

# WHO NEEDS GLASS-STEAGALL? EVIDENCE FROM ISRAEL'S BANK SHARES CRISIS AND THE GREAT DEPRESSION

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*This paper compares bank share manipulation in Israel with that in the United States prior to the passage of the Glass-Steagall Act and uses the comparison to assess the desirability of restricting the investment banking activities of commercial banks—not only in the United States and in Israel, but also in the economies in transition (EITs) of Eastern Europe. Many of the techniques of and motivations for manipulation were similar. However, because of their larger relative size, banks in Israel were far more successful in eliminating market risk. The paper concludes that Glass-Steagall restrictions could prove a useful policy prescription in Israel, the EITs, and elsewhere in the developing world. (JEL G28, N22, N25)*

## I. INTRODUCTION

On October 6, 1983, the Tel Aviv Stock Exchange (TASE) was shut down for 18 days. The closure followed several weeks of heavy selling by shareholders of six banks and one bank holding company that accounted for virtually all commercial banking in Israel and more than 60% of total market capitalization of the TASE. The banks reacted, as they had done during previous episodes of excess supply, by making large scale purchases of their own shares. Within weeks, however, the growth in the banks' inventories of shares strained liquidity to the extent that it raised serious concerns about overall banking stability among policymakers. Fearing that additional declines in share prices would lead to a run on deposits and a decline in foreign ex-

change reserves, the government shut down the Exchange. During the closure, the government devalued the shekel by 17% and effectively took control of five of the banks, converting their shares into essentially government-guaranteed zero-coupon bonds maturing within 5 to 6 years at face values of 85-to-117% of pre-closure dollar market values. After the TASE reopened, bank share prices declined by approximately 40%.

The immediate cause of the crisis is difficult to identify: there were no dramatic economic or political events prior to the crash, although Sarnat (1991) suggests that devaluation rumors prompted investors to dump shekel-denominated equities in favor of dollar-linked assets. The consensus among observers was that the inevitability and severity of the crisis were due in large part to the fact that for several years prior to the crash banks intervened in the market for their shares, smoothing price fluctuations and providing support for upwards movement in price and for frequent and substantial new issues (Bejsky Commission, 1984; State of Israel, 1994).

In countries with developed financial markets, it might be difficult for any entity to successfully sustain share price levels not in accordance with fundamental values for an ex-

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## ABBREVIATIONS

EITs: Economies in transition  
FIBI: First International Bank of Israel  
TASE: Tel Aviv Stock Exchange

tended period of time. Capital markets in Israel, however, were characterized by features which allowed banks to successfully pump up stock prices for extended periods of time (Bejsky Commission, 1984). First, commercial banking was highly concentrated in Israel—the top three banks accounted for 90% of commercial banking activity. Second, substantial barriers to entry into Israeli commercial banking further dampened competition from both domestic and foreign sources. Third, the commercial banks traditionally dominated investment banking, the mutual fund and provident fund industries, and the brokerage business.

This combination of commercial banking and securities-brokerage businesses may lead to conflicts of interest within banks among their fiduciary roles as securities issuers on one hand and deposit takers and investment advisors on the other (Saunders and Walter 1994, pp. 6, 16–17, 47–52). Indeed, these conflicts of interest were key factors behind the passage of laws in various developed countries limiting the securities activities of commercial banks. This is particularly true in the United States, where the Banking (Glass-Steagall) Act of 1933 has separated the commercial and investment banking businesses for more than half a century.

The charges of manipulation in the market for bank shares in Israel is in many ways similar to those made against banks and their security affiliates following the 1929 crash in the United States. In both episodes, the events led to widely publicized official inquiries and spectacular criminal trials, although the trials were not for manipulation *per se* but for other (e.g., fraud, tax) offenses. In the United States, the stock market crash and subsequent inquiry contributed to the passage of the Glass-Steagall Act, which, among its other provisions, prohibited commercial banks from engaging in investment banking activities; in Israel, similar provisions were recommended by a judicial commission of inquiry following the crisis.

The current status of Glass-Steagall restrictions is not altogether dissimilar in the United States and in Israel. While successive Israeli governments have declined to implement Glass-Steagall-type restrictions—despite the recommendations of the Bejsky Commission—existing restrictions in the United States are under attack from both academic econo-

mists and policymakers. The restrictions, which were generally accepted as necessary in the decades following 1929, are now under attack as rendering American financial concerns “internationally uncompetitive” given the absence of such restrictions on their European competitors.

The goal of this paper is to use the comparison of the American and Israeli cases to assess the desirability of restricting the investment banking activities of commercial banks—not only in the United States and in Israel, but also in the economies in transition (EITs) of eastern Europe.

For the United States, the Israeli experience may point out the hazards involved in relaxing Glass-Steagall provisions. Even if an evaluation of the Bank Shares Crisis does not suggest that Glass-Steagall should be abolished in the United States, it may lead to a heightened sensitivity to issues that must be addressed in considering how best to relax the provisions of the Glass-Steagall Act. However, the abuses that Glass-Steagall was designed to avoid may be unlikely to recur in the United States: the evolution of a strong securities regulatory apparatus, the lack of concentration in the banking sector, and relatively low levels of inflation and government debt may have rendered Glass-Steagall superfluous in the United States (Saunders and Walter 1994, pp. 216ff).

