Lessons Learned from Previous Banking Crises: Sweden, Japan, Spain, and Mexico

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Introduction

The four papers presented here are based on speeches delivered at the 60th plenary meeting of the Group of Thirty, held on December 4–6, 2008, at the Federal Reserve Bank of New York.

The Group of Thirty is grateful to the authors for their analysis: Stefan Ingves, Governor of Sveriges Riksbank, and Göran Lind, a Senior Advisor; Masaaki Shirakawa, Governor of the Bank of Japan; Jaime Caruana, former Governor of the Bank of Spain and General Manager, Bank for International Settlements; and Guillermo Ortiz Martínez, Governor of Banco de México. We are certain that the lessons learned from the banking crises in Sweden, Japan, Spain, and Mexico will shed light on the common challenges and approaches to deal with the current global financial meltdown. We hope that policymakers and regulators, both domestically and internationally, will take these experiences into consideration as they formulate a strategy to strengthen the global financial system.

Is the Swedish Model for Dealing with a Banking Crisis still Valid?

Stefan Ingves and Göran Lind

Sweden suffered a major financial crisis in the early 1990s. The crisis affected six of the seven largest banks, equivalent to a market share of some 85 percent. It also affected finance companies and credit insurance companies. The financial crisis coincided with and was aggravated by a severe currency crisis, which culminated in a 25 percent depreciation of the *krona*. All this happened in the midst of a severe local economic recession, leading to a total gross domestic product (GDP) contraction of some 6 percent in total over a period of three years. As a result of the multiple crises, the national fiscal budget deficit shot up to 13 percent per year, incidentally, the same figure as the unemployment rate.

It took Sweden several years to emerge from the economic and fiscal crises, but the crisis in the banking system was surprisingly short-lived. The direct fiscal costs for dealing with the banking crisis, equivalent to 4 percent of GDP, were recovered from the proceeds of selling distressed assets: selling the equity from the government's interventions in some banks and receiving dividends on the government's remaining equity stakes in banks. The relative success in dealing with the crisis has been hailed abroad as the "Swedish model." We will try to define what constituted this model and why we think it worked. We will also assess to what extent the model would still work, but also to what extent the current crisis calls for other solutions.

Let us first acknowledge that the Swedish model benefited to a large degree from methods that had been used earlier in other countries. Foreign, mostly U.S., investment bankers were hired during our crisis for many purposes, and they applied their expertise to the Swedish banks. We also had some good luck in the sense that the international economic climate was positive just after Sweden had depreciated its currency. This led to quick export growth and improved the banks' situation appreciably.

The "Swedish touch" was how we put the various pieces together to form a coherent framework. The Swedish authorities also added a number of "twists" to the methods. These twists were successful and led to a favorable result. One may argue whether the Swedish additions would work equally well in other environments, for instance, if the insistence on transparency would work in a country that has traditionally maintained a different culture in this respect. But that is another issue.

In this paper we start by describing the structure of crises in general and examine how this is followed in the Swedish crisis[1] and in the current global crisis. We then discuss a set of general principles we applied in the Swedish crisis. We also describe and analyze the methods available for dealing with distressed banks. Throughout the paper we compare the Swedish crisis to the current crisis. In the conclusions at the end of the paper we try to identify what we think is important when dealing with any financial crisis, be it local, regional, or global.

The anatomy of a crisis

All financial crises have developed according to the same formula:

- Weaknesses are built into the financial system.
- Some event makes these weaknesses explicit.
- The crisis spreads through contagion.
- Resolution measures are applied.

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1 Unless we explicitly say otherwise, references to "the Swedish crisis" refer to the crisis in the 1990s. The current crisis may be referred to as "the global crisis," "the current crisis," or similar. This does not refer specifically to Sweden but generally to the international financial system.

By far the most common weakness has been the financial system's exposure to real estate, including to land. Well-meaning politicians want the electorate to live in good housing conditions, not least the less creditworthy citizens, so they implement various support schemes to facilitate housing investments. Banks are keen to take the cue, often basing lending decisions on the value of the collateral rather than on the payment capacity of the borrower. Sometimes the loans are even structured so that the amortizations and interest payments are derived from expected future increases in house prices.

Other built-in weaknesses come from underestimated concentration risks. In the Swedish crisis, it turned out that some two-thirds of all bank loan exposures were somehow linked to developments in the real estate and commercial property sectors. These were loans to developers, real estate management companies, and customers that were collateralized by real estate.

Another weakness comes from banks not taking a fully consolidated view of all their risks. In the current crisis, it came as a "surprise" even to the banks themselves that they were, in fact, more involved with their legally independent "special purpose vehicles" (SPVs) than they had expected. In many cases, they felt obliged to provide supplementary funding, and in some cases, they even contributed to reducing the actual losses of the SPVs. A similar situation occurred in Sweden in 1991 when a number of finance companies suffered major losses on their lending and the banks that owned or funded these companies had to recapitalize them. Many pundits are concerned that banks' behavior may be influenced by moral hazard, but "not having a clue" seems to be as important in many cases.

We should acknowledge that some of the weaknesses, in Sweden then and globally now, were made possible by gaps in regulation and supervision. Banking legislation in most countries clearly states that lending must be based primarily on the capacity to repay, and the collateral is only an additional factor. Banking legislation also states that banks must take a consolidated view of their risks. Nevertheless, banks found loopholes, and supervisors were not adequately alert to stop imprudent practices.

Many of the weaknesses are of a general economic character, such as an unsustainable level of inflation, persistently high fiscal deficits,

or an unsustainable currency rate. We had them all in Sweden in the 1980s, preceding our crisis. Such weaknesses undermine the sound working of an economy, making investment and savings decisions more difficult, and also bank lending. In a high-inflation environment it is easy to "repay" debts (since their real values shrink due to the inflation), so many investment decisions are taken that would not be profitable when inflation is low. In Sweden, generous tax deductions for borrowing also fuelled the demand. In the current crisis, we would particularly point to the ample global supply and extremely low cost of funds a few years ago. Risk premiums were historically low. All this contributed to excessive lending, including to projects that would not be deemed profitable under normal market conditions. Another way of describing this phenomenon is to note that if real rates turn negative during a boom, this should be seen as a warning signal.

The turning point, the event that triggers the crisis, is often a macroeconomic cyclical downturn in which not least asset values, such as for real estate, decline swiftly. Sweden experienced such a development in the early 1990s, and the U.S. economy started to slow down in 2007, led by the housing sector. Other countries followed suit and we are now facing recession in large parts of the world. Changes in government or other policies often play a role. In Sweden around 1990, drastic steps were taken to reform the tax system and to force inflation down to a permanently much lower level than before. In the United States and other countries in 2006 and 2007, central bank interest rates were raised to relatively high levels to combat inflation. All these measures were perfectly legitimate in themselves, but they resulted in slower economic development, reduced asset values, lower revenues, and increasing losses for banks and other financial institutions.

The Swedish crisis was exacerbated by the speculative attacks on the currency. The central bank defended by raising interest rates to very high levels, peaking at 500 percent, but this obviously worsened the situation of the banks. In addition, foreign counterparts lost confidence in the krona and cut their credit lines, thus depriving the banks of needed liquidity in foreign currency denominations.

The Swedish crisis initially affected only a few institutions that had taken higher risks than others by, for instance, lending to (for the bank) previously unknown customers, regions, or foreign countries. But later, as many categories of borrowers weakened, major credit losses

occurred in more or less all banks, and their capital was undermined. Similarly, in early 2007, only a few institutions, mainly in the United States, were affected by defaulting subprime loans. However, rather soon, the problems spread to other institutions and other markets, in the U.S. but also in Europe. One source of contagion was the faltering markets for liquidity; another was the "toxic assets" consisting of packaged, structured, and leveraged asset-backed securities. In fact, these reflect two main characteristics of the recent crisis, namely, the liquidity strains and the global contagion.

A crisis often spreads through an increasing lack of confidence in the financial institutions among their counterparts, including the general public. In the current crisis, the authorities have tried a wide range of measures to restore confidence, but so far success has been limited. In the Swedish crisis, confidence was restored rather quickly, but it should be admitted that it was easier in this case for various reasons. Confidence issues will be discussed later in this paper.

In the general run of a crisis, we have now arrived at the stage where all kinds of resolution efforts must be applied. The authorities cannot leave a systemic crisis to itself since it would lead to devastating effects on the overall economy. It is for this reason that governments are willing to spend taxpayers' money on rescuing defaulting banks and other institutions. But it should be observed that the rescues should aim at the values in the bank itself, not the interests of bank shareholders or managers. In order to gain political acceptance for costly government interventions, it is important to convey this message to the general public.

There is a broad palette of measures to apply to ailing banks. A basic principle is not to apply measures that go further than required considering the situation and prospects of the bank. Another principle is to seek solutions which, as far as possible, involve contributions and responsibilities from private sector participants. A third principle is to never shy away from the possibility of winding-up a bank.

Methods for the resolution of ailing banks

Also in the Swedish crisis we started out with ad hoc resolution measures that proved to be insufficient. This led to the conclusion that a coherent and predictable framework for the treatment of banks must be created. Bank owners, managers, and counterparts should be aware of the alternatives open to them. Equally important, the general public

must see that the framework is transparent and fair. The framework should be structured, but at the same time should be sufficiently flexible to allow for different solutions depending on the precise situation of each individual bank.

