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By O. Emre Ergungor

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Sweden was one of the Scandinavian countries experiencing a severe financial crisis In the late 1980s and early 1990s. I review the policy choices and external factors that pushed the country's financial system over the edge and then examine the steps the government took to make its resolution of the crisis one of the most successful in the past 30 years.

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Introduction

In the late 1980s and early 1990s, the Scandinavian countries underwent their most severe financial crisis of the postwar period. While such crises are not rare, what sets these countries apart is their freedom from the institutional weaknesses that dogged less-developed countries in the 1970s and emerging-market economies in the 1990s (slow bankruptcy procedures, lax law enforcement, regulators who lacked the power to close banks, and so forth). This makes the Scandinavian nations an interesting laboratory for examining how crises develop and are ultimately resolved.

In this *Policy Discussion Paper*, I focus on the experience of Sweden, first reviewing the policy choices and external factors that pushed this country's financial system over the edge, and then discussing what steps the government took to make its crisis resolution process one of the most successful of the past 30 years. The paper emphasizes the resolution process rather than the way in which the financial crisis unfolded, because any number of events can lead to crises, but the general principles for resolving crises successfully are universal.

The Road to Crisis

In the mid-1970s, Sweden was a small, open economy, whose growth depended heavily on exports. Its economic policies were influenced by the core tenet of its political system: The government's primary focus should be keeping unemployment low and promoting economic equality. At the same time, its policies had to be aligned with the central bank's commitment to keeping the exchange rate fixed relative to a basket of Sweden's trading partners' currencies (details later), all within the context of a closed-capital-account environment.

How did these constraints affect the economy? The success of the export-based growth model is conditional on keeping the tradable goods industries competitive in global markets; this means that production costs cannot grow faster than competitors' as long as the exchange rate is fixed. Yet in the 1970s, wage inflation grew out of control. The seeds of inflation had been sown in the 1960s and early 1970s, when policymakers thought they faced only a temporary slowdown in productivity growth and in the development of Sweden's primary export industries (such as forestry products and ship building), but in reality, the slowdown had resulted from tougher foreign competition. Although the natural rate of employment was rising, the government would not back off from the unsustainable policy of full employment to which it had committed itself. Instead, it decided to overcome economic weakness by increasing its expenditures on welfare programs (Bosworth and Lawrence, 1987), a further sign that the government thought the decline in productivity growth was temporary. Workers in export industries who lost their jobs were retrained and found employment in the white-collar service sector or

the public sector. The ensuing growth of public-sector employment was remarkable: The sector's share of total employment grew from 20 percent in 1965 to 30 percent in 1975 and 38 percent in 1985.[1]

In hindsight, this policy seems to have been a costly alternative to higher unemployment. As budget deficits grew, the holes were plugged by foreign borrowing and higher income taxes (the marginal income tax rate on full-time workers earning the average hourly wage increased from 35 percent in the second half of the 1960s to 65 percent in 1976). The disincentive to invest created by higher income taxes probably cost Sweden dearly in future private-sector job creation. And the exchange rate risk the government assumed by borrowing in international markets came back to haunt it in later years, when rising labor costs and deficits necessitated large devaluations.[2]

The growth in public-sector and white-collar employment also had an unintended consequence: It strengthened the unions that represented these workers, which, given the circumstances, played a significant role in breaking the link between wage growth and productivity growth. The Social Democrats who ran Sweden from 1932 to 1976 had a very close relationship with the country's most powerful union of blue-collar workers, the *Landsorganisationen* (Weaver, 1987). Both sides understood that their interest lay in keeping export industries competitive by holding wage growth in check. The three white-collar unions, which also participated in the negotiation process, were too small to dictate wage policy. As public and white-collar employment grew and these workers gained bargaining power, the unions began to compete with each other for new members. But public-sector and white-collar workers had no incentive to reduce their wage demands so that export industries could remain competitive, so unions forsook the centrally determined wages and made side deals with employers for higher wages (Flanagan, 1987). Soon thereafter, the link between wage growth and productivity growth broke down. In addition, Sweden's generous unemployment benefits may have put the unions in a heads-we-win-tails-the-government-loses situation. The unions won if they could negotiate higher wages for their members, and if companies failed, their members were still covered by government insurance (Calmfors, 1987).