Although a number of financial reforms have been enacted in Israel since the crisis, concentration remains high and banks still dominate many areas of the financial services industry. Although inflation is well below the levels reached in the early and middle 1980s, it was over 10% in both 1994 and 1996, suggesting that it is not completely in check. And regulation remains largely unchanged from what it was in the early 1980s. Given how little the setting has changed, an assessment of how successful Glass-Steagall might have been in the Israel of the 1980s may shed some light on its ability to ensure stability in Israel in the years to come.

In addition, the experiences of Israel and the United States may have policy implications for the EITs of eastern Europe and the developing world in general. Several of these countries have relatively concentrated banking systems, and their regulations and regulators—both for banks and embryonic securities markets—remain largely untested. Further, many

are plagued by inflation that, depending upon regulatory requirements, may exacerbate banks' need to find expanding markets for their shares and produce an incentive for share manipulation.

This paper concludes that Glass-Steagall-type legislation could enhance stability in Israel, the EITs, and possibly elsewhere in the developing world. While the United States has developed a strong regulatory and supervisory infrastructure to prevent a recurrence of the events suffered in the pre-Glass-Steagall era, the financial structure of both contemporary Israel and the EITs bears a striking resemblance to that of Israel in the early 1980s. Consequently, Glass-Steagall may provide a simple, short-term policy prescription for Israel and the EITs.

## II. CURRENT VIEWS OF GLASS-STEAGALL

The collapse of the American securities market in 1929 led to an extensive reevaluation of the banking system in general and the system of securities affiliates in particular (U.S. Senate, 1934; Willis and Chapman, 1934; Pecora, 1939). The chairman of the Senate subcommittee examining these practices was Carter Glass, a vehement opponent of the affiliate system, under which banks conducted securities activities through affiliated, often wholly-owned, institutions (White, 1986). Glass's persistence led to the enactment of the Banking Act of 1933 (Glass-Steagall) which, among other provisions, prohibited member banks from being affiliated with any company engaged in the "issue, flotation, underwriting, public sale, or distribution at wholesale or retail or through syndicate participation of stocks, bonds, debentures, notes, or other securities" (12 USC 377, s 20).

The instability experienced during the Great Depression, combined with the relative stability of the next 40 years, led to the acceptance of Glass-Steagall as a stability-promoting reform. However, increasing instability and a perceived lack of international competitiveness has led to a reevaluation of the previously unchallenged favorable view of Depression-era reforms such as deposit insurance and the separation of commercial and investment banking.

White (1986) argues that the securities affiliates of national banks did not contribute to

banking instability during the Great Depression. He focuses exclusively on whether the presence of securities affiliates destabilized the banking system and does not consider whether banks or their affiliates engaged in share manipulation. Nor does he consider whether banks "pushed" securities on unsuspecting customers, although he argues that further research is needed on this subject. Kroszner and Rajan (1994) find that the securities underwritten and sold by the securities affiliates of commercial banks were not less sound than those issued by independent investment banks.

Calomiris (1995) argues that America's rejection of universal banking—which predated Glass-Steagall but was reinforced by it—was costly. Grossman (1994) does not explicitly argue that universal banking promotes stability, but does suggest that countries with more diversified banking systems survived the Great Depression better than those that were less well diversified.

The above arguments were supported in the contemporary context by the Bush Administration (U.S. Treasury, 1991), which argued that impediments to the expansion of bank powers have rendered U.S. financial firms less competitive in the international marketplace. Walter (1985) and Benston (1990) explicitly consider Glass-Steagall in the contemporary context: they conclude that its restrictions should be at least reevaluated, possibly scrapped altogether. Saunders and Walter (1994) argue that the time for universal banking has arrived in the United States.

In considering how the EITs might mold their financial systems, Smith and Walter (1993) recognize the potential for universal banks to exercise monopoly-like powers, but nonetheless argue that the lack of sophisticated capital markets in EITs makes the German model of a concentrated universal banks more appropriate than the capital market-based Anglo-American system. Gande *et al.* (1997) argue that universal banking will not restrict the amount of financing available.

The revisionist view appears to hold sway among academics and policy makers, both in the U.S. and in the EITs. Given recent moves to enhance the securities powers of commercial banks, it appears that the U.S. is moving away from Glass-Steagall. This paper considers this revisionist view and its applicability to

the United States, Israel and the EITs in light of the U.S. experience during the Great Depression and Israel's experience during the Bank Shares Crisis.

### III. TECHNIQUES OF MANIPULATION

Israel's banks employed a variety of techniques to support share prices. The banks referred to this as *visut* (literally "regulation") and freely admitted their participation, arguing that such manipulation was not illegal under Israeli law (Blass and Grossman, 1996a, 1996b). They argued, like American bankers after the 1929 crisis, that their objective had been not to "boost" bank stock prices, but merely to "stabilize" them.