As noted, the solutions should aim at rescuing the inherent values in financial institutions, including franchise values, the accumulated knowledge about customers, management expertise, and so on. Timely and orderly solutions reduce the potential dislocation in the markets and save substantial values compared to ad hoc solutions. This is why governments are willing to spend huge amounts on rescue operations—the alternatives are even more costly to society. In the Swedish crisis, the Parliament approved an *unlimited* blanket guarantee to all counterparts of Swedish banks, excluding shareholders. At the time of the Parliament's decision, the estimates of the eventual cost of that guarantee were very high; in fact, much higher than the actual outcome. The general guarantee could be seen as a way to buy time, to make it possible to apply orderly resolution methods.

Shareholders and management should not be protected. In a market-based economy, shareholders assume risks and gain from successful operations. But if an investment fails, they will suffer. This is no different when the investment is in a bank. Removing unsuccessful owners and managers is also a prerequisite to gaining public support for using taxpayers' money to recapitalize banks. However, it is often not feasible to remove all the management immediately. Some managers are needed because of their special knowledge about the bank and its activities and customers, and they may also have been less involved in the actions that contributed to the downfall of the institution.

A private sector solution is the preferred option. The resolution framework should provide incentives that steer banks in this direction. In Sweden in 1993, the bank SEB expressed some interest in partial recapitalization by the government, but after learning that this would lead to a significant government equity holding and voting share in the bank, the main shareholders instead opted to arrange a large issue of new shares to themselves and other private market investors. The bank found the alternative public sector solution too unpalatable.

Often, private investors have an interest in recapitalizing a bank, but are afraid of unknown problem assets and other uncertainties. In such circumstances a partial loss guarantee from the government may help. When JPMorgan took over Bear Stearns, the Federal Reserve Bank

provided a guarantee to the buyer covering a part of the losses on a defined portfolio. The Fed deemed this to be a cost-efficient alternative to, for example, a government takeover or a windup. The price when selling a bank is higher the less "uncertainty" there is in the bank, so the implicit cost of a guarantee is compensated for by the higher price. But it is important to structure the guarantee agreement so that the buyer has incentives to preserve the guaranteed values—for instance, by sharing the gains and losses with the guarantor.

In other cases, the private investors may not have the necessary funds available. In Sweden, Swedbank was willing to acquire a large, failing savings bank, but the owners did not have access to sufficient funds. The government guaranteed a loan, which the owners emitted to the market and also provided its own loan, both of which were used to finance the acquisition.

The impaired part of a bank may be so large that this discourages potential investors. The bank may need to be split up. A "purchase-and-assumption" transaction can take place, whereby an acquirer buys some assets and liabilities. This has not been used in Sweden, but is often used in the United States and other countries. Recently, in the U.K., Abbey National took over deposits and branch offices of the failed mortgage institution Bradford and Bingley. The residual was left for government administration.

A more structured split of a bank can be achieved in a good bank-bad bank solution. More or less all of the problem assets are transferred to the bad bank, while the good bank retains the good assets plus the necessary funding. The problem assets are sold off, either in packages or piecemeal. Sometimes they are transferred to an Asset Management Company (AMC), which has the mandate and special expertise to manage such assets with the aim of recovering their values. (We will discuss AMCs in more detail later in this paper.) The good bank is recapitalized and can resume its business or be sold or merged.

The Gota Bank case during the Swedish crisis is a schoolbook example of a good bank-bad bank solution. The bank had failed and was taken over by the government. A due-diligence investigation of the bank indicated heavy losses. More than half of the credit portfolio was impaired and the bank was insolvent. Bad assets were removed to an independent government-owned AMC called Retriva. Retriva was well capitalized and funded and sold off the assets over a period of some years. The good part of the bank was also recapitalized. However,

analysis showed that the new, drastically trimmed bank could not become profitable by itself since its large, fixed overheads in the form of branches, staff, and organization in general were out of proportion compared to the revenue-generating portfolio. Hence, the government arranged an auction allowing the highest bidder to acquire the bank. Actually, there were several bids at a similar level and the government decided to award the bank to Nordbanken, with which the best synergies could be gained. The branch networks of the two banks complemented each other nicely.

The government may also buy shares or provide other support to an open bank if it sees advantages in keeping the bank's structure unaltered. This strategy was used in the Swedish crisis and in many cases in the current crisis. However, this should always follow sound principles such as:

- Previous shareholders will lose the value of their holdings and also their influence in the bank pro rata in relation to the government's injections.

- The government contribution should have a potential for "upside gains." If the operation is successful and the bank again becomes profitable, the government's investment should increase in value. This is an argument in favor of avoiding, as far as is feasible, the provision of government loans where only the capital amount and an interest will be repaid.

- Even if the government takes a major stake in a bank, it should not interfere in its daily business, but leave this to professional management. The government's influence should be restricted to ensuring that the bank remedies the weaknesses leading to the financial problems and follows the new strategy guidelines for the bank.

Ultimately, the government may find it necessary to nationalize the bank by a full takeover. In addition to being a lender of last resort, the public becomes an owner of last resort, by necessity. There is a stigma to nationalization in many countries—witness the qualms in London before biting the bullet on Northern Rock—not least in those countries that until recently had their whole banking systems nationalized as a matter of ideology. We do not see a problem with nationalization, provided that some principles are followed:

- Fair compensation to the previous shareholders, for example, after an assessment by independent experts. The shareholders should also have the right of legal appeal if they judge that the compensation offered by the government does not correspond to the value of the bank. However, the appeals process should only deal with compensation and should not delay the takeover by the government or delay any other necessary measures to deal with the situation in the bank. (This is, of course, relevant not only in cases of nationalization, but generally. If the problems of one bank threaten to spread to other institutions and markets and the owners are not willing or able to act, government intervention must be allowed to proceed swiftly. Courts might decide on compensation to shareholders and other parties but should not be able to order the government actions to be postponed, unless they are clearly unlawful.)

- The operations of the bank should be market oriented. There are often strong populist pressures on a nationalized bank. The general public and the politicians may claim that a state-owned bank should support certain groups or non-market goals, such as providing subsidized loans to specified categories of borrowers. But such requests must be resisted since they distort competition and lead to future problems. One way of reducing the risk of undue political influence is to keep the bank at arm's length, for example, by creating a semi-independent authority under the government with the mandate to manage the government's stake in the bank.

- There should be a stated aim to reprivatize the bank as soon as market conditions permit. This should be publicly declared in order to put pressure on the policymakers so that reprivatization will not be unduly delayed.

Banks were nationalized in the Swedish crisis. In the process of dealing with the Gota Bank the government presented a plan for takeover. The shareholders resisted the plan claiming that the bank had a positive value. They thus wanted compensation before giving up their shares. Since the overall situation in the financial system was fragile, the government needed to act swiftly and took over the bank. The shareholders received an offer for monetary compensation, namely "zero," but were not satisfied and lodged an appeal based on civil law provisions.

However, the court shared the view that the bank was insolvent. It rejected the claim of the shareholders that the bank had restored a positive value after the government's rescue operations.

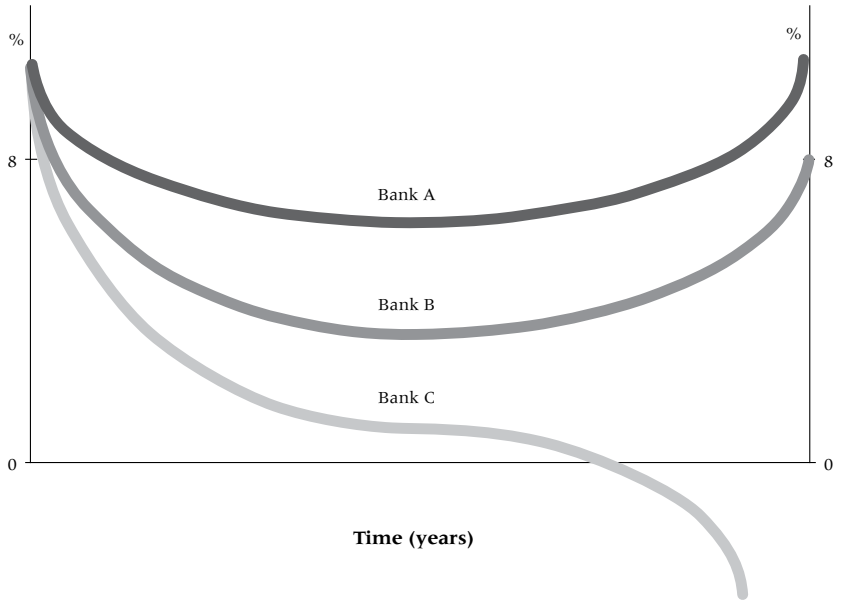
In order to avoid shareholders in other failing banks delaying necessary measures by obstruction, new legislation was quickly passed. It empowered the government to take over a bank if its Basel capital ratio fell below 2 percent. As in the Gota Bank case, fair compensation must be offered, and the shareholders should have the opportunity of appeal. However, and this is important, the appeals process must not be allowed to delay the takeover.

This is important in a general context. The legislation must allow for government intervention long before a bank's capital is formally depleted. Because of time lags and general uncertainty concerning the valuation of a bank's assets and liabilities, a bank may be able to report positive capital even though it is in practice insolvent. Delaying rescue operations too long leads to unnecessary additional costs and threatens overall financial system stability. The legal structure presented above provides a balance between the interests of society and those of the individual shareholders.