The Stage Is Set

High inflation made the fixed-exchange-rate policy untenable, so the krona was devalued several times. Foreseeing the unsustainability of the fixed exchange rate, the unions demanded higher wages in anticipation of the krona's decreased purchasing power. When consumer price inflation hit 15 percent in 1980, the government decided to break the inflationary spiral (i.e., inflation expectations) and promote economic growth through a series of financial reforms, made at intervals throughout the 1980s. The reforms have three major components that are relevant to our discussion.

1. This growth is due, in part, to the entry of women into the labor force and their taking of jobs in the public sector. So, in addition to the switch from the private to public sector jobs, the public sector also grew internally.

2. This is similar to the Southeast Asia crises, in which growing fiscal deficits rendered the fixed-exchange rate regime increasingly unworkable—and made devaluation imminent.

First, Sweden lifted restrictions on borrowing in the 1982–85 period. Until then, the government had tried to control the quantity and price of credit, favoring major exporting companies over smaller enterprises (such as those in property development and real estate management) and households. As might be expected, a gray market developed to circumvent these measures (Tranøy, 1999).[3] Over time, the Riksbank (and the administration) concluded that these interest rate and credit ceilings were unsustainable and restricted growth; consequently, the credit market was fully liberalized in 1985. Not surprisingly, the formerly credit-constrained Swedish companies and households ran to their lenders, and a credit boom followed. After the capital account was opened in late 1980s, these companies gained further freedom to borrow in international markets.

Second, a series of devaluations in 1981 and 1982 had temporarily revitalized Sweden's export industries. However, inflation remained out of control despite many ill-advised attempts to restrain wage inflation through labor negotiations and price and rent freezes. When those attempts failed, the government gradually lifted restrictions on foreign capital flows between 1986 and 1989 as a commitment to a nonaccomodation policy, thereby abdicating its discretion over domestic monetary policy to more-credible foreign central banks. The krona was still anchored to a basket of currencies, primarily the German mark, based mostly on their trade weights. However, the weight of the U.S. dollar in the basket was double what it would have been if it had been based solely on the size of its trade with Sweden. With the decline in the dollar relative to the mark during the 1980s, this weight gave an advantage on Swedish exports to Germany (Bosworth and Lawrence, 1987b).

Third, the government made a commitment to stop borrowing in international markets and borrow only domestically in kronas. Foreign borrowing had been seen as a way for the government to keep real krona borrowing rates low by staying out of the domestic money market and thus avoiding the crowding out of private firms (Bosworth and Lawrence, 1987b). An unintended consequence of this policy, however, was that banks borrowed in foreign markets and lent to the government in kronas. In essence, this policy transferred foreign exchange risk from the government to the banks.

Unfortunately, these financial reforms were not enough to overcome rigidities in the Swedish political system and labor markets (Weaver, 1987). With full-employment targets and the associated incentives to workers and unions still in place, the economy's devaluation-induced competitiveness proved to be temporary. Although inflation cooled initially, it never came down to the levels of Sweden's trading partners. Consequently, maintaining the currency peg required high domestic real interest rates. The peg must have seemed credible to the many Swedish companies that borrowed heavily in foreign currencies to escape high domestic real interest rates. In addition to banks' borrowing abroad and lending in the domestic market, the real economy also took on large exposure to exchange rate risk. Before the crisis, more than 50 percent of all corporate debt was foreign-currency denominated (Drees and Pazarbasioglu, 1998).

3. In a "gray" credit market, noninstitutional lenders and borrowers interact directly, using banks as brokers.

Borrowing cheap abroad and lending at higher rates domestically helped banks finance a consumer lending surge. Also, foreign bank entry was allowed in 1986, one year after interest rate liberalization, so locals may have wanted to move first in a growing credit market. It is possible that in a new financial environment, bankers did not fully understand the risks they were taking. A statement from the then-Riksbank-Vice-President Lars Heikensten (head of the Riksbank from 2003 to 2006) supports this view:

> When deregulation was a fact, bank managers saw a chance of gaining market share and increasing revenues by taking new risks, but did not clearly see the dangers in a lack of the necessary expertise.

As often happens in such cases, the real estate market experienced a speculative boom parallel to the rapid growth in credit (Ergungor and Thomson, 2006). As figure 1 shows, home prices more than doubled between 1981 and 1991.[4] Heikensten referred to this sharp increase in home prices as a "speculative bubble."