First, each bank held an inventory of its own shares for the stated purpose of pegging the price of its stock to a gradually rising targeted level. The inventory's existence was well known to regulators and eventually exceeded \$1 billion, or 15% of total market value. The costs of holding inventory, as well as the need to come up with additional funds to increase the inventory as shareholders clamored to sell in October 1983, ultimately caused the collapse.

A second technique relied on the banks' role as brokers and consultants to the investing public. The bank-employed brokers almost always recommended the shares of their employer as the most solid and dependable investment that could be made. To entice investors to purchase each bank's shares, the banks offered incentives that could easily exceed commission costs to the buyers of bank shares. Incentives were also offered to bank branches that sold certain quotas of bank stock, while branches that did not meet expectations were financially punished.

Third, the banks rationed credit to bank customers who purchased bank shares and called in lines of credit from those who sold them. This practice was important because in the years prior to the crisis credit had been tight and regulated, and it was difficult for businesses and individuals to obtain credit at

any interest rate.<sup>1</sup> By tying credit access to bank share holdings, the banks were able to pump up demand for bank shares. The banks also relaxed collateral requirements for purchasers of bank shares. Banks provided large amounts of credit when new shares were offered to purchasers. In addition, the banks engaged in reverse repurchases of bank shares: they sold bank shares to purchasers with a commitment to buy the shares back at a higher price in the future.

A fourth technique involved using the mutual and provident funds controlled by the banks, which accounted for the vast majority of all such funds. The banks instructed these funds, as well as subsidiaries and other bank-controlled companies, to purchase bank shares when demand was slack, preventing prices decreases. Moreover, the funds also provided loans to the banks, enabling them to have adequate resources to buy stock. In addition, two of the larger defendant banks (Leumi and Discount), ostensibly competitors, entered into "parking" arrangement whereby each bank temporarily took on the stock of the other.

The techniques of manipulation employed by Israeli banks were similar in many ways to those used by U.S. banks in the years prior to the enactment of Glass-Steagall.<sup>2</sup> During this time, the practice of securities affiliates intervening in the market for the stock of their parent banks—as well as in that for industrial shares—appears to have been common (Peach, 1941, p. 123).

United States banks used stock pools, a collection of several individuals or firms that joined forces for the purposes of actively trading in a single security, to affect prices. Pools provided support for the gradual upwards movement in the price of a stock in response to weakness and generated activity in the stock that "create[d] a false and deceptive appearance of genuine demand for the security on the part of the purchasing public and attract[ed] persons relying upon this misleading appearance to make purchases" (Stock Exchange Practices Report, p. 32).

Banks also used their role as advisors to the investing public to promote their securities among customers. The National City Bank

1. The government's role in mobilizing capital suggests that banking crises were propagated to the non-financial side of the economy via different channels in the United States and Israel (Bernanke, 1983).

2. Some were eliminated by the Glass-Steagall Act; others by the Securities and Exchange Act (1934).

(and its affiliate, the National City Securities Company) which under the leadership of Charles Mitchell was famous for encouraging its customers to invest in stocks recommended by National City (including those of the parent bank), provides a prominent example. Mitchell set up contests among National City salesmen, gave rewards to branches that made large numbers of sales, and offered discounts to prospective new shareholders (Peach, 1941, p. 124; *Stock Exchange Practices Report*, pp. 163–165; Allen, 1966, pp. 310–319).

Finally, commercial banks involved in stock pools managed to extend credit to those pools via brokers loans (*Stock Exchange Practices Report*, p. 156). Among national banks as a whole, for example, the proportion of loans comprised of demand loans secured by stocks and bonds rose from 12.31% in 1923 to 17.28% in 1928, while the proportion of loans comprised of time loans secured by stocks and bonds rose from 12.86 to 16.49%.<sup>3</sup>

Despite a number of differences, the techniques of manipulation employed in Israel and the United States were similar. Banks intervened directly in the market for bank shares: both on their own and in cooperation with other institutions, although the cooperative arrangements in Israel appear to have been more extensive.<sup>4</sup> Further, banks in both countries used their position as brokers, advisors, and lenders to the investing public to boost sales of their shares. A principal difference is that Israeli institutions were larger, relative to the size of the capital market, than their American counterparts: the seven major banks in Israel accounted for more than 60% of total market capitalization; in the United States the total book value of approximately 25,000 state and national banks amounted to less than 4.5% of total 1929 New York Stock Exchange capitalization. Israeli banks' larger relative size undoubtedly contributed to their ability to sustain

share manipulation for a number of years and may explain why Israeli banks were able to devote their resources to generating upwards movements in share prices, while American bankers occasionally profited from short sales combined with actions to reduce share prices (Galbraith, 1972, pp. 153–54).

#### IV. MOTIVATION AND THE REGULATORS

Why did the banks in Israel manipulate stock prices? According to the Bejsky Commission and the indictment, the banks sought to make their shares appear more attractive so that they could issue more shares. Why did they want to issue more shares since that would simply dilute the holdings of existing shareholders? The Bejsky Report and the indictment found two motives.