A strong reason for a full government takeover is that it facilitates decisionmaking. In the Gota Bank case, the government could quickly make the necessary decisions and take the required measures to achieve the good bank-bad bank solution and then sell the good bank. Similarly, in 1991, the government went from a majority holding to a 100 percent holding in Nordbanken. It was then much easier to conduct the restructuring work, for instance, by transferring substantial amounts of problem loans and corresponding collateral from the bank to an independent AMC, called Securum. Bad-bank solutions of transferring privately held bank bad assets to government-owned AMCs were never used, mainly because it proved to be impossible to agree on the transfer prices.

When bank problems erupt very quickly, the early solutions tend to be of an ad hoc character. But it is of course preferable to work from a systematized framework. In Sweden, we assessed the situation of the banks and the need for different forms of government intervention on the basis of a model we called "The Seaman's Cot" (inspired by the form of the curves), as shown in the figure below.

EXPECTED CAPITAL RATIOS, THREE SCENARIOS



In wars and in other major catastrophes there may suddenly be a very large number of wounded, greatly outnumbering the capacity of hospitals and doctors. In these situations a "triage" method for selection is used:

- The mortally wounded are left (but will be given an orderly burial).
- The lightly wounded are given some quick, temporary treatment.
- Priority is given to those who will likely survive if they are treated immediately.

We used the triage approach in the Swedish crisis. All the banks that had expressed an interest in receiving government support had to submit to a thorough due-diligence process, performed by independent specialists. This due-diligence process was conducted in accordance with a common set of guidelines from the Bank Support Authority.

Data on each bank were fed into a quantitative model that provided predictions for the development of the bank for the coming three years. Using today's language, assets were valued-to-model since the dried-up markets did not provide relevant price signals. The Authority then slotted the bank into one of three categories:

- A-banks: Those that may come close to the 8 percent regulatory capital adequacy minimum, or even slightly below, but will return to profitability shortly after;

- B-banks: Those that will decline substantially below 8 percent but have a sustainable business perspective and will regain profitability before long;

- C-banks: Those that will drop below 8 percent and are not likely to recover.

The first category can normally be handled by the bank owners themselves. In the short run, they may need some government assurances in order to bolster confidence in the bank. The Swedish government provided such confidence support to Föreningsbanken in the form of a "capital guarantee." The government committed itself to recapitalizing the bank if its capital ratio fell below 9 percent. Recapitalization would take the form of nonvoting preference shares. However, if these had not been redeemed within a certain number of years, they would be converted to normal shares with a high voting strength and a high capital dilution factor. (In Sweden, we allow different categories of shares to have different voting strengths.) In this way we created strong incentives for the bank to minimize the use of this option. In reality, the bank's shareholders recapitalized the bank themselves so the share option was never applied.

The banks in the second category need paid-in capital, not loans. The capital should take forms that minimize the risk to the government and also give it influence in the bank, such as in the solution presented above. In Sweden, large amounts of capital were invested by the government in Nordbanken, which was far below the regulatory capital minimum but assessed by the Bank Support Authority to restore its profitability in the medium term. In addition, large amounts of impaired loans and accompanying collateral were transferred to an AMC. Thus, the bank was both cleansed and recapitalized.

As in the triage method, no support is given to a dying bank. Prolonging its life unduly would just be a waste of resources. That said, the bank must be wound up in an orderly fashion in order to save values and to avoid other turbulence (such as in the case of Lehman Brothers). Gota Bank was obviously "dying" in its earlier form, so government funds were not spent to keep the bank afloat. The government's money was only used to recapitalize the good part of the bank to make it saleable and to provide capital to the AMC taking over the bank's bad assets.

The triage method for banks is intuitively easy to explain and to obtain public support for. It is sometimes a bigger problem to be able to assess into which category a specific bank will fall. In the Swedish crisis, the outcomes of the due-diligence processes in the ailing banks were, luckily, quite clear, so the triage assessments were fairly easy.

The Use of Asset Management Companies (AMCs)[2]

In most banking crises, there is a large volume of nonperforming loans backed by collateral, which sometimes also is in a weak condition. Even after the loans have been written down to realistic values, they are a burden to the bank in several respects:

- They do not produce incoming cash flows but must still be funded, at a cost to the bank.
- They add to the uncertainty about the financial situation and the value of the bank.
- Although time is scarce, the bank management must spend a lot of time dealing with these assets at the expense of strategic work to secure the future of the bank.

Hence, many banks and countries find it useful to transfer the problem assets to a special division within the bank or to an independent company, an AMC. The AMC could be privately owned or state owned. The mandate of the AMC is to handle the assets in order to recover as much of their values as possible. Sales will take place over a number

2 For a detailed description of the working of an AMC, please see S. Ingves and G. Lind, "Loan Loss Recoveries and Debt Resolution Agencies: The Swedish Experience," in C. Enoch and J. H. Green, ed., *Banking Soundness and Monetary Policy Issues and Experience in the Global Economy*, 1997, International Monetary Fund, Washington, D.C.

of years, depending on market conditions. The ultimate goal is to sell all assets and windup the AMC. There is an inherent conflict in that banks want to hold onto their customers and the collateralized assets, even when nonperforming but having reasonable future prospects, while specialized managers of bad assets should prioritize to get rid of the loans and assets. Hence, there are very different management methods and incentives needed in the AMCs.

Experience of the use of AMCs differs. In Sweden, the AMCs formed a central component of the crisis management process and the results were very successful. In addition to the state-owned AMCs, several of the banks set up their own AMCs, normally in the form of separate divisions/subsidiaries within the bank. More or less all of the government assistance provided to the problem banks was recovered, to a large extent by profitable sales from the AMCs. We believe that this success resulted from following a few principles:

Valuation. The problem loans and assets were transferred from the banks to the AMCs at conservatively estimated market values. A special panel of experts was used to assess real estate values. The conservative valuation aggravated the holes in the banks' balance sheets and necessitated a higher amount of recapitalization (although not a higher level of real loss since the loss had already occurred). But starting from realistic and low values facilitated the work of the AMCs, and they created a "market bottom," which led to renewed interest from buyers, thus restoring liquidity in the market.

Improving the assets. The AMCs spent a lot of time, energy, and money on upgrading the acquired assets. Commercial property was renovated and otherwise improved to become more attractive to acquirers and tenants. "Industry doctors" advised manufacturing groups on how to streamline organizations and production, for instance, by selling noncore activities.

Guidelines for asset sales. An often debated issue is whether AMCs should strive to sell early to create a market, or later to avoid selling into an already weak market. In Sweden, we established a clear guideline. The sale should take place when the price was optimal, taking account of future expected prices and financial and other costs for holding onto the asset. This meant that sales might have to take place at a nominal

loss. In some other countries, AMCs have not had the mandate to sell at a loss, and this has led to a huge overhang of assets, strangulating the markets.

What is the Essence of the Swedish Model?

To what extent do the components of crisis management during the Swedish crisis during 1991–93 differ from the tools used in other countries' crises, notably in the current crisis? In our view, some aspects were more heavily emphasized in Sweden:

Transparency. Both the banks and the authorities had to disclose the extent of the problems and the methods for solving them in some detail and based on realistic, even conservative, assessments. This led to a fairly quick restoration of confidence in the banks, which is central to overcoming a crisis. Lack of confidence is an important, maybe the most important, factor in the current crisis. Sweden was probably the first country ever to send high government officials on an international "road show" to describe and explain the resolution framework to investors and other market agents in the midst of a crisis.

Political consensus and coordination among authorities. There must be broad political agreement on the measures for dealing with the crisis. Political quibbling reduces confidence and leads to suboptimal solutions. Likewise, decisions and messages to the public must be closely coordinated among relevant authorities (and the financial markets!). In Sweden, all decisions by the Bank Support Authority were first coordinated with the supervisory authority, the central bank, and the national debt office.

Valuation. We clearly favored leaning toward the conservative side in the valuation of the banks. From an accounting perspective, this aggravated the losses in the short run but had beneficial results in the medium term, not least by restoring confidence in banks.

A predictable but flexible framework for the resolution of individual banks, which is communicated to all parties including the general public. Without such a framework, the triage method cannot be credibly applied. The framework principles included, for instance, that

government interventions would always lead to the dilution of previous shareholders' capital and that government financial support should primarily be structured to enable it to take part in any "upside" should the bank regain profitability. The framework included establishing a separate authority under the aegis of the Ministry of Finance.

Timing. Any problems that arise should be dealt with swiftly and adequately to prevent them from infecting other institutions or markets. This implies that action often needs to be based on incomplete or uncertain information.

Structured use of AMCs. While AMCs have been used in many countries, we made great efforts to make them as efficient as possible not only for financial gains but also to assist in preserving inherent values in real estate and in industry.

A brief comparison with the current global crisis indicates the following:

- Transparency has been "so-so." While governments, for instance in the European Union (EU), have generally been fairly transparent about problems and actions, some financial institutions have not always been very open. Huge losses in banks have "suddenly" been detected.

- Political consensus has not in all cases been possible. The discussions in the U.S. Congress on the Troubled Assets Relief Program (TARP) destabilized markets for a while, and the coordination among the U.K. authorities when first announcing their intended policies in the Northern Rock case was less than perfect and probably aggravated the problems.

- Valuation issues have generally been harder to solve. The values of complex instruments, in particular in dried-up markets, are extremely difficult to assess. The International Accounting Standards have been amended in order to avoid banks' balance sheets having to take the immediate and full burden of the historically low "market" values.

