the Changing Structure of the Banking Industry*, 22 J. BANKING & FIN. 821, 822-23, 827, 828 tbl.1, 835, 840, 843-44 (1998) (finding that, during 1993-96, the average percentage of assets devoted to small business loans increased until a bank's size reached \$300 million and declined thereafter, and mergers between banks smaller than \$1 billion produced significant increases in small business lending, while mergers between banks larger than \$1 billion did not have any significant effect on small business lending).

233. MARK E. LEVONIAN, CHANGES IN SMALL BUSINESS LENDING IN THE WEST (Fed. Res. Bank of S.F., Econ. Letter, No. 97-2, Jan. 24, 1997). Bank of America and Wells Fargo, the two largest banks in California, *see infra* note 247, have been in the "forefront" of the big bank trend toward "centraliz[ed] administration of small-business loans" and "[c]omputerized approvals, using . . . credit scoring technology." Barton Crockett, *BankAmerica Centralizes Small-Business Loans*, AM. BANKER, Feb. 13, 1996, at 4.

234. Based on a review of nationwide small business lending patterns during 1986-94, Allen Berger and Gregory Udell found that: (i) banks significantly *reduced* the percentage of their assets devoted to small business loans as they grew in size; (ii) small banks were much more likely than large banks to make "relationship" loans based on in-depth knowledge of the small firm borrower, its community and its owner's reputation; and (iii) large banks extended credit to small businesses primarily through "ratio" loans, which were made only to firms, usually of larger size, whose financial profiles

c. Can Small Banks Survive the Consolidation Trend?

As shown in the preceding section, community banks—a category that includes most banks with assets under \$10 billion—have a crucial role to play in providing credit to small businesses, especially firms that are less well established or that fall within the smallest size categories.²³⁵ The long-term viability of smaller banks is open to question, because their share of the nation's banking assets has declined substantially over the past two decades.²³⁶ For at least four reasons, however, it seems likely that the smaller bank sector will continue to play a significant role within the U.S. banking industry, even if that sector undergoes further shrinkage.

First, as discussed above, smaller banks are pursuing a distinct business strategy that provides them with a competitive advantage over big banks in important “niche” markets, e.g., providing “relationship” lending and cash management services to small businesses and offering personalized banking services to consumers.²³⁷

satisfied fixed numerical criteria. See Berger & Udell, *Universal Banking*, *supra* note 212, at 562–70, 610–11, 621–23.

Berger and others produced a later study that reviewed the effects of bank mergers on small business lending during 1980–95. They determined that mergers between banks with assets of up to \$1 billion produced an *increase* in small business lending. In contrast, mergers between larger banks caused a significant *reduction* in small business lending. This study noted, however, that much of the adverse impact of large bank mergers was offset by competing banks, which expanded their small business lending to attract customers who were dissatisfied with the lending practices of large consolidated banks. Allen N. Berger et al., *The Effects of Bank Mergers and Acquisitions on Small Business Lending*, 50 J. FIN. ECON. 187, 199, 217, 220, 222, 225–26 (1998) [hereinafter Berger et al., *Bank Mergers*].

Robert Avery and Katherine Samolyk also examined the effects of bank mergers on small business lending during 1993–97. They determined that two types of mergers led to *reduced* growth rates for small business loans in local banking markets: (i) mergers involving banks larger than \$1 billion in rural markets; and (ii) within-market mergers involving large banks in highly concentrated urban markets. These results generally supported the hypothesis that acquisitions by large banks typically lead to lower levels of small business lending. AVERY & SAMOLYK, *supra* note 201.

A study by David Ely and Kenneth Robinson reviewed data regarding small business lending by banks of various sizes during 1994–99. Ely and Robinson's data showed that, during 1994–99, (i) banks larger than \$5 billion *reduced* the percentage of their loan portfolios devoted to small business lending, while smaller banks *increased* the percentage of their loan portfolios devoted to small business lending, and (ii) banks larger than \$5 billion shifted a greater portion of their small business lending to small loans under \$100,000, where credit scoring could readily be used, while smaller banks devoted a growing portion of their small business lending to loans between \$100,000 and \$1 million. Ely & Robinson, *supra* note 227, at 27–29 fig.3 & tbl.2. These findings are consistent with the other studies, discussed above, which showed that (i) banks generally reduce their focus on small business lending as they grow larger, and (ii) the largest banks prefer to make small loans in “faceless” transactions based on credit scoring techniques, while smaller banks prefer to make larger, relationship-based loans that require personalized evaluation and monitoring.

235. See Berger & Udell, *Universal Banking*, *supra* note 212, at 624.

236. The share of domestic U.S. banking assets held by banks smaller than \$1 billion—stated in terms of inflation-adjusted 1994 dollars—declined from 33% in 1979 to 21% in 1994. Similarly, the share of domestic U.S. banking assets held by banks between \$1 billion and \$10 billion—stated in terms of 1994 dollars—declined from 29% in 1979 to 16% in 1994. Berger et al., *supra* note 65, at 132–33 tbl.A1.

237. See *supra* Parts I(D)(2) & (3)(b) (discussing differences in business strategies followed by small and large banks).

Second, advances in information technology have greatly reduced data processing expenses for small firms (e.g., by replacing mainframe systems with cheaper desktop networks), and the Internet greatly enhances the ability of smaller banks to attract new customers outside their traditional geographic markets. Smaller banks can also contract for sophisticated technological services by entering into “outsourcing” arrangements with a wide range of third-party providers. These developments permit smaller banks to offer consumers and small businesses both individualized treatment and access to modern electronic facilities.²³⁸ At present, it appears that big banks do *not* have a decisive technological advantage over smaller institutions except in the following business lines: (i) mass marketing of standardized, commodity-like financial products to consumers, such as credit cards, home mortgages and, mutual funds;²³⁹ (ii) providing large-scale electronic payments services to business customers;²⁴⁰ and (iii) offering syndicated loans and capital markets services such as underwriting and dealing in securities and derivatives, to mid-sized and large corporations.²⁴¹

Third, the number of new banks entering the banking industry has increased substantially since 1994, reversing an earlier decline that had

238. See, e.g., Hannan & Rhoades, *supra* note 164, at 754–55; Larry Downes & Chunka Mui, *Under the New Technology Rules, Big Can Seem Dangerously Slow*, AM. BANKER, May 14, 1998, at 6; John Hechinger, *Net Interest: A Tiny Bank Turns Big Player on the Internet*, WALL ST. J., July 20, 2000, at B1; Carol Power, *Community Banks Say Outsourcing Levels the Field*, AM. BANKER, Aug. 20, 1997, at 13; Jathon Sapsford, *Smaller Institutions Make Web Inroads Via Outsourcing*, WALL ST. J., Jan. 21, 2000, at C1; see also ALEX SHESHUNOFF & CO., 1999 YEAR IN REVIEW 3 (2000) (“[T]he next decade will prove that community banking is here to stay. Advances in technology will continue to level the playing field, allowing community bankers to efficiently provide many of the same products and services as much larger competitors.”).

239. Karen Talley, *Bank Fund Giants Hold Ground in Hot Market*, AM. BANKER, Feb. 23, 2000, at 1 [hereinafter Talley, *Bank Funds*] (reporting that the ten largest bank managers of mutual funds controlled 64% of all mutual fund assets managed by banks at the end of 1999); Cheryl Winokur, *Some Midsize Players Lag in Fund Growth*, AM. BANKER, May 19, 1999, at 7 (reporting that many banks with “midsize fund businesses” found it difficult to compete with large mutual fund providers); see also Wilmarth, *Big Bank Mergers*, *supra* note 106, at 17–18 (noting that big bank investments in large-scale computer systems and mass marketing programs have given them a clear advantage over smaller banks in the foregoing markets); *infra* notes 745–53 (discussing big banks’ domination of the markets for credit card loans and home mortgages).

240. The largest banks dominate the market for automated clearing house (ACH) services, because they provide cash management and payments services to virtually all of the major corporations. As a result of consolidation among large banks, the share of the ACH market held by the five largest providers increased from 33% in 1993 to 49% in 1998. During the same period, the market share held by the ten largest providers grew from 36% to 63%. See Jeffrey Kutler & Steven Marjanovic, *In the Clearing House Business, The Big Just Keep Getting Bigger*, AM. BANKER, Apr. 15, 1997, at 1; Steven Marjanovic, *Five Big Banks Originated Half Of ACH Payments Last Year*, AM. BANKER, Apr. 13, 1999, at 1.

241. See *infra* Parts I(F)(2)(a), (b) (discussing big banks’ growing presence in the securities business and their dominant position in the over-the-counter derivatives and syndicated lending markets); see also STEINHERR, *DERIVATIVES*, *supra* note 74, at 265 (contending that big banks enjoy economies of scale in providing specialized services related to investment banking, payments systems, and derivatives, but do *not* benefit from scale economies in their “traditional banking” business); Jordi Canals, *Scale Versus Specialization: Banking Strategies After the Euro*, 17 EUR. MGMT. J. 567, 570–71 (1999) (agreeing that significant economies of scale exist in investment banking and capital markets activities, but arguing that relatively small economies of scale prevail in retail and private banking).

lasted for a decade.²⁴² Most of these newly chartered, “de novo” banks are located in urban areas with strong economies, and many of them have been launched by senior bank executives who left local institutions after they were acquired by large, out-of-area organizations. These new banks often succeed because they attract investment support and patronage from small business owners and consumers who are repelled by the impersonal methods of large banks.²⁴³

Two recent studies confirm that newly chartered banks make a significantly higher number of small business loans than established banks of comparable size.²⁴⁴ Another study found a significant correlation between the formation of new banks and prior mergers in which small local banks were acquired by larger or out-of-area banks. The most plausible explanation for this connection is that customers of the acquired local banks became unhappy with the services offered by the acquiring institutions and therefore supported the entry of new local banks.²⁴⁵ In short, de novo entry and customer dissatisfaction with big bank mergers should help to preserve an effective presence for community-oriented banks except in isolated rural markets or declining urban areas.²⁴⁶

Fourth, a significant small bank sector has survived in California despite statewide branching and a high degree of consolidation since 1909. Bank of America and Wells Fargo dominate California’s banking market and presently control almost 60% of the state’s bank deposits.²⁴⁷ Nevertheless, more than 300 smaller banks are still headquartered in California, and new banks have been chartered in the state at a rapid rate since 1995.²⁴⁸ The combined market share of the largest banks has changed lit-

242. See FDIC Q. BANKING PROFILE GRAPH BOOK, 4th Qtr. 1998, at 9 “Changes in the Number of FDIC-Insured Commercial Banks” graph (reporting that the number of newly chartered banks declined from 380 in 1984 to 50 in 1994 and then steadily increased to 190 in 1998); FDIC Q. BANKING PROFILE GRAPH BOOK, 4th Qtr. 2000, at 9 “Changes in the Number of FDIC-Insured Commercial Banks” graph (showing that 231 new bank charters were issued in 1999 and 192 such charters were granted in 2000).

243. For discussion of the factors encouraging the creation of de novo banks, see, e.g., Berger et al., *Bank Mergers*, *supra* note 234, at 196, 220–23; Deogun, *supra* note 164; Zellner et al., *Little Banks*, *supra* note 178.

244. See DeYoung et al., *supra* note 207, at 468–69, 472–74, 477, 490 (finding that, during 1993–96, de novo banks had a significantly higher level of small business loans than a comparable group of more established small banks, and this pattern persisted among de novo banks with up to twenty years of operating history); Lawrence G. Goldberg & Lawrence J. White, *De Novo Banks and Lending to Small Businesses: An Empirical Analysis*, 22 J. BANKING & FIN. 851, 852, 857–65 (1998) (making similar findings based on 1987–94 data).

245. See William R. Keeton, *Are Mergers Responsible for the Surge in New Bank Charters?*, FED. RES. BANK OF K.C., ECON. REV., 1st Qtr. 2000, at 21, 25–26, 32–36.

246. See DeYoung et al., *supra* note 207, at 467–68; *Local Banks Sprouting Amid Merged Monoliths*, WALL ST. J., Aug. 21, 2000, at B13E; Vernon Silver, *Angry Customers Flee Big Banks, Take Profits with Them*, DALLAS MORNING NEWS, Aug. 6, 2000, at 6H; Zellner et al., *Little Banks*, *supra* note 178.

247. See Arnold G. Danielson, *Banking in California: And Then There Were Two—BoFA and Wells*, BANKING POL’Y REP., May 20, 1996, at 6, 6–8.

248. See Berger et al., *supra* note 65, at 115–16; Hannan & Rhoades, *supra* note 164, at 781–86; ELIZABETH S. LADERMAN, SMALL CALIFORNIA BANKS HOLDING ON 1–2 (Fed. Res. Bank of S.F., Econ. Letter 2000–14, May 5, 2000).

tle, and may have declined slightly, since 1980.²⁴⁹ California's experience suggests that the ongoing consolidation of the U.S. banking industry will not be so far-reaching as to extinguish the community banking sector.²⁵⁰

Based in part on California's record, three studies suggest that 4000 or more smaller banks with assets under \$1 billion will still be operating in the United States at the end of the current decade.²⁵¹ That estimate would represent a substantial reduction from the 7700 smaller banks that existed in 1994,²⁵² but it indicates that community banks will continue to remain a significant competitive force for the foreseeable future.²⁵³ The same studies, along with recent growth patterns in the banking industry, predict that the fifty largest banks will dominate the U.S. banking indus-

249. During 1980-89, the combined market shares of California's four largest banks (Bank of America, Wells Fargo, First Interstate, and Security Pacific) held steady at about two-thirds of the state's banking assets. Hannan & Rhoades, *supra* note 164, at 782 tbl.8, 783-84; Wilmarth, *Too Big to Fail*, *supra* note 157, at 1023 n.307. Since 1990, Bank of America has acquired Security Pacific, and Wells Fargo has acquired First Interstate. Wilmarth, *Big Bank Mergers*, *supra* note 106, at 12 n.43. Thus, the combined 60% share of the California banking market currently held by Bank of America and Wells Fargo is no larger, and may be slightly smaller, than the combined share held by their four predecessors during the 1980s.

250. In addition to the California experience, where smaller banks have survived despite unrestricted statewide consolidation for ninety years, it is instructive to consider the grocery store business. Big bank executives often contend that financial "supermarkets" will capture the financial services business in the same way that large supermarket chains dominate the grocery industry. See, e.g., Steven Lipin & Matt Murray, *Bigger Than Big: The Superregional, As a Banking Model, Has Passed Its Prime*, WALL ST. J., Apr. 13, 1998, at A1 (quoting prediction by Bank One chairman John McCoy). After nearly five decades of consolidation among supermarkets, however, the largest sixty-three chains, each controlling 100 or more stores, controlled only 47% of total U.S. grocery sales in 1992, while the market shares held by their smaller competitors were as follows: midsize chains (controlling 10-99 stores)—19%; small chains (2-9 stores)—13%; and single-unit grocery stores—21%. Moreover, single-unit stores accounted for 63% of all grocery stores in 1992. The continued existence of small and midsize grocery firms, in an industry that has long permitted nationwide expansion, suggests that similar market niches will continue to exist for community banks that provide customized services and establish strong relationships with their customers. Yeager, *supra* note 142, at 7, 9.

251. See Berger et al., *supra* note 65, at 111 tbl.10, 113-20 (predicting that 2900 to 4000 smaller banks will remain in 2004); Hannan & Rhoades, *supra* note 164, at 791-93 (estimating that 4200 smaller banks will remain in 2010); Hanweck & Shull, *supra* note 147, at 255-56, 282-84 (predicting that as many as 7000 smaller banks will survive over the longer term because they occupy "niche markets" not served by the largest institutions); see also *Ferguson Speech*, *supra* note 167, at 7 (predicting that, within the next decade, a few very large banks will dominate "wholesale" banking for large corporations, while 3000 to 4000 smaller "retail" banks will continue to provide financial services to individuals and small businesses in local markets).

252. Berger et al., *supra* note 65, at 111 tbl.10.

253. The future market share held by community banks is likely to be less significant than their current position. See *id.* (presenting two forecasts with differing assumptions; those forecasts, taken together, suggest that the total domestic market share held by banks with assets under \$10 billion will decline from 37% in 1994 to about half that percentage in 2004). It seems likely, however, that a substantial core of bank customers will remain loyal to community banks. Recent big bank mergers have produced large numbers of customer defections. A prominent bank analyst estimates that "[a]bout 20% of the public won't do business with the biggest banks." Dan Weil, *Leading U.S. Banks Losing Asset and Deposit Share*, AM. BANKER, Sept. 16, 1999, at 5 [hereinafter Weil, *Leading Banks Losing Market Share*] (quoting Edward Furash); see also Zellner et al., *Little Banks*, *supra* note 178, at 44 (discussing customer dissatisfaction with big banks); Laura K. Thompson, *Banks Outscored By Other Finance Firms in Service*, AM. BANKER, Jan. 23, 2001, at 2 (reporting that big banks received the lowest ratings for customer service in a recent survey of consumers who did business with banks, life insurers, and securities firms).

try. In view of the slower growth that occurred among large banks during the late 1990s, however, it appears doubtful whether the top fifty banks will capture more than 75–80% of the domestic banking market.²⁵⁴ All things considered, community banks should continue to play a meaningful role well into the twenty-first century, particularly in lending to small businesses and providing personalized services to consumers.²⁵⁵

4. *Despite Their Growing Frequency, Big Bank Mergers Have Produced Disappointing Results*

a. *Most Large Bank Mergers Do Not Improve the Efficiency or Profitability of the Resulting Institutions*

Economic studies have generally shown that large bank mergers in the United States during the 1980s and 1990s did not improve the overall efficiency or profitability of the resulting banks. Most studies found that postmerger cost increases and revenue losses offset any savings that the resulting banks accrued from cutting staff or closing branches.²⁵⁶ Many

254. See, e.g., Berger et al., *supra* note 65, at 111 tbl.10 (forecasting, based on two different sets of assumptions, that the 60–65 largest banks will control 80–85% of domestic banking assets by 2004); Hannan & Rhoades, *supra* note 164, at 787–93 (reaching a composite forecast that the fifty largest banks will control 70% of domestic banking assets by 2010); Hanweck & Shull, *supra* note 147, at 255–56, 282–84 (agreeing that a small group of very large banks will dominate the U.S. banking industry).

During 1990–99, the fifty largest U.S. banks increased their share of total banking assets from 55.3% to 68.1%. See Stiroh & Poole, *supra* note 132, at 2. The top fifty banks' asset share, however, increased very little during 1996–99—rising only from 66.6% to 68.1%—due to (i) slow internal growth, which was caused by widespread customer defections after large acquisitions, and (ii) a decline in merger activity after 1998, following a slump in the stock prices of many large banks. The big banks' unimpressive internal growth rates during the late 1990s, which were lower than the comparable rates for smaller banks, “raise the issue of whether we can expect rising concentration to continue for the largest BHCs.” *Id.* at 2 tbl.1, 4, 5, 6 n.13; see also Steve Bills, *Technology: M&A Seen Disguising a Dearth of Real Growth by Biggest Banks*, AM. BANKER, Dec. 12, 2001, at 1 (reporting that the thirty largest U.S. banks produced interval deposit growth of less than 1% annually during 1994–2001, and were, therefore, “losing market share to smaller competitors”); Weil, *Leading Banks Losing Market Share*, *supra* note 253.

255. See, e.g., Eileen Canning, *Community Banks Will Remain Competitive in Changing Financial Market*, Tanoue Says, Banking Rep. (BNA) No. 74, at 700 (Apr. 17, 2000) (reporting on speech by FDIC Chairman Donna Tanoue); Ferguson Speech, *supra* note 167, at 7; Laurence H. Meyer, Federal Reserve Board Member, Statement Before the House Comm. on Banking and Financial Services (Apr. 29, 1998), in 84 FED. RES. BULL. 438, 441 (1998); Pilloff & Rhoades, *supra* note 177, at 299–301.

256. Numerous studies have concluded that large bank mergers during the 1980s and 1990s failed to create significant improvements in the cost efficiency and/or earnings of the resulting banks, compared to nonmerging peer institutions. See, e.g., Sandra L. Chamberlain, *The Effect of Bank Ownership Changes on Subsidiary-Level Earnings*, in BANK MERGERS, *supra* note 35, at 137, 139, 152–61, 165 (reviewing holding company acquisitions of banks during 1981–87); Allen N. Berger & David B. Humphrey, *Megamergers in Banking and the Use of Cost Efficiency as an Antitrust Defense*, 37 ANTITRUST BULL. 541, 554–65 (1992) [hereinafter Berger & Humphrey, *Megamergers*] (discussing results of past studies); *id.* at 570–71, 576–89, 598–99 (examining large bank mergers during 1981–89); Simon Kwan & Robert A. Eisenbeis, *Mergers of Publicly Traded Banking Organizations Revisited*, FED. RES. BANK OF ATLANTA, ECON. REV., 4th Qtr. 1999, at 26 *passim* (studying large bank mergers during 1989–96); Jane C. Linder & Dwight B. Crane, *Bank Mergers: Integration and Profitability*, 7 J. FIN. SERVS. RES. 35, 40–52 (1992) (reviewing bank mergers in New England during 1982–87); Stavros Peristiani, *Do Mergers Improve the X-Efficiency and Scale Efficiency of U.S. Banks? Evidence from the 1980s*, 29 J. MONEY, CREDIT & BANKING 326, 329–33, 336–37 (1997) (examining bank mergers

analysts also concluded that acquiring banks typically paid excessive premiums that could not be recouped through postmerger improvements in operating performance.²⁵⁷ The disappointing results of U.S. bank merger studies are similar to the findings of two recent studies of actual and hypothetical bank mergers in Europe.²⁵⁸

during 1980-90); Steven J. Pilloff, *Performance Changes and Shareholder Wealth Creation Associated with Mergers of Publicly Traded Banking Institutions*, 28 J. MONEY, CREDIT & BANKING 294, 297-98, 301, 308-09 (1996) [hereinafter Pilloff, *Merger Performance Changes*] (studying large bank mergers during 1982-91); Wilmarth, *Big Bank Mergers*, *supra* note 106, at 14-16 (same); STEPHEN A. RHOADES, A SUMMARY OF MERGER PERFORMANCE STUDIES IN BANKING, 1980-93, AND AN ASSESSMENT OF "OPERATING PERFORMANCE" AND "EVENT STUDY" METHODOLOGIES 1-4, 9 (Fed. Res. Bd., Staff Study 167, July 1994), available at <http://www.federalreserve.gov> [hereinafter RHOADES, *BANK MERGER PERFORMANCE STUDIES*] (describing results of various studies); Gayle L. DeLong, Domestic and International Bank Mergers: Gains from Focusing Versus Diversifying 6, 83, 93-95, 999 (1998) (unpublished Ph.D. dissertation, New York University) (on file with the University of Illinois Law Review) (examining domestic and international bank mergers during 1988-93).

In contrast to the disappointing results of the foregoing studies, one study of thirty large bank mergers completed during 1982-87 found that the acquiring banks significantly improved their cash flow return on equity compared to a peer group of about thirty other large banks. However, the study found no significant improvement in the acquiring banks' comparative return on assets or cost efficiency. Marcia M. Cornett & Hassan Tehranian, *Changes in Corporate Performance Associated with Bank Acquisitions*, 31 J. FIN. ECON. 211, 215-16, 223-25, 228-29 (1992). Moreover, several economists have criticized the reliability of both the study's cash flow benchmark and its selected peer group. See Steven J. Pilloff & Anthony M. Santomero, *The Value Effects of Mergers and Acquisitions*, in BANK MERGERS, *supra* note 35, at 59, 68-69; Berger & Humphrey, *Megamergers*, *supra* at 556 & n.21.

Two studies found that large bank mergers increased the "profit efficiency" of acquiring banks, even though the resulting banks did not significantly improve their earnings or cost efficiency. In particular, large acquiring banks increased their "profit efficiency" by raising their loan-to-asset ratios and reducing their capital ratios. The authors concluded that these higher-risk strategies were justified by the resulting banks' greater asset diversification. See Allen N. Berger, *The Efficiency Effects of Bank Mergers and Acquisitions: A Preliminary Look at 1990s Data* [hereinafter Berger, *1990s Bank Mergers*], in BANK MERGERS, *supra* note 35, at 79, 93-99, 104-05 (examining large bank mergers during 1991-94); Jalal D. Akhavein et al., *The Effects of Megamergers on Efficiency and Prices: Evidence from a Bank Profit Function*, 12 REV. INDUS. ORG. 95, 110-14 (1997) (reviewing large bank mergers during 1981-89). In contrast, I argue below that large banks have chosen higher loan-to-asset ratios and lower capital ratios because of their conscious decision to assume greater risks in the pursuit of higher profits, and the financial markets have tolerated such imprudent risk-taking by reason of the presumptive TBTF status of big banks. See *infra* Part I(D)(4)(b)(iv).

257. See, e.g., Ken Brown & Nikhil Deogun, *The Incredible Shrinking Bank Premium: Wachovia Deal Illustrates Mood of Caution*, WALL ST. J., Apr. 17, 2001, at C1; Charles Keenan, *Bank Stock Price Headache Seen Merger Binge Hangover*, AM. BANKER, Jan. 3, 2000, at 17 [hereinafter Keenan, *Bank Merger Hangover*]; Kover, *supra* note 137, at 188, 190; Steven Lipin & Nikhil Deogun, *Deals & Deal Makers: Big Mergers of '90s Prove Disappointing to Shareholders*, WALL ST. J., Oct. 30, 2000, at C1.

258. One study of European bank mergers during 1988-92 found that "mergers of equals" occurring within a single country improved the operating performance of the resulting banks. The study, however, found no improvement in the average profitability or efficiency of banks produced by other types of acquisitions—domestic acquisitions of majority control, domestic acquisitions of full control, and cross-border acquisitions—which accounted for 85% of the mergers in the data sample. See Rudi Vander Vennet, *The Effect of Mergers and Acquisitions on the Efficiency and Profitability of EC Credit Institutions*, 20 J. BANKING & FIN. 1531, 1535-36, 1540-48, 1552-54 (1996). The study's author also warned that the positive results for domestic "mergers of equals" should be "interpreted with caution because the sample is relatively small and may be influenced by a few spectacular cases." *Id.* at 1552.

Another study performed merger simulations for hypothetical cross-border combinations between large European banks. This study concluded that more than 70% of the hypothetical mergers would create higher operating costs for the resulting banks. Yener Altunbas et al., *Big-Bank Mergers in Europe: An Analysis of the Cost Implications*, 64 ECONOMICA 317, 320 (1997).

The results of bank merger performance studies are borne out by the poor outcomes of most recent megamergers involving U.S. banks. In thirteen of the fifteen largest bank mergers of 1997–98, the resulting banks failed to meet their profit targets for 1999.²⁵⁹ The most severe and widely reported problems occurred at Bank of America, Bank One, and First Union, three of the six largest U.S. banks. The earnings and share values of all three banks declined sharply during 1999–2000, as they disclosed major difficulties resulting from past mergers. The chairmen of all three banks agreed to resign by the end of 2000, after their ambitious expansion strategies were sharply criticized by analysts and investors.²⁶⁰

First Union's problems began when it aggressively closed branches and cut staff to compensate for the huge premium it paid for CoreStates. As the centerpiece of its cost reduction plan, First Union launched a "Fu-

259. See Edward J. Kane, *Incentives for Banking Megamergers: What Motives Might Regulators Infer from Event-Study Evidence?*, 32 J. MONEY, CREDIT & BANKING 671, 685–86 (2000) [hereinafter Kane, *Megamerger Incentives*] (describing Keefe, Bruyette, and Wood's study of the postmerger performance of banks resulting from the fifteen largest mergers during 1997–98); see also Kover, *supra* note 137, at 188, 190 (reporting that Bank of America, Bank One, and First Union missed their profit targets for 1999 by 16%, 26%, and 19%, respectively); Phil Roosevelt, *Hunting Season: Get Ready for Another Round of Bank Mergers*, BARRON'S, Dec. 6, 1999, available at 1999 WL-Barrons 29061893 (reporting that earnings forecasts for the acquiring banks in the eleven largest mergers of 1997–98 had fallen below their 1999 profit goals by an average of 12.3%).

260. See Brown & Deogun, *supra* note 257 (discussing poor results of the expansion strategies pursued by Bank of America, Bank One, and First Union); *Deal-Making Done*, ECONOMIST, Jan. 27, 2001, at 71 (reporting on Hugh McColl's decision to resign as Bank of America's chairman following disappointing results produced by acquisitions of several large banks and a securities firm); Jeff Harrington, *McColl Leaves Ship Taking on Water*, ST. PETERSBURG TIMES (Fla.), Jan. 25, 2001, at 1E (providing a similar report); Kover, *supra* note 137 (same); Jonathan R. Laing, *Fixer-Upper: Can Jamie Dimon Restore Bank One's Lost Luster?*, BARRON'S, July 3, 2000, available at 2000 WL-Barrons 22212857 (discussing resignation of John McCoy as Bank One's chairman after the bank encountered severe problems arising out of its 1997 acquisition of First USA and its 1998 merger with First Chicago NBD); Carrick Mollenkamp, *Subprime Asset: How Money Store Inspired a Big Change in First Union's Course*, WALL ST. J., July 25, 2000, at A1 [hereinafter Mollenkamp, *First Union*] (discussing Edward Crutchfield's resignation as First Union's chairman after the bank suffered huge losses related to its 1998 acquisitions of Money Store and CoreStates); Barbara A. Rehm, *Departures: The Goodbye Boys*, AM. BANKER, Feb. 1, 2001, at 16A "Best in Banking" Supp. [hereinafter Rehm, *Goodbye Boys*] (reporting that McCoy and Crutchfield had "retired under pressure caused by merger miscues"); Joseph Weber, *The Mess at Bank One*, BUS. WK., May 1, 2000, at 162 (reporting problems in Bank One and Chicago NBD merger due to McCoy's power sharing).

In 2000, both Bank One and First Union cut their dividends in half to conserve capital in the face of huge charges against earnings. See Alissa Leibowitz, *First Union Cuts Dividend To Shore Up Capital Ratios*, AM. BANKER, Dec. 21, 2000, at 20; Patrick Reilly, *Bank One Reports its 'Last Messy Quarter'*, AM. BANKER, Jan. 18, 2001, at 1 (reporting that Bank One took further net chargeoffs of \$1.3 billion during the fourth quarter of 2000, resulting in a yearly net loss of more than \$500 million); Niamh Ring & Alissa Leibowitz, *First Union, Profit Down, Says Worst Is Behind It*, AM. BANKER, Jan. 19, 2001, at 1 (reporting that First Union recorded charges against earnings of \$2.8 billion during 2000, resulting in a yearly net profit of less than \$100 million); Scott Silvestri, *Bank One's Dimon Sets Goals Wall Street Likes*, AM. BANKER, July 20, 2000, at 1 (reporting on Bank One's dividend cut and its charges against earnings of \$2 billion during the second quarter of 2000). Bank of America's net income fell by about 5% during 2000, as the bank recorded sharply higher charges to deal with a rapid increase in nonperforming loans. See *Citigroup Profits Up in Tough Quarter; Bank of America Missed Projections as Nonperforming Commercial Loans Took a Bigger Bite than a Year Ago*, ORLANDO SENTINEL (Fla.), Jan. 17, 2001, at C5 (reporting that Bank of America's net income for 2000 was \$7.52 billion down from \$7.88 billion a year ago).

ture Bank” plan that pushed customers to use automated teller machines (ATMs), telephone call centers, and the bank’s Internet website instead of human tellers. The “Future Bank” initiative alienated many customers, and First Union ultimately lost a fifth of CoreStates’ former depositors.²⁶¹

First Union’s failed merger with CoreStates closely resembled the debacle resulting from Wells Fargo’s hostile acquisition of First Interstate in 1996. After paying a steep price for First Interstate, Wells Fargo tried to cut costs by eliminating a quarter of the resulting bank’s branches and staff. It also pressured customers to stop using human tellers and instead use electronic delivery channels and supermarket “mini-branch” facilities. Wells Fargo’s impersonal treatment offended many patrons, resulting in the loss of one-eighth of its retail deposit base and a sharp decline in its revenues.²⁶²

Wells Fargo’s postmerger problems became so debilitating that its managers agreed to a merger with Norwest in 1998, in which Norwest’s executives assumed control of the resulting bank. The bank’s new management (led by former Norwest chairman Richard Kovacevich) abandoned the “high-tech” focus of the old Wells Fargo. The new Wells Fargo has produced better results by delivering “high-touch” personal services to customers through traditional branches, and by treating electronic services as alternatives rather than replacement delivery channels.²⁶³

The disastrous outcomes of the First Union-CoreStates and Wells Fargo-First Interstate transactions, and the disappointing outcomes of many other large mergers contradict frequent claims by big bank executives that they can recoup rich merger premiums by closing branches and firing staff. Bank customers have repeatedly rejected cost reduction plans that offer impersonal electronic facilities as a replacement for

261. See Kathleen Day, *First Union Shuffles Officials*, WASH. POST, July 30, 1999, at E1; Kover, *supra* note 137, at 190; Dan Weil & Charles Keenan, *1st Union's Brash Sales Culture Repelled CoreStates Customers*, AM. BANKER, July 27, 1999, at 1.

262. See Jim Carlton, *Wells Fargo Discovers Getting Together Is Hard to Do*, WALL ST. J., July 21, 1997, at B4 (describing postmerger problems encountered by Wells Fargo with customer defections and revenue losses); Saul Hansell, *Seeking the Next Gold Rush*, N.Y. TIMES, Nov. 22, 1995, at D1 (describing Wells Fargo’s “new paradigm” for providing retail banking services through electronic delivery channels and minibranches); Saul Hansell, *Wells Fargo Wins Battle for First Interstate*, N.Y. TIMES, Jan. 25, 1996, at D1 [hereinafter Hansell, *Wells Fargo*] (reporting that Wells Fargo succeeded in its hostile bid by “paying a stiff price” equal to nearly three times First Interstate’s book value); Linda Himmelstein, *Wells Fargo Bets Big on Minibanks*, BUS. WK., Nov. 18, 1996, at 160 (same).

263. See Brett Chase & Olaf de Senerpont Domis, *\$34 Billion Wells-Norwest Megadeal A Merger of Equals—and Opposites*, AM. BANKER, June 9, 1998, at 1; Phil Roosevelt, *King of The Cross-Sell: Richard Kovacevich Wants to Turn Wells Fargo into a Perpetual-Motion Machine*, BARRON’S, Oct. 11, 1999, at 20; Heather Timmons, *Can the Wells Fargo Wagon Roll Alone?*, BUS. WK., Oct. 23, 2000, at 144 [hereinafter Timmons, *Wells Fargo*]. The new Wells Fargo encountered its own problems during the first half of 2001, however, when it disclosed a rapid rise in nonperforming loans and lost \$1.1 billion from its venture capital investments. See Laura Mandaro et al., *Charges, Writedowns Mean Losses at Wells, Key*, AM. BANKER, July 18, 2001, at 1 [hereinafter 2001 *Wells Fargo Writedown*].

“high-touch” branch services.²⁶⁴ Similarly, many Internet-based banks and securities brokers have failed to attract the expected clientele, and others have decided that they must open branches to satisfy customer demands for face-to-face contact with employees. For the foreseeable future, it seems likely that most bank customers will view electronic delivery channels as attractive convenience options but not as adequate replacements for the personal service and advice offered at traditional branches.²⁶⁵ As a consequence, acquisitive banks that implement aggressive cost-cutting programs are likely to produce failed mergers.²⁶⁶

264. See, e.g., *Deal-making Done*, *ECONOMIST*, Jan. 27, 2001, at 71–72 (stating that customers of Barnett Banks “left in droves” after NationsBank acquired the Florida bank, because NationsBank tried to recover its “ridiculous” merger price by “cutting costs aggressively” in a way that damaged customer service); Kover, *supra* note 137, at 190 (discussing disastrous outcome of First Union-CoreStates merger); Laura Mandaro, *Wells Switches to the Local Track*, *AM. BANKER*, Dec. 7, 2000, at 1 [hereinafter Mandaro, *Wells Fargo*] (commenting on the failure of Wells Fargo’s “cost-cutting” philosophy after it acquired First Interstate); Reosti, *Small Banks Attract Small Firms*, *supra* note 169 (describing the hostile reaction of small business owners to big bank programs that are “steering their small-business customers to the Internet . . . to trim operating expenses”); Thompson, *supra* note 253 (reporting that a recent consumer survey gave very low ratings to Bank of America, Citigroup, and First Union for customer service, and citing analysts’ explanations that (i) large bank mergers typically produce rapid employee turnover and poor customer service, and (ii) big banks have pushed customers to use electronic delivery channels, thereby reducing customers’ personal contact with bank staff).

265. See, e.g., *The Hollow Promise of Internet Banking*, *ECONOMIST*, Nov. 11, 2000, at 91 (describing the poor performance of Internet-only banks); Matthew Hunter, *Online Brokers Compete for Mainstream Investors*, *AM. BANKER*, Oct. 12, 2000, at 18A “Retail Delivery: Innovations in Marketing and Technology” Supp. [hereinafter Hunter, *Online Brokers*] (stating that Charles Schwab, E*Trade, Fidelity, and TD Waterhouse were opening additional branches to support their Internet services); Carol Power, *Citi fi Closure Shows Branches Still Matter*, *AM. BANKER*, June 27, 2000, at 1 (reporting that Citigroup and Bank of Montreal closed their Internet-only banking vehicles and replaced them with “clicks-and-mortar” facilities offering both “physical and electronic channels” for customer service); Andrew Roth, *Dimon Kills Wingspan*, *AM. BANKER*, June 29, 2001, at 1 (reporting that (i) Bank One closed its Internet-only subsidiary bank after a two-year experiment produced disappointing results, and (ii) Bank One was integrating its online services with its traditional branch-based services); Seidman Questions Slaying Power of Internet-Only Financial Institutions, 75 *Banking Rep.* (BNA) No. 11, at 402 (Sept. 25, 2000) (reporting on speech by Ellen Seidman, Director of the Office of Thrift Supervision (OTS), questioning the long-term competitive viability of Internet-based financial providers that do not offer a “limited branch office network”); Heather Timmons, *Online Banks Can’t Go It Alone*, *BUS. WK.*, July 31, 2000, at 86 (describing the poor performance of Internet-only banks). See generally Rhoades, *Competition Analysis*, *supra* note 157, at 352–56; Matthew Hunter, *Survey Finds People Want Advice Delivered Face-to-Face*, *AM. BANKER*, May 26, 2000, at 8; Cheryl W. Munk, *Human Links Seen Trumping Electrons in Broker Business*, *AM. BANKER*, June 12, 2000, at 8; Barlett Naylor, *Bankers Reassess the Internet-Only Threat*, *AM. BANKER*, Mar. 12, 2001, at 4A “Retail Delivery” Supp.

266. See Kane, *Megamerger Incentives*, *supra* note 259, at 690–91; *supra* note 264 and accompanying text. The recent failures of large acquiring banks to reduce postmerger costs without destroying franchise value has undermined a critical rationale for megamergers. A recent study of large bank mergers announced during 1985–96 found that the average merger produced modest short-term gains in the combined stock market values of the merging banks. Virtually all of those gains, however, were attributable to projected cost savings from mergers (especially those involving a significant “market overlap” between the merging banks). In contrast, investors gave little or no credence to predictions that postmerger revenues would increase. Thus, cost-cutting was evidently the primary argument in favor of large bank mergers that investors found to be persuasive during 1985–96. See Joel F. Houston et al., *Where Do Merger Gains Come From? Bank Mergers From the Perspective of Insiders and Outsiders*, 60 *J. FIN. ECON.* 285, 287–88, 299–300, 301 tbl.3, 308–09, 318–19, 327, 329 (2001). That premise may no longer be credible in view of the poor postmerger performance of so many acquisitive banks since 1996. See *infra* at note 267.

Given the disappointing results of most big bank mergers, securities analysts have increasingly discounted the benefits promised by bank executives when mergers are announced.²⁶⁷ This skepticism is borne out by the poor short-term and longer-term stock market performance of most acquiring banks in large mergers during the 1980s and 1990s. Most "event studies" that examine stock price movements during brief periods before and after merger announcements have found that large U.S. bank mergers: (i) have a negative effect on the acquiring bank's market value; (ii) have a significantly positive effect on the target bank's market value; and (iii) have little effect on the merging banks' combined value. Thus, the stock market's typical short-term judgment is that a large bank merger transfers wealth from acquiring bank shareholders to target bank shareholders and produces few market value gains for the combined institution.²⁶⁸ A recent study of large European bank mergers reached similar results.²⁶⁹

267. See, e.g., Brown & Deogun, *supra* note 257; *Deal-making Done*, *ECONOMIST*, Jan. 27, 2001, at 71; Nikhil Deogun, *Deals & Deal Makers: Merger Wave Spurs More Stock Wipeouts*, *WALL ST. J.*, Nov. 29, 1999, at C1; Kover, *supra* note 137; Tania Padgett, *Big Mergers Yielding Profit Letdowns*, *Study Finds*, *AM. BANKER*, Oct. 12, 1999, at 1.

268. For studies finding short-term losses for acquiring bank shareholders, and little evidence of short-term gains in the combined stock market values of merging banks, see W. Scott Frame & William D. Lastrapes, *Abnormal Returns in the Acquisition Market: The Case of Bank Holding Companies, 1990-93*, 14 *J. FIN. SERVS. RES.* 145, 152-53, 159 (1998) (determining, based on an eleven-day event window, that large U.S. bank acquisitions during 1990-93 created, on average, significantly negative stock market returns for acquiring banks and significantly positive returns for target banks); Joel F. Houston & Michael D. Ryngaert, *The Overall Gains From Bank Large Mergers*, 18 *J. BANKING & FIN.* 1155, 1157, 1160-63, 1174 (1994) (concluding, based on a five-day event window, that large U.S. bank mergers during 1985-91 did not produce, on average, any significant gains in the combined stock market value of the merging banks, because positive returns for target bank shareholders were offset by negative returns for acquiring bank shareholders); Pilloff, *Merger Performance Changes*, *supra* note 256, at 304-06 (finding, based on event windows ranging from two to twenty-one days, that large U.S. bank mergers during 1982-91 did not produce any significant gains, on average, in the combined stock market value of the merging banks); RHOADES, *BANK MERGER PERFORMANCE STUDIES*, *supra* note 256, at 4-9 (discussing results of event studies published during 1980-93); Wilmarth, *Big Bank Mergers*, *supra* note 106, at 16, n.66 (citing study showing that seventeen of the twenty-two largest bank mergers during 1991-93 produced negative short-term returns for the acquiring banks' shareholders); DeLong, *supra* note 256, at 2-3, 15-21 (finding, based on an eleven-day event window, that large U.S. bank mergers during 1988-95: (i) caused a decrease, on average, in the merging banks' combined stock market wealth, except in mergers that were "focused" in terms of both geography and activity; (ii) conferred significant wealth gains on target bank shareholders; and (iii) imposed wealth losses on acquiring bank shareholders except in "focused" mergers, which provided small gains to acquiring bank shareholders).

In contrast to the foregoing studies, four event studies found that large bank mergers did produce short-term increases in the combined stock market values of the merging banks. However, three of those studies concluded that acquiring bank shareholders received *negative* returns while the fourth study found only insignificant gains for acquiring bank shareholders. Thus, in all four studies, target bank shareholders captured all or virtually all of the observed gains in combined stock market wealth. See Houston et al., *supra* note 266, at 287-88, 299-300, 301 tbl.3 (finding, based on five-day event study of stock market reactions to sixty-four large bank mergers during 1985-96, that acquiring bank shareholders received negative returns); Kane, *Megamerger Incentives*, *supra* note 259, at 686-87 (showing, based on two-day event study of stock market reactions to more than 100 large bank mergers during 1991-98, that acquiring bank shareholders received significantly negative returns); THOMAS F. SIEMS, *BANK MERGERS AND SHAREHOLDER WEALTH: EVIDENCE FROM 1995'S MEGAMERGER DEALS* 1, 5-6, (Fed. Res. Bank of Dallas, Fin. Indus. Stud., Aug. 1996) (finding, based on three-day event study of

Studies of the long-term impact of bank mergers on stock market values are even more discouraging. Those studies show that the stock prices of most acquiring banks underperform industry benchmarks during periods of one to several years after bank mergers have been completed.²⁷⁰ The most likely reason for these disappointing results is that acquiring banks pay excessive premiums for target banks and cannot recover those premiums through postmerger changes in operations. For example, a survey at the end of 1999 determined that (i) acquiring banks paid merger premiums totaling \$160 billion during 1997–99, and (ii) banks making the largest acquisitions during 1997–98 subsequently lost \$90 billion of their market capitalization during 1999, primarily because their profits fell short of their forecasts by \$6 billion.²⁷¹

Studies of corporate acquisitions taking place over the past three decades have similarly found that most acquiring firms suffered market-adjusted losses in their share values over short-term and longer-term pe-

stock market reactions to nineteen large bank mergers in 1995, that acquiring bank shareholders received significantly negative returns); Hao Zhang, *Wealth Effects of US Bank Takeovers*, 5 APPLIED FIN. ECON. 329, 332–33 (1995) (reviewing stock market reactions to 107 bank mergers during 1980–90, with event windows ranging from two to eleven days, and finding insignificant gains for acquiring bank shareholders).

269. Based on an eleven-day event study of thirty-six big European bank mergers during 1988–97, this study found that the average merger did *not* produce any significant increase in stock market wealth for the combined banks. Although domestic bank mergers created significant gains in combined stock market wealth, those gains were offset by losses in cross-border mergers. In addition, the average stock market value of acquiring banks declined while the average stock market value of target banks increased significantly. See Alberto Cybo-Ottone & Maurizio Murgia, *Mergers and Shareholder Wealth in European Banking*, 24 J. BANKING & FIN. 831, 845–57 (2000).

270. See Jeff Madura & Kenneth J. Wiant, *Long-term Valuation Effects of Bank Acquisitions*, 18 J. BANKING & FIN. 1135, 1137–40, 1143–46 (1994) (determining, based on a sample of 152 mergers during 1983–87, that the stock market values of acquiring banks significantly underperformed comparative stock indices during a three-year period after the merger announcement dates); Wilmarth, *Big Bank Mergers*, *supra* note 106, at 16–17, 17 n.67 (citing a 1990 study showing that 80% of large bank mergers during 1982–86 resulted in long-term losses for acquiring bank shareholders); *Merger Mania, Sobering Statistics*, ECONOMIST, June 20, 1998, at 89 (describing an SNL Securities study showing that the stock prices of the ten most acquisitive banks with assets above \$20 billion had underperformed SNL's bank stock index during 1993–98); Gretchen Morgenson, *A Cautionary Note on Mergers: Bigger Does Not Mean Better*, N.Y. TIMES, Dec. 8, 1998, at C1 [hereinafter Morgenson, *Bigger Mergers*] (citing a Mitchell Madison study finding that the stock prices of 82% of the banks resulting from mergers during 1995–98 had underperformed the stock prices of peer institutions); Leslie P. Norton, *Merger Mayhem: Why the Latest Corporate Unions Carry Great Risk*, BARRON'S, Apr. 20, 1998, at 33 (citing a Keefe, Bruyette, and Woods study showing that six of the eight acquiring banks in the largest mergers of 1995 had underperformed a bank stock index during 1995–97); Kenneth W. Smith, *Beating the Odds in Bank Mergers*, AM. BANKER, Mar. 6, 1998, at 22 (describing a Mitchell Madison study finding that, in two-thirds of large bank mergers during 1990–95, the acquiring banks' stock prices underperformed the stock prices of peer institutions during a two-year period after the mergers); DeLong, *supra* note 256, at 85–86, III-i tbl.3-1A, III-ii tbl.3-1B, III-iii tbl.3-1C (finding, based on a sample of 323 domestic and international mergers during 1988–95, that the stock market values of acquiring banks significantly underperformed a bank stock index during periods of one to three years after the mergers closed).

271. See Keenan, *Bank Merger Hangover*, *supra* note 257 (citing survey by analyst Henry Dickson of Salomon Smith Barney); see also Brown & Deogun, *supra* note 257 (discussing the widespread disillusion among analysts and investors caused by (i) the payment of excessive merger premiums by acquiring banks during the 1990s, and (ii) the failure of most acquiring banks to fulfill their promises of “big gains from cost cutting and synergies”).

riods.²⁷² As with bank merger studies, corporate acquisition reviews have concluded that most acquiring firms paid takeover premiums that exceeded the value of any performance improvements that could be realized from expected postmerger “synergies.”²⁷³

b. What Factors Explain the Poor Results of Most Big Bank Mergers?

i. Diseconomies of Scale and Scope

Several reasons probably account for the disappointing outcomes of most big bank mergers. First, most economic studies have concluded that U.S. banks stop producing increasing returns to scale as they grow beyond the \$10–\$25 billion size range.²⁷⁴ Studies of foreign banks, including large universal banks, have reached similar results.²⁷⁵ In addition,

272. See, e.g., MARK L. SIROWER, *THE SYNERGY TRAP: HOW COMPANIES LOSE THE ACQUISITION GAME* 100–02, 123–24, 167–97 (1997) (calculating market-adjusted returns, for event periods ranging from two days to four years, for a sample of 168 large corporate mergers announced during 1979–90); Matthew L.A. Hayward & Donald C. Hambrick, *Explaining the Premiums Paid for Large Acquisitions: Evidence of CEO Hubris*, 42 ADMIN. SCI. Q. 103, 112–13, 118 (1997) (studying market-adjusted returns during an eleven-day event window and a one-year postmerger period for 106 large corporate mergers announced in 1989 and 1992); Tim Loughran & Anand M. Vijh, *Do Long-Term Shareholders Benefit From Corporate Acquisitions?*, 52 J. FIN. 1765, 1766–76 (1997) (reviewing market-adjusted returns during a five-year postmerger period for 788 large corporate mergers announced in 1970–89); see also Morgenson, *Bigger Mergers*, *supra* note 270 (citing a subsequent study by Professor Sirower, finding that the stock prices of two-thirds of the firms created by 100 large corporate mergers during 1994–97 underperformed their industry peers over both short-term and longer-term periods).

273. See SIROWER, *supra* note 272, at 14–21, 42–43, 76–81, 100–02, 123–39, 138–43, 167–73, 197 (analyzing 168 large corporate mergers during 1979–90); Ki C. Han et al., *The Evidence of Bidders' Overpayment in Takeovers: The Valuation Ratios Approach*, 33 FIN. REV. 55, 60–67 (1998) (evaluating 253 corporate takeovers during 1974–87).

274. See Berger & Humphrey, *Megamergers*, *supra* note 256, at 546–49 (citing earlier studies finding similar results); Berger & Mester, *supra* note 106, at 926–29 (concluding that increasing returns to scale could not be verified for banks larger than \$25 billion); Jeffrey A. Clark, *Economic Cost, Scale Efficiency, and Competitive Viability in Banking*, 28 J. MONEY, CREDIT & BANKING 342, 355–56, 362 (1996) (finding no evidence of increasing returns to scale in banks larger than \$3 billion); William C. Hunter & Stephen G. Timme, *Core Deposits and Physical Capital: A Reexamination of Bank Scale Economies and Efficiency with Quasi-Fixed Inputs*, 27 J. MONEY, CREDIT & BANKING 165, 177–78 (1995) (finding mild diseconomies of scale in banks larger than \$25 billion); Stephen M. Miller & Athanasios G. Noulas, *The Technical Effects of Large Bank Production*, 20 J. BANKING & FIN. 495, 503–08 (1996) (concluding that 55% of banks larger than \$1 billion experienced declining returns to scale); Peristiani, *supra* note 256, at 330 (finding scale inefficiencies in banks larger than \$10 billion); Wilmarth, *Too Big to Fail*, *supra* note 157, at 1007–08 (same). But see Karlyn Mitchell & Nur M. Onvural, *Economies of Scale and Scope at Large Commercial Banks: Evidence from the Fourier Flexible Functional Form*, 28 J. MONEY, CREDIT & BANKING 178, 179, 192 (1996) (finding constant returns to scale among large banks with up to \$100 billion in assets).

275. See SAUNDERS & WALTER, *U.S. UNIVERSAL BANKING*, *supra* note 23, at 69–82 (concluding, based on a study of the world's 200 largest banks during the 1980s, that banks with loan portfolios in excess of \$25 billion encountered diseconomies of scale, regardless of whether they were “universal” banks with securities and insurance powers, as in Germany, or “separated” banks without such powers, as in the United States); Alfred Steinherr, *Performance of Universal Banks: Historical Review and Appraisal* [hereinafter Steinherr, *Universal Bank Performance*], in FINANCIAL SYSTEM DESIGN, *supra* note 200, at 2, 27 (stating that “no conclusive evidence exists” to verify that large foreign universal banks benefit from global economies of scale); Yener Altunbas et al., *Efficiency and Risk in Japanese*

FDIC data show that banks in the \$1–\$10 billion size range operate with better efficiency ratios than those registered by bigger banks.²⁷⁶ Thus, recent megamergers have produced banks that are likely to be scale-inefficient, because the resulting banks fall within a size range for which most empirical studies have identified *decreasing* returns to scale.²⁷⁷

Banking, 24 J. BANKING & FIN. 1605, 1606–07, 1614–17, 1620–21 (2000) (finding, after adjusting the cost functions of large Japanese banks to account for risk and quality factors, that Japanese banks larger than \$20 billion produced diseconomies of scale); Günter Lang & Peter Welzel, *Technology and Cost Efficiency in Universal Banking: A “Thick Frontier”—Analysis of the German Banking Industry*, 10 J. PRODUCTIVITY ANALYSIS 63, 74–75, 78–79 (1998) (concluding that large German universal banks suffered from diseconomies of scale); Vander Vennet, *supra* note 258, at 1534 (citing 1994 study finding economies of scale in European banks with assets of \$3 to \$10 billion).

276. See Louis Whiteman, *Small Banks Tighten Belts To Improve Efficiency Ratios*, AM. BANKER, Jan. 11, 1999, at 7 tbl. (showing that banks in the size range of \$1–\$10 billion had a better average efficiency ratio than larger banks in both 1993 and 1998); FDIC Q. BANKING PROFILE, 4th Qtr. 1999, at 5 tbl.III-A (showing same result in 1999); FDIC Q. BANKING PROFILE, 4th Qtr. 2000, at 5 tbl.III-A (showing same result in 2000); *id.* at 22 (defining “efficiency ratio” as the ratio of “noninterest expense less amortization of intangible assets” to total interest and noninterest income, and stating that “a lower value indicates greater efficiency”); Linder & Crane, *supra* note 256, at 51 (stating that the ratio of total noninterest expense to total interest and noninterest income is “a frequently used measure of bank efficiency”); see also Tania Padgett, *Midsized Banks May Have Edge Over Giant Rivals: Efficiency*, AM. BANKER, Jan. 25, 1999, at 25 (citing view of analysts Stephen Biggar and Sean Ryan that banks in the size range of \$1–\$10 billion were more efficient than larger banks).

277. See *supra* notes 152–53 and accompanying text (pointing out that seven U.S. megamergers announced during 1998–2001 produced banks that each held assets of \$160 billion or more); *supra* note 274–75 (listing studies finding decreasing returns to scale for banks larger than \$25 billion). For further analysis indicating that megamergers are likely to produce scale-inefficient banks, see, e.g., Hanweck & Shull, *supra* note 147, at 262–63, 280–81; Kazuhiko Koguchi, *Financial Conglomeration*, in FINANCIAL CONGLOMERATES at 7, 8, 23–24 (OECD Publications and Information Centre, 1993).

One recent study concluded that large U.S. banks with up to \$74 billion in assets *did* enjoy significant economies of scale in 1989–90. Joseph P. Hughes & Loretta J. Mester, *Bank Capitalization and Cost: Evidence of Scale Economies in Risk Management and Signaling*, 80 REV. ECON. & STAT. 314, 318, 324–25 (1998) [hereinafter Hughes & Mester, *Bank Capitalization*]. This study, however, is based on a highly contestable assumption about the proper treatment of bank capital in calculating bank costs. Instead of including capital as a fixed cost ratio that does not vary in proportion to bank size, Hughes and Mester permitted banks to adjust their capital based on a trade-off between risk and return. *Id.* at 315–16. They found that the decision of the largest banks to operate with lower capital ratios produced significant economies of scale. They argued that lower capital ratios for big banks were justifiable because those banks could “economize on the use of financial capital” by “diversify[ing] their [loan] portfolios.” *Id.* at 323–25.

Hughes and Mester’s conclusions have been challenged because their findings are also consistent with an alternative interpretation—namely, that big banks in the late 1980s took advantage of the moral hazard created by their TBTF status and reduced their capital to unsafe levels. See Hanweck & Shull, *supra* note 147, at 276 n.44. In fact, Hughes and Mester performed an earlier study that used the same 1989–90 data sample and treated financial capital as a *fixed* cost ratio that did not vary in proportion to bank size. This earlier study concluded that the largest banks did *not* generate increasing returns to scale, even though they benefited from lower interest rates on their uninsured deposits due to their TBTF status. See Joseph P. Hughes & Loretta J. Mester, *A Quality and Risk-Adjusted Cost Function for Banks: Evidence on the “Too-Big-To-Fail” Doctrine*, 4 J. PRODUCTIVITY ANALYSIS 293, 294, 307–09, 313–14 (1993) [hereinafter Hughes & Mester, *Too-Big-To-Fail*].

In addition, the data sample of big banks used in both studies by Hughes and Mester probably included a substantial number of banks that were severely undercapitalized. As discussed *infra* at notes 406–07, 410 and accompanying text, many of the largest U.S. banks held dangerously low capital ratios and were threatened with failure during 1990–91. Several commentators have argued that it was supervisory forbearance, not higher efficiency or greater safety, that enabled big banks to operate with lower capital levels during that period. See JAMES R. BARTH ET AL., *THE FUTURE OF AMERICAN BANKING* 15–17, 21, 25, 28–29, 41–44, 54–56, 88–89, 94 (1992); John H. Boyd & Mark Gertler, *The*

The second likely reason for the poor performance of the largest U.S. banks is that they are engaged in too many lines of business and suffer from diseconomies of scope. Economic studies have generally found global diseconomies of scope in full-service U.S. and foreign banks that are larger than \$25 billion or that combine lending activities with nontraditional, fee-based activities such as derivatives, loan sales, and securities underwriting and trading.²⁷⁸ Investors appear to recognize the clear potential for scope inefficiencies when large banks diversify their operations. One study found that, during 1988–95, American and overseas stock markets responded negatively, on average, to U.S. and foreign banks that entered into mergers that diversified their activities.²⁷⁹ Three other studies found that mergers between banks and securities firms in the United States and Europe did not produce any significant stock market gains, although one study identified a positive stock market response to mergers between European banks and insurance companies.²⁸⁰

Role of Large Banks in the Recent U.S. Banking Crisis, FED. RES. BANK OF MINNEAPOLIS, Q. REV., Winter 1994, at 2, 7–8, 12–13, 16–21 [hereinafter Boyd & Gertler, *Banking Crisis*]; Wilmarth, *Big Bank Mergers*, *supra* note 106, at 41–46.

The costs associated with capital requirements have a significant effect on the relative efficiency of banks, as shown by a study that examined the impact of federal risk-based capital rules that took effect in December 1990. The study found that banks larger than \$12 billion enjoyed increasing or constant returns to scale *before* regulators imposed these stricter risk-based capital rules. However, large banks encountered *diseconomies* of scale *after* the new capital rules were applied. The authors concluded that the new capital rules forced large banks to internalize the costs of at least some of their insolvency risks, including those related to their derivatives and other off-balance-sheet activities, that had previously been borne by the FDIC and taxpayers. See Julapa Jagtiani & Anya Khanthavit, *Scale and Scope Economies at Large Banks: Including Off-Balance-Sheet Products and Regulatory Effects (1984–1991)*, 20 J. BANKING & FIN. 1271, 1272, 1280–86 (1996).

278. See SAUNDERS & WALTER, U.S. UNIVERSAL BANKING, *supra* note 23, at 69–70, 74, 80–82 (finding significant diseconomies of scope in foreign universal banks that combined a lending business with fee-based activities such as securities underwriting and trading); Allen N. Berger & David B. Humphrey, *Efficiency of Financial Institutions: International Survey and Directions for Future Research*, 98 EUR. J. OPERATIONAL RES. 175, 201 (1997) (citing unpublished 1995 study by Chaffai and Deitsch that determined that universal banks in Europe “experience[d] lower cost efficiency than more specialized banks”); Clark, *supra* note 274, at 356 & n.24, 362 (finding that cost advantages from joint production of bank products could not be verified for banks larger than \$6 billion); Hunter & Timme, *supra* note 274, at 169, 179 (finding mild diseconomies of scope among banks larger than \$25 billion); Jagtiani & Khanthavit, *supra* note 277, at 1272, 1279, 1284–86 (concluding that, following the implementation of new risk-based capital rules in 1990, U.S. banks larger than \$43 billion encountered diseconomies of scope if they combined a lending business with derivatives and other off-balance-sheet activities); Lang & Welzel, *supra* note 275, at 75–76, 79 (determining that large German universal banks suffered from diseconomies of scope); Loretta J. Mester, *Traditional and Nontraditional Banking: An Information-Theoretic Approach*, 16 J. BANKING & FIN. 545, 546–47, 561–64 (1992) (finding diseconomies of scope between bank lending and the “nontraditional” activity of buying and selling loans); Wilmarth, *Too Big to Fail*, *supra* note 157, at 1008–09 n.233 (citing earlier studies with similar results).

279. See DeLong, *supra* note 256, at 1–2, 9–17, I-vii tbl.1–5(C) (finding, based on a review of 204 activity-diversifying mergers involving large United States and foreign banks, that the resulting institutions experienced a decline, on average, in their industry-adjusted stock market values during an eleven-day event period surrounding the merger).

280. See Cybo-Ottone & Murgia, *supra* note 269, at 845, 851, 853, 855, 857 (finding, based on stock market responses over event periods of eleven days and one year, that (i) large mergers between European banks and securities firms during 1988–97 did not produce any significant gains, on average, in the share value of the resulting firms, but (ii) mergers between European banks and insurance com-

Advocates for big banks contend that large diversified financial institutions can generate economies of scale and scope by selling a variety of consumer financial products, such as credit cards, home mortgages, securities brokerage accounts, and mutual funds, through mass-marketing campaigns supported by sophisticated information technology systems and nationwide distribution networks.²⁸¹ As shown below, however, these “commodity-like” consumer products are subject to intense competition and thin pricing margins.²⁸² Moreover, specialized providers—like MBNA and Capital One for credit cards, Charles Schwab and E*Trade for securities brokerage, and Fidelity and Vanguard for mutual funds—have successfully exploited the economies of scale available in each of those lines of business. Since 1990, these highly focused firms have proven to be “category killers” that earn superior profits while undercutting prices charged by large diversified banks and securities firms.²⁸³ In addition, as discussed below, consumers have generally responded in a lukewarm or negative manner to “one-stop shopping” programs established by diversified financial firms. Many consumers have instead shown a clear preference for specialized providers that offer better service at lower cost and avoid the conflicts of interest inherent in diversified financial institutions.²⁸⁴

The Internet has also tended to “unbundle” financial services by making it easier and cheaper for retail customers to obtain price quotations for a specific financial product from a variety of firms. Specialized providers appear, thus far, to have used the Internet more effectively in building their competitive position in retail markets. Thus, even in retail

panies did generate significant gains); Kane, *Megamerger Incentives*, *supra* note 259, at 686–89 (concluding, based on an eleven-day event window, that five large mergers between U.S. banks and securities firms during the 1990s elicited a much less favorable response from the stock markets than did bank mergers of comparable size); *infra* note 447 and accompanying text (discussing study by David Ely and Kenneth Robinson that found that the stock market did not respond favorably, on average, to acquisitions of nine securities firms by U.S. banks during 1997).

281. See, e.g., Arnold Danielson, *Getting Ready for the 21st Century: A Look at Recent Banking Trends*, BANKING POL’Y REP., Mar. 15, 1999, LEXIS, Banking Pol’y Rep. [hereinafter Danielson, *Banking Trends*] (contending that, especially with regard to the mass marketing of consumer loans and investment products, “size . . . has become a major competitive advantage in banking”); Jeffrey Kutler, *Technology the Pivot of ‘Is Bigger Better?’ Debate*, AM. BANKER, Dec. 13, 1999, available at 1999 WL 21145591 [hereinafter Kutler, *Is Bigger Better?*] (discussing technology-related claims by big bank executives); *The Trials of Megabanks*, *supra* note 107 (describing claims by big bank executives that “size does matter”).

282. See Danielson, *Banking Trends*, *supra* note 281; *infra* notes 746–56, 978–79 and accompanying text.

283. See Liz Moyer, *Large Diversified Banks Lag In Profit Growth, Study Finds*, AM. BANKER, Feb. 17, 1999, at 1 [hereinafter Moyer, *Diversified Banks Lag in Profit Growth*] (describing results of study by Booz-Allen & Hamilton that found that profits rose by 60% at credit card banks and other “monoline” financial companies during 1994–98, three times the profit growth rate for the sixty-five largest diversified banks); O’Brien & Hansell, *supra* note 168; *The Trials of Megabanks*, *supra* note 107, at 25; *infra* notes 303, 813 and accompanying text (discussing superior performance of MBNA and Capital One in the credit card business); *infra* Part II(D) (describing competitive superiority of specialized providers in the discount brokerage and mutual fund businesses).

284. See *infra* notes 303, 813 and accompanying text; *infra* Part II(D).

business areas that involve significant economies of scale, "large, specialized firms may have the edge in financial services."²⁸⁵

Supporters of big banks also maintain that favorable economies of scale and scope exist in the wholesale businesses of syndicating loans and underwriting and trading in securities and derivatives. For example, some commentators argue that universal banks will benefit from significant informational efficiencies by offering a combination of lending and capital markets services to the same corporate clients.²⁸⁶

Capital markets activities do involve significant economies of scale. A financial institution must make costly investments in human and technological resources, and it must also demonstrate a strong capital position to establish its reputation as a credible underwriter and/or dealer in syndicated loans, securities, or derivatives.²⁸⁷ In addition, there is recent evidence indicating that large corporations and leveraged buyout firms are asking financial institutions to provide "package deals" that include both syndicated loans and securities underwriting services.²⁸⁸ As discussed below, however, capital markets activities involve substantial risks, and banks have produced mixed results in those markets. Currently, there is strenuous competition in the markets for merger advice and underwriting securities, and it is not yet clear whether banks can prevail in those markets over the more focused "big three" securities firms (viz., Morgan Stanley, Goldman Sachs, and Merrill Lynch). In fact, a number of big U.S. and foreign banks have so far been unsuccessful in their efforts to integrate commercial and investment banking operations. Several large banks abandoned the investment banking business after

285. *The Trials of Megabanks*, *supra* note 107, at 25. Accord Peter Coy, *Commentary, Great Big Company. Great Big Mistake?*, BUS. WK., Apr. 20, 1998, at 40; O'Brien & Hansell, *supra* note 168; John Wenniger, *Technology: Driving Specialization or Enabling Diversification (or Both?)*, FED. RES. BANK OF N.Y., ECON. POL'Y REV., Oct. 2000, at 67, 69-72 (summary of conference remarks by Till Guldemann & Jim Marks).

286. See, e.g., Walter M. Cadette, *Universal Banking: A U.S. Perspective*, in FINANCIAL SYSTEM DESIGN, *supra* note 200, at 696, 701-02; Raghuram G. Rajan, *The Entry of Commercial Banks into the Securities Business: A Selective Survey of Theories and Evidence*, in FINANCIAL SYSTEM DESIGN, *supra* note 200, at 282, 290-91; Santos, *Banks in the Securities Business*, *supra* note 24, at 37-41.

287. See MATTHEWS, WALL STREET, *supra* note 88, at 101, 157-59 (describing the importance of reputation as a competitive factor in the securities underwriting business); Kenneth A. Carow, *Underwriting Spreads and Reputational Capital: An Analysis of New Corporate Securities*, 22 J. FIN. RES. 15 *passim* (1999) (finding that leading securities underwriters build "reputational capital" that enables them to charge higher fees when underwriting new types of securities); *infra* notes 457-59, 496-97, 696-98, 860-70 and accompanying text (discussing costly investments and major capital commitments made by leading securities underwriters, derivatives dealers, and loan syndicators to establish their credibility in the financial markets).

288. See Randall Smith & Suzanne McGee, *Deals & Deal Makers: Banks' Lending Clout Stings Securities Firms*, WALL ST. J., June 15, 2001, at C1 (stating that banks were making large lending commitments to obtain securities underwriting deals from corporate clients); Randall Smith, *Deals & Deal Makers: Goldman Sachs, Bowing to a Big Client, Says Yes to AT&T Loan*, WALL ST. J., Nov. 7, 2000, at C1 (reporting that large corporations, including AT&T and Ford, were requiring banks and securities firms to provide syndicated loans as a condition of being retained to underwrite securities or to advise on mergers and restructurings); *infra* notes 457-58, 867-69 and accompanying text (discussing corporate buyout firms' desire for "package deals" consisting of syndicated loans and junk bonds).

suffering major losses during domestic and global financial crises in 1986–87, 1994–95, and 1997–98.²⁸⁹ More recently, leading global banks have recorded sharp declines in their investment banking profits because of the capital markets slump that began in mid-2000.²⁹⁰

Doubts about the ability of universal banks to generate significant economies of scope are also based on the poor performance of large financial conglomerates since 1980. As described below, financial “supermarkets” created by American Express, GE, Kemper, Prudential, and Sears all failed to create hoped-for synergies and were dismantled after producing dismal results in the securities and insurance businesses. Similarly, Credit Lyonnais’s effort to diversify through merchant banking investments produced a major disaster and required a huge bailout from the French government. Only Citigroup has so far generated respectable profits from a universal banking strategy, and its ambitious expansion program has not yet faced the test of a severe and prolonged economic downturn.²⁹¹

The disappointing record of most “financial supermarkets” is consistent with the experience of industrial conglomerates during the past two decades. Hostile takeovers and voluntary spin-offs have broken up many of the largest industrial conglomerates in the U.S. and Europe since the early 1980s. The trend toward “deconglomeration” has been spurred by the financial markets’ judgment that focused companies increase shareholder value.²⁹² Industrial conglomerates fell out of favor with investors after 1980, because conglomerates proved to be less efficient and less profitable than companies pursuing more focused business strategies.²⁹³ The poor track record of conglomerates in both the finan-

289. See George J. Benston, *Universal Banking*, J. ECON. PERSP. 121, 140–41 (1994); Canals, *supra* note 241, at 569–70, 573; *infra* Parts I(E)(2)(a)(ii) & I(E)(2)(c).

290. See *supra* notes 116–17, *infra* notes 682–86 and accompanying text.

291. See *infra* notes 312, 444, 938–54 and accompanying text (discussing the Credit Lyonnais disaster and past failures of financial supermarkets and raising questions about Citigroup’s long-term prospects).

292. For analysis of the breakup of U.S. conglomerates after 1980, see, e.g., Philip G. Berger & Eli Ofek, *Bustup Takeovers of Value-Destroying Diversified Firms*, 51 J. FIN. 1175, 1175–78, 1198 (1996) [hereinafter Berger & Ofek, *Bustup Takeovers*]; John C. Coffee, Jr., *Shareholders Versus Managers: The Strain in the Corporate Web*, 85 MICH. L. REV. 1, 2–8, 52–60 (1986); Bernard Wysocki, Jr., *Trimming Down: In the New Mergers, Conglomerates Are Out, Being No. 1 Is In*, WALL ST. J., Dec. 31, 1997, at A1. For descriptions of breakups involving major foreign conglomerates, see, e.g., *The Death of the Geneen Machine*, ECONOMIST, June 17, 1995, at 70 (discussing spinoffs by several foreign conglomerates); *Widow Hanson’s Children Leave Home*, ECONOMIST, Feb. 3, 1996, at 51 (reporting on decision by Hanson PLC to divide its operations into four separate companies).

293. For evidence that focused firms generated higher levels of efficiency, productivity, and profitability than industrial conglomerates, see generally Hemang Desai & Prem C. Jain, *Firm Performance and Focus: Long-run Stock Market Performance Following Spinoffs*, 54 J. FIN. ECON. 75, 77–78, 91–97 (1999) (evaluating profit performance, measured as the ratio of operating cash flow to total assets); Frank R. Lichtenberg, *Industrial De-Diversification and Its Consequences for Productivity*, 18 J. ECON. BEHAV. & ORG. 427 (1992) (analyzing efficiency and productivity). For studies finding that focused firms produced superior investment returns compared to industrial conglomerates, see Philip G. Berger & Eli Ofek, *Diversification’s Effect on Firm Value*, 37 J. FIN. ECON. 39 (1995); Robert Comment & Gregg A. Jarrell, *Corporate Focus and Stock Returns*, 37 J. FIN. ECON. 67 (1995); Desai &

cial and industrial sectors has raised substantial questions about the ability of universal banks to create positive synergies from a diverse array of activities.²⁹⁴

Theories of managerial behavior may help to explain why diversified conglomerates are generally less successful than more focused firms. Top executives are likely to experience "bounded rationality" as a company becomes larger and more complex, because (i) their ability to collect and comprehend information about the firm's operations is diminished, and (ii) they encounter bureaucratic obstacles in communicating with and supervising their subordinates.²⁹⁵ At the same time, lower-level managers have greater chances to engage in self-interested "opportunism," because the diversified firm's size and complexity impose "agency costs" that limit the ability of top-level executives to monitor and deter such behavior.²⁹⁶ Thus, growth and diversification programs often pro-

Jain, *supra*, at 77-78, 85-91; Larry H.P. Lang & René M. Stulz, *Tobin's q, Corporate Diversification and Firm Performance*, 102 J. POL. ECON. 1248, 1249-52, 1278-79 (1994); Lance A. Nail et al., *How Stock-Swap Mergers Affect Shareholder (and Bondholder) Wealth: More Evidence of the Value of Corporate "Focus"*, 11 THE BANK OF AM. J. APPLIED CORP. FIN., Summer 1998, at 95.

It is possible that industrial conglomerates produced more favorable results during the 1960s, due to imperfections in the financial markets. During that period, less company-specific information was available to the securities markets, and it was more difficult for firms to sell securities to investors. In those circumstances, conglomerates may have created gains by organizing "internal capital markets" to finance their subsidiaries' operations. As financial markets became more transparent and efficient, however, investors discovered that they could achieve superior returns by purchasing stock in a diversified array of more focused companies. See Coffee, *supra* note 292, at 57-60; R. Glenn Hubbard & Darius Palia, *A Reexamination of the Conglomerate Merger Wave in the 1960's: An Internal Capital Markets View*, 54 J. FIN. 1131, 1131-35, 1149 (1999); Peter G. Klein, *Were the Conglomerates Inefficient? A Reconsideration* 1-7, 35-36 (Feb. 1998) (unpublished manuscript, on file with the University of Illinois Law Review).

294. See Helen A. Garten, *Universal Banking and Financial Stability*, 19 BROOK. J. INT'L L. 159, 162-64 (1993) [hereinafter Garten, *Universal Banking*]; Robert E. Litan, *Commentary*, 19 BROOK. J. INT'L L. 229, 231 (1993) (replying to Jonathan R. Macey, *The Inevitability of Universal Banking*, 19 BROOK. J. INT'L L., 203 (1993)); Stephen A. Rhoades, *Interstate Banking and Product Line Expansion: Implications from Available Evidence*, 18 LOY. L.A. L. REV. 1115, 1154-57 (1985) [hereinafter Rhoades, *Product Line Expansion*]; Matt Murray & Ellen E. Schultz, *Citigroup Resuscitates Acid Test For Financial Supermarket Idea*, WALL ST. J., Apr. 7, 1998, at C15.

295. For discussions of managerial problems caused by "bounded rationality" in large firms and banks, see, e.g., OLIVER E. WILLIAMSON, *ECONOMIC ORGANIZATION: FIRMS, MARKETS AND POLICY CONTROL* 32-47, 140-41, 145-47, 177-79 (1986); William C. Hunter, *Internal Organization and Economic Performance: The Case of Large U.S. Commercial Banks*, FED. RES. BANK OF CHI., ECON. PERSP., Sept.-Oct. 1995, at 10, 11.

296. For discussions of problems caused by managerial opportunism and agency costs within large, complex firms, see, e.g., WILLIAMSON, *supra* note 295, at 42-43, 140-41, 177-79; Michael C. Jensen, *Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers*, 76 AM. ECON. REV. 323, 323, 326-28 (1986) [hereinafter Jensen, *Agency Costs*]; Loretta J. Mester, *Agency Costs among Savings and Loans*, 1 J. FIN. INTERMEDIATION 257, 261 (1991). For specific examples of opportunistic behaviors that are likely to occur in complex firms, see R. Preston McAfee & John McMillan, *Organizational Diseconomies of Scale*, 4 J. ECON. & MGMT. STRATEGY 399 *passim* (1995) (finding that informational costs create diseconomies of scale as a firm becomes larger and more hierarchical, because managers at each level of the hierarchy require payment of "rents" to induce them to share crucial information with their superiors); Raghuram Rajan et al., *The Cost of Diversity: The Diversification Discount and Inefficient Investment*, 55 J. FIN. 35, 37-39, 44-45, 48-51, 59-64, 73-77 (2000) (presenting a theoretical model and empirical data showing that diversified conglomerates are likely to foster internal "power

duce organizational inefficiencies and managerial failures that undermine the resulting firm's ability to realize expected synergies.²⁹⁷

A large bank is likely to compound its managerial control problems if it expands through acquisitions instead of internal growth. Acquisitions create three major operating risks for the resulting firm. First, an acquiring bank may fail to integrate the target's personnel in a manner that produces an effective and harmonious "culture." Second, the acquiring bank may change the target's operating methods in ways that offend and drive away large numbers of the target's customers. Third, the acquiring bank may fail to recognize significant asset risks such as non-performing loans that are embedded on the target's balance sheet.²⁹⁸

In just the past five years, culture clashes undermined Bank One's merger with First Chicago NBD, First Union's acquisition of CoreStates, and Wells Fargo's merger with First Interstate. As previously discussed, postmerger cutbacks in customer service caused First Union and Wells Fargo to lose significant portions of the customer bases of CoreStates and First Interstate. First Union suffered further devastating losses because of its failure, during premerger due diligence, to recognize Money Store's asset quality problems and inflated earnings.²⁹⁹ Merger-related operating risks are likely to be even greater in cross-industry mergers

struggles" among managers of the various operating units, resulting in "defensive investments" by unit managers and an inefficient allocation of financial resources by senior management).

297. See, e.g., WILLIAMSON, *supra* note 295, at 34–36, 41–43 (contending that corporate expansion plans often create "control loss" problems that result in diminished returns to scale); Jensen, *Agency Costs*, *supra* note 296, at 328 (maintaining that conglomerate diversification programs frequently produce managerial "empires with few economies of scale or scope"); Anthony M. Santomero & David L. Eckles, *The Determinants of Success in the New Financial Services Environment*, FED. RES. BANK OF N.Y., ECON. POL'Y REV., Oct. 2000, at 11, 14 (stating that the failure of most large bank mergers to produce higher cost efficiencies is probably due to "managerial or span-of-control issues"); see also Berger et al., *supra* note 152, at 166–69 (suggesting that a large, diversified bank that provides "wholesale capital market services to large customers" may encounter "organizational diseconomies" that make it very hard to provide effective "relationship-based services" to retail customers and small businesses); Matt Murray, *Critical Mass: As Huge Companies Keep Growing, CEOs Struggle to Keep Pace*, WALL ST. J., Feb. 8, 2001, at A1 (reporting that (i) "[m]any of the new behemoths created by recent [corporate and bank] mergers are floundering, including [a]cquisitive banks like Bank of America Corp. and Bank One Corp.," and (ii) corporate CEOs admit that "bigness has become a battle with a new kind of complexity and a new degree of turmoil").

298. See Kane, *Megamerger Incentives*, *supra* note 259, at 685–86, 690–91; Wilmarth, *Big Bank Mergers*, *supra* note 106, at 14–21; see also JOHN SPIEGEL ET AL., *BANKING REDEFINED: HOW SUPERREGIONAL POWERHOUSES ARE RESHAPING FINANCIAL SERVICES* 407–08 (1996) (stating that, after acquiring Security Pacific in 1992, Bank of America was "forced to write off nearly the entire purchase price of \$4.6 billion" due to severe loan problems that it failed to detect at Security Pacific); Wilmarth, *Too Big to Fail*, *supra* note 157, at 989, 993 (citing other large bank mergers in which undiscovered loan problems at target institutions inflicted large losses on acquiring banks).

299. See Drew Clark, *Wells Spells Out 1st Interstate Merger Difficulties*, AM. BANKER, July 22, 1997, at 1 (discussing culture clash created by the Wells Fargo-First Interstate merger); Mollenkamp, *First Union*, *supra* note 260 (discussing First Union's failure to perform adequate due diligence before acquiring Money Store); Jeffrey Sheban, *Fall of a Dynasty: John B.'s Exit Ends McCoys' 65-Year Run Atop Bank One*, COLUMBUS DISPATCH (OH), May 14, 2000, at 1H (describing culture conflict produced by Bank One's merger with First Chicago NBD); Weber, *supra* note 260 (same); Weil & Keenan, *supra* note 261 (describing how First Union alienated CoreStates' customers); *supra* notes 260–63 and accompanying text (discussing reasons for the poor results of the foregoing mergers).

among banks, securities firms, and insurance providers, because of the very different cultures that characterize the three industries.³⁰⁰

Comparative earnings data provide further evidence that large, diversified banks are unlikely to produce the synergies predicted by advocates of universal banking. Since 1970, U.S. banks larger than \$10 billion have consistently produced a lower average return on assets (ROA) than smaller banks.³⁰¹ During fourteen of the past sixteen years, the nine or ten largest U.S. banks recorded a lower average ROA than any smaller

300. See *infra* notes 441, 445, 915, 944, 952 and accompanying text (describing culture clashes following mergers among banks, securities firms, and insurance providers).

301. See John H. Boyd & Stanley L. Graham, *Investigating the Banking Consolidation Trend*, FED. RES. BANK OF MINNEAPOLIS, Q. REV., Spring 1991, at 3, 6-8 tbls.2 & 3 [hereinafter Boyd & Graham, *Consolidation Trend*] (showing that banks larger than \$10 billion had a lower average ROA during 1971-87 than banks in any smaller size category); Wilmarth, *Too Big to Fail*, *supra* note 157, at 1009 n.236 (citing congressional study showing that, during 1985-91, banks larger than \$10 billion were less profitable than banks with assets between \$100 million and \$10 billion); see also Wilmarth, *Big Bank Mergers*, *supra* note 106, at 21 & n.89 (showing that, during 1992-94, banks larger than \$10 billion had a lower average ROA than banks in any smaller size category); FDIC Q. BANKING PROFILE, 4th Qtr. 1995, at 5 tbl.III-A (showing same result for 1995); FDIC Q. BANKING PROFILE, 4th Qtr. 1996, at 5 tbl.III-A (showing same result for 1996); FDIC Q. BANKING PROFILE, 4th Qtr. 1997, at 5 tbl.III-A (showing same result for 1997); FDIC Q. BANKING PROFILE, 4th Qtr. 1998, at 5tbl.III-A (showing same result for 1998); FDIC Q. BANKING PROFILE, 4th Qtr. 1999, at 5 tbl.III-A (showing that, during 1999, banks larger than \$10 billion had a lower average ROA than banks in any smaller size category, except for the group of banks having assets of less than \$100 million); FDIC Q. BANKING PROFILE, 4th Qtr. 2000, at 5 tbl.III-A (showing same result for 2000 as in 1999).

I believe that ROA is the most reliable benchmark to compare earnings for banks of various sizes. ROA is generally recognized as "the most commonly used measure of bank profitability." Berger & Humphrey, *Megamergers*, *supra* note 256, at 556. Most analysts believe that ROA provides a more accurate measure than return on equity (ROE) for comparing the profitability of large and small banks. Large banks typically operate with lower capital ratios (i.e., higher leverage) and therefore have a significant advantage in generating ROE compared to smaller banks with higher capital ratios. See Boyd & Graham, *Consolidation Trend*, *supra*, at 7 n.4, 14; Stephen A. Rhoades, *The Efficiency Effects of Bank Mergers: An Overview of Case Studies of Nine Mergers*, 22 J. BANKING & FIN. 273, 281 (1998) (agreeing that ROA is preferable to ROE as a benchmark for comparing the profitability of large and small banks). Moreover, as discussed *infra* at notes 355-58 and accompanying text, the willingness of financial markets to tolerate higher leverage in major banks appears to be the result of implicit subsidies provided to those banks under the federal government's TBTF policy.

If the ROE benchmark is used, profits earned by the largest banks still do not compare favorably with those of mid-sized regional banks. During fourteen of the past sixteen years, the average ROE for the nine or ten biggest banks fell below the average ROE for regional banks, notwithstanding the fact that the largest institutions operated with significantly lower capital ratios. See Bassett & Zakrajsek, *2000 Banking Developments*, *supra* note 111, at 386-87 tbl.A.2.B., 388-89 tbl.A.2.C. (showing that, during 2000, the average ROE and average equity capital ratio for the ten largest banks were substantially lower than the comparable figures for banks ranked 11-100 in size); Bassett & Zakrajsek, *1999 Banking Developments*, *supra* note 97, at 388-89 tbl.A.2.B., 390-91 tbl.A.2.C. (showing that, during 1990-99, (i) the average ROE for the ten largest banks was lower in every year, except 1990, than the average ROE for banks ranked 11-100 in size; and (ii) the average equity capital ratio for the ten largest banks was substantially lower in every year than the ratio for banks ranked 11-100 in size); John V. Duca & Mary M. McLaughlin, *Developments Affecting the Profitability of Commercial Banks*, 76 FED. RES. BULL. 477, 483 tbl.4 (1990) (showing that, during 1985-89, the average ROE for the nine "money center" banks was lower in every year, except 1988, than the average ROE for all other "large" banks with more than \$5 billion in assets); *id.* at 496 tbl.A.2.D., 498 tbl.A.2.E. (showing that, during the same period, the average equity capital ratio for the nine money center banks was substantially lower in every year than the ratio for other large banks).

size category of banks.³⁰² In addition, a recent study showed that profits of specialized financial firms, like MBNA and Capital One, grew three times as fast during 1994–98 as the profits of the sixty-five largest diversified banks. The study's authors and other analysts attributed the poor performance of big diversified banks to their higher overhead costs, inferior customer service, and "organizational complexity" that produced (i) loss of "hands-on" control by senior management and (ii) "competing agendas" among subsidiary units.³⁰³ In sum, bank earnings results provide additional reasons to question the ability of big, complex financial institutions to produce positive synergies of scale or scope.

ii. Managerial Self-Interest and Hubris

Managerial self-interest and hubris almost certainly contribute to the disappointing outcomes of large bank mergers. Economic and behavioral studies have shown that senior executives have powerful motives to expand the size and scope of their firm, regardless of the potential adverse effect of expansion on shareholder value. Unlike portfolio investors, who can easily diversify their investment risk by purchasing shares in a wide range of companies, managers have a concentrated, employment-based investment risk in their firm. Accordingly, executives are strongly inclined to pursue growth and diversification programs that diminish the potential threat to their jobs from insolvency or hostile takeovers, even if those strategies produce negative returns for shareholders.³⁰⁴ Managers also recognize that acquisitions lead to higher compensation, increased prestige, and other perquisites that usually far outweigh any potential loss in the value of their shares.³⁰⁵ Not surprisingly,

302. See Bassett & Zakrajšek, *2000 Banking Developments*, *supra* note 111, at 387 tbl.A.2.B., 389 tbl.A.2.C., 391 tbl.A.2.D., 393 tbl.A.2.E. (showing that, during 2000, the ten largest banks had a lower ROA than any smaller size category of banks); Bassett & Zakrajšek, *1999 Banking Developments*, *supra* note 97, at 389 tbl.A.2.B., 391 tbl.A.2.C., 393 tbl.A.2.D., 395 tbl.A.2.E. (showing that, during 1990–99, the ten largest banks produced a lower average ROA than any smaller size category of banks in every year except 1990, when their ROA exceeded *only* the ROA for banks ranked 11–100 in size); Duca & McLaughlin, *supra* note 301, at 483 tbl.4 (showing that, during 1985–89, the nine "money center" banks earned a lower average ROA than any smaller size category of banks in every year except 1988, when their ROA exceeded the ROA of all other size ranges of banks).

303. See Moyer, *Diversified Banks Lag In Profit Growth*, *supra* note 283 (describing Booz-Allen's study and analysts' responses to that study).

304. See, e.g., Linda Allen & A. Sinan Cebenoyan, *Bank Acquisitions and Ownership Structure: Theory and Evidence*, 15 J. BANKING & FIN. 425, 429–30 (1991); Yakov Amihud & Baruch Lev, *Risk Reduction as a Managerial Motive for Conglomerate Mergers*, 12 BELL J. ECON. 605 *passim* (1981); Coffee, *supra* note 292, at 16–24; Gary Gorton & Richard Rosen, *Corporate Control, Portfolio Choice, and the Decline of Banking*, 50 J. FIN. 1377, 1379–82 (1995); Don O. May, *Do Managerial Motives Influence Firm Risk Reduction Strategies?*, 50 J. FIN. 1291, 1291–92 (1995); Randall Morck et al., *Do Managerial Objectives Drive Bad Acquisitions?*, 45 J. FIN. 31, 31–33 (1990).

305. See, e.g., Allen & Cebenoyan, *supra* note 304, at 429; Boyd & Graham, *Consolidation Trend*, *supra* note 301, at 12; David J. Denis et al., *Agency Problems, Equity Ownership, and Corporate Diversification*, 52 J. FIN. 135, 135–36 (1997); Jensen, *Agency Costs*, *supra* note 296, at 323. A recent study found that large bank mergers during 1986–95 produced major increases in total compensation for the chief executive officers (CEOs) of the acquiring banks. Although the acquiring banks' stock prices

studies have shown that managerial self-interest plays a major role in determining the frequency of mergers among both corporations and banks.³⁰⁶

In addition to self-interest, excessive optimism and overconfidence cause senior executives to exaggerate potential gains and minimize potential risks associated with acquisitions. Empirical and behavioral studies have concluded that "hubris" frequently causes acquiring firm executives to pay excessive merger premiums and, therefore, produce poor investment returns for their shareholders.³⁰⁷ Extreme confidence has certainly been a hallmark of bank CEOs who pursue ambitious growth

usually declined after such mergers, their CEOs still reaped very significant overall gains in wealth. Richard T. Bliss & Richard J. Rosen, *The Relationship between Mergers and CEO Compensation at Large Banks*, in GLOBAL FINANCIAL CRISES: IMPLICATIONS FOR BANKING AND REGULATION, PROCEEDINGS OF THE 35TH ANN. CONF. ON BANK STRUCTURE & COMPETITION 516, 521-25 (Fed. Res. Bank of Chi. ed., 1999).

306. See Amihud & Lev, *supra* note 304; Coffee, *supra* note 292, at 18-20, 28-35; Denis et al., *supra* note 305, at 136-37; Jensen, *Agency Costs*, *supra* note 296, at 323-24, 327-28; Morck et al., *supra* note 304, at 31-34, 46-47.

Two studies have confirmed the importance of managerial motives in determining bank acquisition policies. The first study examined the motives of acquiring bank managers in fifty-eight bank holding companies that purchased 546 banks during 1979-86. This study found that acquiring banks with entrenched management (i.e., with high levels of managerial stock ownership and low levels of outside investor ownership) pursued the most active acquisition policies and produced negative market-adjusted returns for their shareholders. In contrast, banks whose equity ownership interests were balanced between managers and outside investors followed less active, and more profitable acquisition programs. The authors concluded that entrenched managers pursued empire-building acquisition policies that were consistent with the "agency cost" model of managerial behavior. Allen & Cebe-
noyan, *supra* note 304, at 426-29, 436-45.

The second study analyzed the motives of target bank managers by examining 168 banks, of which half were acquired and half remained independent during 1982-92. This study determined that banks with entrenched management (i.e., with high levels of ownership by managers and "affiliated" shareholders) were significantly less likely to be acquired than similar banks that did not have entrenched managers. The study also concluded that poor financial performance was a less important factor in determining whether a bank was acquired. The authors concluded that the "entrenchment hypothesis" (viz., that target bank managers are likely to prevent takeovers if they hold significant equity voting power) provided a more persuasive explanation for bank merger patterns than the "discipline hypothesis" (viz., that bank takeovers are usually directed at poorly performing banks with ineffective managers). Charles Hadlock et al., *The Role of Managerial Incentives in Bank Acquisitions*, 23 J. BANKING & FIN. 221 *passim* (1999).

307. One leading study of corporate acquisitions evaluated the impact of managerial overconfidence based on three indicators of CEO hubris—recent firm success, media praise for the CEO, and the CEO's compensation relative to subordinate officers. Based on a sample of 106 large corporate mergers that occurred in 1989 and 1992, the authors determined that these indicators of hubris were significantly correlated, both individually and collectively, with the size of premiums paid by acquiring firms and the negative returns received by acquiring firm shareholders. The study also found that acquiring firms were more likely to pay excessive premiums when CEOs with high hubris indicators were subject to weak board vigilance (i.e., when the CEO was also board chairman or there was a high percentage of inside directors). See Hayward & Hambrick, *supra* note 272, *passim*.

Other studies of corporate and bank mergers have similarly concluded that managerial hubris plays an important role in causing acquiring firms to pay excessive premiums and produce poor investment returns for their shareholders. See Bernard S. Black, *Bidder Overpayment in Takeovers*, 41 STAN. L. REV. 597, 624-26 (1989); Donald C. Langevoort, *Organized Illusions: A Behavioral Theory of Why Corporations Mislead Stock Market Investors (and Cause Other Social Harms)*, 146 U. PA. L. REV. 101, 139-42 (1997); Todd T. Milbourn et al., *Megamergers and Expanded Scope: Theories of Bank Size and Activity Diversity*, 23 J. BANKING & FIN. 195, 196-99, 207-09, 211-12 (1999); Richard Roll, *The Hubris Hypothesis of Corporate Takeovers*, 59 J. BUS. 197, 198-200, 212-14 (1986).

strategies. For example, in announcing NationsBank's 1998 merger with Bank of America, the resulting bank's CEO, Hugh McColl, proclaimed: "Bigger is indeed better. We're not in any business we don't understand."³⁰⁸ Similarly, John McCoy and Edward Crutchfield, the former CEOs of Bank One and First Union, publicly trumpeted the virtues of size and consolidation as their banks grew rapidly during 1997–98.³⁰⁹ In announcing the formation of Citigroup in 1998, co-chairman Sandy Weill declared that "[o]ur company will be so diversified and in so many different areas that we will be able to withstand [market] storms."³¹⁰

Events since 1998 have created severe doubts about the accuracy of these confident predictions. During 1999–2000, Bank of America, Bank One, and First Union struggled with severe merger-related problems and recorded huge charges against earnings. By February 2001, Messrs. McColl, McCoy, and Crutchfield had all resigned as CEOs of their respective banks.³¹¹ In contrast, Citigroup performed well during 1999–2000. However, Citigroup suffered trading losses of more than \$1 billion during the global financial crisis that erupted in the fall of 1998. In addition, Citigroup's earnings fell during the first nine months of 2001, due to growing losses, problems with nonperforming loans, losses in its property and casualty insurance unit, and declining revenues from its capital markets activities.³¹² Citigroup's trading losses during 1998 and its earnings

308. Dean Foust, *A Megabank in the Making*, BUS. WK., Sept. 13, 1999, at 144 [hereinafter Foust, *Bank of America*]; see also Kutler, *Is Bigger Better?*, *supra* note 281 (quoting ABN Amro chairman Jan Kalf's claim that "[b]ig will be beautiful in banking").

309. See Kutler, *Bigness Apostles*, *supra* note 175, at 1 (quoting statement made by Bank One chairman John McCoy in December 1998, asserting that "[s]cale and size are more and more important"); Jeffrey Kutler, *First Union Chief's Assertions Rile Skeptics on Benefits of Size*, AM. BANKER, Dec. 10, 1997, at 1 (quoting similar claim by First Union chairman Edward Crutchfield).

310. Siconolfi, *Citigroup*, *supra* note 10, at A8. Mr. Weill has continued to pursue an aggressive expansion strategy, both domestically and overseas, since Citigroup was formed. See, e.g., Paul Beckett, *Heard on the Street: Economy Spurs Spending Cuts at Citigroup*, WALL ST. J., Mar. 6, 2001, available at WL-WSJA 3345970 [hereinafter Beckett, *Citigroup*] (stating that "Mr. Weill's long track record of growing through acquisitions" was reflected in a series of recent deals, including Citigroup's big acquisition of Associates First Capital); Heather Timmons et al., *Sandy Weill Wants the World*, BUS. WK., June 4, 2001, at 88, 88 (describing "[Mr.] Weill's mid-market buying binge" in overseas markets during 2000–01).

311. See *supra* notes 260–62, 299 and accompanying text. In an interview following his resignation, Mr. Crutchfield was asked whether a bank could become "too big" to manage. His response was much more equivocal than his earlier proclamations about the benefits of size. Mr. Crutchfield said, "[t]here is no question that size brings benefits. But do they outweigh the downside of being slow, bureaucratic? I'm not sure." Rehm, *Goodbye Boys*, *supra* note 260.

312. Beckett, *Citigroup*, *supra* note 310 (stating that Citigroup produced a "strong performance" in 2000 with a 19% rise in profits); James Flanigan, *Citigroup as Barometer and Business Model*, L.A. TIMES, Jan. 23, 2000, at C1 [hereinafter Flanigan, *Citigroup as Business Model*] (discussing Citigroup's good performance in 1999); Moyer & Boraks, *supra* note 117 (reporting a 6% rise in Citigroup's profits during the second quarter of 2001); Moyer et al., *supra* note 117 (reporting an 8% drop in Citigroup's profits during the first quarter of 2001); Sapsford et al., *2001 Bank Earnings*, *supra* note 117 (reporting that Citigroup's earnings fell by 9% during the third quarter of 2001, due in part to increases in nonperforming loans and a \$500 million estimated loss at its property and casualty unit caused by the terrorist attacks on the World Trade Center); see also *supra* note 117 and accompanying text (describing decline in capital markets revenues at Citigroup during 2001); *infra* note 673 and accompanying text (discussing Citigroup's trading losses during the second half of 1998).

shortfall during 2001 raise questions about its potential vulnerability to severe economic shocks.

If the market for corporate control operated effectively in the banking industry, the threat of hostile takeovers would restrain bank executives who might otherwise be tempted to pursue value-reducing growth strategies. During the past two decades, however, only two hostile acquisitions of large U.S. banks have succeeded against the determined resistance of target bank managers.³¹³ Regulatory approval requirements for bank mergers create significant obstacles to hostile takeovers. In light of those impediments, most analysts believe that the threat of hostile takeovers has a very limited disciplining effect on big bank executives in the U.S.³¹⁴

It is true that boards of directors and institutional investors have taken more aggressive measures against poorly performing bank execu-

313. See SPIEGEL ET AL., *supra* note 298, at 350 (stating that the Bank of New York-Irving Bank transaction was “the first time” bank regulators had permitted “a hostile merger of two competing banks”); Liz Moyer, *Long-Running Trend Is Not Very Friendly to Hostile Takeovers*, AM. BANKER, May 15, 2001, at 2 (stating that Wells Fargo’s acquisition of First Interstate in 1996 and Bank of New York’s acquisition of Irving Trust in 1988 were the only two successful hostile takeovers of large banks since 1987); see also David A. Skeel, Jr., *The Market Revolution in Bank and Insurance Firm Governance: Its Logic and Limits*, 77 WASH. U. L.Q. 433, 447 n.60 (1999) (noting that “nearly all of the bank takeovers [during the 1990s] have been consensual mergers—at least in form”). In 2001, Sun Trust’s attempt to make a hostile acquisition of Wachovia failed, and Wachovia entered into a friendly merger with First Union. Bruce, *Wachovia Deal*, *supra* note 153.

Stephen Prowse identified four “hostile” acquisitions of banks during 1987–92, but his definition of “hostile” did not require any persistent opposition by the target bank’s management. Instead, he classified a merger as “hostile” if (i) the initial bid for the bank was unsolicited, and (ii) the target’s board of directors did not accept the bid in its original form. Stephen Prowse, *Corporate Control in Commercial Banks*, 20 J. FIN. RES. 509, 514 (1997). Even under this relaxed definition, Prowse found that “hostile” acquisitions occurred only one-fifth as often in the banking industry during 1987–92 as they did in the industrial sector. *Id.* at 518.

314. See, e.g., 12 U.S.C. §§ 215, 215a, 1828(c), 1842(a)–(c) (1994) (establishing regulatory approval requirements for bank mergers and acquisitions); see also Boyd & Graham, *Consolidation Trend*, *supra* note 301, at 12 (stating that regulatory approval requirements make hostile bank takeovers “extremely difficult to execute”); Skeel, *supra* note 313, at 448 (expressing similar view). For studies confirming that hostile takeovers play only a minor role in disciplining bank managers, see Gorton & Rosen, *supra* note 304, at 1379–82, 1409–10 (concluding that the relative absence of hostile takeovers, along with entrenched management and other corporate control problems, led to poor performance among large U.S. banks during the 1980s); Prowse, *supra* note 313, at 510–13, 525–27 (concluding that, during 1987–92, federal regulators were the primary disciplining force for bank managers and hostile takeovers were a relatively ineffective disciplining device).