First, the offering of shares at prices above their true value tended to benefit existing shareholders at the expense of new shareholders. The existing shareholders included many senior bank officials, who realized large gains at the expense of new shareholders. Indeed, even though bank shares lost almost half of their value in October 1983, shareholders who had purchased bank shares before 1980 nonetheless realized an annualized real return of at least 10% on their holdings from the time of purchase until after the crash of October 1983.

Second, the banks were often in need of new infusions to satisfy capital reserve requirements, and the only way to ensure that they could sell new bank stock was to manipulate stock prices so that they would appear more attractive. The repeated need to raise capital was an artifact of triple digit annual inflation rates and inflexible regulatory rules: while balance sheet equity was stated at historical values, most other assets were stated at approximately current values, which more than doubled from year to year. As a result, the (book) equity-to-total asset ratio declined over time and since during most of the period after tax retained profits were close to zero, the only way to satisfy the regulations was to issue new capital regularly.

This explanation is consistent with the findings of the Bejsky Commission and the trial that the policy of manipulation was known to the regulators, yet almost nothing was done to stop it. In fact, the Bejsky Committee Report indicates that the Bank of Israel's Supervisor

3. Among New York City banks, demand loans secured by stocks and bonds rose from 24.66% of total loans in 1923 to 29.63% 1928; the proportion of time loans rose from 16.45 to 19.83 during the same period (U.S. Comptroller of the Currency, *Annual Report*, various years).

4. This may have been facilitated by the relatively small number of banks: there were only 26 domestic commercial banking corporations in Israel in 1983. Massachusetts, Michigan, and Wisconsin (states with 1930 populations comparable to that of 1983 Israel) each had between 120 and 150 national (plus many more state-chartered) banks.

of Banks was concerned that the cessation of manipulation would inhibit the ability of the banks to sell new stock and would prevent the banks from meeting reserve requirements. Other government supervisory bodies focused on the immediate flow of funds benefits derived from equity offerings by the banks and required that the funds be committed to the purchase of government bonds. They too, therefore, had a vested interest in the continued manipulation of bank stocks.

Besides not taking any action to end the manipulation policy, the regulatory authorities assisted the banks in at least three ways. First, the banks were exempted from insider trader legislation for the specific purpose of manipulating their stock prices (Securities Law 52 g (a) (8), 1981). Second, some purchases and sales made by the banks for manipulation purposes were exempted from the transaction tax imposed after the 1982 Lebanon War. Third, the central bank's monetary restrictions, which normally prevented the banks from converting foreign currency to shekels, did not apply to the conversion of currency for the purpose of manipulating bank stocks.

The motives of U.S. bankers during the 1920s were similar in many respects to those of their Israeli counterparts in the 1980s. According to Peach (1941, p. 124) United States bankers had three principal motives for these manipulations. First, there were profits to be derived by the individuals involved in the case if the value of their shares increased. The Pecora Committee received evidence on this score related to stock transactions by Chase's Albert Wiggin and various corporations owned by members of his family. Further, it appears that not all speculation was confined to profiting from *increases* in stock prices—Wiggin and his family profited at least occasionally by short-selling Chase stock (Galbraith, 1972, pp. 153–154).

Second, by pushing up stock prices banks made their shares more attractive to takeover targets in which the deals were made on the basis of a stock swap. For example, in the fall of 1929 Charles Mitchell of the National City Bank negotiated a take-over of the Corn Exchange Bank. Corn Exchange Bank shareholders were to receive 4/5 share of National City Bank or \$360 cash. Mitchell borrowed \$12 million in an unsuccessful effort to push the price of National City stock to \$450 from

about \$420. Thus, as in Israel, manipulation was a means of raising capital, attracting new shareholders, and achieving a wider and more stable distribution of their shares.

Regulation was substantially different in the United States. The lending activity of banks in the U.S. was restricted to short-term self-liquidating loans.<sup>5</sup> Prior to World War I banks stayed close to this model. During the war, however, banks became involved in the sale of war bonds and gradually entered the securities—primarily the debt—market via newly-opened securities departments. The 1920s saw an expansion of these securities departments. The legality of bank securities departments dealing in equities was dubious, however, so in order to avoid legal restrictions a number of banks established securities affiliates. These securities affiliates were not banks and were therefore governed by general corporation law. Thus, a substantial portion of securities activities were beyond the jurisdiction of U.S. banking regulators. And even if the federal government had exercised authority over the securities markets, there was very little securities regulation prior to the enactment in 1934 of the Securities and Exchange Act.

To the extent that it existed, securities markets regulation took the form of the rules of the stock exchanges. It is clear from the Senate investigation of the time that these rules were subject to enough creative interpretation so as to render them less-than-binding. For example, while the New York Stock Exchange prohibited "wash sales," simultaneous purchases and sales designed to generate activity, this rule was not enforced against the Chase pools which frequently bought and sold large, although possibly not identical, blocks of shares on a number of occasions.

Even had the Exchanges' rules been binding, much of their force could be avoided by removing shares from the trading list so that they were traded on the over-the-counter market. Chase's shares were removed from the list in January of 1928, and Albert Wiggin was evasive when asked about the reasons for the

5. National banks at this time were supervised and regulated by the Comptroller of the Currency; unlike the central bank in Israel, the Fed had a very limited role in banking supervision. The restrictions on state-chartered banks were similar, although they varied from state to state.

removal (Stock Exchange Practices Report, pp. 2,375–2,376):

**Mr. Pecora:** Was it the aim or purpose of the Chase National Bank at that time (January 1928) to be in a position to control the price range of a day's trading?