- Structured frameworks for crisis resolution have been created in many countries. To some extent the frameworks deviate from one

another, but there has also been welcome harmonization within the EU.

- Swift and adequate remedial measures for problem institutions have generally been taken, not least in the United States, based on their experience of "closing the bank on Friday and opening it again under a new name on Monday" (such as in the Indy Mac case), but outside the U.S. there have been a few exceptions when the authorities have waited too long while hoping for "resurrection."

- AMCs have not yet been used to a significant degree, although there has been much talk about them. Issues concerning the pricing of assets when transferring them from the banks have held up the process.

To sum up, while there has been progress since earlier crises, there are still some differences in relation to what Sweden found to be optimal in order to deal with its crisis. In fairness, it should be acknowledged that the current crisis differs in some important respects. For instance, it is much easier to assess approximate values for real estate, which was the main problem in our crisis, than for complex financial instruments, which is the problem of the current crisis.

Conclusions

The current crisis is in many respects different from previous crises, in particular in terms of its global and cross-market character. The current crisis is also to a much larger degree due to liquidity issues. That said, there are also many similarities with earlier crises, and hence we should benefit from successful and less successful experiences in crisis management.

There is a limited range of options to deal with a crisis, and none is without cost. In general terms, once a problem has been identified the task is to limit the damage and to decide on how and when to pay the cost.

There are still major differences among countries in dealing with ailing or bankrupt financial institutions, reflecting domestic legislation. This will sometimes lead to conflicting incentives, which may then lead to suboptimal solutions. For instance, one country may decide to "ring-fence" the local part of a financial group, taking no responsibility for

the rest of the group. In our view, the international community should strive for a better harmonization of legislation in these respects.

The "Swedish model," which is an adaptation and structuring of experience gained from earlier crises in other countries, could be said to be based on a set of "sound principles" and a "toolkit." Basically, these are still valid, but the different character of the current crisis means that they must be supplemented. Methods must be found to deal with problem institutions other than commercial and savings banks, such as investment banks, providers of credit insurance, government-sponsored enterprises, and maybe also hedge funds. Transparency and valuation issues have become more important but are at the same time more difficult. Liquidity issues have come to the forefront in this crisis—they require treatment different from solvency issues but can turn into solvency problems.

Finally, a crisis will not be solved by high principles alone. The basic "grunt work" is at least equally important, such as detailed due diligence in banks and ensuring that legal and technical agreements are efficient and predictable. The spadework also includes diligent but gruesome treatment of weak borrowers and their assets. The stored files from just one of the Swedish AMCs extend over two miles!

As always, there are no free lunches and the devil is in the details (just to repeat two often-used, but here relevant, clichés). The true cost to society of a crisis is not the accounting cost but the loss of economic output. It is almost impossible to judge precisely when measures should be applied, but experience from numerous crises around the world shows clearly that it pays to start bank resolution and restructuring as quickly as possible.

Lessons from Japan's Financial Crisis: Revisited in Today's Light

Masaaki Shirakawa

Introduction

Japan's economy began to stagnate in the early 1990s, with sporadic failures of small financial institutions. In hindsight, this was a sort of prelude to the full-scale financial crisis that occurred from the late 1990s through the early 2000s. In contrast to the Nordic banking crisis, Japan took a decade to put the financial crisis behind itself. Because of this, some viewed Japan's financial crisis as an isolated and country-specific event and dismissed our responses as failure on both the prudential and monetary policy fronts.

Since the eruption of the global financial crisis in August 2007, however, similarities between what happened in Japan and what is unfolding before our eyes have become increasingly apparent. Of course, since each crisis has its unique and idiosyncratic aspect, I should not make hasty generalizations. Nonetheless, in terms of the causes and effects of a crisis, policy responses that have followed, including those by central banks, and political and public reactions to all of these, I cannot dispel a sense of déjà vu.

Although much has been debated about Japan's financial crisis, it seems that some of the analyses did not get to the bottom of the problem faced by the Japanese policymakers in those days. In the face of the current financial turmoil, it is worthwhile revisiting Japan's experience

in today's context. I do not intend to offer a comprehensive explanation. Rather, I would like to focus on the central bank's policy measures and highlight several important issues deserving serious reexamination.

Causes of an asset bubble

Japan's crisis was a direct consequence of the asset bubble that was intrinsically linked to the sharp growth in bank credit. A rapid credit expansion created not only irrational asset valuations but also many imbalances in the economy, including excessive business investment. The essence of a bubble is the mix of rapid credit extension and sharp hikes in asset prices. According to this definition, the technology bubble in the early 2000s was not a bubble. But the global credit excess over the past several years was a genuine bubble in the sense of my terminology, bearing a substantial similarity to the asset bubble Japan experienced in the late 1980s.

Credit bubbles are generated through complex channels, but there are three critical elements contributing to their formation: benign macroeconomic conditions characterized by high economic growth and low inflation; spurious justifications for a widespread euphoria; and steep credit growth plus high leverage, both fuelled by the expectations of continued low interest rates. Japan's episode is a vivid testament that these three factors conspire to produce economic bubbles.

From a central bank's viewpoint, the main question to be asked in this connection is: ***Should a central bank refrain from raising policy rates preemptively when the economy is growing strongly with a sharp credit expansion while price inflation is well contained?*** Or, to put it more simply, ***can a central bank afford to leave policy rates unchanged as long as price inflation remains subdued?*** This conundrum, or policy dilemma, is what the Bank of Japan encountered in the bubble period when Japan's Consumer Price Index (CPI) inflation remained close to zero and inflationary pressures were not in sight despite the buoyant economy. Price stability deterred the Bank of Japan from tightening monetary policy.

A question of more recent relevance can be framed this way: ***Is inflation targeting reducing this policy dilemma for a central bank?*** To the extent that inflation targeting fosters the social presumptions that a central bank is allowed to focus narrowly on price inflation alone, inflation targeting might have the unintended effect of helping to

create bubbles when low inflation coexists with an excessive boom in economic and financial activity.

Asymmetrical monetary policy responses to an asset bubble

In this connection, we have heard a lot about the "asymmetry" in monetary policy responses to bubbles. For example, one school of thought argues that bubbles are easier to spot when collapsing than when accumulating. According to this school, a central bank should be engaged in mop-up operations only after the bubbles burst. But I am somewhat skeptical about this argument. In fact, the bursting of bubbles is equally difficult to identify, not least because the unwinding of financial imbalances is quite costly.

In Japan's case, for example, the benchmark stock index hit its peak in 1989, and the land price index reached its peak in September 1990, for large cities. The Bank of Japan began to reduce policy rates in July 1991. In September 1991, the land price for nationwide cities hit its peak. In a similar vein, U.S. residential investment, the embodiment of the asset bubble, peaked in the first quarter of 2006. The Case-Schiller Index reached its all-time high in July 2006, and the U.S. Federal Reserve began its easing cycle in September 2007. But the Dow Jones Industrial Average did not peak until one month later.

These casual readings of timing are suggestive of the difficulty of detecting the collapse of the bubble as it occurs and therefore the difficulty of deciding the timing of monetary easing as well.

Efficacy of monetary policy under asset price deflation

This section discusses the efficacy of monetary policy in the aftermath of the collapse of large credit bubbles, bearing in mind a clear distinction between general price deflation and asset price deflation.

With regard to Japan's policy responses following the collapse of the bubble, some refer to the well-known research paper by the staff at the U.S. Federal Reserve. In the paper titled, "Preventing Deflation: Lessons from Japan's Experience in the 1990s," model-based simulations were conducted, which imply that Japan's deflationary forces would have been much weaker if the Bank of Japan had reduced policy rates earlier and more aggressively. But these same simulations also show that even aggressive monetary easing would not have been able to achieve

higher economic growth than was actually the case. We should probably reconsider the potency of "aggressive monetary easing," namely, ***what "aggressive monetary easing" can really deliver.***

The collapse of credit bubbles is likely to bring about capital shortfalls on the part of economic entities. In Japan's case, the balance sheets of financial and nonfinancial firms were severely impaired while household financial conditions remained relatively sound. Capital shortfalls manifested themselves first in the corporate balance sheets and put downward pressures on business investment. Because of this, monetary easing proved to be less effective in stimulating corporate activity. A downturn in the business sector translated into a deterioration in the balance sheets of financial institutions.

The defining moment came in the autumn of 1997, when a midsize securities firm (Sanyo Securities) defaulted on its interbank borrowing. This repayment failure sent shock waves through Japan's financial system. Risk aversion overwhelmed the financial sector with mounting concerns over liquidity squeeze and capital crunch.

The real economy suffered, as well. CPI inflation turned slightly negative in 1997, and economists came up with numerous proposals for aggressive monetary easing, including quantitative easing, in order to prevent Japan's economy from sliding into a deflationary spiral under the constraint of the zero-lower-bound of nominal interest rates. However, at that time, we were in the dark as to how effective monetary policy could be when the entire financial system was paralyzed. In this regard, what is happening in the United States today looks like what happened in Japan almost a decade ago.

As mentioned, the most fundamental problem facing Japan's financial system was capital shortfalls caused by the plunge in asset values. For example, the peak-to-bottom declines in Japan's real estate valuations were on the order of minus 60 to 70 percent while the cumulative fall of CPI between 1997 and 2004 was only 3 percent (in spite of the influx of cheap imports from China and other emerging economies). This clearly shows Japan's problem was asset deflation. After all, with mild deflation, Japan experienced the longest stretch of growth since World War II. To put Japan's deflationary experience in the proper context, we need to analyze the adverse dynamics of asset price deflation rather than looking through the narrow lens of general price deflation.