The extraordinarily generous compensation paid by acquiring banks to target bank CEOs provides further evidence of the major obstacles to hostile bank takeovers. Acquiring banks evidently regard these huge payments to target bank executives as part of “the cost of doing the deal,” because of the great difficulty in accomplishing a takeover if the target’s management refuses to accept a consensual merger. See, e.g., Carter H. Golembe, *‘Golden Parachutes’: Are They a Necessary Component of Mergers and Acquisitions?*, BANKING POL’Y REP., Aug. 17, 1998, at 1, 16 (questioning the justification for large payments made to target bank executives, but noting that hostile bank takeovers are “generally rare” and “it is almost always [the target’s] top management that decides when to sell and when not to sell”); Liz Moyer, *Joining the Postmerger Parade, Ex-BT Chief Set To Exit Deutsche*, AM. BANKER, June 28, 1999, at 1, 5 (quoting Alan Johnson, an executive recruiter, and reporting that Frank Newman, ex-chairman of Bankers Trust, and David Coulter, ex-chairman of Bank of America, were each given compensation packages of about \$100 million after agreeing to sell their banks, while Terrence Larsen, ex-chairman of CoreStates, received \$25 million under similar circumstances).

tives in recent years.³¹⁵ Nevertheless, bank directors and outside shareholders are generally viewed as being less effective than their industrial counterparts in disciplining managers.³¹⁶ The relative weakness of the market for corporate control in the banking industry raises the clear risk that (i) big bank executives will not be deterred from pursuing ill-advised growth and diversification agendas, and (ii) the resulting megabanks will not be “reversible” because—unlike the industrial conglomerates of the 1980s—it will be very difficult for takeover bidders to break up major banks even if those institutions prove to be inefficient and unprofitable.³¹⁷

Indeed, a major growth incentive for bank managers is the widely shared assumption that the biggest banks will achieve *permanent* status at the top of the financial industry. Bank executives and analysts view size as a strong deterrent against hostile takeovers, and most believe that the five or ten largest banks cannot be acquired against the wishes of their management.³¹⁸ In many recent large bank mergers, the acquiring bank’s managers have acknowledged that the deal was motivated, at least in part, by their desire to remain independent.³¹⁹ Thus, the desire of man-

315. See, e.g., David Barboza, *Top Executive at Bank One Steps Down*, N.Y. TIMES, Dec. 22, 1999, at C1 [hereinafter Barboza, *Bank One*] (reporting that John McCoy resigned as chief executive of Bank One, evidently under board pressure due to disappointing earnings); Kenneth N. Gilpin, *The Big Investor: A Rattler of the Status Quo With Status in His Veins*, N.Y. TIMES, Nov. 19, 1997, at D4 (reporting that George Strawbridge Jr., acting as a director and major shareholder, joined with his fellow board members to (i) force the managers of Meridian Bank to accept a merger offer from CoreStates in 1995, and (ii) compel the managers of CoreStates to accept a merger offer from First Union in 1997); Daniel Kaplan, *New Breed of Institutional Investors Shaking Up the Banking Industry*, AM. BANKER, Aug. 14, 1996, at 1 (describing how institutional investor Michael Price pressured Chase’s management to agree to a merger with Chemical Bank in 1995).

316. See, e.g., Gorton & Rosen, *supra* note 304, at 1379–82, 1386–93, 1401–10 (finding that, during 1984–90, outside shareholders failed to prevent entrenched bank managers from pursuing risky lending strategies that resulted in poor earnings); Prowse, *supra* note 313, at 511, 516–18, 525–26 (finding that, during 1987–92, bank directors were “much less assertive than their counterparts at nonfinancial firms,” because bank boards removed senior officers only half as frequently as boards of manufacturing firms); Kover, *supra* note 137, at 194 (contending that top executives at big banks were able to make unprofitable acquisitions during the 1990s because “bank boards are notoriously weak and incestuously close to their CEOs”).

317. See Skeel, *supra* note 313, at 449–50; *supra* notes 292–93 and accompanying text (discussing the breakup of industrial conglomerates during the 1980s).

318. See Hechinger, *FleetBoston*, *supra* note 153 (stating that Fleet’s acquisition of BankBoston, creating the eighth largest U.S. bank, was motivated by Fleet chairman Terrence Murray’s belief that “Fleet must be in the top 10 to remain independent”); Kutler, *Bigness Apostles*, *supra* note 175, at 1 (quoting claims by big bank executives that huge size would enable their institutions to achieve long-term dominance in the financial services industry); Gordon Matthews, *Deals Leaving Distinct Groups: Buyers, Prey*, AM. BANKER, Dec. 9, 1997, at 25 [hereinafter Matthews, *Merger Deals*] (quoting analyst David Berry’s view that the five largest U.S. banks would be “likely, though not guaranteed, survivors in banking industry consolidation”); Gary Silverman, *It’s Not the Last Act for First Union*, BUS. WK., Aug. 30, 1999, at 193, 196 (quoting analyst Charles Peabody’s opinion that, despite serious earning problems, First Union, the sixth largest U.S. bank, would not be taken over against the wishes of its senior management because “bigness guarantees survival”); see also Boyd & Graham, *Consolidation Trend*, *supra* note 301, at 12 (discussing tendency among large bank executives to adopt a growth strategy to deter hostile takeovers); Vander Vennet, *supra* note 258, at 1535 (expressing similar view).

319. See, e.g., Wilmarth, *Big Bank Mergers*, *supra* note 106, at 23–26 (citing press reports indicating the same motivation for acquiring bank executives in several large mergers announced in 1995);

agers to shield their positions from the threat of unwanted takeovers appears to be a major factor underlying bank acquisition programs.

iii. The Pursuit of Market Power

Bank executives and analysts believe that big banks can acquire market power and charge higher prices if they succeed in building a leading position in a geographic or product market.³²⁰ Investors appear to share this expectation. Studies have found that U.S. and European stock markets often respond positively in the short term to mergers between large banks that are direct competitors in the same geographic market. In contrast, market-extension mergers between banks in different geographic markets have usually triggered a negative short-term reaction from stock markets.³²¹

The market power rationale for bank acquisitions reflects the widespread assumption that banks can exercise price leadership in markets where they rank among the largest competitors.³²² Empirical evidence indicates that banks with market power in local geographic markets do typically charge higher prices for certain financial products in those markets. For example, numerous studies have found that banks in highly concentrated local markets pay below-average interest rates on consumer deposits and charge above-average interest rates on loans to consumers and small businesses.³²³ Another study concluded that (i) domi-

Hechinger, *FleetBoston*, *supra* note 153 (reporting that Fleet chairman Terrence Murray's "goal of staying independent" was a major reason for Fleet's decision to acquire BankBoston in 1999); *see also* Matthews, *Merger Deals*, *supra* note 318, at 25 (discussing large bank mergers announced in 1997, and stating that "[w]hat acquiring banks have gained in striking such huge deals, at once unimaginable prices, is membership in the industry's increasingly exclusive longevity club").

320. *See, e.g.*, Wilmarth, *Big Bank Mergers*, *supra* note 106, at 31 (citing similar predictions by big bank executives and analysts); Jacqueline S. Gold, *Manageability Becomes Issue as Banks Swallow Others*, AM. BANKER, Mar. 28, 1996, at A2 ("New Giants" Supp. (quoting analyst Brent Erensel's view that "[c]onsolidation makes sense and is good. . . . It confers pricing power on the dominant institutions—they have larger market shares and a greater ability to control prices of their products"); Saul Hansell, *Banking's Consolidation: The Next Deal; In Northeast Bank Flux, Who's Next in Line?*, N.Y. TIMES, Nov. 19, 1997, at D1 (stating that First Union's acquisition of CoreStates would "solidify its role as the dominant retail bank in the Northeast"); Hechinger, *FleetBoston*, *supra* note 153 (stating that Fleet's acquisition of BankBoston would "create a New England powerhouse" with "dominance in New England retail banking"); Gordon Matthews, *NationsBank CEO Says Fla. Deal Sews Up The Southeast*, AM. BANKER, Sept. 3, 1997, at 1 (quoting NationsBank CEO Hugh McColl Jr.'s claim that his bank's acquisition of Barnett Bank was "the most important acquisition we could have made," because it made NationsBank "the largest bank in Florida and in the Southeast"); Matt Murray & Rick Brooks, *Syndicated-Lending Field to Get a Giant*, WALL ST. J., July 23, 1998, at C1 (quoting a NationsBank officer's claim that NationsBank's merger with Bank of America would enable the resulting institution to "dominate" the syndicated lending business); .

321. *See* Cybo-Ottone & Murgia, *supra* note 269, at 845, 851, 853, 855-57; Kane, *Megamerger Incentives*, *supra* note 259, at 673-74, 686-90; DeLong, *supra* note 256, at 1-2, 14-20.

322. *See* Boyd & Graham, *Consolidation Trend*, *supra* note 301, at 8 n.5, 12-13; Danielson, *Banking Trends*, *supra* note 281, at 13, 16-20; Rhoades, *Competition Analysis*, *supra* note 157, at 340-41, 361-62; Vander Venet, *supra* note 258, at 1534-35, 1546, 1548; Wilmarth, *Big Bank Mergers*, *supra* note 106, at 5, 31; Wilmarth, *Too Big to Fail*, *supra* note 157, at 1023.

323. *See, e.g.*, Charles M. Kahn et al., *Bank Consolidation and Consumer Loan Interest Rates*, in THE CHANGING FINANCIAL INDUSTRY STRUCTURE AND REGULATION, PROCEEDINGS OF THE 36TH

nant banks in local markets exercised market power over commercial loan prices, and (ii) competition from small local banks and local offices of out-of-market banks had only a minor restraining effect on the dominant banks.³²⁴

Finally, three recent studies concluded that large bank mergers between direct competitors in the same local market reduced competition for consumer financial products. Two studies found that banks paid significantly *lower* interest rates on consumer deposits in local markets after large mergers had significantly raised the concentration levels of those markets.³²⁵ A third study determined that banks charged significantly *higher* interest rates on unsecured consumer loans in urban markets after concentration levels were similarly raised by large in-market mergers.³²⁶

The foregoing evidence of pricing power exercised by dominant banks in local markets is consistent with studies showing that consumers and small businesses continue to rely primarily on local banks for deposit services and lines of credit.³²⁷ In contrast, local banks exercise little pricing power over (i) certain consumer financial services, such as mortgages, auto loans, mutual funds, and brokerage services, which are mass-marketed on a nationwide basis by major banks and large nonbank financial providers, and (ii) financial services for large corporations, which can readily obtain equivalent products from distant banks or the capital markets. Thus, dominant banks in local markets are likely to wield market power with respect to a limited set of retail financial services for

ANN. CONF. ON BANK STRUCTURE & COMPETITION 563, 566-68 (Fed. Res. Bank of Chi. ed., 2000) (studying effects of local market concentration on bank interest rates for unsecured consumer loans); Allen N. Berger & Timothy H. Hannan, *Using Efficiency Measures to Distinguish Among Alternative Explanations of the Structure-Performance Relationship in Banking*, 23 MANAGERIAL FIN. 6, 14-22 (1997) [hereinafter Berger & Hannan, *Efficiency Measures*] (studying effects of local market concentration on bank interest rates for consumer deposits); Rhoades, *Competition Analysis*, *supra* note 157, at 356-59 (describing various studies that considered the impact of local market concentration on bank interest rates for consumer deposits, consumer loans and commercial loans); Simons & Stavins, *supra* note 156, at 17 (same); Wilmarth, *Too Big to Fail*, *supra* note 157, at 1020-23 (same).

324. John D. Wolken & John T. Rose, *Dominant Banks, Market Power, and Out-of-Market Productive Capacity*, 43 J. ECON. & BUS. 215 *passim* (1991) (presenting study of local banking markets in 1985 where at least one bank had a market share of more than 20%); *see also* Gerald A. Hanweck & Stephen A. Rhoades, *Dominant Firms, "Deep Pockets," and Local Market Competition in Banking*, 36 J. ECON. & BUS. 391, 391-92, 397-401 (1984) (finding that, during 1966-76, prices were higher and competition was weaker in local banking markets where one or more "dominant" banks were present).

325. *See* Robin A. Prager & Timothy D. Hannan, *Do Substantial Horizontal Mergers Generate Significant Price Effects? Evidence from the Banking Industry*, 46 J. INDUS. ECON. 433, 435-37, 442-44, 450-51 (1998); Simons & Stavins, *supra* note 156, at 14-15, 20-26.

326. *See* Kahn et al., *supra* note 323, at 568-72.

327. *See, e.g.,* DEAN F. AMEL & MARTHA STARR-MCCLUER, MARKET DEFINITION IN BANKING: RECENT EVIDENCE 10-16 (Bd. of Governors of Fed. Res. Sys., Fin. & Econ. Discussion Ser. Working Paper No. 2001-16, Feb. 2001), available at <http://www.federalreserve.gov>; Kwast et al., *supra* note 196, at 976-78, 982-86, 991-95; Rhoades, *Competition Analysis*, *supra* note 157, at 343-48, 356-64; *supra* notes 322-26 and accompanying text.

which there is little competition from nonlocal banks or nonbank providers.³²⁸

During the past two decades, big banks may also have gained pricing power over deposit services in regional markets. National surveys have shown that the largest banks pay interest rates on deposits that are substantially lower than the rates paid by smaller banks.³²⁹ Studies have also found that large, multistate banks charge fees on deposit accounts that are significantly higher than the fees assessed by small community banks.³³⁰ In particular, compared to smaller banks, large banks impose ATM surcharges on noncustomers more frequently, and their surcharges are substantially higher.³³¹ Some observers have concluded that large banks use ATM surcharges on noncustomers as a competitive weapon to attract patrons away from smaller banks and credit unions.³³²

328. See AMEL & STARR-MCCLUER, *supra* note 327, at 10–16; Berger & Hannan, *Efficiency Measures*, *supra* note 323, at 16; Rhoades, *Competition Analysis*, *supra* note 157, at 342–47; see also Kahn et al., *supra* note 323, at 566–68 (finding that banks in concentrated local markets did *not* charge significantly higher interest rates on automobile loans, and noting the competitive impact of loan programs offered by the captive finance subsidiaries of automobile manufacturers); *supra* Part I(A)(2)(a) (discussing the increasing availability to large corporations of capital market substitutes for bank loans).

329. See Hanweck & Shull, *supra* note 147, at 274–75 (finding that, during 1988–97, the ten largest banks paid interest rates on domestic deposits that, on average, were significantly lower than the rates paid by any smaller size category of banks); Simons & Stavins, *supra* note 156, at 19–20, 24 (finding that, compared to small banks, large banks paid significantly lower interest rates on deposits during 1986–94).

330. See Timothy H. Hannan, *Retail Fees of Depository Institutions, 1994–99*, 87 FED. RES. BULL. 1, 1, 8–11 (2001) [hereinafter Hannan, *Retail Fees*]; Hanweck & Shull, *supra* note 147, at 266–69; see also Kenneth Talley, *Bank Fees: Report Says Big Banks Charging Hidden Fees To Reap Record Profits*, 73 Banking Rep. (BNA) No. 14, at 614 (Oct. 14, 1999) (reporting on results of bank fee survey prepared by U.S. Public Interest Research Group); Robert Trigaux, *Florida Checking Among Costliest*, ST. PETERSBURG TIMES (Fla.), May 16, 1998, at 1E (reporting that Bank Rate Monitor, in a national survey of checking accounts, found that “[t]he nation’s largest banks dominated the list of most-expensive accounts”).

331. See David Balto, *Regulatory, Competitive, and Antitrust Challenges of ATM Surcharges*, 71 Banking Rep. (BNA) No. 2, at 82, 83 (July 13, 1998); U.S. GEN. ACCT. OFF., *AUTOMATED TELLER MACHINES: SURVEY RESULTS INDICATE BANKS’ SURCHARGE FEES HAVE INCREASED*, GAO/GGD-98-101, at 1, 8 fig.3, 10 fig.4 (Apr. 1998) [hereinafter GAO-ATM STUDY].

332. Big banks operate much larger ATM networks than smaller financial institutions. Accordingly, the decision by most large banks to impose ATM surcharges on noncustomers encourages patrons of smaller institutions to avoid such fees by switching their deposit accounts to larger banks. See Balto, *supra* note 331, at 83, 84; Paul M. Horvitz, *ATM Surcharges: Their Effect on Competition and Efficiency*, J. RETAIL BANKING SERV., Autumn 1996, at 57, 60–61; James J. McAndrews, *ATM Surcharges*, FED. RES. BANK OF N.Y., CURRENT ISSUES ECON. & FIN., Apr. 1998, at 1, 4; Michele Clark Neely, *What Price Convenience? The ATM Surcharge Debate*, FED. RES. BANK OF ST. LOUIS, REGIONAL ECONOMIST, July 1997, at 4, 7, 9, available at <http://www.stls.frb.org>; see also GAO-ATM STUDY, *supra* note 331, at 1, 5 tbl.1 (showing that, in 1998, the median number of ATMs per bank was 440 for banks larger than \$10 billion, forty-three for banks in the \$1–\$10 billion range, and three for banks smaller than \$1 billion).

Big banks have tried to justify their higher ATM surcharges on noncustomers by pointing to the higher operating costs and greater convenience associated with their extensive ATM networks. A recent study found, however, that *after* controlling for higher operating costs and greater convenience, U.S. banks larger than \$25 billion still imposed ATM noncustomer surcharges that were significantly higher than the fees assessed by mid-sized banks with \$1–\$25 billion of assets or banks smaller than \$1 billion. In contrast, after making the same adjustments for cost and convenience, the “foreign fees” imposed by big banks (i.e., fees imposed on their own customers who use other banks’ ATMs) were

One explanation for these national disparities in deposit pricing is that big banks enjoy market power over consumer deposits in regional as well as local markets. A recent study of bank prices in six major states found that the largest banks established uniform interest rate policies for their consumer deposits and consumer loans on a statewide or regional basis. The study also determined that banks operating in states with higher statewide HHI ratios or higher three-firm concentration ratios paid significantly lower interest rates on consumer deposits.³³³ In addition, some studies have found preliminary evidence indicating that large, multistate banks increase their profits by forbearing from aggressive price competition in markets that they share with other big banks. This tentative evidence of “mutual forbearance” suggests that major banks may exercise joint price leadership in local or regional areas where they hold significant market positions.³³⁴

At first glance, the foregoing evidence of pricing power for large banks in concentrated local and regional markets seems inconsistent with the failure of big banks to produce superior profits.³³⁵ However, there are at least two possible reasons why big banks have been unable to translate their apparent market power into higher profits. First, any higher revenues produced by the pricing advantages of big banks may have been offset by higher costs caused by organizational diseconomies of scale or scope.³³⁶ Second, two recent studies indicate that supercom-

not significantly greater than those assessed by mid-sized and smaller banks. Joanna Stavins, *ATM Fees: Does Bank Size Matter?*, FED. RES. BANK OF BOSTON, NEW ENGLAND ECON. REV., Jan./Feb. 2000, at 13, 13–15, 19–23. These results suggest that (i) big banks may have cost and convenience justifications for the “foreign fees” they charge to their own customers, but (ii) big banks *do* impose unusually high ATM surcharges on noncustomers for the purpose of inducing them to leave smaller institutions. See *id.* at 18–19, 23; see also Dean Foust et al., *Mad as Hell at the Cash Machine*, BUS. WK., Sept. 15, 1997, at 124, 124 (quoting an officer at Seafirst Bank, a Bank of America subsidiary in the State of Washington, who said he hoped Seafirst’s ATM surcharges on noncustomers would persuade those consumers to “switch to Seafirst”).

333. See Lawrence J. Radecki, *The Expanding Geographic Reach of Retail Banking Markets*, FED. RES. BANK OF N.Y., ECON. POL’Y REV., June 1998, at 15, 19–24 (reviewing pricing policies implemented by large banks in California, Florida, Michigan, New York, Pennsylvania, and Texas); *id.* at 28–31 (finding that higher statewide HHI ratios resulted in significantly lower interest rates for savings deposits, while higher statewide three-firm concentration ratios produced significantly lower interest rates for both savings deposits and NOW accounts). Except for Texas, the top five banks controlled more than 45% of the statewide deposit market in each of the six states covered by Radecki’s study. See Reosti, *Deposit Market Share*, *supra* note 162.

334. Hanweck & Shull, *supra* note 147, at 271–73, 276–79 (discussing implications of studies by Steven Pilloff and Gary Whalen on mutual forbearance among large multistate banks); see also Stephen A. Rhoades, *Retail Commercial Banking: An Update on a Period of Extraordinary Change*, 16 REV. INDUS. ORG. 357, 361–62 (2000) [hereinafter Rhoades, *Retail Banking*] (same).

335. See *supra* notes 301–02 and accompanying text (showing that the ROA of large banks have been consistently lower than those of smaller banks over the past three decades).

336. See *supra* Part I(D)(4)(b)(i) (showing that large diversified banks generally suffer from significant diseconomies of scale and scope). For example, big banks face operational challenges in providing both “wholesale services for large capital market participants” and “retail services” to consumers and small businesses. The conflicting demands of these different business lines create “organizational diseconomies,” which lead most big banks to offer services only to those retail customers who can satisfy credit-scoring screens and other quantitative financial criteria. As a result,

petitive pricing power tends to reduce a bank's efficiency and profitability, because it insulates the bank's managers from market discipline and thereby aggravates agency conflicts between managers and shareholders. These studies found that banks in highly concentrated markets were much less cost-efficient than banks in more competitive markets. Instead of producing higher profits, bank managers in highly concentrated markets evidently relied on their pricing power to pursue a "quiet life" that included higher consumption of perquisites and less stringent controls over expenses.³³⁷

In short, the acquisition of market power may benefit bank managers by shielding them from market discipline, but the market power strategy has evidently failed to produce sufficient profit gains to justify the high premiums paid in big bank mergers.³³⁸ Does this apparent failure suggest that it would be misguided for big bank executives to continue their pursuit of enhanced market power as the financial services industry consolidates? Or will further consolidation ultimately permit major institutions to reap higher earnings through the exercise of oligopolistic pricing power?

Commentators have disagreed on the question of whether the market imperfections identified in previous studies of the retail banking sector will disappear or become worse as additional mergers occur in the financial services industry. Optimistic observers contend that the past decade's removal of legal barriers to geographic and product line expansion has opened the banking industry to a broad array of new entrants. In addition, the Internet and other technologies have enabled a wide

large banks typically choose not to offer "relationship-based" loans to consumers and small firms that require labor-intensive monitoring. See Berger et al., *supra* note 152, at 166–69; *supra* Part I(D)(3)(b). The decision by most big banks to forgo relationship loans to retail customers has a negative effect on their profitability relative to smaller, community-oriented banks. Relationship loans provided to small firms typically carry a higher interest rate than loans made to larger companies that are more "informationally transparent" and, therefore, can seek alternative financing from distant banks or the capital markets. See *id.* at 166–67, 169. In addition, the reluctance of large banks to offer relationship loans to retail customers causes large banks to attract a smaller percentage of core deposits from retail customers, compared to smaller banks that specialize in making such loans. As a result of these trends, smaller banks earn a substantially higher net interest margin in their lending operations, compared to big banks, because (i) big banks must pay higher interest rates on purchased funds, such as interbank loans and jumbo CDs, and (ii) large banks usually charge lower interest rates on their business loans, due to the competition they face from nonlocal banks and the capital markets. See *id.* at 169; Boyd & Gertler, *Banking Trends*, *supra* note 76, at 330, 332; Rhoades, *Competition Analysis*, *supra* note 157, at 342–47; see also FDIC Q. BANKING PROFILE, 2d Qtr. 2000, at 2 "Quarterly Net Interest Margins, 1996–2000" graph (showing that banks smaller than \$1 billion enjoyed substantially wider net interest margins during 1996–2000, compared to larger banks; for example, in the second quarter of 2000, net interest margins were 4.61% for smaller banks and 3.86% for larger banks).

337. See Allen N. Berger & Timothy H. Hannan, *The Efficiency Cost of Market Power in the Banking Industry: A Test of the "Quiet Life" and Related Hypotheses*, 80 REV. ECON. & STAT. 454 *passim* (1998) [hereinafter Berger & Hannan, *Efficiency Cost*]; Berger & Hannan, *Efficiency Measures*, *supra* note 323, at 8–11, 16–23. The "quiet life" theory is drawn from J.R. Hicks' dictum that "[t]he best of all monopoly profits is a quiet life." Berger & Hannan, *Efficiency Cost*, *supra* at 454 (quoting a 1935 article by Hicks).

338. See *supra* notes 304–07 and accompanying text (discussing the disappointing investment returns generated by most big bank mergers).

range of nonbank enterprises to compete directly with banks. Given the new competitive landscape, optimists argue that big banks cannot sustain any pricing advantages that they might temporarily gain from acquiring other large financial firms. Instead, they believe, aggressive new entrants will undercut any attempt by universal banks to form oligopolies and charge supracompetitive prices.³³⁹ In this regard, it is noteworthy that technological changes, including securitization and consolidation, have already created nationwide markets with highly competitive prices for home mortgages and credit cards.³⁴⁰

Skeptical analysts maintain that the retail banking sector still has significant economic barriers to entry by new firms, notwithstanding the removal of legal barriers to entry. For example, consumers and small firms generally maintain their "relationship" accounts, such as checking accounts and lines of credit, at local banks because of their desire for convenient physical access to their accounts and personal service from knowledgeable bank employees. In addition, most retail customers still do not view nonbank products, such as MMMFs, as acceptable substitutes for relationship accounts at local banks. Consequently, the great majority of retail customers are not likely to establish relationship accounts with distant banks or nonbank competitors, even if local banks charge uncompetitive prices. The expense, effort, and other transaction costs involved in transferring bank accounts to another institution (often referred to as "switching costs"), also have grown significantly in the past decade, due to (i) FRB rules permitting price discounts that reward customers for purchasing multiple products from a single bank, and (ii) new electronic services such as direct deposit, direct debit, and online bill payment, that increase the customer's convenience but also make it more difficult for the customer to transfer a deposit relationship to another institution.

Skeptics of bank consolidation believe that all of the foregoing factors will enable major banks to use their branch systems, ATM networks, and other electronic delivery channels for the purpose of establishing dominant positions in local markets for retail financial services. Thus, skeptics believe, current technological developments will actually enhance the market power of major banks by encouraging retail customers to combine their accounts within a single large bank, instead of maintaining separate accounts at several firms.³⁴¹

339. See, e.g., Benston, *supra* note 289, at 131-41; Kane, *Megamerger Incentives*, *supra* note 259, at 688-90; Santomero & Eckles, *supra* note 297, at 14-20.

340. See Kwast et al., *supra* note 196, at 984-85, & n.18; *infra* Part I(E)(2)(e)(i).

341. For discussion of the competitive factors listed in the two preceding paragraphs, see, e.g., Hanweck & Shull, *supra* note 147, at 266-67, 270-81; Kwast et al., *supra* note 196, at 974-78, 987-95; Stephen A. Rhoades, *Have Barriers to Entry in Retail Commercial Banking Disappeared?*, 42 ANTITRUST BULL. 997 *passim* (1997); Rhoades, *Retail Banking*, *supra* note 334, at 361-66; see also 12 C.F.R. § 225.7(b) (1997) (FRB rule permitting a bank, notwithstanding the anti-tying laws, to offer price discounts to customers who purchase a combination of banking and/or nonbanking services from the bank or its affiliates); Robert C. Pozen, *Comment*, in *STRUCTURAL CHANGE* *supra* note 39, at 223,

Based on current evidence, it is not clear whether further consolidation in the financial services industry will create a long-term threat to competition for retail banking products.³⁴² As shown elsewhere, big banks have used acquisitions during the past decade to greatly expand their share of the banking industry and to capture a significant share of the securities industry.³⁴³ Big banks, however, have shown little success in their efforts to sustain internal growth after completing such acquisitions. Many large banks have lost market share after merging with competitors, due to service cutbacks, operational problems, and higher fees that angered the target banks' customers.³⁴⁴ Customer backlash following large bank mergers has spurred competition by promoting the chartering or expansion of rival community banks.³⁴⁵ Some major banks have also encountered significant difficulties in attempting to integrate mergers with securities firms.³⁴⁶ Perhaps the most telling indicator of big bank problems during the 1990s is that most megabanks failed to sustain asset, deposit, or revenue growth after completing major acquisitions.³⁴⁷

Unfortunately, the foregoing debate about the long-term competitive power of big banks raises troubling issues *regardless* of which side proves to be right. If continued mergers enable large universal banks to capture long-term oligopoly pricing power in retail markets, consolidation will significantly harm the interests of consumers and small firms. If, on the other hand, big banks fail in their efforts to achieve lasting market

223–26 (stating that, despite the higher returns offered by MMMFs compared to bank consumer checking accounts, bank accounts offer significant advantages by virtue of their FDIC-insured status, their more extensive check-writing privileges, and their direct access to the FRB's payments system). *But see infra* Part II(D) (reviewing evidence indicating that currently most consumers do *not* prefer to obtain all of their financial services from a single provider).

342. See, e.g., Berger et al., *supra* note 152, at 153–54 (reaching similar conclusion); Kane, *Megamerger Incentives*, *supra* note 259, at 673–74, 689–90 (recognizing the potential anticompetitive effects of bank megamergers, but suggesting that those effects will not persist due to the “technology-driven contestability of modern banking markets”).

343. See *supra* Part I(D)(1); *infra* Part I(E)(2)(a)(i).

344. See Reosti, *Small Banks Attract Small Firms*, *supra* note 169; Olaf de Senerpont Domis, *Mergers Seen Spurring Loss of Business Customers*, AM. BANKER, May 24, 1999, at 1; Caroline E. Mayer, *Customers Say Bank Mergers Deal Them Out*, WASH. POST, Apr. 19, 1998, at A01; Liz Moyer, *Mergers Hurting Service, Corporate Clients Say*, AM. BANKER, Apr. 6, 1999, at 1; Silver, *supra* note 246; see also *supra* note 299 and accompanying text (describing customer dissatisfaction created by big bank mergers).

345. See *supra* notes 299, 344 and accompanying text.

346. See *id.*

347. See Pilloff & Rhoades, *supra* note 177, at 291–301 (finding that, during 1990–96, large diversified banks lost market share, on average, in local markets where they did not make any acquisitions); Stiroh & Poole, *supra* note 132, at 4, 5 (concluding that, during the 1990s, the fifty largest banks had a slower internal growth rate for assets than the comparable rate for smaller banks); Bills, *supra* note 254 (reporting that the internal growth rate for deposits at the thirty largest banks was less than 1% annually during 1994–2001, and those banks were “losing market share to smaller competitors”); Kevin Neylan, *Comment, Revenue Growth: A Banking Imperative*, AM. BANKER, Feb. 26, 1998, at 26 (stating that acquisitions by large banks during 1991–96 did not result in higher profitability or sustained revenue growth); Weil, *Leading Banks Losing Market Share*, *supra* note 253 (reporting that many large banks lost market share in 1999, due in part to “customer defections” following acquisitions).

power, their expensive and misguided expansion strategies could create huge unprofitable institutions that pose a significant danger to the federal safety net.

iv. The Quest for "Too Big to Fail" Status

Perhaps the most powerful incentive for expansion is the desire of large banks to "grow in order to undeniably belong to the club of [too-big-to-fail] banks."³⁴⁸ Under the TBTF doctrine, federal regulators have consistently protected uninsured depositors and payments system creditors, including derivatives counterparties, when large banks fail.³⁴⁹ Congress codified the TBTF policy when it enacted FDICIA in 1991. Section 141 of FDICIA authorizes the FDIC to protect uninsured depositors and other creditors in a large failing bank if such action is needed to prevent "serious adverse effects on economic conditions or financial stability."³⁵⁰ This authority to protect uninsured claimants in a situation involving "systemic risk" is a significant exception to FDICIA's general rule, which prohibits the FDIC from making any payment to uninsured parties that would increase the agency's cost of resolving a failed bank.³⁵¹ The FDIC must obtain the concurrence of the FRB and the Secretary of the Treasury before invoking its "systemic risk" authority under section 141.³⁵² This joint approval requirement is consistent with the consultative approach that federal regulators followed in deciding to rescue TBTF banks during the 1980s and early 1990s.³⁵³

TBTF status confers significant benefits on big banks.³⁵⁴ Studies have shown that, compared to smaller banks, the largest banks operate with lower capital ratios, higher percentages of uninsured deposits, lower levels of core deposits, higher percentages of loans, and lower levels of

348. Vander Vennet, *supra* note 258, at 1535. Accord, Berger et al., *supra* note 152, at 145-46, 175-76; Boyd & Graham, *Consolidation Trend*, *supra* note 301, at 11-12.

349. See *infra* notes 353, 402-04 and accompanying text.

350. See FDIC Act of 1991, Pub. L. No. 102-242, § 141(a)(1)(C), 105 Stat. 2275 (codified at 12 U.S.C. § 1823(c)(4)(G)(i)(I)); see also Thomas M. Hoenig, *Financial Industry Megamergers and Policy Challenges*, FED. RES. BANK OF K.C., ECON. REV., 3d Qtr. 1999, at 7, 10 (stating that the effect of FDIC Improvement Act was "to give statutory recognition to the concept of Too Big To Fail").

351. See FDIC Improvement Act, Pub. L. No. 102-242, § 141(a)(i)(C), 105 Stat. 2236, 2275 (codified at 12 U.S.C. § 1823(c)(4)(A)-(E)); Benston & Kaufman, *supra* note 122, at 150; Wilmarth, *Too Big to Fail*, *supra* note 157, at 995-96.

352. See Wilmarth, *Too Big to Fail*, *supra* note 157, at 996 (explaining that, under section 141 of FDICIA, at least two-thirds of the FDIC's board of directors, at least two-thirds of the FRB's members, and the Treasury Secretary, after consulting with the President, must jointly approve any "systemic risk" bailout of uninsured depositors or creditors of a failing bank).

353. See *id.* at 996 n.184; Ron J. Feldman & Arthur J. Rolnick, *Fixing FDICIA: A Plan to Address the Too-Big-To-Fail Problem*, FED. RES. BANK OF MINNEAPOLIS, REGION, Mar. 1998, at 2, 7-8.

354. For example, one study found that the OCC's formal announcement of the TBTF policy in 1984 resulted in higher stock market prices for the eleven largest U.S. banks, which the financial markets believed were covered by the policy. The study also found that the biggest and riskiest banks in this eleven-member group received the most positive response from the stock markets. Maureen O'Hara & Wayne Shaw, *Deposit Insurance and Wealth Effects: The Value of Being "Too Big to Fail"*, 45 J. FIN. 1587, 1590-96 (1990).

cash and marketable securities.³⁵⁵ While some analysts argue that the financial markets permit big banks to operate with more leverage and less liquidity because of their greater asset diversification, others contend that TBTF status creates a large implicit subsidy that causes the financial markets to tolerate a higher risk profile for big banks.³⁵⁶

In 1998, banks larger than \$50 billion had an average capital ratio that was almost 250 basis points lower than the capital ratio for banks with assets of between \$100 million and \$2 billion.³⁵⁷ While the perceived benefits of asset diversification probably account for a part of this gap, the TBTF policy provides the most plausible explanation for the financial markets' willingness to permit such a wide disparity between capital ratios of big banks and smaller banks.³⁵⁸ Supporting this view, a recent study found that, during 1993–98, public bond markets applied less stringent discipline to the largest banks, especially those that were publicly identified as TBTF in 1984.³⁵⁹ The TBTF policy also subsidizes the cost of uninsured deposits for the largest banks, because market participants expect the FDIC to use its “systemic risk” authority to protect *all* depos-

355. See Berger et al., *supra* note 152, at 159–60; Boyd & Gertler, *Banking Trends*, *supra* note 76, at 330, 332, 338–39, 353–59; Rebecca S. Demsetz & Philip E. Strahan, *Diversification, Size, and Risk at Bank Holding Companies*, 29 J. MONEY, CREDIT & BANKING 300, 308, 311 (1997).

356. Compare Akhavein et al., *supra* note 256, at 114–16 (finding that, following large bank mergers during the 1980s, the resulting institutions operated with higher loan-to-asset ratios and higher leverage risks, evidently due to the financial markets' perception of “an improved diversification of loan risks”), and Hughes & Mester, *Bank Capitalization*, *supra* note 277, at 321–25 (concluding that the financial markets permitted larger banks to operate with lower capital ratios during 1989–90, apparently because “larger banks are better able to diversify their [loan] portfolios”), with John H. Boyd & David E. Runkle, *Size and Performance of Banking Firms: Testing the Predictions of Theory*, 31 J. MONETARY ECON. 47, 48–49, 62–63 (1991) (determining that larger banks failed at a higher rate than smaller banks during 1971–91 because big banks were more highly leveraged and took greater lending risks that outweighed their diversification advantages), Boyd & Gertler, *Banking Crisis*, *supra* note 277, at 18–20 (contending that large banks operated with lower capital ratios and higher lending risks during the 1980s because the TBTF policy “subsidiz[ed] risk-taking”), Hughes & Mester, *Too-Big-To-Fail*, *supra* note 277, at 309, 314 (finding that big banks paid below-average interest rates on uninsured deposits in 1989–90, evidently because of their TBTF status), and O'Hara & Shaw, *supra* note 354, at 1589 (suggesting that the TBTF policy encourages a big bank “to increase the risk of its operations” to produce a “higher expected return”).

357. See Danielson, *Banking Trends*, *supra* note 281 (showing that, in mid-1998, banks larger than \$50 billion had an average capital ratio of 7.00%, while banks in the size range of \$100 million to \$2 billion had an average capital ratio of 9.43%). It is also noteworthy that smaller banks *increased* their average capital ratio by sixty basis points during 1994–98, while larger banks *reduced* their capital ratio by twelve basis points during the same period. *Id.*

358. See Boyd & Gertler, *Banking Crisis*, *supra* note 277, at 2–3, 7–8, 9 chart 12, 17–19 (concluding that the TBTF doctrine allowed large banks to operate during 1987–91 with capital ratios that were significantly lower than those of smaller banks); Hanweck & Shull, *supra* note 147, at 275–76 & n.44 (similarly concluding that the TBTF policy enabled big banks to operate with capital levels that were substantially below those of smaller banks in 1997).

359. See Donald P. Morgan & Kevin J. Stiroh, *Bond Market Discipline of Banks*, in THE CHANGING FINANCIAL INDUSTRY STRUCTURE AND REGULATION: BRIDGING STATES, COUNTRIES, AND INDUSTRIES, PROCEEDINGS OF THE 36TH ANN. CONF. ON BANK STRUCTURE AND COMPETITION 494 *passim* (Fed. Res. Bank of Chi. ed., 2000) (finding that, during 1993–98, (i) bond markets applied substantially *less* market discipline to banks larger than \$85 billion, and (ii) bond markets applied the *weakest* market discipline to the eleven banks that the OCC publicly identified as TBTF in 1984).

its held by big banks.³⁶⁰ A recent study found that the value of this implicit federal subsidy for uninsured deposits increases as investors become more certain that a large bank qualifies for TBTF status.³⁶¹ This implicit subsidy creates a clear potential for moral hazard among large troubled banks, because the FDIC does not assess any ex ante premium on the *uninsured* deposits of TBTF banks. Instead, the FDIC recovers the cost of a TBTF rescue by imposing a special assessment on the banking industry *after* the rescue has been completed.³⁶² This ex post assessment approach encourages troubled big banks to gamble by using uninsured deposits to fund high-risk, high-return activities. Such a gamble would be attractive to a big bank threatened with insolvency, because (i) the TBTF policy would subsidize the bank's cost of collecting uninsured deposits, (ii) if the gamble failed and the bank became insolvent, the bank would not survive to pay any ex post TBTF assessment, and (iii) if the gamble succeeded and the bank returned to financial good health, there would be no assessment to pay.³⁶³

Since 1980, large banks have taken advantage of their TBTF status to pursue higher-risk strategies designed to increase their revenues. Over the past two decades, big banks have consistently operated with below-average levels of capital and liquidity, and they have devoted above-average shares of their financial resources to risky loans and nontraditional activities, including derivatives. At the same time, large banks have produced substandard profits, and they have failed at a higher rate than smaller banks. Thus, the higher operational risks of large banks have evidently outweighed any reduction in portfolio risk due to greater asset diversification.³⁶⁴ As shown below, the high-risk activities of large

360. See, e.g., Boyd & Graham, *Consolidation Trend*, *supra* note 301, at 11–12; Boyd & Runkle, *supra* note 356, at 49–50; Feldman & Rolnick, *supra* note 353, at 3–9; O'Hara & Shaw, *supra* note 354, at 1588–89.

361. See ANDREAS LEHNERT & WAYNE PASSMORE, *THE BANKING INDUSTRY AND THE SAFETY NET SUBSIDY* §§ 6 & 7 (Bd. of Governors of the Fed. Res. Sys., Fin. & Econ. Discussion Ser. Working Paper No. 99-34, Aug. 11, 1999), available at <http://www.federalreserve.gov>; see also Hughes & Mester, *Too-Big-To-Fail*, *supra* note 277, at 302, 306, 309, 314 (finding that, among banks that were larger than \$6.5 billion during 1989–90, each 1% increase in a bank's size was correlated with a decrease of twenty-nine basis points in the average cost of uninsured deposits).

362. Under FDICIA, if regulators approve a "systemic risk" bailout of a large bank's uninsured creditors, the FDIC must impose a special assessment on the entire banking industry to recover any loss that the BIF suffers by reason of the bailout. That assessment is applied in proportion to the assets held by each insured bank. See Wilmarth, *Too Big to Fail*, *supra* note 157, at 996–97 (discussing 12 U.S.C. § 1823(c)(4)(g)).

363. For studies concluding that the TBTF policy encourages this type of moral hazard among big banks, see, e.g., Boyd & Gertler, *Banking Crisis*, *supra* note 277, at 2–3, 7–8, 16–21; Feldman & Rolnick, *supra* note 353, at 4–9.

364. See Boyd & Gertler, *Banking Crisis*, *supra* note 277, *passim* (study based primarily on 1983–91 data); Boyd & Runkle, *supra* note 356, at 48–49, 56–65 (study based on 1971–90 data); Demsetz & Strahan, *supra* note 355, *passim* (study based on 1980–93 data); Frederick T. Furlong, *Changes in Bank Risk-Taking*, FED. RES. BANK OF S.F., ECON. REV., Spring 1988, at 45 *passim* (study based on 1981–86 data); John S. Jordan, *Problem Loans at New England Banks, 1989 to 1992: Evidence of Aggressive Loan Policies*, FED. RES. BANK OF BOSTON, NEW ENGLAND ECON. REV., Jan.–Feb. 1998, at 23 *passim* (study based on 1984–92 data); Simon H. Kwan & Robert A. Eisenbeis, *Bank Risk, Capitalization and*

banks produced disastrous results during the banking crisis of 1980–92, and the speculative ventures of big banks since 1993 have once again placed the banking industry on the threshold of a potential crisis.³⁶⁵

As banking organizations reach gargantuan size and merge with securities firms and insurance companies, the TBTF doctrine creates at least three disturbing possibilities. First, the desire of federal regulators to prevent the failure of a large bank controlled by a major financial conglomerate will probably cause regulators to protect uninsured creditors of the conglomerate's banking and nonbanking subsidiaries. As discussed below, the GLB Act establishes a regulatory scheme based on corporate and other firewalls that are designed to separate a financial holding company's banking subsidiaries from the parent holding company and its nonbanking subsidiaries. Past experiences, however, have raised serious doubts about the ability and willingness of regulators to enforce these firewalls during financial crises.³⁶⁶

In addition, many regulators and analysts strongly doubt whether formalistic rules of separation will persuade either the financial markets or the general public to evaluate the soundness of a conglomerate-owned bank in isolation from the financial health of its significant nonbank affiliates. Regulators are therefore likely to conclude that the failure of a nonbank affiliate would threaten the creditworthiness of the *entire* financial holding company, *including* its subsidiary banks.³⁶⁷ If this situation

Operating Efficiency, 12 J. FIN. SERVS. RES. 117, 122–27 (1997) (study based on 1986–95 data); *see also* Beng Soon Chong, *The Effects of Interstate Banking on Commercial Banks' Risk and Profitability*, 73 REV. ECON. & STAT. 78, 80–84 (1991) (concluding that, during 1982–85, interstate expansion resulted in below-average profitability and above-average market risk for banks larger than \$10 billion); Joseph P. Hughes et al., *The Dollars and Sense of Bank Consolidation*, 23 J. BANKING & FIN. 291, 313, 316, 322 (finding, based on 1994 figures, that (i) large banks became *less* efficient in producing profits and *riskier* as they grew in size and expanded into more states, and (ii) the biggest interstate banks were subject to higher operational and insolvency risks that outweighed the risk-reducing effects of geographic diversification); KEVIN J. STIROH, COMPOSITIONAL DYNAMICS AND THE PERFORMANCE OF THE U.S. BANKING INDUSTRY 2, 9–12 (Fed. Res. Bank of N.Y., Staff Rep. No. 98, 2000), *available at* <http://www.ny.frb.org> (finding that, (i) during 1976–98, large acquiring banks had lower capital ratios and failed to produce higher profits than non-acquiring banks, and (ii) during 1995–98, large banks produced significantly lower profits and reduced their capital as they grew in size).

365. *See infra* Part I(E).

366. *See infra* notes 1051, 1057–62, 1119 and accompanying text (discussing corporate separation rules established by the GLB Act and noting questions about their durability and enforceability during financial crises).

367. Anthony Cornyn et al., *An Analysis of the Concept of Corporate Separateness*, in BHC REGULATION FROM AN ECONOMIC PERSPECTIVE, PROCEEDINGS OF THE 22D ANN. CONF. ON BANK STRUCTURE AND COMPETITION 174, 175, 183–91 (Fed. Res. Bank of Chi. ed., 1986) [hereinafter 1986 Conference Proceedings] (concluding, based in part on historical examples, that holding company-owned banks are likely to suffer serious reputational damage if any of their nonbank affiliates fail); MARK J. FLANNERY, CONTAGIOUS BANK RUNS, FINANCIAL STRUCTURE AND CORPORATE SEPARATENESS WITHIN A BANK HOLDING COMPANY, PROCEEDINGS OF THE 22D ANN. CONF. ON BANK STRUCTURE AND COMPETITION [hereinafter FLANNERY, CORPORATE SEPARATENESS], in 1986 Conference Proceedings, *supra*, at 213, 217–25 (same); Santomero & Eckles, *supra* note 297, at 15, 18 (same).

Walter Wriston, the former chairman of Citicorp, and Paul Volcker, the former FRB chairman, agreed that the failure of a nonbanking subsidiary would cause great reputational harm to its parent holding company and any affiliated banks. Mr. Wriston declared:

arose in a large financial holding company—especially during times of severe economic stress, when other large conglomerates would also be vulnerable—federal regulators would probably protect creditors of the failing nonbank affiliate in order to maintain public confidence in the entire holding company. As a result, the TBTF subsidy would be spread far beyond the boundaries of the banking industry.³⁶⁸

In fact, section 473 of FDICIA authorizes the FRB to make discount window loans to nonbanking firms in emergency situations.³⁶⁹ Thus, federal regulators do not need to invoke FDICIA's "systemic risk" authority to arrange de facto bailouts of nonbanking subsidiaries of financial holding companies.

The second troubling implication of the TBTF doctrine is that big universal banks will receive extensive regulatory forbearance as they become not only TBTF but also "too big to discipline adequately"

[I]t is unconceivable that any major bank would walk away from any subsidiary of its holding company. If your name is on the door, all of your capital and assets are going to be behind it in the real world. Lawyers can say you have separation, but the marketplace . . . would not see it that way.

S. REP. NO. 100-19, at 9 (1987), *reprinted in* 1987 U.S.C.C.A.N. 491, 499 (omitted text in original). Similarly, Mr. Volcker stated:

[T]he practical realities of the market place and the internal dynamics of a business organization under central direction drive bank holding companies to act . . . as one business entity, with the component parts drawing on each other for marketing and financial strength. Certainly the market conceives of a bank holding company and its components in that way. And if market participants tend to consider the bank holding company as an integrated entity, problems in one part of the system will inevitably be transmitted to other parts.

Id. (brackets and omitted text in original).

368. See, e.g., HENRY KAUFMAN, *ON MONEY AND MARKETS: A WALL STREET MEMOIR* 210, 237-40 (2000) [hereinafter KAUFMAN, *ON MONEY AND MARKETS*]; Mark J. Flannery, *Modernizing Financial Regulation: The Relation Between Interbank Transactions and Supervisory Reform*, 16 J. FIN. SERVS. RES. 101, 105-07, 111 (1999) [hereinafter Flannery, *Financial Regulation*]; Hoening, *supra* note 350, at 10-13; Isaac, *supra* note 131, at 37; Christopher T. Mahoney, *Commentary*, FED. RES. BANK OF N.Y., ECON. POL'Y REV., Oct. 2000, at 55, 56-58; Santomero & Eckles, *supra* note 297, at 15, 18-20; Gary H. Stern, *Top of the Ninth: Thoughts on Designing Credible Policies After Financial Modernization: Addressing Too-Big-to-Fail and Moral Hazard*, FED. RES. BANK OF MINNEAPOLIS, REGION, Sept. 2000, at 3, 4-5, 24-26.

369. Under section 473, the FRB (acting with the affirmative vote of at least five of its seven members) may extend discount window loans to securities firms, life insurance companies, and other nonbank entities "in unusual and exigent circumstances." Loans provided under section 473 must be secured by the same types of eligible collateral (e.g., stocks, bonds, and promissory notes) that the FRB may accept from banks. FDIC Improvement Act of 1991, Pub. L. No. 102-242, § 473, 105 Stat. 2386 (codified at 12 U.S.C. § 343). See Walker F. Todd, *FDICIA's Emergency Liquidity Provisions*, FED. RES. BANK OF CLEV., ECON. REV., 3d Qtr. 1993, at 16, 19-22 (discussing section 473).

Congress adopted section 473 to provide the FRB with clear authority to respond directly to the emergency liquidity needs of major nonbanking firms after a financial shock similar to the 1987 stock market crash. See S. REP. NO. 102-167, at 2 (1991); 137 CONG. REC. 36, 131-32 (1991) (remarks of Senator Dodd). As discussed *supra* in Part I(A)(2)(b), the FRB responded *indirectly* to the plight of securities firms during the 1987 crash by providing discount window advances to major banks and by urging those banks to extend credit to the securities industry.

Analysts have warned that the FRB's lending powers under section 473 could encourage excessive risk-taking and moral hazard among leading securities firms and other large nonbank financial companies, because of their expectation that the FRB would rescue them in the event of a potential failure. See Henry T.C. Hu, *Faith and Magic: Investor Beliefs and Government Neutrality*, 78 TEX. L. REV. 777, 873-75 (2000) [hereinafter Hu, *Investor Beliefs*]; Todd, *supra*, at 19-22.

(TBTDA).³⁷⁰ Bank of America and Citicorp, the two largest U.S. banks in 1980, pursued disastrous lending policies that pushed each bank to the brink of failure during the decade that followed. Federal regulators, however, did not replace the senior managers of either Bank of America or Citicorp. Instead, regulators left the existing management in place and quietly signed a memorandum of understanding, the weakest form of enforcement action, with each bank. Observers concluded that regulators chose not to take strict enforcement measures against either bank because of their concern that public disclosure of the magnitude of each bank's problems could have triggered a generalized crisis of confidence among bank depositors and investors. The supervisory forbearance granted to Bank of America and Citicorp stands in sharp contrast to the regulators' actions in seizing managerial control of both Continental Illinois and Bank of New England, which were much smaller banks, when those institutions received TBTF bailouts during the same period.³⁷¹

By 2001, Citigroup was more than four times the size of Citicorp, its banking predecessor, during the early 1990s. Given the magnitude and complexity of Citigroup's current operations, there are strong reasons to doubt whether federal regulators can oversee its operations and discipline its managers effectively. No regulator would want a huge universal bank to fail on her watch, and regulators would therefore have strong reputational incentives to employ forbearance strategies to postpone any recognition of the bank's failure.³⁷² It is noteworthy that, during the banking and thrift crises of 1980-92, regulators were significantly more

370. Kane, *Megamerger Incentives*, *supra* note 259, at 673-74, 691-94.

371. For a discussion of Bank of America's near-failure during 1984-87 and the response of federal bank regulators, see GARY HECTOR, *BREAKING THE BANK: THE DECLINE OF BANK AMERICA* 1-13, 199-206, 224-29, 259-62, 341-45 (1988); SPIEGEL ET AL., *supra* note 298, at 406-07; G. Christian Hill, *BankAmerica Hit Pitfalls Along the Path to Growth*, WALL ST. J., Apr. 14, 1998, at C20. For a discussion of Citicorp's near-insolvency during 1989-92 and the regulatory response, see BARTH ET AL., *supra* note 277, at 28-29, 32-33, 37, 38 tbl.10, 41, 43-45, 54-56; Wilmarth, *Big Bank Mergers*, *supra* note 106, at 43-45, 57-59; see also IRVINE H. SPRAGUE, *BAILOUT: AN INSIDER'S ACCOUNT OF BANK FAILURES AND RESCUES* 182-212 (1986) (describing how federal regulators assumed managerial control of Continental Illinois when they rescued that bank in 1984); Brett D. Fromson & Jerry Knight, *The Saving of Citibank*, WASH. POST, May 16, 1993, at A1; MANAGING THE FDIC CRISIS, *supra* note 149, at 635-43 (describing how federal regulators seized control of Bank of New England by appointing the FDIC as receiver when the bank failed in 1991).

372. See Kane, *Banking Powers*, *supra* note 11, at 664-69 (contending that Citigroup's size gives it "a political weight that existing supervisory institutions cannot match"); Michael Quint, *Citicorp: Too Big for Public Dressing Down?*, N.Y. TIMES, Nov. 4, 1991, at D1 (reporting that Citicorp had \$224 billion of assets in 1991, and that regulators had refrained from taking any stringent public enforcement actions against the bank in spite of its severe problems); Ring, *supra* note 9 (stating that Citigroup had \$940 billion of assets at the end of the first quarter of 2001); see also Kane, *Megamerger Incentives*, *supra* note 259, at 673-74, 691-94 (maintaining that the increased size and complexity of a large universal bank (i) make it "harder for regulators to monitor and enforce limits on an institution's risk exposures," *id.* at 673, and (ii) generate "political clout" and reputational incentives that "undermine regulators' ability to discipline [such] banks," *id.* at 691). For further discussion of the reputational incentives that encourage regulators to grant forbearance to large troubled banks, see Arnoud W.A. Boot & Anjan V. Thakor, *Self-Interested Bank Regulation*, 83 AM. ECON. REV. 206 *passim* (1993); Edward J. Kane, *Three Paradigms for the Role of Capitalization Requirements in Insured Financial Institutions*, 19 J. BANKING & FIN. 431, 443-44, 447-49 (1995).

likely to grant forbearance to large failing institutions, and they acted much more quickly in closing smaller institutions.³⁷³

The third unsettling aspect of the TBTF policy is that it reflects the powerful influence that big financial conglomerates like Citigroup can wield over the political process. As noted above, the merger application filed by Citicorp and Travelers in 1998 was premised on two aggressive assumptions: (i) the FRB would exempt Citigroup for up to five years from complying with the BHC's activity restrictions that applied generally to bank holding companies; and (ii) Congress would repeal those legal restrictions before Citigroup's five-year exemption expired. The fact that the FRB and Congress fulfilled these expectations indicates that Citigroup exerted significant influence over both regulatory policy and the legislative process.³⁷⁴

An extraordinary feature of the Citigroup transaction was that Citicorp's and Travelers' chairmen consulted with, and received positive signals from FRB chairman Alan Greenspan, Treasury Secretary Robert Rubin, and President Clinton *before* the merger was publicly announced.³⁷⁵ Eighteen months later, during intense negotiations between the Clinton administration and congressional leaders over the final terms of the GLB Act, Citigroup appointed Mr. Rubin—a close confidant of President Clinton and a prominent supporter of the legislation—as its new co-chairman.³⁷⁶ When negotiations over the legislation appeared to reach an impasse during the following week, Senator Phil Gramm called on Citigroup co-chairman Sandy Weill to help broker a last-minute compromise between Republican congressional leaders and the Clinton ad-

373. See Lin Guo, *When and Why Did FSLIC Resolve Insolvent Thrifts?*, 23 J. BANKING & FIN. 955, 957, 973, 983, 986–87 (1999) (finding that, during 1985–89, federal regulators provided greater forbearance to large insolvent thrifts); Hanweck & Shull, *supra* note 147, at 273–74 n.39 (discussing evidence indicating that federal regulators granted extensive forbearance to large troubled banks during 1982–92); Wilmarth, *Big Bank Mergers*, *supra* note 106, at 5–6, 42–46 (same).

374. See Kane, *Banking Powers*, *supra* note 11, at 666, 667–69; Barbara A. Rehm, *No Merger Wave, But Money Saved*, AM. BANKER, Nov. 7, 2000, at 1 (stating that the GLB Act's retroactive authorization of Citigroup's "gamble" meant that "Citigroup benefited [sic] the most under this law, at least in the short term . . . [because] Citigroup was [now] legal, and no assets had to be sold"); *supra* notes 8–16 and accompanying text (discussing the FRB's approval of the Citicorp-Travelers merger and the resulting pressure on Congress to adopt the GLB Act).

Citigroup's success with the FRB and Congress should be viewed against a background of previous regulatory accommodations for Citicorp. During the 1980s, Citicorp was able to "circumvent interstate banking prohibitions" by securing regulatory approvals to acquire large failing thrifts in four highly desirable out-of-state metropolitan markets. Danielson, *Banking Trends*, *supra* note 281, at 13. In addition, as discussed *supra* at notes 371–72 and accompanying text, federal regulators chose not to apply harsh disciplinary sanctions against Citicorp despite its nearly insolvent condition in 1990–92.

375. See Barbara A. Rehm, *Megamerger Plan Hinges on Congress*, AM. BANKER, Apr. 7, 1998, at 1 (reporting on those consultations and quoting Citicorp chairman John Reed's statement, during the press conference announcing the proposed merger, that federal regulators had already given "indications that (the merger) will be looked at favorably").

376. Mr. Rubin had resigned as Treasury Secretary a few months before the GLB Act was passed. See Daniel J. Parks, *Financial Overhaul Bill Clears After Final Skirmishing Over Community Reinvestment*, 57 CONG. Q. WKLY. 2654 (1999); Robert Scheer, *Privacy Issue Bubbles Beneath the Photo Op*, L.A. TIMES, Nov. 16, 1999, at B9.

ministration, thereby ensuring the GLB Act's passage.³⁷⁷ All of these events demonstrated Citigroup's potent influence at the highest political levels.

During 1997–99, the financial services industry, led by the largest banks, securities firms and insurance companies, reportedly spent more than \$300 million on lobbying expenses and political contributions to secure passage of the GLB Act. As shown by these huge expenditures, the largest financial firms and their trade associations deployed extraordinary political resources to secure legislation authorizing the creation of big universal banks.³⁷⁸ If some of these new financial giants encounter serious problems in the future, it is reasonable to expect that they will enlist politicians to intervene with regulators in the same way that many large troubled banks and thrifts did during the 1980–92 crisis.³⁷⁹

In short, TBTF status is associated with highly valuable benefits in the financial, regulatory and political arenas. Given those benefits, the banking megamergers of the past decade and the financial industry's campaign for a universal banking franchise were predictable responses to FDICIA's attempt to impose constraints on the TBTF doctrine. As discussed above, Congress passed FDICIA in 1991 to bar federal regulators from protecting uninsured creditors of a failing bank *unless* regulators can show that the bank's default would create "systemic risk" in the banking industry. Professor Edward Kane has observed that FDICIA probably "increase[d] the size threshold . . . at which access to TBTF subsidies kicks in."³⁸⁰ Therefore, he argues, one consequence of FDICIA was to encourage banks to grow in size and complexity to guarantee their TBTF status:

Governments everywhere have difficulty disciplining large, complex, and global financial enterprises. This simple truth supports

377. See Julie Kosterlitz, *Together at Last*, NAT'L J., Oct. 30, 1999, at 3128; Kathleen Day, *Banking Accord Likely to Be Law: Clinton Hails Hard-Reached Agreement*, WASH. POST, Oct. 23, 1999, at A1 [hereinafter Day, *Banking Accord*].

378. See Day, *Banking Accord*, *supra* note 377; Stephen Labaton, *A New Financial Era: The Overview; Accord Reached on Lifting of Depression-Era Barriers Among Financial Institutions*, N.Y. TIMES, Oct. 23, 1999, at A1 [hereinafter Labaton, *New Financial Era*]; Daniel J. Parks, *United at Last, Financial Industry Pressures Hill to Clear Overhaul*, 57 CONG. Q. WKLY. 2373 (1999); see also Scheer, *supra* note 376 (stating that the \$300 million campaign to secure passage of the GLB Act was "the most expensive lobbying effort in history").

379. Empirical studies have shown that, during the 1980s, federal regulators acted much more slowly in closing insolvent thrifts and banks that were located in congressional districts whose representatives served on congressional committees with jurisdiction over bank regulatory policy. See Randall W. Bennett & Christine Loucks, *Politics and the Length of Time to Bank Failure: 1986–90*, CONTEMP. ECON. POL'Y, Oct. 1996, at 29, 37–38 (studying effect of political influence on regulators' response to bank failures); Guo, *supra* note 373, at 972–73, 980–83, 986–87 (studying the impact of political influence on regulators' handling of insolvent thrifts). For discussion of the success of large failing thrifts in mobilizing influential members of Congress to exert pressure on federal regulators for forbearance during the 1980s, see, e.g., MARTIN LOWY, *HIGH ROLLERS: INSIDE THE SAVINGS AND LOAN DEBACLE* 148–52, 176–97 (1991); MARTIN MAYER, *THE GREATEST-EVER BANK ROBBERY: THE COLLAPSE OF THE SAVINGS AND LOAN INDUSTRY* 197–203, 228–42 (1990) [hereinafter MAYER, *SAVINGS AND LOAN COLLAPSE*].

380. Kane, *Megamerger Incentives*, *supra* note 259, at 691–92.

the unpleasant working hypothesis that the banking megamergers of the 1990s may have emerged as a dialectical market response to FDICIA's effort to curtail TBTDAs forbearances. On this argument, megamergers hope to create institutions so large or complex that their creditors can continue to count on qualifying for FDICIA's systemic-risk exception as a matter of course.³⁸¹

In sum, the TBTF doctrine and its TBTDAs corollary create compelling but perverse incentives for big banks to expand by acquiring both banks and other financial firms. TBTF status provides large financial benefits to megabanks without regard to their inherent profitability or efficiency. In practical effect, TBTF status allows megabanks to operate with virtual "fail-safe" insulation from both market and regulatory discipline. Accordingly, the quest by big banks for TBTF status—like their pursuit of market power—should be viewed as a dangerous flight from discipline that will likely produce inefficient growth and greater risk.

As indicated in Professor Kane's previously quoted statement, the TBTF doctrine is not a uniquely American doctrine. Over the past quarter century, many foreign governments have rescued large failing banks.³⁸² In several cases, foreign governments have issued blanket guarantees to all bank depositors to avert the threat of a systemic run on big banks perceived to be financially unsound. For example, in response to a financial crisis that lasted throughout the 1990s and threatened the solvency of its largest banks, Japan temporarily guaranteed all bank deposits and authorized total funding of up to \$580 billion to protect depositors and recapitalize the banking system.³⁸³ Mexico and South Korea each committed \$100 billion or more to recapitalize major banks that were ravaged by financial crises occurring during the 1990s, and both nations

381. *Id.* at 694.

382. For example, Charles Goodhart and Dirk Schoenmaker reviewed 104 major international bank failures occurring between 1973 and 1993. They found that governmental authorities rescued (either directly or through arranged mergers) seventy-three of those failing banks and protected all or most of the depositors in twenty of the thirty-one remaining cases where failing banks were liquidated. C.A.E. GOODHART, *THE CENTRAL BANK AND THE FINANCIAL SYSTEM* 350–410 (1995). In light of this evidence, Goodhart and Schoenmaker concluded that "the revealed preference . . . in all developed countries [is] to rescue those large banks whose failure *might* lead to a contagious, systemic failure." *Id.* at 352 (emphasis in original); see also RICHARD DALE, *INTERNATIONAL BANKING DEREGULATION: THE GREAT BANKING EXPERIMENT* 8–18 (1992) (reaching similar conclusion); Wilmarth, *Too Big to Fail*, *supra* note 157, at 1002 (stating that "[s]ince 1974, industrial nations have followed a consistent practice of protecting depositors and payments system creditors when large banks fail").

383. See Curtis J. Milhaupt, *Japan's Experience with Deposit Insurance and Failing Banks: Implications for Financial Regulatory Design?*, 77 WASH. U. L.Q. 399, 413–14, 418–24 (1999); Phred Dvorak & Peter Landers, *Is Japan on the Verge of a Contagious Financial Crisis?*, WALL ST. J., Mar. 14, 2001, at A14. For additional discussions of the banking crisis and the governmental response in Japan, see, e.g., Valentine V. Craig, *Japanese Banking: A Time of Crisis*, FDIC BANKING REV., 1998, at 9, 12–17; Geoffrey P. Miller, *The Role of a Central Bank in a Bubble Economy*, 18 CARDOZO L. REV. 1053, 1056–75 (1996) [hereinafter Miller, *Bubble Economy*]; Hiroshi Nakaso, *Recent Banking Sector Reforms in Japan*, FED. RES. BANK OF N.Y., ECON. POL'Y REV., July 1999, at 1; Peek & Rosengren, *Japanese Banking Problems*, *supra* note 67, at 25–31; Wilmarth, *Big Bank Mergers*, *supra* note 106, at 62–69.

also protected all depositors against loss.³⁸⁴ Similarly, Finland, Norway, and Sweden issued blanket deposit guarantees and rescued large failing banks during the Scandinavian banking crisis of the early 1990s.³⁸⁵

Thus, foreign governments have typically followed a TBTF approach in responding to the potential default of major banks during the past quarter century. This nearly universal adoption of the TBTF policy reflects a general international consensus that governments must protect depositors and other payments system creditors of their major banks in order to avoid the risk of a systemic economic crisis. A detailed analysis of the frequently observed link between large bank failures and economic crises is beyond the scope of this article. For present purposes, I note the widely shared view that serious economic disruptions often arise out of the following sequence of events: (i) a slump in the general economy causes a significant increase in loan defaults and bankruptcies among individuals and businesses; (ii) higher rates of loan defaults and bankruptcies cause the failure of one or more large banks, due to a mismatch between their liabilities, which are fixed in amount and highly liquid (e.g., short-term deposits and wholesale borrowed funds), and their assets, which are illiquid and prone to sudden declines in value during periods of economic stress (e.g., real estate loans and equity investments); (iii) major bank failures cause depositors to panic and initiate “runs” on all banks believed to be threatened by a similar depreciation in asset values; and (iv) widespread bank failures disrupt the orderly flow of credit from depositors to business enterprises, thereby magnifying and accelerating the underlying problems in the general economy.³⁸⁶

384. See *Mexican Banks: Fasten Seatbelts*, ECONOMIST, Nov. 6, 1999, at 77 (reporting that the Mexican government and Standard & Poor's had issued cost estimates for Mexico's bank rescue plan totaling \$93 billion and \$104 billion, respectively); Hae Won Choi, *South Korea is Planning More Steps to Fund, Restructure Ailing Banks*, WALL ST. J., Dec. 7, 2000, at A23 (reporting that the South Korean government had spent more than \$90 billion to restructure and recapitalize its banking system and had approved \$30 billion of additional spending for that purpose).

For discussions of Mexico's financial crisis and bank restructuring program, see, e.g., Francisco Gil-Díaz, *The Origin of Mexico's 1994 Financial Crisis*, 17 CATO J. 303 *passim* (1998); IMF, INTERNATIONAL CAPITAL MARKETS: DEVELOPMENTS, PROSPECTS, AND POLICY ISSUES 53–79 (1995); ANNE KRUEGER & AARON TORNELL, THE ROLE OF BANK RESTRUCTURING IN RECOVERING FROM CRISES: MEXICO, 1995–98, *passim* (Nat'l Bur. Econ. Res., Working Paper No. W7042, Mar. 1999); Nora Lustig, *Mexico in Crisis, The U.S. to the Rescue: The Financial Assistance Packages of 1982 and 1995*, 2 UCLA J. INT'L L. & FOREIGN AFF. 25, 44–67 (1997). For a discussion of the same developments in South Korea, see CARL-JOHAN LINDGREN ET AL., FINANCIAL SECTOR CRISIS AND RESTRUCTURING: LESSONS FROM ASIA 1–42, 67–78 (IMF Occasional Paper 188, 1999).

For a discussion of Mexico's blanket deposit guarantee, see CHARLES W. CALOMIRIS, THE POSTMODERN SAFETY NET: LESSONS FROM DEVELOPED AND DEVELOPING ECONOMIES (16 Am. Enterprise Inst. 1997) [hereinafter CALOMIRIS, POSTMODERN SAFETY NET]; Charles W. Calomiris, *Building an Incentive-Compatible Safety Net*, 23 J. BANKING & FIN. 1499, 1505 (1999) [hereinafter Calomiris, *Incentive-Compatible Safety Net*]. For a discussion of the blanket deposit guarantees issued by Korea and also by Indonesia, Malaysia, and Thailand during 1997–98, see LINDGREN ET AL., *supra*, at 5, 18–21.

385. See GOODHART, *supra* note 382, at 380–82, 397–402; CARL-JOHAN LINDGREN ET AL., BANK SOUNDNESS AND MACROECONOMIC POLICY 118–20 (IMF ed., 1996).

386. See, e.g., LINDGREN ET AL., *supra* note 385, at 6–8, 39–89; Mishkin, *Financial Crises*, *supra* note 75, *passim*; Ben S. Bernanke, *Credit in the Macroeconomy*, FED. RES. BANK OF N.Y., Q. REV.,

The internationalization of the TBTF doctrine can be seen most vividly in rescue programs organized by the IMF and leading industrial nations in response to foreign debt crises since 1982. These IMF-led assistance packages prevented governments and banks in Latin America and East Asia from committing full-scale defaults on obligations owed to United States, European, and Japanese banks and other institutional investors. In each case, the lending banks did incur substantial losses, but the IMF and industrial nations shielded the banks from the potentially devastating impact of total debt repudiations.³⁸⁷ In 1999, the IMF's former second-ranking officer defended these assistance programs, and he argued that the IMF should be recognized as the "international lender of last resort" with responsibility for maintaining the liquidity and stability of international financial markets.³⁸⁸

In response, critics allege that the IMF's rescue packages have created a clear expectation among major international banks that their credit transactions with governments and banks in developing countries are protected by implicit multilateral insurance. Thus, critics charge, the IMF's policies have encouraged major banks in developed countries to

Spring 1993, at 50, 60-66; Bhattacharya & Thakor, *supra* note 41, at 3-26; Calomiris, *Incentive-Compatible Safety Net*, *supra* note 384, at 1500-03; Roberto Chang & Andres Velasco, *A Model of Financial Crises in Emerging Markets*, 116 Q. J. ECON. 489, 490-92, 504-08 (2001); Douglas W. Diamond & Philip H. Dybvig, *Banking Theory, Deposit Insurance and Bank Regulation*, 59 J. BUS. 55 *passim* (1986); Gary Gorton, *Banking Panics and Business Cycles*, 40 OXFORD ECON. PAPERS 751 *passim* (1988); George G. Kaufman, *Banking and Currency Crises and Systemic Risk: Lessons from Recent Events*, FED. RES. BANK OF CHI., ECON. PERSP., 3d Qtr. 2000, at 9, 11-18 [hereinafter Kaufman, *Banking Crises*]; Wilmarth, *Too Big to Fail*, *supra* note 157, at 997-1001.

387. See, e.g., Barry Eichengreen, *Bailing in the Private Sector*, in THE ASIAN FINANCIAL CRISIS: ORIGINS, IMPLICATIONS AND SOLUTIONS 401, 401-04 (William C. Hunter et al. eds., 1999) [hereinafter ASIAN FINANCIAL CRISIS]; Richard J. Herring, *Comment on "Asian Crisis: Causes and Remedies"*, in ASIAN FINANCIAL CRISIS, *supra*, at 201, 203-04; Alan H. Meltzer, *What's Wrong with the IMF? What Would Be Better?* [hereinafter Meltzer, *IMF Issues*], in ASIAN FINANCIAL CRISIS, *supra*, at 241, 245-52; HENRI BERNARD & JOSEPH BISIGNANO, INFORMATION, LIQUIDITY AND RISK IN THE INTERNATIONAL INTERBANK MARKET: IMPLICIT GUARANTEES AND PRIVATE CREDIT MARKET FAILURE, 3-6, 10-12, 15-19, 42-44, 48, 52-59 (Bank for Int'l Settlements, Working Paper No. 86, Mar. 2000), available at <http://www.bis.org>; Charles W. Calomiris, *The IMF's Imprudent Role As Lender of Last Resort*, 17 CATO J. 275, 275-87 (1998) [hereinafter Calomiris, *IMF*]; Lustig, *supra* note 384, at 26-63.

The magnitude of the IMF's assistance program has been impressive. Total credit extended by the IMF to its member countries reached \$67 billion in 1985 (after the Latin American debt crisis) and subsequently peaked at \$82 billion in early 1999 (following the East Asian and Russian financial crises). See U.S. GEN. ACCT. OFF., IMF: OBSERVATIONS ON THE IMF'S FINANCIAL OPERATIONS, GAO/NSIAD/AIMD-99-252, at 25 (Sept. 1999) (stating IMF loan amounts in constant 1998 dollars). The IMF's three largest assistance packages—for Mexico in 1995 and for Indonesia and Korea in 1997-98—included \$48 billion of credit provided by the IMF and \$97 billion in additional credit provided by major industrial nations. See V.V. Chari & Patrick J. Kehoe, *Asking the Right Questions About the IMF*, FED. RES. BANK OF MINNEAPOLIS, 1998 ANNUAL REP., 10-11 (May 1999), available at <http://www.minneapolisfed.org>.

388. Stanley Fischer, *On the Need for an International Lender of Last Resort*, 13 J. ECON. PERSP., Fall 1999, at 85, 85-86, 94-102. In May 2001, Mr. Fischer announced his resignation as the IMF's first deputy managing director. See Joseph Kahn, *No. 2 Official of the I.M.F. to Step Down by Year's End*, N.Y. TIMES, May 9, 2001, at C5.

ignore prudent credit standards in making loans to developing nations during the 1990s.³⁸⁹

For example, international banks provided huge volumes of short-term credit to Mexican banks in 1990–94 and to East Asian banks in 1995–97. This credit, whether provided through loans or derivatives, was denominated in dollars or other “hard” currencies. The lending banks believed that their credit transactions were (i) insulated from foreign exchange risk by their “hard currency” payment terms, and (ii) protected from credit risk due to their short-term nature and the existence of implicit guarantees from the IMF and major industrial nations. Based on these expectations, the lending banks did not include reasonable risk premiums in the interest rates they charged to developing country banks, and they also failed to determine whether the borrowing banks were making prudent loans to local real estate developers and business owners. The lax lending policies of international banks resulted in an excessive expansion of credit that ultimately fueled boom-and-bust cycles in both Mexico and East Asia, with devastating consequences for the economies and banking systems of both areas.³⁹⁰

A full examination of the merits and shortcomings of the IMF’s assistance policies is beyond the scope of this article. Regardless of the benefits of the IMF’s stabilization efforts, it seems clear that international adoption of a de facto TBTF policy has produced the same moral hazard issues for international banking authorities as those that confront U.S. bank regulators. In both international and domestic arenas, big banks have been encouraged by implicit TBTF subsidies to engage in high-risk lending and other speculative ventures that offer the promise of

389. See, e.g., BERNARD & BISIGNANO, *supra* note 387, at 2–6, 15–19, 42–44, 52–54; Meltzer, *IMF Issues*, *supra* note 387, at 245–52; Calomiris, *IMF*, *supra* note 387, at 275–82, 286–87; Chari & Kehoe, *supra* note 387, at 10–13; Allan H. Meltzer, *Asian Problems and the IMF*, 17 CATO J. 267, 267–72 (1998) [hereinafter Meltzer, *Asian Problems*].

390. See, e.g., BERNARD & BISIGNANO, *supra* note 387, at 3–7, 10–19 (contending that interest rates for international interbank loans during the 1990s demonstrated the existence of implicit multilateral guarantees, because interest rates for loans made to developing country banks did not adequately reflect their higher credit risks); *id.* at 27 tbl.7 (showing that international bank loans to Asian and Latin American borrowers grew from \$320 billion in 1990 to \$447 billion in 1994 and \$660 billion in 1997); *id.* at 39 chart 11 (showing that interest rate spreads on syndicated loans to Asian borrowers declined sharply during 1995–97, after the IMF and the United States organized a rescue program for Mexico); *id.* at 40–42 (suggesting that “moral hazard” created by implicit multilateral guarantees provides a plausible explanation for high-risk lending patterns by international banks during the 1990s); Calomiris, *IMF*, *supra* note 387, at 275–76, 280–85 (arguing that the “moral hazard” created by IMF policies led international banks to provide excessive loans to East Asian borrowers on imprudent terms, and noting that the ratio of foreign bank debt to gross domestic product reached 45% in Thailand, 35% in Indonesia, and 25% in Korea by mid-1997); Chari & Kehoe, *supra* note 387, at 5–6, 10–11, 18–20 (making similar arguments); Gil-Díaz, *supra* note 384, at 303–11 (describing the adverse effects of excessive international credit flows into Mexico during 1990–93); A. James Meigs, *Lessons for Asia from Mexico*, 17 CATO J. 315, 317–20 (1998) (same); Meltzer, *Asian Problems*, *supra* note 389, at 267–72 (same); see also STEINHERR, *DERIVATIVES*, *supra* note 74, at 82–85 (explaining how Mexican banks evaded local banking regulations, obtained large amounts of credit, and incurred major foreign exchange risks by entering into tesobono swaps, structured notes, and other derivatives transactions with foreign financial firms).

higher returns but create the potential for banking panics and economic crises.³⁹¹ Reducing the scope of the TBTF doctrine and its corresponding incentive for moral hazard remains the great unsolved problem of financial regulation for both international and domestic policymakers.³⁹²

E. Large Banks Have Shifted to High-Risk Activities, Including Many Ventures Linked to the Capital Markets

During the past three decades, leading U.S. banks have adopted higher-risk business strategies to offset the declining profitability of their traditional "blue chip" corporate lending business. Since 1990, big banks have focused their efforts in the following areas: (i) establishing a major presence in the underwriting and trading businesses for securities and de-

391. For example, the IMF's assistance programs for Mexico and East Asia appear to have aggravated the severity of the global financial crisis that followed Russia's debt default and devaluation in August 1998. International banks lent billions of dollars to the Russian government and Russian banks during the mid-1990s, and institutional investors invested billions more in Russian business enterprises, based on the assumption that the IMF and Western governments would intervene to prevent any serious disruption in the Russian financial system. As in Mexico and East Asia, easy credit from Western banks and investors promoted a boom-and-bust cycle in the Russian economy. During the spring and summer of 1998, when Russia stood on the brink of default, the IMF attempted, with the urgent support of Western banks and institutional investors, to organize a rescue package. The IMF's efforts ultimately failed, due in large part to the intransigence, corruption, and incompetence of the Russian government. The Russian government then devalued the ruble and defaulted on a portion of its debt, while ordering Russian banks to cease payments to foreign creditors. International financial markets were immediately gripped by a global panic and near paralysis. Banks pulled back sharply on their loans and equity investments in emerging markets, and investors frantically sold securities and derivatives with any substantial exposure to risk. Observers subsequently concluded that (i) the financial markets' widespread belief in an IMF "safety net" had caused Western banks and investors to accept excessive and imprudent exposures to the Russian economy, and (ii) the IMF's inability to fulfill that expectation magnified the financial panic that followed Russia's default. See, e.g., Randall S. Kroszner, *Less Is More in the New International Financial Architecture*, in *ASIAN FINANCIAL CRISIS*, *supra* note 387, at 447, 449-50; LOWENSTEIN, *supra* note 79, at 130, 139-41, 144-45, 158-62, 168; Meltzer, *IMF Issues*, *supra* note 387, at 248-51; Carol Matlack, *Russia: The High Cost of Easy Money*, *BUS. WK.*, Dec. 10, 1998, at 110; Mufson & Hoffman, *supra* note 79; *Russian Debt Crisis*, *supra* note 79; see also Catherine Belton, *Russia: All Is Forgiven*, *BUS. WK.*, Oct. 9, 2000, at 64 (reporting that Russia's debt default caused \$10 billion in losses for U.S. and European banks).

Investor expectations as to the IMF are reflected in the "deluge of phone calls" that an IMF official received during the late spring of 1998 from "investment bankers and portfolio managers [who were] lobbying for a new IMF bailout" of Russia. Michael Dobbs & Paul Blustein, *Lost Illusions About Russia*, *WASH. POST*, Sept. 12, 1999, at A1. Robert Hormats, vice chairman of Goldman Sachs, described Russia as "the ultimate moral hazard. . . . The general view was that it was too big or too nuclear to fail, that the West would put money in as far as the eye can see. It gave foreign investors a feeling of complacency." Mufson & Hoffman, *supra* note 79.

392. See, e.g., Fischer, *supra* note 388, at 93 (statement by the IMF's first deputy managing director, acknowledging that the "moral hazard . . . problem has no perfect solution"); Hoenig, *supra* note 350, at 11-13 (explaining that the TBTF doctrine presents serious unresolved problems of supervisory policy for both U.S. and foreign bank regulators); ROBERT T. PARRY, *FINANCIAL SERVICES IN THE NEW CENTURY* 2-3 (Federal Reserve Bank of S.F., Econ. Letter 98-15, May 8, 1998), available at <http://www.sf.frb.org> (speech by the president of the Federal Reserve Bank of San Francisco, stating that the TBTF policy is "the number one financial regulation issue" and "becomes even more intractable" with further consolidation in the financial services industry); Stern, *supra* note 368, at 3-5 (statement by the president of the Federal Reserve Bank of Minnesota, expressing concern that expanded powers granted to big banks under the GLB Act could "exacerbate the moral hazard problem" caused by the TBTF policy).

rivatives; (ii) extending syndicated commercial loans to lower-quality domestic and foreign customers; and (iii) making and securitizing loans to consumers with blemished credit histories.³⁹³ As shown below, all of these activities involve significant risks and are vulnerable to sudden downturns in the capital markets.

Large banks made a similar shift to higher-risk activities during the 1970s and 1980s, a trend that ultimately triggered a major banking crisis and imposed total resolution costs of \$36 billion on the FDIC during 1980–94.³⁹⁴ Once again, a decade later, the business strategies of our biggest banks pose a significant potential threat to the stability of the U.S. financial system.

1. *Risky Lending by Large Banks Led to the Banking Crisis of 1980–92*

During the late 1970s and throughout the 1980s, large U.S. banks rapidly increased their lending to riskier categories of borrowers, including (i) domestic loans to energy producers, real estate developers, and companies involved in highly leveraged transactions (HLTs), and (ii) foreign loans to public agencies and private firms in less developed countries (LDCs). Large banks aggressively pursued these new lending opportunities to offset the decline in their traditional business of lending to highly rated U.S. corporations.³⁹⁵ By 1990, U.S. banks, especially larger institutions held almost \$600 billion of these high-risk loans, and widespread defaults forced banks to charge off about \$140 billion of those loans during 1986–91.³⁹⁶

As a result of massive losses from defaulted loans, more than 1600 banks failed or were rescued by the FDIC between 1980 and 1994, at a cost to the FDIC of more than \$36 billion. By 1991, the cost of resolving bank failures had exhausted the BIF's reserves, and Congress responded

393. Big banks have pursued these high-risk strategies to a much greater extent than smaller banks, because the lending franchise of larger banks has been more severely eroded by the proliferation of financing options for well-established firms in the capital markets. See, e.g., BARTH ET AL., *supra* note 277, at 25–37, 62–68, 76–77; Gorton & Rosen, *supra* note 304, at 1378–79 & n.6; Jonathan R. Macey & Geoffrey P. Miller, *Bank Failure: The Politicization of a Social Problem*, 45 STAN. L. REV. 289, 294–98, 302–03 (1992) [hereinafter Macey & Miller, *Bank Failure*]; *supra* Parts I(A)(1), (2).

394. See *infra* Part I(E)(1).

395. See *id.*; see also CONGRESSIONAL BUDGET OFFICE, THE CHANGING BUSINESS OF BANKING: A STUDY OF FAILED BANKS FROM 1987 TO 1992, at 12–13 (1994) [hereinafter CBO BANK FAILURE STUDY] (stating that large banks rapidly increased their LDC and HLT loans during the 1970s and 1980s in response to their “loss of blue-chip [corporate] customers”); FDIC, HISTORY OF THE EIGHTIES: LESSONS FOR THE FUTURE 151–56, 195–99 (1997) [hereinafter FDIC HISTORY LESSONS] (describing reasons for the rapid growth of loans by U.S. banks to real estate developers and LDCs during the 1970s and 1980s).

396. See Wilmarth, *Too Big to Fail*, *supra* note 157, at 965 & n.22 (stating that, by 1990, U.S. banks held “\$380 billion of commercial real estate loans, \$150 billion of HLT loans and \$60 billion of LDC loans,” and that banks charged off \$137 billion of those loans during 1986–91). For discussions of the heavy concentration of high-risk lending among large banks, see BARTH ET AL., *supra* note 277, at 25–37, 55, 65–77; FDIC HISTORY LESSONS, *supra* note 395, at 137–62, 191–210, 235–43, 320–26, 338–61, 372–78; Boyd & Gertler, *Banking Crisis*, *supra* note 277, at 13–19.

by enacting FDICIA in 1991.³⁹⁷ Under FDICIA, the FDIC collected higher risk-based deposit insurance premiums from BIF members until the BIF reached its mandated level, 1.25% of total BIF insured deposits, in 1995.³⁹⁸

Numerically, most bank failures during the 1980s and early 1990s involved smaller banks. However, failures and near failures of large banks with assets of more than \$1 billion constituted a significantly greater threat to the BIF's solvency. Between 1980 and 1992, forty-five large banks failed,³⁹⁹ including eleven of the nation's top fifty banks.⁴⁰⁰ Large banks failed at a higher rate than smaller banks during 1981-91, and large bank failures accounted for a majority of the FDIC's losses during 1986-94.⁴⁰¹

Federal bank regulators felt obliged to announce publicly a TBTF policy in 1984, in an effort to protect weakened large banks from the perceived threat of panic withdrawals by uninsured depositors. Under this policy, federal regulators extended 100% de facto insurance to uninsured depositors and payments system creditors in large failing banks.⁴⁰² Between 1972 and mid-1992, federal regulators protected uninsured depositors and payments system creditors at every failed bank with assets of more than \$1 billion.⁴⁰³ Federal regulators applied the TBTF policy

397. See MANAGING THE FDIC CRISIS, *supra* note 149, at 98 (stating that 1617 banks failed or were given open-bank assistance by the FDIC during 1980-94, at a total cost to the FDIC of \$36.3 billion); James M. Barth & R. Dan Brumbaugh, Jr., *The Role of Deposit Insurance: Financial System Stability and Moral Hazard*, in 4 CURRENT LEGAL ISSUES AFFECTING CENTRAL BANKS 393, 394, 397 tbl.3, 398 (Robert C. Effros ed., 1997) (stating that BIF declined to a negative balance of \$7 billion in 1991 before being restored to solvency in 1993); Benston & Kaufman, *supra* note 122, at 142-50 (discussing the BIF's insolvency in 1991, the enactment of FDICIA, and the BIF's recapitalization); FDIC HISTORY LESSONS, *supra* note 395, at 102-05, 133 (same).

FDICIA also provided the FDIC with "emergency funding" in the form of an expanded line of credit of up to \$30 billion from the Treasury Department. H.R. REP. NO. 102-330, at 95 (1991), reprinted in 1991 U.S.C.C.A.N. 1901, 1908. In view of the "pending insolvency" of the BIF, Congress concluded that this standby borrowing facility was "essential" to "maintain a major degree of stability in the [banking] system." 137 CONG. REC. S18,618, 18,620 (daily ed. Nov. 27, 1991) (remarks of Sen. Riegle, Senate floor manager for FDICIA).

398. See *supra* note 123 and accompanying text.

399. See Boyd & Runkle, *supra* note 356, at 62 tbl.4, n.b. (1993) (listing thirty-nine large banks that failed during 1980-91); FDIC HISTORY LESSONS, *supra* note 395, at 373 tbl.10.9 (listing six large banks that failed during 1992).

400. Timothy L. O'Brien, *Worries About Loans Revive Ghost of 1980's Bank Debacle*, N.Y. TIMES, July 16, 1998, at A1 [hereinafter O'Brien, *Worries About Loans*].

401. See Boyd & Runkle, *supra* note 356, at 62 tbl.4 (showing that 10.45% of banks larger than \$1 billion failed during 1981-91, compared to 9.91% of smaller banks); Wilmarth, *Big Bank Mergers*, *supra* note 106, at 42-43 n.199 (citing FDIC study showing that banks larger than \$1 billion accounted for 56% of the FDIC's losses from bank failures during 1986-94); see also CBO BANK FAILURE STUDY, *supra* note 395, at 38 (reporting that failed banks with assets of more than \$500 million accounted for 58% of the FDIC's bank resolution costs during 1987-92).

402. For development and application of the TBTF policy, see, e.g., FDIC HISTORY LESSONS, *supra* note 395, at 243-54; Wilmarth, *Too Big to Fail*, *supra* note 157, at 994-1002.

403. See SPRAGUE, *supra* note 371, at 53-106 (describing rescues of Bank of the Commonwealth in 1972 and First Pennsylvania in 1980); FDIC HISTORY LESSONS, *supra* note 395, at 243-54 (describing large bank rescues during the 1980s and early 1990s); MANAGING THE FDIC CRISIS, *supra* note 149, at 685-90 (describing the rescue of CrossLand Savings in early 1992); *id.* at 577-80, 723-25 (stat-

most prominently in rescuing Continental Illinois in 1984, First City and First RepublicBank in 1988, MCorp in 1989, and Bank of New England in 1991.⁴⁰⁴

During the peak of the banking crisis in 1990–91, the largest banks maintained the lowest capital ratios, generated the worst earnings, held the highest percentages of high-risk loans, and incurred a disproportionate share of the industry's loan losses. Several analysts concluded that troubled large banks presented the greatest risk to the stability of the U.S. financial system at that time.⁴⁰⁵ In fact, several of the biggest U.S. banks, including Citicorp, were perilously close to insolvency in 1990–91.⁴⁰⁶

A number of leading banks avoided failure during the early 1990s by virtue of (i) a federal regulatory policy of supervisory forbearance for large banks, and (ii) the FRB's policy of aggressively cutting short-term interest rates during the early 1990s. The FRB's interest rate cuts created a wide gap between short-term rates and rates on longer-term Treasury bills. This rate gap enabled banks to make substantial profits by collecting low-cost deposits and investing the proceeds in higher yielding Treasury bills and mortgage-backed securities. In practical effect, the FRB quietly engineered a de facto bailout of weak banks. Instead of imposing the cost of this covert rescue on taxpayers, as occurred during the thrift crisis, the FRB's interest rate policy shifted this cost to bank depositors, who received unusually low yields on their deposits.⁴⁰⁷

The banks' high-risk lending strategy of the 1970s and 1980s thus proved disastrous, and banks adopted conservative lending policies after the onset of the 1990–91 recession. Bank commercial and industrial loans declined steadily during 1990–92 and grew only slightly in 1993, while bank commercial real estate loans fell sharply during the early

ing that the resolution of First City Bancorporation in late 1992 was the first transaction in which the FDIC took control of a failed bank larger than \$1 billion without giving full and immediate protection to all uninsured depositors); Wilmarth, *Too Big to Fail*, *supra* note 157, at 994–95, 1000–01 (describing large bank failures from the 1980s through the early 1990s).

As described *supra* at note 132 and accompanying text, Congress codified the TBTF policy when it enacted FDICIA in 1991. No large bank has failed since 1992, and federal regulators have therefore not been faced with a decision about whether to apply the TBTF doctrine in recent years. However, analysts have suggested that regulators would probably protect uninsured depositors and payments system creditors if any of the fifteen or twenty largest banks were threatened with failure. See Feldman & Rolnick, *supra* note 353, at 6–9; Wilmarth, *Too Big to Fail*, *supra* note 157, at 997–1004.

404. See SPRAGUE, *supra* note 371, at 149–219; MANAGING THE FDIC CRISIS, *supra* note 149, at 545–651; Wilmarth, *Too Big to Fail*, *supra* note 157, at 994–97.

405. E.g., BARTH ET AL., *supra* note 277, at 25–56, 65–77, 115; Boyd & Gertler, *Banking Crisis*, *supra* note 277, at 3–5, 10–20; Wilmarth, *Big Bank Mergers*, *supra* note 106, at 42–44.

406. See BARTH ET AL., *supra* note 277, at 32–33, 41–45, 54–56, 94.

407. For discussions of the federal bank regulators' supervisory forbearance policy for large banks and the FRB's interest rate policy of the early 1990s, and their respective roles in resolving the banking crisis of 1990–91, see, for example, BARTH ET AL., *supra* note 277, at 88–89, 94, 111–13; LITAN & RAUCH, *supra* note 106, at 40, 76; Hanweck & Shull, *supra* note 147, at 273–74 n.39; Wilmarth, *Big Bank Mergers*, *supra* note 106, at 44–46; Fromson & Knight, *supra* note 371; Jerry Knight, *Citicorp Back From Brink*, WASH. POST, Apr. 7, 1998, at C12; Richard Phillips, *How Greenspan Saved the Day*, AM. BANKER, Nov. 3, 1992, at 4.

1990s and did not begin to recover until 1994.⁴⁰⁸ Many observers have concluded that this steep decline in bank lending, often referred to as a “credit crunch,” was caused by (i) the banks’ need to repair their balance sheets after suffering high loan losses, and (ii) the constraints imposed on bank lending by new regulatory policies that included higher capital requirements and stricter examinations of bank lending practices.⁴⁰⁹ The loan reductions were particularly intense at large banks because those institutions faced the most serious problems with loan losses and inadequate capital ratios.⁴¹⁰

2. *High-Risk Activities Among Large Banks Have Grown Rapidly in Recent Years*

Despite the harsh lessons of the last banking crisis, big banks have pursued risky business strategies since 1993 that are disturbingly reminiscent of the 1980s. During the past several years, the largest U.S. banks have rapidly expanded their involvement in higher-risk activities such as underwriting and dealing in securities and derivatives, leveraged syndicated lending to domestic and foreign customers, and securitized consumer lending to subprime borrowers. Large banks earn substantial fees in all of the foregoing businesses, and their fee-based income has grown from about a quarter of their earnings in 1985 to almost half of their earnings currently.⁴¹¹ In contrast, smaller banks continue to derive al-

408. See William B. English & Brian K. Reid, *Profits and Balance Sheet Developments at U.S. Commercial Banks in 1993*, 80 FED. RES. BULL. 483, 484, 485 tbl.2 (1994) (reporting that bank commercial and industrial loans declined significantly during 1990–92 and increased only slightly in 1993); William B. English & Brian K. Reid, *Profits and Balance Sheet Developments at U.S. Commercial Banks in 1994*, 81 FED. RES. BULL. 545, 546–48 & tbl.2 (1995) (reporting that bank commercial and industrial loans expanded significantly in 1994, while bank commercial real estate loans began to increase after a three-year decline).

409. For analysis for the factors that contributed to the “credit crunch” of the early 1990s, see, e.g., Allen N. Berger & Gregory F. Udell, *Did Risk-Based Capital Allocate Bank Credit and Cause a “Credit Crunch” in the United States?*, 26 J. MONEY, CREDIT & BANKING 585, 586–89, 624–26 (1994) [hereinafter Berger & Udell, *Credit Crunch*]; Richard Cantor & John Wenninger, *Perspectives on the Credit Slowdown*, FED. RES. BANK OF N.Y., Q. REV., Spring 1993, at 3 *passim*; Robert T. Clair & Paula Tucker, *Six Causes of the Credit Crunch (or, Why Is It So Hard to Get a Loan?)*, FED. RES. BANK OF DALLAS, ECON. REV., 3d Qtr. 1993, at 1, 6–16; Joe Peek & Eric Rosengren, *Bank Regulation and the Credit Crunch*, 19 J. BANKING & FIN. 679 *passim* (1995); Joe Peek & Eric Rosengren, *The Capital Crunch: Neither a Borrower nor a Lender Be*, 27 J. MONEY, CREDIT & BANKING 625 *passim* (1995); Ronald E. Shrieves & Drew Dahl, *Regulation, Recession and Bank Lending Behavior: The 1990 Credit Crunch*, 9 J. FIN. SERV. RES. 5 *passim* (1995).

410. See, e.g., Berger & Udell, *Credit Crunch*, *supra* note 409, at 616–26; Boyd & Gertler, *Banking Crisis*, *supra* note 277, at 16–20.

411. See FDIC Q. BANKING PROFILE, 1st Qtr. 2000, at 1 fig. (2000) [hereinafter BANKING PROFILE, 1st Qtr 2000] (showing that noninterest income, as a percentage of net operating revenue, rose from 28.0% in 1985 to 46.6% in 2000 among banks larger than \$1 billion); see also Karen Furst et al., *Who Offers Internet Banking?*, OCC Q.J., June 2000, at 29, 33, available at <http://www.occ.treas.gov> (stating that “the ratio of noninterest income to net operating revenue . . . is a rough proxy for the amount of revenue being generated by [a bank’s] ‘non-traditional’ activities”).

most three-quarters of their profits from net interest margins on their loans.⁴¹²

As described in this section, all of the fee-based activities pursued by larger banks are tied directly or indirectly to capital markets. Big banks have focused on these new lines of business as sources of fee income to replace the revenues lost from traditional lending.⁴¹³ Indeed, it appears that the principal business of large banks is no longer the intermediation of credit but has instead become the management, transfer, and trading of various types of risk in the financial markets.⁴¹⁴ Reflecting this shift from traditional lending to the capital markets, Citigroup and J.P. Morgan Chase produced more than half of their net income in 1999 from investment banking and other capital markets activities.⁴¹⁵

Unfortunately, as discussed below, these new business lines require banks to assume or guarantee risks that are not subject to reliable assessment by either bank regulators or the financial markets. Regulators and analysts have expressed growing concerns that these risky activities could inflict substantial losses on major banks if the U.S. economy enters a severe and prolonged recession.⁴¹⁶ The serious setbacks that large banks and securities firms have suffered during financial market disruptions in 1987, 1990, 1994–95, 1997–98, and 2001 support these concerns.⁴¹⁷

412. See BANKING PROFILE, 1st Qtr. 2000 *supra* note 411 (showing that noninterest income, as a percentage of net operating revenue, rose from 17.9% in 1985 to 26.5% in 2000 among banks smaller than \$1 billion).

413. See, e.g., LITAN & RAUCH, *supra* note 106, at 58–59, 71–76; STEINHERR, DERIVATIVES, *supra* note 74, at 51–52, 216–21, 307; Edwards & Mishkin, *supra* note 46, at 27–37; Kantrow, *More Fees, supra* note 108; John Kimelman, *Forget the Spread—the Name of the Game Now Is Fee Income*, AM. BANKER, May 30, 1997, at 1 [hereinafter Kimelman, *Fee Income*].

414. Franklin Allen & Anthony M. Santomero, *The Theory of Financial Intermediation*, 21 J. BANKING & FIN. 1461 *passim* (1998). For further discussions of (i) the shift by large banks from a traditional lending business to a risk management business tied to the capital markets, and (ii) the potential threats to bank safety and stability caused by that shift, see STEINHERR, DERIVATIVES, *supra* note 74, at 52–55, 274–81; Flannery, *Financial Regulation*, *supra* note 368, at 102–09.

415. See Steven Lipin & E.S. Browning, *Heard on the Street: Is New Chase the Bank of the Future?*, WALL ST. J., Sept. 14, 2000, at C1; *The Changing Face of Financial Services*, WALL ST. J., Sept. 14, 2000, at C20 tbls.

416. See 2000 FDIC Economic Risk Study, *supra* note 105, at 11; Bary, *supra* note 111 (citing the views of Michael Mayo); Kantrow, *More Fees*, *supra* note 108, at 1, 6; James R. Kraus, *In Revenue Hunt, New Businesses Seen Inviting Risks*, AM. BANKER, June 3, 1997, at 5 [hereinafter Kraus, *Revenue Hunt*]; Liz Moyer, *Wall St. Woe Seen Eroding Fee Revenue at Top Banks*, AM. BANKER, Sept. 30, 1998, at 6 [hereinafter Moyer, *Fee Revenue*]; Thornton et al., *Tearing Up the Street*, *supra* note 138 (describing the threat to banks and securities firms posed by the sharp slump in capital markets activities during 2001); see also STEINHERR, DERIVATIVES, *supra* note 74, at 255–56, 262–63, 274–81, 286–87 (discussing the inability of financial regulators and investors to evaluate and control the risks inherent in the derivatives and other capital markets activities of big banks); *infra* Part III(C) (same).

417. See *supra* Part I(A)(2)(b); *infra* Parts I(E)(2)(a), I(E)(2)(b)(iii)(C)–(G); I(E)(2)(c) & III(B).

- a. Underwriting, Dealing, and Investing in Securities
 - i. Large Banks Have Become Major Competitors in the Securities Industry

Prior to 1987, the Glass-Steagall Act effectively barred banks from underwriting or dealing in bank-ineligible securities.⁴¹⁸ Between 1987 and 1997, the FRB issued a series of orders, based on section 20 of the Glass-Steagall Act,⁴¹⁹ that permitted banks to establish “section 20 subsidiaries” that engaged in a limited amount of securities underwriting and dealing activities. In its first two orders, issued in 1987, the FRB ruled that section 20 subsidiaries could underwrite or deal in commercial paper and a few other types of bank-ineligible securities. The FRB concluded that a section 20 subsidiary would not be “engaged principally” in underwriting or dealing activities involving bank-ineligible securities as long as the subsidiary limited those activities to less than five percent of its annual gross revenues.⁴²⁰

In 1989, the FRB expanded the “section 20 loophole” by (i) permitting section 20 subsidiaries to underwrite and deal in all types of bank-ineligible securities, including corporate debt and equity securities, and (ii) raising the revenue limit on bank-ineligible securities activities to 10% of a section 20 subsidiary’s total revenues.⁴²¹ J.P. Morgan was the first bank to establish a substantial presence in the securities business through the use of a section 20 subsidiary. In 1991, J.P. Morgan ranked

418. See *supra* notes 5 & 29 and accompanying text (describing restrictions imposed on bank securities activities under the Glass-Steagall Act).