**Mr. Wiggin:** No, sir. We did always have it in mind that we wanted to be able to protect our stock if there was anything happening that was going to hurt the institution.

**Mr. Pecora:** How did you think you could protect it in the over-the-counter market, which protection was not available in the exchange market?

**Mr. Wiggin:** Well, I do not know that we did think so.

**Mr. Pecora:** You just said that you hoped to do that.

**Mr. Wiggin:** Yes.

**Mr. Pecora:** How did you hope to do it?

**Mr. Wiggin:** By buying when there were large fluctuations.

**Mr. Pecora:** What prevented the bank from doing that very thing while the stock was listed on the exchange?

**Mr. Wiggin:** I do not think anything prevented its being done.

**Mr. Pecora:** Then why the striking from the list?

**Mr. Wiggin:** Because we did not want the violent fluctuations that might occur.

**Mr. Pecora:** You said that those fluctuations could be affected by the support given to the stock by the bank.

**Mr. Wiggin:** Yes, sir.

**Mr. Pecora:** That was what you hoped to do in the over-the-counter market.

**Mr. Wiggin:** Yes, sir.

**Mr. Pecora:** You could do the same thing in the exchange market.

**Mr. Wiggin:** Yes; but we might—

**Mr. Pecora:** What was the reason for the change?

**Mr. Wiggin:** Because we did not want it listed on the New York Stock Exchange and have those fluctuations quoted in every paper all over the country.

**Mr. Pecora:** Are not the fluctuations and ranges in the over-the-counter market published daily, too?

**Mr. Wiggin:** Not very closely. They are published, but they are not right and they are not close.

The motivations for share manipulation were similar in Israel and the United States. In both cases, manipulation was a tool for the enrichment of existing shareholders—including bank officers—and for raising new capital. In Israel, the need to raise capital was exacerbated by the combination of poorly designed capital requirements and high inflation. Regulation in both countries was inadequate to stem the practice of manipulation. The United States lacked a strong regulatory apparatus. In Israel, although a regulatory framework did exist regulators failed to intervene.

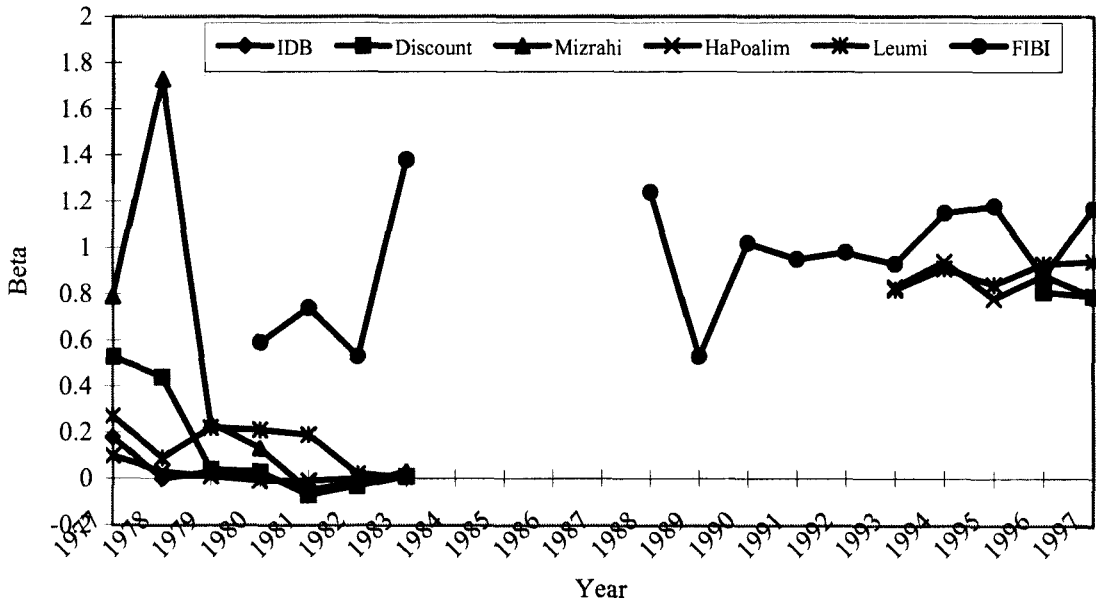
## V. RESULTS OF MANIPULATION

The expected nominal return on a risky security consists of two components: the riskless return plus a premium to compensate for risk. In the Capital Asset Price Model, a security's expected risk premium is related to the correlation of the security's return with that of the overall stock market ("beta"). Securities with low betas have little market risk. That is, they will rise and fall proportionately less than the market as a whole. Conversely, securities with high betas are more risky and offer higher risk premia.