Central bank liquidity operations and interest rate reductions

In times of systemic banking crisis, the top priority for a central bank is to secure financial stability. A meltdown of the financial system inflicts enormous damage on the economy, which takes a long time to repair.

In the early 2000s, the Bank of Japan (BOJ) took several bold steps through its banking operations to supply needed liquidity throughout the markets. First, the BOJ widened the range of counterparties and maturities with regard to its money market operations. It also accepted a broader range of collateral. Second, the BOJ extended liquidity support to the failed securities house in order to assist its orderly workout and thereby minimize the systemic repercussions associated with its liquidation. In addition, BOJ purchased outright asset-backed commercial paper (ABCP) and bank-held corporate shares on a temporary basis.

Now, several years later, the U.S. Federal Reserve has taken a variety of nonconventional steps very similar to those adopted by the BOJ.

BOJ employed a process of quantitative easing, in which BOJ's massive supply of reserves was effective in defusing concerns over financial stability. It also had some minor impact on the real economy by compressing risk spreads. However, since the promise of continuation of the zero-interest-rate-policy had similar effects, it is not easy to disentangle the pure effect of aggressive quantitative easing. Quantitative easing turned out to be essentially financial stability measures. Let me also emphasize that central bank's liquidity operations are just palliatives, and more fundamental solutions need to be worked out to deal with a systemic financial crisis.

Public capital injections

As stated, the most fundamental aspect of financial instability is capital shortfalls. But capital shortfalls are something like a moving target because they are a function of the negative interplay between the real economy and financial conditions. For example, the eventual losses from Japan's bad loans proved to be much larger than those initially estimated by pessimistic souls.

Based on a thorough analysis of the real and financial markets, a government (and possibly a central bank) should take decisive actions with responsible judgment on the capital adequacy of the banking sector

as a whole. But public capital infusions need taxpayers' money. Japan went through a lengthy process to reach a consensus on the need for public recapitalization of banks.

Capital support by the official sector is a crucial step toward rebuilding the balance sheets of weak financial institutions. But this is not a magic formula because capital replenishment itself does not resolve the imbalances that have piled up in the nonfinancial sector of the economy. Speaking of Japan's experience, the government established a framework for bank recapitalization in 1998. But it was in 2003, five years later, that Japan's economy finally regained growth momentum, helped by the recovery in the global economy and the near-elimination of excesses in production capacity, the workforce, and corporate debt.

At the same time, we also need to be mindful that if public capital injections make the government more interventionist in rescued banks' decisions of credit allocation, it runs the risk of undermining economic efficiency.

Policy implications

Is the United States following the same path as Japan did after its bubble burst? Since I am not yet prepared to answer this question in an unambiguous manner, let me offer, instead, my observations on the differences and similarities between the two countries.

On the economy, what the two countries have in common is the existence of a strong negative feedback loop. But the global economic conditions are different between then and now. In Japan's case, the world economy was fundamentally robust and helped the recovery of Japan's economy. Today's world economy, in contrast, is markedly weakening. Growth potential is also different. Japan tackled not only nonperforming asset problems but also structural obstacles arising from its declining population. The United States today does not seem to face those structural impediments.

On the policy front, both Japan and the United States have taken similar measures. Compared with Japan, however, the U.S. has been quicker in adopting needed policy measures, especially in regard to public capital injections. As for monetary policy, the U.S. has also been more aggressive in lowering policy rates. However, I am somewhat doubtful about whether even speedier monetary easing can make a big difference when the financial system remains dysfunctional.

With regard to the private sector responses, U.S. financial institutions have wasted little time in recognizing losses for their securitized asset portfolios. But they cannot escape the difficulty of recognizing losses on their loan books because loan portfolios are less amenable to market-based valuations. This is particularly true when the detrimental effects of the negative feedback loop are becoming increasingly palpable.

Bank Restructuring in Spain: The 1978–83 Banking Crisis

Jaime Caruana

During the 1960s and early 1970s, the Spanish financial system was very rigid and underdeveloped. It was closed, heavily intervened in terms of directed lending, and protected from foreign competition. There were maximum interest rates on deposits and minimum lending rates. There were mandatory investment coefficients in government debt and in economic sectors selected by the government for strategic or social reasons. The opening of bank branches was completely regulated, with a quota system for new branch permits.

At the end of the 1970s, Spain suffered a very costly crisis. However, it was a manageable crisis because the core large institutions were not seriously affected. It was a subset of banks that was affected, but not the whole system.

The story of this crisis and how it was solved is a hands-on experience and certainly not the result of an existing predetermined policy on how to close, or how to restructure, troubled banks. It was really a case-by-case treatment, institution by institution, and—at the same time—the institutions, laws, and rules that governed this restructuring had to be created. So it was a painful experience.

It was also, however, a very big lesson for the Spanish financial system, which used this unique opportunity to make the necessary reforms in the banking sector—in terms of both crisis management and bank

restructuring—but also in order to strengthen the regulatory framework. Thirty years on, today's supervision in the Bank of Spain is still highly influenced by this crisis in a positive sense. Lessons were learned that have been very helpful in strengthening the financial system.

Causes of the crisis

The usual three suspects present in most financial crises caused the Spanish financial crisis: macroeconomic factors, weak regulatory frameworks, and bank mismanagement.

First, macroeconomic factors. In the case of Spain, in the mid-1970s, macro policies were clearly inadequate. The policy responses to the first oil shock were mainly attempts to avoid or delay the consequences of the external shock.

The economy had been growing at 7 percent during the previous 10 years, and then growth peaked in 1972 and fell to slightly negative figures in 1979 and 1981. Wages were allowed to rise very rapidly and inflation exceeded 24 percent in 1977, so there was a clear lack of adjustment in the economy. Real interest rates were negative until 1980, and government deficits were rapidly increasing. In the midst of this difficult macro environment, we had a liberalization of the banking system, which also contributed to the rapid expansion of the banking sector. Credit expanded rapidly, growing more than 20 percent until 1977. As we know, these elements of rapid credit growth and expansionary macro policies have been present in many financial crises.

Second, a weak regulatory framework. In the case of Spain, this was particularly relevant because of the abrupt process of the regulation and liberalization that preceded the crisis. The liberalization of the financial system was clearly needed, but it happened without the necessary prudential regulatory framework in place. All the potential weaknesses were there in terms of poor requirements for entry of new banks, weak regulation for the classification of doubtful assets, lack of fit and proper criteria for bankers, no mechanisms to intervene in banks, and inadequate resources of the supervisor (Bank of Spain).

Third, bank mismanagement. There was poor risk management on the part of the financial institutions, high concentrations of risks, connected lending, and speculative investments, especially in the property sector and the industry. This is one of the cases where the banking sector and the industry became too close. In many cases, there was fraud.

Funds were diverted to finance businesses owned by the managers or shareholders of the banks.

This is, in a nutshell, a summary of the causes of the crisis—excessive credit expansion, and poor selection and monitoring of borrowers in the context of a weak regulatory framework. Virtually all the "core principles" were broken in this crisis. Nearly everything that could go wrong went wrong.

Summary of the crisis

In 1978, there were in Spain about 107 private banks, 80 savings banks, and 150 credit unions. The crisis had started first in small institutions and then, increasingly, it moved to larger and larger groups. Finally, in 1983, there was a large industrial holding company (Rumasa) with 20 banks that also failed.

None of the banks that were created during the financial liberalization of the 1970s survived as independent institutions. All failed. And 90 percent of the banks that were involved in the crisis had been born five years before, during 1973–78.

So it was a real crisis but, all in all, manageable. Of the 107 banks mentioned, 58 were in trouble, but they were not the largest ones. In terms of deposits, banks in crisis accounted for 27 percent of the banking system. In terms of labor, they accounted for 23 percent of people employed in the banking sector. Twenty-nine banks were intervened by the Deposit Guarantee Fund (or its predecessor Corporación Bancaria), which also had functions of an asset managing company. Rumasa was a special case and was nationalized by the government. There were nine cases in which there was assisted resolution in terms of mergers and liquidations. The fiscal cost of the crisis was around 6 percent of gross domestic product (GDP), plus a contribution of the banking system that also financed the deposit insurance fund with an additional 1 percent of GDP. So the total direct cost was around 7 percent of GDP.

Restructuring process

In the Spanish case, the most significant factor was credit risk. The institutions failed because their losses on doubtful and unrecoverable assets exceeded their capital, in some cases two or three times over. Credit risk was aggravated by the concentration of the risk of the loan portfolio in the group to which the institution itself belonged.

Market risk was not a decisive factor in bank failures because interest rates on many transactions continued to be regulated. Liquidity risk manifested in many of the failed institutions, but this was, above all, a symptom of the solvency difficulties. Banks had serious solvency problems, which resulted in short-term liquidity difficulties.

The crisis was severe and the original institutional framework to deal with it was very weak. It should be recalled that it was not until 1977 that a Deposit Guarantee Fund (DGF) was created in Spain to cushion the negative impact of failure on small depositors. But at this point, the DGF was just a passive mechanism to guarantee deposits; no legal instrument was available to deal with bank failures, no asset management company or "bad bank" scheme was available yet.