419. Prior to its repeal by the GLB Act, section 20 of the Glass-Steagall Act prohibited member banks of the Federal Reserve System from affiliating with any company that was “engaged principally” in the business of underwriting or dealing in bank-ineligible securities. 12 U.S.C. § 377 (1994), repealed by Pub. L. No. 106-102, 113 Stat. 1341 (1999); see also *supra* notes 5 & 29 and accompanying text.

420. See Citicorp, *Order Approving Applications to Engage in Limited Underwriting and Dealing in Certain Securities*, 73 FED. RES. BULL. 473 (1987) (authorizing bank holding companies to establish subsidiaries that could underwrite and deal in municipal revenue bonds, mortgage-backed securities, and commercial paper); Chase Manhattan Corp., *Order Approving Application to Underwrite and Deal in Commercial Paper to a Limited Extent*, 73 FED. RES. BULL. 367 (1987) (authorizing bank holding company to underwrite commercial paper). The FRB’s orders were upheld by two federal courts of appeal—the Second Circuit in *Securities Industry Ass’n v. Board of Governors of the Federal Reserve System*, 839 F.2d 47, 50–62 (2d Cir. 1988), cert. denied 486 U.S. 1059 (1988) and the District of Columbia Circuit in *Securities Industry Ass’n v. Federal Reserve System*, 847 F.2d 890 (D.C. Cir. 1988). The Second Circuit indicated that the challenged FRB order represented a significant step in “dismantl[ing] the wall of separation” established by the Glass-Steagall Act; *Sec. Indus. Ass’n*, 839 F.2d at 50–62; see also SIMON H. KWAN, SECURITIES ACTIVITIES BY COMMERCIAL BANKING FIRMS’ SECTION 20 SUBSIDIARIES: RISK, RETURN, AND DIVERSIFICATION BENEFITS 2–6 (Fed. Res. Bank of S.F., Working Paper No. 98-10, Oct. 1997) [hereinafter KWAN, SECTION 20 SUBSIDIARIES] (describing the “Section 20 subsidiaries” that were authorized by the FRB’s orders).

421. See Rahul Bhargava & Donald R. Fraser, *On the Wealth and Risk Effects of Commercial Bank Expansion into Securities Underwriting: An Analysis of Section 20 Subsidiaries*, 22 J. BANKING & FIN. 447, 451 (1998) (discussing the FRB’s 1989 orders under section 20); Frederic S. Mishkin, *Financial Consolidation: Dangers and Opportunities*, 23 J. BANKING & FIN. 675, 679 (1999) [hereinafter Mishkin, *Financial Consolidation*] (referring to the “section 20 loophole” created by the FRB’s orders).

seventh among underwriters of U.S. corporate debt,⁴²² and, in 1994, the bank ranked ninth for combined underwritings of U.S. debt and equity securities.⁴²³ By 1996, section 20 subsidiaries of banks held about 20% of the debt underwriting market and about 2% of the equity underwriting market in the United States.⁴²⁴

In late 1996, the FRB again raised the bank-ineligible revenue limit for section 20 subsidiaries, this time to 25% of their total revenues.⁴²⁵ During 1996–97, the FRB also amended its section 20 rules to remove firewalls that had placed strict limits on transactions and cross-marketing between bank holding companies and their section 20 subsidiaries.⁴²⁶ These FRB initiatives triggered a rapid expansion of bank involvement in the securities business.⁴²⁷ During 1997–98, domestic and foreign banks acquired more than twenty smaller and midsized securities firms, and many other banks enlarged their existing section 20 subsidiaries.⁴²⁸ By mid-1998, more than forty-five large and midsized banks had established section 20 subsidiaries, including all of the twenty-five biggest U.S. banks.⁴²⁹

Thus, the FRB's section 20 orders, together with its approval of the Citicorp-Travelers merger, enabled banks to build a major presence in the securities industry even before Congress passed the GLB Act. During 1999, four banks—Citigroup (through its subsidiary Salomon Smith Barney), Chase, Bank of America, and J.P. Morgan—ranked among the top ten underwriters for combined offerings of U.S. stocks and bonds.⁴³⁰ At the same time, banks controlled about one-sixth of the market for ini-

422. See Fred R. Bleakley, *Street Fight: J.P. Morgan Expands Role in Underwriting, Irking Securities Firms*, WALL ST. J., Nov. 13, 1991, at A1 [hereinafter Bleakley, *J.P. Morgan*].

423. See Anita Raghavan, *Commercial Banks Emerging as Underwriting Force*, WALL ST. J., Apr. 3, 1995, at C1.

424. Amar Gande et al., *Bank Entry, Competition, and the Market for Corporate Securities Underwriting*, 54 J. FIN. ECON. 165, 171, 172 tbl.2 (1999).

425. See FEIN, *supra* note 30, § 9.03[B], at 9–20 (citing FRB rule published at 61 Fed. Reg. 68,750 (1996)).

426. See *id.* § 9.05 (discussing the FRB's removal of section 20 firewalls).

427. See Mahua Dutta, *With Rules Eased, Banks Flock to Securities Underwriting*, AM. BANKER, Aug. 18, 1997, at 1.

428. See Edward D. Herlihy et al., *Banks Are Acquiring Investment Banking Firms at Rapid Pace*, 16 BANKING POL'Y REP. NO. 14, July 21, 1997, at 1, 12; J. Kathleen Day, *Merrill's Fight for Bank Reform*, WASH. POST, Oct. 16, 1998, at F4 (reporting that domestic and foreign banks had acquired twenty-three securities firms during the preceding eighteen months); J. Alex Tarquinio, *Brokerage Deals Fueling Push for Section 20 Powers*, AM. BANKER, Jan. 21, 1998, at 7 [hereinafter Tarquinio, *Brokerage Deals*]; J. Alex Tarquinio, *KeyCorp Takes Offbeat Path with McDonald Stock Deal*, AM. BANKER, June 22, 1998, at 14 tbl. (listing seven major acquisitions of securities firms by large U.S. banks during 1997–98).

429. See Tarquinio, *Brokerage Deals*, *supra* note 428; J. Alex Tarquinio, *Wachovia, Wells Are Section 20 Holdouts No More*, AM. BANKER, June 15, 1998, at 14.

430. See Patrick McGeeham, *Leading Underwriters*, N.Y. TIMES, Jan. 3, 2000, at C18 tbl. [hereinafter 1999 *Leading U.S. Securities Underwriters*]. The same four banks, along with Deutsche Bank, ranked among the top ten underwriters of U.S. stocks and bonds during the first nine months of 2000. See *Quarterly Scoreboard of Wall Street Underwriting*, WALL ST. J., Oct. 2, 2000, at C26 tbl.

tial public offerings, a traditional preserve of investment banks.⁴³¹ Accordingly, the GLB Act's repeal of section 20's prohibition against full scale affiliations between banks and securities firms essentially ratified a trend that was already occurring in the financial markets in response to the FRB's prior rulings.⁴³²

Small banks did not join this push for securities underwriting and dealing powers. No bank with assets under \$5 billion has established a section 20 subsidiary or acquired a securities broker-dealer under the GLB Act.⁴³³ Because the primary business customers of smaller banks are small firms that lack access to the capital markets, there is little reason for a smaller bank to engage in securities underwriting and dealing activities.⁴³⁴

Prior to the GLB Act, the largest U.S. banks also conducted extensive securities activities in overseas markets through their foreign branches and subsidiaries, based on authority granted by the FRB's Regulation K.⁴³⁵ In 1991, the FRB amended Regulation K to broaden the securities powers of U.S. banks in overseas markets.⁴³⁶ In response, big banks aggressively expanded their underwriting and trading activities in foreign markets.⁴³⁷ The GLB Act expressly permits banks to continue engaging in these overseas activities.⁴³⁸

431. See David Weidner, *Banks Maintained Share of 2d-Quarter IPO Market*, AM. BANKER, July 6, 1999, at 4. Banks increased their share of the initial public offering market to more than one-fifth during the first quarter of 2000. See Laura Mandaro, *Banks Gained in IPO Jump of 164% in First Quarter*, AM. BANKER, Apr. 5, 2000, at 6.

432. Professor Jonathan Macey has observed that: the Glass-Steagall Act was already a dead letter when [the GLB Act] was passed . . . because federal regulators . . . had already eviscerated the 'Maginot Line' between commercial and investment banking through liberal regulatory interpretations of the statute Thus, Congress, in passing the [GLB] Act, merely gave formal recognition to the changes that had been taking place in the marketplace over the past twenty years.

Macey, *Business of Banking*, *supra* note 38, at 692.

433. See J. Alex Tarquinio, *Cullen/Frost Unit to Focus on Equities and Texas Market*, AM. BANKER, Jan. 27, 1999, at 25 (reporting that the two smallest banks with section 20 subsidiaries each had assets of about \$7 billion).

434. Cf. Tarquinio, *Brokerage Deals*, *supra* note 428 (stating that "[b]anks with a heavy emphasis on small business loans, . . . should probably stay away from securities business for now").

435. See 12 C.F.R. § 211.5(d)(13), (14) (1999); FEIN, *supra* note 30, §§ 12.01[A][4], [B] (discussing securities activities permitted to overseas branches and subsidiaries of U.S. banks under Regulation K).

436. See FEIN, *supra* note 30, § 12.01[A][4][c] (discussing 1991 amendments to Regulation K).

437. See James R. Kraus, *Big Banks Raise Their Bets in Stock Markets Worldwide*, AM. BANKER, Aug. 13, 1996, at 7 [hereinafter Kraus, *Big Bank Stock Bets in World Markets*]; Timothy L. O'Brien, *Chase's Global Pit Boss*, N.Y. TIMES, Jan. 16, 1998, at C1 [hereinafter O'Brien, *Chase's Pit Boss*]; Leah Nathans Spiro et al., *Will Citigroup's Parade Get Rained Out?*, BUS. WK., Sept. 28, 1998, at 111.

438. See The GLB Act, Pub. L. No. 106-102, 113 Stat. 1338 (1999) (codified in scattered Sections of 12, 15 & 19 U.S.C.), § 103(a), 113 Stat. 1342-44 (codified at 12 U.S.C. § 1843(k)(4)(G)); *id.* § 121(a), 113 Stat. 1373-75 (codified at 12 U.S.C. §§ 24(a)(2), (b)(1)).

ii. Entry by Domestic and Foreign Banks into the Securities Business Has Produced Mixed Results

While large U.S. banks have established a significant presence in the securities business since 1990, it remains to be seen whether their investment banking operations will prevail over the “big three” securities firms of Goldman Sachs, Morgan Stanley, and Merrill Lynch. The “big three” have long held a dominant position in the global market for advising on mergers and acquisitions.⁴³⁹ Similarly, Goldman Sachs and Morgan Stanley have been long-term leaders in underwriting U.S. initial public offerings (IPOs). In the broader domestic and global markets for underwriting debt and equity securities, the “big three” have far outstripped every bank except for Citigroup, Credit Suisse, and J.P. Morgan Chase.⁴⁴⁰ Bank of America, First Union, and FleetBoston have all encountered setbacks in building their securities operations, and none of them has come close to achieving competitive parity with the “big three” in investment banking.⁴⁴¹

439. See Nikhil Deogun, *Deals & Deal Makers: Firms Inaugurate \$1 Trillion Deals Club*, WALL ST. J., Jan. 3, 2000, at C1 [hereinafter Deogun, *\$1 Trillion Deals Club*] (reporting that the “Big Three” have been the “top three advisers for announced global [merger] deals since 1996”); Chris Hughes, *Stock Market Flotations Sink to All-Time Low, Survey Shows*, INDEPENDENT (London), July 2, 2001, at 15 (reporting that the same three firms were the top three advisers for global mergers during the first half of 2001); Andrew Ross Sorkin, *Company News; Goldman Sachs Is Top Financial Adviser, Figures Show*, N.Y. TIMES, Jan. 4, 2001, at C4 (reporting that Goldman Sachs, Morgan Stanley Dean Witter, and Merrill Lynch were the top three advisers for global mergers completed during 2000).

440. See 1999 *Leading U.S. Securities Underwriters*, *supra* note 430; Charles Gasparino, 1999 *Underwriting Rankings*, WALL ST. J., Jan. 3, 2000, at R24; 2000 *Underwriting Rankings*, WALL ST. J., Jan. 2, 2001, at R19 tbl.; *Quarterly Stock Markets Review: First-Half Scoreboard of Wall Street Underwriting*, WALL ST. J., July 2, 2001, at C18 [hereinafter *First-Half 2001 Underwriting Scoreboard*].

During the first half of 2001, Citigroup and Credit Suisse joined Morgan Stanley and Goldman Sachs as top underwriters of U.S. IPOs. However, this accomplishment was due largely to a single transaction—Kraft Food’s IPO for \$8.7 billion—in which Citigroup and Credit Suisse were the lead underwriters. The two banks secured the Kraft deal by arranging a \$9 billion syndicated loan for Philip Morris, Kraft’s parent company. Some observers questioned whether the banks took undue risks in making that loan. In any event, Morgan Stanley and Goldman Sachs retained a clear lead over Citigroup and Credit Suisse with respect to other IPOs completed during the first half of 2001. See Alissa Schmelkin, *Goldman, Merrill Retain Top Underwriting Spots Despite Banks’ Challenge*, AM. BANKER, July 5, 2001, at 2; Randall Smith & Suzanne McGee, *Deals & Deal Makers: Banks’ Lending Clout Stings Securities Firms*, WALL ST. J., June 15, 2001, at C1; *First-Half 2001 Underwriting Scoreboard*, *supra*.

441. Bank of America made costly but largely unsuccessful efforts during the 1990s to build a major presence in the investment banking business. The bank’s purchase of Montgomery Securities in 1997 produced debilitating culture clashes between the bank’s senior management and its new investment bankers. Thomas Weisel, the founder of Montgomery Securities, subsequently left Bank of America along with 1000 of Montgomery’s 1400 employees. Similarly, the bank’s efforts to hire leading investment bankers from New York firms produced disappointing results and widespread defections. At the end of 2000, despite its position as one of the two largest syndicators of business loans, Bank of America had failed to establish a leading position in any significant sector of the investment banking business. See Foust, *Bank of America*, *supra* note 308, at 144, 148, 152; David Greising et al., *Banking: Love Among the Heavyweights*, BUS. WK., July 14, 1997, at 55; Barry Rehfeld, *The Toughest Job in America? B of A’s McColl Is Keeping It*, AM. BANKER, Dec. 13, 2001, at 1; Paul M. Sherer & Carrick Mollenkamp, *Bank of America Aspires to Be a Big Investment Banker*, WALL ST. J., Feb. 16, 2000, at C1. In addition, during 2000, Bank of America experienced declining revenues from its investment banking operations and incurred almost \$500 million in charges to write down the value of its

Large foreign banks have also encountered significant problems in entering the securities business. Barclays and NatWest sold off most of their investment banking operations in the late 1990s, after they both incurred large losses in the capital markets.⁴⁴² Similarly, ING decided in late 2000 to divest most of Barings, its investment banking unit, after Barings was plagued by poor earnings and rapid employee turnover during the previous five years.⁴⁴³ The most spectacular fiasco occurred at Credit Lyonnais, which suffered huge losses after its merchant banking unit, Altus Finance, made risky investments in a variety of European and overseas enterprises. Credit Lyonnais' losses from failed equity investments and defaulted loans ultimately forced the French government to organize a \$20 billion bailout for the bank.⁴⁴⁴

equity investments. See David Boraks, *B of A Joins Job Cutters: 600 Investment Bankers*, AM. BANKER, Oct. 25, 2001, at 2 (reporting a 19% decline in the bank's investment banking fees during the third quarter of 2001); *supra* note 117 (citing reports of declining profits from the bank's investment banking operations during the first half of 2001); *infra* note 484 (discussing losses from the bank's equity investments).

During the 1990s, First Union acquired several regional brokerage firms, and the bank announced in 2000 that it would promote capital markets activities as a primary business focus area. However, First Union has never ranked among the leaders in investment banking, and analysts have questioned whether the bank has sufficient resources to achieve long-term success in that highly competitive field. See Mollenkamp, *First Union*, *supra* note 260; Carrick Mollenkamp, *First Union Posts \$2.2 Billion Loss Amid Charge from Restructuring*, WALL ST. J., July 21, 2000, at B7; Bill Stoneman, *Phantom Synergies*, BANKING STRATEGIES, Sept./Oct. 2000, at 58 [hereinafter Stoneman, *Phantom Synergies*]. First Union disclosed in early 2001 that earnings from its capital markets group would fall well below its earlier projections. See *In Brief: First Union to Miss 10% Growth Target*, AM. BANKER, Feb. 14, 2001, at 2. After First Union merged with Wachovia in September 2001, the combined bank reported that it would incur almost \$400 million in losses writing down the value of its investment portfolio. See *infra* note 484.

FleetBoston aggressively expanded its investment banking activities during the late 1990s, especially in the high-technology sector. However, the bank has not established a leading position in the securities business, and its capital markets operations encountered serious difficulties during 2001. The bank's revenues from underwriting and equity investments fell sharply and analysts cut their profit forecasts for the bank, due to its heavy focus on high-technology firms. See Moyer, *Problems at Chase and Fleet*, *supra* note 117; Moyer, *Capital Markets Pullback*, *supra* note 117; Matthias Rieker, *Fleet Capital Markets Unit Seen Undermining Profits*, AM. BANKER, July 11, 2001, at 20; *Profit at Fleet Declines 21%*, N.Y. TIMES, Oct. 18, 2001, at C3 (reporting on a 39% decline in capital markets revenues at FleetBoston during the third quarter of 2001).

442. For discussions of Barclay's investment banking difficulties, see *Barclays Takes \$1.12 Billion Loss, Charge on Bank Sale*, WALL ST. J., Feb. 3, 1998, at A17; Alan Cowell, *Who'll Take the Driver's Seat?: Barclays at a Crossroads, with Questions on Leadership*, N.Y. TIMES, May 8, 1999, at C1. For discussions of NatWest's investment banking problems, which contributed to widespread investor dissatisfaction that ultimately led to a hostile takeover of NatWest by Royal Bank of Scotland, see Erik Portanger, *NatWest Recommends Royal Bank Bid*, WALL ST. J., Feb. 14, 2000, at A19; Stanley Reed & Heidi Dawley, *A Raid on the Staid*, BUS. WK., Oct. 11, 1999, at 60; *The Scottish Play*, ECONOMIST, Oct. 2, 1999, at 79.

443. See Richard Evans, *Dutch Oven: ING May Turn Up the Heat in the Insurance Wars*, BARON'S, May 17, 1999, at 22; David Fairlamb, *Barings May Be Headed for the History Books*, BUS. WK., Dec. 4, 2000, at 152; Julia Flynn et al., *The Brain Drain at ING Barings*, BUS. WK., July 8, 1996, at 110; Joseph Kahn, *ING Barings Is Trying to Dispel Recent Worries About Its Future*, N.Y. TIMES, Feb. 19, 1999, at C4.

444. See, e.g., *Banking's Biggest Disaster*, ECONOMIST, July 5, 1997, at 69; Barry Jones, *France Told to Recover Aid to Bank*, INT'L HERALD TRIBUNE, July 23, 1998; Rachel V. Laffer, *A Bank Bailout and Its Consequences*, WALL ST. J., July 10, 1998, at A14.

Credit Suisse, Deutsche Bank, and UBS have produced more favorable results by making costly acquisitions of large U.S. investment banks. However, each bank has found it very difficult to integrate entrepreneurial investment bankers into its traditional European banking culture. In addition, all three banks incurred significant losses from investment banking activities during financial disruptions in the 1990s and reported diminishing returns from those activities during 2001. As a result of these problems, industry observers have questioned whether these banks can compete successfully over the longer term with the “big three” Wall Street firms.⁴⁴⁵

445. Credit Suisse became a major global investment bank by acquiring two U.S. investment banks—First Boston in 1990 and Donaldson, Lufkin & Jenrette (DLJ) in 2000. See *supra* note 440 and accompanying text (indicating that Credit Suisse has recently been competitive in global debt and equity underwriting markets with the “big three” securities firms). However, Credit Suisse absorbed huge losses arising out of First Boston’s activities in 1990, 1994, and 1998, and the bank has experienced repeated culture clashes between its commercial and investment bankers. See *Credit Suisse First Boston: Knock, Knock*, *ECONOMIST*, Aug. 7, 1999, at 63 (describing First Boston’s \$1.2 billion loss from Russian-related activities in 1998); Michael Siconolfi & Anita Raghavan, *CS Holding to Put First Boston Unit Under Bank’s Wing*, *WALL ST. J.*, July 2, 1996, at A2 (discussing culture clashes and losses from First Boston’s operations during 1990 and 1994).

Credit Suisse’s purchase of DLJ also proved to be rocky, as many former DLJ executives left Credit Suisse and the bank’s profits and market share in global underwriting declined substantially during 2001. In July 2001, the bank’s senior management fired Allen Wheat, the head of its investment banking operations, because they had “grown disenchanted with [his] ability to compete with top Wall Street firms, such as Goldman Sachs Group Inc. and Morgan Stanley.” Credit Suisse replaced Mr. Wheat with John Mack, the former president of Morgan Stanley. Charles Gasparino, *Deals & Deal Makers: CSFB to Oust CEO Amid Government Probe*, *WALL ST. J.*, July 12, 2001, at C1. Both Credit Suisse and its investment banking unit reported significant losses during the third quarter of 2001. See Charles Gasparino et al., *CSFB’s Chief Seen Reining In Quattrone Team*, *WALL ST. J.*, July 13, 2001, at C1; Emily Thornton, *Commentary: ‘It’s Open Season at DLJ’*, *BUS. WEEK*, Oct. 23, 2000, at 146.

Deutsche Bank also became a significant player in global investment banking markets through its acquisition of Bankers Trust in 1999. However, Deutsche Bank has not yet reached the level of the “big three” securities firms. Like Credit Suisse, Deutsche Bank has been plagued by culture clashes between its commercial and investment bankers, including a dispute that doomed the bank’s efforts to acquire Dresdner Bank, its primary German competitor. See *The Battle of the Bulge Bracket*, *ECONOMIST*, Nov. 28, 1998, at 73 (reporting that Deutsche Bank’s investment banking business (i) had produced low profits despite the bank’s commitment of more than \$3 billion since 1989 to build up the business, and (ii) had recently lost Frank Quattrone and his team of 130 high-technology investment bankers, who left for Credit Suisse); Janet Guyon, *How Deutsche Lost Dresdner: The Emperor and the Investment Bankers*, *FORTUNE*, May 1, 2000, at 134, 135 (describing how Deutsche Bank’s investment bankers blocked the proposed merger with Dresdner Bank); Emily Thornton & Heather Timmons, *The Street’s Punishing Pay Stubs*, *BUS. WK.*, Nov. 20, 2000, at 154, 154–55 (stating that Deutsche Bank’s acquisition of Bankers Trust had “failed to give it the heft it wanted,” in part because “Deutsche Bank was hit with an exodus of top [investment] bankers after its Banker Trust deal”); see also Suzanne Kapner, *Write-Downs Hurt Deutsche Bank Profit*, *N.Y. TIMES*, Aug. 2, 2001, at W1 (reporting that Deutsche Bank’s earnings fell by 35% during the first half of 2001, due in part to \$600 million of losses in writing down the value of the bank’s private equity and real estate investments); Marcus Walker & Felix Schoenauer, *Deutsche Bank Set to Cut About 10% of Work Force*, *WALL ST. J.*, Nov. 1, 2001, at A15 tbl. (stating that Deutsche Bank’s earnings declined 49% during the third quarter of 2001, partly due to a \$370 million write down in the value of the bank’s investments).

UBS improved its investment banking stature by acquiring PaineWebber in 2000. However, UBS’ earlier purchase of S.G. Warburg produced disappointing profits and culture clashes, and its capital markets operations generated \$1.3 billion of losses during 1997–98. See Edmund L. Andrews, *When the Sure-Footed Stumble*, *N.Y. TIMES*, Oct. 23, 1998, at C1; Nicholas Bray, *The Thrill Is Gone for SBC Warburg and Swiss Owner*, *WALL ST. J.*, Oct. 5, 1995, at A10; James R. Kraus, *Turmoil at Swiss Parent*

It is also far from clear whether U.S. banks reaped significant gains from their expansion of securities operations during the 1980s and 1990s. A study by Simon Kwan found that, during 1990–97, domestic section 20 subsidiaries were riskier and no more profitable than their bank affiliates. On a more positive note, he found that section 20 subsidiaries offered some potential diversification benefits to their parent bank holding companies, because the earnings of section 20 subsidiaries had a low correlation with the earnings of their bank affiliates.⁴⁴⁶ Three studies concluded that the stock market had mixed reactions to FRB orders expanding bank securities powers during 1987–97.⁴⁴⁷ As previously noted, three

Hampers Warburg in U.S., AM. BANKER, Feb. 22, 2000, at 4; Marcus Walker & Suzanne McGee, *Swiss Bank Fills Gap with PaineWebber*, WALL ST. J., July 13, 2000, at A18.

For reports of the diminished investment banking earnings of all three banks in early 2001, see *Credit Suisse's Profit Fell 25% in 1st Period On DLJ Acquisition*, WALL ST. J., May 22, 2001, at B8; *UBS Reports Drop in First-Quarter Net On Acquisition Costs*, WALL ST. J., May 16, 2001, at C14; Marcus Walker, *Deutsche Bank Posts Profit of \$920 Million*, WALL ST. J., May 4, 2001, at A13.

446. Kwan's study covered section 20 subsidiaries owned by twenty-three major U.S. banks. When Kwan compared the trading and underwriting activities of section 20 subsidiaries to the operations of their affiliated banks, he found that (i) securities trading tended to be more profitable but also riskier than banking, and (ii) securities underwriting tended to be riskier and in some cases less profitable than banking. KWAN, SECTION 20 SUBSIDIARIES, *supra* note 420, at 4, 7–8, 18.

The section 20 subsidiaries covered by Kwan's study underwrote and dealt in *both* bank-eligible and bank-ineligible securities. *Id.* at 5–8. A 1989 study by Myron Kwast examined the underwriting and trading activities of banks in bank-eligible securities during 1976–85 (a period when banks could not underwrite or deal in bank-ineligible securities). Like Kwan, Kwast found that the securities operations of banks were significantly more volatile and risky than their banking activities and offered only limited opportunities for diversification. In particular, Kwast found that diversification gains from securities activities disappeared whenever those activities accounted for more than 5% of the bank's total assets. When the revenues for all banks with securities operations were reviewed, Kwast found that their securities operations produced significantly higher ROA than their banking activities. However, when Kwast considered *only* the fifteen largest banks, which were *most* heavily engaged in securities activities, their ROA from securities operations were only modestly higher and remained significantly more volatile than their ROA from banking activities. Myron L. Kwast, *The Impact of Underwriting and Dealing on Bank Returns and Risks*, 13 J. BANKING & FIN. 101, 110–18, 123–24 (1989).

447. Rahul Bhargava & Donald Fraser found that the stock market responded favorably to the FRB's 1987 order permitting bank holding companies to establish section 20 subsidiaries that could underwrite and deal in a few types of bank-ineligible securities (but not debt or equity securities), subject to a 5% revenue limit on such bank-ineligible activities. Bhargava & Fraser, *supra* note 421, at 455–57. However, their study also concluded that (i) the stock market had a strongly *negative* reaction to the FRB's 1989 orders allowing section 20 subsidiaries to underwrite corporate debt and equity securities and raising their revenue limit for bank-ineligible activities to 10%; and (ii) the stock market had a mildly unfavorable reaction to the FRB's 1996 proposal (which was subsequently implemented) to raise the revenue limit to 25% and eliminate certain firewalls between section 20 subsidiaries and affiliated banks. *Id.* at 458–62.

David Ely and Kenneth Robinson conducted two studies examining the stock market's reaction to the FRB's approval of the 25% revenue limit for bank-ineligible securities activities conducted within section 20 subsidiaries. Their first study found that the market had a neutral response to the FRB's proposal for the 25% limit but had a significantly favorable reaction to the FRB's final action. DAVID P. ELY & KENNETH J. ROBINSON, HOW MIGHT FINANCIAL INSTITUTIONS REACT TO GLASS-STEAGALL REPEAL? EVIDENCE FROM THE STOCK MARKET 1, 5–9 (Fed. Res. Bank of Dallas, TX, Fin. Industry Stud., Sept. 1998). Their second study determined that, while the stock market responded positively to the higher revenue limit, the market did *not* respond favorably to nine acquisitions of securities firms by bank holding companies during 1997. In addition, stocks of large bank holding companies did not show any significant gains following several FRB actions that eliminated firewalls between Section 20 subsidiaries and affiliated banks during 1996–97. DAVID P. ELY & KENNETH J.

additional studies found that purchases of securities firms by large U.S. and European banks during the 1990s did not result in significant stock market gains for the acquiring banks.⁴⁴⁸

Studies of overseas securities subsidiaries of U.S. banks have also generated mixed results. Two early studies by the GAO found that securities subsidiaries of U.S. banks encountered serious problems in the London financial markets during 1986–89, and several banks were obliged to inject additional capital infusions into their subsidiaries to comply with United Kingdom regulations.⁴⁴⁹ Citicorp, Security Pacific, and Chase suffered particularly large losses in their overseas securities operations during the late 1980s.⁴⁵⁰

In contrast, Gary Whalen's more recent study of foreign securities subsidiaries during 1987–96 produced somewhat more favorable results. Whalen found that when the worst of the London markets' problems ended, foreign securities subsidiaries of U.S. banks earned a higher return on assets than their domestic bank affiliates. However, he also found that foreign securities subsidiaries were much riskier than their domestic bank affiliates and generated only modest diversification benefits.⁴⁵¹

Overall, the expansion of U.S. banks into the securities business has produced highly equivocal outcomes. Between 1989 and the middle of 1997, a period characterized for the most part by strong, stable financial markets, the domestic and foreign securities operations of U.S. banks were profitable. Even so, those operations manifested considerably higher risks than traditional banking activities and provided limited diversification benefits. The risks of bank securities activities became

ROBINSON 17–23 (Fed. Res. Bank of Dallas, TX, Fin. Industry Stud., Working Paper No. 1-99, Mar. 1999), available at <http://www.dallasfed.org>.

448. See *supra* note 280 and accompanying text.

449. U.S. banks, along with many foreign financial institutions, greatly expanded their securities activities in London in response to the “Big Bang” deregulation of the British financial markets that occurred in 1986. U.S. banks encountered serious problems in London during the late 1980s, due to (i) intense competition, high operating costs, and declining profit margins in the British securities and Eurobond markets, (ii) depreciation in the value of investment portfolios caused by the October 1987 stock market crash, and (iii) a sharp decline in the market for underwriting Eurobonds. As a result of these problems, most London securities subsidiaries of U.S. banks incurred losses or were only marginally profitable during 1986–87, and the same firms showed only modest improvement during 1988–89. See U.S. GEN. ACCT. OFF., INTERNATIONAL FINANCE: U.S. COMMERCIAL BANKS' SECURITIES ACTIVITIES IN LONDON, GAO/NSIAD-88-238, at 1–3, 10–19 (Sept. 1988); U.S. GEN. ACCT. OFF., INTERNATIONAL FINANCE: UPDATE ON U.S. COMMERCIAL BANKS' SECURITIES ACTIVITIES IN LONDON, GAO/NSIAD-90-98, at 1–4 (May 1990).

450. Citicorp reportedly lost about \$500 million from its overseas securities activities during the late 1980s. During the same period, Chase lost \$40 million in its London equity operations, and Security Pacific lost \$200 million from its investment in Hoare Govett, a British broker-dealer. See PAUL GIBSON, BEAR TRAP: WHY WALL STREET DOESN'T WORK 59–60, 198–200 (1993); Tom Furlong, *The Rise and Fall of a California Banking Powerhouse*, L.A. TIMES, Aug. 18, 1991, at D1 (reporting on Security Pacific's failed investment in Hoare Govett).

451. GARY WHALEN, THE SECURITIES ACTIVITIES OF THE FOREIGN SUBSIDIARIES OF U.S. BANKS: EVIDENCE ON RISKS AND RETURNS 5–6, 12–27 (Off. of the Comptroller of the Currency, Econ. Working Paper 98-2, Feb. 1998).

much more evident during the following three periods of financial instability, during which several major U.S. and foreign banks suffered significant losses: (i) the problems in the London financial markets following the "Big Bang" of 1986; (ii) the turmoil in global financial markets during the Asian and Russian crises of 1997–98; and (iii) the capital markets slump in 2000–01.⁴⁵² In addition, several major banks and financial conglomerates have divested their investment banking operations since 1990, after producing disappointing results.⁴⁵³ In view of this very mixed record, there are substantial reasons to question whether most banks can achieve significant profit gains by expanding their securities activities.

iii. Big Banks Have Assumed Substantial Risks in the Junk Bond and Venture Capital Markets

Since the early 1990s, large banks have greatly expanded their underwriting of "junk bonds," high-yield debt securities issued without an investment grade rating. The volume of newly issued junk bonds in the United States rose from about \$40 billion in 1992 to more than \$260 billion in 1997–98, before declining to less than \$150 billion in 1999–2000.⁴⁵⁴ The share of domestic junk bonds underwritten by banks grew from less than one-fifth in 1996 to about one-third in 1999.⁴⁵⁵ Three major U.S. banks—Citigroup, J.P. Morgan Chase, and Bank of America—have become leading underwriters of junk bonds. The same three banks controlled more than two-thirds of the U.S. syndicated loan market in 1999 and 2000.⁴⁵⁶

In recent years, leading banks and securities firms have aggressively offered packages of syndicated loans and junk bonds to finance mergers and acquisitions sponsored by firms specializing in leveraged buyouts

452. See *supra* notes 79–84, 117, *infra* notes 674–87 and accompanying text.

453. See *supra* notes 442–43 and accompanying text (discussing Barclays, ING, and NatWest); *infra* notes 938–48, 954 and accompanying text (discussing American Express, AXA, GE, Kemper, Prudential, and Sears).

454. See Yvette D. Kantrow, *Banks Tell Companies: Why Shop Around?*, AM. BANKER, July 21, 1997, at 20 tbl. [hereinafter Kantrow, *Banks Tell Companies*] (reporting that \$43 billion of junk bonds were issued in 1992); Laura Mandaro, *Commercial Banks Played Catch-Up In an Off Year for High-Yield Debt*, AM. BANKER, Jan. 4, 2000, at 1 [hereinafter Mandaro, *High-Yield Debt*] (reporting that \$140 billion were issued in 1998, and \$95 billion were issued in 1999); Mitchell Pacelle, *Deals & Deal Makers: Junk-Bond Market Picks Up Static*, WALL ST. J., June 21, 2000, at C1 (stating that \$48 billion were issued in 2000); J. Alex Tarquinio, *Junk Bonds at Record \$54B in Quarter*, AM. BANKER, July 8, 1998, at 25 (stating that \$124 billion were issued in 1997).

455. See Daniel Dunaief, *Turf War with Investment Banks for Leveraged Finance Business*, AM. BANKER, Nov. 18, 1996, at 1 (stating that banks controlled 18% of the U.S. market for underwriting junk bonds in 1996); Mandaro, *High-Yield Debt*, *supra* note 454, at 5 & "The Biggest Fish in a Smaller Pond" tbl. (showing that Citigroup, Chase, Bank of America, J.P. Morgan, Deutsche Bank, and First Union underwrote 34% of all junk bonds issued in the U.S. during 1999).

456. See *First-Half 2001 Underwriting Scoreboard*, *supra* note 440, at tbl. (showing that Citigroup, J.P. Morgan Chase, and Bank of America ranked among the top seven global underwriters of junk bonds during the first half of 2001); *2000 Underwriting Rankings*, *supra* note 440 (showing that J.P. Morgan Chase, Bank of America, and Citigroup were the top three U.S. syndicated lenders in 1999–2000, with a collective market share of 67% in 2000 and 69% in 1999).

(LBOs). In these deals, banks have made generous loan commitments to LBO sponsors to secure the role of lead underwriter for the junk bond portion of the deal.⁴⁵⁷ Banks and securities firms have also provided LBO sponsors with either “bought deals,” in which the lead underwriter purchases the entire issuance of junk bonds and accepts the risk of reselling the bonds to other investors, or “bridge financing,” in which the lead underwriter provides a “bridge loan” to the LBO sponsor until the underwriter can locate investors for the junk bonds.⁴⁵⁸ Banks and securities firms have made similar high-risk commitments to secure underwriting deals for investment-grade bonds and IPOs.⁴⁵⁹

Major financial institutions have focused on LBOs and other HLT financings because of the generous fees that can be earned in such transactions.⁴⁶⁰ Analysts, however, have expressed growing concerns about the highly speculative nature of many junk bonds issued during the late 1990s. Observers have warned that a prolonged slump in the U.S. economy could trigger a wave of junk bond defaults with results similar to the “debacle” that occurred in HLT financing during the 1990–91 reces-

457. Jennifer Goldblatt, *Banks Are Offering More Levers for LBOs*, AM. BANKER, July 21, 1997, at 22 [hereinafter Goldblatt, *Levers for LBOs*] (describing HLT financing programs sponsored by Bank of America, Chase, Citicorp, and NationsBank). For additional descriptions of aggressive HLT financing programs launched by Bank of America, Chase, and Citigroup, see Alison Rea, *Jimmy Lee's Global Chase*, BUS. WK., Apr. 14, 1997, at 84–85; J. Alex Tarquinio, *B of A's Investment Unit Aims for Top Ranks; NationsBank Montgomery Has Been Picking up Wall Street Talent Fast*, AM. BANKER, Mar. 1, 1999, at 4; J. Alex Tarquinio, *Citigroup Forming Global Debt Powerhouse*, AM. BANKER, Feb. 23, 1999, at 4.

458. See Linda Sandler, *Temporary 'Bridge' Loans are Proliferating As Risky Stopgaps to Junk-Bond Offerings*, WALL ST. J., May 27, 1997, at C2; Paul M. Sherer, *Deals & Deal Makers: Goldman Sits on Bridge Loan After Maneuver Goes Awry*, WALL ST. J., May 22, 2000, at C1; Gregory Zuckerman, *Firms Offer Junk-Deal Guarantees*, WALL ST. J., July 21, 1997, at C1; see also Charles Gasparino & Paul M. Sherer, *Heard on the Street: Telecom Sector Has Become a Black Hole for Investors: Investors' Fears Grow Over Brokerage Firms' Exposure to Junk Debt*, WALL ST. J., Oct. 13, 2000, at C1 (stating that “top [junk bond] underwriters often hold positions in deals they underwrite, so they can serve as ‘market makers’ for their clients—and this goodwill can leave a firm exposed to big losses once the market tanks”).

459. See, e.g., Paul Beckett, *Heard on the Street: Hyper Citigroup Shares: Ready to Nap?*, WALL ST. J., Apr. 20, 1999, at C1 (describing Citibank's frequent extension of bridge loans to enable its securities affiliate to win bond underwriting deals, including a \$1.7 billion loan that permitted its affiliate to underwrite an equivalent bond issue for a Canadian road project); Suzanne McGee, *Heard on the Street: Lucent Rewarded Lenders With Underwriter Roles*, WALL ST. J., Feb. 28, 2001, at C1 (reporting that Lucent Technologies obtained lending commitments totaling almost \$2 billion from Citigroup and J.P. Morgan Chase, as well as a \$2.6 billion debt-for-equity swap from Morgan Stanley, in connection with Lucent's selection of those institutions as lead underwriters for the \$6.5 billion IPO of Lucent's subsidiary, Agere Systems); Gregory Zuckerman, *Stalled Convertible: J.P. Morgan Is Left Holding \$400 Million of LSI Bond Issue*, WALL ST. J., Mar. 2, 2000, at C1 (reporting that (i) after J.P. Morgan agreed to a “bought deal” with the issuer, the bank absorbed \$400 million of convertible bonds because it could not find investors for the bonds, and (ii) Salomon Smith Barney purchased \$1 billion of exchangeable bonds from another issuer when a similar underwriting failed).

460. See Liz Moyer, *Fees Offset Lower Loan Margins at Major Banks*, AM. BANKER, Jan. 28, 1998, at 9; David Weidner, *As Defaults Multiply, Observers Eye Lax Standards, Circumstances*, AM. BANKER, Aug. 19, 1999, at 1 [hereinafter Weidner, *Defaults Multiply*]; see also *infra* notes 694, 704–06, 713 and accompanying text (discussing big banks' focus on underwriting leveraged syndicated loans to support HLT deals).

sion.⁴⁶¹ During that recession, a sudden rise in defaults on HLT loans and junk bonds caused the market for HLT deals to collapse and led to sharp declines in the market values of outstanding junk bonds. Those developments caused or contributed to (i) the bankruptcy of Drexel Burnham, the primary underwriter of junk bonds during the 1980s, (ii) the failures of several large thrift institutions and insurance companies, and (iii) the near insolvency of several leading securities firms and banks.⁴⁶² The collapse of the junk bond market during 1990–91 was also costly for many issuers of high-yield bonds. A recent study of the twenty-five companies that issued \$1 billion or more of junk bonds during 1985–89 found that ten issuers defaulted on their bonds and filed for bankruptcy, while seven other issuers were obliged to sell out to other firms.⁴⁶³ Analysts have generally agreed that the LBO market “overheated” during the late 1980s, as lenders and investors created highly leveraged financing structures that depended on speculative cash flow projections and were doomed to fail when the U.S. economy entered a serious recession in 1990.⁴⁶⁴

The turmoil that occurred in global financial markets during 1998 provides further evidence of the junk bond market’s fragility. In August 1998, Russia’s devaluation of the ruble and its default on a portion of its debt triggered a massive “flight to quality,” as investors rapidly shifted from higher-risk securities in both foreign and domestic markets to the

461. See Nelson D. Schwartz, *Default Line*, FORTUNE, Apr. 30, 2001, at 90; Weidner, *Defaults Multiply*, *supra* note 460, at 3; Gregory Zuckerman, *Under Boom Economy, Strain Over Debt*, WALL ST. J., Aug. 18, 1999, at C1 [hereinafter Zuckerman, *Debt Strain*]; see also Laura M. Holson, *A Goodbye to the Weight of Leveraging*, N.Y. TIMES, Mar. 14, 1999, § 3, at 8 (referring to the “debacle” that occurred in the LBO market during 1990–91).

462. See *supra* notes 395–96 and accompanying text (discussing losses suffered by large banks on HLT loans during 1990–91); *infra* notes 871–73 and accompanying text (discussing bankruptcy of Drexel Burnham and near-failures of four other major securities firms due to the collapse of the HLT market); *infra* notes 591, 895–97 and accompanying text (discussing failures of several large thrifts and insurance companies due in part to the collapse of the junk bond market during 1989–91).

463. See Holson, *supra* note 461 (describing results of study by KDP Investment Advisors).

464. The volume of LBOs soared from less than \$1 billion in 1980 to more than \$160 billion in 1988, before collapsing to less than \$4 billion in 1990. Most observers agree that the LBO market “overheated” because “[t]he success of early deals attracted a large inflow of new money, and by the late 1980s . . . many transactions were overpriced, recklessly structured or both.” Steven N. Kaplan & Jeremy C. Stein, *The Evolution of Buyout Pricing and Financial Structure in the 1980s*, 108 Q. J. ECON. 313, 313 (1993). Economic analysis has shown that LBOs during the late 1980s involved higher ratios of price to expected cash flow, greater leverage, riskier industries, larger payments to promoters and investment bankers, and other factors indicating excessive risks. See *id.* at 315–16, 355–56; Barrie Wigmore, *The Decline in Credit Quality of New-Issue Junk Bonds*, FINANCIAL ANALYSTS J., Sept./Oct. 1990, at 53 *passim*; see also EDWARD CHANCELLOR, *DEVIL TAKE THE HINDMOST: A HISTORY OF FINANCIAL SPECULATION* 264–66, 277–81 (1999) (describing the “speculative” nature of many LBO deals during the late 1980s); Michael C. Jensen, *Corporate Controls and the Politics of Finance*, THE BANK OF AM. J. APPLIED CORP. FIN., Fall 1991, at 13, 16 [hereinafter Jensen, *Corporate Control*] (agreeing that LBOs completed after 1985 were generally “overpriced by their promoters and, as a consequence, overleveraged”); *id.* at 26–28 (stating that LBOs in the 1980s experienced a “boom-and-bust cycle” common in new venture markets, but also noting that the LBO market’s difficulties were compounded by federal legislation and regulatory policies that made it more difficult for banks and thrifts to offer or restructure LBO financing after 1989).

perceived safe haven of U.S. Treasury bonds.⁴⁶⁵ Given intense selling pressures and the lack of buyer demand, global markets for corporate debt became illiquid and “paralyzed,” and companies were unable to raise new funds in the capital markets.⁴⁶⁶ In the U.S. junk bond market, “[n]ew issue activity came to a virtual standstill” during the two-month period following Russia’s default.⁴⁶⁷ Institutions such as Bankers Trust and Long-Term Capital Management (LTCM), which held major positions in junk bonds and other risky debt securities, suffered crippling losses.⁴⁶⁸

The FRB stabilized the financial markets by aggressively cutting short-term interest rates and by helping to arrange rescues for Bankers Trust and LTCM.⁴⁶⁹ However, the junk bond market failed to recover its earlier exuberance. The volume of junk bonds issued during 1999 was more than one-third below 1998’s level, and the volume of new issues declined further in 2000.⁴⁷⁰

Meanwhile, the annual default rate for junk bonds more than tripled between 1998 and 2001 and reached its highest level in almost a decade.⁴⁷¹ Analysts blamed this sharp rise in junk bond defaults on the willingness of banks and securities firms to underwrite a record number of speculative issues by telecommunications firms and other high-risk companies during the late 1990s. By late 2000, yield rates on junk bonds had risen to the highest level since 1991, as investors reacted to evidence of greater risk in corporate debt issues.⁴⁷² Some observers warned that the junk bond market could face a disaster similar to 1990–91 if the U.S. economy experienced a severe downturn.⁴⁷³

465. For a discussion of the “flight to quality” that followed the Russian debt crisis, see *supra* notes 79, 391, *infra* note 556 and accompanying text.

466. Greg Ip, *Credit Crunches Aren’t What They Used to Be: The Shift To Capital Markets from Banks Brings Tumult*, WALL ST. J., Oct. 7, 1998, at A18; Gretchen Morgenson, *Shocks and After-shocks; The Bear Is Rampant in the Markets for Riskier Bonds*, N.Y. TIMES, Sept. 17, 1998, at C1 [hereinafter Morgenson, *Riskier Bonds*].

467. Bouhuys & Jaeger, *supra* note 54, at 72 (reporting that less than \$4 billion of junk bonds were issued between mid-August and mid-October of 1998, compared to \$113 billion of junk bonds issued between January 1 and August 15).

468. See Morgenson, *Riskier Bonds*, *supra* note 466, at C9 (reporting that, during the month following Russia’s debt default, investors lost an estimated \$80 billion in the value of their holdings of U.S. junk bonds, emerging-market debt, and other high-risk debt securities); *infra* notes 550–61, 678–79 and accompanying text (discussing severe problems encountered by Bankers Trust and LTCM).

469. See *supra* note 80, *infra* notes 648–54, 678–79 and accompanying text.

470. See *supra* note 53 (stating that the volume of newly issued junk bonds declined from \$140 billion in 1998 to \$95 billion in 1999 and \$48 billion in 2000).

471. See Laura Mandaro, *Junk Bond Defaults Rise to Seven-Year High*, AM. BANKER, Nov. 5, 1999, at 3 (reporting that the annual junk bond default rate had reached the highest level since 1992); Paul M. Sherer, *Deals & Deal Makers: Study Says Defaults Rise, Recovery Values Plunge*, WALL ST. J., Mar. 19, 2001, at C15 (reporting that the annual default rate for junk bonds rose from 1.9% in 1998 to 6.7% in early 2001).

472. See Rich Miller et al., *The Financing Squeeze*, BUS. WK., Oct. 30, 2000, at 50, 52 [hereinafter Miller et al., *Financing Squeeze*].

473. See Herb Greenberg, *Against the Grain: There’s a Good Reason They Call Them ‘Junk’ Bonds*, FORTUNE, Nov. 13, 2000, at 432 (warning of the growing risk that a “junk-bond meltdown” could inflict severe losses on major banks, securities firms, and the U.S. economy); Schwartz, *supra*

In sum, events since 1989 have shown that underwriters and investors in the junk bond market face significant liquidity, volatility, and default risks. Those risks were confirmed in 2001, when American Express reported that it had lost more than \$1 billion from investing in junk bonds.⁴⁷⁴ Leading banks currently underwrite a major portion of domestic junk bonds, and they have aggressively expanded their junk bond business into overseas markets. Because banks did not begin to underwrite junk bonds until the early 1990s, they are presently far more exposed to adverse developments in the high-yield debt market than they were during the crisis of 1990–91.⁴⁷⁵

By the end of 1999, it also became clear that several big banks were relying on equity investments—especially in emerging high-technology companies—to generate a significant portion of their income. At that point, ten major banks held more than \$30 billion in venture capital investments, and three of those banks relied on venture capital profits to generate more than 10% of their total net income.⁴⁷⁶ Regulators and

note 461 (expressing similar view, and reporting that more than \$50 billion of junk bonds defaulted during 2000 and early 2001); J. Alex Tarquinio, *Junk Bond Investors Seen Getting Hit for Low-End Buying in '98*, AM. BANKER, Mar. 4, 1999, at 5 (noting the same trend, and reporting that high-risk bond issues accounted for 20% of the junk bonds issued in 1985, the “nadir for that decade”); Gregory Zuckerman, *Junk Delivers a Surprise: More Defaults*, WALL ST. J., May 7, 1999, at C1 (reporting that high-risk bonds accounted for 26% of all junk bonds issued during 1998 and 21% of all junk bonds issued during 1997); *supra* note 461 and accompanying text (discussing warnings by analysts about a possible repetition of the junk bond “debacle” of 1990–91).

474. See Patrick McGeehan, *Market Place: American Express to Cut Jobs as Junk Bond Losses Mount*, N.Y. TIMES, July 19, 2001, at C1 [hereinafter McGeehan, *American Express*].

475. See Dunaief, *supra* note 455 (noting that banks did not begin to underwrite junk bonds until the early 1990s); *First-Half 2001 Underwriting Scoreboard*, *supra* note 440 tbl. (showing that six major banks—Credit Suisse, Citigroup, Bank of America, Deutsche Bank, Morgan Stanley, and UBS—ranked among the top ten global underwriters of junk bonds during the first half of 2001 and collectively controlled more than half of the global market for junk bonds); Phred Dvorak & G. Thomas Sims, *Global Markets, Following U.S., Acquire Taste for Junk*, WALL ST. J., Aug. 14, 2000, at C1 (reporting that J.P. Morgan Chase and Deutsche Bank, along with several U.S. securities firms, were principal underwriters in the rapidly growing European market for junk bonds); Gasparino & Sherer, *supra* note 458 (warning that Citigroup and several U.S. securities firms could face serious losses due to their heavy underwriting of junk bonds for high-risk telecommunications firms); G. Thomas Sims, *Junk-Bond Defaults Will Likely Increase in Europe in 2001*, WALL ST. J., Dec. 18, 2000, at A19 (reporting on an expected rise in defaults on junk bonds issued by European telecommunications firms).

476. See Lawrence H. Meyer, Federal Reserve Board Governor, Statement Before the Subcommittee on Capital Markets, Securities and Government Sponsored Enterprises of the House Committee on Banking and Financial Services (June 7, 2000), in 86 FED. RES. BULL. 569, 572 (2000) [hereinafter Meyer Merchant Banking Testimony]; John Hechinger, *Heard on the Street: Banks Diverge on Reporting Venture-Capital Portfolio Gains*, WALL ST. J., Mar. 21, 2000, at C1 [hereinafter Hechinger, *Venture-Capital Investments*]; Heather Timmons, *What's Really Driving Banks' Profits*, BUS. WK., Apr. 3, 2000, at 128, 129 (reporting that, in 1999, venture-capital profits as a percentage of total net income were 22% for Chase, 15% for J.P. Morgan, 13% for Wells Fargo, 9% for FleetBoston, and 8% for First Union).

At the end of 1999, large banks and securities firms together controlled about 20% of the \$400 billion domestic market for private equity investments. See Rob Garver, *Lawmakers Demand Say on Merchant Rules; Regulators Defend Plans That Banks Oppose*, AM. BANKER, June 8, 2000, at 1 (reporting that banks held \$35–40 billion of such investments and securities firms accounted for another \$40 billion).

analysts warned that the earnings of these banks had become significantly more volatile due to their rapidly growing involvement in the market for speculative high-technology stocks.⁴⁷⁷

The GLB Act's "merchant banking" provisions greatly expanded the authority of banks to purchase equity stakes in nonfinancial firms.⁴⁷⁸ In March 2000, federal regulators sought to limit the risks of merchant banking investments by (i) issuing "interim" rules establishing aggregate limits for such investments,⁴⁷⁹ and (ii) proposing a 50% capital charge to be assessed against all equity investments in nonfinancial firms held by bank holding companies.⁴⁸⁰ The regulators' proposals provoked intense opposition from the financial services industry and key lawmakers.⁴⁸¹ As a result, federal regulators agreed in early 2001 to phase out their aggre-

477. See Meyer Merchant Banking Testimony, *supra* note 476, at 572–74; Hechinger, *Venture-Capital Investments*, *supra* note 476 (quoting analyst Charles Peabody); Liz Moyer, *Outlook for Venture Gains Dimming Amid Tech Rout*, AM. BANKER, Apr. 5, 2000, at 1.

478. Prior to the GLB Act, the BHC Act and FRB rules thereunder placed tight constraints on the authority of bank holding companies to invest in business firms whose activities were not "closely related" to banking. The old rules required such investments to be "passive" holdings that did not involve any exercise of "control" over the subject firm. In addition, such investments were limited to 5% of a company's voting securities and 25% of a company's total equity. See 12 U.S.C. § 1843(c)(6) (1994); Michael Gruson, *Nonbanking Investments and Activities of Foreign Banks in the United States*, in FINANCIAL SYSTEM DESIGN, *supra* note 200, at 431, 436–52 (discussing passive equity investments permitted by the BHC Act and FRB rulings). The only major exception to these passive investment restrictions was that banks could establish SBICs that could acquire limited-term controlling interests in small firms. See *supra* note 197 and accompanying text.

The GLB Act grants much broader "merchant banking" powers that allow financial holding companies to own *controlling* investments in commercial firms. The GLB Act limits the scope of such investments by prohibiting financial holding companies from seeking to "routinely manage or operate" commercial firms "except as may be necessary or required to obtain a reasonable return on investment upon resale or disposition." See The GLB Act, Pub. L. No. 106-102, 113 Stat. 1338 (1999) (codified in scattered Sections of 12, 15 & 19 U.S.C.), 113 Stat. 1344 (codified at 12 U.S.C. § 1843(k)(4)(H)(iv)). Accordingly, under the FRB's merchant banking rules, a financial holding company may not appoint the officers or employees of a commercial firm or dictate the firm's "routine business decisions" or "day-to-day operations." However, a financial holding company may exercise a controlling influence over a commercial firm's strategic decisions and long-term business policies, since it may (i) select any or all of the directors of the firm, (ii) exercise a veto power over "extraordinary events" involving the firm, and (iii) intervene to "address a material risk to the value or operation" of the firm. The FRB's rules generally limit merchant banking investments to ten years, although that period can be extended in the FRB's discretion. See 12 C.F.R. §§ 225.170–225.172 (2001).

479. The "interim" rules, issued in March 2000, imposed the following aggregate limitations on merchant banking investments by a financial holding company: (i) 30% of Tier I capital or \$6 billion, whichever was less, for all such investments; and (ii) 20% of Tier I capital or \$4 billion, whichever was less, for all such investments exclusive of private equity investments. See Federal Reserve Board and U.S. Treas. Dep't, Interim Rule, 65 Fed. Reg. 16,460, 16,466 (2000).

480. The FRB proposed this 50% capital charge in March 2000 "as a precaution that is necessary to prevent the buildup within banking organizations of excessive risk from merchant banking and other investment activities." The proposed capital charge would have applied to all investments in nonfinancial firms that bank holding companies held, either directly or through subsidiaries, under the merchant banking provisions of the GLB Act or under preexisting legal rules. Investments held in trading accounts as part of an underwriting, dealing, or market making business would not have been subject to the proposed capital charge. See Federal Reserve Board Proposed Rule, 65 Fed. Reg. 16,480 (2000).

481. See, e.g., Adam Wasch, *Senate Banking Committee Members Criticize Fed's Merchant Banking Proposal*, 75 Banking Rep. (BNA) No. 11, at 174 (Sept. 25, 2000); Rob Blackwell, *Industry Rips Interim Rules Limiting Merchant Banking*, AM. BANKER, June 14, 2000, at 4.

gate limits for merchant banking investments and to reduce significantly their proposed capital charge for such investments.⁴⁸²

Notwithstanding regulators' warnings, big banks continued to expand their venture capital stakes during the first half of 2000.⁴⁸³ The subsequent collapse of many high-technology and telecommunications stocks exposed the inherent risks of those investments. By October 2001, eight major banks had reported combined losses of more than \$4 billion from depreciation in their equity investments.⁴⁸⁴ Those losses suggest that regulators should continue to implement special capital charges and other prudential rules to control the risks of merchant banking activities.

b. Dealing and Trading in Over-the-Counter Financial Derivatives

i. Derivatives Activities Have Become a Major Line of Business for Big Banks

The market for financial derivatives has grown rapidly since the early 1970s, due to the rising demand by financial institutions, business firms, and investors for tools to hedge against increased volatility in foreign exchange rates, interest rates, and asset prices.⁴⁸⁵ Banks, securities

482. See 12 C.F.R. §§ 225.174(C)(1)(iii) & 1500.5 (2001) (adopting revised rule that (i) removes aggregate dollar limitations on equity investments, and (ii) provides that aggregate limitations based on percentages of Tier I capital will be removed when a final capital standard for equity investments is issued); Hearing Before the Subcommittee on Financial Institutions and Consumer Credit of the House Committee on Financial Services (Apr. 4, 2001) (statement of Lawrence H. Meyer, Member, FRB), in 87 FED. RES. BULL. 405, 410–11 (2001) (explaining that the FRB had proposed a new capital standard for equity investments, which would establish a "sliding scale" with capital charges ranging from 8% to 25% depending on the percentage of a bank's Tier I capital that is represented by its equity investments).

483. See Liz Moyer, *Banks More than Double 2Q Venture Capital Deals*, AM. BANKER, Aug. 8, 2000, available at 2000 WL 3363490.

484. See Riva Atlas, *2 Big Banks Register Drops in Earnings*, N.Y. TIMES, Oct. 18, 2001, at C3 (reporting that Citigroup and J.P. Morgan Chase had combined losses of \$220 million on their equity investments during the third quarter of 2001), *Bank of America's First-Quarter Profit Decreased 17%*, N.Y. TIMES, Apr. 17, 2001, at C2 (reporting that Bank of America lost \$416 million on its equity investments during the first quarter of 2001); David Boraks, *Street Pans Wachovia's Report—And Results*, AM. BANKER, Oct. 24, 2001, at 1 (stating that Wachovia lost \$380 million on its investment portfolio during the same period); *2001 Wells Fargo Writedown*, *supra* note 263 (stating that Wells Fargo lost \$1.1 billion on venture capital investments during the same period); Moyer, *Problems at Chase and Fleet*, *supra* note 117 (stating that J.P. Morgan Chase lost \$1 billion and FleetBoston lost \$470 million on equity investments during the second quarter of 2001); Liz Moyer, *Morgan and Chase Limp into Merger*, AM. BANKER, Dec. 15, 2000, at 1 [hereinafter Moyer, *Morgan-Chase Merger*] (stating that J.P. Morgan Chase lost \$300 million on equity investments during the fourth quarter of 2000); Niamh Ring & Liz Moyer, *Consumer Biz Helps Citi; Loans Hit B of A*, AM. BANKER, Jan. 17, 2001, at 1 (stating that Bank of America lost \$65 million on its equity investments during the same period); Patricia Sabatini, *PNC Posts Flat Profit, Targets Mellon Customers*, PITTSBURGH POST-GAZETTE, July 20, 2001, at C-12 (reporting that PNC and Mellon lost a combined \$140 million on venture capital investments during the first half of 2001).

485. See, e.g., PETER L. BERNSTEIN, *AGAINST THE GODS: THE REMARKABLE STORY OF RISK* 304–05, 320–21 (1996); STEINHERR, *DERIVATIVES*, *supra* note 74, at 23–29, 171–73, 213–16; Peter H. Huang, *A Normative Analysis of New Financially Engineered Derivatives*, 73 S. CAL. L. REV. 471, 478–79 (2000).

firms, and other dealers have created a wide array of financial derivatives, which are traded either on organized exchanges or in the over-the-counter (OTC) market.⁴⁸⁶ Exchange-traded derivatives are regulated by either the Commodity Futures Trading Commission (CFTC) or the Securities and Exchange Commission (SEC).⁴⁸⁷ OTC derivatives currently are not governed by any comprehensive system of regulation.⁴⁸⁸

A financial derivative is a contract whose value is derived from some underlying asset, index, or rate, such as an equity stock, commodity, stock index, interest rate, or currency exchange rate (hereinafter referred to as “the underlying”). There are two “fundamental” types of financial derivatives—forward contracts and option contracts. A forward contract is a transaction in which the buyer is obligated to purchase, and the seller is obligated to sell, the underlying at a specified future date. An option contract is a transaction in which the seller grants the buyer a right, but not the obligation, to purchase the underlying on or before a specified future date. “All other derivatives are either variations or combinations of these fundamental derivatives.” Huang, *supra*, at 483; see also LITAN & RAUCH, *supra* note 106, at 84; Kimberly D. Krawiec, *More Than Just “New Financial Bingo”: A Risk-Based Approach to Understanding Derivatives*, 23 J. CORP. L. 1, 6, 9, 11 (1997) [hereinafter Krawiec, *Derivatives*]; Roberta Romano, *A Thumbnail Sketch of Derivative Securities and Their Regulation*, 55 MD. L. REV. 1, 7, 40 (1996).

486. Exchange-traded derivatives are standardized contracts, including futures and options based on commodities and stock indexes, that are traded on an organized exchange and are governed by the rules of that exchange. In contrast, OTC derivatives are contracts that are individually negotiated between a “dealer” (typically a money center bank, a large securities firm, or a major insurance company) and an “end-user” (usually a smaller financial institution, business firm, or investor that wishes to buy the derivatives either for speculation or for hedging against risks arising out of its operations or its investment portfolio). Thus, OTC derivatives, such as forwards, options, and swaps, are highly customized instruments and are not traded in any organized secondary market. See STEINHERR, *DERIVATIVES*, *supra* note 74, at 170–223, 237–38; Henry T.C. Hu, *Misunderstood Derivatives: The Causes of Informational Failure and the Promise of Regulatory Incrementalism*, 102 YALE L.J. 1457, 1458–59, 1464–67 (1993) [hereinafter Hu, *Misunderstood Derivatives*]; Huang, *supra* note 485, at 485; Romano, *supra* note 485, at 7–31, 40–51; see also U.S. GEN. ACCT. OFF., *FINANCIAL DERIVATIVES: ACTIONS NEEDED TO PROTECT THE FINANCIAL SYSTEM*, GAO/GGD-94-133, at 4–6, 26–29 (May 1994) [hereinafter 1994 GAO DERIVATIVES REPORT].

487. The CFTC regulates (i) exchange-traded futures and options on commodities, and (ii) exchange-traded financial futures based on any index, such as the Standard & Poor’s (S&P) 500 index, that reflects all or a substantial segment of a publicly traded market for equity or debt securities. The SEC regulates exchange-traded options on securities. See, e.g., *Bd. of Trade of Chi. v. SEC*, 187 F.3d 713 (7th Cir. 1999) (discussing the jurisdiction of the CFTC and SEC over exchange-traded derivatives prior to 2000); Romano, *supra* note 485, at 21–31, 43–45, 55–64 (same). In late 2000, Congress passed legislation granting shared supervisory power to the CFTC and the SEC with respect to single-stock futures and narrowly based stock index futures. See 7 U.S.C.A. § 2(a) (West Supp. 2001); S. REP. NO. 106–390, at 4–5, 7–9 (2000); 146 CONG. REC. S11,926 (daily ed. Dec. 15, 2000) (remarks of Sen. Lugar).

488. Under current law, the CFTC has supervisory authority over OTC dealers that are registered as futures commission merchants, and the SEC has supervisory authority over OTC dealers that are registered as securities broker-dealers. However, as discussed below, two statutes passed by Congress in 1999 and 2000 largely prevent both agencies from regulating banks that sell OTC derivatives. As a result, the federal banking agencies have virtually exclusive power to regulate bank sales of OTC derivatives.

First, the GLB Act exempts from the SEC’s broker-dealer rules any bank that enters into swap agreements with “qualified investors” or with other persons having the sophistication, net worth, and experience specified in bank regulatory guidelines. This statutory exemption of qualifying bank transactions from broker-dealer regulation does not determine whether an OTC derivative sold by a bank is a “security” for other purposes under the federal securities laws. See The GLB Act, Pub. L. No. 106–102, 113 Stat. 1338 (1999) (codified in scattered Sections of 12, 15 & 19 U.S.C.), at § 206, 113 Stat. 1393–94 (codified at 15 U.S.C. § 78c note). In 1994, the SEC asserted that OTC derivatives sold by a bank were “securities” for purposes of the SEC’s antifraud rules. However, a federal district court and academic commentators have strongly questioned the SEC’s authority to treat OTC derivatives as “securities” for any purpose. See *infra* note 621 and accompanying text.

Since the late 1980s, the market for OTC derivatives has experienced explosive growth and has become by far the largest segment of the derivatives market.⁴⁸⁹ During the same period, big banks have increased their dominance of the OTC market.⁴⁹⁰ At the end of 2000, the seven most active bank dealers in the United States held derivatives with total notional values of more than \$38 trillion, seven times the volume they held in 1990.⁴⁹¹ The same seven banks accounted for almost 96% of all derivatives held by U.S. banks,⁴⁹² and about 70% of all OTC derivatives held by U.S. institutional dealers.⁴⁹³

Second, in late 2000, Congress adopted amendments to the Commodity Exchange Act (CEA) that exempt the following financial instruments from CFTC oversight: (i) transactions in foreign currencies, government securities, and similar instruments, as long as such instruments are not traded on any organized exchange; and (ii) transactions in OTC derivatives involving qualifying institutions or high net worth individuals, as long as such derivatives are not traded on any organized exchange other than a qualified electronic trading facility. As a result of these amendments, the CFTC has no supervisory jurisdiction over banks that conduct OTC derivatives transactions with qualifying institutional or individual investors. See 7 U.S.C.A. §§ 2(c)-(g), 27a-27e (West Supp. 2001); S. REP. NO. 106-390, at 2-3, 5-7 (2001); 146 CONG. REC. S11,924-25 (daily ed. Dec. 15, 2000) (remarks of Sen. Lugar).

489. See STEINHERR, DERIVATIVES, *supra* note 74, at 213-16, 214 tbl.6.1; Huang, *supra* note 485, at 485-86. The total notional value of the global OTC derivatives market grew from \$7 trillion in 1989 to \$88 trillion at the end of 1999. *Id.* (providing 1989 figure); Daniel Pruzin, *BIS Cites Jump in OTC Derivatives Market in Second Half of 1999*, 32 Sec. Reg. & L. Rep. (BNA) 669 (2000) (reporting 1999 figure).

490. See STEINHERR, DERIVATIVES, *supra* note 74, at 216-21; Edwards & Mishkin, *supra* note 46, at 35-39.

491. See COMPTROLLER OF THE CURRENCY, OCC BANK DERIVATIVES REPORT, 4th Qtr. 2000, at tbl.5 [hereinafter 2000 OCC DERIVATIVES REPORT] (reporting that the top seven bank derivatives dealers held derivatives with total notional values of \$38.4 trillion at the end of 2000); U.S. GEN. ACCT. OFF., FINANCIAL DERIVATIVES: ACTIONS TAKEN OR PROPOSED SINCE MAY 1994, GAO/GGD/AIMD-97-8, at 27 & tbl.1.1 (Nov. 1996) [hereinafter 1996 GAO DERIVATIVES REPORT] (showing that the top seven bank derivatives dealers held derivatives with total notional values of \$5.4 trillion at the end of 1990).

The notional value of derivatives is the standard generally used to measure the volume of activity in the derivatives markets. The notional value determines the stream of payments that must be made by each party under a derivative contract. For example, in an interest rate or currency swap, the notional value serves as the multiplier for the interest rate or currency exchange rate that each party has agreed to pay. A derivative's replacement or market value is typically less than 5% of its notional value. See 1996 GAO DERIVATIVES REPORT, *supra*, at 26 (reporting that, in March 1995, the gross market values of all outstanding OTC derivatives were estimated to be 4.6% of their total notional values); Krawiec, *Derivatives*, *supra* note 485, at 8 n.31; Romano, *supra* note 485, at 46-51.

The major dealers' credit exposures are usually measured by replacement value and, therefore, are much smaller than the total notional values of their derivative contracts. Nevertheless, during 1996-99, the average total credit exposures for the top seven bank dealers were nearly three times their total equity capital. See *infra* note 612 and accompanying text. In addition, even when measured by the conservative standard of replacement value, the OTC derivatives market has become a very significant part of global banking operations. See Flannery, *Financial Regulation*, *supra* note 368, at 102 (stating that the "net market replacement value" of all outstanding OTC derivatives in 1998 represented 11% of worldwide bank assets).

492. 2000 OCC DERIVATIVES REPORT, *supra* note 491, at 1 fig.4. The twenty-five largest bank dealers accounted for more than 99% of all derivatives held by U.S. banks at the end of 2000. *Id.* at 1.

493. See 1996 GAO DERIVATIVES REPORT, *supra* note 491, at 27, tbl.1.1 (reporting that, at the end of 1995, the seven largest U.S. bank dealers accounted for 69% of the OTC derivatives held by U.S. institutional dealers, while five securities firms held 27% and three insurance companies held 4% of such contracts).

U.S. banks and securities firms control around 40% of the worldwide market for OTC derivatives.⁴⁹⁴ Like the U.S. domestic market, the global derivatives market is dominated by a small group of major financial institutions. Four big U.S. banks, together with two large American securities firms and six major foreign banks, controlled half of the global market for financial derivatives in 1998.⁴⁹⁵

It is not surprising that a small group of very large banks and securities firms dominates the OTC derivatives business. Only major financial institutions can afford to hire expert “rocket scientists” and build the sophisticated computer systems needed to create innovative financial instruments and evaluate their inherent risks.⁴⁹⁶ Big banks and securities firms also possess the reputation and credibility that are essential to the success of a dealer in OTC derivatives because the performance of OTC contracts is not guaranteed by any exchange or clearinghouse.⁴⁹⁷

ii. Banks Have Focused Their Derivatives Activities Within the OTC Market

U.S. banks conduct most of their derivatives activities within the OTC market, and they occupy a much less significant position in the market for exchange-traded derivatives.⁴⁹⁸ At the end of 2000, OTC derivatives accounted for more than four-fifths of the derivative portfolios held by five of the seven largest bank dealers, and for more than three-fifths of the portfolios held by the other two dealers.⁴⁹⁹

This heavy concentration of bank dealers within the OTC derivatives market is consistent with the general theory of bank intermediation

494. See Alan Greenspan, Federal Reserve Board Chairman, Remarks Before the Futures Industry Association 2 (Mar. 19, 1999), available at <http://www.federalreserve.gov>.

495. David Barboza & Jeff Gerth, *On Regulating Derivatives: Long-Term Capital Bailout Prompts Calls for Action*, N.Y. TIMES, Dec. 15, 1998, at C1 (reporting that Chase, Citigroup, J.P. Morgan, and Bank of America, along with Goldman Sachs, Merrill Lynch, and six foreign competitors—Deutsche Bank, UBS, Credit Suisse, NatWest, Societe Generale, and Fuji Bank—controlled about one-half of the worldwide market for financial derivatives).

496. See 1994 GAO DERIVATIVES REPORT, *supra* note 486, at 36–37; Hu, *Misunderstood Derivatives*, *supra* note 486, at 1459–60, 1476–77; see also Joseph F. Sinkey, Jr. & David A. Carter, *Evidence on the Financial Characteristics of Banks That Do and Do Not Use Derivatives*, 40 Q. REV. ECON. & FIN. 431, 433, 438, 442–43 (2000) [hereinafter Sinkey & Carter, *Bank Derivatives Dealers*] (concluding that economies of scale and barriers to entry are present in the business of dealing in derivatives, due to the large investments that dealers must make in “financial, intellectual, reputational, and, to a lesser extent, physical capital”).

497. See Hu, *Misunderstood Derivatives*, *supra* note 486, at 1459–60, 1465; Randall S. Kroszner, *Can the Financial Markets Privately Regulate Risk?*, 31 J. MONEY, CREDIT & BANKING 596, 608–10 (1999) [hereinafter Kroszner, *Financial Markets*]; Eli M. Remolona et al., *Risk Management by Structured Derivative Product Companies*, FED. RES. BANK OF N.Y., ECON. POL’Y REV., Apr. 1996, at 17, 21–22, 29–32 [hereinafter Remolona et al., *Risk Management*]. As discussed *infra* at note 1033 and accompanying text, it appears that the credibility of major bank dealers receives a substantial boost from the implicit federal guarantees those banks enjoy as TBTF institutions.

498. See 2000 OCC DERIVATIVES REPORT, *supra* note 491, at 1 & tbl.3 (reporting that, at the end of 2000, 90.2% of the derivatives held by U.S. banks were OTC derivatives and the remaining 9.8% were exchange-traded derivatives).

499. *Id.* at tbl.3.

discussed above in Part I(A)(1). Exchange-traded derivatives offer a relatively high degree of “transparency” to investors, because they have standardized terms, are traded on organized markets, and are protected from default risks by clearinghouse guarantees.⁵⁰⁰ As in the case of other “transparent” financial instruments, banks have a relatively small advantage over competing financial institutions and other sophisticated investors in buying or selling exchange-traded derivatives.⁵⁰¹

In contrast, OTC derivatives are individually negotiated contracts that do not have standardized terms, are not traded on any organized market, and are not protected against default risks by clearinghouse guarantees.⁵⁰² Unlike exchange-traded derivatives, OTC derivatives cannot be “marked to market” on a daily basis.⁵⁰³ Instead, the value of each OTC derivative must be estimated based on proprietary computer modeling programs whose parameters are often known only by the dealers that create these programs.⁵⁰⁴ Because OTC derivatives have no secondary market and are relatively opaque, large bank dealers enjoy significant institutional advantages in terms of their financial credibility as counterparties and their proprietary expertise in creating and valuing OTC instruments.⁵⁰⁵ In addition, major bank dealers enjoy federal

500. See Krawiec, *Derivatives*, *supra* note 485, at 22, 30, 32; Kroszner, *Financial Markets*, *supra* note 497, at 598–604; Romano, *supra* note 485, at 10–21.

501. See Allen & Santomero, *supra* note 414, at 1479 (stating that financial instruments can be “sold easily to the open market at their fair market value” if their risks are “understood by the market”); *supra* notes 43–44 and accompanying text (explaining how firms that are relatively “transparent” to investors can choose to issue securities in the capital markets instead of borrowing from banks).

502. The International Swap Dealers Association (ISDA) has prepared a form of “master agreement” that provides standard language for definitions and certain other terms typically used in OTC derivative contracts. However, OTC derivatives are “individually tailored” and “customized” to meet the needs of the particular counterparties, and therefore OTC derivatives do not have the characteristics of “tradable” instruments. Kroszner, *Financial Markets*, *supra* note 497, at 608–09; Romano, *supra* note 485, at 8, 46–47.

Because OTC derivatives are privately negotiated between dealers and end-users, their performance is not guaranteed by any clearinghouse. Kroszner, *Financial Markets*, *supra* note 497, at 609; Romano, *supra* note 485, at 47. The OTC derivatives industry appears to be moving toward the creation of private institutions designed to provide clearing services. For example, in early 1999, the CFTC approved a proposal by the London Clearing House to establish “SwapClear,” which would act as a clearing facility for certain limited types of OTC derivatives. See Brooksley Born, CFTC Chairperson, Testimony Before the Subcommittee on Capital Markets, Securities, and Government Sponsored Enterprises of the House Committee on Banking and Financial Services 6 (Mar. 25, 1999) [hereinafter 1999 Born Testimony]. It remains to be seen whether clearing facilities for OTC derivatives will be established that include any performance guarantees.

503. See Stephen Figlewski, *Derivatives Risks, Old and New*, in BROOKINGS-WHARTON PAPERS ON FINANCIAL SERVICES, at 159, 174 (Robert E. Litan & Anthony M. Santomero eds., 1998); Krawiec, *Derivatives*, *supra* note 485, at 32; Romano, *supra* note 485, at 18.

504. See Figlewski, *supra* note 503, at 162, 174, 185–86; T. Clifton Green & Stephen Figlewski, *Market Risk and Model Risk for a Financial Institution Writing Options*, 54 J. FIN. 1465, 1465–67 (1999). As discussed *infra* at notes 532–61 and accompanying text, these computer models have often proven to be grossly inaccurate in estimating the current value or predicting the future value of OTC derivatives.

505. See Hu, *Misunderstood Derivatives*, *supra* note 486, at 1460, 1465, 1476–77; Krawiec, *Derivatives*, *supra* note 485, at 30; see also Allen & Santomero, *supra* note 414, at 1480 (explaining that banks are more likely to engage as intermediaries with respect to “complex, illiquid and proprietary assets,”

“safety net” protections that give them a significant competitive edge over most nonbank dealers in the OTC derivatives markets.⁵⁰⁶

Big banks earn substantial fees from acting as dealers in OTC derivatives,⁵⁰⁷ and they also rely heavily on proprietary trading in OTC instruments to generate additional earnings. At the end of 2000, the seven largest bank dealers held more than 98% of their derivatives portfolios in their trading accounts.⁵⁰⁸ In contrast, smaller banks use derivatives primarily for hedging interest rate risk and other risk management purposes, and not for proprietary trading.⁵⁰⁹

Revenues from derivatives trading represent a significant and growing element of the revenue stream of major banks.⁵¹⁰ During 1996-2000, derivatives trading generated \$46 billion of revenue for all U.S. bank dealers and accounted for more than 6% of the total revenues of the seven largest bank dealers.⁵¹¹ Unfortunately, the heavy reliance of big banks on derivatives dealing and proprietary trading exposes them to a number of material risks. As described in the next section, those risks are complex and have proven difficult to control by both bank managers and regulators.

iii. OTC Derivatives Create Major Risks for Bank Dealers and the Financial Markets

Financial derivatives are “synthetic investments” because they can be tailored to mimic, with desired variations, the risk and return profiles

especially where “the nature of the embedded risk [in such assets] may be complex and difficult to reveal” to investors).

506. Market participants generally expect that, due to systemic risk concerns, federal regulators would intervene to prevent a major bank from defaulting on its derivatives obligations. The federal “safety net” for major banks involved in derivatives activities includes the TBTF doctrine, as well as the FRB’s LOLR powers and the FRB’s payments system guarantees. The last two of these protections also benefit large securities firms. See STEINHERR, *DERIVATIVES*, *supra* note 74, at 57-60, 272-76, 282-83; 1994 GAO *DERIVATIVES REPORT*, *supra* note 486, at 42-43, 125; Larry D. Wall, *Too-Big-to-Fail After FDICIA*, FED. RES. BANK OF ATLANTA, ECON. REV., Jan.-Feb. 1993, at 1, 5-6, 10 [hereinafter Wall, *Too-Big-to-Fail*]; Wilmarth, *Big Bank Mergers*, *supra* note 106, at 54-55; *infra* Part III(B)(2) and note 1033 (discussing federal “safety net” protections for major banks and securities firms).

507. See 1994 GAO *DERIVATIVES REPORT*, *supra* note 486, at 29-30.

508. Similarly, the twenty-five largest bank dealers held 97.5% of their derivatives in their trading accounts. 2000 OCC *DERIVATIVES REPORT*, *supra* note 491, at 3 tbl.5.

509. See *id.* (showing that smaller banks held less than 27% of their derivatives in their trading accounts); see also Wilmarth, *Big Bank Mergers*, *supra* note 106, at 52 (citing studies showing that “smaller banks use simpler [derivatives] primarily for the purpose of hedging interest rate risk”). At the end of 2000, the twenty-five largest bank dealers accounted for more than 99% of all derivatives held by U.S. banks. See 2000 OCC *DERIVATIVES REPORT*, *supra* note 491, at tbl.3.

510. See LITAN & RAUCH, *supra* note 106, at 76 (stating that derivatives dealing and trading may be the “most important” factor in the trend among “[l]arge sophisticated banks” to generate a higher percentage of their revenues from nontraditional activities); Edwards & Mishkin, *supra* note 46, at 36 tbl.4 (showing that income from derivatives trading averaged 34% of the total trading income for Chase, Chemical, Citicorp, and J.P. Morgan in 1993, and 42% of their total trading income in 1994).

511. See 2000 OCC *DERIVATIVES REPORT*, *supra* note 491, at graphs 6A & 6B.

of “fundamental securities” such as stocks and bonds.⁵¹² Accordingly, dealers and end-users of OTC derivatives confront the same risks as those faced by investors in traditional securities—namely, market risk, liquidity risk, operational risk, credit risk, and legal risk.⁵¹³ In addition, as described below, special characteristics of OTC derivatives and the OTC dealer market create two new sources of risk: (i) “model risk” resulting from errors in the computerized models used to estimate the values of OTC derivatives, and (ii) “systemic risk” resulting from the potential “spillover” effects on the financial markets from the failure of a major dealer or end-user.

(a) Market Risk

Market risk is inherent in each OTC derivative, because an adverse change in the market value of the underlying asset, interest rate, or index

512. See Ben Esty et al., *Bank One Corporation: Asset and Liability Management*, BANK OF AM. J. OF APPLIED CORP. FIN., Fall 1994, at 33, 39–41 (discussing Bank One’s use of interest rate derivatives as “synthetic investments” that would serve as “prox[ies]” for government securities and mortgage-backed securities); Figlewski, *supra* note 503, at 160–63 (stating that derivatives have characteristics and risks that are similar to, but generally more complex than, “fundamental securities” such as stocks and bonds); Peter Fortune, *Stocks, Bonds, Options, Futures, and Portfolio Insurance: A Rose by Any Other Name . . .*, FED. RES. BANK OF BOSTON, NEW ENGLAND ECON. REV., July–Aug. 1995, at 25, 45 [hereinafter Fortune, *Portfolio Insurance*] (stating that “the simplest forms of derivatives—plain-vanilla equity options, stock index options, and stock index futures . . . are equivalent to an underlying portfolio of stocks and bonds”).

The close connection between financial derivatives and traditional securities is reflected in the OCC’s recent decision permitting four big national banks to hold equity securities for the purpose of “hedging” against the risks embodied in equity swaps sold by the banks. In justifying this directive, the OCC noted that, under a typical equity swap, the bank dealer agrees to pay its counterparty an amount equal to any increase in the value of a notional principal investment in the underlying equity security. In return, the counterparty agrees to pay the bank the amount of any decline in the value of the notional investment. The OCC reasoned that (i) ownership of equity securities would provide national banks with “physical hedges” against their market risk exposures arising out of equity swaps, and (ii) ownership for hedging purposes was a lawful “incidental” activity of national banks under 12 U.S.C. § 24(Seventh), because it supported the banks’ exercise of their authority to act as dealers in equity swaps. Nevertheless, Representative Jim Leach, a co-sponsor of the GLB Act, criticized the OCC’s ruling, contending that it violated congressional intent by allowing national banks to hold equity stocks directly, instead of requiring such investments to be made through financial subsidiaries or nonbank affiliates as permitted under the GLB Act. See Letter from John D. Hawke, Jr., Comptroller of the Currency, to the Honorable James A. Leach, Chairman, Committee on Banking & Financial Services (Sept. 8, 2000), available at <http://www.occ.treas.gov> (referring to three national banks); Michele Heller, *Records Show OCC ‘Flouted’ Law: Leach*, AM. BANKER, Dec. 19, 2000, at 1 (referring to four national banks); Michele Heller, *OCC Lists Banks It Let Hold Equities: Fleet, Citi, 1st Union, B of A*, AM. BANKER, Jan. 8, 2001, at 4 (referring to four national banks). The OCC’s decision to allow bank dealers to use equity stocks as “physical hedges” for equity swaps confirms that equity swaps offer risk and return characteristics that are closely similar to those of the underlying stocks.

513. See Figlewski, *supra* note 503, at 162–63. For additional discussions of the potential risks of derivatives, see, for example, Peter A. Abken, *Over-the-Counter Financial Derivatives: Risky Business?*, FED. RES. BANK OF ATLANTA, ECON. REV., Mar.–Apr. 1994, at 1, 5–11; Krawiec, *Derivatives*, *supra* note 485, at 17–51; Adam R. Waldman, *OTC Derivatives & Systemic Risk: Innovative Finance or the Dance into the Abyss?*, 43 AM. U. L. REV. 1023, 1038–58 (1994).

will cause the instrument to lose value.⁵¹⁴ The market risk of an OTC derivative is usually more difficult to evaluate or hedge than the market risk of a traditional security. An OTC derivative's terms are typically more complex than those of a conventional equity or debt security, and the derivative's value is therefore likely to move with greater speed and in a more unpredictable direction when interest rates or other market conditions change.⁵¹⁵ Moreover, OTC derivatives are not traded on any organized market, and their value at any point in time is determined by a relatively small number of dealers based on proprietary computer models. As discussed below, valuation models for OTC derivatives involve forecasts based on a number of judgmental factors, and dealers frequently disagree as to the "correct" value of particular OTC derivatives. Such disagreements make it very difficult for dealers and end-users to ascertain reliable "market" values for OTC derivatives.⁵¹⁶

Market risk is aggravated by the leverage inherent in many OTC derivatives. By purchasing a leveraged derivative, an investor can achieve the same return provided by the underlying asset, rate, or index while paying a tiny fraction of the underlying's price. At the same time, however, a small adverse change in the underlying's price can wipe out the derivative's value.⁵¹⁷ In addition, many OTC instruments, and espe-

514. See Figlewski, *supra* note 503, at 163-64; Hu, *Misunderstood Derivatives*, *supra* note 486, at 1468. For a more detailed discussion of the various elements of market risk that apply to OTC derivatives, see Krawiec, *Derivatives*, *supra* note 485, at 18-20.

515. See, e.g., Figlewski, *supra* note 503, at 163-64, 185-87; 1994 GAO DERIVATIVES REPORT, *supra* note 486, at 60-62.

516. See, e.g., Figlewski, *supra* note 503, at 185-89; Krawiec, *Derivatives*, *supra* note 485, at 22; 1994 GAO DERIVATIVES REPORT, *supra* note 486, at 60-62; *infra* notes 532-49, 564-69 and accompanying text (discussing subjective factors and questionable assumptions used by dealers in valuing OTC derivatives based on proprietary computer models).

Three studies document the frequency and range of disagreement among dealers with respect to the "correct" value of derivatives. A 1997 study by Bernardo and Cornell analyzed sealed bids submitted by twenty-eight investment banks for an auction of thirty-two collateralized mortgage obligations (CMOs). The bids were widely dispersed, with an average range between high and low bids of 45% for most of the CMOs sold. In only three cases did the bids fall within a high-low range of less than 20%. Antonio E. Bernardo & Bradford Cornell, *The Valuation of Complex Derivatives by Major Investment Firms: Empirical Evidence*, 52 J. FIN. 785, 786-90 (1997). The study concluded that "[t]he only explanation found to be consistent with the data is that different dealers have different valuations of these securities due to asymmetric information or differing valuation methodologies." *Id.* at 790; see also *id.* at 786, 797-98.

A Bank of England study found that forty institutions with major trading activities in London had substantial disagreements over the values of complex derivatives. In addition, those institutions could not agree on the value of even a "completely standard foreign-exchange option," because they reached different conclusions about the sensitivity of the option's value to changes in the underlying exchange rate. See Daniel A. Nuxoll, *Internal Risk-Management Models as a Basis for Capital Requirements*, 12 FDIC BANKING REV. NO. 1, at 18, 22 (1999) (discussing Bank of England study). Finally, a 1997 study by Marshall and Siegel reviewed the assessments of a sample derivatives portfolio made by four risk-management consultants who all used the same valuation model, J.P. Morgan's RiskMetrics. Despite their reliance on the same model, the four consultants gave value estimates ranging between \$3.8 million and \$6.1 million. See *id.* (describing Marshall and Siegel study).

517. See Romano, *supra* note 485, at 18-19, 32; 1994 GAO DERIVATIVES REPORT, *supra* note 486, at 25-27, 62; Waldman, *supra* note 513, at 1055-56.

cially those with embedded options, have complex terms that involve “nonlinear” risks and a high degree of volatility in potential “payoffs.”⁵¹⁸

Option sales can also result in asymmetrical losses, a factor that complicates the market risk of OTC dealers. The buyer of an OTC option contract stands to lose only the option premium if she decides not to exercise the option because the option is “out of the money” on the exercise date. In contrast, the option seller cannot walk away from the contract and must deliver the underlying if the buyer exercises the option. Accordingly, the seller’s potential loss on exercise can be much greater than the premium the buyer has paid.⁵¹⁹ Since most end-users prefer to buy options, large OTC dealers are typically net sellers of options.⁵²⁰ OTC dealers are thereby exposed to potential losses that could far exceed the premium income they derive from their option sales.⁵²¹

Most dealers try to reduce the market risk of their derivatives contracts through a strategy known as “delta hedging.”⁵²² Under this approach, a dealer identifies each position to be hedged and then purchases either the underlying asset or related derivatives that have a

For example, an investor can buy an exchange-traded futures contract on the S&P 500 index by paying about 5% of the face value of the contract. Derivatives are not subject to the FRB’s margin rules and, therefore, the investor’s required cash investment is only about one-tenth of the 50% margin requirement she would have to meet if she purchased all of the stocks represented by the index. The additional leverage permitted by the futures contract magnifies both the investment’s yield and its risk, because a favorable movement in the S&P 500 index will provide a very high return, but an adverse change will quickly wipe out the purchaser’s investment in the contract. See *Bd. of Trade of Chi. v. SEC*, 187 F.3d 713, 715–16, 721–22 (7th Cir. 1999); LITAN & RAUCH, *supra* note 106, at 85–86; MARTIN MAYER, *RISK REDUCTION IN THE NEW FINANCIAL ARCHITECTURE* (Jerome Levy Econ. Inst., Public Policy Brief No. 56, 1999) [hereinafter MAYER, *RISK REDUCTION*], available at <http://www.levy.org>.

OTC derivatives, including equity swaps, can often be purchased with even greater leverage. See LOWENSTEIN, *supra* note 79, at 78–82, 96–105 (stating that Long-Term Capital Management (LTCM), a prominent hedge fund with \$5 billion in capital, built a highly leveraged investment portfolio that included \$1.25 trillion of OTC derivatives, while posting minimal collateral with its dealers); MAYER, *RISK REDUCTION*, *supra*, at 35 (noting that an OTC total return swap, providing a return equal to the S&P 500 index, could often be purchased by simply paying the dealer’s fee and without posting any collateral).

518. Abken, *supra* note 513, at 3, 6; U.S. GEN. ACCT. OFF., *RISK-BASED CAPITAL: REGULATORY AND INDUSTRY APPROACHES TO CAPITAL AND RISK*, GAO/GGD-98-153, at 81 (July 1998) [hereinafter GAO *RISK-BASED CAPITAL STUDY*].

519. See Krawiec, *Derivatives*, *supra* note 485, at 11–12; Romano, *supra* note 485, at 41–42; 1994 GAO DERIVATIVES REPORT, *supra* note 486, at 27–28.

520. See Green & Figlewski, *supra* note 504, at 1465, 1496. At the end of 2000, the seven largest U.S. bank dealers held options with total notional values of \$7.9 trillion, representing about one-fifth of their total derivative portfolios. 2000 OCC DERIVATIVES REPORT, *supra* note 491, at Graph 4.

521. See Green & Figlewski, *supra* note 504, at 1465; Hu, *Misunderstood Derivatives*, *supra* note 486, at 1468–69.

522. A dealer could eliminate virtually all of its risk through “mirror image hedging,” which would require the dealer to buy derivatives with terms that precisely offset the positions taken in each contract the dealer has written. Such an approach, however, would be impractical because it would remove essentially all profits from the dealer’s business. See Hu, *Misunderstood Derivatives*, *supra* note 486, at 1469, 1479; Waldman, *supra* note 513, at 1044.

“delta equal in size and opposite in sign” to that position.⁵²³ To be effective in protecting against market risk, a delta hedging strategy must be continually adjusted, through a process known as “dynamic hedging,” to offset actual or potential changes in the value of the underlying. However, “dynamic hedging is an inexact science, one that relies on extraordinarily complex computerized models, which themselves are far from infallible.”⁵²⁴ In addition, most dealers do not follow a continuous strategy of dynamic hedging because it would require heavy transaction costs and drain most of their profits. As a consequence, dealers typically remain exposed to substantial unhedged market risk related to their derivatives positions.⁵²⁵

(b) Liquidity Risk

Liquidity risk aggravates the market risk inherent in OTC derivatives, because a lack of liquidity undermines the effectiveness of dynamic hedging. As indicated above, a derivatives dealer must make frequent trades in the underlying or in related derivatives to offset changes in its exposure to market risk. The viability of a dynamic hedging strategy thus depends on the dealer’s ability to trade continuously in the relevant markets. Unfortunately, liquidity in derivatives markets, or in financial markets for the underlying, often disappears under conditions of unexpected market stress. Complex OTC derivatives are particularly exposed to liquidity risk because there are no organized markets, and often only a small number of potential dealers, for such instruments.⁵²⁶

The failure of “portfolio insurance” during the October 1987 stock market crash indicates the fragility of dynamic hedging strategies during market disruptions. Following a sharp decline in stock market prices in October 1987, portfolio insurance programs triggered waves of sell orders in the markets for stock index futures. When few buyers appeared, futures prices fell rapidly, causing many program traders to redouble their selling efforts in the stock market. Many observers, including the Brady Commission, concluded that portfolio insurance increased the severity of the crash by magnifying selling pressures in both the stock market and the futures markets.⁵²⁷ Similar liquidity failures occurred in de-

523. Figlewski, *supra* note 503, at 165. The “delta” is a measure of how sensitive the value of a derivative is to changes in the market price of the underlying asset, rate, or index. *Id.*; Hu, *Misunderstood Derivatives*, *supra* note 486, at 1476 n.98.

524. KAUFMAN, ON MONEY AND MARKETS, *supra* note 368, at 74.

525. See Figlewski, *supra* note 503, at 187; Krawiec, *Derivatives*, *supra* note 485, at 20–22; Waldman, *supra* note 513, at 1044–45.

526. See KAUFMAN, ON MONEY AND MARKETS, *supra* note 368, at 79–80; STEINHERR, DERIVATIVES, *supra* note 74, at 53, 55, 71 n.27, 256–61; Figlewski, *supra* note 503, at 213–14; Hu, *Misunderstood Derivatives*, *supra* note 486, at 1479; Waldman, *supra* note 513, at 1045–47.

527. The creators of portfolio insurance assumed that investors could protect themselves from declines in the stock market by completing offsetting transactions in stocks and stock index futures. However, portfolio insurance failed to perform as expected during the October 1987 crash because it “underestimated the market’s volatility and overestimated its liquidity.” BERNSTEIN, *supra* note 485,

derivatives markets during the 1992 European currency crisis and the 1998 Russian debt crisis.⁵²⁸ Thus, contrary to the assumption of continuous liquidity inherent in dynamic hedging strategies, “the haven from market exposure supposedly afforded by hedging with derivatives may prove useless in periods of high [market] volatility.”⁵²⁹

A 1997 study by Andrei Schleifer and Robert Vishny offers a persuasive explanation for the disappearance of liquidity during market crashes. Schleifer and Vishny determined that hedge funds and other professional arbitrageurs, who normally provide liquidity in capital markets, are unlikely to possess sufficient resources or risk tolerance to stabilize markets during financial crises.⁵³⁰ Schleifer and Vishny’s theory is consistent with the failure of arbitrageurs to prevent the global liquidity crisis that followed Russia’s debt default in 1998.⁵³¹

at 316–20; see also Fortune, *Portfolio Insurance*, *supra* note 512, at 37–43; Robert E. Glauber, *Systemic Problems in the Next Market Crash*, in *Symposium on Public Policy Issues in Finance*, 52 J. FIN. 1181, 1184–86 (1997); U.S. GEN. ACCT. OFF., STOCK MARKET CRASH OF OCTOBER 1987: PRELIMINARY REPORT TO CONGRESS, GAO/GGD-88-38, at 27–32, 42–49 (Jan. 1988); Waldman, *supra* note 513, at 1045–47; Gene Epstein, *False Profits: Back in 1987, Portfolio Insurance Only Made Matters Worse, Much Worse*, BARRON’S, Oct. 20, 1997, at 20 (discussing same and reporting that about \$80 billion of stock market investments were covered by portfolio insurance by mid-1987).

528. See Hu, *Misunderstood Derivatives*, *supra* note 486, at 1478–79 (explaining that delta hedging strategies failed during the 1992 European currency crisis due to “[d]iscontinuous, illiquid market conditions,” and that “none of the usual assumptions about price distribution, transactions costs, and the ability to hedge continuously held true”); Waldman, *supra* note 513, at 1045 (discussing same occurrence); *infra* notes 556–69 and accompanying text (discussing disruption in the OTC derivatives market that took place after Russia’s debt default in August 1998).

529. Waldman, *supra* note 513, at 1045; e.g., KAUFMAN, ON MONEY AND MARKETS, *supra* note 368, at 77–81.

530. Schleifer and Vishny pointed out that most arbitrageurs depend on funds provided by investors and therefore operate under financial constraints. Those constraints discourage arbitrageurs from accepting the short-term risk of taking major “buy” positions during a severe market sell-off. For example, investors may not understand an arbitrageur’s trading strategy and are likely to withdraw their funds, or at least to withhold additional contributions, if the arbitrageur’s strategy results in short-term losses. Thus, even if an arbitrageur expects to make long-term profits by purchasing positions during a falling market, the arbitrageur may refuse to accept the risk of short-term losses from a contrarian strategy, especially during periods when “[market] prices are far away from fundamentals.” Accordingly, “trading by arbitrageurs has the weakest stabilizing effect” during “extreme circumstances” of market disruption. While arbitrageurs may act to correct a market “anomaly” over time, this process usually occurs slowly until enough investors perceive the “anomaly” and decide to support the arbitrageurs’ contrarian trades. Andrei Schleifer & Robert W. Vishny, *The Limits of Arbitrage*, 52 J. FIN. 35, 36–37, 46–49, 52–54 (1997).

531. See Michael Siconolfi et al., *All Bets Are Off: How the Salesmanship and Brainpower Failed at Long-Term Capital*, WALL ST. J., Nov. 16, 1998, at A1 (reporting that LTCM could not raise additional funds from investors after suffering major losses during the 1998 financial crisis, even though the fund’s partners assured investors that the fund had a “real opportunity” to “capitalize” on depressed market conditions by making contrarian trades); *The Unbearable Lightness of Finance*, ECONOMIST, Dec. 5, 1998, at 83, 83–84 (viewing Schleifer and Vishny’s article as a “prophecy” that helps to explain the sudden “market illiquidity” that gripped the financial markets after the Russian debt default of 1998); Gregory Zuckerman, *Heard on the Street: Long-Term Capital Chief Acknowledges Flawed Tactics*, WALL ST. J., Aug. 21, 2000, at C1 [hereinafter Zuckerman, *LTCM*] (indicating that institutional investors refused to support LTCM during the 1998 financial crisis because they were reluctant to take positions contrary to overwhelming market sentiment).

(c) Model Risk

Model risk further complicates the market risk confronted by OTC derivatives dealers. As noted above, the value of OTC derivatives cannot be derived from trading patterns in organized markets and must instead be estimated based on forecasts derived from computerized models. OTC derivatives therefore involve model risk to the extent that dealer models fail to predict actual movements in the price of the underlying asset, index, or rate.⁵³²

Most dealer forecasting models are derived from the Black-Scholes option pricing theory.⁵³³ The Black-Scholes theory determines the value of a particular option based on five factors: exercise price, time to expiration, risk-free interest rate, current price of the underlying asset, and anticipated volatility in the underlying's price until expiration. Of these factors, anticipated volatility in the underlying's price cannot be derived from existing market data or established by agreement between the parties. Instead, volatility must be estimated based on historical data and predictions about future movements in the underlying's market price.⁵³⁴

The Black-Scholes model simplifies the problem of estimating volatility by assuming that future market prices for the underlying will exhibit a "constant volatility" and will follow a pattern consistent with "a log-normal probability distribution."⁵³⁵ Unfortunately, both assumptions create the potential for serious error. The observed volatility of prices in financial markets is not constant and changes frequently in response to altered economic conditions.⁵³⁶ Moreover, actual price distributions for

532. See Figlewski, *supra* note 503, at 162, 186–88, 213–14; Green & Figlewski, *supra* note 504, at 1466–67; Katerina Simons, *Model Error*, FED. RES. BANK OF BOSTON, NEW ENG. ECON. REV., Nov.–Dec. 1997, at 17, 18–19 [hereinafter Simons, *Model Error*]; *supra* notes 502–04 and accompanying text.