It would be highly unusual for the betas of any stock to equal zero, since that would mean that there was no market risk. That is, the returns on zero-beta stocks would be uncorrelated with those of the market as a whole. That would be implausible since banks' future earnings are related to profit streams in the overall economy. However, if banks manipulated their share prices—say, guaranteeing a constant increase in bank stock prices no matter what conditions obtained in the rest of the equity market—then bank stocks betas would be zero.

Figure 1 presents estimated betas for Israeli bank stocks, both before the crisis and after being relisted. The estimated betas of Israeli bank stocks since they were relisted on the TASE in 1993 have been approximately 0.8, a figure similar to contemporary U.S. bank stocks. The results indicate that the returns of two of the banks (Bank HaPoalim and IDB) were barely correlated with the market in 1977 and were uncorrelated after 1978. Bank Leumi's returns were weakly correlated through 1981 but afterwards were no longer correlated with the market. Bank Mizrahi's and

**FIGURE 1**  
Estimated Israeli Bank Stock Betas, 1977–1997



*Notes:* Betas were calculated by regressing daily stock returns on the Industrial Total Return Index, which proxies for an overall market return index untainted by bank stock returns, and a constant. Because the Industrial Total Return Index was not available for most days from 1979 through 1981, a weighted least squares technique was used to estimate betas in those years. Prior to 1984, the only betas that were significantly different from zero were IDB (in 1977), HaPoalim (1977), Discount (1977-78), Mizrahi (1977-1980), and FIBI (all years).

*Source:* Blass and Grossman (1996b).

Discount Bank's betas were significantly different from zero until 1979. By contrast, the estimated betas for a non-defendant bank, First International Bank of Israel (FIBI), were significantly higher. The results suggest that the manipulating banks were quite successful in isolating stock price movements from those of the market as a whole.

Figure 2 presents estimated betas for two banks that were actively involved in share manipulation in the United States, Chase National Bank and National City Bank. Betas were calculated by regressing weekly stock price changes on changes in the Dow Jones Industrial Average and a constant. Unlike their Israeli counterparts, U.S. bank shares betas were nearly always significantly different from zero. In fact, with the exception of 1927, when the beta for Chase was 0.54 and that of National City 0.20 (and not significantly different

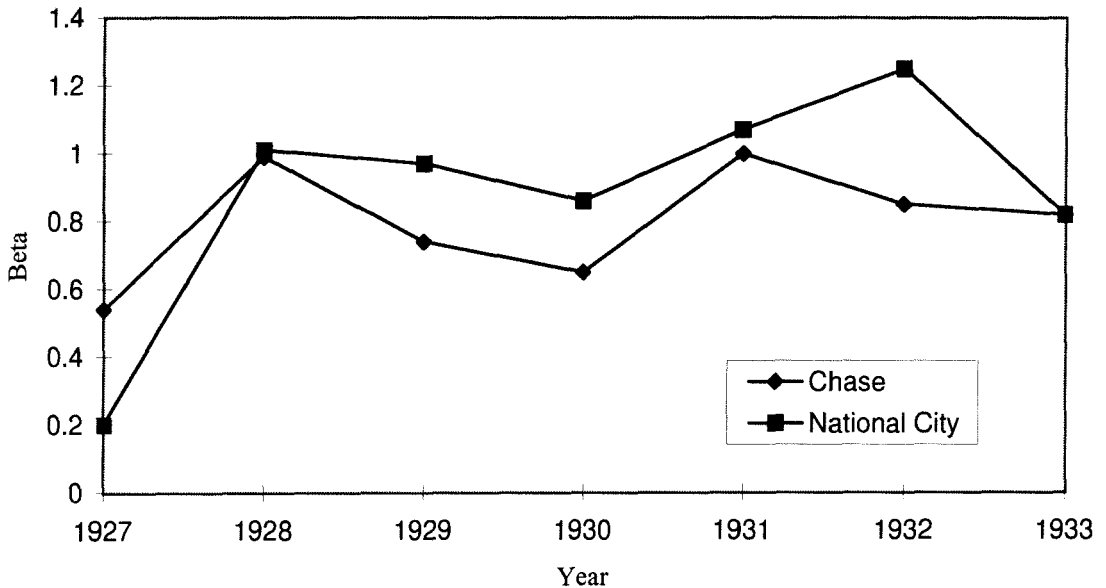
from zero), these bank stocks appear to have had betas close to those of banks in the United States today. Even during periods in which Chase is known to have participated in pools, its beta was significantly different from zero, indicating that U.S. banks either were less successful in manipulating stock prices or had more short-term goals.

Figures 3 and 4 present data on the proportion of days (Israel) and weeks (United States) in which bank shares declined. Again, the difference between Israeli and American banks is striking. While shares of Israeli banks involved in manipulation fell on relatively few days—and almost always fewer days than the industrial index—U.S. banks do not appear to have been substantially less likely to fall than the Dow Jones Industrial Average.

The data in this section indicate that Israeli banks were far more successful in



**FIGURE 2**  
Estimated U.S. Bank Stock Betas, 1927–1933



Note: Returns calculated as changes in the bid.