Institutions and regulations to address the crisis had to be developed in the midst of the crisis. In 1978, an ad hoc vehicle was established, Corporación Bancaria (financed 50–50 by private banks and the Bank of Spain). This body, which in 1980 was merged with the DGF, was the instrument to take control of the troubled banks. The mechanisms of bank intervention were in most cases similar, and the objective was for the restructured banks to be viable after the intervention and support ceased. Once a bank was in crisis, the Bank of Spain would provide emergency liquidity under strict conditions, depending on viability. Controlling shareholders either had to recapitalize under an action plan or sell it to the DGF for the symbolic amount of 1 peseta. (If capital had been fully eroded, actual losses were assessed by looking into the banks' files, and this information was used as a basis for realistic diagnosis and projections.) DGF took control of the failing bank, assuming temporary ownership and management.

Capital was reduced, in most cases to zero (against the losses), so penalizing the incompetent shareholders and developing a restructuring program to restore flows and solvency was developed, through the following joint or alternative actions: capital injections, purchase of bad assets, and/or assumption of losses and long-term loans at subsidized rates. The DGF acquired a significant portion of nonperforming assets, and the selling period extended well beyond the period of temporary administration of the bank. This process made it possible to restructure the banks—selling off the marketable assets and recovering anything recoverable—until a purchaser was found or the bank was wound up (in an orderly fashion). The purchaser acquired a sound bank, as the DGF paid for the process by purchasing the bank's assets at book value,

which was well above their real value. Pricing of the assets was not an issue as the public sector was in both sides of the equation.

This mechanism was used for all the banks in difficulties, except in the case of Rumasa, which clearly exceeded the capacity of the new DGF—even after absorbing Corporación Bancaria. This holding company, which controlled 20 banks and some 300 nonfinancial corporations, was temporarily nationalized. An ad hoc rescue plan was implemented, which included the issuance of government debt and a contribution from the major Spanish banks. After a short period in the state's hands, the banks of the group were sold off separately to the major Spanish banks.

In short, the solutions that had to be adopted meant that depositors did not lose their savings and that the cost was largely borne by the taxpayer. On many occasions, capital injection was not enough; the losses on the assets were several times the capital. It was necessary to cleanse the balance sheets and to create a new "good bank."

Lessons

Overall, a stronger banking system emerged as a result of new capital, cleaner balance sheets, new owners, new boards, new managers, and a new regulatory framework. What are the lessons? I would be very cautious to draw much parallelism because each crisis is different. However, there are some elements that are important and can be useful to take into account when thinking about the present turmoil.

First, the importance of early action to address insolvency. The problem is that, at the beginning, there is insufficient information. Everything is very foggy. But you have to make the decisions and take necessary actions to assess as accurately as possible the situation of each of the main or troubled banks. Because of the uncertainty, there is a tendency to underestimate the magnitude and duration of the problems. Relying only on the recovery of the economy to solve insolvency issues is usually a bad approach; insolvencies grow much faster. Lending helps, but obviously providing liquidity is not a solution. Most important, and this happened in Spain, the provision of liquidity should not delay or distract from the need to address the main problem: the impaired assets, the consequent insolvency, and the restoration of confidence in the financial system.

A second lesson is that recapitalization is very important, but early recognition of asset impairment is key. In a weak accounting and

supervisory environment, as existed in Spain in the 1970s, bankers in trouble have a tremendous capacity to conceal losses. In particular, they did not recognize bad assets and avoided provisioning for them. But when bad loans are classified as good, equity and earnings—in the end—prove to be fictitious. This was fully known only when examiners came into the banks to make a full assessment of the situation.

One thing that the examiners at the Bank of Spain liked to repeat many times about the lessons of the crisis was that the insolvent banks showed different levels of losses, depending on who assessed them: the lowest level is the losses assessed by the banker; the next is that of the external auditor; then the supervisor; and finally the restructuring institution (DGF)—the one that is in charge of the intervention—provides the highest figure, and usually, this is the real one. The lesson here is the importance of the supervisors' proactive assessment of the health of the troubled banks.

When losses are high, recapitalization is not enough. It was not enough in most cases in Spain. More needed to be done. It was necessary to purchase assets, again, on a case-by-case basis, judging bank by bank. Losses in many cases ranged from three to seven times capital. So you cannot just refill the capital. You have to do more than that; you have to cleanse the balance sheet to obtain a "good bank" that can again be put in private hands.

Also, the lesson of the strict application of the principle that when you recapitalize involving taxpayer money, shareholders and management have to bear the burden, was also forcefully applied.

Finally, two more lessons. First, an exit strategy for the participation in the capital of banks is needed. In the case of Spain, regulations required banks to be restructured and ready for sale in one year. The average, in fact, was not one year, it was 14 months. In 14 months the DGF purchased a bank, recapitalized it, cleaned up the balance sheet, and sold it.

Of course, that is possible when it is a local crisis, when you have seven big banks that are not in such bad shape and are able to purchase the "good banks" after the restructuring process. It is much more difficult when you are dealing with a global crisis, in which capital is difficult to find, a deleveraging process is going on, and banks are in general not in good condition to be active buyers. So in that sense, we were lucky in the Spanish case.

Second, the purchase of weak banks by the largest Spanish banks led to a higher bank concentration. That raises the question of to what extent you need, in addition to restructuring banks, to have an idea of what you want the financial system to be at the end of the process. In addition to solving the crisis and restructuring the banking system, do you also want a greater rationalization, not just restructuring of the financial system? And that is a very difficult question. In principle, the answer would be yes, you need to think of that, but there are very few cases where this may happen.

In the case of Spain, the good thing is that there was increasing concentration but, at the same time, other offsetting things were happening, including the entry of foreign banks and the transformation of the savings banks into a banking charter providing additional competition. In that sense, despite some concentration as a result of the crisis, there was additional competition coming into the banking system. And then, of course, the process of accessing the European financial market also provided further competition.

In terms of strengthening the regulatory framework, the opportunity was grasped to improve the legal framework to promote competition and efficiency. The process of granting licenses was improved. A new set of offenses and the possibility to impose penalties on managers was introduced. There were a lot of things that were introduced, including a better framework for intervening and resolving banking crises, and so forth.

But in terms of the lessons that marked the way supervision has been done at the Bank of Spain since then, there are three worth mentioning. One is the need for comprehensive, consolidated supervision. It is more than emphasis; it is almost an obsession. Examiners analyze the banking group, the whole group, interpreting regulation very strictly to encompass as much as possible. The lesson from the crisis was that it is sometimes a subsidiary of a subsidiary that ruins a bank.

The second lesson is the need for strict asset quality control. Capital is meaningful only to the extent that the quality of the assets is properly controlled and assessed. You need on-site examination of the asset quality, proper loan classification, and sound provisions.

The third lesson is the need for a strong provisioning framework.

Two additional elements can be added with respect to capital, and this is really coming back to the issue of raising capital now, in this difficult situation. First, when you ask for capital from the private sector,

there must be expectations of adequate return on the capital. That is the only way you will get private capital.

And in the banking sector, in the near future, in the context of a rapidly decelerating global economy and a severe deleveraging process, it is very difficult to think that there is going to be high return on capital for a financial system of the current size. So it will be very difficult to expect capital from the private sector in the quantities required. Capital will have to come, at least temporally, from other sources, from the public sector. Otherwise, there will be a significant shrinking of the financial system, and some of the shrinking has to happen. It is part of the process of adjustment that needs to occur. But it is very important to make it as orderly as possible and to avoid overshooting.

Second, procyclicality is very important and we should continue to analyze that. There is, however, something that is even worse than having procyclical financial systems; that is, it is even worse having financial systems that are risk-blind. It is extremely important that financial systems are risk-sensitive, and regulation has to be risk-sensitive. And then you have to compensate as much as possible the procyclicality of the financial system. To some extent, if you are risk-sensitive, you are somewhat procyclical. But that is part of the adjustment mechanism. So we have to be careful when we talk about reducing procyclicality—not reducing, or at least, not reducing that much—the risk-sensitiveness of the financial system or of the regulation.

We will not be able to avoid some of the procyclicality because this is, to some extent, inherent to the risk-sensitiveness of the financial system. What we can do is to reinforce some of the elements that mitigate procyclicality. Some are already in Basel II and should be enhanced and developed further. We can also improve the provisions framework and the fair value approaches to be less procyclical, more accurate, and more consistent with good risk management. Introducing anticyclical elements in the regulatory framework is one of the key elements to prevent the next crisis.

Lessons from the 1995 Mexican Banking Crisis

Guillermo Ortiz Martínez

More than a decade has passed since Mexico experienced a severe banking crisis. Financial crises always share at least a few factors. But they also tend to have their own unique characteristics.

The origins of the 1994 Mexican banking crisis can be traced back to 1982, when the nation's banks were nationalized after a long period of remarkable growth and stability. Government-owned banks were subject to strict controls: deposit and lending rates were regulated, and high reserve requirements prevailed. Banks focused their business on providing resources to fund high and growing government deficits. As a result, bank credit to the private sector decreased through most of the 1980s. The incentives in place—overregulation, the absence of profit maximization, and inelastic demand for resources from the government—led to a loss of banking expertise. In fact, bank liabilities were perceived as direct government debt. Moreover, the supervisory incentives to monitor bank performance eroded.