533. See Green & Figlewski, *supra* note 504, at 1469 (stating that "the basic [Black-Scholes] paradigm is still the most widely used approach" for valuing derivatives with option features); Hu, *Misunderstood Derivatives*, *supra* note 486, at 1476 (stating that the Black-Scholes model provides the "theoretical foundation for the pricing, risk assessment, and hedging of a broad spectrum [of] derivatives"); Simons, *Model Error*, *supra* note 532, at 18 (stating that the Black-Scholes model is "the foundation of modern derivatives markets" and that "many newer derivative pricing models are modifications or extensions of Black-Scholes").

534. See Hu, *Misunderstood Derivatives*, *supra* note 486, at 1475; Krawiec, *Derivatives*, *supra* note 485, at 17–20; Simons, *Model Error*, *supra* note 532, at 18–19.

535. See Figlewski, *supra* note 503, at 162, 187–88; Hu, *Misunderstood Derivatives*, *supra* note 486, at 1478; Peter A. Abken & Saikat Nandi, *Options and Volatility*, FED. RES. BANK OF ATLANTA, ECON. REV., Dec. 1996, at 21, 22.

536. See Abken & Nandi, *supra* note 535, at 22–23; Figlewski, *supra* note 503, at 162, 188, 192–93, 198–201; Hu, *Misunderstood Derivatives*, *supra* note 486, at 1478. Many dealers attempt to address this shortcoming of the Black-Scholes model by deriving an "implied volatility" measure from observations of market behavior for similar option prices. However, empirical tests have shown that the most widely used approaches for determining implied volatility are unreliable and result in predictions that differ substantially from actual volatility in the relevant markets. See Abken & Nandi, *supra* note 535, at 23–33 (explaining that deterministic-volatility models and stochastic-volatility models have generally been unable to produce hedging results that are clearly superior to those generated by the standard Black-Scholes model); Figlewski, *supra* note 503, at 188–89, 192–93, 198–210; Green & Figlewski, *supra* note 504, at 1472–74; Ignacio Peña et al., *Why Do We Smile? On the Determinants of the Implied Volatility Function*, 23 J. BANKING & FIN. 1151, 1152–55, 1176–77 (1999) (discussing the

assets traded in financial markets typically exhibit “fat tails.” The presence of “fat tails” means that higher percentages of actual prices fall within the extreme negative and positive ends of the pricing spectrum than would be predicted under the “normal” distribution assumed in the Black-Scholes model.⁵³⁷ Indeed, equity markets and other financial markets appear to operate with fatter tails on the left or extreme negative end of the pricing spectrum because “crashes occur more frequently than sudden sharp increases in stock prices.”⁵³⁸

In addition to the faulty assumptions regarding constant volatility and “normal” distribution of prices, the Black-Scholes option pricing theory depends on the following unrealistic assumptions regarding market conditions: (i) trading will occur continuously and instantaneously in the relevant derivatives market and in all related markets; (ii) arbitrageurs will quickly eliminate any discrepancies between the value of a derivative and the price of the underlying; and (iii) transaction costs involved in such arbitrage will be negligible.⁵³⁹ As previously discussed, all three of these assumed conditions often fail to describe actual market behavior, which includes liquidity crunches, financial constraints on arbitrage, and large transaction costs, especially during periods of market stress.⁵⁴⁰

In short, dealers and other traders who rely on valuation models derived from the Black-Scholes theory are exposed to the risk of serious losses because catastrophic and near-catastrophic events are likely to occur in financial markets with a significantly higher frequency than the models’ assumptions predict.⁵⁴¹ Dealers generally attempt to mitigate

“apparent failure” of the constant volatility assumption underlying the Black-Scholes model, and suggesting that “transaction costs” and “illiquidity costs” may be important factors that help to explain the inability of implied volatility models to correct the “well known biases found under the Black-Scholes framework”).

537. See Figlewski, *supra* note 503, at 162, 189–93; Ralph C. Kimball, *Failures in Risk Management*, FED. RES. BANK OF BOSTON, NEW ENG. ECON. REV., Jan.–Feb. 2000, at 3, 6; Simons, *Model Error*, *supra* note 532, at 21–23. Several modifications of the Black-Scholes model have been proposed to deal with the “fat tails” problem. However, these alternative models involve complexities that make them very difficult, and often impractical, for dealers to apply. As a result, due to the “simplicity” of the Black-Scholes assumption regarding lognormal distribution, it “continues to be used despite its frequently proclaimed and well-documented flaws.” *Id.* at 23–26; see also Abken & Nandi, *supra* note 535, at 28, 30, 33 (stating that alternative models are “computationally expensive . . . demanding and problematic” for dealers); Figlewski, *supra* note 503, at 192–93 (explaining that practical problems with alternative models encourage derivatives traders to “continue to utilize fixed-volatility pricing models with subjective adjustments,” even though those adjustments are often inadequate “to correct [the standard models] for their significant shortcomings”); Kimball, *supra* note 537, at 6–7 (discussing similar problems with alternative models).

538. Simons, *Model Error*, *supra* note 532, at 23. Accord Kimball, *supra* note 537, at 6–7 & tbl.1.

539. See Peter Fortune, *Anomalies in Option Pricing: The Black-Scholes Model Revisited*, FED. RES. BANK OF BOSTON, NEW ENG. ECON. REV., Mar.–Apr. 1996, at 17, 23 [hereinafter Fortune, *Pricing Anomalies*]; Hu, *Misunderstood Derivatives*, *supra* note 486, at 1478.

540. See *supra* notes 522–31 and accompanying text; see also Fortune, *Pricing Anomalies*, *supra* note 539, at 34–39 (noting these and other reasons for “discrepancies” between the Black-Scholes model and actual movements in the prices of option-based derivatives).

541. See Figlewski, *supra* note 503, at 185–98; Green & Figlewski, *supra* note 504, at 1466–69, 1482–96; Kimball, *supra* note 537, at 6–8; Simons, *Model Error*, *supra* note 532, at 18–23.

these risks by holding reserves (i.e., capital) based on “Value at Risk” (VAR) calculations. VAR forecasts seek to determine the maximum potential loss that a dealer’s trading portfolio could incur with a given probability during a specified period of time.⁵⁴² Federal regulations require banks with significant trading activities to hold additional capital as a protection against “market risk.” Trading banks must calculate their supplemental capital requirements based on internal VAR models that are “backtested” by regulators.⁵⁴³

Unfortunately, VAR models frequently underestimate the potential losses that can occur in portfolios of derivatives and other financial instruments because VAR models are typically based on the Black-Scholes assumptions of liquid markets, constant volatility, and normal distribution of prices.⁵⁴⁴ Dealers and regulators have tried to improve the accuracy of VAR calculations by using historical data to construct a baseline for projecting future market performance. Empirical studies have shown, however, that dealers and regulators typically rely on historical data samples that are too short to provide reliable predictions about the potential volatility of asset returns or the risk of extreme “fat tail” events.⁵⁴⁵ Moreover, institutions that rely on VAR models are likely to

542. For example, a dealer might calculate the VAR for a particular portfolio as being \$1 million with a 99% confidence level during a period of ten trading days. Such a VAR reflects the dealer’s belief that its portfolio has only a 1% probability of losing more than \$1 million during the designated ten-day period. See Darryll Hendricks, *Evaluation of Value-at-Risk Models Using Historical Data*, FED. RES. BANK OF N.Y., ECON. POL’Y REV., Apr. 1996, at 39, 40; Nuxoll, *supra* note 516, at 19.

543. The supplemental capital requirements for market risk apply to each bank whose gross trading assets and liabilities equal at least \$1 billion or 10% of the bank’s total assets. These requirements apply to about twenty large banks, which account for 98% of all trading positions held by the banking industry. To comply with the market risk rules, a bank must calculate its VAR for covered trading positions each day, based on an assumed holding period of ten days, a 99% confidence level and at least one year of historical data. The bank’s market risk capital charge is determined by multiplying (i) the larger of its VAR estimate for the previous day or the average of its daily VAR estimates for the past sixty days, multiplied by (ii) the required multiplication factor. The required multiplication factor is three, unless federal regulators determine through “backtesting” that the bank has exceeded its daily VAR estimate on five or more occasions during the previous 250 trading days. In that event, regulators will increase the multiplication factor, which can rise as high as four for a bank that has exceeded its daily VAR estimates on ten or more occasions during the 250-day trading period. See Risk-Based Capital Standards: Market Risk, 61 Fed. Reg. 47,358 (Sept. 6, 1996) (adopting market risk rules for banks); GAO RISK-BASED CAPITAL STUDY, *supra* note 518, at 49–53, 121–25 (explaining same rules).

544. See LOWENSTEIN, *supra* note 79, at 65–77; Figlewski, *supra* note 503, at 193–98; Nuxoll, *supra* note 516, at 20–23; Simons, *Model Error*, *supra* note 532, at 18–23.

545. See Hendricks, *supra* note 542, at 47–53, 56; Nuxoll, *supra* note 516, at 21; see also Beverly Hirtle, *Commentary*, FED. RES. BANK OF N.Y., ECON. POL’Y REV., Oct. 1998, at 125, 125–26 (noting that most financial institutions rely on only one to three years of historical data to supplement VAR models); MAYER, RISK REDUCTION, *supra* note 517, at 25 (contending that J.P. Morgan’s RiskMetrics program and similar models used by dealers often fail to predict “fat tails” because of a “systematic bias” that “emphasizes the most recent transactions”); *supra* note 543 (explaining that federal bank regulators require banks to use only one year of historical data in preparing VAR estimates under the market risk capital rules).

Empirical studies have shown that relatively long periods of historical data are required to construct reliable VAR measures. See Hendricks, *supra* note 542, at 49–50, 56 (finding that historical data from 1,250 trading days, or about five years, was required to construct VAR measures that were accurate with a 99% degree of confidence); Paul H. Kupiec, *Techniques for Verifying the Accuracy of Risk Measurement Models*, in RISK MEASUREMENT AND SYSTEMIC RISK: PROCEEDINGS OF A JOINT

incur *greater* trading losses during extreme events, because VAR models encourage risk managers to focus on the *probability* of loss and to give too little attention to the *potential magnitude* of loss during low-probability scenarios.⁵⁴⁶

The past fifteen years have witnessed sudden increases in market volatility and sharp drops in market values during the 1987 stock market crash, the collapse of the European exchange-rate mechanism in 1992–93, the bond market slump in 1994, the Mexican peso crisis of 1994–95, the East Asian financial crisis in 1997, and the Russian debt default in 1998.⁵⁴⁷ During each episode, many dealers and traders suffered heavy losses because their models for risk management had “dismissed” the likelihood of a financial crisis as being “so improbable as to be safely disregarded.”⁵⁴⁸ The repeated failures by dealers and traders to anticipate these crises indicate that current risk models are inadequate to protect large banks and other financial institutions against the market risks inherent in their derivatives dealing and trading activities.⁵⁴⁹

The near-collapse of LTCM provides the most striking recent example of model failure. LTCM, a hedge fund created in 1994, had a dazzling array of partners that included two Nobel Prize laureates—Myron Scholes and Robert Merton. Scholes and Merton were the founders, along with Fischer Black, of modern option pricing and risk management theories.⁵⁵⁰ LTCM’s partners also included David W. Mullins, Jr., a former FRB vice chairman, and John Meriwether, who managed Salomon Brothers’ legendary bond trading business during 1984–91. The reputations of LTCM’s partners, and the large profits that LTCM produced between 1994 and 1997, caused the fund’s investors, lenders, and counter-

CENTRAL BANK RESEARCH CONFERENCE, Nov. 1995, at 381 (Fed. Res. Bd. ed. 1996) (concluding that VAR models using a historical sample of one year would be unlikely to perform with a high degree of accuracy); *see also* Green & Figlewski, *supra* note 504, at 1473–77, 1488–89 (concluding that, except for forecasts with time horizons of one month or less, five years of historical data would be required to prepare accurate forecasts of volatility in the value of the underlying asset, rate, or index).

A recent study by Peter Christoffersen and others raises serious questions whether “popular risk management paradigms” can predict either long-term trends in asset return volatility or “extreme tails.” This study indicates that (i) asset return volatility cannot be forecast by financial models with substantial accuracy beyond a period of ten to fifteen trading days; and (ii) “extreme value theory” (EVT) appears to offer greater promise than conventional models in predicting “extreme events,” but historical data samples are often too small to permit EVT to be applied with a high degree of confidence. Peter F. Christoffersen et al., *Horizon Problems and Extreme Events in Financial Risk Management*, FED. RES. BANK OF N.Y., ECON. POL’Y REV., Oct. 1998, at 109 *passim*.

546. *See* Suleyman Basak & Alexander Shapiro, *Value-at-Risk-Based Risk Management: Optimal Policies and Asset Prices*, 14 REV. FIN. STUD. 371, 371–73, 376–78, 385, 398–99 (2001).

547. *See The Price of Uncertainty*, ECONOMIST, June 12, 1999, at 65 [hereinafter *Price of Uncertainty*]; MAYER, RISK REDUCTION, *supra* note 517, at 3.

548. *Price of Uncertainty*, *supra* note 547, at 65.

549. *See* KAUFMAN, ON MONEY AND MARKETS, *supra* note 368, at 74–77, 281–85, 298–99, 317; LOWENSTEIN, *supra* note 79, at 70–77, 228–29, 234–35.

550. *See* LOWENSTEIN, *supra* note 79, at 28–31, 34–36, 59–77, 116–19; Gretchen Morgenson & Michael M. Weinstein, *Teachings of Two Nobelists Also Proved Their Undoing*, N.Y. TIMES, Nov. 14, 1998, at A5; *see also supra* notes 533–40 and accompanying text (noting that the Black-Scholes option pricing theory has served as the foundation for modern theories of financial risk management).

parties to ask few questions about the risks inherent in its capital position and trading strategy.⁵⁵¹

By early 1998, although LTCM's equity capital was only about \$5 billion, its huge investment portfolio included \$125 billion of securities, including large amounts of debt securities borrowed from commercial and investment banks under repurchase agreements and derivatives having aggregate notional values of \$1.25 trillion.⁵⁵² LTCM's primary strategy was to engage in "convergence-arbitrage" trades, in which it sought to take advantage of what it viewed as pricing discrepancies between higher-risk, private-sector debt securities and lower-risk government bonds in both domestic and overseas markets. LTCM expected that the yield spreads between higher-risk and lower-risk securities would narrow or "converge," so that it could profitably sell both its long positions in higher-risk debt and its short positions in lower-risk bonds. LTCM also aggressively sold equity options because it believed that volatility in the equity markets would decline.⁵⁵³ Based on overly optimistic VAR models drawn from Scholes' and Merton's theories, LTCM essentially speculated that "over time, investors would become more rational, more steady, more efficient . . . and thus that credit spreads would narrow."⁵⁵⁴ LTCM's models evidently relied on "recent history to estimate risk" and "assign[ed] a low probability to events such as sovereign defaults and major market disruptions such as the 1987 crash."⁵⁵⁵

As described above, Russia's devaluation and debt default in August 1998 triggered a global "flight to quality," as investors frantically

551. See LOWENSTEIN, *supra* note 79, at 36–48, 77–84, 179; Franklin R. Edwards, *Hedge Funds and the Collapse of Long-Term Capital Management*, 13 J. ECON. PERSP. 189, 199, 204–05 (1999) [hereinafter Edwards, *LTCM Collapse*]; U.S. GEN. ACCT. OFF., LONG-TERM CAPITAL MANAGEMENT: REGULATORS NEED TO FOCUS GREATER ATTENTION ON SYSTEMIC RISK, GAO/GGD-00-3, at 2, 10–11, 16–17 (Oct. 1999) [hereinafter GAO LTCM REPORT]; see also CHANCELLOR, *supra* note 464, at 338–39 (stating that the reputations of LTCM's partners and its "glittering roster of investors" caused it to be called "the Rolls-Royce of hedge funds").

552. See LOWENSTEIN, *supra* note 79, at 44–47, 97–105; Philippe Jorion, *Risk Management Lessons from Long-Term Capital Management*, 6 EUR. FIN. MGMT. J. 277, 279–80 (2000) [hereinafter Jorion, *LTCM Lessons*]; GAO LTCM REPORT, *supra* note 551, at 6–7; see also CHANCELLOR, *supra* note 464, at 344 (stating that LTCM "used derivatives wantonly to build up the largest and most leveraged positions in the history of speculation").

553. See LOWENSTEIN, *supra* note 79, at 40–44, 51–58, 94–102, 123–30; Edwards, *LTCM Collapse*, *supra* note 551, at 197–99; Jorion, *LTCM Lessons*, *supra* note 552, at 279; GAO LTCM REPORT, *supra* note 551, at 40–41.

554. See LOWENSTEIN, *supra* note 79, at 126.

555. Jorion, *LTCM Lessons*, *supra* note 552, at 289; see also LOWENSTEIN, *supra* note 79, at 146 (stating that LTCM's models "didn't go back" far enough to encompass either the 1992 European currency crisis or the 1987 stock market crash). One LTCM partner reportedly stated that the fund's partners "didn't think that we had that much risk" because LTCM's trading positions were premised on "day-to-day and month-to-month swings that were very small." This insider acknowledged that "[m]aybe we got lulled in after four years" of success. Steven Mufson, *What Went Wrong? Fund's Big Bettors Learned that Risk Trumps Math, History*, WASH. POST, Sept. 27, 1998, at H16. A prominent analyst has concluded that (i) LTCM made a serious mistake in basing its VAR calculations on volatility patterns for credit spreads since 1995, which were unusually low by historical standards; and (ii) LTCM's calculations disregarded the probability of rare "catastrophic" events, such as the 1987 stock market crash and the Russian debt default. Jorion, *LTCM Lessons*, *supra* note 552, at 287–90.

sought to buy “safe” and highly liquid securities (especially U.S. treasury bonds) while unloading their positions in illiquid, high-risk securities or related derivatives.⁵⁵⁶ Yield spreads between high-risk and low-risk debt widened dramatically and the volatility of equity markets soared, thereby dealing a fatal blow to LTCM’s “convergence” strategy. In addition, the investor stampede away from risky investments of all kinds created a “liquidity drought” that made it impossible for LTCM to sell its huge and rapidly declining positions in high-risk debt securities and OTC derivatives. Given these conditions, LTCM’s risk models utterly failed to predict the magnitude of LTCM’s losses. By the end of September 1998, LTCM had lost \$4.4 billion, including a \$3 billion loss arising out of its OTC derivatives.⁵⁵⁷ At this point, as discussed below, the FRB helped to organize a rescue effort, culminating in an agreement by fourteen major banks and securities firms to inject \$3.6 billion into the fund in exchange for 90% of LTCM’s equity.⁵⁵⁸ A year later, Mr. Scholes publicly acknowledged that the VAR models used by LTCM and other major financial institutions had failed to anticipate the “liquidity risk” that suddenly appeared in August 1998.⁵⁵⁹

As Mr. Scholes noted, LTCM was not the only firm that recorded large losses during the 1998 financial crisis. Several major banks and securities firms, both U.S. and foreign, reported trading and investment losses that exceeded \$500 million for each institution.⁵⁶⁰ In particular, J.P. Morgan and Bankers Trust—the two U.S. banks that derived the highest percentage of their revenues from trading activities in 1998—publicly disclosed that their VAR models had failed to predict the losses they suffered after the Russian debt default.⁵⁶¹

This correlation of heavy losses among global financial institutions was not a coincidence but instead resulted from “copycat” trading strate-

556. See LOWENSTEIN, *supra* note 79, at 144–46, 151–54, 168; Edwards, *LTCM Collapse*, *supra* note 551, at 199; *supra* notes 79 and 391 and accompanying text.

557. See Edwards, *LTCM Collapse*, *supra* note 551, at 199–200; Jorion, *LTCM Lessons*, *supra* note 552, 282–84, 295; see also GAO LTCM REPORT, *supra* note 551, at 1–2, 11–12, 42. See generally LOWENSTEIN, *supra* note 79, at 144–92, 233–35 (describing LTCM’s collapse); Peter Coy et al., *Failed Wizards of Wall Street*, *BUS. WK.*, Sept. 21, 1998, at 117–18 (describing global “flight to quality” and “liquidity drought” that occurred in Aug.–Sept. 1998).

558. See *infra* notes 649–54 and accompanying text.

559. See LOWENSTEIN, *supra* note 79, at 228 (describing remarks by Mr. Scholes); *When the Sea Dries Up*, *ECONOMIST*, Sept. 25, 1999, at 93 (same). More recently, LTCM’s principal founder, John Meriwether, conceded that LTCM’s trading strategy was “fundamentally flawed” and involved “too much leverage.” Mr. Meriwether said that he and his colleagues were shocked when LTCM’s high-risk investments became illiquid and unsaleable during the Russian debt crisis because “the fundamental thesis of how we evaluated risk” did not include the possibility of a global investor panic. Zuckerman, *LTCM*, *supra* note 531. As shown by the admissions of Messrs. Scholes and Meriwether, LTCM’s risk-management models failed to account for the probability of extreme events, a failure that is hard to justify given the frequent occurrence of serious market disruptions since 1987. See Jorion, *LTCM Lessons*, *supra* note 552, at 287–90; MAYER, *RISK REDUCTION*, *supra* note 517, at 1, 25–26.

560. See *infra* notes 675–81 and accompanying text.

561. See Liz Moyer, *Morgan, Bankers Trust Say Risk Models Broke Down*, *AM. BANKER*, Nov. 19, 1998, at 3; see also *infra* notes 683–85 and accompanying text (describing heavy involvement of the two banks in trading activities).

gies. Analysts determined that major banks and securities firms engaged in “herd behavior” by copying the essential outlines of LTCM’s trading strategy.⁵⁶² Accordingly, when the Russian crisis occurred, liquidity in markets for high-risk securities and OTC derivatives vanished as many large institutions sought to unload the same positions that LTCM tried to sell.⁵⁶³

The presence of herd behavior in institutional trading strategies resembles the unfortunate correlation among the high-risk lending programs of major banks over the past two decades.⁵⁶⁴ The phenomenon of herd behavior among financial institutions also contradicts two assumptions that are crucial to the predictive value of risk models derived from the Black-Scholes theory: (i) the belief that financial markets will exhibit continuous trading and unlimited liquidity,⁵⁶⁵ and (ii) the expectation that traders will act with “observational independence” instead of copying the investment decisions of other traders.⁵⁶⁶

Contrary to the foregoing assumptions, “copycat” trading and liquidity crunches are particularly likely to occur in OTC derivatives markets. As previously noted, no organized exchange exists to guarantee performance or establish market values for OTC derivatives, and contract values must be estimated based on computer models that involve significant uncertainties and subjective judgments.⁵⁶⁷ Given such conditions of uncertainty and asymmetric information, traders in OTC derivatives often conclude that the safest strategy is to mimic observed positions taken by other major traders.⁵⁶⁸ At the same time, the most widely used VAR models, drawn from the Black-Scholes theory, encourage institutional investors to adopt similar “risk management” programs that lead to parallel investment strategies. The resulting herd behavior in-

562. LOWENSTEIN, *supra* note 79, at 96; Edwards, *LTCM Collapse*, *supra* note 551, at 206; *see also* Morgenson & Weinstein, *supra* note 550 (reporting that “many other firms across Wall Street had mimicked the broad outline of Long-Term’s trades for their own accounts”).

563. *See* LOWENSTEIN, *supra* note 79, at 136–37, 163–64, 173–74; Edwards, *LTCM Collapse*, *supra* note 551, at 199–202, 206.

564. *See, e.g.*, Raghuram G. Rajan, *Why Bank Credit Policies Fluctuate: A Theory and Some Evidence*, 109 Q. J. ECON. 399 *passim* (1994) (presenting a theoretical model and empirical evidence indicating herd behavior in bank lending policies during the 1980s and early 1990s); O’Brien, *Worries About Loans*, *supra* note 400, at A1 (stating that “banks chased real estate loans with all the determination . . . of lemmings” in the 1980s, and warning that banks again exhibited a “rush to lend” in the 1990s).

565. *See supra* notes 526, 529, 539–40 and accompanying text.

566. Edwards, *LTCM Collapse*, *supra* note 551, at 206; *see also* ROBERT J. SHILLER, *IRRATIONAL EXUBERANCE* 17–68, 148–68 (2000) (discussing various behavioral theories that appear to explain the “herd behavior” exhibited by many investors); Andrea Devenow & Ivo Welch, *Rational Herding in Financial Economics*, 40 EUR. ECON. REV. 603 *passim* (1996) (reviewing economic studies finding evidence of “herding” among participants in financial markets); Theresa A. Gabaldon, *John Law, with a Tulip, in the South Seas: Gambling and the Regulation of Euphoric Market Transactions*, 26 J. CORP. L. 225, 233–39, 270–76 (2001) (same); Donald C. Langevoort, *Selling Hope, Selling Risk: Some Lessons for Law from Behavioral Economics About Stockbrokers and Sophisticated Customers*, 84 CAL. L. REV. 627, 644 & n.56 (1996) [hereinafter Langevoort, *Selling Hope, Selling Risk*] (same).

567. *See supra* notes 502–04, 532 and accompanying text.

568. *See* Hu, *Misunderstood Derivatives*, *supra* note 486, at 1500–01.

creases the likelihood that a future adverse shock to the OTC derivatives markets could trigger frantic one-way trading among major dealers, resulting in a liquidity crunch and widespread losses similar to those that occurred during 1998.⁵⁶⁹

(d) Operational Risk, Moral Hazard and Inadequate Regulatory Oversight

Operational risk arises when a derivatives dealer or end-user fails to maintain proper risk management systems to oversee the firm's trading function. Derivatives magnify the operational risks inherent in trading activities because (i) most derivatives are highly leveraged and therefore permit a trader to create very large financial risks for the firm without making substantial cash investments that would attract the attention of supervisors and auditors; (ii) derivatives are more complex and harder to value than conventional securities, and managers often lack sufficient expertise to monitor the actual risks created by a trader's positions in derivatives; and (iii) most derivatives offer immediate returns to the dealer (e.g., through the payment of dealer's fees and option premiums), and such payoffs enhance the employee's reputation within the firm while deferring risk exposures to a future settlement date that may not occur until long after the employee has left the firm.⁵⁷⁰

Indeed, the typical incentive payment system for traders creates a moral hazard problem for their firms. Traders generally receive a substantial portion of their compensation in the form of annual bonuses based on each year's trading profits. This bonus system encourages a trader to pursue a speculative trading strategy designed to produce immediate profits, especially if the trader knows that his supervisors lack sufficient information or expertise to appreciate the long-term risks inherent in his strategy. Even when managers recognize such dangers, they are frequently inclined to overlook them as long as the trading strategy is profitable and creates bonuses and prestige for managers. The foregoing conflicts of interest appear to explain a series of huge losses created by "rogue traders," who pursued aggressive trading programs with the approval or acquiescence of their firms.⁵⁷¹

569. See Katerina Simons, *The Use of Value at Risk by Institutional Investors*, FED. RES. BANK OF BOSTON, NEW ENG. ECON. REV., Nov.-Dec. 2000, at 21, 28-30.

570. See STEINHERR, DERIVATIVES, *supra* note 74, at 102, 120, 276-81; Figlewski, *supra* note 503, at 179-80; Hu, *Misunderstood Derivatives*, *supra* note 486, at 1462-63, 1492-93; Jerry W. Markham, *Guarding the Kraal—On the Trail of the Rogue Trader*, 21 J. CORP. L. 131, 132-33, 144-46, 153 (1995).

571. See, e.g., Hu, *Misunderstood Derivatives*, *supra* note 486, at 1492-93; Kimberly D. Krawiec, *Accounting for Greed: Unraveling the Rogue Trader Mystery*, 79 ORE. L. REV. 301, 309-10, 321-23, 331-48 (2001) [hereinafter Krawiec, *Rogue Trader*]; Langevoort, *Selling Hope, Selling Risk*, *supra* note 566, at 642-48, 661-62; Markham, *supra* note 570, at 132-33, 135-39, 144-46, 152-53; Peter Drucker, *Drucker on Financial Services: Innovate or Die*, ECONOMIST, Sept. 25, 1999, at 25, 26. For a general discussion of agency problems caused by conflicts of interest between a firm and its employees, see, e.g., Jensen, *Agency Costs*, *supra* note 296, *passim*; Michael C. Jensen & William H. Meckling, *Theory*

For example, Barings Banks, a prominent British investment bank, failed in early 1995 after losing more than \$1.4 billion from speculative trading in derivatives by Nicholas Leeson, general manager of Barings' Singapore subsidiary.⁵⁷² Similarly, Orange County, a large county in southern California, filed for bankruptcy in late 1994 after losing more than \$1.6 billion from a speculative investment program managed by Robert Citron, the County's treasurer.⁵⁷³

Lax internal controls at Barings and Orange County permitted Leeson and Citron to pursue high-risk trading strategies without any effective oversight.⁵⁷⁴ In each case, senior management essentially turned a blind eye toward the employee's behavior because of his past successes. Leeson's trades on the Osaka and Singapore futures exchanges produced large profits for Barings prior to 1995. Those profits—and the resulting bonuses paid to top executives—probably explain why Barings' leaders allowed Leeson's trading to continue despite warnings by internal auditors and futures exchange officials about the very large positions he had taken and the lack of supervisory controls over his activities. Indeed,

of the Firm: Managerial Behavior, Agency Costs and Ownership Structure, 3 J. FIN. ECON. 305, 308–11 (1976).

572. Leeson purchased huge amounts of Japanese stock index futures on the Osaka and Singapore futures exchanges. These purchases created "straddles" that were designed to produce large profits if Japan's Nikkei 225 index remained within a relatively narrow trading range. Leeson's trading strategy failed in early 1995, when the Kobe earthquake triggered a sharp decline in the Nikkei index that wiped out the value of Barings positions. The Bank of England placed Barings in receivership and ultimately sold most of its assets to ING, a large Dutch bank. For discussions of the Barings disaster, see, e.g., STEINHERR, DERIVATIVES, *supra* note 74, at 97–103; Anatoli Kuprianov, *Derivatives Debacles: Case Studies of Large Losses in Derivatives Markets*, FED. RES. BANK OF RICH., ECON. Q., Fall 1995, at 1, 20–32; Joseph J. Norton & Christopher D. Olive, *Globalization of Financial Risks and International Supervision of Banks and Securities Firms: Lessons from the Barings Debacle*, 30 INT'L LAW. 301, 305–23 (1996); Hans R. Stoll, *Lost Barings: A Tale in Three Parts Concluding with a Lesson*, J. DERIVATIVES, Fall 1995, at 109, 109–13; *The Collapse of Barings: A Fallen Star*, ECONOMIST, Mar. 4, 1995, at 19 [hereinafter *Barings Collapse*].

573. By entering repurchase agreements with several securities firms, Citron leveraged \$7.5 billion of county funds into an investment portfolio of \$20.5 billion, including \$8 billion of structured notes. Citron was convinced that interest rates would remain stable or decline in 1994. Therefore, he created a portfolio that would earn profits during favorable interest rate conditions but was exposed to significant losses if interest rates rose. When the FRB implemented a series of interest rate hikes during 1994, Orange County suffered huge losses and filed for bankruptcy when it could not meet margin calls from its securities lenders. For discussions of the Orange County debacle, see, e.g., STEINHERR, DERIVATIVES, *supra* note 74, at 107–11; Phillippe Jorion, *Lessons from the Orange County Bankruptcy*, J. DERIVATIVES, Summer 1997, at 61, 61–65 [hereinafter Jorion, *Orange County*]; Krawiec, *Derivatives*, *supra* note 485, at 27–28; 1996 GAO DERIVATIVES REPORT, *supra* note 491, at 122–25; Laura Jereski et al., *Bitter Fruit: Orange County, Mired in Investment Mess, Files for Bankruptcy*, WALL ST. J., Dec. 7, 1994, at A1.

Structured notes are interest-sensitive debt securities that typically pay returns based on a complex underlying index or formula. Structured notes are frequently, but not always, classified as derivatives or as hybrid securities because they have payment features similar to OTC derivatives. See Brandon Becker & Jennifer Yoon, *Derivative Financial Losses*, 21 J. CORP. L. 215, 218–19 (1995); Krawiec, *Derivatives*, *supra* note 485, at 6; OCC BANK DERIVATIVES REPORT, 4TH QTR. 1998, at 4; 1996 GAO DERIVATIVES REPORT, *supra* note 491, at 24–25; Romano, *supra* note 485, at 74–79.

574. See, e.g., Jonathan R. Macey, *Derivative Instruments: Lessons for the Regulatory State*, 21 J. CORP. L. 69, 79–81 (1995) [hereinafter Macey, *Derivative Instruments*]; Markham, *supra* note 570, at 132, 136–37; 1996 GAO DERIVATIVES REPORT, *supra* note 491, at 122–27.

when Leeson's trading program ran into trouble in early 1995, Barings' headquarters transferred \$900 million to its Singapore subsidiary so that Leeson could meet margin calls from the Osaka and Singapore exchanges. The conduct of Barings' senior managers indicated that they were unwilling to question or interfere with a strategy that had produced hefty profits for the bank and handsome bonuses for them.⁵⁷⁵

Similarly, the Orange County Board of Supervisors failed to question Citron's high-risk investment program despite several warnings by the County's auditor. The Board of Supervisors had come to rely heavily on profits from Citron's office to balance the County's budget. In addition, Citron had produced investment returns that were well above average for California local governments for several years. In those circumstances, the Orange County supervisors, like Barings' managers, were reluctant to interfere with a profit-making operation that enhanced their prestige and budgetary authority.⁵⁷⁶

The Barings and Orange County debacles demonstrate that (i) firm managers are likely to tolerate high-risk investment and trading strategies as long as they produce profits,⁵⁷⁷ and (ii) traders have strong financial incentives to engage in speculative transactions designed to generate short-term profits.⁵⁷⁸ Both disasters also indicate that moral hazard is es-

575. See Krawiec, *Rogue Trader*, *supra* note 571, at 322 (quoting Leeson's remark that Barings' managers "wanted to believe" in his trading prowess); Kuprianov, *supra* note 572, at 30-32 (reporting that Barings' managers regarded Leeson as "almost a miracle worker" and were "concern[ed] not to do anything which might upset him"); Stoll, *supra* note 572, at 109-10 (stating that, due to the "avarice and the pressure for profits" created by Barings' management, Leeson was given "free rein" to pursue his high-risk trading strategy); Marcus W. Brauchli et al., *Broken Bank: Barings PLC Officials May Have Been Aware Of Trader's Position*, WALL ST. J., Mar. 6, 1995, at A1 (reporting that Leeson had been considered a "hero" at Barings for producing large profits, and that the firm's management "so wanted to ensure the continuation of profits from Singapore—which boosted bonuses—that it was reluctant to impose tight controls" on Leeson).

Barings' transfer of \$900 million to enable Leeson to meet margin calls in Singapore and Osaka in early 1995 exceeded the bank's total capital and reportedly forced the bank to borrow over \$700 million from Japanese banks. The willingness of Barings' senior management to allow this extraordinary transfer suggests that "Barings headquarters in London was aware of Mr. Leeson's trading activities." *Id.*; see also Macey, *Derivative Instruments*, *supra* note 574, at 79-80 (reaching a similar conclusion). Barings' managers claimed that Leeson misrepresented his trading strategy as being a fully-hedged arbitrage operation that took advantage of minor price discrepancies between the Osaka and Singapore futures exchanges. However, the scale of Leeson's profits before 1995 and his request for huge amounts of margin funding in early 1995 should have alerted management to the speculative nature of his trades. In addition, Barings' managers failed to investigate Leeson's activities despite warnings given by internal auditors and questions raised by the Singapore exchange about the risks inherent in Leeson's trading operation. See Brauchli, *supra*; Kuprianov, *supra* note 572, at 22-25, 31-32; Norton & Olive, *supra* note 572, at 306-09; 1996 GAO DERIVATIVES REPORT, *supra* note 491, at 126-27; *Barings Collapse*, *supra* note 572, at 19-21.

576. See Krawiec, *Derivatives*, *supra* note 485, at 27-28; Krawiec, *Rogue Trader*, *supra* note 571, at 321; Jorion, *Orange County*, *supra* note 573, at 63, 65; 1996 GAO Derivatives Report, *supra* note 491, at 122-24.

577. See Krawiec, *Rogue Trader*, *supra* note 571, at 121-23, 128-34, 140-43; Langevoort, *Selling Hope, Selling Risk*, *supra* note 566, at 646-48; Markham, *supra* note 570, at 152; Drucker, *supra* note 571, at 26.

578. Cf. Hu, *Misunderstood Derivatives*, *supra* note 486, at 1492-93. Indeed, serious losses from high-risk trading may not necessarily destroy a trader's career if she has previously established a repu-

pecially likely to arise when a firm adopts an aggressive trading policy involving derivatives because the firm's managers, and ultimately, the firm's owners often lack sufficient information or incentives to monitor and control the firm's traders.⁵⁷⁹

Speculative trading in derivatives by a major financial institution creates moral hazard problems that extend well beyond the firm's boundaries. The major U.S. dealers in OTC derivatives are the nation's largest banks, securities firms, and insurance companies.⁵⁸⁰ As discussed below, federal regulators would probably intervene to prevent the failure of any major derivatives dealer due to concerns that such an event would trigger a systemic crisis in the financial markets.⁵⁸¹ This presence of a federal "safety net" for top derivatives dealers creates a clear conflict of interest between those dealers and the responsible federal agencies. Derivatives dealers have a strong temptation to exploit the federal safety net's implicit subsidy by engaging in speculative trading, unless regulators can accurately monitor trading activities and impose effective sanctions for excessive risk-taking.⁵⁸²

tation for producing profits. See Markham, *supra* note 570, at 144-45. Several well-known traders have succeeded in finding lucrative positions after being dismissed by previous employers for causing large losses. See, e.g., Mitchell Pacelle, *Like 9-Lived Cats, Money-Losing Traders Land on Their Feet—With Fat Salaries*, WALL ST. J., Feb. 25, 1999, at C1.

579. See Hu, *Misunderstood Derivatives*, *supra* note 486, at 1492-93 n.215 (referring to the "moral hazard" resulting from flawed incentives and monitoring systems for traders); Markham, *supra* note 570, at 145-46, 151-53.

To control speculative trading, many firms establish risk limits for their traders based on estimates derived from VAR models. However, a recent study concluded that such limits are unlikely to prevent traders from assuming excessive risks because (i) a trader typically knows more information than her superiors about the actual risks inherent in her trading portfolio, and (ii) a trader typically has incentives to exploit any situation in which the firm's estimate of her portfolio's VAR is lower than the actual degree of risk perceived by the trader. Xiongwei Ju & Neil Pearson, *Using Value-At-Risk to Control Risk Taking: How Wrong Can You Be?*, J. RISK, Winter 1999, at 5, 5-8, 18-19, 22, 24, 28-29.

580. The six most active bank derivatives dealers in 1999—Chase, J.P. Morgan, Bank of America, Citibank, Bank One, and First Union—were owned by the six largest U.S. banking organizations. See OCC BANK DERIVATIVES REPORT, 4th Qtr. 1999, at tbl.5, available at <http://www.occ.treas.gov> (listing the six most active bank derivatives dealers); *Top 100 Bank Holding Companies in Assets*, AM. BANKER, Sept. 16, 1999, at 6 [hereinafter *Top Banking Companies in 1999*] (showing that the foregoing banks were the six largest U.S. banking organizations). The most active derivatives dealers among securities firms in the mid-1990s were Goldman Sachs, Salomon Smith Barney (now a subsidiary of Citigroup), Merrill Lynch, Morgan Stanley, and Lehman Brothers, while the most active dealers among insurance companies were AIG, Prudential, and General Re. See 1996 GAO DERIVATIVES REPORT, *supra* note 491, at 27 tbl.1.1, n.2; 1994 GAO DERIVATIVES REPORT, *supra* note 486, app.V at 188.

581. See *infra* Part I(E)(2)(b)(iii)(G).

582. See STEINHERR, DERIVATIVES, *supra* note 74, at 276-83; see also Chandrasekhar Mishra & Jorge L. Urrutia, *Deposit Insurance Subsidies, Moral Hazard, and Bank Regulation*, 19 J. ECON. & FIN. 63 *passim* (1995) (showing that, due to moral hazard, a bank will increase the riskiness of its assets to exploit the subsidy provided by federal deposit insurance whenever the bank's regulator is unable to evaluate or control the risks inherent in those assets); Prescott, *supra* note 38, at 63-69 (demonstrating that moral hazard will encourage a federally insured bank to choose an "opaque investment strategy" that increases its risks and potential profits unless its regulator can effectively monitor the bank's activities and impose penalties for excessive risk-taking); *supra* notes 349-53, 354-63, 369, *infra* note 1033 and accompanying text (discussing moral hazard created by the federal "safety net" and TBTF policy for major banks and financial institutions).

Unfortunately, financial regulators do not appear to possess the sophistication or information needed to assess the riskiness of the major dealers' positions on a continuous basis. OTC derivatives are largely "opaque" to regulators because their values are based on proprietary models and cannot be ascertained from trading prices established on organized exchanges.⁵⁸³ The regulators' monitoring challenges are further complicated by the fact that many OTC derivatives are highly leveraged and permit dealers to change their risk exposures rapidly.⁵⁸⁴ Despite recent efforts to improve supervisory procedures, many commentators believe that regulators currently lack adequate tools to prevent excessive risk-taking by derivatives dealers.⁵⁸⁵

Moreover, federal regulators often have failed in the past to identify the risks of aggressive trading and investment strategies adopted by financial institutions. The FDIC provided emergency assistance to Bank of the Commonwealth in 1972 and First Pennsylvania in 1980, after both

583. See EDWARDS, *NEW FINANCE*, *supra* note 63, at 140–41; STEINHERR, *DERIVATIVES*, *supra* note 74, at 261–63, 276–80; Prescott, *supra* note 38, at 63.

584. See EDWARDS, *NEW FINANCE*, *supra* note 63, at 138–41; STEINHERR, *DERIVATIVES*, *supra* note 74, at 260–61, 280–81; Mishkin & Strahan, *supra* note 35, at 273.

585. See KAUFMAN, *ON MONEY AND MARKETS*, *supra* note 368, at 225, 229, 285–86; Edwards, *LTCM Collapse*, *supra* note 551, at 204–07; Hu, *Misunderstood Derivatives*, *supra* note 486, at 1462–63, 1499–1505. Federal bank regulators have attempted to control the risks of banks engaged in OTC derivatives activities by (i) imposing special capital requirements on bank dealers, and (ii) monitoring the riskiness of each bank dealer by reviewing quarterly call reports and conducting periodic examinations. However, it is very doubtful whether the present capital rules provide an adequate cushion against the potential risks that bank derivatives dealers would confront under extreme market conditions. In addition, commentators have noted serious shortcomings in current reporting requirements and examination procedures applicable to bank dealers. See STEINHERR, *DERIVATIVES*, *supra* note 74, at 272–91; Krawiec, *Derivatives*, *supra* note 485, at 53–55; Joe Peek & Eric S. Rosengren, *Derivatives Activity at Troubled Banks*, 12 J. FIN. SERVICES RES. 287, 288–290, 300 (1997) [hereinafter Peek & Rosengren, *Derivatives Activity*] (concluding that (i) quarterly call reports are "inadequate for evaluating the riskiness of [bank] derivatives portfolios," and (ii) periodic on-site examinations are not sufficient to prevent troubled banks from making "unmonitored [derivatives] bets"); 1994 GAO *DERIVATIVES REPORT*, *supra* note 486, at 8, 15, 69–84 (discussing recent supervisory initiatives and continuing regulatory shortcomings among bank regulators); 1996 GAO *DERIVATIVES REPORT*, *supra* note 491, at 6–8, 10–11, 53–68 (same); see also *infra* Parts III(C)(2) & (3) (discussing inadequacy of recent regulatory initiatives to control the risks of major banks and other large financial conglomerates).

The SEC and the CFTC have very limited authority to supervise the activities of OTC derivatives dealers that are affiliated with securities firms. In 1995, five securities firms, whose dealer affiliates account for over 90% of the derivatives business conducted by securities dealers, formed a "Derivatives Policy Group" (DPG). The DPG is a self-regulatory organization, and its members agreed on a voluntary framework for oversight of their derivatives dealing activities by the SEC and the CFTC. Nevertheless, the federal agencies still lack direct compulsory powers over dealers affiliated with securities firms, and the GAO has urged Congress to establish a mandatory system of federal supervision over such dealers. See Krawiec, *Derivatives*, *supra* note 485, at 55–57; 1994 GAO *DERIVATIVES REPORT*, *supra* note 486, at 11–15, 85–89; 1996 GAO *DERIVATIVES REPORT*, *supra* note 491, at 6–8, 11–12, 70–76, 81–82.

No federal regulator has direct supervisory powers over insurance companies or their affiliated OTC derivatives dealers. In addition, state insurance regulators have very limited powers to oversee such dealer affiliates. The GAO has called on Congress to provide the SEC or another federal agency with direct regulatory authority over OTC dealers affiliated with insurance firms. See Krawiec, *Derivatives*, *supra* note 485, at 57; 1994 GAO *DERIVATIVES REPORT*, *supra* note 486, at 11–15, 90–91; 1996 GAO *DERIVATIVES REPORT*, *supra* note 491, at 12, 80–82.

institutions were driven to the brink of insolvency by speculative investment schemes involving government securities. Both banks built up large investment portfolios with the expectation that interest rates would fall, and they suffered disastrous losses when interest rates rose instead.⁵⁸⁶ Similarly, Franklin National Bank failed in 1974 after incurring heavy losses from speculative trading in foreign currencies and investing in government securities.⁵⁸⁷ The foregoing disasters accounted for three of the four most costly bank resolutions prior to 1981.⁵⁸⁸

First Pennsylvania and Franklin National were especially troubling cases because both institutions adopted "bet the bank" trading and investment strategies after they encountered serious problems with non-performing loans.⁵⁸⁹ The failed gambles by First Pennsylvania and Franklin National, after they were already seriously weakened by bad loans, resembled the moral hazard behavior that occurred throughout the thrift industry during the 1980s.⁵⁹⁰ For example, four big thrifts failed

586. The FDIC provided open-bank assistance in 1972 to prevent the failure of Bank of the Commonwealth (a \$1.3 billion bank) and again in 1980 to prevent the failure of First Pennsylvania (an \$8.4 billion bank). The FDIC protected all insured and uninsured depositors and general creditors of both banks, thereby establishing precedents for the FDIC's subsequent bailouts of Continental Illinois and other major banks under the TBTF doctrine. See SPRAGUE, *supra* note 371, at 53-106, app. at 265; MANAGING THE FDIC CRISIS, *supra* note 149, at 515-24. The investment securities purchased by both banks were "bank-eligible securities." Accordingly, as discussed *supra* at note 30, the banks' investments did not violate the Glass-Steagall Act.

587. Exercising its powers as LOLR, the FRB extended discount window loans to keep Franklin National (a \$3.7 billion bank) in operation between May and October of 1974. In October 1974, the bank was placed into receivership, and the FDIC assumed responsibility for more than half of its assets and liabilities. Based on the FDIC's agreement to retain Franklin's most doubtful assets and liabilities, European American Bank agreed to purchase Franklin's remaining assets and liabilities, including all insured and uninsured deposits. Thus, as in the case of Bank of the Commonwealth and First Pennsylvania, the federal regulators structured a transaction that protected all of Franklin's depositors and general creditors. See JOAN E. SPERO, THE FAILURE OF THE FRANKLIN NATIONAL BANK: CHALLENGE TO THE INTERNATIONAL BANKING SYSTEM 63-94, 119-43 (1980); SPRAGUE, *supra* note 371, app. at 82, 265.

588. See SPRAGUE, *supra* note 371, app. at 265.

589. See *id.* at 84-86 (discussing First Pennsylvania); SPERO, *supra* note 587, at 63-65, 70-89 (discussing Franklin).

590. During 1979-82, thrift institutions were battered by a sharp increase in interest rates, which inflicted huge losses on their traditional business of taking short-term deposits and making long-term home mortgage loans. By the end of 1982, the Federal Savings and Loan Insurance Corporation (FSLIC) held only \$6.3 billion of reserves and needed about \$25 billion to rescue more than 400 thrifts that had already become insolvent. See, e.g., FDIC HISTORY LESSONS, *supra* note 395, at 168-69, 214-21. However, instead of recapitalizing the FSLIC, Congress expanded the scope of federal deposit insurance (from \$40,000 to \$100,000 per depositor) and granted new powers to thrift institutions, while thrift regulators followed a policy of supervisory forbearance. Members of Congress and regulators hoped that deregulation and forbearance would enable troubled thrifts to "grow out of their problems." Instead, many insolvent or marginally solvent thrifts took advantage of their new powers and supervisory laxity by adopting high-risk strategies involving real estate development, investments in junk bonds, and other nontraditional activities. In view of the moral hazard created by fixed-rate federal deposit insurance, these speculative programs amounted to one-way gambles, in which the thrift owners reaped any gains and the federal government absorbed most of the losses. Ultimately, about 1,300 thrifts, with assets of more than \$620 billion, failed or received federal assistance during 1980-94. Total resolution costs for the thrift crisis have been estimated at \$160 billion, of which \$132 billion was paid by federal taxpayers. See LOWY, *supra* note 379, at 19-20, 34, 43-57, 86-94, 126-59, 229-39, 245-49; LAWRENCE J. WHITE, THE S&L DEBACLE: PUBLIC POLICY LESSONS FOR BANK AND THRIFT

after making large speculative investments in junk bonds, which plummeted in value during the collapse of the junk bond market in 1989–90.⁵⁹¹ A fifth major thrift institution, Franklin Savings, was seized in 1990 after federal regulators determined that its heavy investments in mortgage-backed securities and derivatives had created an imminent risk of failure.⁵⁹²

Federal regulators failed to recognize the dangers posed by the investment and trading strategies of the foregoing banks and thrifts until each institution was doomed.⁵⁹³ For example, regulators allowed Franklin National Bank to continue its risky trading activities because (i) they did not have “regular and current data” that would have enabled them to monitor the bank’s trading positions, and (ii) they lacked “experience in evaluating foreign exchange speculation due to the novelty of the phenomenon.”⁵⁹⁴ Similarly, regulators did not seriously question Franklin Savings’ eight-year program of trading and hedging with complex deriva-

REGULATION 4–7, 38–46, 48 n.25, 72–93, 99–119, 259–62 (1991); FDIC HISTORY LESSONS, *supra* note 395, at 169–88; MANAGING THE FDIC CRISIS, *supra* note 149, at 4–5, 28–29.

591. Thrift institutions held about \$12 billion of junk bonds at the end of 1988. ROY C. SMITH, *THE MONEY WARS* 250 (1990) [hereinafter SMITH, *MONEY WARS*]. Among thrift institutions, CenTrust, Columbia Savings, Imperial Savings, and Lincoln Savings purchased the largest portfolios of junk bonds, in most cases from Drexel Burnham. Those thrifts were part of a network of institutional investors assembled by Michael Milken to absorb Drexel Burnham’s extensive underwritings of junk bonds during the 1980s, which provided financing for leveraged corporate acquisitions and restructurings. The junk bond market collapsed in 1989–90 due to a combination of factors, including (i) Milken’s indictment on criminal charges and Drexel Burnham’s agreement to pay heavy criminal fines and civil penalties, following their alleged violations of federal securities laws; (ii) the unwillingness of investors to continue their support for leveraged buyouts; (iii) Congress’s passage of legislation in 1989 that compelled thrifts to divest their holdings of junk bonds by 1994; and (iv) Drexel’s bankruptcy in February 1990. Columbia Savings’ failure was caused primarily by the steep decline in its \$5 billion portfolio of junk bonds, and losses on junk bond investments also contributed significantly to the failures of CenTrust, Imperial Savings and Lincoln Savings. See LOWY, *supra* note 379, at 155–59; MAYER, SAVINGS AND LOAN COLLAPSE, *supra* note 379, at 76–77, 182–85, 280–81; PAUL Z. PILZER, *OTHER PEOPLE’S MONEY: THE INSIDE STORY OF THE S&L MESS* 126–28, 130–31, 140–49, 234–36 (1989); SMITH, *MONEY WARS*, *supra* at 225–27, 252–53; Benveniste et al., *supra* note 51, at 107–11; Jensen, *Corporate Control*, *supra* note 464, at 15–16, 26–28; see also MANAGING THE FDIC CRISIS, *supra* note 149, at 862–63 tbls.C.15 & C.16 (listing Imperial Savings, CenTrust, and Lincoln among the largest or more costly thrift failures during 1980–94).

592. See *Franklin Sav. Ass’n v. Dir.*, Office of Thrift Supervision, 934 F.2d 1127 (10th Cir. 1991) (upholding the emergency appointment of a conservator for Franklin Savings). When federal authorities seized Franklin Savings in February 1990, more than 35% of its assets consisted of mortgage-backed securities, mortgage-related derivatives, and junk bonds. Federal regulators found, inter alia, that (i) Franklin Savings’ assets exposed the thrift to significant interest rate risk, liquidity risk, and “extreme price volatility;” (ii) Franklin Savings “resemble[d] a securities trading firm” and had become a “primary market maker” in certain classes of high-risk derivatives; and (iii) Franklin Savings’ earnings and capital had declined to dangerously low levels. *Id.* at 1133–35, 1143–49; see also MANAGING THE FDIC CRISIS, *supra* note 149, at 862 tbl.C.15 (listing Franklin Savings, with \$10.5 billion of assets, as the fourth largest thrift that failed during 1980–94).

593. See SPERO, *supra* note 587, at 63–89 (discussing Franklin National Bank); SPRAGUE, *supra* note 371, at 56–75, 79–86 (discussing Bank of the Commonwealth and First Pennsylvania). For evidence indicating that regulators did not recognize the risks created by thrift investments in junk bonds until 1989, see, e.g., LOWY, *supra* note 379, at 157–58; PILZER, *supra* note 591, at 73–75, 127–28.

594. SPERO, *supra* note 587, at 65–66.

tives until a few months before they concluded the thrift was virtually insolvent.⁵⁹⁵

The foregoing bank and thrift failures provide a clear warning about the dangers created by current flaws in the regulatory structure for major derivatives dealers. As was true in the cases of Franklin National Bank and Franklin Savings, federal regulators presently do not have sufficient information and expertise to evaluate the risks assumed by large dealers in OTC derivatives. Indeed, until the LTCM debacle, federal regulators seemed to discount the risks of derivatives. A study by Joe Peek and Eric Rosengren reported that, with one exception, regulators failed to take any significant supervisory actions with regard to derivatives activities at major banks during 1990–94. This apparent lack of concern was hard to justify, since banks with a heavy concentration in derivatives were significantly more likely to be undercapitalized or to have a high percentage of nonperforming assets at some point during 1990–94.⁵⁹⁶

Similarly, Beverly Hirtle determined that (i) publicly traded banks used interest rate derivatives to *increase* their exposure to interest rate risk during 1991–94, and (ii) the nine largest bank dealers in derivatives showed the *greatest* increase in interest rate risk.⁵⁹⁷ Nevertheless, federal regulators took no formal action against any bank dealer until 1994, when a sudden rise in interest rates caused significant losses related to derivatives at several large banks. Even then, regulators brought enforcement proceedings only against Bankers Trust and took no significant steps to restrain derivatives activities by banks generally.⁵⁹⁸ At the

595. Beginning in late 1989, Franklin Savings' regulators sharply disagreed with the thrift's management about the values and risks of the thrift's derivatives, and the parties could not agree on a common methodology for resolving those disputes. The controversy surrounding the federal seizure of Franklin Savings—which continues to be litigated—demonstrates the fundamental uncertainties inherent in valuation models and risk assessment methodologies for complex derivatives. See *Franklin Sav., Inc.*, 934 F.2d at 1133–34, 1143–49 (supporting federal regulators); LOWY, *supra* note 379, at 172–74, 256, 271 (same); John W. Milligan, *Abuse of Power: How the Government Railroaded Franklin Savings*, INST. INV., Jan. 1991, at 50 (supporting Franklin Savings' owners); see also *Franklin Sav. Corp. v. United States*, 46 Fed. Cl. 533 (2000) (describing various unsuccessful legal claims asserted against the U.S. government by Franklin Savings' former owners, but permitting them to proceed with one additional claim).

596. See Peek & Rosengren, *Derivatives Activity*, *supra* note 585, at 288–90 (reporting that Bankers Trust was the only bank that received a formal regulatory action relating to derivatives during 1990–94). Peek and Rosengren identified twenty-four major banks that held derivatives with total notional amounts that exceeded their assets during 1990–94. The study found that 54% of those banks were undercapitalized (i.e., with a risk-based capital ratio below 8%) and 50% had a high problem loan rate (i.e., a nonperforming loan ratio above 5%), at some point during the period. In contrast, for 365 banks that held no derivatives during 1990–94, only 21% were undercapitalized and only 38% had a high problem loan rate. See *id.* at 290–93 & tbls.1 & 3; see also Katerina Simons, *Interest Rate Derivatives and Asset-Liability Management by Commercial Banks*, FED. RES. BANK OF BOSTON, NEW ENG. ECON. REV., Jan.–Feb. 1995, at 17, 24–27 (finding that, during 1988–93, large banks that were “intensive users” of derivatives had a higher ratio of nonperforming assets and a lower ratio of loan loss reserves than peer institutions that used derivatives more sparingly).

597. See Beverly J. Hirtle, *Derivatives, Portfolio Composition, and Bank Holding Company Interest Rate Risk Exposure*, 12 J. FIN. SERVICES RES. 243, 244, 247–48, 257–63 (1997).

598. See *infra* notes 619, 669–70 and accompanying text (describing losses suffered by Bankers Trust and other major banks from derivatives activities in 1994); *infra* notes 620–22 and accompanying

end of 1996, banks using derivatives had greater leverage, higher interest rate risk, and larger loan charge-offs than nonuser banks. Those figures indicated a much higher risk profile for banks that actively engage in derivatives dealing and trading.⁵⁹⁹

A near collapse of the OTC derivatives market occurred during the fall of 1998, when Russia's debt default triggered a global financial crisis that drove LTCM to the brink of insolvency and inflicted huge losses on the trading and investment operations of Bank of America, Bankers Trust, Citigroup, and J.P. Morgan. As further discussed below, the Russian crisis and other financial disruptions since 1990 strongly indicate that the proprietary trading activities of major banks in derivatives and securities present a serious and growing risk to the federal safety net.⁶⁰⁰

Indeed, federal regulators failed to identify the threat that LTCM's high-risk derivatives strategy posed to major financial institutions until late September, when LTCM was already faced with imminent collapse.⁶⁰¹ Following the LTCM episode, federal regulators acknowledged that they needed to improve their supervisory resources and examination procedures for evaluating the risks undertaken by major derivatives dealers.⁶⁰² In particular, regulators admitted they should have been more careful in monitoring the credit exposures of banks and securities dealers to large derivatives counterparties such as LTCM and other hedge

text (discussing consent orders and sanctions imposed on Bankers Trust in 1994); *see also* KAUFMAN, ON MONEY AND MARKETS, *supra* note 368, at 206-07, 229, 246 (criticizing federal regulators for failing to take more effective steps to limit the risks undertaken by OTC derivatives dealers).

599. *See* Sinkey & Carter, *Bank Derivatives Dealers*, *supra* note 496, at 432, 446.

600. *See infra* Part I(E)(2)(c).

601. FRB officials did not appreciate the magnitude of LTCM's borrowings from and derivatives transactions with leading banks and securities firms until September 20, 1998, when LTCM was already on the brink of failure. *See* William J. McDonough, President of the Federal Reserve Bank of New York (FRB-NY), Statement before the House Committee on Banking and Financial Services (Oct. 1, 1998), in 84 FED. RES. BULL. 1050, at 1051-52 (1998) [hereinafter McDonough LTCM Statement] (describing information learned by the FRB-NY at a September 20 meeting between LTCM's partners and Peter Fisher, head of the FRB-NY's Market Group); Jacob M. Schlesinger, *Long-Term Capital Bailout Spotlights a Fed 'Radical'*, WALL ST. J., Nov. 2, 1998, at B1 (reporting that Fisher was "stunned" by what he discovered at the September 20 meeting, because LTCM's positions were "a lot bigger than anybody thought" and were also "far more intricately interwoven with major markets and market players"; indeed, Fisher experienced what he described as an "epiphany" when he realized that a rapid liquidation of LTCM's positions could create a "hurricane" in the financial markets); *see also* LOWENSTEIN, *supra* note 79, at 186-90 (describing the same meeting).

602. *See* GAO LTCM REPORT, *supra* note 551, at 2-3, 12-19; *infra* notes 648-54 and accompanying text (discussing rescue of LTCM). For example, federal bank regulators adopted new standards for monitoring the risks of derivatives dealing operations at leading banks, including the use of "stress tests" designed to evaluate the potential credit exposures of bank dealers to their large counterparties under extreme market conditions. *See* Laurence H. Meyer, Federal Reserve Board member, Statement before the Subcommittee on Financial Institutions and Consumer Credit of the House Committee on Banking and Financial Services (Mar. 24, 1999) [hereinafter Meyer LTCM Statement], in 85 FED. RES. BULL. 312, at 312-13, 316-18 (1999); William J. McDonough, FRB-NY President, Statement before the Subcommittee on Capital Markets, Securities and Government Sponsored Enterprises of the House Committee on Banking and Financial Services (Mar. 3, 1999) [hereinafter McDonough Hedge Fund Statement], in 85 FED. RES. BULL. 306 (1999). The FRB also disclosed that a "top supervisory priority" would be to recruit "highly qualified specialists" to develop and evaluate risk management programs for derivatives. Meyer LTCM Statement, *supra*, at 318.

funds.⁶⁰³ This admission was noteworthy, because, (i) two years before the LTCM crisis, the FRB and other federal regulators had *rejected* a GAO recommendation calling for more detailed bank examinations with respect to counterparty credit exposures;⁶⁰⁴ and, (ii) shortly before the LTCM crisis broke, FRB chairman Alan Greenspan repeatedly assured Congress that major derivatives dealers were applying effective credit discipline to hedge funds and other counterparties.⁶⁰⁵

(e) Credit Risk

Credit risk, the risk that a counterparty will default on its obligations, is a major concern for dealers in OTC derivatives. Because OTC derivatives are not traded on national exchanges, their dealers are not protected by exchange rules that reduce credit risk by (i) guaranteeing each holder of an exchange-traded derivative against counterparty default, (ii) requiring all exchange-traded derivatives to be “marked to market” daily, and (iii) compelling parties holding losing contracts to increase their posted margins.⁶⁰⁶

Many OTC derivatives have relatively long terms, and a dealer must continually evaluate its potential credit exposure to counterparties over the remaining life of each contract it has sold. To measure potential credit exposure, a dealer must predict how a particular contract’s replacement cost is likely to change if the counterparty defaults at various dates in the future. Such predictions depend on forecasts of future movements in the market value of the underlying asset, index, or rate. In actual practice, the dealer’s forecast of credit risk depends on the same pricing models and subjective judgments that it uses to predict the derivative’s future market value.⁶⁰⁷ Unfortunately, as previously shown, those models are likely to produce serious errors, especially because they

603. See GAO LTCM REPORT, *supra* note 551, at 2–3, 16–19; Meyer LTCM Statement, *supra* note 602, at 317–18 (admitting that, prior to the LTCM crisis, federal bank examiners often did not conduct sufficient “stress testing” to determine the potential credit exposures of bank dealers to their major counterparties under adverse market conditions).

604. See 1996 GAO DERIVATIVES REPORT, *supra* note 491, at 10, 59–60.

605. See LOWENSTEIN, *supra* note 79, at 140, 178–79 (citing congressional testimony given by Chairman Greenspan on July 30 and September 16, 1998).

606. See Figlewski, *supra* note 503, at 174 (discussing protections for exchange-traded derivatives); Krawiec, *Derivatives*, *supra* note 485, at 32 (observing that (i) clearinghouse guarantees “dispers[e] credit risk among all clearinghouse participants” and ensure that exchange-traded derivatives will be performed unless the clearinghouse fails; and (ii) mark-to-market rules and margin requirements for exchange-traded derivatives “eliminat[e] default [risk] in all but the most extreme cases of price volatility”); *supra* notes 486, 497, 500–03 and accompanying text (discussing differences between exchange-traded derivatives, and noting protections for exchange-traded derivatives).

607. See STEINHERR, *DERIVATIVES*, *supra* note 74, at 226, 279; Figlewski, *supra* note 503, at 174–79; Krawiec, *Derivatives*, *supra* note 485, at 31–32; Waldman, *supra* note 513, at 1048–49; see also Flannery, *Financial Regulation*, *supra* note 368, at 108 (noting that, in 1999, 60% of worldwide OTC derivatives had maturities of more than a year).

have a tendency to underestimate the likelihood of highly adverse outcomes at the extreme left-hand “tail” of the probability distribution.⁶⁰⁸

To reduce its credit risk, a dealer can insist on collateral equal to the dealer’s estimated credit exposure to its counterparty. However, collateral requirements are insufficient unless they include a substantial “cushion” to protect against increased credit exposures under adverse market developments. After the LTCM crisis, federal regulators discovered that large banks and securities firms had accepted collateral from LTCM and other hedge funds based on calculations that failed to consider the lending institutions’ potential risk exposures under extreme market conditions. Regulators also determined that several derivatives dealers had offered LTCM overly generous credit terms with minimal collateral requirements, because of LTCM’s highly profitable track record, the sterling reputations of LTCM’s partners, and the dealers’ desire to earn fees by doing business with LTCM. As a result of these errors, many dealers faced huge potential losses when the Russian debt crisis threatened to bankrupt LTCM and to inflict significant losses on other hedge funds with similar holdings.⁶⁰⁹

Regulators responded to the LTCM crisis by issuing guidelines calling upon bank derivatives dealers to enhance their credit monitoring practices and collateralization requirements for contracts with hedge funds.⁶¹⁰ It is questionable, however, whether dealers can follow some of the suggested guidelines without causing potentially harmful changes in counterparty relationships and trading patterns within the OTC derivatives industry.⁶¹¹

608. See Waldman, *supra* note 513, at 1048–49.

609. See Edwards, *LTCM Collapse*, *supra* note 551, at 198–99; GAO LTCM REPORT, *supra* note 551, at 2–3, 10–12, 41–42; Meyer LTCM Statement, *supra* note 602, at 314–16; Patrick M. Parkinson, Associate Director of the Federal Reserve Board’s Division of Research and Statistics, Statement Before the House Committee on Banking and Financial Services (May 6, 1999) [hereinafter Parkinson LTCM Statement], in 85 FED. RES. BULL. 477, 477 (1999); see also LOWENSTEIN, *supra* note 79, at 45–47, 82–88, 105–06, 129–30, 232–33 (describing the easy credit terms that LTCM obtained from most of its lenders, and quoting one bank executive’s admission that “[w]e may have been mesmerized” by LTCM’s reputation and performance).

610. See, e.g., BASEL COMM. ON BANKING SUPERVISION, BANKS’ INTERACTION WITH HIGHLY LEVERAGED INSTITUTIONS (Jan. 1999) [hereinafter BASEL HLI GUIDELINES], available at <http://www.bis.org>.

611. For example, the Basel HLI Guidelines state that, when entering into derivatives contracts with a hedge fund, a bank dealer should obtain “thorough knowledge and understanding of [the hedge fund’s] trading strategies, exposure levels, risk concentrations and risk controls.” *Id.* §§ II & III. This recommendation may prove unworkable, because it would force hedge funds to reveal extensive proprietary information about their trading programs and positions to bank dealers. Such compelled disclosures could significantly alter current trading patterns and existing arms’ length relationships between sophisticated institutional counterparties in the derivatives markets. Hedge funds would understandably be very reluctant to disclose their trading strategies and positions to bank dealers, because dealers would be tempted to adopt “copycat” investment strategies, as was true in the case of many dealers who tried to mimic LTCM’s initial trading successes. Federal regulators have acknowledged that neither they nor the derivatives industry have yet solved the “challenge” of developing “meaningful measures of risk” that can be disclosed by hedge funds to bank dealers *without* compromising “proprietary information on strategies or positions.” *Id.* § II. Regulators have also admitted that a major reason *not* to require hedge funds to disclose proprietary trading information to dealers is

More fundamentally, the LTCM debacle mandates a broader reconsideration of the potential risks that major banks are currently assuming in their role as dealers in OTC derivatives. During 1996–1999, the average credit exposures of the top seven bank dealers to their derivatives counterparties were nearly three times their total risk-based capital, and the yearly credit losses suffered by all banks with derivatives rose from less than \$40 million in 1996 to a yearly average of more than \$400 million during 1997–99.⁶¹² Thus far, however, regulators have been reluctant to take measures that might impede the growth of the OTC derivatives market, and they have done little beyond encouraging greater disclosure by hedge funds and better management of credit risk by derivatives dealers.⁶¹³

(f) Legal Risk

Events since 1990 have shown that legal risk—the risk that a derivatives contract cannot be legally enforced⁶¹⁴—is another major problem for OTC derivatives dealers. Many commentators have described derivatives as a “zero-sum game,” because one party’s gain on a derivatives contract usually equals the other party’s loss.⁶¹⁵ In actual practice, however, the incentive structure for OTC derivatives transactions creates asymmetric legal risks for dealers. An end-user always demands payment when it wins, and the dealer loses, on a derivatives contract. The dealer’s interest in preserving its reputation virtually compels it to honor a losing contract unless performance would involve a clear risk of insolvency or a violation of regulatory rules. In contrast, when the end-user suffers a major loss, it may well choose to default or bring suit to invalidate the contract. The end-user is much more likely than the dealer to

that such disclosures could encourage herding behavior, which in turn could “significantly impair market liquidity” for OTC derivatives and other thinly traded assets. See Parkinson LTCM Statement, *supra* note 609, at 478–79; see also LOWENSTEIN, *supra* note 79, at 47–48, 84–85, 96, 163–64, 173–74 (describing LTCM’s reluctance to share information about its trading strategies with its lenders, because of LTCM’s justified suspicion that its lenders would copy LTCM’s trading moves).

612. The average quarterly credit exposures for the top seven bank dealers, calculated as a percentage of their risk-based capital, rose from 271% in 1996 to a three-year average of 288% during 1997–99. See 2000 OCC DERIVATIVES REPORT, *supra* note 491, at graph 5A. Credit losses incurred by all banks with derivatives increased from \$37 million during 1996 to a total of \$1.23 billion during 1997–99. *Id.* at graph 5C. However, the average quarterly credit exposures of the top seven bank dealers declined to 275% of their risk-based capital during 2000 and the first nine months of 2001, and banks suffered only \$96 million of net credit losses from derivatives during that period. *Id.* at graphs 5A & 5C; OCC BANK DERIVATIVES REPORT, 3rd Qtr. 2001, at graphs 5A & 5C.

613. See KAUFMAN, ON MONEY AND MARKETS, *supra* note 368, at 206–07, 229, 246; LOWENSTEIN, *supra* note 79, at 105–06, 231–32; Barboza & Gerth, *supra* note 495; Gary Weiss, *Hedge-Fund Disaster? What Hedge-Fund Disaster?*, BUS. WK., Aug. 14, 2000, at 128.

614. Krawiec, *Derivatives*, *supra* note 485, at 35.

615. See Figlewski, *supra* note 503, at 184–85; Drucker, *supra* note 571, at 26; Huang, *supra* note 485, at 486. Lynn Stout has noted that derivatives are often worse than a “zero-sum game” for end-users when their dealers’ fees and other transaction costs are taken into account. Lynn A. Stout, *Betting the Bank: How Derivatives Trading Under Conditions of Uncertainty Can Increase Risks and Erode Returns in Financial Markets*, 21 J. CORP. L. 53, 60–61 (1995).

refuse to perform a losing contract, because the end-user has a substantially weaker interest in preserving its reputation for faithful performance of derivatives contracts.⁶¹⁶

Disputes over the enforcement of OTC derivatives have fallen into two principal categories. First, in several cases involving municipal agencies as end-users, the agencies claimed that their investments in OTC derivatives were contrary to legal investment rules and, therefore, were ultra vires and void.⁶¹⁷ Second, and more importantly, end-users have accused dealers of failing to disclose the risks of OTC derivatives or to ensure that the derivatives were suitable investments.⁶¹⁸ Suits filed against Bankers Trust, Merrill Lynch, and J.P. Morgan provide prominent examples of such claims.

Gibson Greetings, Procter & Gamble, and six other corporations sued Bankers Trust, alleging that (i) the bank sold complex OTC derivatives (consisting primarily of leveraged interest rate swaps) without disclosing the risks embedded in the instruments, and (ii) the bank failed to provide timely information regarding changes in the value of the instruments. After suffering large losses when interest rates rose sharply during 1994, all eight firms refused to pay the amounts they owed to Bankers Trust and sued to invalidate the contracts. Bankers Trust ultimately incurred charges of \$250 million to settle.⁶¹⁹

Bankers Trust also paid \$10 million in civil penalties to settle administrative claims brought by the SEC and CFTC with respect to the bank's dealings with Gibson Greetings. Both agencies, along with an independent counsel appointed by the bank's directors, determined that employees of Bankers Trust had engaged in deceptive sales practices and had misled corporate customers about the risks and valuation formulas embedded in complex OTC derivatives sold by the bank.⁶²⁰ The author-

616. See BERNSTEIN, *supra* note 485, at 321-27. See generally Figlewski, *supra* note 503, at 182-84; STEINHERR, DERIVATIVES, *supra* note 74.

617. See Krawiec, *Derivatives*, *supra* note 485, at 38 (discussing 1991 decision by the British House of Lords invalidating, as ultra vires, OTC derivatives purchased by the London borough of Hammersmith and Fulham); Waldman, *supra* note 513, at 1042-43 (same); Lauren A. Teigland, *Derivatives Disputes Revisited: How Litigants Have Fared In the Past Year*, 66 Banking Rep. (BNA) 891, 902 (1996) (describing suits filed by Orange County, California and other U.S. municipal authorities alleging that OTC derivatives they purchased were ultra vires and void).

618. For analysis of cases involving claims by end-users that dealers breached duties of disclosure and/or suitability, see Teigland, *supra* note 617, at 893-902.

619. See *Bankers Trust To Pay \$67 Million To Settle Derivatives-Related Dispute*, 66 Banking Rep. (BNA) No. 1, at 146 (Jan. 8, 1996); Laurie P. Cohen & Matt Murray, *Interview Triggered Bankers Trust Probe*, WALL ST. J., Mar. 15, 1999, at A2; Laurie Hays, *Bankers Trust Settles Dispute with P&G*, WALL ST. J., May 10, 1996, at A3; see also Brett D. Fromson, *Wall Street Waits on Bankers Trust*, WASH. POST, Oct. 7, 1995, at H1 (reporting that nine corporate customers had lost over \$500 million on OTC derivatives they purchased from Bankers Trust).

620. See *In re BT Sec. Corp.*, CFTC Docket No. 95-3, 1994 WL 711224 (Dec. 22, 1994) [hereinafter CFTC-BT Order]; *In re BT Sec. Corp.*, Securities Act Release No. 7124, [1994-95 Transfer Binder] Fed. Sec. L. Rep. (CCH) ¶ 85,477 (Dec. 22, 1994) [hereinafter SEC-BT Order]; Saul Hansell, *Review Finds More Deception in Trading at Bankers Trust*, N.Y. TIMES, July 2, 1996, at D1 (discussing independent counsel's report); Laurie Hays & Jeffrey Taylor, *Report Rebukes Bankers Trust on Derivatives*, WALL ST. J., July 2, 1996, at C1 (same); Steven Lipin & Jeffrey Taylor, *Bankers Trust Settles*

ity of the SEC and CFTC to take enforcement action against Bankers Trust was strongly disputed, and subsequent federal legislation appears to prevent both agencies from taking any similar action against bank dealers in OTC derivatives.⁶²¹ Nevertheless, the agencies' factual findings, as well as other public disclosures of Bankers Trust's sales practices, severely damaged the bank's reputation.⁶²²

In a decision more favorable to Bankers Trust, a federal district court dismissed Procter & Gamble's claims for securities fraud, commodities fraud, breach of fiduciary duty, and negligent misrepresentation.⁶²³ However, the court held that Procter & Gamble did have a potential disclosure claim against Bankers Trust based on the bank's implied contractual duty of good faith and fair dealing. Because the case was settled shortly after the court issued its decision, the issue of whether Bankers Trust actually breached this limited disclosure duty was never judicially determined.⁶²⁴

Charges on Derivatives, WALL ST. J., Dec. 23, 1994, at C1 (discussing consent orders issued by the SEC and CFTC).

621. The CFTC claimed enforcement authority over Bankers Trust based on the agency's findings that the bank acted as a "commodity trading advisor" and violated the antifraud provisions of the CEA. See CFTC-BT Order, *supra* note 620, ¶¶ 28–30. The SEC claimed authority based on its findings that (i) some of the OTC derivatives sold by Bankers Trust to Gibson Greetings were "securities," and (ii) the bank's conduct in selling those derivatives violated the antifraud provisions of the Securities Act of 1933 (1933 Act) and the Securities and Exchange Act of 1934 (1934 Act). See SEC-BT Order, *supra* note 620, at 86, 111–15.

In *Procter & Gamble Co. v. Bankers Trust Co.*, 925 F. Supp. 1270 (S.D. Ohio 1996), the court reached conclusions that conflicted with the legal theories of both the CFTC and the SEC. See *infra* note 623. In addition, academic commentators challenged the statutory basis for the SEC's and CFTC's assertions of enforcement authority over Bankers Trust's sale of OTC derivatives. See Willa E. Gibson, *Are Swap Agreements Securities or Futures?: The Inadequacies of Applying the Traditional Regulatory Approach to OTC Derivatives Transactions*, 24 J. CORP. L. 379, 381, 393–410 (1999); Henry T.C. Hu, *Illiteracy and Intervention: Wholesale Derivatives, Retail Mutual Funds, and the Matter of Asset Class*, 84 GEO. L.J. 2319, 2337–39, 2349–52 (1996) [hereinafter Hu, *Wholesale Derivatives*]; Romano, *supra* note 485, at 55–59.

Regardless of the merits of the SEC's and CFTC's jurisdictional claims in 1994, Congress enacted laws in 1999 and 2000 that essentially bar both agencies from exercising enforcement authority over banks that sell OTC derivatives. See *supra* note 488.

622. See Fromson, *supra* note 619; Saul Hansell, *Bankers Trust Picks Outsider for Top Job*, N.Y. TIMES, Oct. 20, 1995, at D1.

623. The district court held that Bankers Trust did not act as a "commodity trading advisor" with respect to Procter & Gamble and, accordingly, was not subject to the antifraud provisions of the CEA. *Procter & Gamble*, 925 F. Supp. at 1284–87. In addition, the court concluded that the OTC derivatives sold by Bankers Trust were not "securities" and, therefore, the bank could not be held liable under the antifraud provisions of the 1933 and 1934 Acts. *Id.* at 1277–83. In both instances, the court declined to follow the jurisdictional findings contained in the CFTC's and SEC's consent orders in the Gibson Greetings case. See *id.* at 1281, 1287 n.8. The court also held that Bankers Trust did not owe any fiduciary duty to Procter & Gamble and was not liable for negligent misrepresentation, because the parties' dealings occurred in an arms' length "business relationship" and did not involve any "special relationship" based on trust and confidence. *Id.* at 1289, 1291–92.

624. The court held that Bankers Trust had a duty to disclose information about the OTC derivatives sold to Procter & Gamble to the extent that (i) the bank had superior knowledge about that information, (ii) that information was not readily available to Procter & Gamble, and (iii) the bank knew that Procter & Gamble was acting on the basis of mistaken information. *Procter & Gamble*, 925 F. Supp. at 1290–91. For discussions of the *Procter & Gamble* decision, see Gibson, *supra* note 621, at 395–402; Hu, *Wholesale Derivatives*, *supra* note 621, at 2349–52.

Merrill Lynch paid \$470 million to settle numerous civil, criminal, and administrative claims arising out of its relationship with Orange County.⁶²⁵ Merrill Lynch sold more than \$14 billion of structured notes and other interest-sensitive securities to Orange County. In addition, Merrill Lynch underwrote \$875 million of bonds that Orange County issued to institutional investors during mid-1994, a few months before the County's high-risk investment program failed and the County filed for bankruptcy.⁶²⁶ The SEC determined that Merrill Lynch violated the federal securities laws because its underwriting department negligently permitted the County to issue bonds without disclosing the high degree of interest rate risk embedded in the County's investment pools.⁶²⁷

The SEC made no formal findings regarding Merrill Lynch's responsibility for Orange County's high-risk investment program. However, news reports indicated that Merrill Lynch's brokers continued to sell large volumes of complex derivatives and other interest-sensitive securities to Orange County long after the firm's risk managers had warned of the dangers inherent in the investment strategy adopted by the County's treasurer, Robert Citron. Press accounts suggested that Merrill Lynch's senior management permitted its brokers to keep making sales because of the large fees the firm received from Orange County.⁶²⁸ As

625. Merrill Lynch paid (i) \$437 million to settle civil claims filed by Orange County and several smaller Orange County municipalities, (ii) \$30 million to settle criminal charges filed by the Orange County district attorney, and (iii) \$2 million to settle administrative charges filed by the SEC. *See Merrill to Pay Orange County \$30 Million in Settlement That Will End Criminal Probe*, 29 SEC. REG. & L. REP. (BNA) 877 (1997); *Merrill Lynch to Pay \$400 Million to Settle Orange County Bankruptcy Suit*, 30 SEC. REG. & L. REP. (BNA) 846 (1998); Leslie Wayne, *Merrill Lynch to Pay \$2 Million in Orange County Case*, N.Y. TIMES, Aug. 25, 1998, at D2.

626. *See In re Merrill Lynch, Pierce, Fenner & Smith, Inc.*, Sec. Act Release No. 7566, [1998 Transfer Binder] Fed. Sec. L. Rep. (CCH) ¶ 86,045, at pt. III (Aug. 24, 1998) [hereinafter SEC-ML Order]; Laura Jereski, *In-House Battle: Merrill Lynch Officials Fought Over Curbing Orange County Fund*, WALL ST. J., Apr. 5, 1995, at A1 [hereinafter Jereski, *Merrill Lynch*]; Leslie Wayne & Andrew Pollack, *The Master of Orange County; A Merrill Lynch Broker Survives Municipal Bankruptcy*, N.Y. TIMES, July 22, 1998, at D1.

627. According to the SEC, Merrill Lynch's underwriting department committed negligent violations of Section 17(a) of the 1933 Act and Section 15B(c)(1) of the 1934 Act, because it failed to investigate the risks in Orange County's portfolio despite its knowledge that the firm's brokers had sold huge amounts of complex derivatives and other interest-sensitive securities to the County. *See SEC-ML Order*, *supra* note 626, at pts. III & IV.

628. The SEC's consent order stated that Merrill Lynch's risk managers had issued several warnings to Citron, between October 1992 and February 1994, regarding the interest rate risk created by his investment strategy. *See id.*, pt. III(B)(5). However, according to news reports, Merrill Lynch's brokers disregarded those warnings and continued to sell large amounts of structured notes to Citron because of the lucrative fees generated by such sales. Orange County became Merrill Lynch's largest client during 1991-94, and the firm reportedly earned over \$100 million in fees from selling derivatives and securities to the County during that period. *See Jereski, Merrill Lynch*, *supra* note 626; Wayne & Pollack, *supra* note 626.

According to one press account, Michael Stamenson, who was Merrill Lynch's lead broker for Orange County, became the firm's "No. 1 salesman worldwide" during the early 1990s. In a 1992 training tape prepared by Merrill Lynch for its new brokers, Stamenson declared that successful brokers must have the "tenacity of a rattlesnake, the heart of a black widow spider and the hide of an alligator." *Id.* A former coworker claimed that (i) Stamenson "knew how to manipulate and control customers" and "could penetrate an account deeply and then tell them what to buy," and (ii) "Merrill knew exactly

described above, Citron's highly leveraged investments ultimately inflicted losses of more than \$1.6 billion on Orange County. Merrill Lynch ultimately entered into settlements requiring it to cover about a fourth of the County's investment losses.⁶²⁹

In late 1997, J.P. Morgan designated almost \$600 million of its OTC currency swaps as nonperforming assets due to legal disputes with Korean counterparties. Several Korean banks and securities firms incurred large losses on those swaps and refused to pay, alleging that J.P. Morgan had misled them as to the terms and risks of the swaps.⁶³⁰ The Korean firms drew explicit comparisons between their claims against J.P. Morgan and the allegations made by Procter & Gamble against Bankers Trust.⁶³¹ In October 1999, J.P. Morgan settled its largest Korean-related lawsuit while reportedly incurring a substantial net charge.⁶³²

Why did Bankers Trust, Merrill Lynch, and J.P. Morgan agree to costly out-of-court settlements, given the success of some OTC derivatives dealers in obtaining court decisions that narrowly defined their du-

what Stamenson was doing" but the firm's managers "were going along with it because he was making them a ton of dough." *Id.* The same article reported that Stamenson became Robert Citron's "No. 1 adviser" and wrote talking points for Citron to present to the Orange County Board of Supervisors. *Id.* In 1992, when Merrill Lynch's risk managers first raised questions about the interest rate risks embedded in Orange County's investment pools, Stamenson reportedly discounted those risks in advice he gave to Citron. *Id.*; Jereski, *Merrill Lynch*, *supra* note 626. Merrill Lynch designated Stamenson as the lead account executive for Orange County even though (i) he had been responsible for a high-risk investment strategy that produced \$60 million of losses for the City of San Jose, California during the 1980s, and (ii) Merrill Lynch paid San Jose \$750,000 to settle the city's claims arising out of that investment fiasco. See Jeffrey Taylor, *Behind the Throne: Hard-Charging Broker Draws the Spotlight in Orange County Mess*, WALL ST. J., Dec. 12, 1994, at A1.

629. See *supra* notes 625-26 and accompanying text (stating that Merrill Lynch paid \$437 million to settle claims filed by Orange County and its municipalities). Merrill Lynch was not the only professional firm entangled in the Orange County mess. By mid-1998, Orange County had recovered additional settlements of over \$300 million, which were paid by several other securities firms, accountants, and lawyers involved in Citron's investment operation. At that point, the County was still pursuing additional claims against more than a dozen other brokerage firms and securities ratings agencies. See Andrew Pollack, *2 Securities Firms Will Pay Orange County \$117 Million*, N.Y. TIMES, July 22, 1998, at D20.

630. The currency swaps were complex agreements requiring J.P. Morgan to swap Thai baht to Korean financial institutions in exchange for Japanese yen. The Korean counterparties lost heavily when the value of the Thai currency collapsed during the Asian financial crisis of 1997. See Timothy L. O'Brien, *J.P. Morgan in Korea Battle on Derivatives*, N.Y. TIMES, Feb. 27, 1998, at D1; *Derivatives in Asia: A Sorry Swap*, ECONOMIST, Feb. 21, 1998, at 74 [hereinafter *Asian Derivatives Dispute*]; Stephen E. Frank, *J.P. Morgan Sues Korea's SK Securities and a Bank Over Derivatives Dealings*, WALL ST. J., Feb. 17, 1998, at B25.

631. See *Asian Derivatives Dispute*, *supra* note 630, at 74-75.

632. Under the settlement agreement, J.P. Morgan dismissed its \$380 million claim against SK Securities (SK) and related Korean firms. J.P. Morgan also paid \$85 million in return for a 9% equity interest in SK. SK paid \$200 million in "conciliatory compensation" and agreed to purchase advisory services from J.P. Morgan. Notwithstanding this settlement, J.P. Morgan remained embroiled, as of October 1999, in litigation with two other Korean financial institutions over \$300 million in claims related to derivatives. See John Burton, *JP Morgan Invests in Brokerage*, FINANCIAL TIMES (London), Oct. 1, 1999, at 26; *JP Morgan Becomes Second Largest Shareholder of SK Securities*, KOREA ECON. WKLY., Oct. 25, 1999; *J.P. Morgan Ends Lawsuit with Big Korean Banks*, FINANCIAL NEWS, Oct. 4, 1999.

ties to institutional counterparties?⁶³³ Undoubtedly, the prospect of heavy litigation costs and the uncertainties involved in complex trials were factors encouraging settlement.⁶³⁴ On balance, however, it seems likely that all three dealers settled primarily to avoid further injury to their reputations. Recorded statements by employees at Bankers Trust and Merrill Lynch were embarrassing to both firms, because the statements indicated a willingness to mislead and exploit clients.⁶³⁵ The harm to Bankers Trust's reputation was so severe that its board of directors removed the bank's chief executive officer and other senior managers who supervised the bank's derivatives business.⁶³⁶

The critical importance of reputation can be seen in the advertising campaigns launched by major dealers in OTC derivatives. These advertisements portray dealers as highly reliable, endowed with vast resources

633. As discussed *supra* at notes 623–24 and accompanying text, the court in *Procter & Gamble* dismissed all of the claims in Procter & Gamble's lawsuit against Bankers Trust, except the allegation that the bank had breached a limited duty of disclosure under its implied obligation of good faith and fair dealing. For other court decisions dismissing claims for breach of fiduciary duty, fraud, and negligent misrepresentation asserted by end-users against derivatives dealers, see *Banca Cremi, S.A. v. Alex. Brown & Sons, Inc.*, 132 F.3d 1017 (4th Cir. 1997) (affirming dismissal of a lawsuit filed by a Mexican bank that purchased CMOs from a U.S. securities firm); Hu, *Wholesale Derivatives*, *supra* note 621, at 2348–49 (discussing a 1995 English trial court decision, which dismissed a lawsuit filed against Bankers Trust by an Indonesian firm); Teigland, *supra* note 617, at 894 (same). *But see* *Lehman Bros. Commercial Corp. v. Minmetals Int'l Non-Ferrous Metals Trading Co.*, 2000 WL 1702039, at *26–*31 (S.D.N.Y., Nov. 13, 2000) (refusing to dismiss counterclaims asserted by a Chinese trading company, which purchased foreign exchange contracts and an interest swap from a U.S. securities broker-dealer, because the counterclaims raised triable issues of fact concerning (i) the existence of a fiduciary relationship between the dealer and the purchaser, and (ii) conduct by the dealer that allegedly included material misrepresentations about the nature and risks of the financial instruments sold to the purchaser).

It should be noted that federal bank regulators have issued orders requiring bank dealers in OTC derivatives to provide substantial disclosures to their customers. In general, these orders direct bank dealers (i) to disclose to each customer the risks and valuation methodologies involved in OTC derivatives, (ii) to explain how each OTC contract sold to the customer will accomplish the customer's risk management objectives, and (iii) to determine that the customer is capable of understanding such disclosures. None of the orders, however, expressly provides for any private right of action by a customer if a bank dealer fails to comply with the order's guidelines. Instead, each order contemplates administrative enforcement by the responsible regulator. See RISK MANAGEMENT OF FINANCIAL DERIVATIVES, OCC BANKING CIRCULAR BC-277 (Oct. 27, 1993), in FED BANKING L. REP. ¶ 58,717, at 36,462; RISK MANAGEMENT OF FINANCIAL DERIVATIVES: QUESTIONS AND ANSWERS, OCC BULLETIN 94-31 (May 10, 1994), in FED. BANKING L. REP. (CCH) ¶ 58,717, at 36,473; Written Agreement By and Among Bankers Trust N.Y. Corp., et al., and Fed. Res. Bank of N.Y., Dec. 4, 1994, ¶¶ 1(a), 2 & 3, in [1994–95 Transfer Binder] Fed. Banking L. Rep. (CCH) ¶ 90,332, at 86, 190–91 (Dec. 4, 1994); see also Hu, *Wholesale Derivatives*, *supra* note 621, at 2336–37, 2339–40 (discussing the OCC and FRB orders); Geoffrey B. Goldman, Note, *Crafting a Suitability Requirement for the Sale of Over-the-Counter Derivatives: Should Regulators "Punish the Wall Street Hounds of Greed"?*, 95 COL. L. REV. 1112, 1139–42 (1995) (same).

634. See Figlewski, *supra* note 503, at 182. During 1994–95, Merrill Lynch reportedly incurred more than \$40 million in legal fees in defending various lawsuits related to the Orange County disaster. See Leslie Wayne, *The Bull, Under Fire*, N.Y. TIMES, Dec. 5, 1995, at D1 [hereinafter Wayne, *Bull Under Fire*].

635. See Wilmarth, *Big Bank Mergers*, *supra* note 106, at 50 n.231 (discussing statements made by Bankers Trust employees); Goldman, *supra* note 633, at 1123 n.50 (same); *supra* note 628 (citing statements by Merrill Lynch's bad account executive for Orange County).

636. See Hu, *Wholesale Derivatives*, *supra* note 621, at 2355–56; Wilmarth, *Big Bank Mergers*, *supra* note 106, at 49–50 & nn.231–32.

and superior knowledge, and committed to provide individually tailored advice to meet their customers' needs.⁶³⁷ Thus, dealers encourage their clients to expect that derivatives will be provided as part of a trusting relationship, rather than being sold in a self-interested transaction.⁶³⁸ As long as dealers solicit business in this way, it will be very difficult—especially as a matter of public relations—for dealers to assert in subsequent disputes that they were involved in arms' length deals that included no duty of advice or even good-faith disclosure to their clients.⁶³⁹ In sum, legal risk will remain a major concern for dealers whenever they sell complex OTC derivatives that could inflict major losses on end-users.⁶⁴⁰

637. For example, J.P. Morgan advertised its institutional derivatives products in late 1997 with the following claims: "Whether you want to adjust risk to enhance returns, minimize exposure in a specific transaction, or develop a comprehensive strategy for managing risk, Morgan means more. . . . J.P. Morgan has been at the forefront of risk-related issues for decades. *That's why our clients rely on us.* They know that *for advice and execution, Morgan means more.*" WALL ST. J., Dec. 3, 1997, at A7 (emphasis added). Similarly, a Chase advertisement in late 1998 declared that "[t]he right relationship is everything." The advertisement stated that "Chase is committed to providing liquidity and impeccable execution under the most challenging conditions," and that Chase should be considered "the trading partner of choice for all your fixed income, derivatives and foreign exchange needs." WALL ST. J., Dec. 8, 1998, at A15.

After acquiring Bankers Trust in mid-1999, Deutsche Bank asserted in its advertising that the combined institution was "ideally positioned to give you the *right financial solutions at every stage of your company's growth.* So you can expect a powerful combination of . . . financial innovation, . . . vast product offerings, outstanding distribution and global reach. All brought to you by seasoned professionals and backed by an unrivaled balance sheet. . . . *[C]ount on us to bring your corporate vision to fruition.*" BARRON'S, July 12, 1999, at 21 (emphasis added). A subsequent Deutsche Bank advertisement proclaimed that "Deutsche Bank comes through" and "we put our customers first" in providing "tools for managing risk." WALL ST. J., Oct. 30, 2000, at A19. Similarly, a First Union advertisement in late 1999, declared that "[o]ur investment bankers . . . team with commercial bank relationship managers to work proactively on your behalf. The result to you: *highly customized solutions that meet your evolving needs.* . . . Find out how you can put all our resources to work for you." WALL ST. J., Oct. 28, 1999, at C12 (emphasis added).

638. See Langevoort, *Selling Hope, Selling Risk*, *supra* note 566, at 628–32, 653–58, 667–73.

639. Commentators have debated the question of whether OTC derivatives dealers should be legally required to determine that each contract they sell to an institutional customer is "suitable" for the particular purchaser. Most commentators do agree, however, that dealers should be obligated to provide good-faith disclosure in every sale of OTC derivatives. Compare *id.* at 689–99 (advocating a suitability-based duty of disclosure, which would require a derivatives dealer to disclose all material facts known to the dealer regarding (i) the risks inherent in the contract, and (ii) whether the contract is suitable for the particular client's needs and objectives), with Goldman, *supra* note 633, at 1141–42, 1151–59 (proposing suitability and disclosure rules that (i) would require an OTC derivatives dealer to determine that each contract sold to a smaller, less sophisticated institutional client is suitable for that client's financial situation, sophistication, and risk preferences; (ii) would not impose any suitability rule for sales of derivatives to larger, more sophisticated clients; and (iii) would require good-faith disclosure to all clients); and Hu, *Wholesale Derivatives*, *supra* note 621, at 2324–28, 2352–58 (maintaining that OTC derivatives dealers should be exempt from any suitability rule, but should be subject to good-faith disclosure duties when making sales to institutional purchasers). At a minimum, the duty of good faith would probably require disclosure whenever (a) the dealer has superior knowledge of the terms or risks of a derivatives contract, (b) that information is not readily available to the purchaser, and (c) the dealer has reason to know that the purchaser is acting on the basis of a mistaken belief regarding those terms or risks. See *Procter & Gamble Co. v. Banker Trust Co.*, 925 F. Supp. 1270, 1290 (S.D. Ohio 1996); Hu, *Wholesale Derivatives*, *supra* note 621, at 2352.

640. See Figlewski, *supra* note 503, at 182–84.

(g) Systemic Risk

In discussing the risks created by OTC derivatives, most commentators have given greatest attention to the potential for “systemic risk.” In the context of OTC derivatives, systemic risk is generally described as the danger that the collapse of a major dealer or end-user could have a “domino effect” leading to widespread failures of financial institutions, a loss of investor confidence, and a generalized crisis in the financial markets.⁶⁴¹ Commentators have identified several features of the OTC derivatives market that create the potential for trading disruptions and systemic risk. First, OTC derivatives are relatively “opaque” and illiquid because they lack clearinghouse protections against default, are not traded in active secondary markets, and often trigger disputes about valuation. Second, trading in OTC derivatives is highly concentrated within a small group of large dealers, and the efficient settlement of trades could therefore be disrupted by the failure of a major dealer. Third, many OTC derivatives are highly leveraged and can inflict losses that far exceed the holder’s investment. Accordingly, sudden and significant price movements in the markets for underlying assets are likely to cause widespread defaults among end-users and massive losses for dealers. Fourth, the OTC derivatives market is closely tied to markets for securities and other financial instruments, and a serious disruption in the derivatives market would therefore be likely to have “spillover” effects on the financial markets generally.⁶⁴² The role of portfolio insurance in aggravating the 1987 stock market crash, the generalized financial crisis caused by Russia’s debt default, and LTCM’s near failure in 1998 indicate the potential for widespread contagion due to growing linkages between derivatives markets and other sectors of the financial system.⁶⁴³

641. EDWARDS, *NEW FINANCE*, *supra* note 63, at 123–25; STEINHERR, *DERIVATIVES*, *supra* note 74, at 222–25, 250–53, 275–76; Krawiec, *Derivatives*, *supra* note 485, at 47; Krawiec, *Rogue Trader*, *supra* note 571, at 337–38; 1994 GAO DERIVATIVES REPORT, *supra* note 486, at 11–12, 39–40; Waldman, *supra* note 513, at 1053–55.

The possibility that the failure of a major dealer could trigger a generalized loss of investor confidence is supported by a recent study of the stock market’s response to Bankers Trust’s legal problems in 1994, which arose out of its sale of complex OTC derivatives. See *supra* notes 619–22, 636 and accompanying text for a discussion of those problems. Regression analysis showed that, during the ten-week period in which public disclosures of the problems occurred, there was a 12.1% abnormal decline in the stock price of Bankers Trust and a 5.6% abnormal decline in the stock prices of thirteen other large banks that were active OTC dealers. Thus, investors evidently expected that other large dealers would suffer significant harm to their OTC derivatives business as a result of Bankers Trust’s difficulties. In contrast, during the same ten-week period, stock prices fell by only 2.4% for nondealer banks that used derivatives and by only 1.2% for nondealer, nonuser banks. Joseph F. Sinkey, Jr. & David A. Carter, *The Reaction of Bank Stock Prices to News of Derivatives Losses by Corporate Clients*, 23 J. BANKING & FIN. 1725 *passim* (1999) [hereinafter Sinkey & Carter, *Derivatives Losses*].

642. See STEINHERR, *DERIVATIVES*, *supra* note 74, at 222–32, 238, 249–65, 275–76; Flannery, *Financial Regulation*, *supra* note 369, at 107–08; Krawiec, *Derivatives*, *supra* note 485, at 47–51; 1994 GAO DERIVATIVES REPORT, *supra* note 486, at 37–40; Waldman, *supra* note 513, at 1053–56.

643. See *supra* notes 527–28, 552–63 and accompanying text.

Concerns about systemic risk in the OTC derivatives markets are also based on the fragility of the international payments system, shown most vividly during the collapse of Bankhaus Herstatt (Herstatt). Herstatt, a midsized German bank, failed in June 1974, due to heavy losses from speculative trading in foreign currencies. The German authorities allowed Herstatt to default on more than \$600 million of payments it owed under foreign exchange contracts and other transactions with overseas (primarily U.S.) banks. Herstatt's defaults caused a widespread crisis of confidence in foreign exchange markets and also within CHIPS, the interbank payments system operated by the New York Clearinghouse. During the weeks following Herstatt's failure, the volume of foreign exchange transactions declined by more than one-fourth, and many participating banks in CHIPS refused to make payments on behalf of correspondent institutions until they received covering funds. Stability did not return to the foreign currency markets and the international payments system until September 1974, when the leading central banks issued a joint declaration of intent to prevent similar disruptions in international financial markets.⁶⁴⁴

Since the Herstatt crisis, federal regulators have taken stringent measures to prevent failures of financial institutions from interrupting the orderly settlement of derivatives and other transactions in the international payments system. While managing the failures of Franklin National (1974), Continental Illinois (1984), and Bank of New England (1991), federal authorities ensured that all derivatives counterparties and other payments system creditors of each bank were fully paid, even though their claims were not covered by deposit insurance.⁶⁴⁵ In 1990, when Drexel Burnham's collapse caused a temporary "logjam" in the international payments system, federal regulators again intervened to prevent "gridlock" by ensuring that Drexel's obligations to derivatives counterparties and securities dealers were settled in an effective manner.⁶⁴⁶

644. For discussion of the Herstatt crisis, see, e.g., DAVIS, *supra* note 77, at 154–56; SPERO, *supra* note 587, at 110–13; Robert A. Eisenbeis, *International Settlements: A New Source of Systemic Risk?*, FED. RES. BANK OF ATLANTA, ECON. REV., 2d Qtr. 1997, at 44, 46; Wilmarth, *Big Bank Mergers*, *supra* note 107, at 54–55, 54 n.254.