Data Sources: *Commercial and Financial Chronicle*, Pierce (1986).

pumping up their share prices—and in insulating those share prices from market risk—than were their counterparts in the United States. It could be that U.S. banks, in contrast to Israeli banks, were profiting from short sales that relieved them of the necessity to push up their shares with quite as much vigor as the Israeli banks required. Given that U.S. bank shares rose substantially during the pre-1929 period, however, it is difficult to imagine that bankers resorted to short sales on too many occasions. We conclude that Israeli banks' greater success was due to their dominant position in the capital market. Given their overwhelming resources relative to the market as a whole—and their small number, which facilitated interbank cooperation—Israeli banks were better able than their American counterparts to manipulate the market.

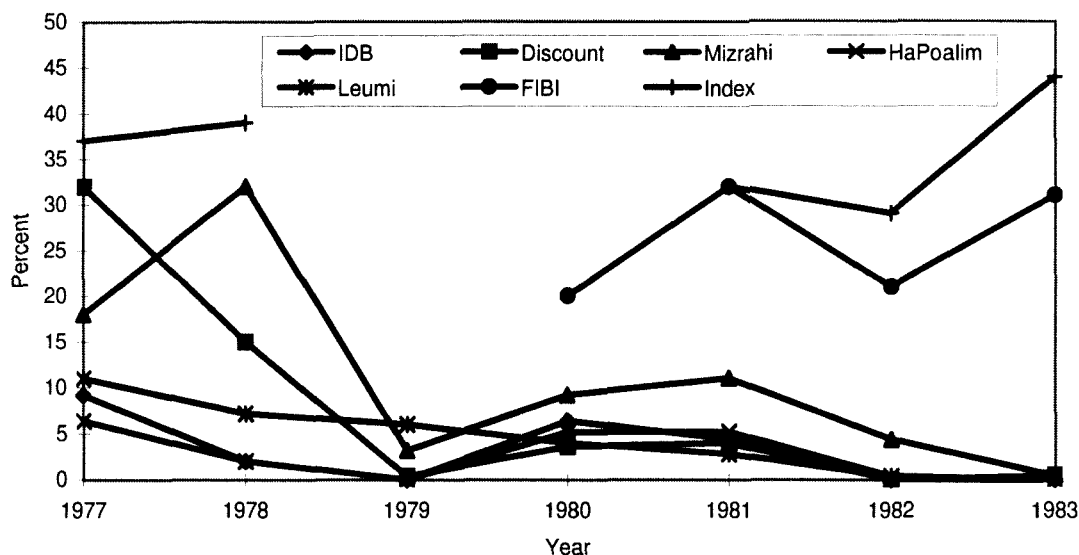
#### VI. CONCLUSIONS AND POLICY IMPLICATIONS

Had there been a Glass-Steagall-type separation between commercial and investment banking in Israel prior to 1983, it is unlikely

that the Bank Shares Crisis would have occurred. Although the incentive to manipulate the market would still have existed, without their dominance of the investment banking, mutual fund, and provident fund industries, Israeli commercial banks would have lacked the means to successfully manipulate share prices.

This is not to say that other measures might have been equally effective in preventing a crisis. If the banking sector had been less concentrated, whether or not there was a separation between commercial and investment banking, share manipulation would have been less likely: individual banks would have been smaller relative to the capital market and, being more numerous, would have found it harder to enter into effective cooperative agreements (e.g., the parking arrangement). Second, if Israeli capital markets had been open, the crisis would have been less likely to occur: a foreign presence would have diluted the dominance of the domestic banks, and allowing Israelis to invest abroad would have prevented domestic savings from being forced

**FIGURE 3**  
Percent of Days Israeli Bank Share Prices Declined



*Notes:* Industrial Index is missing values during 1980-82; for 1983 index includes fourth quarter only. All 1983 data include first three quarters only. Assumes 250 trading days per year.

*Source:* Blass and Grossman (1996b).

into the domestic stock market. Finally, an alternative regulatory apparatus (both regulations and regulators) could have helped avoid the crisis.