In the late 1980s, the government embarked on an ambitious liberalization and deregulation program. Interest rate controls and reserve requirements were eliminated and credit allocation directives abolished. The government also returned the banks to private hands in the early 1990s. As part of far-reaching economic reforms, the size of the government was substantially reduced through the privatization of many public enterprises. As a result, the fiscal deficit decreased significantly, freeing

FIGURE 1. FISCAL DEFICIT
(As a percentage of GDP)

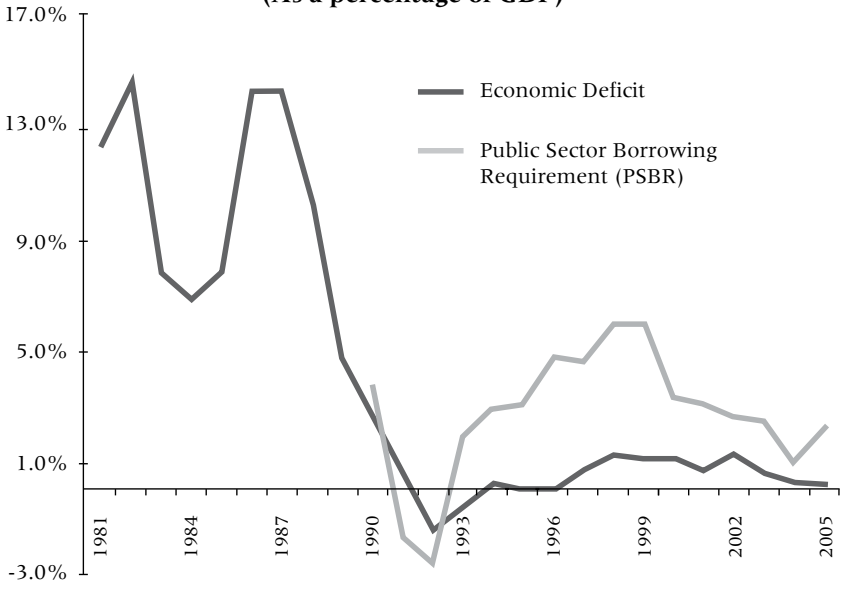
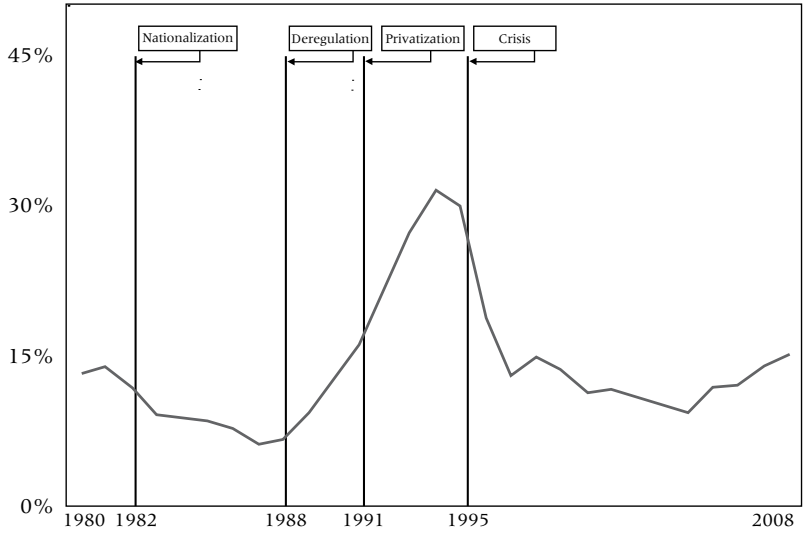


FIGURE 2. MEXICAN BANKS' CREDIT TO THE PRIVATE SECTOR
(As a percentage of GDP)



significant resources for lending to the private sector (see Figure 1). Furthermore, the abundance of capital flows during that period allowed Mexican banks to tap the international markets in large amounts.

The combination of abundant liquidity, macroeconomic stability, financial deregulation, lack of proper supervision, and eager but inexperienced private bankers proved to be fatal. Banks extended a large number of loans without sufficient credit analysis. During 1989–94, the total loan portfolio grew at an average annual rate of over 30 percent in real terms (see Figure 2). Nonperforming loans as a share of total loans began to rise well before the 1994 crisis.

In 1994, the country suffered a series of domestic and foreign shocks. On the domestic front, the leading candidate in the presidential election of 1994 was assassinated. On the foreign front, the Federal Reserve started to hike its policy rates aggressively. Both events triggered large capital outflows. The fixed exchange rate regime prevailing at the time did not provide the government with much room to maneuver. The peso-dollar exchange rate depreciated 92 percent by mid-March 1995. This, together with the high interest rates that prevailed during 1995, and the fall of real disposable income, sharply deteriorated both sides of bank balance sheets: borrowers stopped servicing their debts, and depositors demanded higher interest rates and withdrew resources from the financial system. The result was the bankruptcy of the banking system and a very deep financial crisis.

The Authorities' Response

The feasibility and efficiency of the measures adopted to face a systemic banking crisis depend heavily on the institutional framework in place and on the political consensus that can be achieved. The response of the authorities was conditioned by:

- A weak legal framework that did not provide them with the means to quickly and expediently resolve banks in trouble. In particular, the law did not give authorities enough powers to take over banks with positive capital, which could have led to costly and time-consuming controversies with shareholders.

- Banks had been recently privatized after being in public hands for around 10 years. It was thought that renationalizing the banks could open the way for a political backlash against market-oriented

policies. It had taken the government much political capital—10 years and two presidential administrations—to be able to sell the banks back to the private sector after the 1982 nationalization.

Hence, Mexico, in stark contrast with countries that used nationalizations as part of their resolution methods, ruled out nationalization. However, the severity of the crisis forced the authorities to act quickly to stabilize the exchange rate and to reduce the risk of bank runs.

As in the current crisis, the initial reaction of the government was focused on dealing with immediate liquidity and capitalization problems. A summary of the main actions taken follows.

Dollar liquidity facility: Banks found it increasingly difficult after the depreciation of the peso to roll over their dollar-denominated debt. The high stock of foreign and domestic dollar-linked government debt (*tesobonos*) held by nonresidents raised concerns about the capacity of Mexican borrowers, including banks, to service their foreign obligations. To prevent banks from acquiring dollars in a very illiquid foreign exchange market and to help them service their obligations, a special dollar credit window was established at the central bank.

Temporary Capitalization Program: The capital-asset ratio for half of the commercial banks fell below the 8 percent minimum. Banks were required to issue subordinated debt that was acquired by the Deposit Insurance Agency. The debt was callable, allowing banks that could restore their capital ratios to reacquire it. The debt would be converted into common equity if not paid back before five years, or if the capital-asset ratio fell below certain parameters. Most banks paid their debt after one year. Thus, the mechanism gave some breathing room to most banks so they could find more permanent solutions. However, other institutions had to receive other forms of government support or were later intervened.

Capitalization and loan purchase mechanism: The Deposit Insurance Agency bought bank nonperforming loans (NPLs) on the condition that shareholders provide one peso of new capital for each two pesos of loans bought by the agency. The NPLs were bought with promissory notes issued by the agency. Banks kept the responsibility of managing the NPLs. Income from NPLs was to be used to cancel the promissory

notes. After 10 years, the amounts of promissory notes not canceled with the proceeds of the NPLs would be considered a loss, which would have to be shared between the banks (at 30 percent) and the Deposit Insurance Agency (at 70 percent).

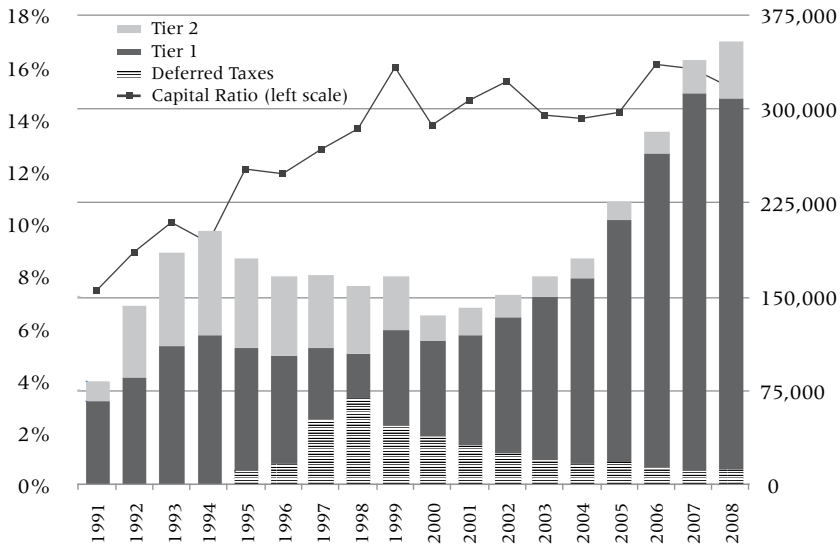
There was conflicting evidence as to whether banks had enough incentives to recover the NPLs sold to the Deposit Insurance Agency. In some cases, the banks' share of the losses was lower than the NPL recovery costs so they did not make efforts to recover the NPLs.

Bank interventions: Twelve banks were taken over by the authorities between the end of 1994 and August 1997, accounting for 19 percent of the industry's assets. Two of these banks were intervened before the onset of the crisis in December 1994, but the rest had participated in government support programs.

Other actions taken include bringing provisioning and capitalization rules in line with international standards.