645. See SPERO, *supra* note 587, at 112–43 (discussing decisions by federal regulators to honor all of Franklin National Bank's foreign exchange contracts and to pay the bank's foreign depositors, to avoid a repetition of the Herstatt crisis); Wilmarth, *Too Big to Fail*, *supra* note 157, at 1001 n.199 (describing decisions by federal regulators to assure payment of all derivatives and other payments system obligations owed by Continental Illinois and Bank of New England, to prevent the occurrence of a Herstatt-style crisis).

646. See William S. Haraf, *The Collapse of Drexel Burnham Lambert: Lessons for the Bank Regulators*, REGULATION, Winter 1991, at 22, 24 (describing "logjam" created by Drexel's failure); 1994 GAO DERIVATIVES REPORT, *supra* note 486, at 43 (referring to federal intervention that avoided "financial system gridlock" after Drexel failed); Alan Greenspan, Federal Reserve Board Chairman, Statement before the Subcommittee on Economic & Commercial Law of the House Judiciary Committee (Mar. 1, 1990) [hereinafter Greenspan Drexel Burnham Statement], in 76 FED. RES. BULL. 301, 302–03 (1990) (same).

The failure of Barings Bank (1995) posed another disruptive threat to the international derivatives markets, because the bank's insolvency administrator in England persuaded the Osaka and Singapore futures exchanges to impound all funds owed by the bank to its derivatives counterparties and other customers. The CFTC and other federal regulators, along with the Chicago Mercantile Exchange, urged the Osaka and Singapore exchanges and British authorities to lift the asset freeze to avert the risk of a systemic crisis of confidence in the global payments system. These American efforts ultimately bore fruit when British regulators accepted a bid by ING to buy most of Barings' assets and to assume all liabilities connected with Barings' derivatives contracts and other payments system obligations.⁶⁴⁷

The 1998 LTCM crisis provides the most compelling evidence of systemic risk in the derivatives markets. At the time of its threatened failure, LTCM held about \$125 billion of securities, many borrowed under repurchase agreements with banks and securities firms, and OTC derivatives contracts with notional values of \$1.25 trillion. A high proportion of LTCM's investments were relatively illiquid positions in, or related to, high-risk securities such as junk bonds and emerging market debt. During the global financial crisis that followed Russia's debt default, LTCM's investments declined in value by \$4.4 billion and LTCM faced imminent insolvency by mid-September.⁶⁴⁸

After reviewing LTCM's predicament, federal regulators concluded that a failure by LTCM to fulfill its derivatives contracts and securities repurchase agreements could paralyze global financial markets. Regulators anticipated that LTCM's default would trigger a "fire-sale liquidation" of its assets, inflicting several billion dollars of losses on its counterparties and forcing them to sell their own high-risk investments in a falling market.⁶⁴⁹ An "orderly resolution" was therefore deemed essential to avoid the risk that LTCM's collapse would cause "cascading cross defaults" and a "contagion" of panic throughout the financial system.⁶⁵⁰ In short, federal regulators feared that LTCM's failure would trigger a

647. See Kuprianov, *supra* note 572, at 26–27; Stoll, *supra* note 572, at 113–14; Ginger Szala et al., *Barings Abyss*, FUTURES, May 1995, at 68 *passim*.

648. See *supra* notes 552–57 and accompanying text.

649. Alan Greenspan, Federal Reserve Board Chairman, Statement before the House Committee on Banking and Financial Services (Oct. 1, 1998) [hereinafter Greenspan LTCM Statement], in 84 FED. RES. BULL. 1046, 1046–48 (1998); see also BASEL COMM. ON BANK SUPERVISION, BANKS' INTERACTIONS WITH HIGHLY LEVERAGED INSTITUTIONS No. 45, § 1.3(b) (Jan. 1999), available at <http://www.bis.org> (estimating that LTCM's failure would have inflicted estimated losses of \$3–5 billion on its counterparties under their "direct exposures" to LTCM, as well as additional significant losses due to the "broader, system-wide risks" that a default would have created); McDonough LTCM Statement, *supra* note 601, at 1051–52.

650. Greenspan LTCM Statement, *supra* note 649, at 1047–48; see also McDonough LTCM Statement, *supra* note 601, at 1051–52.

“systemic meltdown in the global financial system” and “directly threaten[] the solvency of some major banks and securities firms.”⁶⁵¹

On September 23, 1998, a consortium of fourteen large banks and securities firms, all of which had substantial exposures to LTCM, agreed to rescue the hedge fund by contributing \$3.6 billion of new capital in exchange for 90% of LTCM’s equity. The consortium’s meetings took place at the FRB-NY, and a senior FRB-NY officer urged the consortium’s members to provide funding for the rescue.⁶⁵² FRB officials later insisted that they never exerted pressure on the consortium’s members or offered public funds to support LTCM.⁶⁵³ However, the FRB-NY’s actions were at least “implicitly coercive,” given its central role in advocating and helping to organize the rescue of LTCM.⁶⁵⁴

The FRB-NY’s orchestration of LTCM’s bailout was closely similar to the FRB’s conduct in March 1980, when it organized an emergency bank credit facility to rescue the Hunt brothers after they failed in their attempt to corner the silver market. At that time, FRB Chairman Paul Volcker determined that a default by the Hunts—who held huge amounts of silver futures contracts and owed \$1.4 billion in silver-related loans—would probably bankrupt several leading broker-dealers in securities and commodities and would seriously injure several major banks. Chairman Volcker believed that such an outcome would create a “threat to the overall financial system,” which was already under great stress due to the FRB’s decision to fight inflation by pushing interest rates sharply higher during 1979–80.⁶⁵⁵ Accordingly, Chairman Volcker “played a key role” in helping to persuade a consortium of banks to lend an additional \$1.1 billion to the Hunts, thereby permitting the Hunts to meet their outstanding credit obligations. The Hunt silver crisis of 1980—like the 1970 Penn Central disruption, the 1987 stock market crash, and the 1998 LTCM crisis—demonstrated the FRB’s willingness to “intervene[] to

651. Edwards, *LTCM Collapse*, *supra* note 551, at 201–02; *see also* LOWENSTEIN, *supra* note 79, at 186–96.

652. *See* LOWENSTEIN, *supra* note 79, at 188–99 (describing the role of Peter Fisher, a senior FRB-NY official, in encouraging the consortium to rescue LTCM, because of his belief that “markets were on the brink of a disaster,” and LTCM’s failure would “harm the entire financial system”); GAO LTCM REPORT, *supra* note 551, at 5 & n.7, 43–45 (discussing the FRB-NY’s actions regarding LTCM); McDonough LTCM Statement, *supra* note 601, at 1052–53 (describing the FRB-NY’s actions in helping to organize the consortium that rescued LTCM, and acknowledging that Mr. Fisher explained to the consortium “the importance of avoiding a disorderly closeout of [LTCM’s] positions” and the need for “parallel efforts to resolve the problem”).

653. *See* Greenspan LTCM Statement, *supra* note 649, at 1046; McDonough LTCM Statement, *supra* note 601, at 1052–53.

654. Edwards, *LTCM Collapse*, *supra* note 551, at 200, 203–04; *see also* LOWENSTEIN, *supra* note 79, at 230 (contending that “the banks would not have come together [to rescue LTCM] without the enormous power and influence of the Fed behind them”).

655. *See* Brimmer, *supra* note 75, at 7–11; *see also* KAUFMAN, ON MONEY AND MARKETS, *supra* note 369, at 208, 265–66 (discussing the FRB’s response to the Hunt silver crisis and the “credit squeeze” caused by the FRB’s interest rate policy during 1979–80).

counter systemic risks to the financial system beyond the arena of commercial banks.”⁶⁵⁶

The LTCM crisis has certainly borne out prior warnings that the rapid growth of OTC derivatives would aggravate systemic risk within the financial markets. As commentators predicted, the default of a major end-user of OTC derivatives threatened to ignite a chain reaction of failures among large dealers and “a general wave of panic selling” in financial markets linked to OTC derivatives.⁶⁵⁷ Thus, the LTCM episode, like the Hunt silver crisis, reveals the inherent fragility of derivatives markets and their potential spill over effects on other financial markets. The FRB-NY’s arranged rescue of LTCM also supports my earlier prediction that systemic risk concerns would lead federal regulators “to prevent any . . . failure of a major OTC derivatives dealer.”⁶⁵⁸

In short, the heavy concentration of OTC derivatives activities within a small group of big banks increases systemic risk and creates a near certainty that federal regulators will apply the TBTF doctrine to protect not only the major bank dealers but also their largest derivatives counterparties.⁶⁵⁹ TBTF expectations by market participants appear to provide a substantial subsidy for the OTC derivatives activities of leading banks. For example, during the early 1990s, several leading securities firms sought to expand their share of the OTC market by forming separate subsidiaries known as “derivatives product companies” (DPCs) with a structure designed to achieve triple-A credit ratings. Some analysts expected that these top-rated DPCs would capture a significant portion of the OTC market, because bank dealers had lower credit ratings and end-users were concerned about credit risk after the collapse of Drexel Burnham.⁶⁶⁰ Nevertheless, bank dealers continued to increase their dominance of the OTC market throughout the 1990s, and DPCs made little or no headway. This outcome indicates that derivatives counterparties consider bank dealers to be more attractive counterparties despite their lower capital ratios and inferior credit ratings.⁶⁶¹

656. Brimmer, *supra* note 75, at 5; see also KAUFMAN, ON MONEY AND MARKETS, *supra* note 369, at 208 (stating that “Fed Chairman Paul Volcker pushed the lending banks very hard to reach an accommodation with the Hunts. [He] believed that this situation posed a systemic risk,” and also noting the close parallel between the FRB’s response to the Hunt silver crisis and the FRB-NY’s conduct in the LTCM crisis).

657. EDWARDS, NEW FINANCE, *supra* note 63, at 124–25; Waldman, *supra* note 513, at 1053–57 (quote at 1056); see also Abken, *supra* note 513, at 10–11; Hu, *Misunderstood Derivatives*, *supra* note 486, at 1459–61, 1502–03 (reporting fears that the “enormous growth” occurring in the OTC derivatives market could “cause the next great banking crisis”).

658. See Wilmarth, *Big Bank Mergers*, *supra* note 106, at 55.

659. See STEINHERR, DERIVATIVES, *supra* note 74, at 263, 275–76; Hu, *Investor Beliefs*, *supra* note 369, at 869–71; Wall, *Too-Big-To-Fail*, *supra* note 506, at 5–6, 10; Wilmarth, *Big Bank Mergers*, *supra* note 106, at 54–55.

660. Eli M. Remolona et al., *Risk Management by Structured Derivative Product Companies*, FED. RES. BANK OF N.Y., ECON. POL’Y REV., Apr. 1996, at 17, 17–22.

661. See STEINHERR, DERIVATIVES, *supra* note 74, at 154–57; Remolona, *supra* note 660, at 19, 28–30. Further evidence of the competitive advantage enjoyed by OTC bank dealers is shown by the SEC’s adoption, in late 1998, of a new and less stringent regulatory structure for securities firms that

The most likely reason for the perceived superiority of bank OTC dealers is that derivatives counterparties expect to receive protection under the TBTF doctrine as long as they do business with a major bank dealer. This expectation is supported by the federal regulators' past behavior, because they have always ensured that outstanding derivatives contracts were honored when large banks failed. Moreover, federal regulators permit bank dealers to conduct their OTC derivatives activities directly through the bank, as opposed to a separate nonbank affiliate, and regulators are especially likely to honor direct bank obligations when a major bank fails. Thus, the regulators' consistent efforts to reduce systemic risk in the OTC derivatives market certainly appears to provide a significant implicit subsidy for the leading bank dealers.⁶⁶²

c. The Growing Reliance of Large Banks on Proprietary Trading and Portfolio Investments Has Resulted in Significant Losses During Financial Crises

Since the early 1990s, big banks have relied on proprietary trading and portfolio investments to produce a growing share of their revenues.⁶⁶³ Much of this trading and investing has occurred in higher-risk areas such as OTC derivatives, junk bonds, venture capital deals, and se-

deal in OTC derivatives. This new structure, popularly known as "Broker-Dealer Lite," permits securities firms to establish OTC dealer affiliates that operate under lower net capital requirements and more flexible margin rules than those applicable to traditional broker-dealers. The SEC specifically designed the new structure, which incorporates the rules used by OTC bank dealers in calculating their capital and margin requirements, to provide a more level playing field between banks and securities firms. The SEC's decision to adopt "Broker-Dealer Lite" strongly indicates that regulatory competition between the SEC and bank regulators has effectively lowered supervisory standards for *both* bank OTC dealers and their competitors in the securities industry. See SEC Final Rule, OTC Derivatives Dealers, 63 Fed. Reg. 59,362, 59,363-68, 59,380-92 (Nov. 30, 1998) (codified at 17 C.F.R. pts. 200, 240, 249); Gibson, *supra* note 621, at 390-91, 413-15.

662. See STEINHERR, DERIVATIVES, *supra* note 74, at 272-76, 282-83; Keith R. Fisher, *Reweaving the Safety Net: Bank Diversification into Securities and Insurance Activities*, 27 WAKE FOREST L. REV. 123, 260 (1992); 1994 GAO DERIVATIVES REPORT, *supra* note 486, at 42-43, 125; Wall, *Too-Big-to-Fail*, *supra* note 506, at 5-6, 10.

Due to market expectations that the FRB might exercise its LOLR powers to prevent the collapse of a major securities firm, some implicit subsidy may well exist for big securities firms that deal in OTC derivatives. This subsidy is likely to be smaller than the one provided to bank dealers, given the decision by federal authorities not to prevent Drexel Burnham's bankruptcy. Nevertheless, end-users probably take some comfort from the fact that regulators ensured the orderly settlement of Drexel's derivatives obligations. See DAVIS, *supra* note 77, at 253-54; STEINHERR, DERIVATIVES, *supra* note 74, at 272, 275; 1994 GAO DERIVATIVES REPORT, *supra* note 486, at 40-43; *supra* note 369 (discussing FRB authority to make discount window loans to nonbank entities during financial emergencies).

663. See 2000 FDIC ECONOMIC RISK STUDY, *supra* note 105, at 11 (reporting that eighteen big banks derived more than 25% of their net operating revenues from "market-sensitive sources" such as venture capital and investment banking); Moyer, *Fee Revenue*, *supra* note 416 (stating that "nontraditional operations" related to the capital markets, such as investment banking, trading, and venture capital, have been the "main contributors to earnings growth" for large banks since the early 1990s); see also Jaret Seiberg, *Fed Sets Capital Standard for Major Trading Banks*, AM. BANKER, Aug. 8, 1996, at 1 (reporting that proprietary trading activities were heavily concentrated within the largest banks, as fifteen big banks accounted for 97% of all securities trading by banks).

curities issued in emerging markets.⁶⁶⁴ During the 1990s, J.P. Morgan and Bankers Trust built financial profiles similar to securities firms with a heavy emphasis on trading and investments.⁶⁶⁵ At the same time, Chase, Citigroup, and Bank of America derived a significant and growing percentage of their revenues from proprietary trading and venture capital deals.⁶⁶⁶ During 1990–97, trading assets held by the nine U.S. banks with the greatest involvement in securities activities accounted for more than a fifth of their total banking assets.⁶⁶⁷

This growing commitment of large U.S. banks to proprietary trading and portfolio investments has exposed them to substantial losses during periods of turmoil in the capital markets. As previously discussed, high-risk trading and investment strategies led to the failures of three large banks and several large thrift institutions between 1972 and 1990.⁶⁶⁸ Similarly, as described below, leading banks and securities firms suffered major shocks to their earnings during financial market disruptions that occurred in 1994–95 and again in 1997–98. Many of these institutions confronted renewed challenges during the sharp downturn in the equity markets that occurred during 2000–2001.

During 1994–95, Bank One, KeyCorp, and PNC incurred combined losses of nearly \$600 million in their investment portfolios after the FRB raised short-term interest rates by 250 basis points.⁶⁶⁹ During the same

664. See *supra* Kraus, *Big Bank Stock Bets in World Markets*, *supra* note 437 (describing growing investments by major U.S. banks in emerging markets); see also *supra* Parts I(E)(2)(a)(iii) & (b) (discussing involvement of big banks in junk bonds, venture capital investments and OTC derivatives).

665. See Timothy L. O'Brien, *J.P. Morgan Sees Earnings Hurt Abroad*, N.Y. TIMES, Dec. 11, 1997, at D1 [hereinafter O'Brien, *Morgan Earnings*] (stating that trading accounted for 40% of J.P. Morgan's revenues and 30% of Bankers Trust's revenues during the first nine months of 1997); Andy Serwer, *Frank Newman Feels the Heat*, FORTUNE, Oct. 26, 1998, at 121, 122 (stating that Bankers Trust's heavy involvement in trading and underwriting made it a "quasi-investment bank"); Emily Thornton, *J.P. Morgan: Dressed for a Deal?*, BUS. WK., Sept. 18, 2000, at 128, 132 (tbl.) (stating that J.P. Morgan resembled an "investment bank," as trading and equity investments produced 27% of its pretax income during the first half of 2000 and investment banking generated an additional 29%).

666. See Carrick Mollenkamp, *Net Soars at J.P. Morgan, Bank of America and Wells: Some Worry Banks' Profit Is Too Closely Linked to Stock, Debt Markets*, WALL ST. J., Jan. 19, 2000, at B4 (reporting that investment banking revenues had become a key factor in Bank of America's financial results); O'Brien, *Chase's Pit Boss*, *supra* note 437 (reporting that Chase's trading and investing activities produced 32% of the bank's total profits during the first nine months of 1997); O'Brien, *Morgan Earnings*, *supra* note 665 (reporting that trading accounted for 15% of Chase's revenues, 10% of Citicorp's revenues, and 8% of Bank of America's revenues during the first nine months of 1997); Tania Padgett, *Chase Drops on Expectation Venture Capital Unit to Slow*, AM. BANKER, May 8, 2000, at 26 (reporting that venture capital investments accounted for 12% of Chase's revenues during 1999); Jathon Sapsford & Carrick Mollenkamp, *Chase's First-Quarter Profit Grew 16% As Investment-Banking Business Grew*, WALL ST. J., Apr. 20, 2000, at A4 (discussing Chase's "unrelenting push" into investment banking and trading activities).

667. See KWAN, SECTION 20 SUBSIDIARIES, *supra* note 420, at 6–9, 22 tbl.1 (Panel B).

668. See *supra* notes 586–95 and accompanying text (discussing failures of Bank of the Commonwealth, Franklin National, and First Pennsylvania, as well as the failures of five large related to heavy investments in junk bonds or derivatives).

669. Bank One recorded an after-tax loss of \$170 million from restructuring its derivatives portfolio at the end of 1994. Bank One chairman John McCoy acknowledged that "rate increases were larger and came faster" than his bank had expected during 1994. Zachary Schiller & Kelley Holland, *Bank One Faces a Rocky Act Two*, BUS. WK., Dec. 5, 1994, at 86, 86. Analysts concluded that Bank

period, Bankers Trust lost more than \$250 million in its derivatives business, and several other large banks, including Bank of America, paid \$300 million to reimburse proprietary mutual funds or trust accounts for losses on interest-sensitive derivatives.⁶⁷⁰ Volatile interest rates inflicted crippling losses on two prominent investment firms,⁶⁷¹ while Chemical, J.P. Morgan, Goldman Sachs, and Salomon Brothers lost significant amounts from trading in interest-sensitive instruments and foreign currencies.⁶⁷²

Large banks and securities firms suffered setbacks during the Asian and Russian crises of 1997–98 that, in combination, were far worse than the 1994–95 experience. Financial turmoil in Asia and other emerging markets during the fourth quarter of 1997 led to \$625 million of trading losses for U.S. banks.⁶⁷³ Chase and Citicorp incurred the majority of

One had exposed itself to significant interest rate risk by assembling a huge portfolio of interest-sensitive derivatives. See SPIEGEL ET AL., *supra* note 298, at 109–10; Esty et al., *supra* note 512, at 37–42; Christopher James & Clifford Smith, *The Use of Index Amortizing Swaps by Bank One*, THE BANK OF AM. J. OF APPLIED CORP. FIN., Fall 1994, at 54, 59; Edward J. Kane, *What Can Bankers Learn About Hedging Strategy from the Bank One Case?*, THE BANK OF AM. J. OF APPLIED CORP. FIN., Fall 1994, at 61, 61–62.

KeyCorp encountered similar problems during 1994. By the end of 1994, due to its “mismanagement of interest rate risk,” KeyCorp faced large unrealized losses in its investment portfolio. KeyCorp ultimately incurred a \$100 million pretax charge in restructuring its portfolio. SPIEGEL ET AL., *supra* note 298, at 150–51; see also Wilmarth, *Big Bank Mergers*, *supra* note 106, at 47–48.

PNC built an aggressive investment portfolio that included \$14 billion of interest rate swaps and \$23 billion of bonds. Like Bank One and KeyCorp, PNC “misjudged the direction of interest rates” and confronted large unrecognized investment losses at the end of 1994. SPIEGEL ET AL., *supra* note 299, at 109, 171–72. Ultimately, PNC recorded charges against earnings of almost \$300 million in restructuring its portfolio. Anita Raghavan & Michael Siconolfi, *Merger Talk Expands on Wall Street: Deal for Oppenheimer Could Hit \$500 Million*, WALL ST. J., May 8, 1997, at C1. PNC’s losses, which stunned Wall Street analysts, occurred after PNC’s chief investment officer had given public assurances in late 1992, that the bank was “completely comfortable with the lack of interest rate risk built into the portfolio.” Wilmarth, *Big Bank Mergers*, *supra* note 106, at 48 n.221; see also Howard Kapi-loff, *Bad Interest Rate Bets in ‘94 Ate into Top Banks’ ROAs*, AM. BANKER, Mar. 17, 1995, at 5.

670. For discussions of these losses, see Becker & Yoon, *supra* note 573, at 228–30; Wilmarth, *Big Bank Mergers*, *supra* note 106, at 48–50; *supra* note 619 and accompanying text.

671. See STEINHERR, *DERIVATIVES*, *supra* note 74, at 78–81, 79 n.33 (discussing losses at Askin Capital Management and Piper Jaffray); Becker & Yoon, *supra* note 573, at 220–22 (reporting that Askin Capital Management lost \$600 million, and Piper Jaffray lost \$700 million, from risky CMO investments).

672. See Wilmarth, *Big Bank Mergers*, *supra* note 106, at 48–49 (stating that Chemical had \$70 million in trading losses and J.P. Morgan had \$150 million in such losses during 1994–95); Anita Raghavan, *Limited Loyalty: Goldman Faces Pinch As Partners Leave, Clubby Culture Wanes*, WALL ST. J., Dec. 16, 1994, at A1 (reporting that Goldman Sachs lost more than \$400 million from trading in securities and foreign currencies during 1994); Michael Siconolfi, *Salomon Brothers Weighs Overhaul of Management at Trading Businesses*, WALL ST. J., Apr. 4, 1995, at A5 (reporting that Salomon Brothers lost more than \$600 million from client-related trading activities during 1994). The losses suffered in 1994–95 by banks and other financial institutions were part of a broader pattern of trading and investment losses that the 1994 interest rate spike inflicted on a wide range of firms and municipal entities, including Orange County. See Becker & Yoon, *supra* note 573, at 220–31.

673. See Barbara A. Rehm, *Securities Trading Revenue Dropped 52% in Quarter; OCC Cites Asian Turmoil*, AM. BANKER, Mar. 19, 1998, at 2.

those losses.⁶⁷⁴ During the global financial panic triggered by Russia's debt default in 1998, Citigroup lost more than \$1 billion from proprietary trades and investments.⁶⁷⁵ At the same time, Bank of America recorded \$1.1 billion in charges to write off a failed hedge fund investment and to establish reserves for trading losses.⁶⁷⁶ As a consequence, the 1998 earnings of both banks ranked near the bottom of their peer group.⁶⁷⁷

Bankers Trust encountered the most severe problems in proportion to its size, as it lost \$650 million from trading and investment activities in 1998.⁶⁷⁸ The magnitude of those losses induced the bank's board of directors to sell the bank to Deutsche Bank. The FRB reportedly encouraged this sale because of concerns about Bankers Trust's gravely weakened capital position.⁶⁷⁹

As in 1994–95, America's major banks were not alone in reporting big losses during 1997–98. Credit Suisse and UBS each lost more than \$1 billion from trading and investment fiascos during the period.⁶⁸⁰ Merrill Lynch and Goldman Sachs lost hundreds of millions of dollars in their

674. *Asian Mess Hits Profits at J.P. Morgan, Citi, Chase*, AM. BANKER, Jan. 21, 1998, at 1 (reporting that Chase lost \$270 million from trading in emerging market debt during the fourth quarter of 1997, while Citicorp had a \$90 million trading loss).

675. See Paul Beckett, *Citigroup Debut Comes With a Warning*, WALL ST. J., Oct. 9, 1998, at A3 (reporting that Citigroup's banking unit incurred trading and investment losses of \$340 million and its securities unit suffered trading losses of \$700 million).

676. See Olaf de Senerpont Domis, *BankAmerica's Profits Far Below Expectations*, AM. BANKER, Oct. 15, 1998, at 1 (reporting that the bank incurred \$870 million in charges during the third quarter of 1998 to write down its investment in D.E. Shaw, a hedge fund, and to create reserves for trading losses); Matt Murray et al., *BankAmerica Profit Slides 20% Amid Turbulent Markets*, WALL ST. J., Jan. 20, 1999, at B4 (reporting that Bank of America's joint venture with D.E. Shaw resulted in a \$200 million loss for the bank during the fourth quarter of 1998); Allan Sloan, *The Credit-Happy Loan Rangers Have Run Out of Silver Bullets*, WASH. POST, Oct. 20, 1998, at C3 (describing terms of Bank of America's joint venture investment with D.E. Shaw, which amounted to "a huge bet on Shaw's trading strategy").

677. See *1998 Performance of Top U.S. Banking Companies*, AM. BANKER, Mar. 11, 1999, at 9 ("Megabanks" tbl. (showing that, for 1998, the ROA for Citigroup and Bank of America ranked eleventh and twelfth among ROA for the fourteen U.S. "megabanks" with assets exceeding \$75 billion). As discussed *supra* at note 301, researchers generally consider ROA to be the most reliable measure for comparing the earnings of larger and smaller banks. ROA results, unlike return on equity (ROE) comparisons, are not skewed by the ability of larger banks to operate with lower capital ratios (i.e., higher leverage); see also *supra* notes 355–58 and accompanying text (discussing the financial markets' evident tolerance for higher leverage in big banks due to their "TBTF" status).

678. See Timothy L. O'Brien, *Earnings at Bankers Trust Remain Extremely Weak*, N.Y. TIMES, Jan. 22, 1999, at C2 (reporting that the bank lost \$200 million from trading in emerging markets during the fourth quarter of 1998); Matt Murray, *Bankers Trust Is Hit by \$488 Million Loss*, WALL ST. J., Oct. 23, 1998, at A3 (reporting that, during the third quarter of 1998, the bank lost \$450 million from trading in emerging markets and from investing in junk bonds).

679. See *Broking Bankers*, ECONOMIST, Dec. 12, 1998, at 74; *The Battle of the Bulge Bracket*, ECONOMIST, Nov. 28, 1998, at 73; Drucker, *supra* note 571, at 26; Thane Peterson & Gary Silverman, *Is Deutsche Bank 'Out of Its Depth'?*, BUS. WK., Dec. 7, 1998, at 126, 128. The problems at Bankers Trust were apparently even worse than its reported losses during 1998. The bank recorded an additional net loss of \$1.5 billion in June 1999, immediately before it was acquired by Deutsche Bank. Bassett & Zakrajsek, *1999 Banking Developments*, *supra* note 97, at 376 & n.14.

680. See Andrews, *supra* note 445, at C1, C4 (reporting that UBS lost \$780 million from its investment in LTCM in 1998, after losing \$450 million from derivatives trading in 1997); Margaret Studer, *Credit Suisse Net Jumps Despite Ills in Russia*, WALL ST. J., Mar. 17, 1999, at A20 (reporting that Credit Suisse lost \$1.3 billion from investment and trading operations related to Russia in 1998).

trading operations during 1998, while Barclays and NatWest also suffered major trading reverses during 1997–98.⁶⁸¹

The earnings of large banks have thus become increasingly volatile as they have expanded their involvement in capital markets activities.⁶⁸² For example, the three big banks that concentrated most heavily in trading and investing activities during 1994–98—J.P. Morgan, Bankers Trust, and Chase—produced profits that ranked at or near the bottom of their peer group for the entire period.⁶⁸³ As noted above, Bankers Trust's problems culminated in its forced sale to Deutsche Bank in late 1998. When J.P. Morgan and Chase agreed to merge in September 2000, analysts warned that the combined institution's earnings were highly vulnerable to downturns in the capital markets, given the institution's heavy focus on securities underwriting, proprietary trading, and venture capital investments.⁶⁸⁴ Not surprisingly, the slump in worldwide equity markets during the second half of 2000 and the first nine months of 2001 caused a sharp drop in capital markets revenues and net profits at the new J.P. Morgan Chase. Among other problems, the combined bank lost \$1.4 billion from depreciation in its huge portfolio of equity investments.⁶⁸⁵

The equity markets' downturn during 2000–2001 also hurt other leading financial institutions. As noted elsewhere, major U.S. and foreign

681. See *Barclays Takes \$1.12 Billion Loss, Charge on Bank Sale*, WALL ST. J., Feb. 3, 1998, at A17 (reporting that Barclays had trading losses of more than \$219 million in 1997); Alan Cowell, *Who'll Take the Driver's Seat? Barclays at a Crossroads, with Questions on Leadership*, N.Y. TIMES, May 8, 1999, at C1 (stating that Barclays lost more than \$400 million from Russian-related trading in 1998); Reed & Dawley, *supra* note 442 (reporting that NatWest lost \$730 million in its investment banking operations in 1997); Joseph Kahn, *The Merrill Steamroller Encounters Potholes*, N.Y. TIMES, Mar. 20, 1999, at C1 (reporting that Merrill Lynch had trading losses of \$850 million in 1998); Anita Raghavan & Patrick McGeehan, *Corzine Resigns as Co-CEO at Goldman Sachs*, WALL ST. J., Jan. 12, 1999, at C1 (stating that Goldman Sachs had trading losses of nearly \$500 million in 1998).

682. See 2000 FDIC ECONOMIC RISK STUDY, *supra* note 105, at 11 (expressing concern about the growing volatility of big bank earnings due to their reliance on "market-sensitive" revenues from investment banking, venture capital and other capital markets activities); Rob Garver, *OCC Fears Profit Woes As Credit Quality Slips*, AM. BANKER, Oct. 2, 2000, at 1 (same).

683. See *supra* notes 655–66 and accompanying text (describing trading and investment concentrations of the three banks). In 1994 and 1995, when ranked by ROA, Chase was eighth and J.P. Morgan and Bankers Trust occupied the two lowest positions among the eleven U.S. "megabanks" that held assets greater than \$75 billion. *1995 Performance of Top U.S. Banking Companies*, AM. BANKER, Mar. 18, 1996, at 12 "Mega Banks" tbl. In 1996, J.P. Morgan, Chase, and Bankers Trust held the three lowest positions for ROA reported by the twelve "megabanks." *1996 Performance of Top U.S. Banking Companies*, AM. BANKER, Mar. 26, 1997, at 17 "Mega Banks" tbl. In 1997 and 1998, Chase ranked eleventh and tenth respectively, while J.P. Morgan and Bankers Trust again occupied the two lowest positions, for ROA reported by the fourteenth "megabanks." *1998 Performance of Top U.S. Banking Companies*, AM. BANKER, Mar. 11, 1999, at 9 "Megabanks" tbl.

684. See Moyer, *Morgan-Chase Merger*, *supra* note 484 (discussing concerns about the volatility of J.P. Morgan Chase's revenues); Jathon Sapsford, *Deals & Deal Makers: Is J.P. Morgan Deal Trickier for Chase?*, WALL ST. J., Oct. 19, 2000, at C1 (same); see also Gene C. Marcial, *Going Cheap at J.P. Morgan Chase*, BUS. WK., Dec. 3, 2001, at 107 (reporting that "investment banking . . . accounts for 50% of revenues and 70% of operating earnings" at J.P. Morgan Chase); *supra* notes 678–79 and accompanying text (discussing sale of Bankers Trust).

685. Atlas, *supra* note 484; Moyer, *Morgan-Chase Merger*, *supra* note 484; Moyer, *Problems at Chase and Fleet*, *supra* note 117; Liz Moyer & Patrick Reilly, *Slump Dims Morgan's Debut and Slams Key*, AM. BANKER, Apr. 19, 2001, at 1.

banks reported substantial reductions in their capital markets revenues, while profits of the “big three” securities firms declined sharply. Probably the most significant blows occurred at American Express and Wells Fargo, which each reported losses of more than \$1 billion from high-risk investments.⁶⁸⁶ In sum, based on the accumulated experience of the past decade, there is every reason to expect that the growing involvement of big banks in the financial markets will produce greater uncertainty and risk in the banking industry.⁶⁸⁷

d. High-Risk Syndicated Lending

The domestic syndicated loan market has grown rapidly in recent years, rising from \$389 billion in 1993 to more than \$1 trillion each year during 1997–2000.⁶⁸⁸ In a syndicated loan, one or more lead banks, sometimes called “agent banks,” organize a “syndicate” of banks and institutional investors that buy participations in a large commercial loan. The lead banks earn substantial fees for their services, which include forming the syndicate, negotiating the terms of the loan, monitoring the borrower’s compliance with those terms, collecting the borrower’s interest and principal payments, and distributing those payments to syndicate members.⁶⁸⁹ Syndicated loans differ significantly from loans made by a single bank, because syndicated loans are typically much larger in amount, are extended to borrowers of much greater size, and involve fewer covenants.⁶⁹⁰

686. See 2001 Wells Fargo Writedown, *supra* note 264 (discussing Wells Fargo’s loss of \$1.1 billion on its venture capital investments); McGeehan, *American Express*, *supra* note 474 (reporting American Express’ loss of \$1.1 billion on investments in high-risk bonds); *supra* notes 117, 445, 484 and accompanying text (discussing reductions in capital markets revenues at large U.S. and foreign banks); *infra* notes 884–85 and accompanying text (discussing steep declines in earnings at Goldman Sachs, Merrill Lynch, and Morgan Stanley).

687. See, e.g., Drucker, *supra* note 571, at 26–27 (contending that underwriting and trading in securities and derivatives are too risky and volatile to ensure long-term success for most financial institutions).

688. Niles S. Campbell, *Helper Urges Caution on Syndicated Lending; Says That Relaxed Underwriting, Pricing Are Concerns*, Banking Rep. (BNA) No. 68 at 446 (Mar. 10, 1997) (providing syndicated loan figure for 1993); Laura Mandaro & Alissa Leibowitz, *Syndicateds Climbed in 2000*, AM. BANKER, Jan. 3, 2001, at 4 (reporting that \$1.23 trillion of loans were syndicated in 2000); Liz Moyer, *Chase, B of A Dominated Syndicated Loan Market*, AM. BANKER, Jan. 4, 2000, at 1 [hereinafter Moyer, 1999 *Syndicated Lending*] (stating that \$1.05 trillion of loans were syndicated in 1999); Weidner, 1998 *Syndicated Lending*, *supra* note 62, at 1 (reporting that \$2.11 trillion of loans were syndicated during 1997–98).

689. See *Developments in the International Syndicated Loan Market in the 1980s*, 30 BANK OF ENGLAND Q. BULL. 71 (1990) [hereinafter *Syndicated Loan Developments*], in INTERNATIONAL FINANCE: TRANSACTIONS, POLICY AND REGULATION 515, 521–22 (Hal S. Scott & Philip A. Wellons eds., 6th ed. 1999); Dianna Preece & Donald J. Mullineaux, *Monitoring, Loan Renegotiability, and Firm Value: The Role of Lending Syndicates*, 20 J. BANKING & FIN. 577, 580 (1996); Katerina Simons, *Why Do Banks Syndicate Loans?*, FED. RES. BANK OF BOSTON, NEW ENGLAND ECON. REV., Jan./Feb. 1993, at 46.

690. See Berger & Udell, *Securitization*, *supra* note 42, at 237–38 (stating that loan covenants in syndicated loans are typically much less extensive than in single-lender loans, because it is often difficult for syndicate members to agree on changed terms if the loan must be renegotiated to avoid a de-

The process of loan syndication is similar to the formation of an underwriting syndicate for publicly issued debt securities, and syndicated loans are often viewed by borrowers as a "substitute" for underwritten bonds.⁶⁹¹ A borrower is particularly likely to choose a syndicated loan when speed and ease of negotiation are important considerations. For example, a borrower may prefer a syndicated loan in a hostile takeover, which requires a faster and more confidential method of financing than would be possible in an offering of debt securities to public or institutional investors.⁶⁹²

The syndication process has become more closely tied to the capital markets since the mid-1990s, due to the rapid growth of a secondary market for loan participations. Lead banks now routinely sell participations in syndicated loans, or in securities backed by such loans, to institutional investors such as insurance companies, mutual funds, and pension funds.⁶⁹³ The growing importance of institutional investors has caused lead banks to price and market their syndicated loans in a manner similar to corporate bonds. For example, lead banks for leveraged syndicated loans now compete directly with junk bond underwriters in arranging high-yield debt financings and in offering the resulting debt instruments to sophisticated investors.⁶⁹⁴

fault by the borrower); Preece & Mullineaux, *supra* note 689, at 581-84 (reporting that, based on a large sample of syndicated loans and single-lender loans made to publicly traded companies, the average borrower asset size and loan amount for syndicated loans were \$1.5 billion and \$170 million, respectively, while the average borrower asset size and loan amount for single-lender loans were only \$220 million and \$33 million, respectively).

691. See Berger & Udell, *Securitization*, *supra* note 42, at 237-38, 256, 276-77, 281; Cadette, *supra* note 286, at 701-702; see also Alan Greenspan, Federal Reserve Board Chairman, Statement before the Subcommittees of the House Commerce Committee (June 6, 1995), in 81 FED. RES. BULL. 778, 778 (1995) (stating that "the economics of a typical bank loan syndication do not differ essentially from the economics of a best-efforts securities underwriting"); Preece & Mullineaux, *supra* note 689, at 579-80 (noting that, as the size of a loan syndicate increases, the syndicated loan "becomes increasingly similar to a public [debt] issue"); David Weidner, *Syndicated Loans Gaining Leverage on Junk Bonds*, AM. BANKER, Feb. 11, 2000, at 3 [hereinafter Weidner, *Loans Gaining Leverage*] (reporting that borrowers and investors were increasingly viewing syndicated loans as favorable alternatives to underwritten bonds).

692. See *Syndicated Loan Developments*, *supra* note 689, at 519; David Weidner, *Syndicated Lending Market Gets Its Due from Wall Street*, AM. BANKER, June 1, 1999, at 7 [hereinafter Weidner, *Syndicated Lending Market*].

693. See Seth Lubove, *Other People's Money*, FORBES, Oct. 19, 1998, available at 1998 WL 12990228 (reporting that banks sold more than \$330 billion of participations in leveraged syndicated loans to institutional investors during 1997 and the first half of 1998); Paul M. Sherer, *'Junk Loan' Market Is Feeling the Pinch of Oversupply and Rising Interest Rates*, WALL ST. J., Sept. 13, 1999, at C24 [hereinafter Sherer, *Junk Loan Market*] (stating that the "syndicated loan market is acting more and more like a public-securities market," and reporting that institutional investors purchased more than a third of all leveraged loans syndicated during the first eight months of 1999); David Weidner, *Banks Hitch Ride on Merger Wave to Boost Their Leveraged Lending*, AM. BANKER, Jan. 15, 1999, at 1, 22 [hereinafter Weidner, *Leveraged Lending*] (reporting that the market for leveraged syndicated loans had become an "investor-driven" market with a "capital markets mentality," due to strong demand among institutional investors).

694. See Sherer, *Junk Loan Market*, *supra* note 693; Weidner, *Loans Gaining Leverage*, *supra* note 691; Weidner, *Syndicated Lending Market*, *supra* note 692.

Not surprisingly, the financial markets view syndicated loans as being much closer to underwritten debt than to traditional, single-lender loans. The stock price of a publicly traded company usually rises in response to the announcement of a single-lender loan, but typically there is little or no market response to news of a large syndicated loan. The securities markets evidently recognize that a single-lender loan establishes a close relationship between lender and borrower, while a large syndicated loan, like a public debt issue, generally gives the borrower less flexibility in negotiating or adjusting covenants and price terms.⁶⁹⁵

A handful of big banks dominate the market for syndicated loans.⁶⁹⁶ The largest banks have captured the leading market positions because their financial resources and client relationships enable them to establish credible reputations as frequent and successful “underwriters” of loan syndicates.⁶⁹⁷ The lead underwriter’s reputation is a crucial element of success in loan syndications as it is in public debt and equity offerings.⁶⁹⁸

The desire of lead banks to establish credible reputations often causes them to accept substantial risks. In a study of syndicated loans outstanding in 1991, Katerina Simons found that lead banks retained higher percentages of risky loans and sold larger shares of safer loans.⁶⁹⁹

695. See CAREY ET AL., *supra* note 35, at 13–14 & n.31 (explaining that single-lender bank loans usually contain flexible and negotiable covenants, while any adjustment of covenants is extremely difficult within large syndicated loans or publicly issued debt securities); Berger & Udell, *Securitization*, *supra* note 42, at 236–38 (explaining important differences between bank “underwriting” of syndicated loans and bank origination of single-lender, “relationship” loans); Preece & Mullineaux, *supra* note 689, at 584–85 (finding that single-lender loan originations have a significant and positive effect on the borrower’s stock price, while large syndicated loan originations have no significant impact on the borrower’s stock price); *id.* at 578–81, 591–92 (suggesting that the primary reason for this disparity in market response is that a single lender can renegotiate a loan in a more effective and less costly manner than multiple syndicate members, who face “hold-out problems” if any member objects); see also *supra* Parts I(A)(1) & (E)(3) (showing that banks typically establish close relationships in making traditional, single-lender loans to smaller borrowers).

696. During 1999–2000, Chase, Bank of America, and J.P. Morgan controlled the majority of the syndicated loan market. See Mandaro & Leibowitz, *supra* note 688 (reporting a 57% market share for those three banks during 2000); Moyer, *1999 Syndicated Lending*, *supra* note 688 (reporting that those three banks held more than 50% of the syndicated loan market during 1999); see also Berger & Udell, *Securitization*, *supra* note 42, at 253–55, 269–79 (stating that the market for loan sales is also dominated by a few large banks); Jathon Sapsford & Paul Beckett, *Bank Roles: How Consolidation Alters the Field*, WALL ST. J., Apr. 23, 2001, at C1 (“Banks Bet Bigger Is Better: Corporate Lending” tbl. [hereinafter Sapsford & Beckett, *Bank Consolidation*] (showing that the market share of the top five agent banks rose from 26% in 1990 to 61% in 2000)).

697. See Berger & Udell, *Securitization*, *supra* note 42, at 236–38, 269–79 (explaining that large banks have established a preeminent role in the market for “underwriting” syndicated loans and loan sales); Preece & Mullineaux, *supra* note 689, at 580–81 (stating that the most successful lead banks are those who have “established a reputation through a large volume of repeat business”); Murray & Brooks, *supra* note 320 (pointing out the importance of bank size and number of client relationships in establishing the reputation of lead banks).

698. See Murray & Brooks, *supra* notes 287 & 320 (discussing importance of reputation in determining the success of the largest banks as loan syndicators and in establishing a leading position as a securities underwriter).

699. The study showed that lead banks kept only 17% of the loans classified as satisfactory, or “Pass,” by bank examiners. In contrast, lead banks kept about 30% of the loans classified as “Substandard” or “Doubtful” and 47% of the loans classified as “Loss” by examiners. Simons, *supra* note 689, at 47–49 & tbls.1 & 3.

The apparent reasons for this behavior were that lead banks: (i) had difficulty persuading other banks to accept participations in high-risk loans, (ii) had fee-based and reputational incentives to complete syndications of high-risk loans, and (iii) believed that their retention of bigger segments of risky loans would certify their commitment to evaluate and monitor the borrowers' creditworthiness.⁷⁰⁰

The tendency of lead banks to keep higher percentages of risky syndicated loans may help to explain why big banks incurred loan losses at a much higher rate than smaller banks during the banking crisis of the 1980s and early 1990s.⁷⁰¹ For example, Simons found that lead banks in 1991 retained a significantly higher percentage of syndicated commercial real estate loans compared with other, less risky types of syndicated loans.⁷⁰² Other studies have shown that lead banks kept about half of all syndicated HLT loans made during 1987–94, and the nine largest banks held almost two-thirds of all LDC loans made during 1977–84.⁷⁰³ Real estate, HLT, and LDC loans accounted for most of the loan losses suffered by big banks during the 1980's and early 1990s.⁷⁰⁴

Unfortunately, big banks appear to have forgotten the lessons of the recent past. As shown in the next two sections, recent patterns of syndicated lending in domestic and foreign markets have created risks that resemble the perils large banks encountered during the last banking crisis.

i. Large Banks Face Expanding Risks in Their Domestic Syndicated Loans

Since the mid-1990s, big banks have aggressively expanded their syndicated lending to leveraged borrowers, real estate developers, and real estate investment trusts (REITs), because those loans carry larger interest rate spreads and higher fees than loans made to investment-grade borrowers.⁷⁰⁵ Thus, major banks have “mov[ed] away from their

700. *Id.*; see also Gary B. Gorton & George G. Pennacchi, *Banks and Loan Sales: Marketing Nonmarketable Assets*, 35 J. MONETARY ECON. 384, 394, 409–10 (1995) (also finding that banks selling loan participations tended to retain larger percentages of high-risk loans).

701. See Boyd & Gertler, *Banking Crisis*, *supra* note 277, at 16–20 (showing that banks larger than \$10 billion incurred disproportionate loan losses compared to smaller banks during 1983–91).

702. Simons, *supra* note 689, at 51.

703. See Lazarus A. Angbazo, Jianping Mei & Anthony Saunders, *Credit Spreads in the Market for Highly Leveraged Transaction Loans*, 22 J. BANKING & FIN. 1249, 1259 tbl.3, panel A (1998) (providing data regarding HLT loans); Arvind K. Jain & Satyadev Gupta, *Some Evidence of “Herding” Behavior of U.S. Banks*, 19 J. MONEY, CREDIT & BANKING 78, 82–83, 83 & n.12 (1987) (providing data regarding LDC loans).

704. See BARTH ET AL., *supra* note 277, at 29–40; Boyd & Gertler, *Banking Crisis*, *supra* note 277, at 4, 13–20; *supra* notes 395–410 and accompanying text.

705. See Richard A. Brown et al., *Economic Conditions and Emerging Risks in Banking*, REGIONAL OUTLOOK, FED. DEPOSIT INS. CORP., 2d Qtr. 2001, at 5–6, available at <http://www.fdic.gov> [hereinafter *2001 FDIC Banking Risks Study*] (stating that: (i) at the end of 2000, 20% of all banks—the highest level since the 1980s—held commercial real estate and construction loan concentrations equal to more than four times their equity capital; and (ii) the percentage of syndicated bank loans extended to leveraged borrowers rose from 17% in 1996 to 31% in 1999, before declining slightly to

traditional territory of relationship-building, investment-grade lending” and, instead, have embraced a “capital markets mentality” that seeks higher-risk, “high-return” transactions.⁷⁰⁶ In addition, despite the sale of participations in syndicated loans to investors, bank syndicators—especially the largest banks—have retained the largest share of high-risk loans on their own balance sheets.⁷⁰⁷

During the 1990s, lead banks offered unusually large funding commitments to complete risky loans and earn the accompanying syndication fees.⁷⁰⁸ For example, Bank of America, First Union, and Morgan Stanley, as co-syndicators, agreed to fund the entire amount of a \$1.7 billion loan to Sunbeam Corporation in 1998. The co-syndicators accepted these heavy commitments because they could not sell loan participations after Sunbeam suddenly dismissed its senior management and disclosed accounting irregularities and financial losses.⁷⁰⁹ The co-syndicators repeatedly extended the term of the loan and ultimately became exposed to significant losses when Sunbeam filed for bankruptcy in early 2001.⁷¹⁰

Many observers warn that syndicated loans made by large banks during the late 1990s created default risks comparable to those that severely injured banks during the 1980s.⁷¹¹ In 1998, banks made half of

26% in 2000); Rob Blackwell, *FDIC Warns of Vulnerability From Commercial Real Estate*, AM. BANKER, Nov. 15, 2000, at 4 [hereinafter Blackwell, *FDIC Commercial Real Estate Warning*] (reporting that bank commercial real estate loans had risen by \$189 billion between 1992 and 2000, and construction and development loans had doubled to \$150 billion compared to the industry low point in 1994); Jennifer Goldblatt, *As REITs Expand, So Does Banks' Role as Lender*, AM. BANKER, Feb. 25, 1998, at 10 [hereinafter Goldblatt, *REITs*] (reporting that unsecured bank loans to REITs reached a new record during 1997); Weidner, *Leveraged Lending*, *supra* note 693, at 1 (reporting that banks were actively pursuing leveraged syndicated lending deals because they provided higher returns, including higher syndication fees, than loans made to investment grade companies).

706. Weidner, *Leveraged Lending*, *supra* note 693, at 1.

707. See *Economic Conditions and Emerging Risks in Banking*, REGIONAL OUTLOOK, FED. DEPOSIT INS. CORP., 4th Qtr. 1999, at 3, 12 [hereinafter 1999 *FDIC Banking Risks Study*] (stating that banks retained 64% of all leveraged syndicated loans originated during the first half of 1999); Rob Garver, *Fed Report Surprises on Syndicated Loans' Risk*, AM. BANKER, Aug. 28, 2000, at 1 (citing FRB report showing that larger banks held the highest percentage of syndicated loans made to below-investment-grade borrowers); *supra* note 693 and accompanying text (discussing growing secondary market for syndicated loan participations).

708. See Abelson, *supra* note 113, at 6 (quoting analyst Charles Peabody's statement that “[b]anks increasingly are taking down bigger pieces of syndicated loan credits for their own account”); Goldblatt, *REITs*, *supra* note 705 (reporting that Chase funded all of an unsecured \$3 billion loan to a REIT, with the expectation of syndicating the loan later); David Weidner, *Bankers Took Uncharted Route to Market \$24B Olivetti Loan*, AM. BANKER, May 21, 1999, at 1 (reporting that Chase, DLJ, and Lehman Brothers, as co-syndicators, each funded \$2 billion of a \$24 billion loan used to support Olivetti's leveraged hostile takeover of Telecom Italia).

709. See David Weidner, *Morgan Stanley Withdraws Loan to Sunbeam After CEO's Firing*, AM. BANKER, June 17, 1998, at 1.

710. See Carrick Mollenkamp, *Sunbeam Posts Loss, Needs Time for Lender Pact*, WALL ST. J., Nov. 16, 2000, at A8; *Sunbeam Files for Bankruptcy; No Closings, Layoffs Expected During Reorganization*, BALTIMORE SUN, Feb. 7, 2001, at 1C; David Weidner, *Morgan Stanley-Led Group Extends Waiver of Covenants on \$1.7B Credit by 3 Months*, AM. BANKER, Oct. 22, 1998, at 25; see also Jeff Ostrowski, *Bad Loans Up 27 Percent During 2000*, PALM BEACH POST, Apr. 26, 2001, at 1D (reporting that Bank of America and First Union had written off \$900 million of their loans to Sunbeam).

711. See *Credit Quality Continues to Slip As Banks Strive to Beat Competition*, 69 Banking Rep. (BNA) No. 23, at 901, 901 (Dec. 27, 1997) (citing statement by Dave Gibbons, Deputy Comptroller of

their business loans to below-investment-grade companies, a rate that was three times as high as in 1991.⁷¹² Leveraged loans accounted for almost a third of all syndicated loans during 1999–2000, compared to only 7% of such lending in 1993.⁷¹³ As a result of higher-risk lending, the percentage of nonperforming business loans held by large banks nearly doubled during 1997–2000 and reached the highest level since 1994.⁷¹⁴ Similarly, the volume of syndicated loans criticized by bank examiners rose from \$45 billion to \$100 billion during 1998–2000.⁷¹⁵ Nonperforming commercial loans at large banks continued to grow rapidly during 2000–01, and the volume of criticized syndicated loans reached nearly \$200 billion in mid-2001.⁷¹⁶

This sharp increase in business loan problems has occurred in tandem with an alarming rise in corporate debt. Between 1995 and 2000, U.S. nonfinancial companies increased their total indebtedness from \$2.7 trillion to \$4.5 trillion, an all time record both in amount and as a percentage of gross domestic product.⁷¹⁷ During this period, corporations

the Currency for Credit Risk, indicating that “current [bank] lending practices are reminiscent of those that devastated the industry a decade ago”); O’Brien, *Worries About Loans*, *supra* note 400 (reporting that many bank regulators and analysts feared that bank lending risks in the late 1990s were comparable to those incurred during the late 1980s); Jaret Seiberg, *Medlin Says Standards ‘Worst in Decades’*, AM. BANKER, Dec. 15, 1997, at 1, 1 (quoting former Wachovia chairman John Medlin, who stated that the banking industry’s credit standards were “the weakest at any time during my nearly four decades in banking”); David Weidner, *Bankers Say Loan Quality Warnings Are Hard to Heed*, AM. BANKER, July 24, 1998, at 1, 21 [hereinafter Weidner, *Loan Quality*] (citing statement by Moody’s analyst Sean Keenan that banks “are exposed to more [credit] risk than they were in the late 1980s”).

712. See David Weidner, *Nonperformers Worry Analysts Despite Strong Growth*, AM. BANKER, July 16, 1999, at 1, 4.

713. See *Big Bank Troubles in 2000*, *supra* note 111, at 66; see also 2001 FDIC Banking Risks Study, *supra* note 705, at 6 (providing data for leveraged syndicated loans in 1999–2000); Riva D. Atlas, *Loans Tightening to Young and Deeply Indebted Businesses*, N.Y. TIMES, Oct. 9, 2000, at C1 (reporting that outstanding leveraged loans grew from \$150 billion in 1993 to \$626 billion in 1999). Federal regulators define leveraged loans as those made to a borrower whose debt-to-equity ratio is 3.5 or more. *Big Bank Troubles in 2000*, *supra* note 111, at 66.

714. See Gilbert, *Problem Loans*, *supra* note 135 (providing data for business loans held by banks with assets of more than \$20 billion). In addition, during the same period, the charge-off rate for business loans held by large banks tripled and reached the highest level since 1993. See *id.*

715. See Kathleen Day, *Troubled Bank Loans More Than Double*, WASH. POST, Sept. 21, 2000, at A1 [hereinafter Day, *Troubled Loans*] (describing results of the OCC’s annual survey of syndicated lending by the sixty-nine largest national banks); see also Rob Garver, *Syndicated Loans in Trouble Jump 70%*, AM. BANKER, Oct. 11, 2000, at 1 (reporting that the volume of large syndicated loans—each in the amount of \$20 million or more—that were criticized by federal bank examiners rose from \$22 billion to \$63 billion during 1998–2000).

716. See Burns & Ryu, 2001 FDIC Banking Risk Study, *supra* note 117, at 7 (stating that the total amount of adversely rated large syndicated loans rose to \$193 billion in mid-2001); Alissa Schmelkin, *Fleet Claims to See Light at End of Credit Tunnel*, AM. BANKER, July 19, 2001, at 1 (reporting that (i) the percentage of nonperforming commercial and industrial loans at the 100 largest U.S. banks rose from 1.87% to 2.54% during the year ended March 31, 2001, and (ii) nonperforming business loans continued to grow rapidly during the second quarter of 2001 at several of the biggest banks, including Bank of America, Bank One, First Union, FleetBoston and Wells Fargo).

717. See Gregory Zuckerman, *Debtor Nation: Borrowing Levels Reach a Record, Sparking Debate*, WALL ST. J., July 5, 2000, at C1 [hereinafter Zuckerman, *Record Borrowing Levels*]; see also Michael J. Mandel, *Is the U.S. Building a Debt Bomb*, BUS. WK., Nov. 1, 1999, at 40 tbl. [hereinafter Mandel, *Debt Bomb*]; *Big Bank Troubles in 2000*, *supra* note 111, at 66 (stating that the debt-to-equity ratio for U.S. nonfinancial companies rose from 72% to 83% during 1997–2000). Business loans held

borrowed huge sums to finance stock buybacks intended to boost the market value of their shares.⁷¹⁸ By 2000, regulators and analysts were warning that many business loans to highly leveraged companies involved a high risk of default, with potentially devastating consequences for banks, if the United States entered a severe and prolonged recession.⁷¹⁹

In fact, since 1995 federal regulators had repeatedly admonished large banks for their underwriting of risky syndicated loans with inadequate interest rate spreads and lax covenants.⁷²⁰ Regulators also cautioned banks for pursuing aggressive commercial real estate and construction lending practices that resembled the disastrous real estate loans of the 1980s.⁷²¹ Analysts similarly criticized large banks for ignoring the risks of their business and commercial real estate loans, due to a shortsighted desire to increase their fee revenues and expand their share of the syndicated loan market.⁷²²

Despite these admonitions, large U.S. banks did not undertake a sustained tightening of credit standards for domestic business loans until mid-2000.⁷²³ Notwithstanding this belated action to reduce lending risks,

on bank balance sheets grew from \$660 billion to \$1.05 trillion during 1995–2000. See FDIC Q. BANKING PROFILE, 4th Qtr. 1995, at 4 tbl.II-A; FDIC Q. BANKING PROFILE, 4th Qtr. 2000, at 4 tbl.II-A.

718. During 1997–99, for example, U.S. corporations increased their debts by \$900 billion and reduced their equity by \$460 billion by repurchasing their stock. See *Debt in Japan and America: Into the Whirlwind*, ECONOMIST, Jan. 22, 2000, at 23, 24 [hereinafter *Debt Whirlwind*]; see also KAUFMAN, ON MONEY AND MARKETS, *supra* note 368, at 347–49 (warning of the dangers created by the rapid growth in corporate debt and decline in corporate equity during 1997–99).

719. See 2000 FDIC Economic Risk Study, *supra* note 105, at 7–13; Bary, *supra* note 111, at 34; *Big Bank Troubles in 2000*, *supra* note 111, at 66–77; *Debt Whirlwind*, *supra* note 718, at 24–25; Mandel, *Debt Bomb*, *supra* note 717, at 41–42.

720. See, e.g., RECENT TRENDS IN BANK LENDING STANDARDS FOR COMMERCIAL LOANS, (Bd. of Governors of Fed. Res. Sys., Supervisory Letter 99–23, Sept. 28, 1999), in Fed. Banking Law Rep. (CCH) ¶ 63–783B (Oct. 8, 1999); Blackwell, *FDIC Warns Again*, *supra* note 114 (discussing regulators' warnings during 1995–2000); Eileen Canning, *Bank Lending Standards Head Downhill; Negative Trend to Continue*, Regulator Says, 71 Banking Rep. (BNA) No. 10, at 399 (Sept. 21, 1998) (reporting on warnings by OCC); Niles S. Campbell, *Helper Urges Caution on Syndicated Lending; Says That Relaxed Underwriting, Pricing Are Concerns*, 68 Banking Rep. (BNA) No. 10, at 446 (Mar. 10, 1997) (reporting on warnings by FDIC Chairman Rick Helfer); Marc Selinger, *OCC Sees Jump in Problem Loans, Urges Banks to Tighten Standards*, 73 Banking Rep. (BNA) No. 13, at 562 (Oct. 11, 1999); *Underwriting Standards Continue to Erode in Syndicated Loan Market, Ludwig Says*, 67 Banking Rep. (BNA) No. 23, at 1003 (Dec. 16, 1996) (reporting on warnings by Comptroller of the Currency Eugene Ludwig).

721. See 2001 FDIC Banking Risks Study, *supra* note 705, at 5–6; Blackwell, *FDIC Commercial Real Estate Warning*, *supra* note 705; Thomas A. Murray, *Ranking Metropolitan Areas at Risk for Commercial Real Estate Overbuilding*, FED. DEPOSIT INS. CORP., REGIONAL OUTLOOK, 3d Qtr. 2000, at 3, 3–10, available at <http://www.fdic.gov>; *Regional Perspectives*; FED. DEPOSIT INS. CORP., REGIONAL OUTLOOK, 2d Qtr. 2001 at 15–16, 18, 24, 31–32, 37–38, available at <http://www.fdic.gov>.

722. See, e.g., Omri Ben-Amos, *Syndicators Fear Shakeout as Lending Boom Ages*, AM. BANKER, May 2, 1997, at 1 [hereinafter Ben-Amos, *Syndicators*]; Ann Carrns, *Banks to Builders: Take My Money, Please*, WALL ST. J., July 15, 1998, at B10; Day, *Troubled Loans*, *supra* note 715; O'Brien, *Worries About Loans*, *supra* note 400; *Syndicated Lending: At a Loss*, ECONOMIST, June 14, 1997, at 85–86.

723. See OFF. OF THE COMPTROLLER OF THE CURRENCY, SURVEY OF CREDIT UNDERWRITING PRACTICES 2000, at 2–3, 6–8, 28–29 (2000) available at <http://www.occ.treas.gov> [hereinafter 2000 OCC

observers feared that the credit exposures already embedded in bank balance sheets presented a serious threat to the financial health of many large banks.⁷²⁴

ii. Big Banks Have Assumed Growing Risks in Their Foreign Syndicated Loans

During the decade that followed the onset of the LDC loan crisis in 1982, U.S. banks reduced their overseas credit exposures from \$520 billion to about \$400 billion.⁷²⁵ LDC loans held by the largest U.S. banks declined substantially during the same period.⁷²⁶ However, U.S. banks returned to overseas lending markets after 1992, and their foreign credit facilities topped \$700 billion at the end of 1997.⁷²⁷ Notwithstanding the Asian and Russian crises, U.S. banks further increased their overseas lending to nearly \$760 billion by mid-1999. Even in emerging markets, U.S. banks only slightly reduced their credit exposures during 1997–99.⁷²⁸

A small group of large banks accounts for about 90% of the banking industry's foreign loans and a similar percentage of the industry's credit exposures to borrowers in emerging markets. For example, in 1998, six "money center banks" held about three-quarters of the banking industry's commitments in these areas,⁷²⁹ and several large regional banks

LOAN SURVEY] (finding, based on a survey of syndicated lending practices by the sixty-nine largest national banks, that: (i) credit standards eased on average during 1995–98, (ii) credit standards tightened on average during 1998–99, and (iii) credit standards again eased on average during 1999–2000); Richard Cowden, *Banks Clamp Down on Lending Standards, Citing Concern About U.S. Economic Outlook*, 77 Banking Rep. (BNA) No. 5 (July 2, 2001) (reporting that banks tightened their credit standards during 2000–01); Heather Timmons & Debra Sparks, *Banks: Feeling a Credit Squeeze*, BUS. WK., Dec. 4, 2000, at 148 (reporting that U.S. banks adopted much stricter credit policies for business loans beginning in the late 2000); cf. Weidner, *Loan Quality*, *supra* note 711, at 1 (reporting that, in mid-1998, banks were "pushing as hard as ever for [commercial loan] deals," because intense competition made it "all but impossible for banks to heed regulators' warnings about deteriorating credit quality").

724. See 2000 FDIC Economic Risk Study, *supra* note 105, at 6–13; 2000 OCC LOAN SURVEY, *supra* note 723, at 1–2, 5, 18–19; *Big Bank Troubles in 2000*, *supra* note 111, at 65; Day, *Troubled Loans*, *supra* note 715; Timmons, *Telcoms' Pain*, *supra* note 138, at 110.

725. Timothy Curry et al., *Assessing International Risk Exposures of U.S. Banks*, FDIC BANKING REV., Dec. 1998, at 13, 14, 15 tbl.1 (reporting cross-border loans and loan commitments of U.S. banks in 1982 and 1992); see also FDIC HISTORY LESSONS, *supra* note 395, at 206 (describing loan defaults by Mexico and other LDC borrowers that triggered the 1982 crisis).

726. See FDIC HISTORY LESSONS, *supra* note 395, at 197 tbl.5.1b (reporting that LDC loans held by eight U.S. money center banks declined from \$54.6 billion in 1982 to \$43.5 billion in 1989).

727. Curry et al., *supra* note 725, at 14, 15 tbl.1; David E. Palmer, *U.S. Bank Exposure to Emerging-Market Countries During Recent Financial Crises*, 86 FED. RES. BULL. 81, 83 tbl.1 (2000).

728. See Palmer, *supra* note 727, at 81–83, 83 tbl.1 (describing increase in total overseas lending, and reporting that U.S. bank claims on emerging-market counterparties declined by only 6%, from \$195 billion to \$183 billion, during 1997–99).

729. See Curry et al., *supra* note 725, at 15 tbl.1 (showing that, as of March 31, 1998, six "money center banks" held \$312 billion, or 73%, of the U.S. banking industry's \$427 billion of cross-border loans); Palmer, *supra* note 725, at 91 (stating that, during 1997–99, "money center banks consistently accounted for about 80 percent of total claims on counterparties in emerging markets"); James R. Kraus, *U.S. Banks Cut Credit to Asia But Boost It in Other Emerging Areas*, AM. BANKER, July 30, 1998, at 9 [hereinafter Kraus, *Bank Credit in Emerging Areas*] (reporting that, as March 31, 1998, six

held a 15% share.⁷³⁰ The money center banks have actually increased their domination of the foreign lending market over the past two decades. While nine money center banks held 62% of the industry's total cross-border loans in 1982, the six surviving money center banks accounted for 73% of such loans in 1998.⁷³¹

In both the 1970s and 1990s, large U.S. banks syndicated huge amounts of LDC credit in an attempt to offset the erosion of their domestic customer base and capture higher profit margins that seemed to be available in emerging markets.⁷³² During each period, money center banks spearheaded the expansion of LDC loans and gave little heed to warnings by regulators and analysts about the risks inherent in such loans.⁷³³ The LDC loan crisis of the early 1980s drove several of the largest U.S. banks to the brink of failure. In response, U.S. regulators adopted a forbearance policy that permitted weak banks to remain in operation while they rebuilt their capital and loan loss reserves.⁷³⁴ Ultimately, the LDC crisis compelled U.S. banks to charge off many billions of dollars in defaulted LDC loans, and to exchange large amounts of nonperforming LDC loans for foreign bonds or equity interests under the Brady Plan's debt reduction program.⁷³⁵

money center banks accounted for \$192 billion, or 78%, of the U.S. banking industry's \$247 billion of credit exposure to emerging markets).

730. See Curry et al., *supra* note 725, at 14, 15 tbl.1 (showing that, as of March 31, 1998, seven regional banks held \$71 billion, or 17%, of the banking industry's \$427 billion of cross-border loans); Kraus, *Bank Credit in Emerging Areas*, *supra* note 729 (reporting that, as of the same date, six of the same banks held \$35 billion, or 14%, of the industry's \$247 billion of credit exposure to emerging markets).

731. See Curry et al., *supra* note 725, at 15 tbl.1, 16; see also Palmer, *supra* note 727, at 91 & n.19.

732. See DAVIS, *supra* note 77, at 156–58 (discussing motivations for rapid increase in syndicated LDC loans made by large U.S. banks during the 1970's); FDIC HISTORY LESSONS, *supra* note 395, at 195–97 (same); James R. Kraus, *Overseas Losses Spur U.S. Banks to Cut Jobs and Loan Exposure*, AM. BANKER, Oct. 1, 1998, at 1 [hereinafter Kraus, *Overseas Losses*] (describing reasons for rapid growth in extensions of credit by large U.S. banks to emerging markets during the 1990's); Kraus, *Revenue Hunt*, *supra* note 416 (same).

733. See FDIC HISTORY LESSONS, *supra* note 395, at 195–206 (describing growth of syndicated lending by money center banks during the 1970s and the lack of response by those banks to warnings by regulators and analysts until the LDC crisis began with Mexico's loan default in 1982); Curry et al., *supra* note 725, at 14, 16–19 (discussing rapid increase in syndicated lending by money center banks to foreign borrowers during the 1990s); Kraus, *Revenue Hunt*, *supra* note 416 (reporting warnings by regulators and analysts about risks inherent in the growing exposure of large U.S. banks to emerging markets during the late 1990s); James R. Kraus, *U.S. Banks' Foreign Lending Growing Faster than Domestic*, AM. BANKER, Nov. 20, 1997, at 8 (noting trend of increased overseas lending by U.S. banks); see also G. Bruce Knecht, *U.S. Banks Are Boosting Foreign Loans Despite Billions in Losses During 1980s*, WALL ST. J., Oct. 5, 1994, at B4 (reporting on the rapid increase in U.S. bank loans to borrowers in emerging markets after 1992, and quoting the following statement by analyst Raphael Soifer: "You would have thought the banks would have learned their lesson after the LDC-debt crisis, . . . [b]ut bankers are people with very short memories—and a great hunger for new revenues").

734. See, e.g., L. WILLIAM SEIDMAN, *FULL FAITH AND CREDIT* 128 (1993) (stating that "seven or eight of the ten largest banks in the United States probably would have been insolvent" as a result of the LDC loan crisis if federal regulators had not chosen to follow a policy of forbearance); FDIC HISTORY LESSONS, *supra* note 395, at 207–08 & nn.45–46.

735. See, e.g., DAVIS, *supra* note 77, at 157–59; FDIC HISTORY LESSONS, *supra* note 395, at 205–10; SEIDMAN, *supra* note 734, at 123, 127–28; Martin Feldstein, *The Risk of Economic Crisis: Introduction*, in *THE RISK OF ECONOMIC CRISIS* 1, 3–7 (Martin Feldstein ed., 1991).

Similarly, money center banks did not anticipate the financial crises that struck East Asian countries and Russia in 1997–98. In each case, U.S. banks, as well as their foreign competitors, suffered major losses, because they continued to extend credit to risky borrowers until foreign lending markets were suddenly paralyzed by financial panics.⁷³⁶ By 1998, money center banks also confronted serious credit problems in Latin America, where they had aggressively expanded their lending for several years.⁷³⁷

At the end of 1998, U.S. banks reportedly faced potential losses of nearly \$50 billion from their emerging market loans, and \$40 billion of this default risk was concentrated among the six largest banks.⁷³⁸ Although the LDC lending risks of money center banks were even larger during the early 1980s, in proportion to their capital and loan loss reserves, their credit exposures to emerging markets in 1998 still exceeded their capital and reserves by a substantial margin.⁷³⁹

After the Russian crisis abated at the end of 1998, economic conditions slowly improved in many emerging markets and the largest U.S. banks once again expanded their loans and equity investments in Asia and Latin America.⁷⁴⁰ Despite the losses suffered by major banks during 1997–98, they continued to view emerging markets as attractive venues

736. See, e.g., *Asian Mess Hits Profits At J.P. Morgan, Citi, Chase*, AM. BANKER, Jan. 21, 1998, at 1; Gordon Matthews, *Russia May Be Next Hot Zone for U.S. Banks After Surge of Lending Over Past Three Years*, AM. BANKER, Mar. 2, 1998, at 31 (reporting that credit exposures of the six largest U.S. money center banks to Russia grew from \$230 million to \$8.1 billion during 1995–97); Timothy L. O'Brien, *Covering Asia With Cash*, N.Y. TIMES, Jan. 28, 1998, at D1; Anita Raghavan & Matt Murray, *Financial Firms Lose \$8 Billion So Far*, WALL ST. J., Sept. 3, 1998, at A2 (“Sifting Through the Ruble” chart, showing losses incurred by U.S. banks from their Russian operations); Peter Truell, *5 Big Lenders Report Losses From Russia*, N.Y. TIMES, Sept. 2, 1998, at C1 (reporting criticism by analyst John Keefe that U.S. banks “ha[d] not properly assessed the risks of their Russian businesses”).

737. See Paul Beckett, *Latin Lending May Pose Risk For U.S. Banks*, WALL ST. J., Sept. 10, 1998, at A3; Thomas T. Vogel, Jr., *Lending Boom Sweeps Latin America*, WALL ST. J., July 9, 1997, at A10; David Weidner, *Latin America Spillover Could Hit U.S. Banks Hard*, AM. BANKER, Sept. 3, 1998, at 21.

738. *Banks: Still Living*, ECONOMIST, Oct. 24, 1998, at 76 (reporting estimate by analyst Raphael Soifer); James R. Kraus, *Rising Threat to Big Banks Seen in Overseas Exposure*, AM. BANKER, Sept. 24, 1998, at 8 [hereinafter Kraus, *Rising Threat*] (reporting estimate by Veribanc, a bank rating service).

739. Total LDC loans held by money center banks in 1982 equaled 217% of their capital and reserves. FDIC HISTORY LESSONS, *supra* note 395, at 196 tbl.5.1a. By comparison, on March 31, 1998, total credit exposures of money center banks to borrowers in emerging markets equaled 155% of their capital and reserves. See Curry et al., *supra* note 725, at 15 tbl.1 (stating that, on March 31, 1998, money center banks had total capital and reserves of \$124 billion); Kraus, *Bank Credit in Emerging Areas*, *supra* note 729 (reporting that on March 31, 1998, money center banks had \$192 billion of credit exposure to emerging markets).

740. See Jon E. Hilsenrath, *Syndicated Loans Stand Out in Asia As Red-Hot Market*, WALL ST. J., July 11, 2000, at A23; James R. Kraus, *Latin America Profit Surge Spurring U.S. Banks' Plans*, AM. BANKER, Nov. 22, 1999, at 4; James R. Kraus, *U.S. Banks' Asian Loan Syndications Soar as Economic Confidence Rises*, AM. BANKER, June 14, 1999, at 1; Timmons et al., *supra* note 310, at 88 (reporting that Citigroup agreed to purchase a large Mexican bank in May 2001, and was taking other steps to expand its presence in emerging markets).

for investment and lending, and they refused to abandon client relationships built over the previous decade.⁷⁴¹

In contrast, smaller U.S. banks reduced their loans to foreign borrowers after mid-1997.⁷⁴² As smaller banks cut back on foreign lending, major banks found it more difficult to spread their credit risks in emerging markets by selling loan participations. To maintain their status as leading underwriters of foreign loans, money center banks chose to retain larger shares of syndicated loans to emerging markets.⁷⁴³ By mid-2001, some analysts warned that the growing commitments of major U.S. banks in emerging markets exposed them to serious potential losses if developing countries again experienced a widespread financial crisis similar to the Asian and Russian disruptions.⁷⁴⁴

e. Risky Consumer Lending

i. Large Banks Rapidly Expanded Their Involvement in Consumer Lending During the 1990s

Since 1993 the largest banks have aggressively expanded their presence in the consumer lending markets, primarily through acquisitions of both banks and nonbank lenders.⁷⁴⁵ Major banks have built a dominant

741. See, e.g., Palmer, *supra* note 727, at 85 (stating that the expectation of favorable profits has caused U.S. banks to maintain a major presence in emerging markets and to “stand by local counterparties in downturns”); James R. Kraus, *\$1B Argentina Bond from Morgan, Citi*, AM. BANKER, Jan. 26, 2000, at 15 (stating that large U.S. banks have “major stakes in emerging markets,” because they believe those markets offer profit opportunities that are “far higher than in North America and Europe”); Kraus, *Overseas Losses*, *supra* note 732, at 12 (reporting that, despite losses in overseas markets during 1997–98, leading U.S. banks “are deeply entrenched in international banking” and “are not about to walk away from long-standing clients overseas”).

742. See Curry et al., *supra* note 725, at 15 tbl.1 (showing that smaller banks reduced their cross-border lending by more than 10% between June 30, 1997 and March 31, 1998); James R. Kraus, *The Burden of Latin Debt Falls on Big Syndicators*, AM. BANKER, Nov. 12, 1998, at 22 [hereinafter Kraus, *Latin Debt Burden*] (describing same trend).

743. See Curry et al., *supra* note 725, at 15 tbl.1 (showing that the money center banks’ aggregate share of cross-border loans by U.S. banks increased from 71% to 73% during the first quarter of 1998); Kraus, *Latin Debt Burden*, *supra* note 742.

744. See Jonathan Fuerbringer, *Argentine Debt Creates Fallout That Is Wide*, N.Y. TIMES, July 12, 2001, at C1 (discussing concerns about the credit exposures of major U.S. banks in Latin America and other emerging markets); *Latin Headache Becomes a World-Wide Worry*, WALL ST. J., July 12, 2001, at A12 (same); Matthias Rieker, *Citi Drops Two Notches on Raymond James Card*, AM. BANKER, July 10, 2001, at 20 (citing concerns of analyst Richard Bove about Citigroup’s exposure to a potential economic crisis in Latin America).

745. See Lisa Fickenscher, *Members of New Club Have \$70 Billion in Card Receivables*, AM. BANKER, Sept. 14, 1999, at 4A (discussing major bank acquisitions of credit card issuers); Frank Martien, *Comment: Portfolio Sales Require Rethinking Card Strategies*, AM. BANKER, Sept. 24, 1998, at 15; Marc Hochstein, *Chase Buying Mortgage Unit From Mellon*, AM. BANKER, Aug. 5, 1999, at 1 (discussing large bank acquisitions of mortgage providers); Robert Julavits, *Mortgages Boom and the Biggest Players Get Bigger*, AM. BANKER, June 27, 2001, at 17 [hereinafter Julavits, *Big Mortgage Players*] (describing big bank acquisitions of mortgage portfolios from smaller banks and nonbanks); Robert Julavits & Helen Stock, *With Associates, Citi Extends Retail Power in U.S., Abroad*, AM. BANKER, Sept. 7, 2000, at 1 (stating that Citigroup became the largest originator of home equity loans, and extended its lead among issuers of credit cards, by acquiring Associates First Capital).

position in consumer lending through nationwide marketing campaigns that employ highly automated programs to process and approve loans. For example, banks have used mass marketing techniques to blanket the country with many billions of solicitations for credit cards and other consumer loan products.⁷⁴⁶ They have also greatly reduced the time and cost involved in approving loan applications by using computerized credit scoring programs in place of personal reviews of credit files.⁷⁴⁷

Big banks have funded a growing portion of their consumer lending programs by packaging loans into asset-backed securities that are sold to investors in the capital markets.⁷⁴⁸ By the late 1990s, banks securitized more than half of their credit card loans and about a third of their other consumer loans and mortgages.⁷⁴⁹ Through mass marketing, credit scoring, and securitization, large banks have transformed home mortgages and credit card loans into “commodity-like financial services.”⁷⁵⁰

This commodity-driven approach to consumer lending enabled big banks, along with a few nonbank competitors, to achieve commanding market shares by the end of the 1990s.⁷⁵¹ As a result of this dominance,

746. See Jeff Bailey, *Solicitations for Platinum Credit Cards Drew Record-Low Responses Last Year*, WALL ST. J., Mar. 9, 1998, at A11C (stating that credit card issuers mailed over eight billion solicitations during 1995–97); Calmetta Coleman, *Marketing & Media: Credit-Card Offers Get Record Low In Response Rate*, WALL ST. J., Mar. 19, 2001, at B10 (reporting that credit card issuers mailed 6.41 billion solicitations in 1999–2000); Miriam K. Souccar, *Postal Solicitations for Credit Cards Again Set Record*, AM. BANKER, Apr. 8, 1999, at 1 (reporting that credit card issuers mailed 3.45 billion solicitations during 1998); see also Beverly M. Burden, *Credit Card Charge-Offs, Subprime Lending, and High-LTV Home Equity Loans*, 7 J. BANKR. L. & PRAC. 337, 351–55 (1998) (discussing similar mass marketing programs for home equity loans).

747. See Mester, *Credit Scoring*, *supra* note 217, at 4–6 (discussing banks’ use of credit scoring in approving credit card and home mortgage loans); Snigdha Prakash, *High-LTV’s Seen as a Bankruptcy Predictor*, AM. BANKER, June 15, 1998 (discussing cost savings resulting from the automated processing and administration methods used by big banks for mortgage loans).

748. The securitization process requires banks to create large pools of highly standardized loans, based on uniform documentation and fixed approval criteria. Those loan pools are packaged into asset-backed securities, which are then rated by one or more securities rating agencies and sold to institutional and public investors. See Welshimer, *supra* note 46, at 488–99 (describing securitization process and the need for uniform documentation and credit standards to make asset-backed securities attractive to investors). Beginning in the 1980s, federal regulators and courts ruled that banks could sell securities backed by loans they had originated. Regulators and courts reasoned that a bank’s authority to securitize its loans was “incidental” to its express power to make and sell loans. See FEIN, *supra* note 30, § 13.02 (reviewing regulatory opinions and court decisions upholding the authority of banks to securitize their loans). For the leading court decision on this issue, see *Securities Industry Association v. Clarke*, 885 F.2d 1034 (2d Cir. 1989).

749. See FDIC Q. BANKING PROFILE, 2d Qtr. 1998, at 1–3(c) (providing data for credit card loans); Bassett & Zakrajsek, *1999 Banking Developments*, *supra* note 97, at 372, 373 chart 10 (providing data for all non-mortgage consumer loans); Kenneth J. Robinson & Kelly Klemme, *Does Greater Mortgage Activity Lead to Greater Interest Rate Risk? Evidence from Bank Holding Companies*, FED. RES. BANK OF DALLAS, FIN. INDUSTRY STUD., Aug. 1996, at 13, 16–17 (providing data for home mortgages).

750. Danielson, *Bankers’ Choice*, *supra* note 164, at 5.

751. The total market share held by the top twenty-five mortgage servicers increased from 14% in 1985 to almost 60% in 2000. See James D. Jones, *A Churning Consolidation Creates Two Lender Classes: Giants and Niche Players*, AM. BANKER, Oct. 28, 1996, “Mortgage Insights” Supp. at 16 (giving 1985 figure); Bill Stoneman, *Consolidation Picks Up Pace of Servicing Deals*, AM. BANKER, Oct. 23, 2000, “Special Report: Home Loan Leaders” Supp. at 6A (giving 2000 figure). In 2001, (i) the top

home mortgages and credit card loans have become a “near private fiefdom of the large banks.”⁷⁵² Smaller institutions cannot make the heavy investments in technology and distribution facilities that are needed to compete with the mass marketing and securitization programs operated by the big banks. Accordingly, smaller banks presently compete in the home mortgage and credit card markets as “niche” players only serving customers who desire customized products or a high degree of personalized service.⁷⁵³

ii. Big Banks Confront Significant Interest Rate and Prepayment Risks in Their Mortgage Lending Activities

The rapid expansion of big banks into the home mortgage market entails serious risks. Mortgage banking is a “highly cyclical business” that has produced volatile earnings and sharp declines during periods of rising interest rates.⁷⁵⁴ For example, when interest rates rose substantially during 1999–2000, consumer demand for mortgage loans fell and mortgage lenders were hit with reduced business volumes and much

ten mortgage competitors controlled 45% of the origination market and 48% of the servicing market; and (ii) Chase, Wells Fargo, and Bank of America ranked among the top five originators and servicers of mortgages, along with Washington Mutual, a large thrift, and Countrywide, a nonbanking firm. See Robert Julavits, *Mortgages Boom and the Biggest Players Get Bigger*, AM. BANKER, June 27, 2001, at 17 [hereinafter Julavits, *Mortgages Boom*].

A similar wave of consolidation, led by large banks, has swept through the credit card industry. The ten largest credit card issuers increased their market share from 40% to 70% during 1989–99, while the five biggest issuers increased their market share from 35% to 60% during the same period. 1999 FDIC Banking Risks Study, *supra* note 707, at 9 (providing data for the five biggest issuers); Jennifer Kingson Bloom & Lisa Fickenschier, *Lonely at the Top: Consolidation Thins Out Card Conference Ranks*, AM. BANKER, Apr. 20, 1999, at 20 (providing data for the ten largest issuers). In 1999, banks occupied the top four positions, and seven of the top ten places, among credit card issuers. *Top 50 Companies in Managed Bank Credit Card Loans*, AM. BANKER, Sept. 2, 1999, at 17 (listing the fifty largest credit card issuers as of March 31, 1999).

752. Danielson, *Bankers' Choice*, *supra* note 164, at 5.

753. See Jones, *supra* note 751 (describing mortgage market as divided between “giants” and “local, niche lenders,” while mid-sized lenders could not compete effectively); Julavits, *Mortgages Boom*, *supra* note 751 (quoting Keith Gumbinger’s description of the mortgage industry as “barbell-shaped” with a few “very big, jumbo guys at one end, nobody in the middle, and lots of small guys at the other end”); Emily Thornton et al., *Credit Cards: Who Will Hold the Cards?*, BUS. WK., Mar. 19, 2001, at 90 [hereinafter Thornton et al., *Credit Cards*] (reporting that seventeen of the thirty-five top banks in the credit card business as of 1997 had subsequently sold out to larger banks because they could not reach “critical mass for a profitable operation”); Miriam K. Souccar, *Bank One Gains in Card Race, Gets \$5B Chevy Chase Portfolio*, AM. BANKER, Sept. 4, 1998, at 1 (reporting on sale of credit card portfolio by a mid-sized thrift that “decided it could not compete with the giants”).

754. Wilmarth, *Big Bank Mergers*, *supra* note 106, at 56. Accord, Tommy Fernandez, *Mortgage Cycle Seen Pushing Consolidation*, AM. BANKER, June 25, 2001, at 1 (describing home mortgage lending as a “boom-and-bust” business); Robert Julavits & Erick Bergquist, *Provident's Plan to Close Unit Points to Shakeout in Industry*, AM. BANKER, Oct. 20, 2000, at 9 (describing “cyclical and low-margin nature” of the mortgage business); Edward Kulkosky, *Mortgage Banking Remains a Slippery Slope for Most, Money Machine for Few*, AM. BANKER, Oct. 7, 1997, at 2A, 10A (“Home Loan Leaders” section) [hereinafter Kulkosky, *Mortgage Banking*] (describing “cyclicality” and volatility of earnings within the mortgage business due to the effects of interest rate movements).

lower profit margins.⁷⁵⁵ In fact, the home mortgage business has been plagued by shrinking profit margins over much of the past decade due to intense price competition among the industry leaders.⁷⁵⁶

Banks incur interest rate risk whenever they retain either home mortgages or mortgage-backed securities on their balance sheets.⁷⁵⁷ Many large banks have significantly expanded their portfolios of mortgage-related assets in recent years, and regulators and analysts have expressed growing concerns about the exposure of those banks to sudden increases in interest rates.⁷⁵⁸

Conversely, falling interest rates can injure banks that service a significant volume of mortgages. Mortgage servicing rights are subject to prepayment risk during periods of falling interest rates, because homeowners are more likely to refinance and pay off their mortgages when interest rates decline.⁷⁵⁹ During the early 1990s, an unexpected wave of refinancings caused Citicorp, Chase, and Fleet to record substantial

755. See Erick Bergquist, *MBA: Profitability Tanked Last Year—Except in Servicing*, AM. BANKER, July 26, 2000, at 11 (reporting that the average profit per mortgage loan fell 62% in 1999 for members of the Mortgage Bankers Association); Joshua Brockman & Marc Hochstein, *Major Layoffs Announced at 2 Leading Home Lenders*, AM. BANKER, Dec. 2, 1999, at 1, 12 (reporting that mortgage applications declined nationwide by nearly 50% during 1999, leading to large layoffs at many leading mortgage lenders, including Bank of America); Marc Hochstein, *FT, Norwest Agree: Home Lenders Face a Long Winter*, AM. BANKER, Jan. 21, 2000, at 1 (stating that rising interest rates during 1999 had “killed off [mortgage] refinance volume and sparked intense price competition”); Julavits & Bergquist, *supra* note 754, at 9 (reporting that the mortgage banking industry was in a “dreadful state” in late 2000, and mortgage originations were expected to decline from \$1.4 trillion in 1999 to \$1 trillion in 2000).

756. See Fernandez, *supra* note 754 (reporting a sharp drop in profits from mortgage lending during 1998–2000); Julavits & Bergquist, *supra* note 754 (reporting that (i) Provident Bancshares decided to close its mortgage banking unit at the end of 2000, because the mortgage business was “too costly, too cyclical and too low-margin to be consistently profitable at the levels we want;” and (ii) only the largest mortgage lenders with nationwide distribution programs, like Wells Fargo and Bank of America, could generate “decent, if not good, mortgage profits” by exploiting their size advantage and balancing their origination and servicing activities); Kulkosky, *Mortgage Banking*, *supra* note 754 (describing rapid consolidation, intense competition, and falling profit margins in the mortgage banking industry since 1992); see also Robert Julavits, *Fleet Next to Pull Out of Mortgages?*, AM. BANKER, Feb. 16, 2001, at 1 (quoting analyst Gary Gordon’s observation that “as the mortgage process gets more and more automated, the mortgage lender has less and less value”).

757. See Robinson & Klemme, *supra* note 749, at 16–23 (finding that banks with greater holdings of mortgages and mortgage-backed securities are exposed to a significant increase in interest rate risk); Desan Stojanovic & Mark D. Vaughan, *District Bank Loans: There’s No Place Like Home*, FED. RES. BANK OF ST. LOUIS, REGIONAL ECONOMIST, July 1998, at 12, 13 (reaching a similar conclusion).

758. See Wilmarth, *Big Bank Mergers*, *supra* note 106, at 55–57 (discussing risks created by large portfolios of mortgage-related assets held by big banks); 1999 *FDIC Banking Risks Study*, *supra* note 707, at 15 (same); Zuckerman, *Record Borrowing Levels*, *supra* note 717 (same, and noting that ten large banks and thrifts held 15% of all U.S. mortgage-related assets in 2000, up from only 6.5% of such assets in 1994); Robert Julavits, *Bank and Thrift Mortgage Investments Rose in ‘99*, AM. BANKER, Feb. 1, 2000, at 11 (reporting that the top fifty banks increased their investments in mortgage loans and mortgage-backed securities by 22% during 1999); *Top 50 Commercial Banks in Mortgage Investments*, AM. BANKER, Feb. 2, 2000, at 12 (showing that ten big banks accounted for 45% of all mortgage-related investments held by commercial banks).

759. See Paul R. La Monica, *High Anxiety for Mortgage Servicers As Rates Trigger Explosion of Refis*, AM. BANKER, Feb. 19, 1998, at 1 (noting vulnerability of mortgage servicers to losses from refinancings during periods of declining interest rates); Heather Timmons & March Hochstein, *Mortgage Lenders Face Peaks, Pitfalls as Refinancing Booms*, AM. BANKER, Oct. 19, 1998, at 1 (same).

charges in writing down the values of their mortgage servicing portfolios.⁷⁶⁰ A similar refinancing boom forced Bank of America to take a \$250 million charge against its 1998 earnings.⁷⁶¹

The advent of mass marketing programs for mortgage lending has intensified the prepayment risk faced by mortgage servicers. Those programs make it cheaper and easier for homeowners to refinance their mortgages whenever interest rates decline, and prepayments therefore occurred with a much higher frequency in the 1990s than they did in the 1980s.⁷⁶² An unexpectedly high rate of mortgage prepayments not only harms mortgage servicers but also can inflict substantial losses on banks and other investors who hold certain classes of mortgage-backed securities.⁷⁶³ In sum, the expansion of big banks into mortgage-related activities has made them more vulnerable to sudden interest rate swings in either direction.

iii. Large Banks Face Growing Default Risks in Their Consumer Lending Operations

(a) Banks Have Expanded Their Lending to Subprime and Highly leveraged Borrowers

Since the early 1990s, big banks have greatly enlarged their consumer lending risks in two ways. First, they have increasingly marketed consumer loans and residential real estate loans to "subprime" borrowers with troubled credit histories.⁷⁶⁴ During the 1990s, credit card loans expanded at a faster pace among lower-income households than among higher-income families.⁷⁶⁵ Home mortgage loans to subprime borrowers

760. See La Monica, *supra* note 759, at 24 (reporting that Citicorp took a \$100 million charge against earnings in 1992 to reflect losses in its servicing portfolio, while Chase and Fleet took "sizeable writedowns the next year").

761. Timmons & Hochstein, *supra* note 759, at 1.

762. PAUL BENNETT ET AL., STRUCTURAL CHANGE IN THE MORTGAGE MARKET AND THE PROPENSITY TO REFINANCE, *passim* (Fed. Res. Bank of N.Y., Staff Rep. No. 45, Sept. 1998).

763. See Robinson & Klemme, *supra* note 749, at 17-18; Suzanne Woolley, *How Lower Rates Lower the Boom*, BUS. WK., Sept. 7, 1998, at 80.

764. See, e.g., THERESA A. SULLIVAN ET AL., THE FRAGILE MIDDLE CLASS: AMERICANS IN DEBT 135-37, 244-50, 320 n.25 (2000) (discussing aggressive marketing of credit cards and mortgage loans to high-risk borrowers); Kathleen Day, *Raising the Roof on Riskier Lending*, WASH. POST, Feb. 6, 2000, at H1 [hereinafter Day, *Riskier Lending*] (describing rapid increase in subprime mortgage lending by banks); Susan Pulliam, *Big Banks Are Getting Roiled as They Follow 'Subprime Lenders' on Easier Home Mortgages*, WALL ST. J., Mar. 5, 1997, at C2 (same). Federal regulators have issued guidelines defining borrowers as "subprime" if they are rated as high-risk customers under credit scoring models, or if they have: (i) two or more thirty-day delinquencies on paying debts in the past year, (ii) a personal bankruptcy in the past five years, (iii) a debt service-to-income ratio of 50% or higher, or (iv) a foreclosure, repossession or charge-off of debt in the past two years. See Rob Blackwell, *Regulators Define What They Mean by Subprime*, AM. BANKER, Feb. 1, 2001, at 1.

765. See SULLIVAN ET AL., *supra* note 764, at 136-37; Sandra E. Black & Donald P. Morgan, *Meet the New Borrowers*, FED. RES. BANK OF N.Y., CURRENT ISSUES IN ECON. & FIN., Feb. 1999, at 2 tbl. 1, 3 (showing that the percentage of credit card borrowers with incomes under \$25,000 increased from 22% in 1989 to 28% in 1995); Joanna Stavins, *Credit Card Borrowing, Delinquency, and Personal Bankruptcy*, FED. RES. BANK OF BOSTON, NEW ENG. ECON. REV., July-Aug. 2000, at 16, 18 [hereinaf-

quadrupled during 1993–99.⁷⁶⁶ The total volume of second mortgages and subprime mortgages more than tripled during 1993–2000 and reached \$750 billion at the end of that period.⁷⁶⁷ By early 2000, big banks controlled eight of the ten largest subprime lending companies in the United States.⁷⁶⁸ Citigroup became the biggest subprime consumer lender when it agreed to acquire Associates First Capital (Associates) in September 2000.⁷⁶⁹

Banks have targeted home equity lending as a major growth area, particularly among subprime borrowers.⁷⁷⁰ Many banks have promoted home equity loans as a convenient way for consumers to consolidate and pay off their credit card debt.⁷⁷¹ However, regulators and analysts have warned that these home equity loan programs may simply be transferring the banks' default risks from the credit card sector to the home equity field.⁷⁷²

ter Stavins, *Credit Card Borrowing*] (citing studies showing that credit card debt “increased disproportionately among poorer households” during the 1990s); Bernard Wysocki, Jr., *Paying the Piper: Hangover May Loom For Americans Who Enjoyed Credit Boom*, WALL ST. J., Sept. 28, 2000, at A1 [hereinafter Wysocki, *Credit Hangover*] (stating that, since the early 1990s, “the biggest expansion in consumer debt has taken place among households with income below \$50,000”); Peter S. Yoo, *Still Charging: The Growth of Credit Card Debt between 1992 and 1995*, FED. RES. BANK OF ST. LOUIS, REV., Jan.–Feb. 1998, at 19, 23 (reporting that average credit card debt for low-income households grew 14% during 1992–95, compared to an 8% growth rate for upper-income families).

766. See Zuckerman, *Record Borrowing Levels*, *supra* note 717 (stating that lenders made more than \$160 billion of subprime mortgage loans in 1999, compared to only \$40 billion of such loans in 1993); see also Day, *Riskier Lending*, *supra* note 764 (reporting that First Union, Bank One, and Bank of America made \$38 billion of subprime mortgage loans in 1999).

767. See Heather Timmons, *Bank Lending: Trouble on the Home Front*, BUS. WK., Apr. 30, 2001, at 122 [hereinafter Timmons, *Home Lending Trouble*].

768. See Robert Julavits, *Subprime Risks Extending Beyond Borrowers*, AM. BANKER, Mar. 27, 2000, at 9 [hereinafter Julavits, *Subprime Risks*].

769. See Marc Hochstein, *Associates Deal Another Subprime Stroke for Citi*, AM. BANKER, Sept. 7, 2000, at 9; Julavits & Stock, *supra* note 745, at 1; see also Robert Julavits, *Citi Starts Rebuilding Mortgage Unit*, AM. BANKER, May 31, 2000, at 1 [hereinafter Julavits, *CitiMortgage*] (reporting on previous efforts by Citigroup to expand its subprime consumer lending business); Heather Timmons, *Citigroup's Lending Strategy Takes A Page from the Travelers Playbook*, AM. BANKER, Mar. 30, 1999, at 1 [hereinafter Timmons, *Citigroup Lending Strategy*] (same).

770. See SULLIVAN ET AL., *supra* note 764, at 223–26. Banks expanded their portfolios of home equity loans from \$122 billion in 1993 to \$174 billion in 1997. Glenn B. Canner et al., *Recent Developments in Home Equity Lending*, 84 FED. RES. BULL. 241, 248 tbl.9 (1998). As with mortgage lending generally, the largest banks dominate the home equity loan market. See Hala Habal, *Banks Seen Ready to Increase Home Equity Share*, AM. BANKER, Feb. 10, 1999, at 1 (reporting that banks controlled 57% of the home equity loan market in 1998); *Top 100 Bank Depository Institutions in Home Equity Loans and Lines of Credit*, AM. BANKER, May 5, 1999, at 12 (showing that, upon completion of the pending Fleet-BankBoston merger, the ten largest bank lenders would hold 49% of all home equity loans made by banks, and the twenty largest banks would account for 70% of such loans).

771. See English & Nelson, *supra* note 107, at 395 (reporting on banks' efforts to encourage borrowers to use home equity loans to refinance credit card debt); Jaret Seiberg, *Seeking Safety, Banks Boost Their Home Equity Lending*, AM. BANKER, Feb. 11, 1997, at 1 (same).

772. SULLIVAN ET AL., *supra* note 764, at 223–26 (discussing risks entailed in aggressive marketing of home equity loans to debt-burdened borrowers); Albert B. Crenshaw, *Home Equity Loans Pose Long-Term Risks*, WASH. POST, July 5, 1998, at H1 (same); Betsy Morris, *Nightmare on Easy Street*, FORTUNE, Apr. 2, 2001, at 64, 70, 74 [hereinafter Morris, *Debt Nightmare*] (same); see also Jaret Seiberg, *OCC Sounds Quality Alert On Loans to Consumers*, AM. BANKER, Sept. 29, 1998, at 1 [here-

The second new risk factor in bank consumer lending is that banks are approving a much larger percentage of mortgage loans and home equity loans with loan-to-value (LTV) ratios that exceed 90% of the home's appraised value.⁷⁷³ High LTV mortgage loans have experienced much higher rates of defaults and bankruptcies over the past two decades, because such loans (i) are frequently made to borrowers with a history of serious credit problems, and (ii) create moral hazard for borrowers by reducing their required down payment and thereby decreasing their personal stake in avoiding default.⁷⁷⁴ Observers have warned that large numbers of highly leveraged homeowners are likely to default on their mortgages and home equity loans if a severe recession similar to the 1990–91 downturn strikes the U.S. economy.⁷⁷⁵

(b) Risky Consumer Lending Has Led to Unprecedented Debt Burdens for Consumers, Record Numbers of Personal Bankruptcies, and Major Losses for Banks

Over the past two decades, aggressive consumer lending programs implemented by banks and other consumer lenders have resulted in record numbers of personal bankruptcies and record-high delinquency rates for consumer loans. Individual bankruptcy filings quadrupled from about 300,000 in 1984 to an average of more than 1.2 million per year during 1996–2000.⁷⁷⁶ During the same period, losses to banks and other

inafter Seiberg, *OCC Warning on Consumer Loans*] (reporting concerns expressed by Acting Comptroller of the Currency Julie Williams).

773. See SULLIVAN ET AL., *supra* note 764, at 226; 2000 OCC LOAN SURVEY, *supra* note 723, at 3 n.1, 4, 32 (reporting that thirty-eight of the sixty-nine largest national banks offered home equity loans with LTV ratios above 90%, and twelve of those banks offered such loans to subprime borrowers); Snigdha Prakash, *High-LTVs' Popularity Seen As a Bankruptcy Predictor*, AM. BANKER, June 15, 1998, at 15 [hereinafter Prakash, *High LTV*] (reporting that the percentage of new mortgages with LTV ratios above 90% rose from less than 10% in 1990 to 25% in 1997); Timmons, *Home Lending Trouble*, *supra* note 767, at 122 (reporting, in early 2001, that “most banks regularly make offers to lend up to 100% of a home's value”); Zuckerman, *Record Borrowing Levels*, *supra* note 717 (stating that over 40% of new mortgages in 2000 had LTV ratios above 90%).

774. See Amy Merrick, *Some Risky Home Loans May Take Hits*, WALL ST. J., Mar. 29, 2001, at C1 [hereinafter Merrick, *Risky Home Loans*]; Prakash, *High LTV*, *supra* note 773; Zuckerman, *Record Borrowing Levels*, *supra* note 717.

775. David Henry, *Commentary: Consumer Debt: A Bear Trap for the Bush Economy*, BUS. WK., Jan. 29, 2001, at 40 (stating that consumer borrowers “are more leveraged and vulnerable than any time since the 1990–91 recession”); Marc Hochstein, *American Dream May Have Nightmarish Effects*, AM. BANKER, June 24, 1999, at 1 [hereinafter Hochstein, *American Dream*]; Merrick, *Risky Home Loans*, *supra* note 774; Zuckerman, *Record Borrowing Levels*, *supra* note 717.