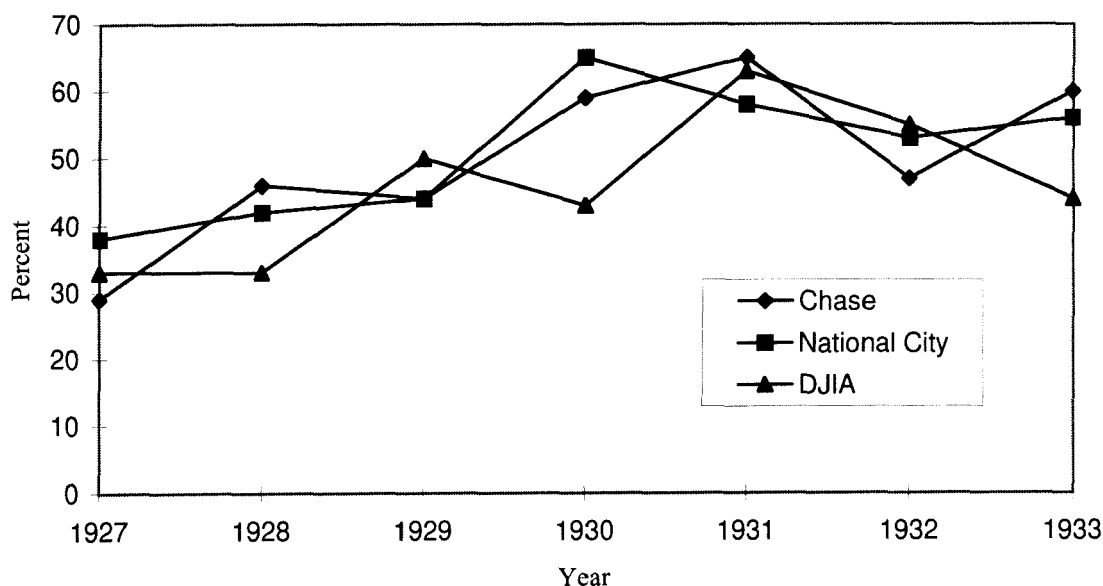
Each of these alternatives carries risk, particularly for a small country that may not wish to constrain the size of its banks for fear that it will render them unable to compete in the global marketplace. Similarly, many countries—big and small—are wary of an extensive foreign presence in the financial sector and may not be willing to subject the exchange rate to pressure from rapid capital movements. Further, a country in which institutions and capital markets have developed relatively rapidly may find it difficult to write appropriate regulations for the changing environment and to find well-trained regulators who have not been captured by their industry. Not only could Glass-Steagall have prevented the 1983 crisis, it could, with a minimum of legislation, provide a useful defense against a recurrence of similar banking crisis—at least until a time when a

more mature regulatory system could be put into place.

In the United States, a principal defense against a manipulation-led bank shares crisis is the Securities and Exchange Commission, which enforces rules against insider trading. The combination of Glass-Steagall restrictions and the fact that individual banks are too small relative to the market to manipulate prices seems to be an effective defense. As consolidation among U.S. banks progresses, it is possible that individual banks will grow relative to the market and that interbank collusion will become more likely. Although this paper does not advocate against repealing or relaxing Glass-Steagall in the United States, it does argue that any relaxation, combined with a reduction in the powers or jurisdiction of the SEC or bank regulators, could have disastrous consequences.

A detailed study of the banking systems and financial markets of the economies in transition of eastern Europe, as well as those of other

**FIGURE 4**  
Percent of Weeks U.S. Bank Share Prices Declined



Data Sources: *Commercial and Financial Chronicle*, Pierce (1986).

countries with developing banking and financial systems, is beyond the scope of this paper. However, the experiences of the U.S. and Israel suggest that Glass-Steagall restrictions may be a useful policy prescription for these countries.<sup>6</sup>

Banking concentration in many of the EITs is quite high. Prior to liberalization, the banking systems of these countries consisted of one state monobank, possibly augmented by a savings bank and a foreign trade bank. In order to create a two-tier banking system, the commercial banking activities of the state monobank were spun off into one or more state-owned (typically universal) commercial banks, leaving an independent central bank to pursue monetary and exchange rate policy. In Hungary, the monobank was divided along sectoral lines to create three state-owned commercial banks. In Poland, the monobank's portfolio was divided on a regional basis into nine banks (Bonin and Leven, 1996). In Czechoslovakia,

the monobank was divided into a Czech and a Slovak component (Bonin, 1995, pp. 1–3). In Bulgaria, 159 branches of the old monobank system were given the option to operate as independent institutions, either alone or in combinations with other branches. The result was 59 banks, although this number was reduced to less than a dozen via a government-supported consolidation (Bonin, 1993).

The initial reforms in the EITs resulted in banking systems composed of a relatively small number of state-owned universal banks. Subsequent reforms will determine how the state can divest itself of ownership in the banks. According to Bonin (1995, p. 4), privatization schemes typically involve an initial public offering, private placement with a strategic foreign financial investor, voucher distribution, or some combination of the three. As markets for shares (or vouchers) evolve, the motivation for manipulation seen in both the U.S. and Israeli cases—increasing the value of shares of insiders and raising capital—also will exist in the EITs. Further, because banks in the EITs are for the most part universal banks, an important mechanism of manipula-

6. The EITs are following the western European universal banking model, suggesting that the adoption of Glass-Steagall may be unlikely at this time.

tion—taking advantage of the bank's role as broker and advisor to investors—also may exist.

The experience of the United States and Israel suggests that Glass-Steagall restrictions are a good idea for the EITs. With concentrated and universal banking systems, banks have means, motive, and opportunity to manipulate share prices. And in countries with large budget deficits and less developed financial systems, government officials may be unwilling to intervene. Of course, there are other ways of avoiding share manipulation. For example, the financial system could be opened up to foreign competition. However, concerns about the extent of foreign participation in domestic finance and the international competitiveness of domestic firms may render this politically infeasible. A more direct means of avoiding share manipulation is effective regulation and supervision. However, with new and evolving markets and institutions, it is unlikely that detailed regulation and well-trained regulators could be put in place in the short run. For the EITs, and possibly other developing countries, Glass-Steagall may well provide a simple, sensible, short-term substitute for the evolution of more well-developed financial and regulatory systems.

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