Bank recapitalization: The lack of domestic resources to recapitalize the banking industry after the crisis led the authorities to remove some restrictions on the foreign ownership of banks. There were two main methods of entry for foreign banks: some banks acquired minority stakes in existing banks, while others acquired banks that had been intervened by the authorities. To facilitate capital injections into the banking system, legal steps were taken to reform the ownership structure of banks, raising the levels that limited ownership by both individuals and foreign investors. Market share ceilings previously established under North American Free Trade Agreement (NAFTA) negotiations were liberalized. This change, however, did not allow foreign majority control of banks with a domestic market share larger than 6 percent. In practice, this meant a limitation on foreign majority ownership of the three largest banks in the country, which was set at a maximum of 20 percent of paid-in capital. Finally, in late 1998, the last restrictions on foreign bank ownership were removed, paving the way for the acquisition of the largest Mexican banks by foreign banks. In the following five years, five of the six largest banks, accounting for nearly 80 percent of assets, were acquired by foreign banks (see Figure 3).

FIGURE 3. MEXICAN BANKS' REGULATORY CAPITAL
(Billions of pesos in real terms and percentage)



Support programs for debtors: The Mexican government implemented these programs to help borrowers reschedule their debts and to avoid the costly consequences of the proliferation of the "nonpayment culture."

Both high inflation and flexible interest rates led to accelerated debt amortization in real terms. During the first quarter of 1995, interest rates reached 70 percent while inflation was more than 50 percent. A debtor able to service his or her debt would have seen the real value of the loan fall by more than 70 percent in real terms. Of course, repayment under these conditions was highly improbable.

To deal with this problem, the government introduced an inflation-indexed unit of account, the UDI. The peso value of the UDI follows the Consumer Price Index with a short lag, so it has a constant real value. Payments on credits restructured in UDIs therefore remain practically constant in real terms during the term of the loan. The government provided support to banks and borrowers to restructure debts to UDI-denominated contracts.

Starting in September 1995, the government introduced a series of programs designed to help credit card, small business, agricultural, and

mortgage borrowers keep servicing their debts. Benefits consisted of temporary interest rate subsidies, the standardization of restructuring procedures, and a temporary halting of foreclosure proceedings against defaulting debtors.

Additional benefits for mortgage debtors were also granted and were targeted at mortgagees who had borrowed before May 1996, and were to restructure their credit using UDIs before end-September 1996. The weak real estate market had resulted in many cases where the value of the collateral had fallen below the outstanding principal of the UDI-denominated credits. Borrowers benefited from a scheme of reductions on payments scheduled for the following 10 years, starting at 30 percent during 1996 and decreasing progressively to reach 5 percent by 2005.

Finally, the agricultural and fishery sectors and small and medium-size firms received special incentives to keep servicing their debts. Clear-cut rules were established to limit support to debtors who were servicing their debts. Debt payments were reduced, with the cost of the program borne by the federal government and the banks. A particularly interesting and novel feature of this scheme was that the share of total costs assumed by the government increased in proportion to new loans given by banks to these sectors.

Lessons

Drawing lessons from past crises is problematic because financial systems are in constant change, and that change occurs at an increasingly fast pace. New crises are different in many respects from those of the past. The blurring of borders among markets, industries, and jurisdictions, and the presence of global banks, all have pronounced impacts on the characteristics of the current crisis.

Nevertheless, some lessons still apply. First, the success of any effort to deal with banking problems depends on how quickly authorities have a clear and credible plan of action. It is often the case that initial programs tend to underestimate the magnitude of the problems. At the initial stages of a crisis, there is too much uncertainty around the magnitude of bank losses, and the capacity of bank capital to absorb them. Losses are usually much higher than originally estimated. The credibility of the authorities' response depends on the amount of resources that are committed and on the public perception of the feasibility of the plan.

Second, in our experience, measures that aim at recapitalizing banks with public funds that are independent of actions to clean up bank balance sheets do not achieve their objective and will not contribute to the restoration of credit. Thus, the possibility of buying assets directly from banks is essential to restart credit. Buying assets from banks removes once and for all the source of uncertainty. A cleaner bank can raise capital or attract buyers. It also allows banks to return faster to the business of lending, because they do not have to devote scarce resources to managing troubled assets.

However, the purchase of assets does not come without problems. If bank assets are bought at prices above their "true" value, bank regulatory capital improves, but managers then have incentives to increase their sales to the government. By using fair value to set prices, part of the loss is directly recognized when the asset transfer takes place. Market-based pricing appears to reduce moral hazard and potential burdens for taxpayers; however, the speed of the program may be reduced since banks may be reluctant to face losses.

In the current crisis, buying assets from banks is more difficult because, in contrast to previous crises, securities assets are more complex than assets previously managed, and the amount of troubled assets on bank balance sheets in the present crisis is highly uncertain.

Third, regulatory forbearance should be avoided because it only increases the costs of resolution and delays the resumption of credit.

Fourth, full transparency is a key ingredient for gaining credibility.

Fifth, if support programs are implemented for debtors, benefits should be aimed at reaching those debtors who keep up their payments or, having been in arrears, return to current standing.

Sixth, the correct sequencing of measures is crucial. The intervention of the government in systemic crises usually consists of providing incentives to shareholders to recapitalize their institutions and to debtors to remain current in servicing their debts. An important lesson is that banks receiving these incentives should effectively use them to return in time to the business of lending. It is therefore important that incentives granted to banks are accompanied by the potential threat of takeover or government intervention.

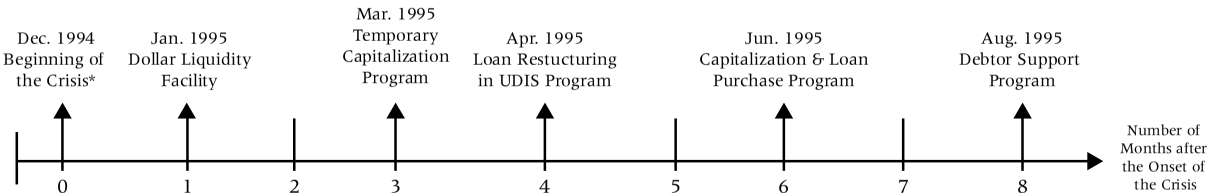
Finally, one important legacy of the crisis should be to identify legal and regulatory gaps, especially those related to the resolution framework. A crisis and the use of public funds should be leveraged to make

the necessary amendments to allow the rapid response of authorities to banking problems in the future.

To summarize, as the banking crisis unfolds in some developed countries, we see notable similarities between the authorities' responses in these countries and the measures adopted by Mexico in the mid-1990s (see Figure 4). After an initial period of uncertainty and estimation of losses, accompanied by the provision of liquidity from the central bank and case-by-case capital injections, governments have gradually moved toward the establishment of support programs for banks and, in some cases, debtors. Particularly important is the adoption of support programs to recapitalize banks and remove "toxic" assets from their balance sheets, through the use of asset management companies. By acting decisively in this direction, authorities in major industrialized countries will contribute to the restoration of sound banks, allowing the resurgence of credit.

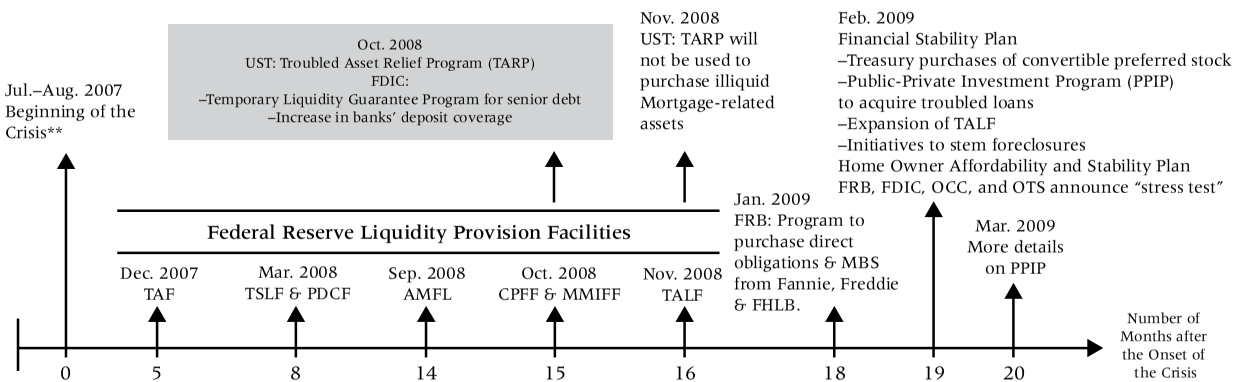
FIGURE 4. FINANCIAL AUTHORITIES CRISIS RESPONSE PROGRAMS: MEXICO AND THE UNITED STATES (Timelines)

Mexico



* The onset of the crisis is December of 1994.

United States



** The onset of the crisis is July–August 2007.

LEGEND

AMFL – ABCP Money Market Fund Liquidity Facility
CPFF – Commercial Paper Funding Facility
FDIC – Federal Deposit Insurance Corporation
FHLB – Federal Home Loan Banks
FRB – Federal Reserve Bank
MBS – Mortgage-backed security
MMIFF – Money Market Investing Funding Facility
OCC – Office of the Comptroller of the Currency
OTS – Office of Thrift and Supervision
PDCF – Primary Dealer Credit Facility
TAF – Term Auction Facility
TALF – Term Asset-Backed Securities Loan Facilities
TSLF – Term Securities Lending Facility
UDIS – *Unidad de Inversión* (inflation-indexed investment units)
UST – U.S. Department of the Treasury

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