776. See Burden, *supra* note 746, at 355 (stating that individual bankruptcy filings exceeded one million in 1996 and 1.3 million in 1997); W.A. Lee, *Bankruptcy Watch*, AM. BANKER, Dec. 11, 2000, at 1 (reporting that 1.2 million individuals filed for bankruptcy in the twelve-month period ending September 30, 2000, and that analysts expected consumer bankruptcies to rise in 2001); Alan K. Ota & James C. Benton, *Conference-Unfriendly Riders Trail Senate Bankruptcy Bill*, 58 CQ WEEKLY 243, graph (2000) (showing, by way of the “Personal Bankruptcy Filings Since 1989” graph, that personal bankruptcy filings reached a record 1.4 million in 1998, before declining to just under 1.3 million in 1999); Daniel J. Parks, *Creditors Push to Revive Bankruptcy Overhaul Bill With Minimal Changes*, 57 CQ WEEKLY 391, 392 (1999) (reporting that nearly 285,000 individuals filed for bankruptcy in 1984).

creditors from consumer bankruptcies increased twice as fast as the growth rate for total consumer installment debt.⁷⁷⁷ Rates for serious delinquencies on bank credit cards and for home mortgage foreclosures set new records in 1997.⁷⁷⁸ Recent studies have found that: (i) increased credit card debt relative to income has been the largest contributor (at the margin) to consumer bankruptcies, and (ii) high levels of mortgage debt have been another significant cause of consumer bankruptcies.⁷⁷⁹

Bank executives and some analysts have blamed the unprecedented consumer bankruptcy rates on: (i) changing social norms that have diminished the personal stigma associated with bankruptcy, and (ii) bankruptcy laws that allegedly are overly generous to consumers.⁷⁸⁰ Other commentators argue, however, that banks and other consumer lenders have contributed significantly to higher bankruptcy levels by launching aggressive marketing campaigns that encourage borrowers to take on debt burdens far beyond their ability to repay.⁷⁸¹

The view that banks and other consumer lenders bear substantial responsibility for the growth in personal bankruptcies is supported by statistics showing that: (i) outstanding consumer credit card debt grew from \$175 billion in 1988, to \$675 billion in early 2001;⁷⁸² (ii) total household debt, including residential real estate loans, mushroomed from \$1.4 trillion in 1980, to \$7.2 trillion in early 2001;⁷⁸³ and (iii) total household debt as a percentage of disposable income rose from 58% in 1984, to

777. Ian Domowitz & Robert L. Sartain, *Determinants of the Consumer Bankruptcy Decision*, 54 J. FIN. 403 (1999).

778. See PETER J. ELMER & STEVEN A. SEELIG, THE RISING LONG-TERM TREND OF SINGLE-FAMILY MORTGAGE FORECLOSURE RATES 1, 26 fig.1, (FDIC, Working Paper No. 98-2) available at <http://www.fdic.gov>; Jennifer K. Bloom, *Eyes on Credit: 4Q Bank Card Delinquencies Set Record*, AM. BANKER, Mar. 30, 1998, at 20 [hereinafter Bloom, *Record Delinquencies*].

779. SULLIVAN ET AL., *supra* note 764, at 7–8, 18–19, 21–22, 119–40, 216–26, 242–45 (reviewing about 2,400 personal bankruptcy filings in 1991); Domowitz & Sartain, *supra* note 777, at 404–06, 414, 419 (reviewing more than 800 personal bankruptcy filings in 1980); see also, Stavins, *Credit Card Borrowing*, *supra* note 765, at 15–18, 21–23 (finding that higher credit card debt burdens were correlated with higher consumer bankruptcy rates in 1998).

780. See, e.g., Carol Ann Brideau, *Senate Banking Subcommittee Explores Reasons for Tide of Consumer Bankruptcies*, 70 Banking Rep. (BNA) No. 70, at 257–58 (Feb. 16, 1998) (reporting statements by Senator Faircloth and representatives of consumer lending institutions); Lori Nitschke, *Bankruptcy Overhaul: Seeking an Elusive Balance*, 56 CQ WEEKLY 2273, 2275–76 (1998) (describing studies suggesting that existing consumer bankruptcy laws may be too liberal).

781. See, e.g., Burden, *supra* note 746, at 347–48, 351–57; Charles Haddad, *Credit Cards: Congratulations, Grads—You're Bankrupt*, BUS. WK., May 21, 2001, at 48 (criticizing credit card issuers for aggressively marketing credit cards to college students); Jane Bryant Quinn, *How Credit Card Issuers Fuel Over-Borrowing*, WASH. POST, May 17, 1998, at H2; see also SULLIVAN ET AL., *supra* note 764, at 18–19, 128–40, 244–52 (acknowledging that consumers have been willing to take on higher debt burdens, but contending that lenders have fostered this shift in consumer attitudes through liberal credit policies and marketing campaigns that encourage consumers to borrow heavily); Morris, *Debt Nightmare*, *supra* note 772, at 70 (same); Wysocki, *Credit Hangover*, *supra* note 765 (same).

782. See Peter S. Yoo, *Charging Up a Mountain of Debt: Accounting for the Growth of Credit Card Debt*, FED. RES. BANK OF ST. LOUIS, REV., Mar.–Apr. 1997, at 3 (providing 1988 figure); Thornton et al., *Credit Cards*, *supra* note 753, at 90 (citing 2001 figure).

783. See SULLIVAN ET AL., *supra* note 764, at 18 (providing 1980 figure); Merrick, *Risky Home Loans*, *supra* note 774 (citing 2001 figure).

101% in 2000.⁷⁸⁴ The household debt-to-income ratio has reached levels that are far higher than ever recorded before, and consumers are therefore “committed to an unprecedented level of debt service in the future.”⁷⁸⁵ In addition, as noted above, consumer debt has grown at the fastest rate among lower-income families.⁷⁸⁶ It is unlikely that the debt burdens of consumers, particularly those with the riskiest credit profiles, could have grown so rapidly unless banks and other consumer lenders consciously decided to relax their lending standards to encourage, or at least accommodate, consumer demands for credit.⁷⁸⁷ Supporting this view, a recent study found that (i) increases in consumer debt burdens were the most significant factor behind the rise in charge-off rates for credit card lenders during 1989–95, and (ii) riskier consumer attitudes toward credit were a much less important explanation for higher charge-offs.⁷⁸⁸

Aside from the question of how much responsibility lenders bear for the rise in personal bankruptcies, banks clearly underestimated the default risks embedded in their aggressive consumer lending programs. Banks charged off almost \$30 billion of defaulted credit card loans during 1995–97.⁷⁸⁹ In 1997, charge-off rates and serious delinquencies on bank credit card loans reached record levels and were highest among large credit card issuers.⁷⁹⁰ Delinquent mortgage loans and home equity

784. See Peter Pae & Stephanie Stoughton, *Personal Bankruptcy Filings Hit Record*, WASH. POST, June 7, 1998, at A1 (providing 1984 figure); Zuckerman, *Record Borrowing Levels*, *supra* note 717, at C1, C18 (citing 2000 figure).

Banks have contributed significantly to this rapid growth in household debt. During 1985–2000, the total amount of consumer loans and residential mortgage loans held on the balance sheets of commercial banks more than tripled, from \$460 billion to \$1.44 trillion. See Bassett & Zakrajsek, *2000 Banking Developments*, *supra* note 111, at 386 tbl.A.2.A. (providing basis for 2000 figure); Duca & McLaughlin, *supra* note 302, at 490–91 tbl.A.2.A. (providing basis for 1985 figure). The foregoing balance sheet figures substantially understate the total impact of expanded bank lending. In the 1990s, banks greatly increased the percentage of consumer loans, including mortgages, that they securitized and moved off their balance sheets. See *supra* note 748–50 and accompanying text.

785. William R. Emmons, *Is Household Debt Too High?*, FED. RES. BANK OF ST. LOUIS, MONETARY TRENDS, Dec. 1998, at 1, available at <http://www.stls.frb.org>; see also *Debt Whirlwind*, *supra* note 718, at 24–25 (warning of the potentially devastating consequences of rising household debt burdens); Henry, *supra* note 775 (same); Mandel, *Debt Bomb*, *supra* note 717 (same); Morris, *Debt Nightmare*, *supra* note 772 (same); Zuckerman, *Record Borrowing Levels*, *supra* note 717 (same). But see Richard Peach & Charles Steindel, *A Nation of Spendthrifts? An Analysis of Trends in Personal and Gross Saving*, FED. RES. BANK OF N.Y., CURRENT ISSUES ECON. & FIN., Sept. 2000, at 1, 3–5 (presenting a more optimistic analysis of household borrowing and saving trends).

786. See *supra* notes 764–67 and accompanying text.

787. See SULLIVAN ET AL., *supra* note 764, at 134–38, 223–26, 245–49; *Big Banks in Trouble in 2000*, *supra* note 115, at 65, 68; Burden, *supra* note 746, at 342–48, 351–57; Wysocki, *Credit Hangover*, *supra* note 765.

788. See Black & Morgan, *supra* note 765, at 3–5 (concluding that increased debt burdens accounted for 20% of higher charge-off rates on credit card loans, while more aggressive consumer attitudes toward credit explained only 4% of the higher charge-off rates).

789. See FDIC Q. BANKING PROFILE, 4th Qtr. 1996, at 21 (reporting that banks charged off \$16.3 billion of credit card loans during 1995–96); FDIC Q. BANKING PROFILE, 4th Qtr. 1997, at 3 (reporting that banks charged off \$11.7 billion of credit card loans in 1997).

790. See FDIC Q. BANKING PROFILE, 4th Qtr. 1997, at 3 (reporting that the net charge-off rate on bank credit card loans reached a record 5.37% during the third quarter of 1997); Bloom, *Record De-*

loans also increased during 1996-97, consistent with a long-term trend of rising mortgage defaults that began in 1980.⁷⁹¹

Many large banks acknowledged that their automated credit scoring models had failed to predict the sharp rise in defaulted consumer loans and personal bankruptcies during 1996-97.⁷⁹² In contrast, smaller community banks, which typically rely on personal credit reviews instead of automated credit scoring, recorded a significantly lower default rate on their consumer loans.⁷⁹³ The poor performance of the large banks' computerized models raises serious questions about their prudence in using automated approval programs instead of traditional credit analysis based on human judgment.⁷⁹⁴

Beginning in 1997, federal bank regulators issued strong warnings about the risks inherent in aggressive consumer lending programs.⁷⁹⁵ In response, many banks tightened their standards for credit card loans and other types of unsecured consumer lending. These stricter standards produced a modest decline in delinquency and charge-off rates for unse-

linquencies, *supra* note 778, at 20 (reporting that the percentage of bank credit card loans that were 90 days or more overdue rose to a record level of 2.13% during the fourth quarter of 1997); Antoinette Coulton, *Strong Economy Keeping Card Debt on the Rise*, AM. BANKER, July 7, 1998, at 10 [hereinafter Coulton, *Card Debt*] (reporting that five major credit card issuers—American Express, Bank One, Chase, Citicorp, and Morgan Stanley Dean Witter—had high charge-off rates and accounted for 46% of all seriously delinquent credit card loans, even though they held only 37% of the outstanding credit card debt).

791. See ELMER & SEELIG, *supra* note 778, at 1 (stating that the foreclosure rate for conventional single-family mortgages rose from 0.31% in 1980 to 1.04% in 1997); Karen Blumenthal, *Mortgage Delinquencies Are Climbing*, WALL ST. J., June 11, 1996, at A2; *Delinquency Rate Climbs in 1st Quarter, Continues Yearlong Trend, Survey Shows*, 71 Banking Rep. (BNA) No. 11 (July 6, 1998); Heather Timmons, *Home Equity Market Could Be Headed for a Fall*, AM. BANKER, Aug. 7, 1996, at 1, 12.

792. An FRB survey of thirty-three large banks in late 1996 showed that the credit scoring models used by nearly 60% of the banks were "too optimistic" and had failed to predict the surge in credit card delinquencies and consumer bankruptcies. Mester, *Credit Scoring*, *supra* note 218, at 11; see also Susan McInerney, *Banks Pull Back on Consumer Loans, Dub Credit Scoring "Too Optimistic,"* 67 Banking Rep. (BNA) No. 67, at 879, 880 (Nov. 25, 1996).

793. See Antoinette Coulton, *Community Bankers Say Personal Touch Keeps Card Chargeoffs Low*, AM. BANKER, Nov. 19, 1997, at 20 (reporting that, due to community banks' closer relationships with their customers, the smaller banks' charge-off rate for credit card loans during 1996 was less than half the industrywide average, while their loan delinquency rate was nearly 25% below the industrywide average); see also *supra* notes 214, 226 and accompanying text (discussing the decision of most community banks to rely on personal judgment instead of credit scoring in making small business loans).

794. See *Human Judgment Seen Superior to Credit Scoring*, AM. BANKER, Mar. 16, 1998, at 14 (quoting warnings by two analysts about the risks of excessive reliance on credit scoring models and the need for "human intervention and judgment"); David H. Zhai, *Comment: Lenders, Beware Pitfalls In Loan Scoring Systems*, AM. BANKER, May 30, 2000, at 11 (warning that many credit scoring models for home mortgages were based on data covering only the "good economic times" since 1992 and, therefore, seriously understated the risk of losses on "aggressive loans . . . when the economy inevitably turns downward").

795. See, e.g., *Interagency Guidance on High LTV Residential Real Estate Lending*, Fed. Banking L. Rep. (CCH) ¶ 63-814 (Oct. 22, 1999) (statement issued by federal regulators concerning the risks of high-LTV mortgage and home equity loans); *Interagency Guidance on Subprime Lending*, Fed. Banking L. Rep. (CCH) ¶ 63-876 (Mar. 1, 1999) (statement issued by the federal banking agencies concerning the risks of subprime lending); *FDIC Issues Warning on Subprime Lending; Higher Losses Stem from Riskier Borrowers*, 68 Banking Rep. (BNA) No. 20, at 928 (May 19, 1997); Seiberg, *OCC Warning on Consumer Loans*, *supra* note 772.

cured consumer loans during 1997–99.⁷⁹⁶ At the same time, however, many banks continued to offer high-LTV and subprime residential mortgages and home equity loans.⁷⁹⁷ As a result, much of the reported decline in consumer loan delinquencies during this period resulted from aggressive bank refinancing programs that encouraged consumers to shift their debt burdens from credit cards into larger mortgages or home equity loans.⁷⁹⁸

A potentially ominous sign of a slowing U.S. economy, delinquency and charge-off rates for credit card loans and other consumer loans rose during late 2000 and the first half of 2001 and, in some cases, reached their highest levels in several years.⁷⁹⁹ Personal bankruptcy filings also rose sharply during the first half of 2001.⁸⁰⁰ Regulators and analysts warned that default risks had risen for many consumers, because of rising unemployment and the inability of many homeowners to refinance overdue credit card loans by taking out larger mortgages or home equity loans. Accordingly, consumer credit problems presented a serious and growing risk for many banks in 2001.⁸⁰¹

Analysts also expressed concern about the willingness of consumers to finance their spending habits by borrowing against accrued capital gains in the real estate and stock markets. During the past several years, homeowners responded to rising house prices by using cash-out refinanc-

796. See 2000 OCC LOAN SURVEY, *supra* note 723, at 3, 13, 20; Bassett & Zakrajšek, *1999 Banking Developments*, *supra* note 97, at 373, 374 chart 11, 381–82.

797. See 2000 OCC LOAN SURVEY, *supra* note 723, at 2–4, 13, 34–36; Alan Deaton, *Rising Home Values and New Lending Programs Are Reshaping the Outlook for Residential Real Estate*, FDIC, REGIONAL OUTLOOK, 3d Qtr. 2000, at 24, 24, 28–29, available at <http://www.fdic.gov>. As a result of liberal mortgage lending policies, owners' equity as a percentage of housing values fell from 65% to about 50% during the 1990s. See Henry, *supra* note 775.

798. See 1999 FDIC Banking Risks Study, *supra* note 707, at 9; Merrick, *Risky Home Loans*, *supra* note 774; Miriam K. Souccar, *Card Delinquency Dip Tied to Surge in Home Equity Loans*, AM. BANKER, Mar. 16, 2000, at 6; see also Mandel, *Debt Bomb*, *supra* note 717, at 42 (reporting that consumers used mortgages and home equity loans to pay off \$34 billion of credit card debts in 1998).

799. See Paul Beckett, *Heard on the Street: Credit Cards May Be Drag on the Issuers*, WALL ST. J., Aug. 30, 2001, at C1 (reporting that the chargeoff rate for credit card loans in July 2001 represented the highest rate reported since May 1997); Erick Bergquist, *Moves Downmarket Are Seen Returning to Haunt Subprimes*, AM. BANKER, Dec. 18, 2001, at 11 (stating that the chargeoff rate for home equity loans "reached a record high" in June 2001); W.A. Lee, *Consumer Pinch Showing Up in Late Payments*, AM. BANKER, Mar. 16, 2001, at 9 (reporting that delinquency rates for credit card loans and other consumer loans rose in the fourth quarter of 2000); Merrick, *Risky Home Loans*, *supra* note 774 (stating that the delinquency rate for home mortgages in early 2001 had reached "the highest level since the end of the last recession in the early 1990s").

800. See *Bankruptcy Filings Rose 25% to a Record for a Single Quarter*, WALL ST. J., Aug. 27, 2001, at B6 (stating that over 400,000 bankruptcy filings occurred during the second quarter of 2001, a 25% increase from the same period in 2000); W.A. Lee, *For Creditors, a Bankruptcy Double-Whammy*, AM. BANKER, May 31, 2001, at 10 (reporting that nearly 360,000 individuals filed for bankruptcy during the first quarter of 2001, an 18% increase from the same period in 2000).

801. See *Emerging Risks in an Aging Economic Expansion*, FDIC, REGIONAL OUTLOOK, 4th Qtr. 2000, at 3–4, 8–9, available at <http://www.fdic.gov>; 2000 OCC LOAN SURVEY, *supra* note 723, at 1–5, 20–21; Day, *Troubled Loans*, *supra* note 715; Henry, *supra* note 775; Merrick, *Risky Home Loans*, *supra* note 774; Carrick Mollenkamp et al., *Banker Beware: As Economy Slows, 'Subprime' Lending Looks Even Riskier*, WALL ST. J., Aug. 13, 2001, at A1 [hereinafter Mollenkamp et al., *Banker Beware*]; Wysocki, *Credit Hangover*, *supra* note 765.

ings to withdraw huge amounts of accumulated equity from their homes.⁸⁰² During the great bull market of the 1990s, direct and indirect investments in stocks became a rapidly growing share of household wealth, and consumers relied on capital gains to support \$700 billion of their spending during 1997-99.⁸⁰³ Stock margin loans to individuals quadrupled between 1994 and early 2000 and reached record levels relative to gross domestic product.⁸⁰⁴ Taking into account the higher risks of consumer lending programs and the increased reliance of consumers on the health of the real estate and stock markets, many observers warned that banks could suffer massive losses in their consumer loan portfolios if the U.S. economy experienced a severe and prolonged recession.⁸⁰⁵

802. See 1999 FDIC BANKING RISKS STUDY, *supra* note 707, at 9 (citing estimate that owners generated \$60 billion in cash through home refinancings in 1998); Henry, *supra* note 775 (stating that 80% of home refinancings in 2000 were cash-out transactions that increased the mortgage's principal balance by at least 5%); Morris, *Debt Nightmare*, *supra* note 772 (reporting that the average amount borrowed by homeowners through cash-out refinancings grew from \$14,500 in 1993 to \$19,900 in 2000).

803. See Mandel, *Debt Bomb*, *supra* note 717, at 42 (reporting that consumers sold \$1.3 trillion of stocks and stock options during 1997-99 and spent \$700 billion of the proceeds). During 1989-98, the percentage of families holding stock, either directly or indirectly through mutual funds and retirement plans, rose from 32% to 49%. During the same period, direct and indirect stockholdings rose from 28% to 54% of all household financial assets. Kennickell et al., *supra* note 91, at 14, 15 tbl.6. During 1995-99, total family stockholdings increased in value by \$6.8 trillion and personal savings fell to record low levels. 1999 FDIC BANKING RISKS STUDY, *supra* note 707, at 5-6. For evidence that this tremendous increase in stock market wealth encouraged higher personal consumption and made the U.S. economy more vulnerable to the stock market slump that began in April 2000, see *id.* at 3, 5-6, 16; Karen Pennar, *The Opposite of the 'Wealth Effect'*, BUS. WK., Feb. 22, 1999, at 32 (citing studies indicating that personal consumption rises about \$4 for each \$100 increase in personal wealth and could fall up to \$7 for each \$100 decline in net worth); Marcia Vickers et al., *When Wealth Is Blown Away*, BUS. WK., Mar. 26, 2001, at 39 (expressing concerns about the potential adverse impact of the stock market's slump on the broader economy, because "\$4.6 trillion in investor wealth has vanished since the market's peak" in March 2000); David Wessel, *U.S. Stock Holdings Rose 20% in 1998, Highest Percent of Assets in Postwar Era*, WALL ST. J., Mar. 15, 1999, at A6 (reporting that stock investments accounted for 25% of total household assets in 1998, compared with only 8% in 1984, and consumers were therefore "more vulnerable to a drop in the stock market").

For recent studies examining the link between increased stock market wealth and personal consumption, see KAREN E. DYNAN & DEAN M. MAKI, DOES STOCK MARKET WEALTH MATTER FOR CONSUMPTION? 3-4, 6-8, 21-27 (Bd. of Governors of Fed. Res. Sys., Fin. & Econ. Discussion Ser. Working Paper 2001-23, May 2001) (finding that, during 1983-99, each \$1 gain in stock market wealth typically raised consumption by five to fifteen cents during the succeeding two-year period in households with less than \$100,000 in securities investments); Sydney Ludvigson & Charles Steindel, *How Important Is the Stock Market Effect on Consumption?*, FED. RES. BANK OF N.Y., ECON. POL'Y REV., July 1999, at 29, 30, 38-39 (determining that, since World War II, each \$1 increase in personal wealth typically caused an increase of three to four cents in short-term personal consumption).

804. See Ianthe J. Dugan, *Investments on Borrowed Time?: Surge in Margin Loans Has Some Economists Worried*, WASH. POST, Mar. 29, 2000, at A1 (reporting that consumer margin debt grew to \$265 billion in early 2000); *id.* (figure showing that margin debt equaled 2.79% of gross domestic product in early 2000, compared to about 0.5% in 1990); Mandel, *Debt Bomb*, *supra* note 717, at 42 (stating that margin debt owed by consumers tripled to \$179 billion between 1994 and mid-1999). As a result of the stock market slump that began in April 2000, investors cut back on their borrowing and margin loans declined to \$187 billion by February 2001. Ruth Simon & Susanne Craig, *Heard on the Street: Sharp Drop-Off in Margin Loans Could Squeeze Online Brokers*, WALL ST. J., Apr. 18, 2001, at C1.

805. See 2000 OCC LOAN SURVEY, *supra* note 723, at 2, 4, 18-21; 1999 FDIC BANKING RISKS STUDY, *supra* note 707, at 3, 5-6, 8-11, 16; Deaton, *supra* note 797, at 24-26, 28-29; *Big Banks in*

The dangers of aggressive consumer lending programs have already been shown by the recent failures of several large nonbank lenders that specialized in subprime loans.⁸⁰⁶ In addition, seven FDIC-insured banks that focused on subprime lending have failed since 1998, resulting in losses to the FDIC of about \$1.5 billion.⁸⁰⁷ The survival of Conseco, a major life insurance company, was also placed in doubt after it recorded charge-offs of more than \$1 billion after acquiring Green Tree, a subprime consumer loan company, in 1998.⁸⁰⁸

Among big banks, Bank One and First Union suffered embarrassing failures after they rapidly expanded their consumer lending operations. By acquiring First USA, a large credit card bank, in 1997, Bank One created the nation's second biggest credit card operation, and also built a major auto leasing business with a strong focus on subprime customers. However, due to competitive pressures, rising loan defaults, and an aggressive fee charging policy that drove away many customers, Bank One incurred losses of more than \$2.3 billion in its consumer lending businesses during 1999–2000.⁸⁰⁹ First Union's 1998 purchase of Money Store, a major subprime lender, produced a debacle even worse than Bank One's setback. First Union ultimately took charges against earn-

Trouble in 2000, *supra* note 115, at 68; Henry, *supra* note 775, at 40; Mandel, *Debt Bomb*, *supra* note 717, at 42; Timmons, *Home Lending Trouble*, *supra* note 767; Zuckerman, *Record Borrowing Levels*, *supra* note 717. *But see* Peach & Steindel, *supra* note 785, at 3–5 (contending that the household sector is not threatened by its current debt burdens or spending patterns).

806. See, e.g., Michael D. Youngblood, *The State of the Home Equity Securities Market (and How to Improve It): Report from a Recent Conference*, THE BANK OF AM. J. APPLIED CORP. FIN., Spring 1999, at 48, 48–49 (discussing bankruptcies of Citiscape, FirstPlus, Southern Pacific, and United Cos. Financial during 1998–99); Joshua Brockman, *United Cos. Selloff Capped Disastrous '99 for Subprime*, AM. BANKER, Jan. 5, 2000, at 7 (discussing failures of same four companies and of Crimi Mae, and reporting severe problems at Contifinancial); see also *American Mortgage-Lending: Credit Where Not Due*, ECONOMIST, June 10, 2000, at 82, 83 [hereinafter *American Mortgage-Lending*] (stating that at least nineteen subprime mortgage lenders had “gone out of business” since 1998).

807. See Jeff D. Opdyke, *Tale of Pacific Thrift Shows Peril of High-Risk Lending*, WALL ST. J., July 5, 2000, at C1; see also Melissa Allison & William Nelkirk, *Bank Closes as Pritzkers Back Out of Bailout Plan*, CHI. TRIB., July 28, 2001, at N1 (reporting on the failure of Superior Bank, resulting in estimated losses to the FDIC of \$500 million); Mike McNamee, *Bank Watchdogs Need to Use the Teeth They Have*, BUS. WK., Dec. 13, 1999, at 50 (discussing failures of BestBank in 1998, and of First National Bank of Keystone and Pacific Thrift in 1999, resulting in estimated losses to the FDIC of more than \$1 billion).

808. Marc Hochstein, *Conseco Woes Show Risk In Supermarket Approach*, AM. BANKER, Apr. 3, 2000, at 1 [hereinafter Hochstein, *Conseco Woes*]; Heather Timmons, *How the Money Store Became a Money Pit*, BUS. WK., July 10, 2000, at 62 [hereinafter Timmons, *Money Store*] (discussing Conseco's problems after acquiring Green Tree); see also Joseph T. Hallinan, *Corporate Focus: Turnaround Still Eludes Conseco, as it Post Big Loss*, WALL ST. J., Oct. 31, 2001, at B4 (reporting continuing doubts about Conseco's ability to survive, given the massive losses it suffered after acquiring Green Tree).

809. See Barboza, *Bank One*, *supra* note 315 (discussing failure of Bank One's aggressive consumer lending strategy); Laing, *supra* note 260, at 21 (reporting that Bank One had previously recorded charges of \$800 million related to its credit card and auto leasing operations); Pamela L. Moore, *Bank One: Out of Excuses?*, BUS. WK., Jan. 24, 2000, at 52; Reilly, *supra* note 260 (reporting that Bank One took chargeoffs related to its auto leasing business of \$225 million during the fourth quarter of 2000); Silvestri, *supra* note 260 (reporting that Bank One took charges against earnings of \$1.3 billion for its credit card and auto leasing businesses during the second quarter of 2000).

ings of almost \$5 billion and decided to shut down or sell off most of its credit card, home equity, and mortgage lending operations.⁸¹⁰

The disasters at Bank One and First Union indicate that high-risk consumer lending programs are likely to produce rising default rates and losses at a number of large banks.⁸¹¹ For example, four major banks recorded losses totaling \$1.5 billion in their auto leasing businesses during 2000-01.⁸¹² In contrast to the severe consumer lending problems at big banks, MBNA and Capital One, which are specialized "monoline" credit card lenders, have produced higher earnings and lower charge-off rates by following prudent credit policies and providing superior services that are designed to attract and retain low-risk customers.⁸¹³

The disastrous experience of Citicorp during the early 1990s provides yet another example of the perils of high-risk consumer lending. During that period, Citicorp suffered huge losses as thousands of its borrowers defaulted on home mortgages and credit card loans. Those losses resulted from Citicorp's conscious decision to reduce its credit standards and pursue rapid growth in its consumer lending business during the economic boom of the late 1980s. Citicorp's consumer lending losses, together with defaults on commercial loans in domestic and foreign markets, staggered the bank and placed its survival in serious doubt during 1990-92.⁸¹⁴

810. Mollenkamp, *First Union*, *supra* note 260 (describing how the Money Store debacle convinced First Union's management to shut down or sell off most of the bank's consumer lending operations); Timmons, *Money Store*, *supra* note 808 (reporting that First Union recorded \$2.7 billion of charges against earnings related to Money Store's operations during 1999-2000); David Weidner, *First Union Moves to Cut Money Store Offices, Staff*, AM. BANKER, Dec. 16, 1999, at 1 [hereinafter Weidner, *Money Store*] (reporting that First Union wrote off its entire \$2.1 billion investment in Money Store during 1998); *see also infra* note 832 and accompanying text (describing losses suffered by First Union due to a flawed securitization program for Money Store's loans).

811. *See* Lisa Fickenscher, *First USA's Woes Rock Card Industry; Fee Strategies Called into Question*, AM. BANKER, Aug. 26, 1999, at 1; Robert D. Hershey, Jr., *Market Place: Shares Plunge at Bank One Over Earnings*, N.Y. TIMES, Aug. 26, 1999, at C1; Joseph Weber & Ann T. Palmer, *The Perils of Plastic*, BUS. WK., Feb. 14, 2000, at 127.

812. *See Earnings: Bank of America Stagnant Amid Losses on Auto Leases*, ATLANTA J. & CONST., Oct. 17, 2000, at 6D (reporting a \$260 million charge by Bank of America to cover depreciation on leased cars that were worth less than their estimated residual values when their leases expired); Mollenkamp et al., *Banker Beware*, *supra* note 801 (stating that Bank of America incurred about an additional \$600 million in charge offs to shut down its auto-leasing business during the third quarter of 2001); Patrick Reilly, *KeyCorp Junking Car Leasing Biz*, AM. BANKER, May 18, 2001, at 1 (reporting \$400 million in charges related to KeyCorp's decision to leave the auto-leasing business); Emily Thornton et al., *Losing at the Leasing Game*, BUS. WK., Oct. 16, 2000, at 48, 49 (reporting combined charges of \$150 million by Chase Manhattan and Wells Fargo for depreciated auto lease residuals); *Wells Fargo Posts Loss in 2nd Quarter on Charges*, L.A. TIMES, July 18, 2001, at C2 (reporting an additional \$70 million charge by Wells Fargo for depreciated auto lease residuals).

813. *See* Paul Beckett, *In a Credit-Card Race, an Old-Fashioned Bank Outruns a Flashy Rival*, WALL ST. J., Apr. 20, 2000, at B1 (discussing MBNA's success); Kathleen Day, *Scratching the Surface: Capital One Revolutionizes Credit-Card Marketing*, WASH. POST, Oct. 30, 2000, at E1 (discussing Capital One's success); Moyer, *Diversified Banks Lag in Profit Growth*, *supra* note 283 (citing MBNA's and Capital One's superior performance in competing with larger, more diversified banks).

814. *See* BARTH ET AL., *supra* note 277, at 42-45, 54-56, 76-77; Wilmarth, *Big Bank Mergers*, *supra* note 106, at 43-45, 57-59; Julavits, *CitiMortgage*, *supra* note 769.

Citigroup currently appears to be risking a repetition of its predecessor's consumer lending woes. Since 1999, Citigroup has aggressively expanded its subprime consumer lending programs, and Citigroup became the nation's largest subprime lender when it purchased Associates in late 2000.⁸¹⁵ Some analysts have expressed concerns about the credit risks inherent in Citigroup's growing focus of subprime lending.⁸¹⁶ Even before Citigroup launched its most recent subprime initiatives, its consumer loan portfolio already had the highest delinquency rate and the second highest charge-off rate among the top fifty U.S. banks in consumer lending.⁸¹⁷

The Associates deal also created significant legal and reputational risks for Citigroup, in view of widespread allegations of predatory lending made against Associates.⁸¹⁸ Those risks became much greater when the Federal Trade Commission (FTC) sued Citigroup and its subprime lending affiliate, CitiFinancial, for injunctive relief and damages related to prior alleged violations of fair lending laws by Associates. The FTC's complaint triggered extensive criticism of Citigroup and CitiFinancial by consumer advocates and members of Congress.⁸¹⁹ In an effort to blunt these attacks, CitiFinancial announced in June 2001 that it would no longer sell single-premium credit insurance with its mortgage loans. Critics had argued that large closing costs, including lump-sum insurance premiums, were a particularly abusive feature of many subprime mortgages.⁸²⁰

815. See Heather Timmons, *Banking: Have Banks Been 'Giving Tequila to a Drunk'?*, BUS. WK., Aug. 13, 2001, at 34 (stating that "Citigroup, by far the largest bank subprime lender, had \$58 billion in subprime home and personal loans in second quarter 2001"); *supra* note 769 and accompanying text.

816. See Moyer et al., *supra* note 117 (describing analyst concerns about the "credit quality" of Citigroup's consumer loans, due to a sharp increase in its losses on credit card loans during the first quarter of 2001); Moyer & Boraks, *supra* note 117 (reporting that Citigroup's losses from its North American credit card loans rose by 45% to \$1.4 billion during the second quarter of 2001); Heather Timmons, Commentary, *This Trip Could Be Bumpy for Citi*, BUS. WK., Sept. 18, 2000, at 126 (warning about the potential credit risks involved in Citigroup's acquisition of Associates First Capital).

817. See *Banks with Highest Percentage Nonperforming*, AM. BANKER, June 17, 1999, at 6 (presenting data on nonperforming consumer loans at the end of 1998); *Banks with Highest Percentage Overall Chargeoffs*, AM. BANKER, June 17, 1999, at 6 (providing figures for charged-off consumer loans at the end of 1998).

818. See, e.g., Richard A. Oppel Jr. & Patrick McGeehan, *Along With a Lender, Is Citigroup Buying Trouble?*, N.Y. TIMES, Oct. 22, 2000, § 3, at 1; Bill Stoneman, *PR Woes Continue to Cloud Citi-Associates Deal*, AM. BANKER, Feb. 12, 2001, "M&A 2000 Annual Roundup" Supp., at 8A.

819. See, e.g., Paul Beckett, *FTC Charges Citigroup Unit In Lending Case*, WALL ST. J., Mar. 7, 2001, at B15; Michele Heller & Rob Garver, *Congress May Investigate Citi Unit's Loan Practices*, AM. BANKER, June 15, 2001, at 1; Heather Timmons, Commentary, *Is Citi Bleeding Its Weakest Borrowers?*, BUS. WK., Mar. 19, 2001, at 94.

820. See Adam Wasch & R. Christian Bruce, *Fair Lending: CitiFinancial Announces It Will End Single-Premium Credit Insurance Sales*, 77 BANKING REP. (BNA) No. 1, at 9 (July 2, 2001).

iv. Securitization Programs for Consumer Loans Are Creating Additional Risks for Large Banks

Beyond the interest rate, prepayment, and default risks described above, big banks are courting additional dangers through their aggressive securitization programs for consumer loans. Big banks have a powerful incentive to securitize consumer loans because (i) banks can reduce their capital requirements to the extent they sell loans into securitized pools,⁸²¹ and (ii) banks can earn substantial fees from sponsoring and servicing asset-backed securities.⁸²² The desire to earn fee income from securitization programs, particularly in the subprime sector, has encouraged many large banks to expand their involvement with high-risk consumer loans.⁸²³ Since 1990, securities firms and large banks have underwritten more than \$300 billion in securities backed by subprime loans.⁸²⁴

The securitization process typically requires the sponsoring bank to provide credit enhancements either in the form of residual interests retained on the bank's balance sheet or contingent liabilities recorded off its balance sheet. The purpose of these credit enhancements is to improve the investment rating and marketability of the asset-backed securities offered to investors.⁸²⁵ Credit enhancements can take several forms, such as the sponsoring bank's agreement (i) to repurchase securitized loans that fail to satisfy warranties given to investors;⁸²⁶ (ii) to retain residual interests in the securitization—usually consisting of subordinated “first loss” classes of securities—that will be paid off only *after* all senior securities sold to investors have been satisfied;⁸²⁷ (iii) to maintain “over-

821. See Burden, *supra* note 746, at 348; Bushaw, *supra* note 88, at 241–43; Welshimer, *supra* note 46, at 501–03.

822. See Lewis J. Spellman, *Comment*, in *STRUCTURAL CHANGE IN BANKING* 304, 306–08 (Michael Klausner & Lawrence J. White eds., 1993); Welshimer, *supra* note 46, at 491.

823. See Burden, *supra* note 746, at 353–55, 360; Canner et al., *supra* note 770, at 249–50; see also Mollenkamp, *First Union*, *supra* note 260 (reporting that an important motivation behind First Union's acquisition of Money Store was the bank's desire to earn fee income from securitizing Money Store's subprime mortgage and home equity loans).

824. See Rob Blackwell, *FDIC Chief Urges a Severing of Predators' Bank Funding*, *AM. BANKER*, Oct. 16, 2000, at 4; see also Dean Foust, *Easy Money*, *BUS. WK.*, Apr. 24, 2000, at 107, 108 tbl. (reporting that annual securitizations of subprime mortgage loans rose from \$3 billion in 1995 to \$60 billion in 1999, and showing that four securities firms, together with Bank of America and Citigroup, accounted for almost three-quarters of all securitizations of subprime mortgages during 1999).

825. See Office of the Comptroller of the Currency et al., *Joint Notice of Proposed Rulemaking*, 65 Fed. Reg. 57,993, at 57996–97 (Sept. 27, 2000) [hereinafter *Proposed Rule on Residual Interests*] (describing residual interests); English & Nelson, *supra* note 107, at 398–99, 398 tbl. (showing that, at the end of 1997, U.S. banks reported contingent liabilities of \$230 billion for assets “transferred with recourse,” and noting that securitized credit card loans accounted for most of those assets).

826. See English & Nelson, *supra* note 107, at 399.

827. See *Proposed Rule on Residual Interests*, *supra* note 825, at 57,996–97; Bushaw, *supra* note 88, at 224–27; English & Reid, *supra* note 408, at 488; see also Karen Talley, *Citi Sees Itself Securitizing Corporate Debt Worldwide*, *AM. BANKER*, Mar. 16, 1998, at 17 (explaining that the issuer of asset-backed securities is usually required to retain the “first loss” piece, which is the “most volatile part” of the securities, while the less risky and more senior “tranches” are sold to investors); Youngblood, *supra* note 806, at 49 (stating that sponsors of securitizations of home equity loans are “compelled to retain” subordinated residual classes of the asset-backed securities).

collateralization” as a reserve against loan losses;⁸²⁸ or (iv) to use the selling bank’s “excess spread” to reimburse the securitized pool for any loan losses.⁸²⁹

These credit enhancements require the selling banks to retain risks that are often difficult to quantify or forecast.⁸³⁰ For example, following unexpectedly large defaults on credit card loans during 1996–97, several major banks incurred substantial costs in providing financial support for asset-backed securities they had sold to investors.⁸³¹ After acquiring Money Store in 1998, First Union reportedly took charges against earnings of more than \$2 billion to write down the value of residual interests retained from securitizations of Money Store’s subprime home equity loans.⁸³² Pacific Thrift and Superior Bank, two banks that specialized in securitizing subprime mortgages, failed in large part because of similar declines in the values of residual interests held on their books.⁸³³

Securitization programs create additional risks for sponsoring banks by creating “the illusion of unlimited liquidity and marketability” for the securities being sold.⁸³⁴ The liquidity and marketability of asset-backed

828. “Overcollateralization” occurs when the originating bank transfers assets to a securitized pool that have a face value greater than the face amount of the securities to be issued. See LITAN & RAUCH, *supra* note 106, at 58–59; Burden, *supra* note 746, at 347; Bushaw, *supra* note 88, at 224.

829. See Welshimer, *supra* note 46, at 503–04 (explaining that (i) “excess spread” is the difference between the interest rate paid by the borrowers on a pool of securitized loans and the interest rate paid on the securities issued to investors, and (ii) selling banks frequently agree to use their “excess spread” to offset any losses incurred on securitized loans).

830. See, e.g., *Interagency Guidance on Subprime Lending*, *supra* note 795, at 73,296 (warning of the risks to selling banks created by credit enhancements for securitizations of subprime loans); 1999 *FDIC Banking Risks Study*, *supra* note 707, at 15 & n.38 (observing that credit enhancements for securitization programs often require selling banks to bear residual obligations that are difficult to quantify, because the program structures typically shield investors from all but “the most catastrophic credit risks”); Canner et al., *supra* note 770, at 249 (stating that, in securitizations of subprime home equity loans, the required credit enhancements often transfer “the bulk of the credit risk” to the selling bank).

831. See Aaron Elstein, *Chargeoffs Raise Specter of Early Investor Payouts*, AM. BANKER, Feb. 18, 1997, at 1; Saul Hansell, *Credit Card Default Rate Is Climbing*, N.Y. TIMES, Mar. 18, 1997, at D1 (reporting that Bank One had become “the latest credit card issuer forced to bail out bonds backed by its credit card loans, because [loan] losses were higher than investors . . . had expected”); Karen Talley, *Finance Company Crises Threatening Loan Pools*, AM. BANKER, Feb. 11, 1997, at 1 (reporting that First Chicago, First Union, and Mercantile had repurchased nonperforming loans or replenished securitized loan pools in order to forestall potential downgrades in the investment ratings for asset-backed securities they had sold to investors).

832. See Mollenkamp, *First Union*, *supra* note 260; Heather Timmons, *Money Store Proves to Be Thorn in First Union’s Side*, AM. BANKER, May 26, 1999, at 4. See generally Weidner, *Money Store*, *supra* note 810.

833. See John Reich, FDIC Director, Statement Before the Senate Comm. on Banking, Housing and Urban Affairs (Sept. 11, 2001) [hereinafter Reich Statement], available at www.fdic.gov (stating that the “primary reason for Superior’s failure” was the rapid decline in the value of “deeply subordinated” and “first loss” residual interests that Superior had retained in connection with its securitization of more than \$4 billion in subprime loans); Opdyke, *supra* note 807 (reporting that Pacific Thrift’s residual interests, which accounted for 40% of its assets when the bank failed in 1999, were rendered “essentially worthless” due to unexpectedly high rates of borrower prepayments and defaults).

834. Gary Silverman & Debra Sparks, *Asset-Backed Gambling?*, BUS. WK., Oct. 26, 1998, at 136, 136 (quoting analyst Henry Kaufman); see also KAUFMAN, ON MONEY AND MARKETS, *supra* note

securities can rapidly disappear during a period of financial dislocation that causes investors to shun securities with any material degree of risk.⁸³⁵ In a situation of this type (e.g., the global financial turmoil that occurred after the 1998 Russian debt default), investors in asset-backed securities may be left holding depreciated, unmarketable securities. At the same time, sponsoring institutions may (i) suffer investment losses on high-risk residual interests they have retained from completed securitizations, and (ii) incur additional losses if they are forced to sell loans at deep discounts after planned securitizations fall through.⁸³⁶

As an example of the perils of securitization, consider the 1998 failure of Capital Company of America (Capital America), a subsidiary of Nomura Securities, Japan's largest securities firm. Capital America suddenly lost its ability to sell securitized commercial mortgage obligations when investor demand for such bonds evaporated during the global financial crisis of late 1998. Capital America lost nearly \$1 billion and was left holding about \$10 billion of unsold commercial mortgages. Nomura ultimately was forced to rescue its subsidiary by making an emergency capital infusion of \$1.7 billion.⁸³⁷

In sum, leading commercial and investment banks are assuming risks in their loan securitization programs that resemble the hazards inherent in their loan syndication business.⁸³⁸ While securitizations and syndications generate attractive fee income, each process requires the sponsoring bank to make significant commitments to investors. As a result of those commitments, the sponsoring bank retains significant risks

368, at 296–97 (stating that “securitization does not mean continuous marketability. . . . [M]any securitized assets have proved to be highly illiquid when market conditions sour”).

835. Jacob M. Schlesinger & Paul Beckett, *Capital Crunch: Investors' Fear of Risk Translates Into a Curb On Credit for Business*, WALL ST. J., Oct. 7, 1998, at A1; Gary Silverman et al., *A \$2.5 Trillion Market You Hardly Knew*, BUS. WK., Oct. 26, 1998, at 123.

836. See *Interagency Guidance on Subprime Lending*, supra note 795, at 73,296; *American Mortgage-Lending*, supra note 806; Dominic DiNapoli & Ron Greenspan, *The Next Industry Crisis Could Be Even Bigger*, AM. BANKER, June 15, 1999, “The Changing Face of Home Equity” Supp., at 11A; Silverman et al., supra note 835, at 124. For discussion of the global financial crisis that was triggered by Russia's debt default in 1998, see supra notes 79–83, 391, 556 and accompanying text. The 1998 crisis was not the first instance of market paralysis for asset-backed securities. A similar “disintegration” occurred in the market for collateralized mortgage obligations (CMOs) during 1994–95, due to the disruptive effects of a series of interest rate increases by the FRB. Laura Jereski, *CMO Market Evaporates Amid Heated Bond Rally*, WALL ST. J., June 7, 1995, at C1; see also Laura Jereski & Leslie Scism, *Insurers Feel Heat to Cui CMO Bonds*, WALL ST. J., Nov. 27, 1995, at C1.

837. See Ianthe J. Dugan, *Nomura's Flyaway Fortunes: Bull Market Disguised Perilous Condition of Japanese Firm's U.S. Operations*, WASH. POST, Nov. 1, 1998, at H1; Laura M. Holson & Charles V. Bagli, *Lending Without a Net: With Wall Street as its Banker, Real Estate Feels the World's Woes*, N.Y. TIMES, Nov. 1, 1998, § 3, at 1.

838. Compare Atlas, supra note 713 (reporting that institutional investors are “quicker than banks to cut back on lending when [lending] markets become wobbly,” because investors, unlike banks, will not make loans for “relationship reasons”), with Ben-Amos, *Syndicators*, supra note 722, at 1 (reporting that the syndicated lending market's success had become increasingly dependent on a large secondary market composed of institutional investors and loan traders, and noting that a similar secondary market had collapsed during the banking crisis of the early 1990s).

on or off its balance sheet.⁸³⁹ Viewed from another perspective, it becomes evident that big banks are using underwriting techniques borrowed from the financial markets to transform their assets into two major segments—a lower-risk segment that is sold to investors, either as asset-backed securities or as loan participations, and a higher-risk segment that is retained on or off the banks' balance sheets.⁸⁴⁰

The problem with this bifurcation of risk is that big banks have at least three strong incentives to increase their risk profile by securitizing or syndicating their best assets. First, loan securitizations and syndications produce up-front fees that help to satisfy demands by bank shareholders for increased earnings.⁸⁴¹ Second, banks can reduce their effective capital requirements through securitization programs. A recent staff study by the Basel Committee on Banking Supervision found that the ten largest U.S. banks had securitized more than a quarter of their risk-weighted loan portfolios by 1998, resulting in what the study called "capital arbitrage."⁸⁴² The study concluded that big banks used securitization to increase their inherent risk profile, relative to the amount of their regulatory capital, by packaging and selling their best loans while (i) retaining higher-risk loans on their books and (ii) providing credit enhancements that caused them to retain much of the credit risk of their securitized loans.⁸⁴³

Third, the FDIC, and ultimately the taxpayers, bear ultimate responsibility for catastrophic losses that could be incurred in the future on higher-risk assets and residual liabilities that large banks hold under loan syndication and asset securitization programs.⁸⁴⁴ As discussed elsewhere,

839. See *supra* notes 696–703 and accompanying text (explaining that, in loan syndications, lead banks typically sell larger portions of low-risk loans to investors and keep bigger shares of high-risk loans on their balance sheets); *supra* notes 825–36 and accompanying text (discussing risky credit enhancements provided by sponsoring banks in loan securitizations).

840. See Jonathan R. Macey, *Comment*, in *STRUCTURAL CHANGE IN BANKING* 353, 354–57 (Michael Klausner & Lawrence J. White eds., 1993) (pointing out that securitization can be viewed as a "cream-skimming" phenomenon in which banks sell their "best assets" to investors and retain assets that have "higher risks"); *supra* notes 691–95 and accompanying text (comparing loan syndication process to the underwriting of debt securities).

841. See Kantrow, *More Fees*, *supra* note 108; Kimelman, *Fee Income*, *supra* note 413.

842. See *CAPITAL REQUIREMENTS AND BANK BEHAVIOUR: THE IMPACT OF THE BASEL ACCORD* 3–4, 25–26 (Basel Comm. on Banking Supervision, Working Paper No. 1, Apr. 1999), available at <http://www.bis.org> [hereinafter *BASEL CAPITAL REQUIREMENTS STUDY*]. For example, during 1997–99, J.P. Morgan achieved a 50% reduction in its regulatory capital requirements for its lending business by cutting its on-balance-sheet loan assets through syndications, loan sales, and purchases of credit derivatives. See Liz Moyer, *Big Banks Devoting Less Capital to Lending*, *AM. BANKER*, June 10, 1999, at 5; Paul M. Sherer, *J.P. Morgan Pulls Back On Its Loans*, *WALL ST. J.*, Oct. 27, 1999, at C1.

843. See *BASEL CAPITAL REQUIREMENTS STUDY*, *supra* note 842, at 3–4, 21–26, 45–52; David Jones, *Emerging Problems With the Basel Capital Accord: Regulatory Capital Arbitrage and Related Issues*, 24 *J. BANKING & FIN.* 35, *passim* (2000) (providing additional evidence that the largest U.S. and foreign banks have engaged in "regulatory capital arbitrage," because they have used securitization techniques and other financial innovations to reduce their "effective" capital ratios below the risk-based capital requirements established by the Basel Accords).

844. Cf. Stuart I. Greenbaum & Anjan V. Thakor, *Bank Funding Modes: Securitization Versus Deposits*, 11 *J. BANKING & FIN.* 379, 381–82, 392–96 (1987) (finding that banks are likely to securitize their highest-quality assets, and to retain their lowest-quality assets, under conditions of asymmetric

moral hazard encourages banks to assume greater risks whenever capital requirements and deposit insurance premiums do not compel banks to internalize the risk-related costs of their activities.⁸⁴⁵ The TBTF policy increases the moral hazard incentives of the largest banks, and federal regulators have repeatedly warned that big banks are assuming excessive risks without adequate supporting capital in both the loan syndication and asset securitization markets.⁸⁴⁶ In sum, the rapidly growing syndication and securitization programs at large banks reflect their decision to pursue lines of business that are vulnerable to adverse shocks in the financial markets and therefore pose serious potential threats to the federal safety net.⁸⁴⁷

II. FUNDAMENTAL CHANGES IN THE SECURITIES AND LIFE INSURANCE INDUSTRIES SINCE 1975

Like commercial banking, the securities and life insurance industries have undergone wrenching changes over the past quarter century. Securities firms and life insurance companies, along with their banking counterparts, have confronted declining profit margins, increased competition, and greater risks. All three industry groups have lost their access to low-cost, low-risk sources of funding. Banks, as discussed above, can no longer acquire cheap funds by accepting deposits with interest rates that are controlled by federal regulation.⁸⁴⁸ As shown below, securities firms can no longer rely on fixed-rate brokerage commissions to produce the largest share of their revenues, and life insurance companies have lost their ability to generate most of their funds by collecting premiums

information where deposit insurance provides a partial subsidy for bank lending and deposit taking); *see also supra* notes 27, 148–49, 397, 589 and accompanying text (discussing the experience of the 1980s and early 1990s, when the federal deposit insurance funds and taxpayers paid about \$200 billion to cover losses resulting from high-risk activities conducted by thrifts and banks).

845. *See supra* notes 118–28, 354–65; *infra* notes 1064–92 and accompanying text (discussing moral hazard created by mispriced deposit insurance and inadequate capital requirements for banks).

846. *See* Proposed Rule on Residual Interests, *supra* note 825, at 57,994–95 (discussing securitization risks); Off. of the Comptroller of the Currency et al., *Interagency Guidance on Asset Securitization Activities*, Fed. Banking L. Rep. (CCH) ¶ 69,627, at 81,332, 81,334–35 (Dec. 13, 1999) (same); *supra* notes 354–65, *infra* notes 1111–14 and accompanying text (discussing moral hazard implications of the TBTF policy); *supra* notes 699–724 and accompanying text (discussing loan syndication risks).

The potential for securitization programs to increase moral hazard is shown by a recent study, which considered the securities markets' response to announcements of securitizations by publicly traded banks. The study found that the markets responded favorably to securitizations by banks with high capital ratios but reacted unfavorably when banks with lower capital ratios engaged in such transactions. The capital markets apparently feared that weakly capitalized banks would be encouraged by moral hazard to securitize their better assets for the purpose of maximizing short-term profits, while shifting their long-term risks to the FDIC. Larry J. Lockwood et al., *Wealth Effects of Asset Securitization*, 20 J. BANKING & FIN. 151, 152–54, 162–63 (1996).

847. *See* Jones, *supra* note 751, at 36–37 (stating that the largest banks have been the most active users of securitization techniques and other financial innovations designed to reduce their effective capital requirements); *supra* part I(E)(2)(d) (discussing hazards inherent in the loan syndication activities of major banks).

848. *See supra* notes 94–104 and accompanying text.

on whole-life policies. The shift among consumers to market-sensitive investments such as mutual funds has forced all three sectors to compete for funding by offering investment vehicles whose returns are tied to the capital markets.⁸⁴⁹

Advances in information technology and a wide array of new financial instruments have increased competition and cut profit margins by breaking down traditional boundaries that separated banks from securities firms and life insurance companies before 1975.⁸⁵⁰ All three industry groups have responded to the changed competitive environment by pursuing new and riskier lines of business. In addition, major firms in the securities and life insurance industries, like their big bank counterparts, have pursued a consolidation strategy both within and across industry lines. Given the similarity of these competitive responses, it is hardly surprising that the largest securities and insurance providers currently exhibit a vulnerability to capital market shocks that is equal to or greater than the exposure of the biggest banks.

A. *Declining Profit Margins and Increased Risk-Taking in the Securities Industry*

The abolition of fixed-rate brokerage commissions in 1975 transformed the economics of the securities industry. Aggressive price competition among brokers after 1975 deprived the securities industry of a low-risk revenue stream that had been the largest single source of its earnings.⁸⁵¹ In 1975, brokerage commissions produced half of the industry's total revenues, but that revenue share fell to 17% in 1991, and less than 15% in 1998–2000.⁸⁵²

Since 1980, discount brokers like Charles Schwab have grown rapidly by offering greatly reduced commission rates to retail customers. The discount brokers' success has placed tremendous downward pressure on the retail commissions charged by full-service firms such as Merrill Lynch and Morgan Stanley Dean Witter.⁸⁵³ In addition, institutional in-

849. See, e.g., EDWARDS, *NEW FINANCE*, *supra* note 63, at 16–21; Christopher Oster, *Shifting Stock Market Highlights Risks of Variable Life Insurance*, WALL ST. J., May 4, 2001, at C1; Michael R. Tuohy, *Challenges and Issues for Growth in the Life Industry*, in CHANGES IN THE LIFE INSURANCE INDUSTRY: EFFICIENCY, TECHNOLOGY AND RISK MANAGEMENT 327, 328–35 (J. David Cummins & Anthony M. Santomero eds., 1999) [hereinafter LIFE INSURANCE INDUSTRY TRENDS].

850. See, e.g., LITAN & RAUCH, *supra* note 106, at 52–80; Anthony M. Santomero, *Life Insurance: The State of the Industry*, in LIFE INSURANCE INDUSTRY TRENDS, *supra* note 849, at 1, 1–8.

851. See JOEL SELIGMAN, *THE TRANSFORMATION OF WALL STREET* 481–84 (rev. ed. 1995) (describing the SEC's adoption of Rule 19b-3, which abolished fixed-rate brokerage commissions on May 1, 1975); see also NORMAN S. POSER, *BROKER-DEALER LAW AND REGULATION* § 1.01[A], at 1–7, § 1.02[A], at 1–21 to 1–23 (2d ed. 1997) (same); *Beyond the Wall: (A Survey of Wall Street)*, ECONOMIST, Apr. 15, 1995, available at 1995 WL 9568837 [hereinafter *Wall Street Survey*] (describing competitive impact resulting from the abolition of fixed-rate commissions).

852. See MATTHEWS, *WALL STREET*, *supra* note 88, at 7 (providing figures for 1975 and 1991); 2001 SIA FACT BOOK, *supra* note 50, at 42 (providing data for 1998–2000).

853. See Geoffrey Smith, *On the Web—But With A Broker on Standby*, BUS. WK., May 22, 2000, at 150 (stating that discount brokers' share of U.S. investment accounts rose from 16% to 45% during

vestors have negotiated steep discounts in commissions as their presence in the securities markets has grown.⁸⁵⁴ The percentage of publicly traded shares held by institutional investors rose from 38% in 1976 to 59% in 2000. The rapid growth of mutual funds and pension funds accounted for virtually all of this increase in institutional holdings.⁸⁵⁵

In response to declining commission rates, securities firms have shifted to riskier sources of revenues. During the 1990s, risk-based revenues, such as gains from proprietary trading and investments, underwriting revenues, and fees from higher-risk transactions such as repurchase agreements, private placements, and mergers and acquisitions, have accounted for almost two-thirds of the securities industry's total revenues.⁸⁵⁶ The largest firms have placed a growing emphasis on proprietary trading and investing, and those activities generated more than a quarter of the three biggest firms' revenues in the late 1990s.⁸⁵⁷ Despite sharp trading losses suffered during the bond market problems of 1994 and the Russian debt crisis of 1998, large securities firms have continued to place significant amounts of their capital at risk in proprietary trades and investments.⁸⁵⁸ For example, big securities firms have shown an increased willingness to undertake "super block" trades, which require them to purchase huge blocks of stock and assume the related investment risk until the blocks can be resold.⁸⁵⁹ The leading Wall Street firms have also

the 1990s); Leah N. Spiro & Edward C. Baig, *Who Needs a Broker?*, BUS. WK., Feb. 22, 1999, at 112, 113 (describing competitive pressure exerted by discount brokers on full-service broker-dealers); *infra* Part II(D) (same).

854. See GIBSON, *supra* note 450, at 15–16; POSER, *supra* note 851, § 1.01(B); *Wall Street Survey*, *supra* note 851.

855. See 2001 SIA FACT BOOK, *supra* note 50, at 71 (showing that institutional shareholders owned 58.9% of publicly traded shares in 2000, including 38.8% owned by pensions and mutual funds); N.Y. Stock Exch., *Shareownership 1995*, at tbl.12, in WILLIAM L. CARY & MELVIN A. EISENBERG, CORPORATIONS: CASES AND MATERIALS 28 (7th ed. Supp. 1999) (showing that institutional shareholders owned 38.2% of publicly traded shares in 1976, including 18.8% owned by pensions and mutual funds).

856. See MATTHEWS, WALL STREET, *supra* note 88, at 26–32 (providing 1991 figures); POSER, *supra* note 851, § 1.01[C], at 1–13 to 1–14 (providing 1993 figures); 2001 SIA FACT BOOK, *supra* note 50, at 42 (providing data showing that risk-based revenues accounted for 63% of total industry revenues in 1998–2000).

857. See Joseph Kahn, *Goldman Keeps It Private Even in Going Public*, N.Y. TIMES, Aug. 25, 1998, at D1 (figure showing that, in 1997, the share of total revenues produced by proprietary trading and investments was 37% for Merrill Lynch, 30% for Morgan Stanley Dean Witter, and 31% for Goldman Sachs); Bethany McLean & Andrew Serwer, *Goldman Sachs: After the Fall*, FORTUNE, Nov. 9, 1998, at 128, 130 (reporting that, during the first half of 1998, the portion of total revenues generated by proprietary trading and investments was 23% for Merrill Lynch, 28% for Morgan Stanley Dean Witter, and 43% for Goldman Sachs); see also Smith, *Investment Banking*, *supra* note 10, at 113–16 (discussing growing focus of large securities firms on proprietary trading and investing since the 1980s).

858. See *Fools' Gold*, ECONOMIST, Dec. 13, 1997, at 61, 63; *The Gambling Instinct*, ECONOMIST, Mar. 2, 1996, at 67; Gregory Zuckerman, *Bulking Up on Risky Bonds Doesn't Worry Wall Street*, WALL ST. J., Jan. 25, 1999, at C1; see also *supra* notes 672, 681 and accompanying text (discussing trading losses suffered by Goldman Sachs and Salomon Brothers in 1994, and by Merrill Lynch and Goldman Sachs in 1998).

859. See Suzanne McGee, *'Super Block' Trades Becoming Popular on Wall Street*, WALL ST. J., Aug. 11, 1997, at C1 (table discussing numerous large block trades, including a \$2 billion trade for

taken on more risk in their underwriting practices. In place of the traditional underwriting syndicate, large firms now routinely enter into "bought deals" with corporate issuers. In a bought deal, a single underwriter or a small group of underwriters agrees to purchase the entire issue of securities and thereby accepts the full risk of distributing those securities to the public.⁸⁶⁰ By 1990, almost nine-tenths of all corporate bond offerings, and about one-third of all corporate equity offerings, were being conducted on a bought deal basis instead of through traditional underwriting syndicates.⁸⁶¹ Bought deals occurred with even greater frequency during the 1990s.⁸⁶²

The SEC's adoption of Rule 415 in 1982 intensified this trend toward bought deals among securities underwriters. Under Rule 415, qualified public reporting companies may offer securities to the public on a continuous basis by using "shelf registrations." A shelf registration permits a qualified issuer to sell securities at any time during an extended offering period of up to two years. Each sale during the offering period occurs shortly after the issuer files a minimal updating notice with the SEC.⁸⁶³ Because most shelf registration issuers are large corporations with significant bargaining leverage, underwriters for a shelf registration often commit to a bought deal for each block of securities sold during the offering period. This approach guarantees a quick sale for the issuer, but it requires the underwriting firm or group to bear the entire investment risk until the offered shares are resold to investors. The bargaining power of large corporate issuers has also significantly reduced the underwriting fees paid in shelf registration offerings under Rule 415.⁸⁶⁴

British Petroleum stock and another \$2 billion trade for RJR Nabisco stock engineered by Goldman Sachs, and a \$1.4 billion trade for Time Warner stock arranged by Merrill Lynch); Leah N. Spiro & Stanley Reed, *Inside the Money Machine*, BUS. WK., Dec. 22, 1997, at 86, 88-89 (describing Goldman Sachs' block trade for British Petroleum stock); see also SAUNDERS & WALTER, U.S. UNIVERSAL BANKING, *supra* note 23, at 174-75 (describing investment risks involved in block trades).

860. See GIBSON, *supra* note 450, at 24-25; MATTHEWS, WALL STREET, *supra* note 88, at 157; *Fools' Gold*, *supra* note 858, at 63.

861. See MATTHEWS, WALL STREET, *supra* note 88, at 31-32, 157.

862. See Allen N. Berger et al., *Globalization of Financial Institutions: Evidence from Cross-Border Banking Performance* [hereinafter Berger et al., *Financial Globalization*], in BROOKINGS-WHARTON PAPERS ON FINANCIAL SERVICES 75 (2000) (describing the trend toward "bought deals" in securities offerings in both Europe and the United States, which require underwriters "to commit large sums of capital nearly instantaneously"); Anita Raghavan & Steven Lipin, *Banks' Push Into Securities Squeezes Fees*, WALL ST. J., Dec. 16, 1997, at C1 (reporting that "nonsyndicated stock deals" nearly tripled during 1990-97, while "nonsyndicated sales of junk bonds" increased from seven in 1990 to 126 in 1997).

863. Shelf registrations under Rule 415 are available to larger corporations that comply with public disclosure and reporting requirements prescribed by the SEC under the Securities Exchange Act of 1934. Rule 415 allows a qualified corporate issuer to issue securities at any time during a maximum two-year offering period, as long as each sale is preceded by the filing of a short updating statement with the SEC. See 17 C.F.R. § 230.415 (2001); GIBSON, *supra* note 450, at 22-23; LOUIS LOSS & JOEL SELIGMAN, FUNDAMENTALS OF SECURITIES REGULATION 67-71, 114-15 (3d ed. 1995); Marcia M. Cornett et al., *Deregulation in Investment Banking: Industry Concentration Following Rule 415*, 20 J. BANKING & FIN. 85, 86 (1996) [hereinafter Cornett et al., *Rule 415 Deregulation*].

864. See GIBSON, *supra* note 450, at 22-25; MATTHEWS, WALL STREET, *supra* note 88, at 156-57, 162-63; POSER, *supra* note 851, § 1.01[A], at 1-7 to 1-8; *Wall Street Survey*, *supra* note 851.

The risks inherent in bought deals are shown by the disastrous public offering of British Petroleum (BP) shares that began a week before the October 1987 stock market crash. The crash caused a steep drop in the price of BP stock and destroyed the offering before it could be completed. Four U.S. securities firms lost more than \$300 million, because they had signed underwriting agreements to purchase major blocks of BP shares at the precrash price.⁸⁶⁵

During the crash of 1987, County NatWest, the securities subsidiary of National Westminster Bank, suffered a similar loss as lead underwriter for a public offering of Blue Arrow stock. County NatWest had purchased a large portion of the offered shares in September 1987, after it was unable to generate sufficient investor demand to complete the offering. Blue Arrow's market price fell by more than half during the crash, inflicting a loss of £80 million on County NatWest.⁸⁶⁶ The increasing tendency of large securities firms to underwrite securities on a bought deal basis indicates that disasters like the BP and Blue Arrow offerings would probably occur with greater frequency if global stock markets experienced a sudden downturn comparable to the 1987 crash.

Securities firms are also assuming substantial risks in their underwriting commitments for HLTs. Along with major banks, large Wall Street firms are leading providers of leveraged syndicated loans and junk bonds used to finance HLTs.⁸⁶⁷ Major securities firms, like their bank counterparts, frequently provide temporary "bridge loans" to support proposed HLTs.⁸⁶⁸ A bridge loan exposes the lender to significant risks, because the lender is left holding a problematic short-term credit if a permanent financing package cannot be arranged for the HLT.⁸⁶⁹

Similarly, Wall Street firms have recently offered debt-for-equity swaps to secure underwriting deals for big IPOs. A debt-for-equity swap obligates the underwriter to purchase a large amount of the issuer's debt that is later exchanged for the issuer's stock when the IPO is completed.

865. The losses of the U.S. securities firms would have been even worse if the Bank of England had not intervened to stabilize the postcrash market price of BP shares. See DAVIS, *supra* note 77, at 232-33; MATTHEWS, WALL STREET, *supra* note 88, at 62-63; SAUNDERS & WALTER, U.S. UNIVERSAL BANKING, *supra* note 23, at 171-72.

866. See DALE, *supra* note 382, at 34-35, 114-15 (noting that the severity of County NatWest's loss required its parent bank to make an emergency capital infusion).

867. See *supra* notes 457-60 and accompanying text (describing competition among banks and securities firms for HLT financings).

868. A "bridge loan" is designed to provide temporary financing for a customer until a more permanent type of financing (e.g., an offering of equity or long-term debt securities) can be arranged. GIBSON, *supra* note 450, at 63; see also *Bridge Loans: Under Construction*, ECONOMIST, Oct. 12, 1996, at 81 (reporting on growing trend among commercial banks and securities firms to offer bridge loans); Stanley Reed, *The Deal Machine*, BUS. WK., Nov. 1, 1999, at 70, 76 (describing \$800 million bridge loan provided by Morgan Stanley Dean Witter to a German company); Spiro & Reed, *supra* note 859, at 88 (discussing Goldman Sachs's participation with two foreign banks in funding an \$8 billion bridge loan for a British company); *supra* notes 457-58 and accompanying text (describing bridge loans offered by commercial banks to support HLT deals).

869. See, e.g., GIBSON, *supra* note 450, at 63-66; SMITH, MONEY WARS, *supra* note 591, at 211, 241-42, 327, 343; Goldblatt, *Levers for LBOs*, *supra* note 457.

The swap thus exposes the underwriter to substantial credit risk if the IPO is unsuccessful. However, securities firms have concluded that they must provide these risky commitments to compete with major banks that regularly offer low-cost lines of credit to obtain IPO underwriting deals from corporate issuers.⁸⁷⁰

The dangers of recent HLT and IPO financings are shown by the devastating losses that several leading securities firms suffered during the collapse of the LBO market in 1989–90.⁸⁷¹ Drexel Burnham filed for bankruptcy in February 1990, after the market value of its \$2 billion portfolio of junk bonds and bridge loans declined sharply and lenders cut off its credit lines.⁸⁷² First Boston, Shearson Lehman Brothers, Kidder Peabody, and Prudential-Bache Securities also suffered major losses from defaulted bridge loans and depreciated junk bonds. Those firms might well have shared Drexel's fate if they had not received capital infusions totaling \$3 billion from their parent companies.⁸⁷³

In short, changing business conditions have forced large securities firms to struggle with shrinking and more volatile profit margins since 1980. National full-line firms and large investment banks⁸⁷⁴ have invested heavily in acquiring the staff and technological resources needed to offer complex and innovative products such as derivatives and asset-backed securities. As a result of changes in federal law, culminating in the GLB Act, securities firms confront the rapidly growing presence of several large commercial banks in the business of underwriting debt and equity

870. See Emily Thornton, Commentary, *Now Brokerages Have to 'Pay (More) to Play'*, BUS. WK., May 28, 2001, at 94 [hereinafter Thornton, *Brokerages Pay to Play*] (discussing risky commitments made by banks and securities firms as part of their aggressive competition for underwriting business); Emily Thornton, Commentary, *To Snare IPOs, Wall Street May Be Risking Too Much*, BUS. WK., July 9, 2001, at 108 (stating that (i) Morgan Stanley agreed to a \$2.3 billion debt-for-equity swap as part of an IPO underwriting for Lucent Technologies, and (ii) Credit Suisse and Goldman Sachs jointly agreed to a \$1 billion debt-for-equity swap as part of a planned IPO underwriting for AT&T Wireless Group).

871. See *supra* notes 461–64 and accompanying text (discussing reasons for demise of the LBO market in 1989–90).

872. See DALE, *supra* note 382, at 183–84; MATTHEWS, WALL STREET, *supra* note 88, at 193–94; SMITH, MONEY WARS, *supra* note 591, at 254–55.

873. See GIBSON, *supra* note 450, at 54–55, 65–69, 184–86, 201–02 (discussing severe problems encountered by Wall Street firms during 1990); MATTHEWS, WALL STREET, *supra* note 88, at 195–96 (same); *Management Brief: Not So Prudent*, ECONOMIST, Aug. 31, 1991, at 59, 60 (discussing Prudential's reorganization of its securities subsidiary in 1990, which included a \$200 million capital infusion); William Power & Michael Siconolfi, *Despite \$3 Billion in Bailouts, The Street Faces Consolidation*, WALL ST. J., Jan. 23, 1991, at C1 (describing bailouts of Shearson by American Express, of First Boston by Credit Suisse, of Kidder Peabody by General Electric, and of Prudential-Bache by Prudential Insurance Co.); Michael Siconolfi & Laura Jereski, *Kidder Facelift Will Slash Its Wall Street Role*, WALL ST. J., Oct. 7, 1994, at C1 (reporting that, in 1990, GE was forced to purchase a troubled portfolio of \$750 million in junk bonds from Kidder Peabody).

874. Currently there are seven national full-line firms and seven large investment banks, which represent the "dominant group of firms" in the securities industry. MATTHEWS, WALL STREET, *supra* note 88, at 41 & tbls.3–4 (including seventeen firms in those categories as of 1994); *infra* note 927 and accompanying text (discussing three post-1994 mergers that combined six of the firms included in the Matthews listing).

securities.⁸⁷⁵ Underwriting spreads have declined significantly during the 1990s as bank affiliates have expanded their underwriting business in the debt and equity markets.⁸⁷⁶

The profit margins of large securities firms have also declined substantially as a result of the shift to high-risk trading, investing, and underwriting practices.⁸⁷⁷ The pretax ROE of national full-line firms declined from 45% in 1980 to 33% in 2000, while the pretax ROE of large investment banks fell from 56% to 25% during the same period.⁸⁷⁸ In addition, the earnings of securities firms have been far more volatile than the profits of commercial banks since 1970.⁸⁷⁹

As their profit margins have declined, major securities firms have tried to boost their ROEs by increasing their leverage. The securities industry's capital ratio declined by half between 1976 and 1991, and the largest firms accounted for most of that reduction.⁸⁸⁰ The trend toward higher leverage continued during the 1990s.⁸⁸¹ Low capital ratios and high-risk activities proved to be a disastrous combination for many large banks and insurance companies during the 1980s and early 1990s.⁸⁸² By the late 1990s, analysts cautioned that securities firms were likely to con-

875. See, e.g., GIBSON, *supra* note 450, at 2-8, 48-50; MATTHEWS, WALL STREET, *supra* note 88, at 29-32, 41-42, 96-101, 179-83, 225-33, 247; Raghavan & Lipin, *supra* note 862; *supra* notes 418-32 and accompanying text.

876. See Gande et al., *supra* note 424, at 186, 190-94 (finding that underwriting fees for public offerings of corporate debt securities declined significantly during 1989-96, in response to new competition created by section 20 subsidiaries of banks); Charles Gasparino, *Investment Banks Lift Fee Income to Record*, WALL ST. J., Jan. 3, 2000, at R24 (reporting that average underwriting fees for IPOs had declined for several years and were less than 7% in 1999 for the first time ever); Raghavan & Lipin, *supra* note 862 (reporting that, due to the "stampede by banks into the securities business," average underwriting fees for public offerings of common stocks fell from 6.79% in 1990 to 6.47% in 1996 and 6.09% in 1997).

877. See GIBSON, *supra* note 450, at 5-8, 45-47, 64-70; Smith, *Investment Banking*, *supra* note 10, at 113-14; *Fools' Gold*, *supra* note 858, at 62-63; *Wall Street Survey*, *supra* note 851.

878. See 2001 SIA FACT BOOK, *supra* note 50, at 38. The pretax ROE of large investment banks declined further, to less than 25%, in 2000. Smith, *Investment Banking*, *supra* note 10, at 115 tbl.2.

879. See MATTHEWS, WALL STREET, *supra* note 88, at 227 (stating that, during 1972-90, securities firms that were members of the New York Stock Exchange had an average pretax ROE of 20.7% with a standard deviation of 14.3%, while the average pretax ROE of commercial banks was 14.2% with a much lower standard deviation of 3.1%); 2001 SIA FACT BOOK, *supra* note 50, at 39 (showing that after-tax ROEs for banks during 1991-2000, (i) were significantly more stable than after-tax ROEs for securities firms, and (ii) produced a yearly average of 13.8%, nearly as high as the 14.6% yearly average for securities firms).

880. See MATTHEWS, WALL STREET, *supra* note 88, at 30-31 (reporting that the securities industry's capital ratio declined from 12.4% in 1976 to 6.3% in 1991, due primarily to increased leverage at thirteen large firms); *id.* at 230 tbl.17-3, 231 (showing that, during 1985-89, the leverage of national full-line securities firms and large investment banks was much higher than the leverage of smaller firms).

881. See Patrick McGeehan & Gregory Zuckerman, *High Leverage Isn't Unusual On Wall Street*, WALL ST. J., Oct. 13, 1998, at C1; Michael Siconolfi, *Investment Banks Take On More Leverage . . . and Risk*, WALL ST. J., Mar. 8, 1996, at C1 [hereinafter Siconolfi, *Leverage Risk*]; *Wall Street Survey*, *supra* note 851 (stating that the typical securities firm's leverage factor increased by nearly 50% during 1980-93).

882. See *supra* notes 364-65, 395-406 and accompanying text (discussing bank failures); *infra* notes 893-902 and accompanying text (discussing insurance company failures).

front a similar “shakeout” if a steep and prolonged downturn occurred in the financial markets.⁸⁸³

As a troubling indication of the securities industry’s vulnerability, profits at the “big three” Wall Street firms fell sharply during the fourth quarter of 2000 and the first nine months of 2001, due to a slump in equity markets, a reduction in merger activity, and fewer IPOs.⁸⁸⁴ Analysts warned that big Wall Street firms and their bank competitors would face difficult challenges in a time of shrinking market-based revenues because their aggressive expansion since the early 1990s had produced a rapid rise in expenses that could not easily be reversed.⁸⁸⁵

B. Declining Profit Margins and Increased Risk-Taking Among Life Insurance Companies

1. The Life Insurance Industry Confronted Higher Risks, Lower Profits, and Major Failures During 1975–91

In 1975, premiums paid on life insurance policies were by far the largest source of revenue for life insurance companies.⁸⁸⁶ Most of those policies were whole-life policies paying level premiums, which provided insurance companies with extensive reserves that could be invested profitably in long-term assets such as bonds and commercial mortgages.⁸⁸⁷

883. See Siconolfi, *Leverage Risk*, *supra* note 881 (citing analysts’ warning of a “shakeout” among securities firms that were excessively leveraged); *Wall Street Survey*, *supra* note 851 (expressing similar concerns); see also Thornton, *Wall Street Chill*, *supra* note 416, at 121–22 (stating that, due to the ongoing slump in the securities markets, which was aggravated by the terrorist attacks of September 11, 2001, “[a] dramatic shakeout is at hand in the . . . financial services industry . . . [and] [i]nvestment banks will be particularly hard hit”).

884. See Patrick McGeehan, *Goldman Earnings Decline*, N.Y. TIMES, June 20, 2001, at C12; Patrick McGeehan, *Merrill and Schwab Say Earnings Show Steep Declines*, N.Y. TIMES, July 18, 2001, at C1 [hereinafter McGeehan, *Merrill and Schwab*]; Patrick McGeehan, *Quarterly Profits Fall at 2 Large Investment Banks*, N.Y. TIMES, Dec. 20, 2000, at C3; Niamh Ring, *Merrill CFO Warns Profit Levels May Be ‘Difficult to Sustain’*, AM. BANKER, Apr. 19, 2001, at 4 [hereinafter Ring, *Merrill Lynch*]; Michael Siconolfi, *Goldman to Cut Its Investment-Banking Staff*, WALL ST. J., May 23, 2001, at C1; Gary Silverman, *Merrill Pays Price for Over-Expansion*, FIN. TIMES (London), Oct. 19, 2001, at 32; Randall Smith, *Morgan Stanley Bears \$150 Million Expense from Attack Damage*, WALL ST. J., Sept. 24, 2001, at C11; *Profit Falls at 2 Investment Firms*, N.Y. TIMES, Sept. 27, 2001, at C7; Emily Thornton & Stanley Reed, *Morgan Stanley’s Midlife Crisis*, BUS. WK., June 25, 2001, at 90. For general discussions of problems in the securities industry during 2000–01, see Alissa Leibowitz, *Data Detail 4Q Collapse of Capital Markets*, AM. BANKER, Dec. 29, 2000, at 1; Emily Thornton, *The Wall Street Bloodletting Is Far From Over*, BUS. WK., July 16, 2001, at 81 [hereinafter Thornton, *Wall Street Woes*]; Thornton, *Wall Street Chill*, *supra* note 416; Thornton et al., *Tearing Up the Street*, *supra* note 138.

885. See Niamh Ring & Alissa Leibowitz, *Investment Banks Pin Woes on High Pay*, AM. BANKER, Dec. 20, 2000, at 1; Thornton & Timmons, *supra* note 445; Thornton, *Wall Street Chill*, *supra* note 416; Thornton, *Wall Street Woes*, *supra* note 884; Thornton et al., *Tearing Up the Street*, *supra* note 138.

886. See AM. COUNCIL OF LIFE INS., LIFE INSURERS FACT BOOK 87 tbl.6.7 (2000) [hereinafter 2000 ACLI FACT BOOK] (showing that life insurance premiums accounted for 50% of all premiums and 38% of total income earned by life insurance companies in 1975).

887. See Kenneth M. Wright, *The Structure, Conduct, and Regulation of the Life Insurance Industry*, in THE FINANCIAL CONDITION AND REGULATION OF INSURANCE COMPANIES 73, 74–80 (Fed. Res. Bank of Boston, Conf. Ser. No. 35, Richard W. Kopcke & Richard E. Randall eds. 1991) [herein-

Despite interest rate volatility that occurred in 1966 and again in the mid-1970s, a large body of consumers viewed whole-life insurance as an attractive option due to its combined savings and protection features.⁸⁸⁸

High inflation and volatile interest rates during the late 1970s and early 1980s forced life insurance companies to make fundamental changes on both sides of their balance sheets. To achieve higher returns, large numbers of consumers shifted from traditional whole-life policies to mutual funds and other market-sensitive investments.⁸⁸⁹ Life insurers took three major steps to counteract the stagnating sales of traditional policies.⁸⁹⁰ First, they designed universal and variable life policies that offered policyholders investment returns that were at least partially tied to market rates. Second, they expanded their sales of term life insurance policies, which charged lower premiums by removing all investment features from the contract. Third, they promoted the sale of annuities and guaranteed investment contracts (GICs) as market-based instruments that could directly compete with mutual funds.⁸⁹¹ By the end of the 1980s, term insurance represented nearly half of all life insurance in force, and premiums paid for annuities and GICs greatly exceeded premiums paid on life policies.⁸⁹²

Thus, due to the difficult economic climate of the 1970s and 1980s, life insurers—like banks and securities firms—lost much of their ability to collect low-cost funds and generate low-risk earnings. The life insurers' new market-sensitive liabilities—including universal and variable life policies, annuities, and GICs—required insurers to pay policyholders a much higher percentage of the earnings they made from invested premiums. Insurers sought to boost their earnings by investing in higher-yielding assets such as mortgage-backed securities, junk bonds, and riskier commercial mortgages. Those assets entailed substantial risks, how-

after CONDITION AND REGULATION OF INSURANCE]. In 1975, life insurance reserves represented 63% of the total reserves held by life insurance companies, while reserves for annuities and health insurance accounted for the remaining 37%. Gerard M. Brannon, *Public Policy and Life Insurance*, in CONDITION AND REGULATION OF INSURANCE, *supra*, at 199, 201 tbl.1.

888. See Brannon, *supra* note 887, at 200–02; Terence Lennon, *Discussion*, in CONDITION AND REGULATION OF INSURANCE, *supra* note 887, at 97, 97–99; Wright, *supra* note 887, at 79–81.

889. See Lennon, *supra* note 888, at 98–99; Tuohy, *supra* note 849, at 332–37; Wright, *supra* note 887, at 79–82.

890. See 2000 ACLI FACT BOOK, *supra* note 886, at 19 tbl.1.11 (showing that total sales of life insurance policies were 27.1 million in 1975, 29 million in 1980, and 28.8 million in 1990).

891. See Brannon, *supra* note 887, at 201–04; Richard W. Kopcke, *Financial Innovation and Standards for the Capital of Life Insurance Companies*, FED. RES. BANK OF BOSTON, NEW ENG. ECON. REV., Jan.–Feb. 1995, at 29, 34–40; Tuohy, *supra* note 849, at 332–38; Wright, *supra* note 887, at 79–85.

892. See Brannon, *supra* note 887, at 202, 203 fig.2 (providing information for term life and other life insurance premiums); 2000 ACLI FACT BOOK, *supra* note 886, at 88 tbl.6.7 (showing that, in 1989, life insurance premiums accounted for 30%, and “annuity considerations” accounted for 47%, of total premiums received by life insurance companies); *id.* at 32 tbl.2.4 caption (indicating that sales of modified GICs are included in the sales data for “Other” annuities).

ever, and exposed many life insurers to devastating losses during the 1980s and early 1990s.⁸⁹³

The first major failure occurred in 1983 at Baldwin-United, a \$9 billion company. Baldwin-United had aggressively marketed single premium deferred annuities with high guaranteed interest rates. The company collapsed when market interest rates declined in 1982–83 and created a drastic mismatch between the yields on Baldwin's assets and the interest rates payable on its annuities.⁸⁹⁴

First Executive, First Capital, and Mutual Benefit Life—three large companies with combined assets of \$43 billion—failed in 1991.⁸⁹⁵ First Executive and First Capital expanded rapidly during the 1980s based on sales of universal life policies, annuities, and GICs. Both insurers financed their expansion by assembling huge portfolios of junk bonds, and both companies failed when the junk bond market collapsed in 1990–91.⁸⁹⁶ Mutual Benefit also issued large amounts of GICs and invested heavily in risky commercial mortgages and other speculative real estate investments. The company failed when defaults on its real estate investments rose sharply during the Northeastern real estate crisis of 1989–91.⁸⁹⁷

The foregoing incidents were the largest life insurer failures in history, and they stunned the insurance industry.⁸⁹⁸ Moreover, those failures were not isolated incidents. More than 200 life insurers collapsed between 1984 and 1991, representing a tenth of the life insurance companies that were doing business at the end of 1983.⁸⁹⁹ To reimburse policy-

893. See Elijah Brewer III et al., *Why the Life Insurance Industry Did Not Face an "S&L-Type" Crisis*, FED. RES. BANK OF CHI., ECON. PERSPECTIVES, Sept.–Oct. 1993, at 12, 13–15; Kopcke, *supra* note 891, at 40–45; Wright, *supra* note 887, at 82–87, 95–96; U.S. CONG. BUDGET OFF., *THE ECONOMIC IMPACT OF A SOLVENCY CRISIS IN THE INSURANCE INDUSTRY* 19–21 (1994) [hereinafter CBO INSURANCE STUDY]; see also SMITH, *MONEY WARS*, *supra* note 591, at 250 (stating that, at the end of 1988, insurance companies held about \$62 billion of junk bonds, accounting for almost a third of all outstanding junk bond issues).

894. See Richard W. Kopcke & Richard E. Randall, *Insurance Companies as Financial Intermediaries: Risk and Return*, in *CONDITION AND REGULATION OF INSURANCE*, *supra* note 887, at 19, 40, 47–48.

895. See *id.* at 39–40.

896. At the time of their failures, more than half of First Executive's assets and about 40% of First Capital's assets consisted of junk bonds. See Harry DeAngelo et al., *The Collapse of First Executive Corporation: Junk Bonds, Adverse Publicity, and the 'Run on the Bank' Phenomenon*, 36 J. FIN. ECON. 287, 288–98 (1994); Joseph A. Fields et al., *Junk Bonds, Life Insurer Insolvency, and Stock Market Reactions: The Case of First Executive Corporation*, 8 J. FIN. SERV. RES. 95, 96–100 (1994); Kopcke & Randall, *supra* note 894, at 39–40, 45–47.

897. See Kopcke & Randall, *supra* note 894, at 40, 49.

898. See *id.* at 35–36, 39–40; Fields et al., *supra* note 896, at 95–96; James M. Carson & Robert E. Hoyt, *Life Insurer Financial Distress: Classification Models and Empirical Evidence*, 62 J. RISK & INS. 764 (1995).

899. See JONATHAN R. MACEY & GEOFFREY P. MILLER, *COSTLY POLICIES: STATE REGULATION AND ANTITRUST EXEMPTION IN INSURANCE MARKETS* 78 (1993) [hereinafter MACEY & MILLER, *STATE INSURANCE REGULATION*] (reporting that fifty-seven insurers failed during 1984–86); Carson & Hoyt, *supra* note 898, at 766 (stating that 141 insurers failed during 1989–91); 2000 ACLI FACT BOOK, *supra* note 886, at 78 tbl.5.6 (showing that 2,117 life insurers were doing business at the end of 1983).

holders of companies that failed during this period, state guaranty funds levied \$4 billion of special assessments on their members.⁹⁰⁰ In addition, two of the nation's largest life insurers—Equitable and Travelers—came close to insolvency because of massive losses in their bond investments and commercial real estate portfolios. Both companies were forced to sell control to outsiders to replenish their badly depleted capital.⁹⁰¹

Analysts have attributed the sudden rise in failures among life insurers during 1989–91 to declining profit margins and the decision by many insurers to assume greater risks on both sides of their balance sheets. As the liabilities and assets of life insurers became more volatile, the industry manifested a much greater vulnerability to economic downturns. By 1990, more than a quarter of all life insurers exhibited signs of serious financial stress. Most failures occurred among companies that had been particularly aggressive in leveraging their balance sheet and investing in speculative assets.⁹⁰²

900. See MACEY & MILLER, *STATE INSURANCE REGULATION*, *supra* note 899, at 78 (reporting that state guaranty funds levied assessments of \$2.21 billion during 1985–88).

Unlike the banking industry, the insurance industry is not governed by a comprehensive system of federal regulation. State insurance commissioners have primary supervisory authority over insurance companies, and state officials also administer state guaranty funds designed to protect holders of insurance policies issued by insolvent companies. However, the state guaranty funds generally provide much more limited protection for policyholders than depositors receive under the FDIC's deposit insurance programs. See JACKSON & SYMONS, *supra* note 30, at 440–54; MACEY & MILLER, *STATE INSURANCE REGULATION*, *supra* note 899, at 1–8, 20–44, 84–92; Skeel, *supra* note 313, at 441–45.

In general, the GLB Act preserves the primary role of the states in regulating insurance companies. However, all insurance companies must comply with certain provisions of the GLB Act (including those protecting the privacy of consumer information). In addition, any insurance company that becomes part of a financial holding company is thereafter subject to supervision by the FRB as the “umbrella” regulator of the holding company. The GLB Act also contains provisions designed to remove state-law barriers to (i) the sale of insurance by banks and financial holding companies, and (ii) multi-state licensing arrangements for insurance agents. See, e.g., H.R. REP. NO. 106–434, at 151–59, 166–73 (1999) (discussing the GLB Act's provisions related to insurance activities and privacy rules); Broome & Markham, *supra* note 3, at 757–70 (same).

901. For discussions of the French insurance company AXA's purchase of a controlling interest in Equitable in two transactions during 1991–92, see, e.g., Larry Light & Charles Hoots, *Vive L'Equitable Companies?*, BUS. WK., May 17, 1993, at 82; Shawn Tully, *Watch Out! Here Comes Crocodile Claude*, FORTUNE, Dec. 20, 1999, at 206, 212. For discussion of Primerica's purchase of a controlling interest in Travelers in two transactions during 1992–93, see, e.g., Joseph Asher, *This Financial Department Store Works*, ABA BANKING J., Apr. 1993, at 37; Chris Roush & Leah N. Spiro, *Sandy Weill's Fingerprints Are All Over Travelers*, BUS. WK., Aug. 2, 1993, at 28; Leah N. Spiro & Chris Roush, *The Contrarian*, BUS. WK., Oct. 18, 1993, at 84.

902. See Brewer et al., *supra* note 197, at 12–20; Carson & Hoyt, *supra* note 898, at 769–72; Kopcke, *supra* note 891, at 36–45; Kopcke & Randall, *supra* note 894, at 35–37, 39–41; Frederick S. Townsend, Jr., *Discussion, in* CONDITION AND REGULATION OF INSURANCE, *supra* note 887, at 67, 67–71; Warren R. Wise, *Discussion, in* CONDITION AND REGULATION OF INSURANCE, *supra* note 887, at 231, 233–34 (stating that, in 1990, more than a quarter of all life insurers displayed financial problems that “historically have been designated by [state insurance regulators] for immediate regulatory attention”); Wright, *supra* note 887, at 82–87, 95–96.

2. *Life Insurers Have Continued to Experience Slow Growth, Slim Profits, and Increased Competition Since 1991*

The life insurance industry gradually recovered after 1991. Improving economic conditions allowed most insurers to repair their balance sheets and to satisfy new risk-based capital rules and more stringent investment quality requirements imposed by state insurance regulators.⁹⁰³ Nevertheless, the life insurance industry continued to be plagued by slow growth and thin profit margins throughout the 1990s.⁹⁰⁴ Life insurance sales grew slowly during most of the 1990s, and term life, universal life, and variable life became much more significant products than traditional whole-life insurance.⁹⁰⁵ In addition, sales of annuities contributed a much larger share of insurers' revenues than sales of life insurance during the 1990s.⁹⁰⁶

Unfortunately, profit margins on term, universal, and variable life policies and annuities are slim, and this limitation on core earnings has forced life insurers to seek higher yields from investments to improve their overall earnings.⁹⁰⁷ Many life insurers, therefore, have continued to hold large concentrations of risky assets such as CMOs, junk bonds, and foreign securities. As a result, large segments of the life insurance industry are exposed to the hazards of sudden shifts in the financial markets.⁹⁰⁸

Life insurers also face intensifying competition from banks, securities firms, and mutual funds. Banks have rapidly expanded their sales of fixed and variable annuities since the Supreme Court upheld the author-

903. See U.S. INDUSTRY & TRADE OUTLOOK '98, at 47-10 to 47-11 (McGraw-Hill 1998) (describing trends in U.S. life insurance industry during 1990-95).

904. See Barbara Bowers, *Turbulence Ahead*, BEST'S REV. (Life/Health Ed.), Jan. 1999, at 57 (discussing findings presented in Ernst & Young's study of the life insurance industry); Pamela L. Moore, *Insurance Prognosis 2000*, BUS. WK., Jan. 10, 2000, at 104 [hereinafter Moore, 2000 Prognosis]; Tim Smart, *Insurance Prognosis 1997*, BUS. WK., Jan. 13, 1997, at 134 [hereinafter Smart, 1997 Prognosis]; Debra Sparks, *Insurance Prognosis 1999*, BUS. WK., Jan. 11, 1999, at 147 [hereinafter Sparks, 1999 Prognosis].

905. See 2000 ACLI FACT BOOK, *supra* note 886, at 19 tbl.1.11 (showing that sales of life insurance policies rose slowly from 28.8 million in 1990 to 31.9 million in 1998, before jumping to 38.6 million in 1999); *id.* at 6 tbl.1.2 (showing that, based on the face amounts of all life insurance policies sold in 1999: (i) term life insurance accounted for 58% of the individual life insurance and 94% of the group life insurance sold, (ii) universal and variable life insurance accounted for 29% of the individual life insurance and 6% of the group life insurance sold, and (iii) traditional whole life insurance represented only 13% of the individual life insurance and less than 1% of the group life insurance sold); Tuohy, *supra* note 849, at 332-38.

906. See 2000 ACLI FACT BOOK, *supra* note 886, at 88 tbl.6.7 (showing that (i) in 1990, life insurance premiums and annuity considerations accounted for 29% and 49%, respectively, of total premiums received by life insurers; and (ii) in 1999, life insurance premiums and annuity considerations accounted for 24% and 55%, respectively, of total premiums received by life insurers).

907. See Kelley Holland & Tim Smart, *Midlife Crisis for Insurers*, BUS. WK., Sept. 18, 1995, at 137; Smart, 1997 Prognosis, *supra* note 904; Sparks, 1999 Prognosis, *supra* note 904.

908. See Bowers, *supra* note 904, at 57-58; Deborah Lohse, *Life Insurers Become More Exposed to Volatile Markets*, WALL ST. J., Oct. 14, 1998, at B4; see also Lee Ann Gjertsen, *Does Bob Benmosche's New MetLife Have What It Takes to Break Out?*, AM. BANKER, Jan. 8, 2001, at 1 [hereinafter Gjertsen, *MetLife*] (reporting that MetLife, the largest U.S. issuer of life insurance, suffered significant losses on its investments during 1999-2000).

ity of national banks to sell such products in early 1995.⁹⁰⁹ In 1999, banks and securities firms sold almost half of all annuities, which are the fastest-growing segment of the life insurance business.⁹¹⁰ As a result of aggressive entry by banks and securities brokers, as well as additional competition from investment products sold by mutual funds, the annuities business has become highly competitive and produces slim profit margins.⁹¹¹

Even in the core business of selling and underwriting life insurance, court decisions enabled banks to establish a beachhead in the 1990s, and the GLB Act has removed all remaining legal obstacles to bank entry.⁹¹² Except for Citigroup, banks have not yet established a large presence in the U.S. life insurance market.⁹¹³ Some analysts question whether the life insurance business, especially in the area of underwriting, will be attractive to many banks, because the average ROE for life insurers during the 1990s was well below that earned by banks.⁹¹⁴ In addition, many banks have produced disappointing results after acquiring insurance agencies,

909. See *NationsBank of N.C., N.A. v. Variable Annuity Life Ins. Co.*, 513 U.S. 251, 259 (1995) (upholding OCC ruling declaring that national banks may sell annuities because annuities are "investment products" and the sale of such products is within "the business of banking" authorized under 12 U.S.C. § 24 (Seventh)); see also David W. Roderer & Margo H.K. Tank, *The Emerging Legal Landscape for Bank Insurance Activities*, 17 ANN. REV. BANKING L. 393, 397-405 (1998) (discussing *NationsBank of N.C., N.A. v. Variable Annuity Life Ins. Co.* and its impact in encouraging bank annuity sales); Tara Siegel, *Banks Grab More of Annuities Market, As Investors Worry About Retirement*, WALL ST. J., Oct. 9, 2000, at R29 [hereinafter Siegel, *Bank Annuity Sales*] (discussing banks' expanding presence in the annuities market).

910. See Bowers, *supra* note 904, at 57; Siegel, *Bank Annuity Sales*, *supra* note 909 (reporting that, in 1999, banks and stockbrokers accounted for 14.6% and 31.6% of annuity sales, respectively).

911. See Bowers, *supra* note 904, at 57-58; Sparks, *1999 Prognosis*, *supra* note 904, at 147; Smart, *1997 Prognosis*, *supra* note 904, at 134.

912. See Broome & Markham, *supra* note 3, at 757-61 (discussing provisions of the GLB Act authorizing banks or their affiliates to sell and underwrite insurance). For significant court decisions expanding the authority of banks to sell insurance during the 1990s, see, e.g., *Barnett Bank of Marion County v. Nelson*, 517 U.S. 25 (1996) (holding that the McCarran-Ferguson Act did not allow states to interfere with the power of national banks, under 12 U.S.C. § 92, to sell insurance from offices located in towns of 5,000 or less); *Indep. Ins. Agents of Am., Inc. v. Ludwig*, 997 F.2d 958 (D.C. Cir. 1993) (upholding an OCC ruling declaring that small town offices of national banks were authorized, under 12 U.S.C. § 92, to sell insurance on a nationwide basis); see also Roderer & Tank, *supra* note 909, at 406-13 (discussing *Ludwig* and *Barnett Bank*).

913. See, e.g., Kenneth Kehrer, *Banks Taking a Bigger Slice of Life Market*, AM. BANKER, May 23, 2001, at 10 (reporting that banks accounted for 2% of all individual life insurance sales during 2000, compared to 1.2% of such sales in 1999); Michael O'D. Moore, *Life Insurance Loses Luster for Banks But Some Hang In*, AM. BANKER, Oct. 27, 1999, "Ins. & Annuities" Supp. at 3A [hereinafter Moore, *Bank Insurance Sales*] (reporting that bank sales of life insurance grew slowly and did not reach 1% of total annual industry sales during 1994-98).

914. See, e.g., Mahoney, *supra* note 368, at 56; Rob Garver, *Reality Has Discouraged Bank-Insurer Merger Deals*, AM. BANKER, Feb. 20, 2001, at 6; John Kimelman, *Banks Prove Bashful on Insurance Underwriting*, AM. BANKER, Nov. 20, 1998, at 1, 6 [hereinafter Kimelman, *Bank Insurance Underwriting*]; Moore, *2000 Prognosis*, *supra* note 904, at 104; Ron Panko, *Bancassurance Gets a Boost*, BEST'S REV. (Life/Health ed.), Apr. 1, 2000, at 113; see also Steven Garmhausen, *Wamu to Sell Insurance Unit And Get Out of Underwriting*, AM. BANKER, Sept. 4, 1997, at 1 (stating that the decision of the largest United States thrift to sell its life insurance underwriting subsidiary was "a wake-up call for other banks that are considering getting into the underwriting business").

due to culture clashes and other problems of integrating insurance agents into the banks' operations.⁹¹⁵

Nevertheless, other observers expect that U.S. banks will respond to the GLB Act by expanding their life insurance activities over the long term. Bank revenues from selling insurance have grown substantially since 1997, and a few large banks have built successful insurance sales operations after acquiring insurance agencies.⁹¹⁶ Additionally, banks in several European countries have achieved considerable success in underwriting and selling life insurance products.⁹¹⁷ Some commentators therefore believe that U.S. banks will ultimately outperform traditional insurers in underwriting and selling life insurance, due to the broader range of financial products and the superior marketing and distribution capabilities offered by banks.⁹¹⁸

In any event, life insurance companies are likely to face expanding threats from banks, securities firms, and mutual funds. The difficult competitive conditions that already characterize the life insurance industry are reflected in the industry's low profitability. Life insurance com-

915. See Lee Ann Gjertsen, *Most Banks Failing in Insurance, Deal Adviser Says*, AM. BANKER, Feb. 1, 2001, at 8 (describing operational problems and culture clashes resulting from bank acquisitions of insurance agencies); Michael O'D. Moore, *Insurance: Growing Pains, Excessive Zeal Hurt Bank Sales Efforts*, AM. BANKER, Nov. 16, 1999, at 15 (reporting that First Chicago NBD and CCB Financial experienced serious culture clashes after acquiring insurance agencies); Moore, *Bank Insurance Sales*, *supra* note 913 (reporting that Fleet decided to shut down its insurance sales unit two years after starting it, and Comerica sharply reduced the size and scope of its insurance sales unit after four years of disappointing earnings); Michael O'D. Moore, *Survey: Agents at Banks Don't Rack Up Big Sales*, AM. BANKER, May 18, 1999, at 13 (reporting on study finding that, on a per-employee basis, bank sales of insurance generated average monthly revenues that were only one-fourth as large as the comparable revenues produced by bank sales of investment products); David Reich-Hale, *Insurance Found to Lag Investments in Profits*, AM. BANKER, Dec. 18, 2000, at 9 (reporting on study finding that, on a per-household basis, the average net profits produced by bank sales of insurance were less than 40% of the comparable profits generated by bank sales of investment products).

916. See, e.g., David Reich-Hale, *Banker, Agent Myths Seen Hobbling Cross-Selling Effort*, AM. BANKER, Jan. 12, 2001, at 8 (reporting that BB&T, Wachovia, and Webster Financial had built successful insurance sales units by acquiring insurance agencies and carefully integrating them into their overall marketing efforts); David Reich-Hale, *Big Arrival for Banks' Insurance Sales Payoff*, AM. BANKER, Jan. 22, 2001, at 9 (reporting that banks' revenues from selling life and health insurance nearly doubled during 1997-99).

917. See Cara S. Lown et al., *The Changing Landscape of the Financial Services Industry: What Lies Ahead?*, FED. RES. BANK OF N.Y., ECON. POL'Y REV., Oct. 2000, at 39, 48-50 (explaining that (i) European banks have pursued a strategy of "bancassurance" by entering the life insurance business, and (ii) this strategy has enabled banks to capture more than 20% of the life insurance market in the European Community). But see *Bancassurance: Life Branches?*, ECONOMIST, Apr. 7, 2001, at 78, 79 (contending that (i) bank sales of insurance have been "patchy at best" in Britain, and (ii) the concept of "bancassurance" . . . has failed to take firm root" in countries other than Belgium, France, the Netherlands and Spain).

918. See, e.g., Lown et al., *supra* note 917, at 47-50; Lee Ann Gjertsen, *Financial Convergence Seen Teaming Up Banks, Insurers*, AM. BANKER, Dec. 7, 2000, at 8; see also Robert A. Eisenbeis, *Banks and Insurance Activities*, in FINANCIAL SYSTEM DESIGN, *supra* note 200, at 387, 389-401, 407-11 (discussing evidence indicating that banks are likely to expand their presence in the life insurance business); Edward J. Kane, *The Increasing Futility of Restricting Bank Participation in Insurance Activities*, in FINANCIAL SYSTEM DESIGN, *supra* note 200, at 338, 339-47 (same); Tuohy, *supra* note 849, at 344-47 (presenting survey results showing that life insurance managers expect banks to become major competitors).

panies recorded earnings during the 1990s that were substantially below those generated by banks and securities firms.⁹¹⁹ In particular, the ROEs posted by the three largest life insurers—MetLife, Prudential, and John Hancock—were far less than those produced by major banks.⁹²⁰ Observers expect that the life insurance industry will be fundamentally restructured during the next decade, due to growing pressures from outside competitors and the significant cost inefficiencies generated by the industry's traditional, agent-based distribution system.⁹²¹

A recent study has also raised doubts about whether big, diversified life insurers are efficient and well positioned to meet current competitive conditions. This study found that nearly all of the most cost-efficient and revenue-efficient life insurance companies were “specializing firms” that derived more than half of their revenues from a single line of business.⁹²² The study also concluded that “product focus strategies,” rather than diversification programs, were most likely to produce cost and revenue efficiencies for life insurance companies.⁹²³

C. Consolidation and Conglomeration Strategies Among Securities Firms and Life Insurance Companies

In response to increased competition and reduced profit margins, securities firms and life insurers have pursued acquisition strategies both within and across industry lines. Due to hundreds of mergers that have occurred in each sector, the numbers of securities firms and life insurers

919. See 2001 SIA FACT BOOK, *supra* note 50, at 39 (showing that securities firms had average ROEs of 18.1% in 1997 and 11.7% in 1998); Bassett & Zakrajsek, 2000 *Banking Developments*, *supra* note 111, at 385 tbl.A.2.A. (showing that banks had average ROEs of 14.84% in 1997 and 14.07% in 1998); Kimelman, *Bank Insurance Underwriting*, *supra* note 914, at 6 (reporting that life insurers had an average ROE of 11.92% in 1997); Moore, 2000 *Prognosis*, *supra* note 904 (noting that ROEs for banks were significantly higher than ROEs for life insurance companies); Joseph B. Treaster, *New York Life Insurance Won't Go Public, for Now*, N.Y. TIMES, Jan. 20, 1999, at C2 (stating that, in 1998, one study showed that stock life insurers had an average ROE of 12.5% and mutual life insurers had an average ROE of 5.9%).

920. See Bassett & Zakrajsek, 2000 *Banking Developments*, *supra* note 111, at 387 tbl.A.2.B. (showing that the ten largest banks had average ROEs above 13% during 1993–97 and 1999–2000, and above 10% in 1992 and 1998); Gjertsen, *MetLife*, *supra* note 908, at 8 (reporting that MetLife's ROE was 7.5% in 1997 and 9.5% in 2000); Joseph B. Treaster, *Going Public Amid Sharks; Insurers Look at Stocks as a Means of Survival*, N.Y. TIMES, Jan. 23, 2000, § 3 at 1 (stating that the average ROE of the three big life insurers in recent years has been “appallingly low, sometimes as little as 3 or 4 percent”).

921. See, e.g., J. David Cummins et al., *Life Insurance Mergers and Acquisitions*, in LIFE INSURANCE INDUSTRY TRENDS, *supra* note 849, at 159, 183–84; Holland & Smart, *supra* note 907, at 137–38; Tuohy, *supra* note 849, at 335–49, 353–57.

922. See J. David Cummins, *Efficiency in the U.S. Life Insurance Industry: Are Insurers Minimizing Costs and Maximizing Revenues?*, in LIFE INSURANCE INDUSTRY TRENDS, *supra* note 849, at 75, 96–104 tbls.3-2 & 3-3 [hereinafter Cummins, *Life Insurance Efficiency*] (showing that specializing firms accounted for thirty-six of the forty most cost-efficient life insurance companies and all of the forty most revenue-efficient companies).

923. *Id.* at 106 (quote), 112. The study found that only thirteen of the seventy-five largest U.S. life insurers operated in 1995 with constant returns to scale (a situation that would indicate an efficient size for their operations), and eleven of those thirteen companies were specializing firms. *Id.* at 87–90, 105–06, 107 tbl.3-4.

have declined substantially during the past decade.⁹²⁴ In the securities industry, the mergers of the past decade continue a pattern of consolidation that has continued since the deregulation of brokerage commission rates in the mid-1970s.⁹²⁵ Consolidation in the life insurance industry is a more recent trend that has intensified since 1994.⁹²⁶

In each sector, consolidation during the past decade has included very large mergers among direct competitors. Six huge mergers among securities firms have occurred since 1993.⁹²⁷ Among life insurers, AIG bought SunAmerica in 1998 and American General in 2001, MassMutual merged with Connecticut Mutual in 1996, and MetLife merged with New England Mutual in 1995.⁹²⁸

Despite all of the foregoing consolidation, the combined market shares held by the eight largest life insurers and the ten biggest securities firms declined modestly during the 1990s.⁹²⁹ It is true that both industries remain dominated by their top twenty or twenty-five firms.⁹³⁰ Nevertheless, the entry of new competitors, especially banks, has caused some

924. See 2000 ACLI FACT BOOK, *supra* note 886, at 78 tbl.5.6 (showing that the number of life insurers fell from 2,270 to 1,470 during 1989–99); 2001 SIA FACT BOOK, *supra* note 50, at 31 (showing that the number of securities firms dropped from 8,832 to 7,245 during 1989–2000); Cummins et al., *supra* note 921, at 162–64 (stating that almost 400 mergers and acquisitions of life insurers occurred during 1989–97); Heather Timmons & Emily Thornton, *Prognosis 2001: Banking & Securities*, BUS. WK., Jan. 8, 2001, at 106 (reporting that more than 400 mergers and acquisitions of securities firms occurred during 1997–2000).

925. See MATTHEWS, WALL STREET, *supra* note 88, at 107–17 (describing mergers occurring in the securities industry during 1974–91).

926. See 2000 ACLI FACT BOOK, *supra* note 886, at 71, 72 tbl.5.2, 78 tbl.5.6.

927. Four of these large mergers took place between domestic securities firms. The two most recent major transactions, announced in 2000, were acquisitions of large domestic firms by foreign banks that already owned significant securities operations. See Anita Raghavan & Michael Siconolfi, *PaineWebber Works Out \$670 Million Pact for Kidder*, WALL ST. J., Oct. 17, 1994, at C1 [hereinafter Raghavan & Siconolfi, *PaineWebber*] (reporting on PaineWebber's purchase of Kidder Peabody); Randall Smith & Charles Gasparino, *CSFB to Buy DLJ in \$11.5 Billion Deal*, WALL ST. J., Aug. 30, 2000, at C1 [hereinafter Smith & Gasparino, *CSFB-DLJ*] (discussing Credit Suisse's agreement to buy DLJ); Peter Truell, *Giant Wall Street Merger: The Deal, Morgan Stanley and Dean Witter Agree to Merge*, N.Y. TIMES, Feb. 6, 1997, at A1; Marcus Walker & Suzanne McGee, *Swiss Bank Fills Gap With PaineWebber*, WALL ST. J., July 13, 2000, at A18 (reporting on UBS Warburg's agreement to buy PaineWebber); Gary Weiss et al., *Sandy's Triumph*, BUS. WK., Oct. 6, 1997, at 34 (discussing Smith Barney's acquisitions of Shearson in 1993 and Salomon Brothers in 1997).

928. See Michael A. Farinella, *Mergers and Acquisitions Drove 1995 Corporate Changes*, BEST'S REV., June 1996, at 65, 66–67; Lynna Goch, *1998: The Year in Review*, BEST'S REV. (Life/Health ed.), Jan. 1999, at 33, 33–34; Christopher Oster, *AIG to Buy American General in Accord Totaling \$24.6 Billion*, WALL ST. J., May 14, 2001, at B2.

929. See Cummins et al., *supra* note 921, at 169 tbl.5-5 (showing that, during 1988–95, the eight largest life insurers' combined share of total industry assets fell from 39.4% to 31.4% and their combined share of total industry premiums declined from 29.8% to 29.0%); 2001 SIA FACT BOOK, *supra* note 50, at 40 (showing that the top ten securities firms' combined share of total industry capital decreased from 57.5% to 53.8%, and their combined share of total industry revenues declined from 54.0% to 50.8%, during 1988–2000).

930. See Cummins et al., *supra* note 921, at 169 tbl.5-5 (showing that the top twenty life insurers (i) controlled 51.1% of the industry's total assets in 1995, compared with 56.5% in 1988; and (ii) produced 45.7% of the industry's total premiums in 1995, compared with 45.0% in 1988); 2001 SIA FACT BOOK, *supra* note 50, at 40 (showing that the top twenty-five securities firms (i) held 76.9% of the industry's total capital in 2000, compared with 75.3% in 1988; and (ii) generated 77.1% of the industry's total revenues in 2000, compared with 74.8% in 1988).

erosion in the market shares held by the largest firms in both sectors.⁹³¹ The biggest firms' failure to expand their combined market shares over the past decade is consistent with studies finding that economies of "super-scale" do not exist in either the life insurance or the securities industry.⁹³² Indeed, one study of mergers in the life insurance industry concluded that "mergers among most of the largest firms in the industry cannot be justified on the basis of cost efficiency."⁹³³

Beyond their intra-industry acquisitions, leading securities firms and life insurers have undertaken major efforts to diversify into other financial sectors. For example, many securities firms and life insurers acquired federally insured depository institutions during the past two decades by exploiting two "loopholes" in the federal statutes governing holding companies of banks and thrift institutions. Federal legislation has closed both loopholes to any new entry, but leading securities firms and life insurers retain control of grandfathered depository institutions.⁹³⁴

931. See Gande et al., *supra* note 424, at 169–72, 193; Cummins et al., *supra* note 921, at 168.

932. For studies concluding that big life insurers do not enjoy favorable economies of scale, see Cummins, *Life Insurance Efficiency*, *supra* note 922, at 87–90, 105 (incl. fig.3-10), 106, 112 (showing that about four-fifths of the 150 largest life insurance companies—viz., those in the largest two industry deciles—operate with decreasing returns to scale and are therefore "too large"); J. David Cummins & Hongmin Zi, *Comparison of Frontier Efficiency Methods: An Application to the U.S. Life Insurance Industry*, 10 J. PRODUCTIVITY ANALYSIS 131, 143–44, 149 (1998) (finding decreasing returns to scale among most life insurers with assets of more than \$1 billion); Andrew M. Yuengert, *The Measurement of Efficiency in Life Insurance: Estimates of a Mixed Normal-Gamma Error Model*, 17 J. BANKING & FIN. 483, 493–94 (1993) (concluding that increasing returns to scale do not exist among life insurers with assets of more than \$15 billion); see also FORESTIERI, *Economics of Scale and Scope in the Financial Services Industry*, in FINANCIAL CONGLOMERATES (Kazuhiko Koguchi & Giacinto Forestieri eds., 1993), at 72, 74 (reporting that various studies have not provided definitive evidence of favorable economies of scale among large life insurers).

For studies concluding that large securities firms do not benefit from increasing returns to scale, see Lawrence G. Goldberg et al., *Economics of Scale and Scope in the Securities Industry*, 15 J. BANKING & FIN. 91, 98–105 (1991) (finding diseconomies of scale among full-service national broker-dealers and large investment banks); MATTHEWS, WALL STREET, *supra* note 88, at 118–20 (citing other studies reaching similar conclusions with regard to large securities firms); FORESTIERI, *supra* note 276, at 72–74 (also finding diseconomies of scale among full-service national broker-dealers and large investment banks).

933. Cummins, *Life Insurance Efficiency*, *supra* note 922, at 106 (emphasis added).

934. Under the first statutory loophole—known as the "nonbank bank" loophole—nonbanking companies acquired about 160 FDIC-insured banks during the 1980s while avoiding regulation under the BHC Act. Prior to 1987, the term "bank" in the BHC Act was defined to include institutions that both accepted demand deposits and made commercial loans. Accordingly, nonbanking companies could avoid regulation under the BHC Act by acquiring an FDIC-insured "nonbank bank" that engaged in only one of the two designated functions. See *Bd. of Governors v. Dimension Fin. Corp.*, 474 U.S. 361, 363 (1986). In 1987, Congress effectively closed this regulatory gap by expanding the BHC's definition of "bank" to include any institution that accepts FDIC-insured deposits. The 1987 legislation grandfathered existing "nonbank banks" and their holding companies. However, it also imposed strict limitations on their future activities and growth, and only about fifty grandfathered institutions remained in operation in 1991. See 133 CONG. REC. S3814–15 (daily ed. Mar. 25, 1987) (remarks of Sen. Breaux) (stating that about 160 nonbank banks would be grandfathered by the 1987 legislation); 1991 TREASURY FINANCIAL MODERNIZATION REPORT, *supra* note 24, at XVIII-21 & tbl.5 (listing about fifty grandfathered nonbank banks that remained in operation in 1991, including banks operated by major securities firms and insurers); Broome & Markham, *supra* note 3, at 744 (explaining 1987 legislation).

In deciding to acquire depository institutions under the foregoing loopholes, securities firms and life insurers were motivated by their desire to offer federally insured deposits to their customers, and by the potential funding advantages they could obtain from low-cost deposits.⁹³⁵ Since 1999, several securities firms and insurers—most prominently, Merrill Lynch and State Farm—have launched programs to compete with banks by offering FDIC-insured deposits and consumer loans through their grandfathered depository institutions.⁹³⁶ At the same time,

For a decade, the 1987 law's growth restriction prevented grandfathered "nonbank banks" from becoming very large. See *A Unified Federal Charter for Banks and Savings Associations: A Staff Study*, 10 FDIC BANKING REV. NO. 1, at 1, 14–15 (1997) [hereinafter *Unified Federal Charter Study*] (showing that only twenty-one grandfathered "nonbank banks," with combined assets of less than \$35 billion, remained in existence on December 31, 1995). However, Congress repealed this growth limitation in late 1996. See Murray A. Indick et al., *The Economic Growth and Regulatory Paperwork Reduction Act of 1996*, 114 BANKING L.J. 298, 314 (1997).

In 1999, the GLB Act provided further relief to grandfathered "nonbank banks" by removing provisions of the 1987 legislation that restricted their ability to engage in new activities or to enter into cross-marketing arrangements with affiliates. See Gramm-Leach-Bliley Act, Pub. L. No. 106–102, § 107, 113 Stat. 1359 (amending 12 U.S.C. § 1843(f)); Broome & Markham, *supra* note 3, at 772. As a result of the 1996 and 1999 legislation, some "nonbank banks" have expanded rapidly in recent years. See *Banking in Utah: From Mormon to Mammon*, ECONOMIST, June 9, 2001, at 74–75 (reporting that "nonbank banks" operated by Merrill Lynch and American Express had grown in size to \$54 billion and \$17 billion, respectively, by early 2001).

The second statutory loophole, contained in the federal statute governing thrift holding companies, allowed more than 170 nonbanking companies to acquire thrift institutions prior to the GLB Act. This loophole permitted companies owning a single thrift, known as "diversified unitary thrift holding companies," to engage in unrestricted commercial activities that were impermissible for other corporate owners of banks and thrifts. Diversified unitary thrift holding companies became particularly attractive after Congress passed a 1996 law that recapitalized the deposit insurance fund for thrifts and expanded their lending and branching powers. See Indick et al., *supra*, at 300–01, 310–11; Ira L. Tannenbaum, *Federal Thrift Charter Popularity Continues*, BANKING POL'Y REP., Feb. 1, 1999, at 1; *Unified Federal Charter Study*, *supra*, at 1–5, 8–10 (stating that twenty-eight diversified unitary thrift holding companies existed in June 1996); Lisa Daigle, *Nonbank Thrift Owners to Face More Scrutiny*, AM. BANKER, Oct. 16, 2000, at 1 (reporting the existence of 173 such entities, with subsidiary thrifts holding a combined \$10.4 billion in assets).

The proliferation of diversified unitary thrift holding companies posed a direct challenge to the longstanding congressional policy restricting combinations between depository institutions and commercial or industrial companies. See Kane, *Banking Powers*, *supra* note 11, at 666–67, 671–72. In the GLB Act, Congress responded to this challenge by (i) grandfathering existing diversified unitary thrift holding companies, (ii) prohibiting regulators from granting any further approvals for such entities, and (iii) barring regulators from allowing the sale of any grandfathered entity to a commercial or industrial firm. See The GLB Act, Pub. L. No. 106–102 § 401(a), 113 Stat. 1434 (1999) (codified at 12 U.S.C. § 1467a(c)(9)); Broome & Markham, *supra* note 3, at 771–72.

935. See U.S. GEN. ACCT. OFF., BANK POWERS: ISSUES RELATED TO REPEAL OF THE GLASS-STEAGALL ACT, GAO/GGD-88-37, at 42–43 (Jan. 1988) (discussing motivations for the establishment of "nonbank banks" by securities firms and other nonbank holding companies during the 1980s); Tannenbaum, *supra* note 934 (discussing reasons for acquisitions of thrifts by life insurers, securities firms and other nonbank holding companies during the 1990s); Kathleen Day, *Thrift Is the Word*, WASH. POST, Dec. 13, 1998, at H1 (same).

936. Merrill Lynch introduced a program in 2000 that enabled its brokerage customers to transfer uninsured money funds into FDIC-insured deposits at two grandfathered "nonbank banks" owned by Merrill Lynch. See Rob Blackwell, *Merrill, Solly Put \$28B Into Insured Accounts*, AM. BANKER, Apr. 19, 2001, at 1 [hereinafter Blackwell, *Insured Accounts*] (reporting that Merrill Lynch's customers had deposited almost \$60 billion in its subsidiary banks by March 31, 2001); Patrick McGeehan, *Merrill Lynch Is Set to Move Into Banking*, N.Y. TIMES, Feb. 1, 2000, at 1. Similarly, State Farm has commenced an aggressive program to use its 16,000 insurance agents to market insured deposits and consumer loans offered by State Farm's grandfathered thrift subsidiary. See Pallavi Gogoi, *I'll Take a CD*

Citigroup's securities unit began offering "sweep accounts" that enable its brokerage customers to transfer their uninsured money market funds into FDIC-insured accounts at six Citigroup-owned banks, thereby providing each customer with total deposit insurance coverage of up to \$600,000.⁹³⁷

Many diversification efforts by securities firms and life insurers have produced unhappy results. American Express, General Electric (GE), Kemper, Sears, and Prudential all tried to build "financial supermarkets" in the 1980s to provide consumers with a broad range of securities, insurance, and other financial services. All of those initiatives proved to be expensive failures. American Express sold both its securities and insurance operations after suffering huge losses during the late 1980s and early 1990s.⁹³⁸ GE sold Kidder Peabody less than a decade after buying it, due to a series of major problems.⁹³⁹ Kemper Insurance tried to diversify by building the tenth-largest U.S. securities brokerage firm. Kemper jettisoned its securities unit in 1995, after a dozen years of disappointing results.⁹⁴⁰ Similarly, Sears spun off Dean Witter and Allstate Insurance

with that Life Policy, Please, *BUS. WK.*, Jan. 22, 2001, at 92 (discussing State Farm's banking initiative and similar programs commenced by other life insurers, including AIG, Allstate and MetLife); David Reich-Hale, *Insurer Heading for Bank Turf with 16,000 Lenders*, *AM. BANKER*, June 21, 2000, at 1.

937. See Blackwell, *Insured Accounts*, *supra* note 936 (reporting that Citigroup's brokerage customers had deposited \$17 billion in Citigroup's banks by March 31, 2001); Rob Blackwell, *Salomon's Sweep Plan Raises FDIC Fund Alarm*, *AM. BANKER*, Dec. 6, 2000, at 1 [hereinafter Blackwell, *Salomon's Sweep Plan*].

938. See Allan Sloan, *First Capital Fiasco: The Latest Stain on American Express's Reputation*, *WASH. POST*, May 14, 1991, at C3 (discussing problems that forced American Express (AE) to write off its \$144 million investment in First Capital, a life insurer, and to rescue its Shearson securities unit in 1990); Robert Teitelman, *Image vs. Reality at American Express*, *INST. INVESTOR*, Feb. 1992, at 36 (stating that AE sold Fireman's Fund, a property and casualty insurer, in 1989 after a series of losses, and that AE was forced to inject \$1.2 billion into Shearson in 1990 to prevent that firm's collapse); Victor Zonana, *Creating a Wall Street Giant; Primerica Will Buy Shearson's Brokerage; Investment: The \$1-Billion Deal With American Express Will Make the Combined Operation a Major Player in the Securities Industry*, *L.A. TIMES*, Mar. 13, 1993, at D1 (reporting that AE agreed to sell Shearson to Primerica, resulting in \$630 million of additional charges for AE); see also Susan Pulliam, *Shearson Agrees To Guarantee Policy Values*, *WALL ST. J.*, Feb. 5, 1992, at A4 (reporting that AE contributed \$50 million to help recapitalize First Capital, in which American Express held a 28% investment, and also promised to reimburse all Shearson customers for losses they incurred on life policies and annuities issued by First Capital).

939. See Raghavan & Siconolfi, *PaineWebber*, *supra* note 927 (reporting that GE agreed to sell Kidder Peabody (KP) to PaineWebber in Oct. 1994, for consideration valued at \$670 million, but GE was obliged to record a \$500 million charge against earnings for the transaction); Siconolfi & Jereski, *supra* note 873 (stating that KP lost more than \$400 million during 1994, and that GE had also been forced to rescue KP in 1990); Tim Smart, *Wall Street's Bitter Lessons for GE*, *BUS. WK.*, Aug. 22, 1994, at 62 (reporting that GE had invested \$1.4 billion in KP but had received only \$250 million in net earnings from KP since 1986); Smith, *Investment Banking*, *supra* note 10, at 113 (stating that Kidder Peabody's problems led GE to "discard the firm . . . as a lost cause").

940. See Jeffrey Taylor, *Kemper Struggles With Securities Unit: Huge Insurer Seeks to Stem Big Losses*, *WALL ST. J.*, Apr. 17, 1991, at C1 & "Greater Gloom" tbl. (reporting that Kemper had invested \$400 million in its securities subsidiary, but the subsidiary only broke even during 1982-86 and recorded losses of \$200 million during 1987-90); Michael J. McCarthy, *Kemper Corp. Plans to Spin Off Securities Unit: Disposal of the Subsidiary Might Make it Easier to Shed Rest of Firm*, *WALL ST. J.*, Apr. 4, 1995, at A4 (describing Kemper's decision to spin off its unprofitable securities subsidiary, resulting in a further loss to Kemper of \$70 million).

in the early 1990s after it was unable to create the expected synergies between those businesses and its merchandising operations.⁹⁴¹

Prudential decided in late 2000 to close most of its investment banking operations.⁹⁴² By that point, it was clear that Prudential's expansion into the securities business had produced a fiasco. Between 1981 and 1994, Prudential invested more than \$1.75 billion in Bache Securities and received about half that amount in payments from Bache.⁹⁴³ Prudential's efforts to expand its investment banking business during the late 1990s also produced disappointing results.⁹⁴⁴ The most devastating impact of the Bache acquisition, however, was its effect on Prudential's management and sales culture. In response to complaints from Prudential's insurance executives about higher pay scales enjoyed by their securities counterparts, Prudential instituted an aggressive, sales-based bonus plan for all managers. That bonus plan, along with ambitious earnings goals, created perverse incentives that led Prudential's managers to encourage or condone abusive and reckless sales practices by the company's securities brokers and insurance agents.⁹⁴⁵

During 1981–95, Prudential's brokers and agents used deceptive sales practices in selling millions of speculative limited partnership units and high-cost variable life insurance policies. These abusive practices triggered enforcement proceedings by securities and insurance regulators and fraud claims from hundreds of thousands of Prudential customers.⁹⁴⁶ To resolve these legal problems, Prudential paid \$90 million in fines and agreed to civil settlements with total estimated costs of \$4 to \$5 billion.⁹⁴⁷

941. See SIROWER, *supra* note 272, at 30–34; Stuart L. Gillan et al., *Value Creation and Corporate Diversification: The Case of Sears, Roebuck & Co.*, 55 J. FIN. ECON. 103, 105–15, 127–34 (2000).

942. See Joseph B. Treaster, *Prudential Insurance Is Phasing Out Investment Banking Unit*, N.Y. TIMES, Dec. 19, 2000, at C8 [hereinafter Treaster, *Prudential*].

943. See Michael Siconolfi, *Rock Solid? Prudential Securities Escapes an Indictment, But Firm Is Still Shaky*, WALL ST. J., Oct. 12, 1994, at A1 [hereinafter Siconolfi, *Prudential*] (reporting that Prudential invested \$1.75 billion in its securities unit during 1981–94 and received payments of only \$940 million from the unit); see also *supra* note 873 and accompanying text (referring to Prudential's infusion of capital to rescue its securities subsidiary in 1990).

944. See Anthony Bianco, *When a Merger Turns Messy: Prudential's Takeover of Volpe Brown*, BUS. WK., July 17, 2000, at 70 (describing the failure of Prudential's 1999 acquisition of Volpe Brown, a high-technology investment banking boutique); Charles Gasparino, *Deals & Deal Makers: Prudential Plans to Restructure Securities Unit, Change Status*, WALL ST. J., Dec. 18, 2000, at C16 (reporting that, despite expansion efforts during the late 1990s, "Prudential's investment-banking department never broke into the upper tier of the Wall Street club").

945. See generally KURT EICHENWALD, *SERPENT ON THE ROCK* (1995); see also Scot J. Paltrow, *High Stakes: As a Public Company, Prudential May Find Pay Scales Draw Fire*, WALL ST. J., Aug. 4, 1998, at A1; Greg Steinmetz & Michael Siconolfi, *Chip Off the Rock: Partnership Problems At Prudential Embroil Insurance Business, Too*, WALL ST. J., Dec. 1, 1993, at A1.

946. See Deborah Lohse, *Uncertainty Clouds Prudential's Settlement Process*, WALL ST. J., Dec. 11, 1998, at B4; Paltrow, *supra* note 945; Siconolfi, *Prudential*, *supra* note 943; Steinmetz & Siconolfi, *supra* note 945.

947. See Broome & Markham, *supra* note 3, at 740–41; Robert Barker, *The Barker Portfolio: A Piece of the Rock You May Not Want*, BUS. WK., July 23, 2001, at 92; Joseph B. Treaster, *N.A.S.D. Fines Prudential \$20 Million*, N.Y. TIMES, July 9, 1999, at C2.

As a result of these scandals, Prudential's reputation was tarnished, its sales of life insurance plummeted, and its earnings stagnated.⁹⁴⁸

Subsequently, Conseco, another large life insurer, produced a similar disaster when it purchased Green Tree, a subprime consumer lender, in 1998. Conseco expected that the Green Tree acquisition would produce a financial supermarket with lucrative cross-selling of insurance products and consumer loans to a large group of retail customers. Instead, problems with defaulting borrowers and mismanaged securitizations of Green Tree's loans inflicted losses of more than \$1 billion on Conseco and caused the company's board of directors to replace its senior management.⁹⁴⁹

Currently, many analysts regard Citigroup as the one successful financial conglomerate.⁹⁵⁰ However, Citigroup has existed for less than three years and its track record has been mixed. Citigroup suffered large trading losses in 1998, during the financial turmoil triggered by the Russian debt crisis. It performed well during 1999–2000, but it encountered renewed problems during the first nine months of 2001.⁹⁵¹ The integration of the former Travelers and Citicorp cultures has proven to be very difficult, and it remains to be seen whether the combined organization will realize, on a long-term basis, the synergies predicted by Citigroup's founders.⁹⁵² Professor Roy Smith points out that Citigroup's strategy re-

948. See, e.g., Leslie Scism, *After the Fall: Prudential's Cleanup in Wake of Scandals Hurts Insurance Sales*, WALL ST. J., Nov. 17, 1997, at A1; Leah Nathans Spiro, *Fighter Pilot*, BUS. WK., Dec. 14, 1998, at 124 "Trailing the Pack" tbl. [hereinafter Spiro, *MetLife*] (reporting that Prudential's average annual ROA during 1995–97 was 0.55%, ranking third among the four largest U.S. mutual life insurers); Joseph B. Treaster, *Prudential's Policy Sales Off by 27% in U.S.*, N.Y. TIMES, Mar. 4, 1998, at D1.

949. See Jeff Bailey, *Conseco Agrees to Acquire Green Tree*, WALL ST. J., Apr. 8, 1998, at A2; David Barboza, *Former Chief of GE Capital Is Hired as Conseco's Rescuer*, N.Y. TIMES, June 30, 2000, at C1; Hochstein, *Conseco Woes*, *supra* note 808; Stoneman, *Phantom Synergies*, *supra* note 441.

950. See James Flanagan, *Citigroup as Business Model*, *supra* note 312; Hochstein, *Conseco Woes*, *supra* note 808; Sapsford et al., *Bank Earnings*, *supra* note 117; Randall Smith & Charles Gasparino, *Merger Question on the Street Is 'Who's Left?'*, WALL ST. J., Sept. 13, 2000, at C1 [hereinafter Smith & Gasparino, *Merger Question*].

Merrill Lynch and Morgan Stanley also built diversified financial organizations with generally good results during the 1990s. However, both firms face powerful challenges from more focused competitors like Charles Schwab, Fidelity, and Vanguard, and both firms encountered significant problems during the 2000–01 stock market slump. In addition, analysts generally do not view Merrill Lynch and Morgan Stanley as true financial supermarkets, because their operations are primarily focused within the securities business. See Charles Gasparino, *Morgan Stanley's Disappointing Earnings Cast Shadow Over Prospects for the Street*, WALL ST. J., Sept. 22, 2000, at C1 [hereinafter Gasparino, *Morgan Stanley's Disappointment*]; Charles Gasparino & Randall Smith, *Skeptics Ask If Merrill Can Survive Alone*, WALL ST. J., Sept. 14, 2000, at C1 [hereinafter Gasparino & Smith, *Merrill Skeptics*]; Smith & Gasparino, *Merger Question*, *supra*; see also *supra* note 885, *infra* notes 959–70 and accompanying text.

951. See *supra* note 675 and accompanying text (discussing Citigroup's loss of more than \$1 billion during the second half of 1998); *supra* note 312 and accompanying text (discussing Citigroup's performance during 1998–2001).

952. For discussions of the culture clashes that followed the creation of Citigroup, see Charles Gasparino & Paul Beckett, *Alone at the Top: How John Reed Lost The Reins of Citigroup To His Co-Chairman*, WALL ST. J., Apr. 14, 2000, at A1 [hereinafter Gasparino & Beckett, *Citigroup*] (describing how Sandy Weill, the former Travelers chairman, forced out John Reed, the former Citicorp chairman, after a long struggle); Gary Silverman et al., *Is This Marriage Working?*, BUS. WK., June 7, 1999,

quires “continuous acquisition” and therefore creates formidable challenges for its management:

No one has managed this strategy of continuous aggressive acquisition as successfully as [Sandy] Weill. But the strategy nonetheless has all the disadvantages of haphazard conglomeration and organizational confusion; and because of the size of this particular conglomerate, it risks becoming unwieldy and unresponsive.

...

Also, the strategy depends on feeding the market with a continuous supply of new acquisitions, which means that bigger and bigger additions must be contemplated for the future. It also means that new and recent deals obscure the ability of analysts to determine how well prior acquisitions have fared. This was a condition experienced by the industrial conglomerates in the 1960s and 1970s, most of which fell apart after a good run in the market and have now been broken up.⁹⁵³

Given the disappointing history of most financial supermarkets, it is far from clear whether the new financial conglomerates will outperform their more focused rivals across the various sectors of the financial services industry. Recent examples of the difficulties faced by financial conglomerates can be seen in the decisions of AXA, a global insurer, and ING, a global bank, to abandon their investment banking efforts and focus on their core business lines.⁹⁵⁴ In short, the claimed advantages of universal banks have yet to be proven in the marketplace.

D. The Rise of Discount Brokers and Mutual Fund Managers

Since the early 1990s, discount brokers and specialized mutual fund providers have exerted increasing competitive pressure on traditional

at 126 (reporting on earlier clashes between management factions linked to Travelers and Citicorp); Carol J. Loomis, *Citigroup: Scenes from a Merger*, FORTUNE, Jan. 11, 1999, at 76 (same).

For questions by analysts about Citigroup's long-term prospects, see Hochstein, *Conseco Woes*, *supra* note 808 (quoting Joanne Gordon's statement that “the jury is still out on whether [Citigroup is] ultimately going to be successful”); Peter McCoy, *Great Big Company: Great Big Mistake?*, BUS. WK., Apr. 20, 1998, at 40 [hereinafter Coy, *Citigroup*] (noting that Sandy Weill had failed in his earlier efforts to build a “financial supermarket” at American Express).

953. Smith, *Investment Banking*, *supra* note 10, at 116, 117; see also Beckett, *Citigroup*, *supra* note 310 (noting that, “[i]n keeping with [Sandy] Weill's long track record of growing through acquisitions, Citigroup has embarked on a series of purchases,” including its acquisition of Associates First Capital in late 2000); Timmons et al., *supra* note 310, at 88 (referring to Sandy Weill's “buying binge” for Citigroup during 2000–01); *id.* at 90 “Global Land Grab” tbl. (listing Citigroup's acquisitions of six large foreign financial firms during 2000–01).

954. See Fairlamb, *supra* note 443 (describing ING's decision in late 2000 to “give up on its investment banking venture”); Thomas Kamm, *AXA Group Is Offering To Acquire Remainder of AXA Financial*, WALL ST. J., Aug. 31, 2000, at C1 (reporting that AXA sold DLJ to Credit Suisse because AXA wanted to focus on its “core businesses” of insurance and asset management and was unwilling to “devote an increasing amount of resources to build up investment banking activities”); Smith & Gasparino, *CSFB-DLJ*, *supra* note 927 (reporting that AXA had “grown weary of DLJ and the volatility in its earnings”).

full-service securities firms and life insurers. Discount brokers like Charles Schwab have forced full-service broker-dealers to make deep cuts in their traditional pricing for retail securities transactions. Charles Schwab promoted three innovations—discounted commissions, no-load mutual fund supermarkets, and low-cost on-line trading—that transformed the business of selling retail investment products.⁹⁵⁵ E*Trade and Fidelity also created large on-line trading operations and mutual fund supermarkets.⁹⁵⁶ By 2000, a sixth of all equity trades were conducted on-line,⁹⁵⁷ and Schwab, E*Trade, Fidelity, and three other discount brokers controlled four-fifths of the on-line trading market.⁹⁵⁸ In addition, discount brokers as a group produced higher ROEs than big full-service securities firms throughout the 1990s.⁹⁵⁹

The rapid growth of discount brokers forced Merrill Lynch and Morgan Stanley to offer competing on-line trading programs in late 1999.⁹⁶⁰ These new programs enabled Merrill Lynch and Morgan Stanley to compete with discount brokers, but both firms' initiatives represented a drastic shift away from their traditional commission-based brokerage business.⁹⁶¹ Analysts warned that the firms' new on-line programs would "cannibalize" their traditional retail commissions and cause many of

955. See Hunter, *Online Brokers*, *supra* note 265; Steven Lipin & E.S. Browning, *Heard on the Street: Is New Chase the Bank of the Future?*, WALL ST. J., Sept. 14, 2000, at C1; Russell Mitchell et al., *The Schwab Revolution*, BUS. WK., Dec. 19, 1994, at 89; Erick Schonfeld, *Schwab Puts It All Online*, FORTUNE, Dec. 7, 1998, at 95; Sandra Sugawara, *Schwab Shatters the Trading Mold*, WASH. POST, Apr. 16, 2000, at H01.

956. See Dean Foust, *Bigger May Just Be Better*, BUS. WK., Feb. 1, 1999, at 80; Hunter, *Online Brokers*, *supra* note 265; Geoffrey Smith, *Fidelity.com Gets Serious*, BUS. WK., July 19, 1999, at 84; see also John Hechinger, *Fidelity Is No. 1 in 'Supermarket' Sweeps*, WALL ST. J., Feb. 22, 2000, at C37 (reporting that the mutual fund "supermarkets" operated by Fidelity and Schwab accounted for 19% of the mutual fund industry's total net sales during 1999).

957. Margaret Popper, *Clicks of the Trade*, BUS. WK., May 22, 2000, at 154.

958. See Randall Smith et al., *German Bank Seeks Rest of NDB*, WALL ST. J., Oct. 11, 2000, at C1 ("Buying and Selling Online" tbl. (showing that Schwab, E*Trade, and Fidelity, along with TD Waterhouse, Ameritrade, and Datek, controlled 81.5% of the on-line trading market)).

959. See 2001 SIA FACT BOOK, *supra* note 50, at 38 (showing that discount brokers had a higher pretax ROE than either national full line firms or large investment banks in every year from 1989 through 2000).

960. Prudential Securities and Salmon Smith Barney also initiated on-line trading programs to match those of Merrill Lynch and Morgan Stanley. See Charles Gasparino, *Merrill Faces a Challenge With Web*, WALL ST. J., Nov. 4, 1999, at C1; Jeffrey M. Laderman, *Wall Street's Frenzy Over Fees*, BUS. WK., Nov. 22, 1999, at 140; Ruth Simon & Charles Gasparino, *Full-Service Brokers Complicate the Online World*, WALL ST. J., Oct. 19, 1999, at C1; Leah N. Spiro, *Morgan for the Masses?*, BUS. WK., Nov. 1, 1999, at 180 [hereinafter Spiro, *Morgan Stanley*].

961. Only a year before instituting its on-line trading program, a senior Merrill Lynch executive declared that the firm was firmly opposed to on-line trading. See Rebecca Buckman, *Merrill Says Online Trading Is Bad for Investors*, WALL ST. J., Sept. 23, 1998, at C1 (quoting Vice Chairman John Steffens). However, the rapid growth of Charles Schwab and other on-line brokers convinced both Merrill Lynch and Morgan Stanley that they had to offer on-line trading plans or risk a major erosion of their retail brokerage business. See Charles Gasparino & Rebecca Buckman, *Horning In: Facing Internet Threat, Merrill to Offer Trading Online for Low Fees*, WALL ST. J., June 1, 1999, at A1; Leah N. Spiro, *Merrill's e-Battle*, BUS. WK., Nov. 15, 1999, at 256 [hereinafter Spiro, *Merrill Lynch*]; Spiro, *Morgan Stanley*, *supra* note 960.

their profitable brokers to leave.⁹⁶² Neither Merrill Lynch nor Morgan Stanley captured more than 1% of the on-line trading market or showed substantial profits from their on-line initiatives by the end of 2000.⁹⁶³

Observers have predicted that on-line trading will continue to erode the brokerage business of full-service broker-dealers, because on-line trading enables retail and institutional investors to circumvent traditional trading mechanisms.⁹⁶⁴ It is true that the profits of Charles Schwab and other discount brokers fell sharply during late 2000 and the first nine months of 2001, due to a steep drop in on-line trading caused by the stock market's slump.⁹⁶⁵ However, Charles Schwab was still attracting client assets at a faster rate than Merrill Lynch during the same period, indicating that discount brokers still represented a significant, competitive threat to full-service firms.⁹⁶⁶

Using highly focused business strategies similar to those of the discount brokers, Fidelity, Vanguard, and other mutual fund specialists have consistently outperformed full-service securities firms, life insurers, and banks in marketing mutual funds over the past decade. By 2000, Fidelity and Vanguard had established themselves as industry leaders by

962. See Matthew Hunter, *Morgan Stanley May Be Flopping Online*, AM. BANKER, Sept. 28, 2000, at 6 [hereinafter Hunter, *Morgan Stanley*] (stating that Morgan Stanley and Merrill Lynch were finding it difficult to promote on-line trading "without alienating their legions of productive and well-paid full-service brokers"); Spiro, *Merrill Lynch*, *supra* note 961, at 256-61 (warning, inter alia, that Merrill's offering of single-fee on-line trading accounts with low commission rates could result in "an 85% compression in its [profit] margins" for retail accounts. *Id.* at 256); Marcia Vickers, *Merrill's Teflon Tiger*, BUS. WK., Feb. 28, 2000, at 41 (quoting analysts Mark Elzweig and Guy Moszkowski). For descriptions of resulting morale problems among Merrill Lynch's brokers, see Charles Gasparino, *Heard on the Street: Merrill's O'Neal, Shooting for Top Job, Prepares to Take the Bull by the Horns*, WALL ST. J., May 12, 2000, at C1 (reporting disillusionment and departures among Merrill Lynch's brokers in response to the firm's on-line trading program); Emily Thornton, *They're Off! Merrill's CEO Horse Race*, BUS. WK., June 4, 2001, at 86 (quoting a headhunter's statement that "[t]he rate of defections among Merrill brokers has accelerated recently").

963. See Charles Gasparino, *Deals & Dealmakers: Merrill Reports 11% Rise in Profit Despite the Recent Market Storms*, WALL ST. J., Jan. 24, 2001, at C20 (reporting that Merrill Lynch's brokerage commissions from retail stock trades fell by 11.3% during 2000); Gasparino, *Morgan Stanley's Disappointment*, *supra* note 950 (reporting lackluster results from Morgan Stanley's online trading program); Hunter, *Morgan Stanley*, *supra* note 962 (same); Smith, *supra* note 958, at C1 "Buying and Selling Online" tbl.; Ring, *Merrill Lynch*, *supra* note 884 (reporting that Merrill Lynch was unable to increase its private client assets during 2000).

964. Spiro, *Merrill Lynch*, *supra* note 961, at 258 (citing views of analyst Larry Tabb and Prof. Clayton Christensen); *id.* at 262 (discussing potential threat to Merrill Lynch's institutional commissions); Gasparino & Buckman, *supra* note 961 (noting similar dangers for Merrill Lynch, and reporting that Internet trading accounted for 30-35% of all retail stock trades in 1999); Sugawara, *supra* note 955 (describing how the rapid growth of on-line trading accounts allowed Charles Schwab to create an internal trading market for its retail customers, thereby circumventing the trading power previously exerted by institutional investors and market makers).

965. See Charles Gasparino & Ken Brown, *Discounted: Schwab's Own Stock Suffers From Move Into Online Trading*, WALL ST. J., June 19, 2001, at A1; McGeehan, *Merrill and Schwab*, *supra* note 884; Emily Thornton, *Commentary: Why E-Brokers Are Broker and Broker*, BUS. WK., Jan. 22, 2001, at 94; Thornton, *Wall Street Chill*, *supra* note 416, at 123.

966. See Emily Thornton, *'Reengineering' at Merrill Lynch*, BUS. WK., Aug. 6, 2001, at 31 "Fighting for Assets" tbl.

capturing a fifth of the domestic mutual fund market.⁹⁶⁷ Both firms built investor loyalty by producing higher investment returns and charging lower fees than big securities firms.⁹⁶⁸ Based on both short-term and longer-term comparisons, Fidelity, Vanguard, and their specialist counterparts generated investment returns during the 1990s that far exceeded those posted by large broker-dealers.⁹⁶⁹ Securities firms also lagged well behind mutual fund specialists in attracting new customer assets during the same period, apparently because full-service broker-dealers lacked the strong investment focus and rigorous cost controls applied by specialty firms.⁹⁷⁰

Although banks expanded their presence in the mutual fund business during the 1990s, much of that growth resulted from mergers with existing mutual fund managers, such as Mellon's 1994 acquisition of Dreyfus, and Citicorp's 1998 merger with Travelers' securities unit.⁹⁷¹ Banks did not increase their share of the mutual fund market during

967. See Niamh Ring, *More Banks in Fund Big League But Further Rise May Be Tough*, AM. BANKER, Feb. 11, 2000, at 1, 9 "In the Nifty Fifty" tbl. (reporting that Fidelity and Vanguard together managed \$1.35 trillion of mutual fund assets, while the mutual fund industry had total assets of \$6.8 trillion).

968. See Amy Barrett & Jeffrey M. Laderman, *That's Why They Call It Vanguard*, BUS. WK., Jan. 18, 1999, at 82, 83; Ianthe Jeanne Dugan, *A Lawyer Leads a Renaissance at Fidelity*, WASH. POST, Jan. 10, 1999, at H1; Thomas Easton, *The Gospel According to Vanguard*, FORBES, Feb. 8, 1999, at 114, 115; Geoffrey Smith, *Fixing Fidelity*, BUS. WK., Sept. 14, 1998, at 178; Andy Serwer, *Say It Out Loud: They're Average and Proud*, FORTUNE, Apr. 30, 2001, at 115.

969. See Barrett & Laderman, *supra* note 968, at 83 "How Vanguard Equity Funds Stack Up" tbls. (showing that equity funds managed by Fidelity, Vanguard, and eight other mutual fund specialists outperformed Merrill Lynch's equity funds over periods of one, three, and five years); Thomas Easton, *What's the Matter with Brokers' Funds?*, FORBES, May 3, 1999, at 82, 82, 84 "Brokers trail the pack" tbl. [hereinafter Easton, *Brokers' Funds*] (reporting that, during 1989-99, equity funds managed by Fidelity, Vanguard, and sixteen other mutual fund specialists outperformed equity funds managed by Morgan Stanley, Prudential, Smith Barney, and Merrill Lynch); David Franecki, *Fidelity Tops Returns for 10 Fund Giants*, WALL ST. J., Jan. 12, 1999, at C25 (reporting that, based on 1998 investment returns, Fidelity and Vanguard ranked first and third, respectively, while Morgan Stanley and Merrill Lynch placed fifth and ninth, respectively, among the ten largest mutual fund providers); Charles Gasparino, *Mutual Funds Are Hard Sell for Goldman*, WALL ST. J., Sept. 22, 1999, at C1 [hereinafter Gasparino, *Goldman Funds*] (stating that "the performance of Goldman [Sachs] mutual funds is middling, at best").

970. See Gasparino, *Goldman Funds*, *supra* note 969 (reporting that, in 1999, new sales for mutual funds managed by Goldman Sachs, Merrill Lynch, and PaineWebber were far below new sales for mutual funds managed by Fidelity and Vanguard); Emily Thornton & Stanley Reed, *A Scrambler at Merrill*, BUS. WK., June 19, 2000, at 234, 234-35 (describing poor investment returns, high fees, and disappointing sales associated with Merrill Lynch's mutual funds, and reporting that Fidelity, Vanguard, and Janus produced two-thirds of all net inflows into equity and bond mutual funds during 1999); see also Easton, *Brokers' Funds*, *supra* note 969, at 82 (discussing similar problems with mutual funds managed by other large securities firms); Stephen Garmhausen, *Newly Hired Merrill Exec Aims to Boost Fund Sales*, AM. BANKER, June 16, 1999, at 6 (noting that "[b]rokerage firms have often treated asset management as an afterthought").

971. See Katharine Fraser, *M&A Spurs Bank Fund Growth, But New Investors Prove Elusive*, AM. BANKER, May 19, 1998, at 1; William Plasencia & John Kimelman, *Bank Management of Mutual Funds Tapers Off*, AM. BANKER, Mar. 6, 1996, at 1. For discussion of the legal authority of banks to enter the mutual fund business prior to the GLB Act, see, e.g., FEIN, *supra* note 30, ch. 10; Jane E. Willis, *Banks and Mutual Funds: A Functional Approach to Reform*, 1995 COLUM. BUS. L. REV. 221.

1995–97, and their market share again failed to grow during 1999–2000.⁹⁷² In addition, Citigroup, Mellon, and other large bank providers of mutual funds produced poor investment results that were far below those recorded by Fidelity, Vanguard, and other leading mutual fund specialists.⁹⁷³ Mellon, which has focused on a mutual fund strategy more than any other bank, has failed to produce significant internal growth in its mutual fund business despite three separate acquisitions of asset managers.⁹⁷⁴ Thus, the evidence of the past decade suggests that banks are unlikely to be any more successful than full-service securities firms in competing against specialized mutual fund managers.

Like the failure of the “financial supermarkets” established during the 1980s, the success of discount brokers and mutual fund specialists during the 1990s contradicts a key argument made in favor of universal banking. Advocates claim that universal banking will create significant demand-side synergies by offering “one-stop shopping” to customers.⁹⁷⁵ However, with the exception of large corporations, most bank customers have shown little enthusiasm for “one-stop shopping.” Studies and anecdotal reports have concluded that most consumers, small businesses, and mid-size firms do *not* value “one-stop shopping” and instead prefer to buy financial services from a variety of providers.⁹⁷⁶ Other reports

972. The share of the mutual fund market held by banks remained flat at 14% during 1995–97, held steady at 17% during 1998–99, and showed no upward movement during the first half of 2000. See Cheryl Winokur, *Banks' Mutual Fund Assets Pass \$1 Trillion, But Share Is Stagnant*, AM. BANKER, Aug. 12, 1999, at 1 (“Putting Down Stakes” tbl. (providing market share data for 1994–99)); Talley, *Bank Funds*, *supra* note 239 (stating that banks managed \$1.13 trillion of mutual fund assets at the end of 1999); Ring, *supra* note 967, at 9 (stating that the mutual fund industry held \$6.8 trillion of total assets at the end of 1999); Carrick Mollenkamp & Christopher Oster, *Heard on the Street: Bank-Run Mutual Funds Perform Poorly*, WALL ST. J., Aug. 14, 2000, at C1 (reporting that bank-managed equity and bond mutual funds had net inflows of only \$1.3 billion during the first half of 2000, due to the poor investment performance of most bank funds).

973. See *Bank and Thrift Companies That Manage Mutual Fund Assets*, AM. BANKER, May 19, 1999, at 10 (showing that Citigroup and Mellon controlled about a quarter of all mutual fund assets managed by banks as of March 31, 1999); Paul Beckett & Patrick McGeehan, *House Funds Pose Challenge For Citigroup*, WALL ST. J., May 13, 1999, at C1 (stating that Citigroup's Smith Barney stock mutual funds produced 1998 returns that were well below the performance of the “top no-load fund families”); Easton, *Brokers' Funds*, *supra* note 969, at 84 (“Brokers Trail the Pack” tbl. (showing that, during 1989–99, Citigroup's Smith Barney and Mellon's Dreyfus ranked twenty-first and twenty-fourth for investment performance among twenty-five major mutual fund managers, while Fidelity and Vanguard ranked third and twelfth); David Franecki, *Can Two Minuses Equal One Plus?*, BARRON'S, Sept. 18, 2000, at F3 (describing “lackluster returns” for mutual funds sponsored by Chase and J.P. Morgan); Mollenkamp & Oster, *supra* note 972 (describing the “dismal showings” of equity mutual funds managed by other large banks, including First Union and SunTrust).

974. See Ken Brown, *Mellon's Fund Deals: Slow to Bear Fruit*, WALL ST. J., Mar. 15, 2000, at C1; Matt Murray, *Dreyfus Growth Hurt by Reorganization*, WALL ST. J., July 1, 1998, at C1; see also David Reich-Hale, *Kudos for Hartford, Knocks for American Gen'l*, AM. BANKER, Oct. 19, 2000, at 11 (reporting that, due to poor investment performance, Mellon's Dreyfus unit was rated “dead last” as a manager of mutual funds in a survey of banks that made third-party sales of mutual funds).

975. See *supra* note 24 and accompanying text.

976. See Linda Allen & Julapa Jagtiani, *The Risk Effects of Combining Banking, Securities, and Insurance Activities*, 52 J. ECON. & BUS. 485, 486 & n.1 (2000) (citing consulting firm's survey showing that only 22% of affluent clients preferred “one-stop shopping for financial services”); Allen N. Berger et al., *Do Consumers Pay for One-Stop Shopping? Evidence From an Alternative Revenue Function*, 20

confirm that big banks have had very limited success in cross-selling different types of financial services to consumers.⁹⁷⁷

Three primary factors appear to explain the poor results of most cross-selling efforts by full-service firms. First, big banks and securities firms typically charge higher prices and/or produce lower investment returns, compared with discount brokers, mutual fund specialists, credit card banks, and other "category killers."⁹⁷⁸ Second, specialized firms have benefited greatly from the Internet, which enables consumers to make quick and inexpensive nationwide searches for the lowest price available on a particular product.⁹⁷⁹ Third, full-service providers have structural conflicts of interest that often cause them to subordinate to their retail customers' interests. For example, a full-service broker-dealer has obvious fee-based incentives to encourage its brokers to sell the firm's "proprietary" mutual funds or securities underwritten by the

J. BANKING & FIN. 1601, 1602-03, 1615-18 (1996) (finding that banks did not produce any significant revenue economies of scope by offering deposits and loans jointly to customers); Jennifer Kingson Bloom, *Consumers Cool to One-Stop Shopping*, AM. BANKER, June 8, 1998, "Managing the Megabanks" Supp. at 6A (citing an Atlanta firm's survey showing that only one-sixth of consumers favored one-stop shopping, and interviewing consumers who said they would not use a single provider for their financial needs); Jacqueline S. Gold, *Bank's Retail Customers Have Misgivings About One-Stop Financial Shopping*, AM. BANKER, Apr. 8, 1998, at 1 (presenting interviews with consumers who expressed similar views); Leah N. Spiro, *How the Corporate Customers See It*, BUS. WK., Apr. 27, 1998, at 36 (reporting similar attitudes among small businesses); Heather Timmons, *The Chase to Become a Financial Supermarket*, BUS. WK., Sept. 25, 2000, at 42 (reporting similar attitudes among midsize companies); *What Happens Next: While Banks See Future in Full Service, Many Companies Prefer to Shop Around*, WALL ST. J., Sept. 14, 2000, at C20 (reporting that, except for large corporations, most business firms did not favor one-stop shopping for financial services because of their concerns about higher fees due to less competition among providers); compare Thornton, *Brokerages Pay to Play*, *supra* note 870 (reporting that J.P. Morgan Chase and Citigroup were successfully competing with securities firms to win "investment banking deals" from large corporations, because the "[m]egabanks" were offering a "one-stop financial shop" where corporate clients could obtain credit lines, bridge loans, and merger advice, as well as underwriting services).

977. See Gogoi, *supra* note 936 (stating that "[c]ross-selling of financial services . . . is notoriously difficult to execute," and "success has proved elusive" in Citigroup's attempt to cross-sell consumer financial products); Bethany McLean, *Is This Guy the Best Banker in America?*, FORTUNE, July 6, 1998, at 126, 128 (reporting that the average bank sold only two products to each retail customer, while Norwest sold nearly four; even so, less than 3% of Norwest's retail customers maintained brokerage accounts at the bank); Liz Moyer, *Citi Puts Lipp at Helm of Cross-Selling Efforts*, AM. BANKER, July 24, 2000, at 1 (reporting that Citigroup had enjoyed some success in cross-selling financial services to corporate customers, but cross-selling to consumers "is taking longer than originally envisioned"); Timmons, *Wells Fargo*, *supra* note 263 (reporting that Wells Fargo, as successor to Norwest, sold an average of 3.7 products to each retail customer; however, "Wells has been one of the few banks to make a success of cross-selling"); see also James Mackintosh & John Willman, *The Holy Grail of Retail Banking Remains Elusive*, FIN. TIMES (London), May 22, 2001, at 30 (stating that U.K. retail banks were selling an average of only two products per retail customer despite a decade of expensive cross-selling efforts).

A recent example of a failed cross-selling strategy can be seen in Mellon's decision, in July 2001, to leave the retail banking business and sell its bank branches to Citizens Bank. As a result of this sale, Mellon effectively abandoned its previous strategy of cross-selling Dreyfus mutual funds to its retail customer base. See Alissa Schmelkin & Matthias Rieker, *Deal Boosts State Street; Mellon Stock Takes a Hit*, AM. BANKER, July 18, 2001, at 20.

978. See O'Brien & Hansell, *supra* note 168, at 1, 10 & "Grazing Fees" tbl.

979. See Coy, *Citigroup*, *supra* note 952; O'Brien & Hansell, *supra* note 168; Spiro & Baig, *supra* note 853.

firm's investment banking unit, regardless of whether those products are best suited to their retail customers' needs. Consumers are likely to question the objectivity and reliability of a full-service firm's advice as they become aware of these conflicts of interest.⁹⁸⁰ Given the higher fees and conflicts of interest that are typical at full-service banks and securities firms, it is not surprising that a recent consumer survey gave highest ratings to specialized financial providers for customer service and overall reputation. In contrast, full-service securities firms received only mediocre ratings and large banks fell into the bottom half of the rankings.⁹⁸¹

E. The Continued Stature of Big Banks as Leading Competitors in the U.S. Financial Services Industry

The combined share of financial industry assets held by mutual funds and pension funds grew rapidly after 1980 and accounted for half of all financial industry assets by 1999.⁹⁸² As mutual funds and pension funds expanded, the percentages of financial industry assets held by

980. See, e.g., MATTHEWS, WALL STREET, *supra* note 88, at 72-74; Beckett & McGeehan, *supra* note 973; Charles Gasparino & Pui-Wing Tam, *Wall Street Seems to Backslide on Pay Practices*, WALL ST. J., Mar. 28, 2000, at C1; Matthew Hunter, *More Banks Try to Harness Proprietary Products*, AM. BANKER, Oct. 18, 2000, at 8; Pearlstein & Pae, *supra* note 168 (stating that bank mutual funds "have proven [to be] mediocre performers . . . [b]ut many bankers feel they'll need the higher profits that come from selling their own [investment] products"); Lean N. Spiro & Michael Schroeder, *Can You Trust Your Broker?*, BUS. WK., Feb. 20, 1995, at 70, *passim*.

Large banking organizations will face increased conflicts of interest as they exercise their expanded authority under the GLB Act to underwrite securities and mutual funds. For example, the Evergreen family of mutual funds, owned by First Union, sold 1.1 million shares of SunTrust stock (representing 92% of Evergreen's SunTrust holdings) during the second quarter of 2001. Evergreen claimed that it had exercised independent investment judgment, but its sale created the appearance of a conflict of interest. The sale clearly served First Union's interest in driving down SunTrust's stock price, because First Union and SunTrust were offering competing stock-based bids to acquire Wachovia. See Floyd Norris, *Southern Levitation: Battling Banks' Shares Keep Rising*, N.Y. TIMES, July 27, 2001, at C1.

A recent study found similar conflicts of interest among large universal banks in Israel. The study examined the performance of a group of IPOs for which Israeli banks acted as underwriters, and in which at least one bank-managed mutual fund purchased more than 5% of the offering. The study found that the stock price performance of those IPOs was far worse than average, both on the offering date and over a one-year period. The study also noted that bank-managed mutual funds typically retained ownership of the IPO stocks for several months or longer, despite their poor performance. The authors concluded that Israeli banks favored their underwriting clients at the expense of their mutual fund customers by (i) selling overpriced IPO stocks to their managed mutual funds, and (ii) causing their managed mutual funds to retain ownership of IPO stocks despite their poor performance. Hedva Ber et al., *Conflict of Interest in Universal Banking: Bank Lending, Stock Underwriting, and Fund Management*, 47 J. MONETARY ECON. 189, 193-95, 212-17 (2001).

981. The survey asked consumer to evaluate forty major financial service providers. Respondents gave top marks to specialized firms like USAA, TIAA-CREF, Charles Schwab, American Express, and Vanguard. No commercial bank ranked higher than twentieth in the survey. See Lee Ann Gjertsen, *USAA, TIAA Have Top Reputations*, AM. BANKER, May 23, 2001, at 1; Bill Stoneman, *Results Summary: Specialists Beat Banks*, AM. BANKER, May 25, 2001, "The Financial Services Reputation Quotient" Supp. at 4A.

982. The share of financial industry assets held by mutual funds grew from 3.6% in 1980 to 21.7% in 1999, while the portion held by pension funds increased from 17.4% to 29.6%. See Kaufman & Mote, *supra* note 64, at 7 tbl.2 (providing 1980 figures); Labaton, *New Financial Era*, *supra* note 378, at "Asset Breakdown of Financial Institutions in the United States" tbl. [hereinafter Labaton, *New Financial Era Table*] (providing 1999 figures).

commercial banks and life insurance companies declined. During 1980–99, the asset share held by banks fell from 34.8% to 22.1%, and the portion held by life insurers declined from 16.1% to 14.8%. Securities broker-dealers managed to increase their asset share during the same period from 1.1% to 3.5%.⁹⁸³ These asset share figures indicate that the rapid growth of mutual funds and pension funds was the primary cause for the asset share reduction experienced by banks and life insurers over the past two decades. In essence, consumers shifted a large part of their savings from bank deposits and whole-life insurance policies to pooled investment funds.⁹⁸⁴

The shift of household savings from bank deposits to financial market investments helps to explain the decline in traditional bank lending and the growth of capital market substitutes for bank loans.⁹⁸⁵ However, the decline of traditional bank intermediation does not mean that banks have lost their importance to the national economy. As described above, large banks continue to provide off-balance-sheet lines of credit that serve as backup sources of liquidity for major industrial corporations and nonbank financial institutions.⁹⁸⁶ In addition, banks have expanded into a wide array of new activities, many of which (e.g., derivatives, securitization, standby letters of credit, and trust operations) also occur off their balance sheets and, therefore, are not included in conventional asset figures.⁹⁸⁷ Broader measures of banking activity, which take account of off-balance-sheet operations, show that the overall significance of the banking industry in the U.S. economy has *not* declined since the mid-1970s.⁹⁸⁸

Even from the more restricted perspective of asset shares, banks have held their own against life insurers and securities firms since the early 1990s. During 1993–99, banks and securities firms registered modest increases in their shares of financial industry assets, while the asset share held by insurers declined substantially.⁹⁸⁹ In addition, as shown above, bank profits compared favorably to the earnings of securities

983. See Kaufman & Mote, *supra* note 64, at 7 tbl.2 (providing 1980 figures); Labaton, *New Financial Era Table*, *supra* note 982 (providing 1999 figures).

984. See, e.g., EDWARDS, *NEW FINANCE*, *supra* note 63, at 16–21; Kaufman & Mote, *supra* note 64, at 10–12.

985. See EDWARDS, *NEW FINANCE*, *supra* note 63, at 11–34.

986. See Andrew Bary, *Truth in Lending?*, *BARRON'S*, May 28, 2001, at 17 (explaining that lines of credit are not included on the issuing banks' balance sheets and instead are reported as contingent liabilities in footnotes to their financial statements); *supra* Part I(A)(2)(b) (discussing role of banks as "standby sources of liquidity" in providing credit lines to large corporations and finance companies).

987. See EDWARDS, *NEW FINANCE*, *supra* note 63, at 28, 34–40, 47, 59; Boyd & Gertler, *Banking Trends*, *supra* note 76, at 332–38; *supra* Parts I(E)(2)(b), (e).

988. See generally John H. Boyd & Mark Gertler, *Are Banks Dead? Or Are the Reports Greatly Exaggerated?*, *FED. RES. BANK OF MINNEAPOLIS, Q. REV.*, Summer 1994, at 2; Kaufman & Mote, *supra* note 64.

989. See Kaufman & Mote, *supra* note 64, at 7 tbl.2 (showing that financial industry asset shares in 1993 were 21.7% for banks, 17.4% for insurers, and 3.3% for securities firms); Labaton, *New Financial Era Table*, *supra* note 982 (showing that financial industry asset shares in 1999 were 22.1% for banks, 14.8% for insurers, and 3.5% for securities firms).

firms and have far outpaced the earnings of life insurers during the 1990s.⁹⁹⁰

Perhaps most importantly, the market capitalization of the banking industry in 1999 was four times as large as the combined market capitalization of the securities and life insurance sectors.⁹⁹¹ Due to this huge capital advantage enjoyed by banks, most of the surviving firms in future inter-industry combinations are likely to be banks.⁹⁹² For example, since the early 1990s, large U.S. and foreign banks have acquired dozens of U.S. securities firms, and only one significant bank has been purchased by a securities firm.⁹⁹³

Similarly, experiences of Canada and the United Kingdom with financial deregulation since the late 1980s indicate that banks are likely to be the principal survivors of inter-industry consolidation. Following the removal of legal barriers between banking and securities, Canadian banks purchased all of the leading Canadian securities dealers, while domestic and foreign banks acquired virtually all of the significant U.K. investment banks.⁹⁹⁴ Thus, based on comparative industry figures and the past record of financial consolidation in this country and abroad, major banks will probably continue to occupy a commanding position in the U.S. financial services industry.

Professor Jonathan Macey has recently commented that “[b]anks are not on the verge of extinction now, and they were not on the verge of extinction before the [GLB] Act was passed.”⁹⁹⁵ He contends—correctly, in my view—that the banking industry was “alive and well” when the GLB Act was adopted.⁹⁹⁶ As he points out, banks remained powerful in

990. See *supra* notes 877, 914–20 and accompanying text.

991. See Kathleen Day, *Reinventing the Bank: With Depression-Era Law About to Be Rewritten, the Future Remains Unclear*, WASH. POST, Oct. 31, 1999, at H1 [hereinafter Day, *Bank Future*] (reporting that market capitalization figures were \$1 trillion for banks, \$175 billion for securities firms, and \$95 billion for life insurers); see also Jaret Seiberg, *Banking Industry's Not-So-Secret Weapon in War with Nonbanks*, AM. BANKER, May 12, 1997, at 4 [hereinafter Seiberg, *Secret Weapon*] (reporting that, at the end of 1996, the eight largest banks had total equity capital of \$116 billion, compared to \$30 billion for the top eight securities firms and \$27 billion for the top eight life insurers).

992. See Day, *Bank Future*, *supra* note 991, at H13 (predicting that banks will be “the biggest buyers in the merger game, with most securities and insurance firms being the acquired firms”; also reporting that of all “acquisitions of financial services companies,” in 1998, “[b]anks were buyers in more than 70 percent of the mergers, while insurance companies were buyers 20 percent of the time”); Seiberg, *Secret Weapon*, *supra* note 991 (predicting that the large capital advantage enjoyed by banks “will let banks dominate securities firms and insurance companies”).

993. See *supra* notes 22, 428–29 and accompanying text (discussing acquisitions of securities firms by large U.S. and foreign banks, and Charles Schwab's purchase of U.S. Trust Co.). The Citicorp-Travelers merger arguably represented a second acquisition of a major bank by a combined insurance and securities firm, because the former management of Travelers, led by Sandy Weill, ultimately secured control of Citigroup. See Gasparino & Beckett, *Citigroup*, *supra* note 952.

994. See Anthony Saunders, *Consolidation and Universal Banking*, 23 J. BANKING & FIN. 693, 694–95 (1999) [hereinafter Saunders, *Consolidation*]; Charles Freedman, *Financial Structure in Canada: The Movement Towards Universal Banking*, in Saunders & Walter, FINANCIAL SYSTEM DESIGN, *supra* note 200, at 724, 731–32; *Investment Banking: The Wisdom of Salomon*, ECONOMIST, Jan. 22, 2000, at 72.

995. Macey, *Business of Banking*, *supra* note 38, at 693.

996. *Id.* at 719.

1999, despite three decades of wrenching change, because (i) their access to federal deposit insurance and the federal payments system gave them important advantages as intermediaries of short-term investment funds (i.e., deposits), (ii) they were the primary lenders for firms that could not easily be evaluated or monitored by outside investors, (iii) they provided lines of credit that were crucial to the stability and proper functioning of the capital markets, and (iv) they had already established a substantial presence in the securities business by exploiting regulatory loopholes in the Glass-Steagall Act.⁹⁹⁷ Professor Macey therefore concludes, and I agree, that a frequently stated justification for the GLB Act—namely, that commercial banking had become an “obsolete” business—was “fundamentally false.”⁹⁹⁸

Professor Macey also offers an “interest group-based explanation” for the GLB Act that accounts for the financial services industry’s willingness to “spen[d] hundreds of millions of dollars” in obtaining legislation allowing securities firms and life insurers to enter a business that was supposedly “dying.”⁹⁹⁹ He maintains that (i) nonbank financial firms supported the GLB Act because they believed that banking was actually an “attractive business” to enter; and (ii) all of the leading financial institutions, including major banks, wanted statutory permission to organize “large, diversified financial services conglomerates” that would be “far stronger than their more specialized, less well-diversified rivals.”¹⁰⁰⁰ I believe that Professor Macey has accurately described the actual motives of financial industry leaders who so strenuously pushed for passage of the GLB Act. However, as discussed below in Part III, I strongly question whether diversified financial conglomerates will produce the benefits anticipated by the Act’s supporters.

III. POLICY IMPLICATIONS

A. *It Is Highly Doubtful Whether the Creation of Universal Banks Will Improve the Efficiency or Profitability of the U.S. Financial Services Industry*

Advocates of universal banking have confidently predicted that the financial services industry will become more efficient and profitable as banks merge with securities firms and insurance companies.¹⁰⁰¹ However, the experience of the past two decades raises serious doubts about the accuracy of that prediction. Based on the available data regarding the

997. *Id.* at 693–708, 715–19; see *supra* Parts I(A)(1), I(A)(2)(b), I(E)(2)(a) (offering a similar perspective on the banking industry).

998. Macey, *Business of Banking*, *supra* note 38, at 692; see also *id.* at 693, 719–20.

999. *Id.* at 719, 720; see also *supra* note 378 and accompanying text (citing press reports stating that the financial services industry spent more than \$300 million on lobbying expenses and political contributions to secure passage of the GLB Act).

1000. Macey, *Business of Banking*, *supra* note 38, at 719, 720.

1001. See *supra* note 24 and accompanying text.

efficiency and profitability of financial firms, as well as the track record of past mergers in the financial sector, there is little evidence to support the view that big financial conglomerates will perform better than smaller or more specialized financial institutions.

Most empirical studies have not confirmed the existence of global economies of scale or scope in large diversified banks, full-service securities firms, or multiple-line insurance companies. In each sector, the biggest and most diversified firms have consistently produced lower profits and inferior efficiency ratings when compared to smaller or more specialized competitors. Thus, for example, (i) smaller regional banks and focused credit card banks are more efficient and profitable than the largest money center banks, (ii) discount brokers have higher ROEs than full-service broker-dealers, and (iii) specialized life insurers are more efficient than multiple-line insurance companies.¹⁰⁰²

Moreover, most large mergers among financial firms have failed to produce the “synergies” expected by advocates of consolidation. The great majority of big bank mergers since 1990 have produced disappointing profits and long-term losses in shareholder wealth. Several of the largest domestic bank mergers during 1996–98 are now widely viewed as either severe disappointments or outright failures (viz., Bank One’s acquisitions of First Chicago NBD and First USA, First Union’s acquisitions of CoreStates and Money Store, NationsBank’s mergers with Barnett Banks and Bank of America, and Wells Fargo’s merger with First Interstate).¹⁰⁰³ The difficulties caused by these mergers, during a period of unprecedented economic expansion, raise troubling questions about the potential problems that could emerge at major consolidated banks if the U.S. economy experienced a prolonged recession.

Cross-industry diversification has shown no more success than big bank mergers. The “financial supermarkets” created during the 1980s by American Express, GE, Kemper, Prudential, and Sears have all been dismantled. Similarly, AXA, Bankers Trust, Barclays, ING, NatWest, and Security Pacific have either been driven into forced mergers or decided to abandon the investment banking business after their diversification efforts produced disappointing results. Bank of America’s acquisition of Montgomery Securities proved to be an expensive failure, while Consecro’s purchase of Green Tree generated huge losses. Five big international banks—Citigroup, Credit Suisse, Deutsche Bank, J.P. Morgan Chase, and UBS—continue to pursue a universal banking strategy. However, all five banks have encountered significant problems at various times in recent years, and none of them can yet be judged a long-term success.¹⁰⁰⁴

1002. See *supra* notes 278–85, 922–23, 932–33 and accompanying text.

1003. See *supra* Part I(D)(4)(a).

1004. See *supra* notes 116–17, 141–42 and accompanying text; *supra* Parts I(E)(2)(a)(ii), I(E)(2)(c) & II(C). In recent years, ABN Amro has sought to achieve parity with these big global banks by ag-

Nor have customers embraced the alleged advantages of “one-stop shopping.” Most consumers, small businesses, and mid-sized firms have expressed a strong preference for diversifying their purchases of financial services. Customer attitudes help to explain why the “financial supermarkets” of the 1980s failed and why the great financial success stories of the 1990s were focused providers—viz., credit card banks, discount brokers, and mutual fund managers. Specialized financial firms have earned customer loyalty by providing superior service and/or better investment returns at lower cost. The Internet has greatly enhanced the appeal of specialty firms because it permits consumers and smaller businesses to make inexpensive nationwide searches for the most attractive combination of price and service. In contrast to these focused competitors, big diversified banks and full-service securities firms have consistently charged higher fees and paid lower returns on investments.¹⁰⁰⁵ Indeed, one reason to be skeptical about the claimed advantages of “one-stop shopping” in a consolidated financial services industry is that big banks have *not* delivered on their promise to provide better service and lower prices in a consolidated *banking* industry.¹⁰⁰⁶

Three major factors appear to explain why most big banks and other large diversified financial firms in the United States have failed to generate the efficiency and profitability gains predicted by consolidation advocates. First, organizational complexity and agency conflicts often prevent financial conglomerates from realizing on potential synergies. Second, managers often pursue expansion and diversification programs for reasons that have nothing to do with improving customer loyalty or shareholder gains. Managerial hubris and self-interest—especially the desire to reduce market and regulatory discipline by achieving TBTF status—are powerful motivations behind many big financial mergers. Third, executives must at least pay lip service to “shareholder value” in an age of powerful institutional shareholders. Accordingly, acquiring

gressively expanding its investment banking operations. However, ABN Amro's earnings from corporate and investment banking declined by more than 60% during the half quarter of 2001. As a result, the bank's management instituted a stringent restructuring program designed to reduce the bank's focus on financial markets activities. Analysts therefore concluded that ABN Amro was unlikely to reach competitive parity with the major Wall Street firms. See Alan Cowell, *ABN Amro Shifts Focus Back to Traditional Banking*, N.Y. TIMES, Aug. 17, 2001, at W1; Suzanne Kapner, *Dutch Bank Says Profit Is Down 12%*, N.Y. TIMES, May 10, 2001, at W1; *Stock Slump Hurts ABN Amro's Profits*, AM. BANKER, May 10, 2001, at 20.

1005. See *supra* Part II(D).

1006. See *supra* Parts I(D)(3)(b)–(c), I(D)(4)(b)(iii); see also David Boraks, *Mergers Raise Customers' Hackles, Survey Finds*, AM. BANKER, July 24, 2001, “American Banker/Gallup Consumer Survey—July 2001” Supp. at 12A (reporting on survey showing widespread consumer dissatisfaction with bank mergers, due to “poor or impersonal service” and “higher fees”); Hannan, *Retail Fees*, *supra* note 330, at 1, 8–11 (reporting that, compared with single-state banks and smaller banks, multistate banks and larger banks charged significantly higher fees on deposit accounts in 1999); Wilmarth, *Big Bank Mergers*, *supra* note 106, at 4–5, 31–41, 87 (contending that, despite optimistic claims made by advocates of consolidation, big bank mergers have actually produced inferior service and higher prices for consumers and small businesses); Hanweck & Shull, *supra* note 147, at 258–59, 265–81 (presenting similar argument).

firms typically issue highly optimistic forecasts about potential cost savings and revenue gains when mergers are announced. To achieve these forecasts, acquiring firm managers frequently seek higher returns through one or both of the following strategies: (i) closing branches and firing staff, or (ii) pursuing more speculative activities and increasing leverage. The cost-cutting program usually alienates customers and destroys franchise value, while the higher-risk strategy often produces losses on a very large scale.¹⁰⁰⁷

In addition to the disappointing record of large financial conglomerates in the United States, it is worth noting that European universal banks have been less efficient, less profitable, and less creative than the top U.S. banks and securities firms since 1975. During that period, major U.S. commercial banks have produced higher earnings and maintained better efficiency ratios than the leading French, German, and Swiss banks.¹⁰⁰⁸ Similarly, the “big three” U.S. securities firms have dominated European universal banks (with the possible recent exception of Credit Suisse) in the international markets for underwriting securities and advising on corporate mergers and acquisitions.¹⁰⁰⁹ Many analysts attribute the superior performance of U.S. banks and securities firms to the following factors: (i) U.S. financial firms have faced more rigorous competition in their home markets, compared to the big European banks; and (ii) as a result of this competitive stimulus, U.S. financial firms have produced most of the major financial innovations during the past quarter century, including a broad array of mutual funds, asset-backed securities, OTC derivatives and other novel financial instruments. These American innovations have transformed global finance by encouraging a strong trend toward (i) replacing intermediated bank credit with capital markets financing, and (ii) expanding the use of risk management tools based on sophisticated computer models.¹⁰¹⁰

1007. See *supra* Parts I(D)(4)(b), I(E)(2), & II(C).

1008. See George G. Kaufman, *Designing the New Architecture for U.S. Banking* [hereinafter Kaufman, *Banking Architecture*], in *THE NEW FINANCIAL ARCHITECTURE: BANKING REGULATION IN THE 21ST CENTURY* 39, 43–44 (Benton E. Gup ed., 2000) [hereinafter *NEW FINANCIAL ARCHITECTURE*] (stating that U.S. banks have been more profitable than French, German, and Swiss banks since 1960); Wilmarth, *Too Big to Fail*, *supra* note 157, at 1062 & n.520 (citing a congressional study showing that U.S. banks were more profitable than European banks during 1975–88); *American Banking: Send in the Marine*, *ECONOMIST*, Sept. 7, 1996, at 70 (showing that U.S. banks had a much better average efficiency ratio than continental European banks did); James R. Kraus, *Europe's Universal Banks: Flawed Models*, *AM. BANKER*, June 8, 1998, “Managing the Megabanks” section at 10A [hereinafter Kraus, *Universal Banks*] (showing that the five largest U.S. banks had ROEs in 1997 that were significantly higher than those of comparable European universal banks); Christos Staikouras et al., *Bank Non-Interest Income: A Source of Stability?* 8–13 *tbls.3*, 5 (Feb. 2000), at http://papers.ssrn.com/paper.taf?abstract_id=233905 (showing that U.S. banks had a significantly higher average ROA than European banks did during the 1990s).

1009. See *supra* notes 439–45 and accompanying text.

1010. See, e.g., KAUFMAN, ON MONEY AND MARKETS, *supra* note 368, at 46–83, 122–29; STEINHERR, DERIVATIVES, *supra* note 74, at 36–68; Canals, *supra* note 241, at 567–68, 572–74; Gunter Dufey, *The Changing Role of Financial Intermediation in Europe*, 3 *INT'L J. BUS.* 49, 49–50, 59–64

Several observers have noted that Congress' decision to separate commercial banking and investment banking in 1933 had an ironic but important effect on competition and experimentation in U.S. financial markets. In the long run, the decentralized financial industry structure mandated by the Glass-Steagall Act encouraged competition between money center banks and large securities firms. That rivalry in turn fostered a progressive deregulation of U.S. financial markets after 1970, spurred continuing innovation by U.S. banks and securities firms, and gave them a clear technical superiority over European universal banks.¹⁰¹¹

In contrast, the leading European banks faced limited competition prior to 1990, and they could afford to follow conservative, risk-averse policies. For example, the "big three" German universal banks (Deutsche Bank, Dresdner Bank and Commerzbank) controlled and largely stifled German securities markets, and their holdings of equity stakes and voting proxies enabled them to exercise a powerful influence over their corporate borrowers.¹⁰¹² Recent empirical studies and anecdotal reports have shown that, compared with U.S. banks, continental European banks have been less innovative, less competitive in their home markets, and less profit-efficient in *both* their home markets and the United States.¹⁰¹³

(1998); Wilmarth, *Too Big to Fail*, *supra* note 157, at 1063; Michael R. Sesit, *Top Dogs: U.S. Financial Firms Seize Dominant Role in the World Markets*, WALL ST. J., Jan. 5, 1996, at A1.

1011. For commentaries on the ironic role of the Glass-Steagall Act in promoting competition and innovation in the U.S. capital markets, see STEINHERR, *DERIVATIVES*, *supra* note 74, at 32–34, 272–73; Sesit, *supra* note 1010; Arnoud W. A. Boot & Anjan V. Thakor, *Banking Scope and Financial Innovation*, 10 REV. FIN. STUD. 1109, 1119–20 (1997) [hereinafter Boot & Thakor, *Financial Innovation*]; Dufey, *supra* note 1010, at 51–53, 63–64; Raghuram G. Rajan & Luigi Zingales, *Which Capitalism? Lessons from the East Asian Crisis*, THE BANK OF AM. J. APPLIED CORP. FIN., Fall 1998, at 40, 47; see also ROE, *supra* note 2, at 26–43, 94–101, 206–07, 283 (explaining that Congress' enactment of the Glass-Steagall Act reflected a longstanding American political tradition in favor of "fragmented and dispersed [financial] intermediaries," and that this populist tradition has exhibited a "pervasive historical mistrust of financial power").

1012. See, e.g., ROE, *supra* note 2, at 169–77, 182, 188, 194–95, 212–16, 255–58; Jonathan R. Macey & Geoffrey P. Miller, *Corporate Governance and Commercial Banking: A Comparative Examination of Germany, Japan, and the United States*, 48 STAN. L. REV. 73, 75–76, 87–101 (1995) [hereinafter Macey & Miller, *Corporate Governance*]; see also Bernard S. Black & Ronald J. Gilson, *Venture Capital and the Structure of Capital Markets: Banks Versus Stock Markets*, 47 J. FIN. ECON. 243, 244–46, 251–52, 268–73 (1998) (discussing reasons for the failure of Germany's bank-centered financial system to develop an active venture capital market).

1013. Olivier De Bandt & E. Philip Davis, *Competition, Contestability and the Market Structure in European Banking Sectors on the Eve of EMU*, 24 J. BANKING & FIN. 1045, 1057–63 (2000) (finding that large U.S. banks exhibited a higher level of competition in their home markets than either big German banks or large French banks did); Berger et al., *Financial Globalization*, *supra* note 862 (finding that French, German, and Spanish banks were less profit-efficient than U.S. banks in both their home markets and in the United States); see also Silvia Ascarelli, *German Banks Struggle for Bond Turf*, WALL ST. J., Nov. 2, 1994, at A7 (reporting that German banks were finding it difficult to compete with American investment banks that had entered the German bond market, and quoting a senior German banker's remark that "[i]n the old days, the [German] banks weren't under pressure to work hard on institutional-customer relations in Germany. . . . They were so big and had a lot of business that they didn't have to compete"); Jeffrey Kutler, *U.S. Firms Seen Best-Placed On World Financial Speedway*, AM. BANKER, June 4, 1998, at 1 (presenting results of Andersen Consulting study,

It appears that European universal banks were reluctant to embrace financial innovation and the development of securities markets for two principal reasons. First, the expansion of financing opportunities in the securities markets tends to undermine relationship lending, the traditional core business of universal banks. Accordingly, until they were challenged on their home turf by foreign competitors, European banks did not encourage their investment banking units to develop novel market-based solutions for their clients' financing needs.¹⁰¹⁴ Second, the development of securities markets increases financial transparency and discipline by investors, which in turn challenges the tendency of universal banks, like other conglomerates, to establish cross-subsidies among their various operating units. European banks apparently recognized that the development of independent securities markets could ultimately create the same type of investor challenges to European financial conglomerates that U.S. industrial conglomerates had encountered during the 1980s.¹⁰¹⁵ Accordingly, to insulate corporate clients from market discipline, the financial systems of continental Europe maintained the primary role of banks, rather than securities markets, in allocating investment capital within their private economies.¹⁰¹⁶

After 1990, European universal banks finally attempted to build significant investment banking capabilities, and they did so as a defensive response to the penetration of their home markets by major U.S. commercial banks and securities firms. European banks quickly discovered that they lacked the necessary internal resources to compete with American investment bankers. Accordingly, they made numerous acquisitions of British and U.S. securities firms. However, most of those acquisitions produced disappointing results, due in part to culture clashes between

which found that U.S. financial firms were world leaders in terms of product innovation, combined revenue and profit growth and total returns to shareholders during 1987-96); Nathaniel C. Nash, *Biggest German Banks Seeking Wealth Abroad*, N.Y. TIMES, June 20, 1995, at D5 (reporting that U.S. commercial and investment banks were attracting many corporate customers in Germany by "offering them more advanced services at lower cost," while the big German banks were being forced to abandon "their relationship style of doing business, which carries high fees"); Sesit, *supra* note 1010 (discussing the competitive superiority of U.S. financial firms in global capital markets).

1014. See Boot & Thakor, *Financial Innovation*, *supra* note 1011, at 1101-03, 1117-25; Fisher, *supra* note 662, at 216, 260-61; see also *supra* Part I(A)(2)(a) (explaining how the development of new financial instruments by U.S. securities firms enabled large U.S. corporations to shift from traditional bank loans to debt financing in the capital markets).

1015. See Arnoud W. A. Boot & Anjolein Schmeits, *Market Discipline and Incentive Problems in Conglomerate Firms with Applications to Banking*, 9 J. FIN. INTERMEDIATION 240, 241-43, 249-54, 259-63 (2000); see also *supra* notes 292-97 and accompanying text (discussing the impact of investor discipline in breaking up many U.S. industrial conglomerates after 1980, after those conglomerates were perceived to be less efficient than focused firms).

1016. For discussions of the differences that existed, as of the mid-1990s, between "stock market-centered" financial systems (e.g., the U.S. and U.K. systems) and "bank-centered" financial systems (e.g., the German and Japanese systems), see ROE, *supra* note 2, at 169-96; Black & Gilson, *supra* note 1012, at 244-52, 264-68, 272-74; William W. Bratton & Joseph A. McCahery, *Comparative Corporate Governance and the Theory of the Firm: The Case Against Global Cross-Reference*, 38 COL. J. TRANSNATIONAL L. 213, 222-32 (1999); Macey & Miller, *Corporate Governance*, *supra* note 1012, at 77-105.

entrepreneurial Anglo-Saxon investment bankers and more conservative European bank managers.¹⁰¹⁷

The poor performance of European universal banks over the past decade—like the failures of U.S. “financial supermarkets” during the 1980s—creates substantial doubts whether the new financial holding companies authorized by the GLB Act can achieve the efficiency and profitability gains predicted by the Act’s supporters. The European experience suggests that large, diversified financial organizations (i) will find it very difficult to produce the synergies expected from cross-selling; and (ii) will be hampered by managerial diseconomies, agency conflicts, and unprofitable cross-subsidies between divisional units.¹⁰¹⁸

Concerns about the longer-term effects of universal banking are also raised by the rapid pace of global consolidation among banks and securities firms and the potential growth of market power in wholesale financial markets. Based on these trends, some analysts have cautioned that continued mergers among large financial institutions could eliminate midsized investment banks and thereby reduce competition and innovation in the provision of capital markets services to large corporations.¹⁰¹⁹ The European universal banks’ record of impeding the development of transparent financial markets has also given rise to questions about whether the creation of U.S. financial conglomerates could reduce the

1017. See, e.g., Ascarelli, *supra* note 1013; James R. Kraus, *Foreign Banks’ Investment Arms Weak in U.S.*, AM. BANKER, Oct. 30, 1997, at 10; Nash, *supra* note 1013; *Out of Their League?*, ECONOMIST, June 21, 1997, at 71; Greg Steinmetz & Sylvia Ascarelli, *U.S. Investment Banks Are Making Hay in Germany*, WALL ST. J., Aug. 4, 1995, at A4; Sesit, *supra* note 1010; *The Wanderlust in Germany*, ECONOMIST, Dec. 2, 1995, at 79; see also *supra* notes 442–45 and accompanying text (discussing problems encountered by several major European banks after acquiring British and American securities firms).

1018. See, e.g., Canals, *supra* note 241; *German Banking Investments: Untangling*, ECONOMIST, Aug. 14, 1999, at 59; Kraus, *Universal Banks*, *supra* note 1008.

1019. See Berger et al., *Financial Globalization*, *supra* note 862, § 4.1.2; Boot & Thakor, *Financial Innovation*, *supra* note 1011, at 1122–23; Fisher, *supra* note 662, at 214–23, 258–61; Saunders, *Consolidation*, *supra* note 994, at 694–95; see also Sapsford & Beckett, *Bank Consolidation*, *supra* note 696, at C9 (reporting that (i) the combined market share of the top five agent banks in syndicated lending had grown from 26% in 1990 to 61% in 2000, and (ii) in a recent survey of corporate financial officers, 72% of the respondents expressed concern that bank mergers were leading to “monopolistic” prices for syndicated loans).

Over the past five years, mergers among domestic and foreign banks and securities firms have created eight global investment banks—viz., the “Big Three” Wall Street firms along with Citigroup, J.P. Morgan Chase, Credit Suisse, Deutsche Bank, and UBS. The size and financial resources of those eight banks have caused some analysts to question whether midsized securities firms, such as Lehman Brothers and Bear Stearns, can survive as viable competitors. A prominent former federal bank regulator has predicted that consolidation will ultimately produce a dozen global financial companies controlling “85% of the world’s private-sector financial services assets” by 2020. Dean Anason, *Welcome for Reform Law Gives Way to Uncertainty*, AM. BANKER, Dec. 16, 1999, at 2 (citing prediction by former Comptroller of the Currency Eugene Ludwig); see also *Premier Investment Banks Form Global Giants*, MERGERS & ACQUISITIONS, Oct. 2000, at 13 (stating that “[t]he implications of investment banking consolidation for corporate clients have yet to be explored,” given “the reduced number of choices they face for [merger and acquisition] and corporate finance services”); Randall Smith & Charles Gasparino, *Heard on the Street: Lehman Tries to Thrive as a Solo Player As Mergers Turn Its Rivals Into Goliaths*, WALL ST. J., Oct. 27, 2000, at C1 (raising questions about the long-term survival of midsized investment banks).

transparency of those institutions and thereby impair the effectiveness of market discipline over major U.S. financial institutions.¹⁰²⁰

B. Financial Conglomerates Could Pose a Significant Potential Threat to the Safety and Stability of the U.S. Financial Services Industry

One of the strongest claims in favor of universal banking is that it would create a safer banking system by allowing banks to diversify into securities and life insurance activities.¹⁰²¹ However, for at least three reasons, the evidence presented in this article casts considerable doubt on that claim. First, consolidation of the U.S. banking industry during the past two decades has *not* produced a safer banking system. Second, financial conglomeration is likely to extend the federal “safety net” to include *nonbank* affiliates of major banks. Third, the GLB Act has removed structural separations that (i) previously shielded the commercial and investment banking industries from problems occurring in the other sector, and (ii) enabled each sector to serve as an independent source of financing during economic disruptions.

1. Consolidation and Increased Risk in the Banking Sector

Despite predictions that consolidation of the U.S. banking industry would create safer banks because they were larger and more geographically diversified, bigger banks have *not* proven to be safer institutions. Large banks failed at a higher rate than small banks during 1971–91, and excessive risk-taking by large banks posed the greatest threat to the stability of the U.S. banking system during the banking crisis of 1980–92. In fact, several large interstate banks failed or came close to failure during 1980–92, because their poorly managed growth and high-risk lending policies overwhelmed any advantages provided by geographic diversification. Federal bank regulators granted extensive supervisory forbearance to large troubled banks, and the FRB was forced to adopt a highly accommodating interest rate policy in order to rehabilitate those banks in the early 1990s.¹⁰²²

1020. See Berger et al., *Financial Globalization*, *supra* note 862, § 4.3.3.1; Boot & Thakor, *Financial Innovation*, *supra* note 1011, at 1122–23; see also Rajan & Zingales, *supra* note 1011, at 41 (noting that “relationship-based systems” dominated by banks “are designed to preserve opacity, which has the effect of protecting relationships from the threat of competition,” while, in contrast, “[m]arket-based systems require transparency”); *id.* at 44 (contending that relationship-based systems “do not rely on price signals” and “[t]he consequence has [often] been a widespread and costly misallocation of resources”).

1021. See, e.g., S. REP. NO. 106–44, at 4–6 (1999); Barth et al., *supra* note 4, at 198; Macey, *Business of Banking*, *supra* note 38, at 720–21.

1022. See *supra* Part I(E)(1) (discussing the banking crisis of 1980–92, supervisory forbearance granted to Bank of America and Citicorp after their near-failures, and the FRB’s decision to relax its interest rate policy during the early 1990s); Wilmarth, *Big Bank Mergers*, *supra* note 106, at 4–6, 41–61, 87 (contending that consolidation failed to produce a safer banking system during 1980–95); Wilmarth,

Notwithstanding the painful lessons of the 1980s, big banks resumed their pattern of high-risk behavior almost as soon as they returned to financial health beginning in 1993. Since the early 1990s, major banks have pursued rapid growth in risky lines of business tied directly or indirectly to the capital markets, e.g., leveraged syndicated lending, underwriting junk bonds, investing in venture capital projects, dealing and trading in OTC derivatives, and making and securitizing subprime consumer loans. All of these activities have proven to be vulnerable to sudden disruptions or downturns in the capital markets, and many large banks have reported substantial losses from those activities since 1994.¹⁰²³ In addition, compared to smaller banks, big banks have experienced a much more rapid increase in charged-off and nonperforming loans since the mid-1990s.¹⁰²⁴ During the same period, large banks have artificially boosted their per-share earnings by reducing their capital ratios and loan loss reserves, thereby increasing their vulnerability to adverse economic changes.¹⁰²⁵

Consolidation of the U.S. banking industry thus appears to have promoted an *intensification* of risk. Over the past quarter century, large banks have shown a consistent pattern of shifting to more aggressive risk-return strategies as they grow in size. Throughout this period, big banks have operated with greater leverage, less liquidity, and a riskier asset-liability mix.¹⁰²⁶

The TBTF policy provides the most likely explanation for this strong correlation between increased bank size and higher risk. Between 1972 and 1992, federal regulators repeatedly protected uninsured depositors and payments system creditors at large failing or failed banks. Congress codified the TBTF doctrine when it enacted FDICIA in 1991. Studies have shown that investor expectations of TBTF treatment create a significant implicit subsidy for the largest banks, and this subsidy causes the financial markets to tolerate higher risk profiles at those banks. The risk-taking behavior of big banks over the past quarter century indicates that they fully recognize and exploit their TBTF subsidy.¹⁰²⁷

Too Big to Fail, *supra* note 157, at 984–94 (discussing the failure of Bank of New England and the near-failures of Citicorp, C&S/Sovran, and First Interstate during the early 1990s).

1023. See *supra* Part I(E)(2).

1024. See Gilbert, *Problem Loans*, *supra* note 135 (providing comparative data on nonperforming and charged-off business loans at banks of varying sizes during 1996–2000); FDIC Q. BANKING PROFILE, 3d Qtr. 2001, at 5 tbl.III-A (showing that banks larger than \$10 billion had the *highest* percentages of noncurrent and charged-off loans during the first nine months of 2001).

1025. See *supra* Part I(C); see also FDIC Q. BANKING PROFILE, 3d Qtr. 2001, at 5 tbl.III-A (showing that, as of September 30, 2001, banks larger than \$10 billion had the *lowest* level of loan loss reserves in relation to noncurrent assets).

1026. See KAUFMAN, ON MONEY AND MARKETS, *supra* note 368, at 223–31, 242–46, 259–68, 278–86, 306–07; *supra* Parts I(C), I(D)(4)(b)(iv).

1027. See Feldman & Rolnick, *supra* note 353, at 6–9; Hanweck & Shull, *supra* note 147, at 273–77; *supra* Parts I(D)(4)(b)(iv), I(E)(1).

2. *Expansion of the Federal Safety Net for Financial Institutions*

Mergers among banks, securities firms, and insurance companies are likely to extend the scope of the TBTF subsidy to reach nonbank affiliates of large financial holding companies. Although the GLB Act mandates firewalls to separate bank subsidiaries from their nonbank affiliates, those legal barriers are difficult to enforce and are likely to become highly permeable in times of financial stress.¹⁰²⁸ Moreover, during an economic crisis—when investors and creditors are most uncertain about the soundness of financial intermediaries—banks and other financial institutions have powerful reputational interests in rescuing their troubled nonbank subsidiaries, regardless of the formalities of corporate separation.¹⁰²⁹ These reputational stakes are likely to be higher in the future, because major banks are aggressively promoting the services of their affiliates through marketing campaigns that emphasize unified “brand names” covering the entire holding company.¹⁰³⁰

1028. See *supra* notes 366–68; *infra* notes 1051, 1057–61 and accompanying text (describing the GLB Act’s firewalls and the practical difficulties inherent in enforcing those restrictions).

1029. One reason for this reputational concern is that the failure of a nonbank affiliate could cause a loss of public confidence and trigger a depositor run on the affiliated bank. See Cornyn et al., 1986 Conference Proceedings, *supra* note 367, at 186–87, 190 (describing depositor runs against Beverly Hills Bancorp in 1973 and Sunbelt Bank and Trust in 1984, following debt defaults by their nonbank affiliates). Similar creditor or investor “runs” can occur against other types of regulated financial institutions when financial markets doubt the solvency of their parent holding company or an unregulated affiliate. See, e.g., Greenspan Drexel Burnham Statement, *supra* note 646, at 302–04 (explaining that, in early 1990, many counterparties refused to extend even short-term credit to the regulated and solvent securities subsidiaries of Drexel Burnham, because of concerns about the parent holding company’s rapidly deteriorating financial condition); Haraf, *supra* note 646, at 23–24 (same).

Beyond their desire to avoid the possibility of intragroup contagion, holding company executives often decide that rescuing a troubled affiliate is necessary to preserve the company’s reputation as a competent and credible financial institution. Many large banks and other financial institutions have bailed out affiliates, as well as associated firms receiving investment advice or managerial services, even though the rescuing institutions often had no legal obligation to protect their affiliate’s or associate’s creditors or investors. For historical examples of such bailouts, see, e.g., Cornyn et al., *supra* note 367, at 187–90; Flannery, *Corporate Separateness*, *supra* note 367, at 217–18, 220–23; Helen A. Garten, *Subtle Hazards, Financial Risks, and Diversified Banks: An Essay on the Perils of Regulatory Reform*, 49 MD. L. REV. 314, 353–54, 359–61 (1990) [hereinafter Garten, *Subtle Hazards*]; Robert McGough & Anita Raghavan, *PaineWebber Again Props Up Bond Fund*, WALL ST. J., July 25, 1994, at C1 (reporting that, in order to “retain investor confidence,” PaineWebber reimbursed one of its sponsored mutual funds for \$33 million of losses and also repurchased \$268 million of high-risk mortgage derivatives from the fund, after an unexpected rise in interest rates caused a steep drop in the derivatives’ market value).

1030. See Flannery, *Financial Regulation*, *supra* note 368, at 105–07; Santomero & Eckles, *supra* note 297, at 15, 18. For example, Citigroup recently decided to market all of its global corporate and investment banking services under a single brand name, called “Citigroup Corporate and Investment Bank.” Citigroup executives declared that the new brand name would “be built around an aggressive, coordinated advertising and communication plan” that would “bring further clarity to our identity in the marketplace and among our clients.” Paul Beckett, *So Long, Poker Players: Salomon Is History*, WALL ST. J., May 23, 2001, at C18 (quoting Michael Carpenter and Sanford Weill). This unified branding strategy certainly increases the likelihood that Citigroup will feel obliged in the future to use the resources of its entire holding company to satisfy liabilities created by its commercial banking and investment banking subsidiaries.

Federal regulators will similarly be inclined to prevent the failure of a nonbank affiliate of a major financial conglomerate, because of concerns that the affiliate's default could trigger a contagious "run" by all of the conglomerate's investors and creditors. Under conditions of widespread economic distress—when financial firms are most vulnerable to failure—regulators would understandably fear that the collapse of a large financial holding company could trigger a systemic "flight to safety" in the financial markets. Federal regulators are therefore likely to conclude that they should protect nonbank affiliates of big financial conglomerates during economic disruptions in order to reduce systemic risk.¹⁰³¹ Recently, a senior official at Moody's Investors Services, one of the two largest securities rating agencies, argued that federal regulators *must* support all components of big financial conglomerates during "times of extreme financial stress." In his view, the TBTF status of major financial holding companies is undeniable—it is "like the elephant at the picnic—everyone is aware of it, but no one wants to mention it."¹⁰³²

In sum, the growth of large financial holding companies increases the likelihood that major segments of the securities and life insurance industries will be brought within the scope of the TBTF doctrine, thereby expanding the scope and cost of federal "safety net" guarantees.¹⁰³³ This

1031. See KAUFMAN, ON MONEY AND MARKETS, *supra* note 368, at 207, 237–38; Hoenig, *supra* note 351, at 7–8, 10–13; Mishkin, *Financial Consolidation*, *supra* note 421, at 680–81; Santomero & Eckles, *supra* note 297, at 15, 18–19; Stern, *supra* note 368, at 4–5, 24–25.

1032. See Mahoney, *supra* note 368, at 57–58. Federal regulators have frequently disclaimed any intent to follow a TBTF policy in dealing with the possible failure of a major financial institution. See Rob Blackwell, 'Too Big to Fail' Deniers Have a Tough Audience, AM. BANKER, June 4, 2001 [hereinafter Blackwell, *TBTF*] (noting statements by FRB chairman Alan Greenspan and vice chairman Roger Ferguson). Nevertheless, Alan Blinder, a former FRB vice chairman, candidly acknowledged that "[e]verybody knows that there are institutions that are so large and interlinked with others that it is out of the question to let them fail." *Id.*

1033. The federal "safety net" for banks consists of deposit insurance, protection of *uninsured* depositors and creditors of big banks under the TBTF policy, discount window advances provided by the FRB as LOLR, and the FRB's guarantee of interbank payments made on Fedwire. Many regulators and analysts have concluded that (i) the safety net provides a valuable net subsidy to banks (i.e., the safety net confers benefits that materially exceed the costs of complying with federal bank regulations); and (ii) the safety net subsidy grows much larger in times of financial crisis. The existence of a long-term net subsidy—especially for large banks—is supported by data showing that financial markets permit banks (i) to pay interest rates on deposits that are substantially lower than market rates paid by nonbank companies on short-term, uninsured debt; and (ii) to operate with significantly higher leverage (i.e., lower capital-to-assets ratios) than competing financial intermediaries, such as commercial and consumer finance companies and life insurers. The existence of a highly valuable subsidy for TBTF banks is also suggested by the fact that no major bank has ever surrendered its charter and chosen to operate as a nonbank. See KAUFMAN, ON MONEY AND MARKETS, *supra* note 368, at 239–40; Allen N. Berger et al., *The Role of Capital in Financial Institutions*, 19 J. BANKING & FIN. 393, 400–06 (1995) [hereinafter Berger et al., *Capital in Financial Institutions*]; Fisher, *supra* note 662, at 223–27, 259–60; FREDERICK FURLONG, FEDERAL SUBSIDIES IN BANKING: THE LINK TO FINANCIAL MODERNIZATION, (Fed. Res. Bank of S.F., FRBSF Econ. Letter No. 97–31, Oct. 24, 1997); Hanweck & Shull, *supra* note 147, at 273–77; Myron L. Kwast & S. Wayne Passmore, *The Subsidy Provided by the Federal Safety Net: Theory and Evidence*, J. FIN. SERVICES RES. 35 (Sept.–Dec. 1999); LEHNERT & PASSMORE, *supra* note 361, §§ 1, 6, 7; John R. Walter, *Can a Safety Net Subsidy Be Contained?*, FED. RES. BANK OF RICH., ECON. Q., Winter 1998, at 1, 2–11; see also Olaf de Senerpont Domis, *Debunking Debanking: Idea Sounds Interesting, But Examine the Costs*, AM. BANKER, Sept. 29, 1997, at 1 (ex-

de facto extension of the safety net is likely to be very costly during future financial crises. For example, as discussed above, U.S. taxpayers and deposit insurance funds paid out almost \$200 billion during 1980–94, representing almost 3% of the nation's gross domestic product (GDP), to resolve the failures of 3,000 banks and thrift institutions. Similarly, more than 130 foreign countries have experienced serious banking problems since 1980, and more than a dozen of those nations have incurred costs exceeding 10% of their GDP to support their banking systems.¹⁰³⁴

Recently, Citigroup and Merrill Lynch have provided compelling evidence of the ability of large financial conglomerates to exploit the subsidy provided by federal deposit insurance. As noted above, both companies established “sweep” programs enabling customers to transfer funds from uninsured securities brokerage accounts into FDIC-insured deposit accounts at affiliated banks. By April 2001, brokerage customers of Merrill Lynch and Citigroup had used these “sweep” programs to transfer about \$75 billion into insured bank deposit accounts. Both companies have indicated their intent to use these deposits to help finance the activities of their nonbank subsidiaries. When a spokesman for Merrill Lynch was asked what his firm would do with its “newfound low-cost funds,” he replied that FDIC-insured deposits would give Merrill Lynch “flexibility . . . to finance other parts of our business.”¹⁰³⁵

The Citigroup and Merrill Lynch sweep programs also reveal how current banking laws permit large financial conglomerates with multiple bank subsidiaries to expand the scope of deposit insurance offered to each customer. Merrill Lynch's brokerage customers can obtain up to \$200,000 of deposit insurance by making structured transfers to the firm's

plaining that a bank which surrendered its charter would lose significant benefits, because (i) an institution without access to the Federal Reserve's payments system would lack “[t]he ability to quickly and efficiently move large amounts of money,” and (ii) an institution without deposit insurance would pay “more to attract funds . . . [and] would risk losing customers looking for safety”); *infra* notes 1038–39, 1057–61 and accompanying text (discussing the potential for major banks to shift their subsidy to affiliates despite the existence of regulatory “firewalls”).

For a contrasting perspective, questioning whether the federal safety net provides benefits to banks that are greater than the accompanying costs of regulation, see, e.g., Kenneth Jones & Barry Kolatch, *The Federal Safety Net, Banking Subsidies, and Implications for Financial Modernization*, 12 FDIC BANKING REV. NO. 1, at 1, 2–12 (1999) (agreeing that the federal safety net provides a gross subsidy to banks, but arguing that any net subsidy is small in view of the costs of bank regulation).

1034. See LINDGREN ET AL., *supra* note 385, at 3, 4 fig.1, 20–35, 40–46, 76–77; Kaufman, *Banking Crises*, *supra* note 386, at 9–20; *supra* notes 148–49, 397, 589 and accompanying text (discussing resolution costs for U.S. bank and thrift failures during 1980–94); *supra* notes 382–90; *infra* note 1099 and accompanying text (discussing foreign crises since 1980).

1035. Richard Melville, *Deposit Power: Where Merrill, B of A, Citi Agree*, AM. BANKER, Dec. 18, 2000, at 1 (quoting James Wiggins of Merrill Lynch, and reporting that Citigroup was expected to use its deposit sweep program to generate low-cost financing for the consumer lending business of its newly acquired subsidiary, Associates First Capital); see also Charles Gasparino, *Fund Track: Merrill Lynch's Small Investors Face Rate Cut*, WALL ST. J., April 30, 2001, at C1 [hereinafter Gasparino, *Merrill Lynch Deposits*] (stating that, unlike assets held in its uninsured money market funds for brokerage customers, Merrill Lynch “can legally lend out its bank deposits, and pocket the interest-rate spread between what it pays for the deposits and what it charges investors”); *supra* notes 936–37 and accompanying text (describing sweep accounts established by Citigroup and Merrill Lynch).

two subsidiary banks, while Citigroup's brokerage customers can secure up to \$600,000 of deposit insurance by making similar transfers to the company's six subsidiary banks. Moreover, because the banks owned by Citigroup and Merrill Lynch qualify as "well managed" and "well capitalized" under the FDIC's rules, both companies are currently exempted from paying any deposit insurance premiums on the bank deposits created by their customer sweep programs.¹⁰³⁶ Other financial holding companies are likely to institute similar plans because bank executives and analysts have increasingly focused on the significant funding advantage provided to banks by their ability to collect cheap, FDIC-insured deposits.¹⁰³⁷

Financial holding companies will thus have significant opportunities to use their banking subsidiaries' access to the federal safety net to provide cross-subsidies to their nonbank affiliates. Many analysts have concluded that (i) banks have incentives to transfer a portion of their safety net subsidies to nonbank affiliates, and (ii) while current federal regulations attempt to inhibit subsidy transfers, they cannot prevent such transfers entirely.¹⁰³⁸ Transfers of safety net subsidies to nonbank affiliates will inhibit market discipline and encourage greater risk-taking among financial holding companies. Indeed, the risk-enhancing effects of cross-subsidization are likely to offset any risk reduction created by diversification as banks combine with securities firms and life insurance companies.¹⁰³⁹

Another reason for doubting the claimed benefits of diversification is that financial holding companies will *not* be passive owners of their subsidiaries like a portfolio investor who buys and sells stocks. Studies have shown that large bank holding companies typically operate their subsidiaries in a highly integrated manner according to centralized mar-

1036. See Rob Blackwell, *Merrill, Solly Put \$28B Into Insured Accounts*, AM. BANKER, April 19, 2001, at 1; Gasparino, *Merrill Lynch Deposits*, *supra* note 1035; *supra* Part I(C) (explaining that current banking laws effectively prevent the FDIC from charging any deposit insurance premiums to more than 90% of all banks, which qualify as "well capitalized" and "well managed").

1037. See Pearlstein & Pae, *supra* note 168 (citing Bank One chairman John McCoy's view that "access to consumer deposits . . . amounted to cheap capital" for big banks); Matthias Rieker, *Banks Seen Missing the Boat by Failing to Generate Deposits*, AM. BANKER, April 5, 2001, at 2 (reporting that, according to James McCormick of First Manhattan Consulting Group, consumer checking and savings accounts produced 51% of the revenues and 66% of the pretax profits of U.S. banks in 1999).

1038. See, e.g., Fisher, *supra* note 662, at 226-30; Garten, *Subtle Hazards*, *supra* note 1029, at 353-64, 376-81; Jones & Kolatch, *supra* note 1033, at 12-14; Walter, *supra* note 1032, at 10-13; GAO Says *Banks May Pass Net Subsidy to Their Affiliates*, BANKING POL'Y REP., Sept. 15, 1997, at 7, 8-9, available at WL No. 18 BNKPR7 [hereinafter *GAO Bank Subsidy Report*] (reprinting excerpts of letter from GAO Chief Economist James L. Bothwell to Rep. Richard Baker); see also *infra* notes 1057-60 and accompanying text (discussing ways in which banks can shift their federal subsidy to affiliates despite the existence of regulatory firewalls).

1039. See Santomero & Eckles, *supra* note 297, at 15 (stating that, notwithstanding the potential benefits of diversification, "conglomeration may increase instability" because of the risk that "a financially distressed subsidiary will cripple the entire entity"); *id.* at 18-19 (concluding that "universal banking does present a new way in which government-induced moral hazard can manifest itself . . . [and] can be passed down to nonbank subsidiaries owned by universal banks").

keting, risk management, and capital allocation policies.¹⁰⁴⁰ Given this unitary approach, financial holding companies are likely to coordinate the activities of their nonbank subsidiaries by emphasizing business lines that are complementary to core operations of the lead bank (e.g., combining securities underwriting with syndicated lending for clients in the same business sectors). As a result, the profits, losses, and risks of various subsidiaries of a financial holding company are likely to be much more closely correlated than would be the case among a comparable group of independent firms. Indeed, the frequent claims that universal banking will produce global economies of scope and “one-stop shopping” for customers demonstrate the strong commitment of financial holding companies to a unified and highly coordinated operation of their subsidiaries.¹⁰⁴¹

In view of the highly centralized operation of most financial holding companies, studies based on portfolio investment theory, or on hypothetical combinations among independent banks, securities firms, and life insurers, are likely to overstate the benefits of diversification and understate the potential risks of financial conglomerates.¹⁰⁴² In any case, hypothetical merger studies have produced mixed results that do not give strong support to the diversification theory. In those studies, (i) conjectural mergers between banks and securities firms would have created higher risks if the securities operation accounted for a significant portion of the resulting enterprise, and (ii) hypothetical combinations of banks and life insurers would have reduced risk but also would have reduced the resulting firm’s profitability.¹⁰⁴³

1040. See Joel Houston et al., *Capital Market Frictions and the Role of Internal Capital Markets in Banking*, 46 J. FIN. ECON. 135, 137–38, 146–48, 152–60 (1997); Randall J. Pozdena, *Banks Affiliated with Bank Holding Companies: A New Look at Their Performance*, FED. RES. BANK OF S.F., ECON. REV., Fall 1988, at 29, 37–38; U.S. GEN. ACCT. OFF., *RISK-FOCUSED BANK EXAMINATIONS: REGULATORS OF LARGE BANKING ORGANIZATIONS FACE CHALLENGES*, GAO/GGD-00-48, at 5, 15, 24, 28–30 (Jan. 2000) [hereinafter GAO LCBO STUDY]; see also *supra* Part I(D)(2) (explaining that most large banking organizations have adopted highly centralized management structures designed to create uniform operating policies).

1041. See Flannery, *Financial Regulation*, *supra* note 368, at 103–05, 108–09, 112 n.10; Garten, *Subtle Hazards*, *supra* note 1029, at 346–51, 361–62, 366–67, 382; Santomero & Eckles, *supra* note 297, at 15, 18; GAO LCBO STUDY, *supra* note 1040, at 5, 15, 24, 28–30.

1042. Portfolio investment theory cannot provide an accurate measure of the potential benefits and hazards of financial conglomeration, because it does not account for (i) the coordinated management of subsidiaries in most conglomerates; or (ii) the risk that a troubled subsidiary’s financial losses will “spill over” to its affiliates. Studies of hypothetical mergers between banks and nonbanking firms are similarly unreliable because they do not account for (i) the adverse financial impact of generous acquisition premiums paid in most mergers; or (ii) the managerial complexities and other execution risks involved in completing mergers between two or more large firms with distinct business cultures. See Garten, *Subtle Hazards*, *supra* note 1029, at 317, 331, 337–42, 346–51, 362–71; Rhoades, *Product Line Expansion*, *supra* note 294, at 1150–57.

1043. See, e.g., SAUNDERS & WALTER, *U.S. UNIVERSAL BANKING*, *supra* note 23, at 186–205 (finding that synthetic universal banks would be less risky than stand-alone banks, but also concluding that (i) expansion into insurance would produce the “main risk-reduction gains;” and (ii) to reduce the risk of failure, the securities component should be limited to about 5–15% of a universal bank’s total assets); Allen & Jagtiani, *supra* note 976, at 488–94 (finding that synthetic “universal banks,” which included securities and insurance activities, would have a lower overall risk than stand-alone banks;

3. *Greater Consolidation of Risk Within the Financial Services Industry*

Perhaps the greatest danger of the movement toward financial conglomeration is that it will increase the concentration of credit risk and market risk within the U.S. financial system. By authorizing unlimited combinations between banks and nonbank financial firms, the GLB Act has largely removed the alternative financing channels that the U.S. financial system contained—and that acted as “shock absorbers” for the U.S. economy—prior to 1999. For example, the FRB mobilized leading U.S. banks to counteract serious disruptions in the financial markets during the Penn Central commercial paper crisis of 1970, the Hunt silver crisis of 1980, the stock market crash of 1987, and the Russian debt crisis of 1998. In each case, banks provided emergency credit that enabled large nonbank firms to avoid bankruptcy or severe distress. Banks were able to serve as standby sources of liquidity and credit on each occasion, because their capital markets activities represented a relatively small portion of their overall operations and did not expose them to devastating losses. Conversely, the securities industry provided financing that helped to revive the U.S. economy after the recession and banking crisis of 1990–91, because securities firms were not crippled by the LDC and real estate lending problems that afflicted major banks at that time.¹⁰⁴⁴ In sum, the legal barriers separating banks and securities firms prior to 1999 appear to have reduced systemic risk in the U.S. economy by (i) insulating each sector to a substantial degree from the other’s problems, and (ii) allowing each sector to act as an alternative source of financing while the other recovered from serious financial losses.¹⁰⁴⁵

In contrast, consider the record of Japan during the 1990s. In 1990, the Japanese banking system had massive exposures to *both* the real estate market *and* the stock market. Japanese banks made huge amounts of loans secured by real estate and securities, and they also held extensive portfolios of corporate stocks, due primarily to cross-shareholding relationships within their respective corporate groups (*keiretsu*). Beginning in 1990, the Japanese real estate and stock markets both collapsed, with prices in each sector falling by two-thirds or more. Due to staggering losses caused by bad loans and falling stock values, two of the twenty

however, securities activities would significantly increase the universal banks’ market risk, interest rate risk, and systematic risk as the proportion of assets invested in securities activities became greater); John H. Boyd et al., *Bank Holding Company Mergers with Nonbank Financial Firms: Effects on the Risk of Failure*, 17 J. BANKING & FIN. 43, 51–61 (1993) (determining that hypothetical mergers between banks and securities firms would increase the resulting enterprise’s risk of failure, while combinations between banks and life insurers could potentially reduce failure risk); Lown et al., *supra* note 917, at 44–47, 50 (concluding that hypothetical mergers between banks and securities firms would increase both profitability and risk, while similar mergers between banks and life insurance companies would reduce both profitability and risk).

1044. Alan Greenspan, FRB Chairman, Remarks Before the World Bank Group and the IMF Program of Seminars 1–3 (Sept. 27, 1999), available at <http://www.federalreserve.gov> [hereinafter 1999 Greenspan IMF Speech]; see also *supra* Parts I(A)(2)(b), I(E)(2)(b)(iii)(G).

1045. See Kaufman, *Banking Architecture*, *supra* note 1008, at 44.

largest Japanese banks failed, and several other big banks were driven to the brink of insolvency. Two major securities firms and three large insurance companies also failed. Despite a decade of stimulus programs costing more than \$1 trillion, the Japanese government has not yet succeeded in its efforts to revive the economy and restore the financial system. The Japanese economy has remained stuck in a prolonged slump, due in large part to the inability of banks to provide credit needed by Japanese business firms. Banks are still severely hampered by nonperforming loans and depreciated stocks, and the securities markets have not sustained any prolonged rally. In the fall of 2001, Japan faced a floundering economy and a fragile banking system, along with record debt levels that made it extremely difficult for the Japanese government to finance new assistance programs.¹⁰⁴⁶

Many observers have blamed Japan's inability to resolve its banking and economic problems on the failure of its political and business leaders to pursue a fundamental restructuring of Japan's financial system and

1046. For discussions of the collapse of the Japanese real estate and stock markets since 1990, and the resulting impact on the Japanese economy and financial system, see, e.g., Franklin Allen & Douglas Gale, *Bubbles and Crises*, 110 ECON. J. 236, 236-38, 252-54 (2000); Craig, *supra* note 383, at 12-17; Milhaupt, *supra* note 383, at 413-24; Miller, *Bubble Economy*, *supra* note 383, at 1056-75; Nakaso, *supra* note 383; Peek & Rosengren, *Japanese Banking Problems*, *supra* note 67, at 25-31; Wilmarth, *Big Bank Mergers*, *supra* note 106, at 62-69.

By the end of 2000, the Japanese government had spent more than \$1 trillion in its efforts to stimulate the economy, primarily through public works projects and temporary tax cuts. See Bill Spindle, *Japan's Massive Debt Bomb Ticks Ever Louder*, WALL ST. J., Dec. 11, 2000, at A1. The government had also spent more than \$200 billion, and had budgeted a further \$350 billion, to protect bank depositors and recapitalize the banking system. Finally, the government had spent additional billions of dollars in "price-keeping operations" designed to support Japan's stock market. See Craig, *supra* note 383, at 15-17; Milhaupt, *supra* note 383, at 421-24; Phred Dvorak & Peter Landers, *Is Japan on the Verge of a Contagious Financial Crisis?*, WALL ST. J., Mar. 14, 2001, at A1 "Financial Safety Net" tbl.

For discussions of the grave fiscal and economic problems and the unresolved banking crisis that confronted Japan in 2001, see, e.g., *Another False Dawn?*, ECONOMIST, Mar. 24, 2001, at 79, 80-81 (reporting that (i) Japanese banks had written off about \$600 billion of nonperforming loans during the prior decade but still held that much or more in bad loans on their balance sheets, because "good loans [were] souring as fast as banks can provision against them or write them off"; and (ii) while Japanese banks had previously relied on unrealized gains in their "huge equity portfolios" to offset their loan charge-offs, those stock portfolios had become "full of losses" as the Japanese stock market "hover[ed] near a 16-year low"); *Japan's Banks: Out for the Count*, ECONOMIST, Oct. 13, 2001, available at <http://www.economist.com> (stating that Japan appeared to be on the brink of a major banking crisis, because a "deepening recession was causing a sharp increase in nonperforming loans" and "plunging share prices" were eroding the capital of major Japanese banks); Ken Belson, *Japan: This Time, It Could Get Nasty*, BUS. WK., Jan. 15, 2001, at 52 (stating that the Japanese government would be "hard-pressed" to finance additional stimulus programs for its struggling economy, because Japan's national debt had already reached \$5.8 trillion, or 141% of its gross domestic product, amounting to "the industrialized world's largest fiscal deficit"); *Chronic Sickness*, ECONOMIST, June 2, 2001, at 71 (stating that Japan's economy had posted "the worst ten-year performance of any big economy in the past half-century"); *Dead, or Just Resting?*, ECONOMIST, July 14, 2001, at 70 (describing a general lack of progress in resolving the massive bad debt problems of Japanese banks, because the banks were reluctant to take aggressive collection measures that would force many corporate borrowers into bankruptcy); Phred Dvorak, *Corporate Bankruptcies in Japan Hit Record High*, WALL ST. J., Apr. 16, 2001, at A12 (reporting that Japanese companies with over \$200 billion in unpaid debts had declared bankruptcy during the previous year).

general economy.¹⁰⁴⁷ Resistance to change undoubtedly accounts for a major part of Japan's continuing difficulties. However, the role of Japanese banks as dominant providers of business finance, and their exposure to *both* credit risk in the real estate market *and* investment risk in the stock market, are additional factors that have contributed significantly to the severity and protracted nature of the Japanese crisis. The Japanese financial system concentrated business finance, credit risk, and investment risk within its major banks. As a result, the simultaneous collapse of Japan's real estate and stock markets crippled the banks and left no substantial alternative source of financing for Japanese businesses.¹⁰⁴⁸

The Japanese experience provides a warning signal about the systemic risk implications of universal banking. Based on merger patterns among domestic and foreign financial institutions since 1990, the GLB Act will probably encourage a consolidation of much of the U.S. banking, securities, and life insurance industries into a small group of big universal banks. These financial conglomerates will be centrally managed and will be viewed by the financial markets as highly integrated enterprises, despite the GLB Act's mandates for corporate veils and regulatory firewalls between their various subsidiaries.¹⁰⁴⁹ Accordingly, the trend toward cross-industry consolidation will increase the concentration and potential correlation of credit risk and market risk in the U.S. financial system. Widespread defaults on bank loans or OTC derivatives will have a direct impact on investor confidence in securities broker-dealers, and stock market crashes will have direct spillover effects on major banks. Consequently, the growth of large financial holding companies is likely to increase the risks of contagion within and among those conglomerates, thereby creating a more fragile financial system and intensifying pressures for TBTF bailouts during financial disruptions.¹⁰⁵⁰

1047. See, e.g., Craig, *supra* note 383, at 13-17; Milhaupt, *supra* note 383, at 408-24; Michael Williams et al., *Day of Reckoning: Wall Street Intensifies Japan's Woes, but They All Trace Back to Home*, WALL ST. J., Mar. 16, 2001, at A1. In June 2001, a new Japanese government, under the leadership of Prime Minister Junichiro Koizumi, issued a preliminary outline of structural reforms intended to address Japan's economic and financial problems. However, some analysts questioned whether Mr. Koizumi (i) could overcome well-entrenched opponents of reform among Japan's business leaders, politicians and bureaucrats; and (ii) would retain his political popularity if his reforms, as expected, caused sharp increases in corporate bankruptcies and unemployment. See, e.g., Brian Bremner, *Will Koizumi's Reforms Be as Tough as His Talk?*, BUS. WK., Aug. 6, 2001, at 45; Clay Chandler, *Tokyo Unveils Reform Strategy*, WASH. POST, June 22, 2001, at E1; Chester Dawson, *Japan: Twilight of a Reformer?*, BUS. WK., Nov. 19, 2001, at 54.

1048. See 1999 Greenspan IMF Speech, *supra* note 1044, at 2; Craig, *supra* note 383, at 9-14; Peek & Rosengren, *Japanese Banking Problems*, *supra* note 67, at 26-31; Wilmarth, *Big Bank Mergers*, *supra* note 106, at 62-63, 69 n.319.

1049. See *supra* notes 20-22, 366-68, 1019, 1028-32; *infra* notes 1051, 1057-61 and accompanying text.

1050. See Hoenig, *supra* note 350, at 10-13; Laurence H. Meyer, FRB Governor, Speech Before a National Bureau of Economic Research Conference 1-2 (Jan. 14, 2000), at <http://www.federalreserve.gov> [hereinafter 2000 Meyer NBER Speech]; Santomero & Eckles, *supra* note 297, at 15-16, 18-20; Stern, *supra* note 368, at 4-5, 24-26; see also Wilmarth, *Too Big to Fail*, *supra* note 157, at 986-1004 (contending that large bank mergers create joint failure risks and increase the likelihood of TBTF bailouts).

C. Current Bank Regulatory Policies Appear to Be Inadequate to Control the Potential Risks of Financial Conglomerates

The U.S. bank regulatory system attempts to control the risks of “large complex banking organizations” (LCBOs) by using four principal supervisory tools. First, the GLB Act requires financial holding companies to conduct securities, insurance, and merchant banking activities in nonbank subsidiaries that are separately incorporated, separately capitalized, and insulated by regulatory firewalls from their affiliated banks.¹⁰⁵¹ Second, the GLB Act declares that all banks in a financial holding company must be “well capitalized,” and FDICIA mandates a regime of “prompt corrective action” for any bank that fails to meet prescribed capital standards.¹⁰⁵² Third, the GLB Act requires all banks in a financial holding company to be “well managed,” and the FRB and OCC have instituted new supervisory procedures for evaluating the effectiveness of each LCBO’s management.¹⁰⁵³ Fourth, Congress and regulators have ostensibly embraced a policy of encouraging greater market discipline for LCBOs. In this regard, the GLB Act requires major banks to issue investment-grade debt securities if they wish to establish direct financial subsidiaries.¹⁰⁵⁴

1051. See S. REP. NO. 106-44, at 7-8 (1999) (describing requirements designed to ensure that each bank owned by a financial holding company is “a separate organization, insulated legally from its sister entities providing financial services” (quoting former FRB Chairman Paul Volcker); H.R. REP. NO. 106-74, at 134-35 (1999)) (discussing “firewalls,” including restrictions on transactions with affiliates and separate capitalization requirements, that must be observed by banks that establish financial subsidiaries); O’Neal, *supra* note 1, at 100-12 (discussing the foregoing requirements of the GLB Act); *supra* notes 5-7 and accompanying text (discussing provisions of the GLB Act permitting (i) financial holding companies to establish financial subsidiaries engaged in securities underwriting, insurance underwriting, insurance company portfolio investments, and merchant banking; and (ii) banks to establish financial subsidiaries engaged in securities underwriting).

1052. For a discussion of the GLB Act’s provisions, see H.R. CONF. REP. NO. 106-434, at 155, 159-60 (1999) (explaining the GLB Act’s requirements that all depository institution subsidiaries of a financial holding company must be “well capitalized,” and each bank directly owning a financial subsidiary must also be “well capitalized” along with its depository institution affiliates); O’Neal, *supra* note 1, at 104-05, 108, 112 (same). For a discussion of FDICIA’s “prompt corrective action” program for undercapitalized banks, see, e.g., U.S. GEN. ACCT. OFF., BANK AND THRIFT REGULATION: IMPLEMENTATION OF FDICIA’S PROMPT REGULATORY ACTION PROVISIONS, GAO/GGD-97-18, at 14-21, 25-27 (Nov. 1996) [hereinafter GAO PCA STUDY]; Benston & Kaufman, *supra* note 123, at 144-49.

1053. See H.R. CONF. REP. NO. 106-434, at 155, 159-60 (1999) (discussing the GLB Act’s “well managed” requirement); O’Neal, *supra* note 1, at 104-05, 108, 112 (same). For descriptions of the FRB’s and OCC’s new supervisory procedures for LCBOs, see generally DeFerrari & Palmer, *supra* note 148; 2000 Meyer NBER Speech, *supra* note 1050; Laurence H. Meyer, FRB Governor, Remarks at the International Banking Conference of the Federal Financial Institutions Examination Council (May 31, 2000), at <http://www.federalreserve.gov> [hereinafter 2000 Meyer FFIEC Speech]; GAO LCBO STUDY, *supra* note 1040.

1054. See O’Neal, *supra* note 1, at 109 (explaining provision of GLB Act requiring a national bank to have at least one issue of outstanding debt securities rated in one of the top three rating categories by a national recognized rating agency if the bank wishes to establish a financial subsidiary and is one of the fifty largest U.S. banks); see also 2000 Meyer, NBER Speech, *supra* note 1050, at 2-6 (arguing for measures encouraging greater market discipline over LCBOs); 2000 Meyer FFIEC Speech, *supra* note 1053, at 3-4 (same).

These new regulatory initiatives are consistent with a new capital adequacy proposal issued in January 2001 by the Basel Committee on Bank Supervision. The Basel Committee's 2001 proposal recommends a new framework for bank regulation consisting of "three pillars"—minimum risk-based capital requirements, enhanced supervisory review procedures, and market discipline. As indicated above, these "three pillars" mirror policies that are already being implemented by U.S. bank regulators for LCBOs.¹⁰⁵⁵ In particular, with regard to capital adequacy, the Basel Committee's new proposal incorporates two new approaches that are also being pursued by U.S. bank regulators: (i) applying capital requirements on a consolidated basis to the entire financial holding company (including nonbank subsidiaries), and (ii) establishing capital requirements for LCBOs in accordance with internal risk ratings that have been developed by the managers of each LCBO and reviewed by bank regulators.¹⁰⁵⁶

A comprehensive analysis of current U.S. supervisory policies for LCBOs and a detailed review of the Basel Committee's 2001 proposal are beyond the scope of this article. For present purposes, I wish to point out that all four major components of the new U.S. regulatory plan, and also of the Basel Committee's proposal, have exhibited serious shortcomings in the past. Accordingly, I believe that current supervisory approaches are unlikely to prevent financial conglomerates from engaging in excessive risk-taking at the expense of the federal safety net.

1055. See BASEL COMM. ON BANKING SUPERVISION, OVERVIEW OF THE NEW BASEL CAPITAL ACCORD 1, 7, 12–36 (2001) [hereinafter 2001 BASEL CAPITAL PROPOSAL OVERVIEW]; see also 2000 Meyer NBER Speech, *supra* note 1050 at 2–3 (explaining that federal bank regulators were implementing supervisory policies that were consistent with the "three pillars" of the Basel Committee's new capital adequacy proposal as originally set forth in a 1999 concept paper).

In June 2001, in response to widespread criticism of its January proposal, the Basel Committee announced that it had extended its timetable for adoption and implementation of new capital rules. Under the revised timetable, the Basel Committee will issue a revised proposal for comment in early 2002 and will issue final capital rules during 2002 with an implementation date by the end of 2005. However, in its June announcement, the Basel Committee stressed that it "remains strongly committed to the three pillars architecture of the new [capital] Accord and to the broad objective of improving the risk sensitivity of the minimum capital requirements." BASEL COMM. ON BANK SUPERVISION, UPDATE ON THE NEW BASEL CAPITAL ACCORD, (June 25, 2001), at <http://www.bis.org> [hereinafter JUNE 2001 BASEL UPDATE]; see also *Basel Panel Extends Proposal Time Line, Taking Pressure Off Consultation Process*, 77 Banking Rep. No. 1, at 33 (July 2, 2001) (stating that many of the 250 comment letters submitted in response to the January 2001 proposal were "strongly critical of the proposal").

1056. Under the Basel Committee's new proposal, capital requirements based on internal risk ratings will be available only to large sophisticated banks that have demonstrated satisfactory internal risk management capabilities. Smaller banks will continue to comply with uniform, standardized capital rules established by the Basel Committee. See 2001 BASEL CAPITAL PROPOSAL OVERVIEW, *supra* note 1055, at 1–2, 7–8, 11–17; 2000 Meyer NBER Speech, *supra* note 1050, at 1–3; see also H.R. CONF. REP. NO. 106-434, at 157–59 (1999) (explaining that the GLB Act authorizes the FRB, as "umbrella supervisor," to establish consolidated capital requirements for financial holding companies and their subsidiaries, although the FRB may not alter separate capital rules adopted by other regulators for individual "functionally regulated" subsidiaries such as banks, securities firms, and insurance companies).

1. *Weaknesses in Corporate Separation as a Risk Control Device*

As shown above, the supervisory principle of corporate separation and insulation does not accord with the actual behavior of financial holding companies. Most large financial holding companies are managed in a highly centralized manner that disregards the structural formalities of separate corporate units. On many occasions, financial holding companies have rescued nonbank affiliates or their customers to preserve the reputation of the parent holding company and its regulated financial institutions.¹⁰⁵⁷ In other, more serious cases, holding company executives have deliberately violated regulatory firewalls by exceeding the legal limits on funding that subsidiary banks or other regulated financial institution may provide to troubled affiliates.¹⁰⁵⁸

The GLB Act relies on Sections 23A and 23B of the Federal Reserve Act to prevent abusive transactions between banks and their nonbank affiliates within the new financial holding company structure.¹⁰⁵⁹ However, regulators and analysts have acknowledged that (i) the restrictions in Sections 23A and 23B are complicated and difficult to enforce, and (ii) managerial evasions of those provisions can be subtle and hard to detect. Thus, especially when a financial holding company or certain of its subsidiaries are under severe financial stress, regulators may be unable to discover and prevent a transfer of bank funds or bank credit that violates regulatory limits. Moreover, to avert a systemic financial crisis, regulators may decide to waive the affiliate transaction rules so that major banks can help their affiliates. For example, in September 2001, regulators reportedly suspended the application of section 23A and encour-

1057. See *supra* notes 156 and accompanying text (discussing centralized management policies followed by most LCBOs, and citing actions taken by bank holding companies and other financial institutions to protect nonbank affiliates or their customers).

1058. See, e.g., Garten, *Subtle Hazards*, *supra* note 1029, at 353–54 (describing how Hamilton National Bank failed in the mid-1970s after its parent holding company forced the bank, in violation of legal restrictions on affiliate transactions, to purchase large amounts of low-quality mortgages from its mortgage banking affiliate, and noting that Continental Bank ignored legal lending limits by extending credit to rescue its options trading subsidiary during the October 1987 stock market crash); Haraf, *supra* note 646, at 23 (stating that, when Drexel Burnham was threatened with failure in early 1990, it withdrew capital from its regulated securities subsidiaries in excess of regulatory limits until the SEC intervened to prevent further capital transfers).

1059. See, e.g., H.R. REP. NO. 106-74, at 134–35 (1999); Transactions Between Banks and Their Affiliates, 66 Fed. Reg. 24,186, 24,186 (May 11, 2001) (to be codified at 12 C.F.R. pt. 223). Section 23A of the Federal Reserve Act prohibits each FDIC-insured bank from engaging in “covered transactions” with nonbank affiliates (e.g., extensions of credit to affiliates, guarantees on behalf of affiliates, or purchases of securities or assets from affiliates) in an amount greater than 10% of the bank’s capital and surplus for any single affiliate or 20% of its capital and surplus for all affiliates. In addition, (i) all affiliate transactions must be consistent with safe and sound banking practices; and (ii) all extensions of credit to affiliates and all guarantees on behalf of affiliates must be secured by qualifying collateral. See 12 U.S.C. §§ 371c, 1828(j)(1) (1994); Transactions Between Banks and Their Affiliates, 66 Fed. Reg. at 24,186–87.

Section 23B of the Federal Reserve Act generally requires transactions between a FDIC-insured bank and any nonbank affiliate to be conducted on terms (including credit standards) that are at least as favorable to the bank as comparable transactions with nonaffiliated companies. See 12 U.S.C. §§ 371c-1, 1828(j)(1) (1994); Transactions Between Banks and Their Affiliates, 66 Fed. Reg. at 24,187.

aged leading banks to transfer funds to their securities affiliates to head off a threatened liquidity crunch following the terrorist attack on the World Trade Center.¹⁰⁶⁰

Thus, federal bank regulators presently appear to give little credence to the idea that corporate separation is an effective protective device. Regulators have admitted that large financial holding companies usually operate as unified enterprises, based on coordinated business strategies and centralized risk management systems that transcend corporate boundaries between affiliates. Accordingly, regulators currently emphasize the importance of supervising financial holding companies on a *consolidated* basis that cuts across corporate divisions separating banks subsidiaries from their nonbank affiliates.¹⁰⁶¹ Given the banking agencies' current strong adherence to the concept of consolidated supervision, one can certainly question whether regulators and lobbyists for the financial services industry actually believed in the virtues of corporate separation during the 1990s, or whether they simply viewed the "fire-wall" argument as a convenient tool to help persuade Congress that the GLB Act would not create undue risks.¹⁰⁶²

2. *Shortcomings in Capital Regulation*

Federal regulators first adopted across the board capital rules for banks in 1981–83. Those rules imposed fixed leverage requirements based on balance sheet assets but did not account for off-balance-sheet obligations (e.g., standby letters of credit, loan commitments and derivatives) held by banks. As a result, many banks reduced their effective regulatory capital requirements by shifting from traditional lending to

1060. See KAUFMAN, ON MONEY AND MARKETS, *supra* note 368, at 332–33; Fisher, *supra* note 662, at 229–30; GAO Bank Subsidy Report, *supra* note 1038, at 8–9; Garten, *Subtle Hazards*, *supra* note 1029, at 380–81 (noting, inter alia, that the "[FRB] has admitted that restrictions on interaffiliate funds transfers frequently have been violated or interpreted creatively by management in times of stress"); see also *infra* note 1119 and accompanying text (discussing the FRB's reported waiver of section 23A in September 2000).

In May 2001, the FRB issued proposed and final rules under Sections 23A and 23B that reveal the scope and complexity of legal and operational issues arising under those statutes. The FRB's proposed rule, which would incorporate most of the FRB's existing interpretations under the two statutes, cover more than thirty pages in the Federal Register. See Transactions Between Banks and Their Affiliates, 66 Fed. Reg. at 24,186–87. The FRB's final rules, which set forth new interpretations of the two statutes, occupy more than a dozen additional pages. See Miscellaneous Interpretations, 64 Fed. Reg. 24,220–33 (2001).

1061. See, e.g., DeFerrari & Palmer, *supra* note 148, at 51–53; 2000 Meyer FFIEC Speech, *supra* note 1053, at 5–8; GAO LCBO STUDY, *supra* note 1040, at 5, 7, 14–18, 24–30.

1062. See, e.g., S. REP. NO. 106-44, at 7 (1999) (stating that the holding company structure would ensure that the FDIC's deposit insurance funds were "adequately insulated from paying the losses of firms which are affiliated with insured banks"); H.R. REP. NO. 106-74, at 99–102 (1999) (citing statements by federal regulators and industry representatives asserting that corporate separation and regulatory firewalls would insulate FDIC-insured banks from the potential risks of their nonbank affiliates).

the issuance of off-balance-sheet commitments that often carried equal or greater credit risks.¹⁰⁶³

During 1989–92, federal regulators implemented the international risk-based capital accord promulgated by the Basel Committee in 1988 (1988 Accord). The 1988 Accord has established minimum capital requirements for banks by assigning various types of loans and off-balance-sheet commitments to four risk-weighted categories based on perceived credit risks. The 1988 Accord thus removed the prior regulatory incentive for off-balance-sheet transactions, but its four risk-weighted categories are too broad and imprecise to distinguish among similar types of assets with very different degrees of credit risk. For example, a loan to a blue chip corporation with a triple-A credit rating carries the same 100% risk weight under the 1988 Accord as a loan to a speculative company with a below-investment-grade rating.¹⁰⁶⁴ The 1988 Accord's unsophisticated treatment of credit risk has enabled LCBOs to engage in "capital arbitrage" by (i) using complex derivatives, whose embedded risks are difficult to value, as substitutes for conventional financing arrangements; and (ii) structuring securitizations that transfer low-risk assets out of the bank while retaining riskier assets, including residual interests in securitizations.¹⁰⁶⁵

The 1988 Basel Accord also did not take account of the market risk of derivatives, securities, and other trading assets held by banks. In response to rapid increases in trading activity at large banks during the early 1990s, the Basel Committee adopted supplemental capital rules for market risk in early 1996, and those rules were promptly implemented by federal bank regulators. As previously discussed, the capital rules for market risk require large banks with significant trading assets to establish their capital requirements based on internal risk models that measure their "value at risk" (VAR) subject to periodic reviews by fed-

1063. See Berger et al., *Capital in Financial Institutions*, *supra* note 1033, at 419–20; Berger et al., *Transformation*, *supra* note 65, at 180, 181 tbl.B1. Between 1984 and 1989, off-balance-sheet activities increased from 55% of on-balance-sheet assets to 164% of such assets. This rapid growth of off-balance-sheet commitments "effectively decreas[ed] capital" at many banks. U.S. GEN. ACCT. OFF., DEPOSIT INSURANCE: A STRATEGY FOR REFORM, GAO/GGD-91-26, at 85 (Mar. 1991) [hereinafter GAO DEPOSIT INSURANCE REFORM STUDY].

1064. See Berger et al., *Capital in Financial Institutions*, *supra* note 1033, at 414–15; Berger et al., *Transformation*, *supra* note 65, at 180–84; GAO DEPOSIT INSURANCE REFORM STUDY, *supra* note 1063, at 85–88.

1065. See Robert C. Merton, *Financial Innovation and the Management and Regulation of Financial Institutions*, 19 J. BANKING & FIN. 461, 468–70 (1995) (showing how a bank could greatly reduce its effective capital requirements under the 1988 Accord by using derivatives in place of conventional financial instruments); *supra* notes 821, 842–43 and accompanying text (explaining how large banks have used securitization techniques to engage in "capital arbitrage" and significantly reduce their capital requirements under the 1988 Accord); see also GAO RISK-BASED CAPITAL STUDY, *supra* note 518, at 68, 169 (reporting that, in discussions with representatives of six major banks, "[o]fficials of two banks commented that they are not constrained by regulatory capital requirements, because assets can always be securitized so capital will not have to be held against them, or they can move to riskier assets in each credit risk category to obtain higher returns").

eral regulators.¹⁰⁶⁶ The Basel Committee's 2001 proposal would extend this concept of supervisory reliance on internal risk management by allowing banks with qualified risk management systems to use their internal risk ratings in calculating their capital requirements for credit risk and operational risk.¹⁰⁶⁷

As the foregoing summary indicates, federal regulators have repeatedly adjusted their capital rules over the past two decades in an effort to control bank risk-taking. However, capital rules have not proven to be a sufficient safeguard. Past banking crises have shown that capital is a "lagging indicator" of bank problems, because declines in capital are frequently not reported until banks have already become seriously troubled.¹⁰⁶⁸ One reason for this time lag is that many assets held by banks, such as commercial loans, OTC derivatives, and residual interests in securitizations, are not traded on any organized market and, therefore, are very difficult for regulators and outside investors to value. Accordingly, outsiders frequently do not identify asset depreciation problems, and resulting reductions in capital, until banks have already suffered great damage. Moreover, managers of a troubled bank have strong incentives to postpone any recognition of asset depreciation and capital losses in the hope that the bank's situation will improve before its next supervisory examination or required public disclosure to investors.¹⁰⁶⁹

FDICIA's prompt corrective action (PCA) regime was designed to improve the effectiveness of capital regulation and discourage supervisory forbearance. FDICIA requires bank regulators to schedule yearly examinations for most banks, including all large banks, and it also compels regulators to take a series of progressively more stringent enforcement measures if a bank falls below an adequately capitalized standard or below two lower capital thresholds.¹⁰⁷⁰ However, federal regulators weakened the effectiveness of the PCA by choosing a lenient capital

1066. See JOÃO A.C. SANTOS, BANK CAPITAL REGULATION IN CONTEMPORARY BANKING THEORY: A REVIEW OF THE LITERATURE 18, 21 (Bank for Int'l Settlements, Working Paper No. 90, Sept. 2000), available at <http://www.bis.org> [hereinafter SANTOS, CAPITAL REGULATION]; GAO RISK-BASED CAPITAL STUDY, *supra* note 518, at 49–53; see also *supra* notes 542–43 and accompanying text (discussing calculation of VAR under the market risk capital rules).

1067. See 2001 BASEL CAPITAL PROPOSAL OVERVIEW, *supra* note 1055, at 7–10, 17–29; D. Johannes Jüttner, *Message to Basel: Risk Reduction Rather than Management*, in NEW FINANCIAL ARCHITECTURE, *supra* note 1008, at 207, 208–09, 217–18.

1068. See, e.g., Geoffrey P. Miller, *Das Kapital: Solvency Regulation of the American Business Enterprise* [hereinafter Miller, *Solvency Regulation*], in CHICAGO LECTURES IN LAW AND ECONOMICS 65, 78 (Eric A. Posner ed., 2000); Joe Peek & Eric S. Rosengren, *The Use of Capital Ratios to Trigger Intervention in Problem Banks: Too Little, Too Late*, NEW ENG. ECON. REV., Sept.–Oct. 1996, at 49, 50–52, 56–57 [hereinafter Peek & Rosengren, *Capital Ratios*]; GAO DEPOSIT INSURANCE REFORM STUDY, *supra* note 1063, at 61.

1069. See, e.g., Berger et al., *Capital in Financial Institutions*, *supra* note 1033, at 411–16, 425; Jeffrey W. Gunther & Robert R. Moore, *Financial Statements and Reality: Do Troubled Banks Tell All?*, FED. RES. BANK OF DALLAS, ECON. & FIN. REV., 3d Qtr. 2000, *passim*; Peek & Rosengren, *Capital Ratios*, *supra* note 1068, at 51, 57; GAO PCA STUDY, *supra* note 1052, at 43–44.

1070. See Benston & Kaufman, *supra* note 122, at 144–48; GAO PCA STUDY, *supra* note 1052, at 14–21.

adequacy test. Virtually all banks met this adequately capitalized standard when the PCA rules took effect in 1992, even though the banking industry was just emerging from a major crisis.¹⁰⁷¹ Studies have shown that this standard was too low to identify most of the problem banks during the 1980s and again during the mid-1990s.¹⁰⁷²

Thus, the capital adequacy test that triggers supervisory intervention under PCA is “an unreliable indicator of insolvency risk.”¹⁰⁷³ There is reason to suspect that federal regulators deliberately chose a low capital threshold for PCA because (i) many large banks could not have met a higher standard during the early 1990s, and (ii) a lower standard preserved more room for regulatory discretion in dealing with marginally capitalized banks.¹⁰⁷⁴ The regulators’ selection of a low capital “trip-wires” for PCA has created serious doubts about the ability of the PCA regime to prevent undue supervisory forbearance in the future. Since the PCA provisions did not take effect until the end of the most recent banking crisis, they have not been tested in the context of a systemic crisis in-

1071. See GAO PCA STUDY, *supra* note 1052, at 26–28 & tbls.2.1–2.2 (stating that (i) banks are deemed “adequately capitalized” under the PCA rules if they maintain (A) Tier 1 capital equal to 4% of risk-based assets and 4% of total assets, and (B) total capital equal to 8% of risk-based assets; and (ii) more than 98% of all banks and thrifts satisfied the “adequately capitalized” standard at the end of 1992); see also Benston & Kaufman, *supra* note 122, at 146–48 (contending that federal regulators set the “adequately capitalized” threshold too low); Peek & Rosengren, *Capital Ratios*, *supra* note 1068, at 57 (same); *supra* Part I(E)(1) (discussing the banking crisis of 1980–92).

1072. See David S. Jones & Kathleen K. King, *The Implementation of Prompt Corrective Action: An Assessment*, 19 J. BANKING & FIN. 491, 498–99 (1995) (finding that, due to the lenient capital adequacy test established by regulators, PCA rules would not have applied to the “vast majority” of troubled banks even if those rules had been in force during the 1980s); Peek & Rosengren, *Capital Ratios*, *supra* note 1068, at 52–56 (reaching the same conclusion); see also GAO PCA STUDY, *supra* note 1052, at 45 & tbl.3.1 (finding that, during 1992–95, more than four-fifths of problem banks met the “adequately capitalized” test and therefore were not subject to mandatory enforcement measures under the PCA rules).

1073. Jones & King, *supra* note 1072, at 495; accord Peek & Rosengren, *Capital Ratios*, *supra* note 1068, at 57.

1074. See Benston & Kaufman, *supra* note 122, at 146–49 (discussing federal regulators’ strong opposition to PCA, because its mandatory enforcement rules limit their supervisory discretion); GAO DEPOSIT INSURANCE REFORM STUDY, *supra* note 1063, at 85–87, 91 (stating that, as of September 1990, (i) 96% of all banks would meet the 8% total risk-based capital requirement established by the 1988 Accord, and (ii) 56% of all banks larger than \$1 billion would fail to meet the total risk-based capital standard if it were raised to 10%). The GAO was not satisfied with the 1988 Accord’s capital standards, finding that they were “too low to adequately compensate for the types of risks that exist in today’s highly competitive banking environment.” *Id.* at 87.

Superior Bank, a federally chartered thrift with assets of \$2 billion, failed in July 2001, after the bank’s capital was wiped out by a decline of more than \$500 million in the value of residual interests that the bank held as a result of its securitization of more than \$4 billion of subprime loans. FDIC Director John Reich acknowledged that Superior’s failure “illustrates the limits of [PCA] tools given to the regulators,” because PCA sanctions are often ineffective in dealing with unrecognized losses embedded in securitization residual and other unmarketable assets whose value depends on a “complex, assumption-driven valuation process.” Reich Statement, *supra* note 833, at 1–3; see also Rob Blackwell, *Does Superior Prove S & L Reforms a Flop?*, AM. BANKER, Aug. 20, 2001, at 1; Rob Blackwell, *Failure of Superior Turns Quickly Into Blame Game*, AM. BANKER, July 31, 2001, at 1; John Reosti, III, *Thrift Superior in Big Asset Sale to Bolster Capital*, AM. BANKER, Feb. 15, 2001, at 8 (reporting that FDIC data indicated that Superior was “well-capitalized, with a 13.5% equity ration,” as of September 30, 2000).

volving threats to the solvency of several large banks. The recent failure of Superior Bank raises further questions about the effectiveness of PCA, because regulations failed to respond vigorously to the bank's problem until its capital was already fatally impaired by losses arising out of its high-risk subprime lending and securitization activities.¹⁰⁷⁵

Another continuing problem with capital regulation is the ability of LCBOs to engage in "capital arbitrage." As discussed above, large sophisticated banks have repeatedly reduced their effective capital requirements by exploiting gaps in regulatory capital rules. Big banks shifted to off-balance-sheet commitments to evade the simple leverage rules of the 1980s, and they have used large-scale securitization to dilute the risk-based requirements established under the 1988 Accord.¹⁰⁷⁶ Two recent studies have shown that higher regulatory capital requirements did *not* eliminate high-risk bank strategies during the early 1990s, especially among larger banks.¹⁰⁷⁷ Thus, capital regulation "is inevitably imperfect in its application and encourages all sorts of regulatory avoidance measures."¹⁰⁷⁸

The Basel Committee and federal bank regulators have attempted to grapple with these shortcomings in capital regulation for major banks by shifting from uniform, standardized rules to an individualized approach that relies on internal risk management systems established by LCBOs. However, the decision to base capital regulation on internal risk ratings is a highly problematic move. As shown above, bank credit scoring models failed to predict the sudden surge in consumer defaults on credit card loans during 1996-97, and bank trading models did not anticipate the severe disruption of global financial markets that followed the Russian debt crisis of 1998.¹⁰⁷⁹ Empirical studies have shown that the

1075. See Benston & Kaufman, *supra* note 123, at 146-49, 152-56; GAO PCA STUDY, *supra* note 1052, at 5-7, 25-29, 41-49, 55-56; Bd. of Governors of Fed. Res. Sys. & U.S. TREAS. DEP'T, THE FEASIBILITY AND DESIRABILITY OF MANDATORY SUBORDINATED DEBT, ix (Dec. 2000) [hereinafter FEDERAL SUBORDINATED DEBT STUDY].

1076. See *supra* notes 840-46 and accompanying text (discussing evidence of capital arbitrage by major banks).

1077. See Tina M. Galloway et al., *Banks' Changing Incentives and Opportunities for Risk Taking*, 21 J. BANKING & FIN. 509, 513-15, 521-23 (1997) (finding that, during 1990-94, stricter federal regulations "did not appear to have a significant impact on risk-taking behavior" by banks that had low charter values and "high risk-taking incentives"); Armen Hovakimian & Edward J. Kane, *Effectiveness of Capital Regulation at U.S. Commercial Banks, 1985 to 1994*, 55 J. FIN. 451, 452, 461-64 (2000) (finding that (i) during 1992-94, stricter federal rules "curtailed but did not eliminate risk-shifting incentives" by weak banks that sought to "extract a deposit insurance subsidy"; and (ii) "the effectiveness of regulatory discipline declines as banks grow larger").

1078. Miller, *Solvency Regulation*, *supra* note 1068, at 78; see also 2000 Meyer FFIEC Speech, *supra* note 1053, at 2-3 (stating that (i) bankers "will arbitrage" whenever they believe that regulatory capital requirements exceed their own view of needed economic capital "by more than the cost of arbitrage"; and (ii) "regardless of [regulatory] actions, frontier banks will always attempt to manage their businesses to earn competitive risk-adjusted rates of return on equity").

1079. See JEREMY BERKOWITZ & JAMES O'BRIEN, HOW ACCURATE ARE VALUE-AT-RISK MODELS AT COMMERCIAL BANKS? 3-5 (Bd. of Governors of Fed. Res. Sys., Fin. & Econ. Discussion ser., Working Paper No. 2001-31, July 2001), available at <http://www.federalreserve.gov> (finding that VAR models for trading activities at six major U.S. banks failed to anticipate large trading losses

most widely used bank models for determining market risk and credit risk are unreliable because (i) they are based on faulty assumptions and/or use insufficient data, and (ii) they permit banks to pursue investment and trading strategies that understate the risk of catastrophic losses.¹⁰⁸⁰ Federal regulators have recently acknowledged that “the development of internal risk models is still in its infancy,” and that reliance on such models can will banks into “a false sense of well-being that loses sight of . . . potential [catastrophic] tail events.”¹⁰⁸¹

The Basel Committee’s 2001 proposal “stop[s] short” of allowing banks to base their capital requirements for credit risk *solely* on internal models. Nevertheless, the proposal would allow each qualifying bank to use internal risk ratings to estimate the probability of default by its borrowers and the bank’s exposure to loss in the event of default.¹⁰⁸² Analysts have questioned whether large banks currently have internal risk management systems that can reliably calculate even these more limited measures of credit risk and their potential correlation across entire loan portfolios.¹⁰⁸³

A more fundamental problem is that bank regulators and bankers have sharply conflicting motivations in establishing capital standards. Regulators and bankers do share a common interest in choosing a capital level that will permit profitability and avoid insolvency. Beyond this threshold agreement, however, the goals of regulators and bankers diverge sharply. Regulators want conservative capital rules that discourage

during the 1998 disruption in global financial markets, as the models’ predictions of maximum possible losses were “blown out” by the losses actually incurred); *supra* notes 559–61, 675–81, 789–92 and accompanying text (discussing failures of VAR trading models during 1998 and credit scoring models for bank consumer loans during 1996–97).

1080. See Frank Partnoy, *The Siskel and Ebert of Financial Markets?: Two Thumbs Down for the Credit Rating Agencies*, 77 WASH. U. L.Q. 619, 660–61 (1999) (stating that “even the most sophisticated current methods of analyzing credit risk are seriously flawed”); Patricia Jackson & William Perraudin, *Regulatory Implications of Credit Risk Modelling*, 24 J. BANKING & FIN. 1, 4–7 (2000) (discussing various problems with bank models for credit risk and concluding that “capital requirements based directly on credit risk models are simply not a practical possibility in the near future”); Robert A. Jarrow & Stuart M. Turnbull, *The Intersection of Market and Credit Risk*, 24 J. BANKING & FIN. 271, 272–78 (2000) (discussing serious problems with the “standard methodologies for credit risk management” used at most banks); *supra* Part I(E)(2)(b)(iii)(C) (discussing studies finding major flaws in bank models for market risk).

1081. Lawrence H. Meyer, FRB Governor, Testimony Before the Subcommittee on Capital Markets, Insurance, and Government Sponsored Enterprises and the Subcommittee on Financial Institutions and Consumer Credit of the Committee on Financial Services (Apr. 4, 2001), in 87 FED. RES. BULL. 405 (June 2001), LEXIS, Federal Reserve Bulletin and Regulatory Service (including first quoted statement); Roger W. Ferguson, Jr., FRB Vice Chairman, Remarks at the Bond Market Association’s 1st Annual Credit and Risk Management Conference, Oct. 16, 2001, available at <http://www.federalreserve.gov> (including second quoted statement).

1082. 2001 BASEL CAPITAL PROPOSAL OVERVIEW, *supra* note 1055, at 8, 17–23.

1083. See, e.g., John J. Mingo, *Policy Implications of the Federal Reserve Study of Credit Risk Models at Major US Banking Institutions*, 24 J. BANKING & FIN. 15, 25–29 (2000); Howell E. Jackson, *The Role of Credit Rating Agencies in the Establishment of Capital Standards for Financial Institutions in a Global Economy* [hereinafter Jackson, *Role of Credit Rating Agencies*], in REGULATING FINANCIAL SERVICES AND MARKETS IN THE 21ST CENTURY 9–15 (E. Ferran & C.A.E. Goodhart eds., 2001); Jüttner, *supra* note 1067, at 208–22.

imprudent risk-taking and protect the federal safety net, even at the expense of constraining bank profits. In contrast, bankers want liberal capital rules that permit higher leverage and a greater ability to exploit the federal safety net, because more leverage and a larger subsidy create the potential for higher shareholder returns. Accordingly, it is very doubtful whether federal regulators can rely on bankers to incorporate supervisory concerns in their internal risk management programs.¹⁰⁸⁴ Bankers clearly have strong incentives to manipulate their internal risk rating systems to reduce their effective capital requirements.¹⁰⁸⁵

In this regard, it is very troubling that the Basel Committee's 2001 proposal offers LCBOs the opportunity to *reduce* their capital requirements by establishing internal rating systems for credit risk. The proposal essentially guarantees that banks with qualified internal ratings systems will receive *lower* capital requirements than banks whose capital levels are determined under the Committee's "standardised approach" for credit risk.¹⁰⁸⁶ The Basel Committee thus appears to be *inviting* LCBOs to develop internal ratings systems for the specific purpose of reducing their capital—a result that hardly seems consistent with recent evidence indicating that major banks do *not* hold sufficient capital and reserves in light of their inherent risks.¹⁰⁸⁷

Moreover, the Basel Committee's 2001 proposal recommends new rules that would permit banks to reduce their capital requirements by using "risk mitigation techniques" such as collateral, guarantees, and hedging with credit derivatives.¹⁰⁸⁸ Unfortunately, many of these "mitigation" devices are likely to be highly complex instruments that can be manipu-

1084. See GAO LCBO STUDY, *supra* note 1040, at 41–42; GAO RISK-BASED CAPITAL STUDY, *supra* note 518, at 94.

1085. See GAO RISK-BASED CAPITAL STUDY, *supra* note 518, at 96–98; see also Jackson, *Role of Credit Rating Agencies*, *supra* note 1083, at 15 (questioning "how much regulatory authorities should delegate the establishment of capital standards to bank management," because "the reason why we regulate bank capital requirements in the first place is the belief that left to their own devices banks will maintain less capital than is socially desirable").

1086. See 2001 BASEL CAPITAL PROPOSAL OVERVIEW, *supra* note 1055, at 9 (stating that, to encourage banks to develop internal ratings systems, the proposal provides "capital incentives [for the internal ratings approach] relative to the standardized approach"); see also Rob Garver, *Regulators Plan Another Capital Rule Reform*, AM. BANKER, Jan. 12, 2001, at 1 (quoting FRB-NY chairman William McDonough, a member of the Basel Committee, who stated that the Committee "is trying to reward banks that really invest" in internal ratings systems).

One of the banking industry's primary criticisms of the Basel Committee's January 2001 proposal was that the proposal would likely create higher rather than lower capital requirements for large banks with internal risk management systems. See Rob Garver, *Making Basel Better: How the Basel Panel Stumbled In Credit Risk*, AM. BANKER, July 16, 2001, at 1 [hereinafter Garver, *Basel Credit Risk Proposal*]. In response to this complaint, the Basel Committee promised in June 2001 to revise its proposal to ensure that its new capital rules would give "capital incentives . . . to encourage banks to adopt these more advanced approaches to credit risk." JUNE 2001 BASEL UPDATE, *supra* note 1055.

1087. See *supra* notes 114, 1025–26 and accompanying text (citing analysts' and regulators' concerns about insufficient bank capital and reserves).

1088. See 2001 BASEL CAPITAL PROPOSAL OVERVIEW, *supra* note 1055, at 3, 15–17; Rob Garver, *Praise, Questions for Basel Plan*, AM. BANKER, Jan. 17, 2001, at 1.

lated by LCBOs to reduce their capital requirements without a corresponding reduction in economic risk.¹⁰⁸⁹

A further problem with the Basel proposal is that regulators may not possess sufficient expertise to understand and critique the internal risk management systems developed by LCBOs. Regulators generally cannot compete with major financial institutions in hiring highly paid financial “rocket scientists” to design and understand complex derivatives and other sophisticated risk management tools. Accordingly, regulators may not be able to verify, with a high degree of confidence, the internal risk models and ratings developed by financial conglomerates.¹⁰⁹⁰

Finally, the new supervisory strategy of basing capital requirements on internal risk management systems raises the issue of how to deter LCBOs from deliberately or negligently reducing their capital below a level that is reasonably needed to protect them from insolvency risks. A few years ago, the FRB considered a “precommitment” approach, under which large banks would commit to maintain adequate capital levels based on their internal risk management systems and would pay fines if their capital allocations proved to be insufficient to meet their actual risks. However, the “precommitment” approach was not adopted, and analysts questioned whether regulators would actually be willing to impose penalties that were large enough to deter LCBOs from manipulating their internal risk calculations. As critics noted, major banks are most likely to suffer capital shortfalls during periods of severe economic strain, and regulators would understandably be reluctant under those conditions to enforce large monetary penalties that might threaten the solvency of troubled LCBOs.¹⁰⁹¹ Unfortunately, the Basel Committee’s

1089. Major banks criticized the January 2001 proposal for including a “w factor” that would discount some credit risk mitigation instruments by 15% to offset the risk of nonperformance by the instruments’ obligors. Banks argued that this 15% “haircut” was unnecessary because any performance uncertainties would be adequately covered by new capital rules for operational risk. See Garver, *Basel Credit Risk Proposal*, *supra* note 1086. Yet, at the same time, the banking industry asserted that the Basel Committee’s proposed capital charge for operational risk (equal to 20% of total risk-based capital) was excessive and should itself be subject to reduction by “risk mitigation techniques.” See Rob Garver, *Making Basel Better: Operational Risk Charge Criticized in Capital Plan*, AM. BANKER, July 12, 2001, at 1. In response to these attacks, the Basel Committee stated in June 2001, that it was withdrawing the proposed 20% capital charge for operational risk and would consider “other comments and suggestions related to operational risk.” JUNE 2001 BASEL UPDATE, *supra* note 1055. The banking industry’s extensive and strenuous objections to the January 2001 proposal indicate that large banks: (i) are determined to take all possible steps to reduce their capital requirements below the level established by the 1988 Accord, and (ii) believe that the use of credit derivatives and other risk mitigation devices will enable them to reach their goal.

1090. See KAUFMAN, ON MONEY AND MARKETS, *supra* note 368, at 225–29; Hu, *Misunderstood Derivatives*, *supra* note 486, at 1462–63, 1499–1502; GAO LCBO STUDY, *supra* note 1040, at 7, 48; GAO RISK-BASED CAPITAL STUDY, *supra* note 518, at 98–99.

1091. See Jackson & Perraudin, *supra* note 1080, at 11–12; GAO RISK-BASED CAPITAL STUDY, *supra* note 518, at 110–11. In 1996, the New York Clearing House conducted a one-year test in which ten major banks each precommitted an amount of capital for market risk based on their internal risk models. None of the ten banks incurred trading losses that exceeded its precommitted capital during the one-year test period. However, it is noteworthy that (i) the precommitted capital amounts were less than the levels that would have been required under the existing capital rules for market risk; and

2001 proposal does not suggest any reliable mechanism for discouraging LCBOs from using aggressive methods of internal risk measurement as a new form of capital arbitrage.¹⁰⁹²

3. *Current Limitations on Supervisory and Market Discipline*

Bank supervision and market discipline share a common goal of discouraging banks from taking excessive risks. Recent studies indicate that bank examinations by regulators and market-based analysis by investors, securities analysts, and credit rating agencies play complementary roles in restraining risk-taking by banks. It appears that the differing oversight methods used by regulators and market participants enable each group to discover proprietary information about banks that is not readily available to the other group.¹⁰⁹³

Nevertheless, both bank regulators and market participants have often failed to identify problems at major financial institutions until those institutions were already seriously or fatally injured. For example, federal regulators, credit rating agencies, and investors did not perceive the serious weaknesses at many large banks during the 1980s, including Continental Illinois and Bank of New England, until those banks were already on the brink of insolvency.¹⁰⁹⁴ In 1998, federal regulators also failed to recognize the grave threat that LTCM posed to leading banks and securities firms, as well as the financial markets generally, until the hedge fund revealed its perilous condition to the FRB-NY.¹⁰⁹⁵ Credit rating agencies did not anticipate the failure of large insurance companies in the early 1990s, the Orange County bankruptcy in late 1994, or the de-

(ii) the test occurred during a period of relative calm in the financial markets. While the test was too short to permit a reliable evaluation of the precommitment approach, it did indicate that LCBOs are likely to *reduce* their capital requirements if they are allowed to calculate those requirements based on internal risk models. *See id.* at 112–13.

1092. Cf. Mingo, *supra* note 1083, at 17–18 (warning that “the pace of financial innovation is such that simply recognizing the act of [regulatory capital arbitrage (RCA)] is often quite difficult. . . . The sheer complexity and diversity of RCA, coupled with the limited budgets of supervisory agencies, make rapid discovery of RCA impractical, if not impossible”).

1093. *See* Allen N. Berger et al., *Comparing Market and Supervisory Assessments of Bank Performance: Who Knows What When?*, 32 J. MONEY, CREDIT & BANKING 641 (2000); *see also* Robert DeYoung et al., *The Information Content of Bank Exam Ratings and Subordinated Debt Prices*, 33 J. MONEY, CREDIT & BANKING 900, 913–24 (2001) (finding that the information revealed by on-site supervisory examinations of large banks was subsequently reflected, with a typical lag time of several months, in interest rate spreads for subordinated debt issued by those banks); USING SUBORDINATED DEBT AS AN INSTRUMENT OF MARKET DISCIPLINE 5, 12–15 (Bd. of Governors of the Fed. Res. Sys., Staff Study 172, Dec. 1999) [hereinafter FRB STAFF SUBORDINATED DEBT STUDY] (reviewing studies evaluating the comparative effectiveness of regulators and market participants in disciplining banks).

1094. *See* Benton E. Gup, *Market Discipline and the Corporate Governance of Banks: Theory vs. Evidence* [hereinafter Gup, *Market Discipline*], in NEW FINANCIAL ARCHITECTURE, *supra* note 1008, at 187, 195–99 (describing failures by regulators and market participants to anticipate bank failures); Howell E. Jackson, *The Expanding Obligations of Financial Holding Companies*, 107 HARV. L. REV. 509, 597 (1994) (stating that “the [securities] rating services . . . have not done a particularly good job at anticipating bank failures”); Wilmarth, *Too Big to Fail*, *supra* note 157, at 992 (citing various studies with similar findings).

1095. *See supra* notes 550–59, 600–05, 609, 648–58 and accompanying text.

faults of several subprime consumer finance companies in 1997.¹⁰⁹⁶ Most securities analysts expressed surprise when First Union and Wells Fargo publicly disclosed the disastrous results of their mergers with CoreStates and First Interstate, respectively.¹⁰⁹⁷

In the international arena, the IMF, bank regulators, financial institutions, ratings agencies, and investors generally failed to anticipate the onset, severity, and contagious effects of the LDC loan crisis of 1982–83, the Mexican peso crisis of 1994–95, and the Asian and Russian crises of 1997–98.¹⁰⁹⁸ In addition, neither bank executives nor market participants recognized the potential risk exposures of major U.S. banks to recent foreign crises.¹⁰⁹⁹ A former co-chairman of Citigroup recently acknowledged that major banks, in spite of their costly investments in risk management, had failed to foresee major shocks to the global financial system during the 1990s, and he candidly admitted that “[w]e don’t do very well in managing risk in the financial sector.”¹¹⁰⁰

Two primary factors appear to explain these serious shortcomings in supervisory and market discipline of LCBOs. First, major banks have become more complex and harder to evaluate by regulators and the financial markets. Second, all of the three leading external sources of discipline for large banks, securities analysts, ratings agencies, and regulators, are compromised to a substantial degree by conflicting interests and goals. In particular, regulators have consistently opposed any strong form of market discipline, because they fear that more stringent investor discipline would potentially undermine the stability of financial markets during economic crises.

1096. See Partnoy, *supra* note 1080, at 661–62, 665.

1097. Valerie Block, *Sense of Betrayal on Wall St. After Wells Surprise*, AM. BANKER, July 21, 1997, at 1; Rick Brooks, *How Bad News of First Union Caught Many Analysts Napping*, WALL ST. J., May 28, 1999, at C1 [hereinafter Brooks, *Analysts Napping*].

1098. See, e.g., KAUFMAN, ON MONEY AND MARKETS, *supra* note 368, at 281–86; FDIC HISTORY LESSONS, *supra* note 395, at 192, 197–206 (discussing the LDC loan crisis); Jeffrey E. Garten, *Lessons for the Next Financial Crisis*, FOREIGN AFF., Mar.–Apr. 1999, at 76, 76–83; Reuven Glick, *Thoughts on the Origins of the Asian Crisis: Impulses and Propagation Mechanisms*, in ASIAN FINANCIAL CRISIS, *supra* note 387, at 33–38, 47–51; Gup, *Market Discipline*, *supra* note 1094, at 199–201; Jüttner, *supra* note 1067, at 215–17; Karin Lissakers, *The IMF and the Asian Crisis: A View from the Executive Board*, in ASIAN FINANCIAL CRISIS, *supra* note 387, at 3–7; David A. Marshall, *The Crisis of 1998 and the Role of the Central Bank*, FED. RES. BANK OF CHI., ECON. PERSP., 1st Qtr. 2001, at 2, 7 (stating that “[t]he Asian crisis was completely unforeseen by financial markets”).

1099. Hovakimian & Kane, *supra* note 1077, at 451 (stating that “the nation’s 100 largest banks lost almost one-fourth of their market capitalization during the third quarter of 1998,” thereby indicating that “risk-modeling systems for managing bank and taxpayer loss exposure are less effective than advertised”); Osman Kilic et al., *The 1994–95 Mexico Currency Crisis and U.S. Bank Stock Returns*, 16 J. FIN. SERV. RES. 47, 57–59 (1999) (finding that the Mexican peso crisis was “surprising to traders” and caused significant volatility in the stock prices for big banks that had major lending exposures to Mexico).

1100. Tom Fernandez, *Reed Warns: Banks Not Equipped for Crisis*, AM. BANKER, Feb. 14, 2001, at 2 (quoting John Reed); see also *supra* Parts I(E)(2)(b)(iii)(C), (D), & I(E)(2)(c) (discussing failures by major banks to anticipate substantial losses resulting from global financial disruptions).

a. The Growing Complexity and Opacity of Financial Conglomerates

Big banks have increasingly specialized over the past quarter century in providing loans to borrowers whose financial condition and future prospects cannot be readily assessed by the securities markets. Improvements in information technology and financial innovations have enabled the securities industry to underwrite debt securities for a broader range of issuers, thereby forcing banks to shift their commercial lending focus to riskier and opaque firms. In addition, banks have greatly increased their lending to subprime consumers and have used complex securitization vehicles to obscure the risks of that lending. As a result, regulators and financial markets find it very hard to evaluate the risks embedded in bank loan portfolios.¹¹⁰¹

Major banks have also increased their opacity to regulators and investors by expanding their dealing and trading in securities and OTC derivatives. Like bank loans, OTC derivatives are privately negotiated, customized financial instruments whose terms and potential financial impact are largely unknown to outsiders.¹¹⁰² OTC derivatives and securities also enable banks (i) to make highly leveraged bets on the direction of interest rates, currency rates, and market prices for securities and commodities, and (ii) to make rapid, fundamental changes in their exposures. As a result of this new financial technology, it is extremely difficult for regulators and market participants to assess the current financial condition of major banks. At the same time, financial conglomerates are creating new correlations among interest-rate risk, credit risk, and market risk as they combine traditional lending operations with investment banking and insurance activities. Neither regulators nor market participants are well positioned to assess the potential dangers of these new risk correlations.¹¹⁰³

Three recent studies demonstrate the increased opacity of large banks to the financial markets. One study found that investors did not anticipate either dividend cuts or regulatory enforcement actions at seventeen big “money center” banks during 1975–92. Public announcements of both types of events caused sharp, immediate declines in the stock prices of the subject banks. In addition, public reports of dividend

1101. See *supra* Parts I(A), I(E)(2)(d), (e).

1102. See *supra* Parts I(A)(1), I(E)(2)(a), (b), (d) (discussing “opaque” nature of bank loans and OTC financial derivatives); see also Partnoy, *supra* note 1080, at 676–81 (describing credit derivatives as “among the most exotic, fastest growing, and perhaps most problematic segment of the derivatives market,” and explaining that “[a] risk buyer [under a credit swap] can increase its exposure [to credit risk] without increasing the size of its balance sheet”).

1103. See, e.g., KAUFMAN, ON MONEY AND MARKETS, *supra* note 368, at 73–81, 281–87; STEINHERR, DERIVATIVES, *supra* note 74, at 262–63, 274–81; Flannery, *Financial Regulation*, *supra* note 367, at 101–03, 105–09; 2000 Meyer FFIEC Speech, *supra* note 1053; Santomero & Eckles, *supra* note 297, at 15, 18; Steven A. Seelig, *Banking Trends and Deposit Insurance Risk Assessment in the Twenty-First Century*, in NEW FINANCIAL ARCHITECTURE, *supra* note 1008, at 129, 131–40.

cuts had significantly negative, contagious effects on the stock prices of other “money center” and regional banks.¹¹⁰⁴ A second study concluded that public reports of Bankers Trust’s problems in 1994 with disgruntled OTC derivatives clients had a significantly adverse impact on Bankers Trust’s stock price, as well as the stock prices of thirteen other banks that were leading dealers in OTC derivatives.¹¹⁰⁵ Both studies indicate that the financial markets failed to comprehend the potential risk exposures of major banks until their problems were publicly disclosed.

Finally, a third study determined that, during 1983–93, Moody’s and Standard & Poor’s had greater disagreements over bond ratings for banks and insurance companies than for any other type of firm. Additionally, the rating agencies’ disagreements over bond ratings for banks *increased* after 1986, notwithstanding the efforts of Congress and bank regulators to restrict the scope of the TBTF policy. Donald Morgan, the study’s author, concluded that the largest banks became *less* transparent to credit rating agencies after 1986, as those banks increased their involvement as dealers and traders in securities, OTC derivatives, and other financial instruments. The rating agencies apparently found it difficult to evaluate the risks inherent in trading positions that changed rapidly and without timely notice to market participants. The higher concentrations of loans held by big banks also increased their opacity because the rating agencies could not readily measure the borrowers’ creditworthiness.¹¹⁰⁶

b. Conflicting Interests and Objectives Among Outside Monitors

The effectiveness of the principal outside monitors for banks, namely, financial analysts, credit rating agencies and regulators, has been compromised to a substantial degree by their conflicting incentives and goals. Financial analysis of large banks has become more lenient, due to the fact that large, full service securities firms now employ most of the leading analysts. Wall Street firms obviously want to sell investment banking services to major banks, and investment bankers within those firms have brought intense pressure on their analyst colleagues to issue favorable investment reports for leading banks. Indeed, Wall Street

1104. See Myron B. Slovin et al., *An Analysis of Contagion and Competitive Effects at Commercial Banks*, 54 J. FIN. ECON. 197, *passim* (1999).

1105. See Sinkov & Carter, *Derivatives Losses*, *supra* note 641, *passim*; see also *supra* Part I(E)(2)(b)(iii)(F) (discussing claims brought by derivatives clients against Bankers Trust).

1106. See DONALD P. MORGAN, *RATING BANKS: RISK AND UNCERTAINTY IN AN OPAQUE INDUSTRY* (Fed. Res. Bank of N.Y., Staff Reports No. 105, Apr. 2000), available at <http://www.ny.frb.org>; see also *supra* Parts I(C), I(D)(4)(b)(iv) & I(E)(2)(c) (discussing the tendency of banks to maintain higher loan-to-asset percentages and to place a greater emphasis on trading activities as they grow in size).

firms have dismissed analysts who expressed bearish or critical opinions about big banks, even when those opinions proved to be well-founded.¹¹⁰⁷

Similarly, the independence and reliability of credit ratings have declined as rating agencies have gained the power to issue “regulatory licenses” to bond issuers. Rules adopted by federal and state regulators since 1975 have greatly limited the ability of banks, mutual funds, insurance companies, and pension funds to buy debt securities that do not carry investment-grade ratings from nationally recognized credit rating agencies. Issuers are therefore willing to pay substantial fees to the designated rating agencies to secure the ratings needed to sell their bonds to institutional investors.¹¹⁰⁸

Professor Frank Partnoy contends that these investment regulations “have fundamentally changed the nature of the product rating agencies sell. Today, issuers of securities are paying rating fees, not to purchase credibility with the investor community, but rather to purchase a license from the regulators.” Because of their ability to sell “regulatory licenses,” ratings agencies focus primarily on the opportunity to earn lucrative fees from issuers, instead of making costly investments to protect their reputation with investors for accurate ratings. In Professor Partnoy’s view, rating agencies have concluded that they can “maintain whatever credibility they need by parroting market price moves,” because it is “easy to follow market events and adjust ratings after the fact.”¹¹⁰⁹

1107. See Brooks, *Analysts Napping*, *supra* note 1097; Rick Brooks, *Heard on the Street: Speak No Evil? Analyst Turns Silent on Bank*, WALL ST. J., Aug. 17, 1999, at C1; Gup, *Market Discipline*, *supra* note 1094, at 201; Jeffrey M. Laderman, *Wall Street’s Spin Game*, BUS. WK., Oct. 5, 1998, at 148; Robert McGough, *Bearish Call on Banks Lands Analyst in Doghouse*, WALL ST. J., Nov. 23, 1999, at C1; see also Liz Moyer, *Prudential Contrarian Turns Sour on Banks*, AM. BANKER, Mar. 9, 2001, at 20 (reporting that Michael Mayo, after reportedly being dismissed by Credit Suisse for bearish calls on major banks, had joined Prudential Securities and felt free to issue “sell” recommendations for nine banks, because Prudential had recently closed down its investment banking unit and had instituted a new policy of “offer[ing] ‘objective’ stock analysis untainted by the demands of in-house investment bankers”).

In June 2001, the Securities Industry Association (SIA), in response to complaints about biased investment advice produced by analysts at full-service securities firms, issued voluntary guidelines for best practices to ensure the independence and objectivity of securities analysts. However, members of Congress and analysts sharply criticized these guidelines as being patently inadequate to cure the structural conflicts of interest inherent in major Wall Street firms. See, e.g., Rob Garver, *House Panelists Pan Analyst Self-Regulation Plan*, AM. BANKER, June 15, 2001, at 4; Mike McNamee, *Clean Up, Wall Street—Or the Feds May Do It for You*, BUS. WK., June 4, 2001, at 44; Emily Thornton, *Commentary: Wall Street’s Chinese Walls Aren’t Strong Enough*, BUS. WK., Aug. 27, 2001, at 56.

1108. See Partnoy, *supra* note 1080, at 623–24, 681–83, 688–703; LAWRENCE J. WHITE, THE CREDIT RATING INDUSTRY: AN INDUSTRIAL ORGANIZATION ANALYSIS 5, 10–14, 23–24 (N.Y.U. Ctr. Law & Bus., Working Paper 01-001, April 20, 2001), available at <http://papers.ssrn.com>.

1109. Partnoy, *supra* note 1080, at 703; see also *id.* at 651–54, 681–82 (contending that, by virtue of their ability to sell “regulatory licenses,” the nationally recognized rating agencies operate under “oligopolistic” conditions that enable them to “earn abnormal profits” by charging large fees to issuers, while making relatively modest investments in their credit review operations, including the payment of below-average salaries to their analysts) (quotes at 682); WHITE, *supra* note 1108, at 10–19, 23–25 (reaching similar conclusions). But see Schwarcz, *supra* note 25, at nn.82–86 & 102–05 (concluding that

The unfortunate results of these changed incentives for rating agencies are that (i) bond ratings have become less timely and reliable and, therefore, are increasingly viewed as “lagging indicators of credit quality,” and (ii) the rating agencies have become subject to increased pressure to provide high ratings to powerful issuers.¹¹¹⁰ In this regard, some analysts have expressed misgivings about the Basel Committee’s 2001 capital proposal, which would rely on credit ratings of borrowers as an important criterion in determining capital requirements for banks that choose the “standardised approach to credit risk.” These analysts fear that adopting credit ratings as a supervisory tool will increase the likelihood that borrowers, banks, and even regulators will pressure rating agencies to issue favorable ratings for important borrowers, especially during times of financial stress.¹¹¹¹

Bank regulators also have conflicting goals that often lead them to adopt a policy of supervisory forbearance toward LCBOs. As discussed above, despite their institutional interest in preventing moral hazard, regulators have a personal, reputational interest in postponing the recognition of big bank failures so that a major, well-publicized disaster will not occur “on their watch.” In addition, during financial crises regulators are strongly influenced by their fear that a major bank failure could trigger a systemic panic within the financial system. This regulatory concern was vividly illustrated during the banking crisis of 1980–92, when regulators consistently chose to rescue or postpone the failure of large banks. In structuring bailouts of First Pennsylvania and Continental Illinois, in postponing the failures of First RepublicBank and Bank of New England, and in providing extensive forbearance to Bank of America and Citicorp, regulators repeatedly demonstrated their preference for maintaining financial stability. There is little doubt that the regulators’ accommodating treatment of TBTF institutions increased moral hazard and risk-taking among large banks.¹¹¹²

The emergence of bank-centered financial conglomerates during the 1990s, and the GLB Act’s explicit blessing for those conglomerates, will intensify the TBTF problems that afflicted regulators during the last banking crisis. Most analysts assume that regulators will not permit a big universal bank or any of its significant subsidiaries to fail. This assumption is supported by the FRB’s aggressive actions to stabilize the finan-

the reputational interests of ratings agencies provide powerful incentives that deter them from compromising their standards).

1110. See Partnoy, *supra* note 1080, at 658, 659, 662; see also *supra* notes 629, 1098 and accompanying text (discussing failures by ratings agencies to anticipate insolvencies of domestic financial institutions as well as foreign financial crises). But see Schwarcz, *supra* note 25, at nn.79–81 (contending that “[r]ating agencies have had a remarkable track record of success in their ratings”).

1111. See WHITE, *supra* note 1108, at 31–32; Jackson, *Role of Credit Rating Agencies*, *supra* note 1083, at 16–18; see also Partnoy, *supra* note 1080, at 662 (noting the vulnerability of ratings agencies to political pressures).

1112. See Wilmarth, *Too Big to Fail*, *supra* note 157, at 994–1002; *supra* Parts I(D)(4)(b)(iv) & I(E)(1).

cial markets in 1998, when the FRB organized the rescue of LTCM, arranged the sale of Bankers Trust, and approved three rapid cuts in short-term interest rates. The FRB's 1998 actions—particularly when viewed against the background of its similar conduct during the 1970 Penn Central crisis, the 1980 Hunt silver crisis, and the 1987 stock market crash—have created strong expectations that federal regulators will intervene to prevent the failure not only of major banks but also of leading *nonbank* financial institutions whose default could threaten the stability of the capital markets.¹¹¹³ Such expectations obviously undermine the incentives of creditors to monitor and control risk-taking by large financial conglomerates.¹¹¹⁴

Indeed, a growing number of analysts and market participants believe that the FRB has adopted an implicit policy of supporting the overall stability of the capital markets, because: (i) the solvency of major banks has become more dependent on the health of the securities and derivatives markets as banks have become deeply enmeshed in those markets, and (ii) investments tied to the capital markets, including OTC derivatives, mutual funds, annuities, and variable life insurance, now account for a rapidly growing percentage of the financial assets and risk management tools of both business firms and consumers. This implicit policy of support for the financial markets has so far achieved the FRB's apparent goal of preventing another generalized financial catastrophe similar to the Great Depression of 1929–33. However, widespread belief in the policy's existence has the perverse effect of distorting the risk analysis of both investors and financial institutions.¹¹¹⁵

For example, in late 2000, as U.S. equity markets slumped, a leading financial magazine declared that “[t]he ‘Greenspan put’ is once again the talk of Wall Street. . . . The idea is that the Federal Reserve can be relied upon in times of crisis to come to the rescue, cutting interest rates and pumping in liquidity, thus providing a floor for equity prices.”¹¹¹⁶ Beginning just two weeks later, the FRB fulfilled market expectations by implementing a series of aggressive cuts in short-term interest rates. In testimony delivered to Congress in July 2001, FRB Chairman Greenspan said that the FRB was cutting interest rates in response to a sharp eco-

1113. See *supra* Parts I(A)(2)(b), I(D)(4)(b)(iv), I(E)(2)(b)(iii)(G) & III(B).

1114. See, e.g., KAUFMAN, ON MONEY AND MARKETS, *supra* note 368, at 208–10, 226–28, 238–40; Flannery, *Financial Regulation*, *supra* note 368, at 102, 107–08; Stern, *supra* note 368, at 4, 24–27; see also Blackwell, TBTF, *supra* note 1032 (quoting FRB Chairman Alan Greenspan's observation that “[u]ninsured counterparties have little reason to engage in risk analysis . . . if they believe that they will always be made whole under a de facto TBTF policy”).

1115. See, e.g., KAUFMAN, ON MONEY AND MARKETS, *supra* note 368, at 208–16, 310–12; STEINHERR, DERIVATIVES, *supra* note 74, at 274–76, 282–83; Hu, *Investor Beliefs*, *supra* note 369, at 780, 865–72; Mahoney, *supra* note 368, at 56–58; see also Brimmer, *supra* note 76, at 3–5, 15–16 (contending that the FRB's actions during the Penn Central crisis of 1970, the Hunt silver crisis of 1980, and the stock market crash of 1987 demonstrate that the FRB has assumed a “strategic role as the ultimate source of liquidity in the economy at large”).

1116. *First the Put; Then the Cut?*, *ECONOMIST*, Dec. 16, 2000, at 81, 81.

conomic slowdown that had lowered equity prices and produced a “decline in stock market wealth.”¹¹¹⁷ In the same testimony, Chairman Greenspan denied that the FRB was seeking to “eliminate the business cycle,” but he did reveal the FRB’s policy goal of maintaining stability in the financial markets:

[O]ur only realistic response to a speculative bubble is to lean against the economic pressures that may accompany a rise in asset prices, bubble or not, and *address forcefully the consequences of a sharp deflation in asset prices should they occur.*¹¹¹⁸

Few would question the wisdom of the FRB’s action in cutting interest rates to counteract the deteriorating economic conditions that became evident at the end of 2000. However, Chairman Greenspan’s explicit reference to the dangers of “a sharp deflation in asset prices” and the resulting impact on “stock market wealth” indicates that the FRB has identified stock market stability as a key policy objective.¹¹¹⁹ Unfortunately, this evidence of FRB concern for the health of equity markets is likely to encourage financial institutions and other investors to incur even greater market-based risks in their quest for higher returns, based on their expectation that the FRB will maintain a stable “floor” under the markets.¹¹²⁰

The FRB’s response to the terrorist attack on the World Trade Center provides further evidence of its concern for the stability of financial markets. Soon after the attack occurred on September 11, 2001, the FRB flooded the financial markets with liquidity by purchasing more than \$150 billion of government securities and by extending \$45 billion of discount window loans to banks. The FRB also reportedly suspended its restrictions on affiliate transactions under Section 23A of the Federal Reserve Act and urged major banks to make large transfers of funds to their securities affiliates. The FRB’s emergency actions prevented a protracted liquidity crunch in the financial markets, just as its similar response had done during the 1987 stock market crash. Gerald Corrigan, who was President of the FRB-NY during the 1987 crash, defended the FRB’s conduct in September 2001 in the following terms: “This whole thing is a confidence game, and you better damn well think carefully of

1117. Alan Greenspan, FRB Chairman, Testimony before the House Comm. on Financial Services, July 18, 2001, *reprinted in* 87 FED. RES. BULL. 588, 588–91 (2001) (presenting the FRB’s semianual monetary policy report to the Congress) [hereinafter 2001 Greenspan Monetary Policy Testimony]; *see also* James C. Cooper & Kathleen Madigan, *Business Outlook: The Data Will Be Grim—But Give the Fed a Chance*, BUS. WK., Oct. 15, 2001, at 37 (stating that the FRB’s cuts in short-term interest rates during 2001 were “the most aggressive easing of [U.S. monetary policy] in the postwar era”).

1118. 2001 Greenspan Monetary Policy Testimony, *supra* note 1117, at 592 (emphasis added).

1119. *Id.*; *cf.* KAUFMAN, ON MONEY AND MARKETS, *supra* note 368, at 214 (stating, in 2000, that “the present stock market boom should not be ignored in the deliberations of the Federal Reserve. At no time in the post-World War II period has the economic well-being of the U.S. and the rest of the world hinged so importantly on the performance of the American stock market”).

1120. *See, e.g.*, KAUFMAN, ON MONEY AND MARKETS, *supra* note 368, at 210–16, 219–21, 310–11; Hu, *Investor Beliefs*, *supra* note 369, at 865–68, 872–73, 883–84.

anything that can shake . . . public confidence in the financial market, and in particular, the stock market.”¹¹²¹

The FRB’s waiver of affiliate transaction rules for LCBOs in 2001—like its conduct in organizing banks to help securities dealers in 1987 and rescue LTCM in 1998—indicates that the FRB views the survival of major financial conglomerates as an indispensable element of its broader mission to preserve market stability. Market participants therefore have strong reasons to expect that the TBTF policy will be applied to all important subsidiaries of leading financial holding companies.

In the past, the regulators’ desire for financial stability has repeatedly led them to reject any strong form of market discipline. During the peak of the last banking crisis in 1989–91, regulators and other policymakers lamented many of the adverse effects of increased market discipline (e.g., more frequent bank failures, the inability of troubled banks to raise new capital, and the resulting adverse impact on banks’ willingness to lend).¹¹²² Regulators subsequently did their best to weaken the restrictions on supervisory forbearance established by FDICIA’s PCA regime.¹¹²³

During the 1990s, regulators also opposed changes in accounting rules that required banks to apply market-value accounting principles to assets held in their trading accounts. The new accounting rules were designed to improve market discipline by making the trading activities of banks more transparent to investors. Nevertheless, regulators supported the banking industry’s unsuccessful argument that market-value disclosure would have a destabilizing effect by creating more “volatility” in the reported earnings of banks.¹¹²⁴

1121. Christopher J. Neely, *Monetary Trends*, FED. RES. BANK OF ST. LOUIS, MONETARY TRENDS, Nov. 2001, available at <http://www.stls.frb.org/research> (discussing FRB’s discount window loans); Anita Raghavan et al., *Team Effort: Banks and Regulators Drew Together to Color Markets After Attack*, WALL ST. J., Oct. 18, 2001, at A1 (describing FRB’s purchases of government securities and waiver of section 23A, and quoting Mr. Corrigan); see also *supra* Part I(A)(2)(b) (discussing FRB’s response to the 1987 stock market crash).

1122. See Helen A. Garten, *Whatever Happened to Market Discipline of Banks?*, 1991 ANN. SURV. OF AM. L. 749, 750–54, 776–83 (1994).

1123. See Benston & Kaufman, *supra* note 122, at 146–49; see also GAO PCA STUDY, *supra* note 1052, at 20–21, 36–40, 49–52 (explaining that federal regulators weakened safety-and-soundness requirements included in the PCA regime by adopting discretionary guidelines in place of mandatory operating rules backed by penalties).

1124. See Benston & Kaufman, *supra* note 122, at 149 (discussing regulators’ opposition to market-value accounting rules for bank assets). For example, the FRB joined the banking industry in opposing the decision of the Financial Accounting Standards Board (FASB) to adopt Statement of Financial Accounting Standards (FAS 115) in 1993. FAS 115 requires banks to “mark to market” all investment securities except for those that are properly designated as “held to maturity.” Banks argued that FAS 115 would increase the “volatility” of their earnings and force them to “boost capital against their investment portfolios.” David Siegel, *Capital: FASB Votes to Adopt Mark-to-Market Rule*, AM. BANKER, April 14, 1993, at 1 (citing argument by a First Chicago executive); see also Barbara A. Rehm, *Rising Rates Put Banks in Double Bind*, AM. BANKER, May 13, 1994, at 1 (quoting FRB Chairman Alan Greenspan’s statement that the FRB had “strongly opposed adoption of [FAS] 115 by the FASB”).

The most recent evidence of regulatory distrust of market discipline can be seen in the joint decision by the FRB and the Treasury Department to reject a mandatory subordinated debt requirement for LCBOs. In December 2000, the two agencies decided *not* to adopt a rule that would require major banks either (i) to issue, on a continuing basis, subordinated debt satisfying certain rating and yield requirements, or (ii) to shrink their assets if they could not sell enough qualifying subordinated debt. The agencies acknowledged that a mandatory subordinated debt rule would increase market discipline over LCBOs. However, their report warned that a mandatory policy with “complex” features could impose “quite substantial costs,” because such a policy could disrupt credit flows during economic downturns, thereby aggravating cyclical fluctuations in business activity and increasing the potential for “systemic risk.”¹¹²⁵

The joint FRB-Treasury report concluded that, while further research and analysis should be pursued, the “net benefits” of subordinated debt were “currently too uncertain to justify adopting a mandatory policy.”¹¹²⁶ A prominent bank analyst declared that “[w]hat the Fed and Treasury report did was dump buckets and buckets of cold water on the idea of using subordinated debt as a tool for market discipline.”¹¹²⁷

In light of the evidence reviewed above, large financial conglomerates have every reason to believe that regulators will shield them from the adverse impact of market discipline during financial crises. The lack of enthusiasm for market discipline among regulators is consistent with their faithful adherence to the TBTF doctrine whenever they have con-

The FRB also joined with major banks in objecting to FASB's adoption of FAS 133 in 1998. FAS 133 requires banks to apply market-value accounting principles to all derivatives except for those that qualify for hedging treatment. Once again, the FRB and the banking industry claimed that market-value accounting treatment would create undesirable “volatility” in the reported earnings of banks. See Aaron Elstein, *Banks Decry Plan to Make Them Report Derivatives' Market Value*, AM. BANKER, Nov. 19, 1996, at 1 (quoting a Bank of America executive); Elizabeth MacDonald, *Greenspan Urges FASB to Drop Plan on Adjusting Earnings for Derivatives*, WALL ST. J., Aug. 7, 1997, at B2 (citing statement by FRB Chairman Greenspan).

1125. FEDERAL SUBORDINATED DEBT STUDY, *supra* note 1075, at 53–56; see also *id.* at 37–56 (describing various possible features of a mandatory subordinated debt policy for large banks). The federal agencies' concern about the “pro-cyclical” impact of a mandatory subordinated debt rule was based on their analysis showing that investor discipline of banks has typically fluctuated in its intensity, with more relaxed monitoring in good times and more stringent oversight during periods of financial stress. For example, during periods of stability in the banking industry, e.g., the mid-1980s and 1992–96, the credit markets maintained relatively low spreads between the yields on subordinated debt issued by risky banks and safer banks. In contrast, during times of significant strain in the industry, e.g., 1988–91 and 1997–98, yield spreads widened considerably between subordinated debt issued by banks of varying risk. Thus, investors have tended to act most punitively toward higher-risk banks when they were already under substantial strain due to adverse economic conditions. Based on this evidence, the agencies concluded that a mandatory subordinated debt rule could increase the insolvency risks of troubled large banks during an economic crisis. See *id.* at 24–25, 27–28, 53–56; FRB STAFF SUBORDINATED DEBT STUDY, *supra* note 1093, at 16–24.

1126. FEDERAL SUBORDINATED DEBT STUDY, *supra* note 1075, at vii.

1127. Rob Garver, *Skepticism Rising on Market as Regulator*, AM. BANKER, Jan. 22, 2001, at 1 [hereinafter Garver, *Market as Regulator*] (quoting Bert Ely).

fronted the risk that a major financial institution's failure could destabilize the financial markets. Leading financial institutions recognize that their TBTF status insulates them to a significant degree from market discipline, and they have continually resisted proposals that would increase their transparency to market participants.¹¹²⁸

In sum, the TBTF policy is the great unresolved problem of bank supervision, the “elephant at the picnic” as a prominent market professional has so eloquently described it.¹¹²⁹ The TBTF doctrine undermines the effectiveness of both supervisory and market discipline, and it creates moral hazard incentives for managers, depositors, and other uninsured creditors of LCBOs. The following recent statement from the newspaper of record for the U.S. banking industry sums up the current situation as follows: “a lingering impression that the government will bail out any large institution that gets into trouble has encouraged the markets to give financial institutions less scrutiny than other businesses. ‘Until the market has a credible expectation that discipline is required,’ market discipline is ‘a long way off.’”¹¹³⁰

CONCLUSION

The U.S. financial services industry has been fundamentally restructured over the past quarter century, culminating in the emergence of big diversified banks and other large financial conglomerates. The GLB Act has ratified this ongoing consolidation of the financial services industry by removing the traditional boundaries that separated banks from securities firms and insurance companies. Congress adopted the GLB Act be-

1128. See *supra* Part I(D)(4)(b)(iv) (arguing that a primary motive for banks to reach TBTF status is their desire to escape supervisory and market discipline); *supra* note 1124 (discussing the banking industry's strong opposition to the FAS 115 and FAS 133, which require market-to-market accounting for most investment securities and derivatives). Recently, major global banks sharply criticized the Basel Committee's January 2001 proposal for recommending public disclosure rules intended to strengthen market discipline. FleetBoston claimed that “[t]he disclosure requirements are fundamentally flawed and should be dropped. . . . The market is sufficiently well informed already.” UBS agreed that the Basel Committee should forgo all mandatory public disclosures and rely instead on confidential reports to bank supervisors. Barbara A. Rehm, *Making Basel Better: In Basel Tune-Up, Disclosure Slammed*, AM. BANKER, July 10, 2001, at 1.

Merrill Lynch argued that “[i]f information is publicly disclosed that shows that a firm has significant credit risk exposure and will require short-term funding, then it is unlikely that the firm will be able to obtain a favorable funding rate as a result of this exposure.” *Id.* In other words, Merrill Lynch opposed public disclosure of credit risks because such disclosure would produce more effective market discipline!

Perhaps the most distressing comment was offered by J.P. Morgan Chase, which warned that “[t]he snapshot nature of disclosure practices makes it virtually impossible for users to have an up-to-date picture of a bank's risk profile, given how dynamically portfolios can change.” *Id.* This comment supports the view of many analysts that the widespread use of OTC derivatives and other leveraged financial instruments has greatly impaired the effectiveness of supervisory and market discipline over big financial institutions. See *supra* notes 583–85, 596–605, 1102–06 and accompanying text (discussing analysts' views).

1129. Mahoney, *supra* note 368, at 57; see *supra* also notes 354–81, 391–92, 1026–34 and accompanying text.

1130. Garver, *Market as Regulator*, *supra* note 1127 (quoting analyst Karen Shaw Petrou).

cause it recognized that advances in information technology and the development of innovative financial instruments had subverted the prior legal barriers between banks and other financial firms.

Unfortunately, regulatory policies have not advanced to meet the challenges of supervising the new financial conglomerates. These giant institutions present formidable risks to the federal safety net and are largely insulated from both market discipline and supervisory intervention. Indeed, managers of big diversified banks have consciously pursued expansion strategies designed to achieve TBTF status, realizing that such status would guarantee their institutions' access to low-cost funding and important regulatory benefits. It is time for regulators to acknowledge publicly that neither they nor the financial markets can adequately control the risk-taking incentives of large universal banks until credible steps are taken to resolve the problems of supervisory forbearance and moral hazard that the TBTF doctrine has created.

Domestic and international regulators continue to tinker with current supervisory approaches in the vain hope that refined capital rules, improved oversight procedures, and more disclosure to investors will finally persuade financial conglomerates to adopt prudent risk management policies. However, the unmistakable lessons of the past quarter century are that (i) regulators will protect major financial firms against failure whenever such action is deemed necessary to preserve the stability of financial markets; and (ii) financial institutions will therefore pursue riskier and opaque activities and will increase their leverage, through capital arbitrage, if necessary, as they grow in size and complexity. In short, the new universal banks can hardly be expected to refrain voluntarily from exploiting the generous subsidies provided by the TBTF policy and other components of the governmental safety net. Proposals for fundamentally different approaches for regulating financial conglomerates and containing safety net subsidies are urgently needed. Developing such a proposal is the task of my next project.¹¹³¹

1131. A preliminary version of my reform proposal will appear in Arthur E. Wilmarth, Jr., *How Should We Respond to the Growing Risks of Financial Conglomerates?*, in FINANCIAL MODERNIZATION AFTER GRAMM-LEACH-BLILEY (Patricia C. McCoy ed., 2002) (forthcoming). A more extensive consideration of possible reforms will be included in a future work, tentatively entitled *The Age of Econ Through the Lens of Glass-Steagall* (forthcoming).