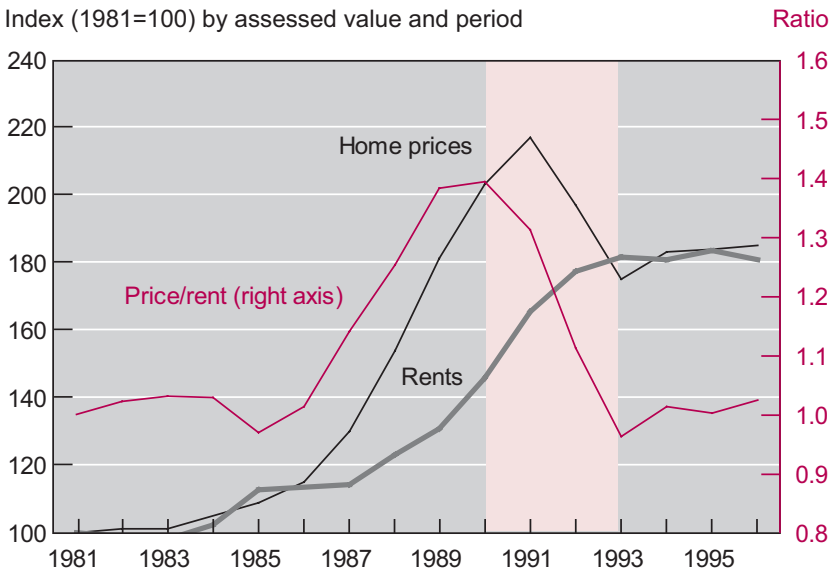
The impact of credit growth on household finances is apparent in figure 2. Despite the rising cost of credit, Swedish households' outstanding debt increased rapidly after 1986.

The Dominos Fall

The shock that pushed Sweden's teetering economy over the brink of crisis came from German unification in 1990, when the mark weakened against the U.S. dollar and Germany's real interest rates jumped as a result of high unification costs. The fixed exchange rate obliged Sweden to import the higher German real interest rates, pushing its own al-

4. The price-rent ratio is conceptually similar to the price-earnings ratio for stocks. However, in figure 1, the rent index that I use does not reflect the estimated rental income stream of the homes included in the price data. It is also worth noting that rents are tightly controlled in Sweden, which further reduces their usefulness as a measure of market fundamentals. Therefore, the ratio is only for illustrative purposes.

FIGURE 1 HOUSING PRICE-RENT RATIO IN SWEDEN



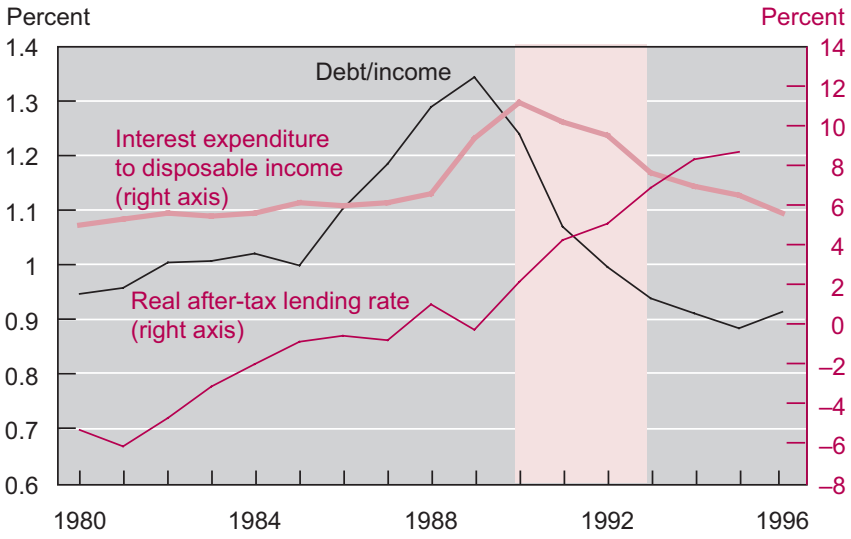
Note: The shaded bar marks the recession.
Sources: Statistics Sweden; and the Riksbank.

ready-high domestic rates even higher. The currency basket's tilt in favor of the U.S. dollar, which formerly had given Swedish exporters a competitive edge, came back to haunt them when the krona became overvalued. An attempt to fix the country's fiscal imbalances dealt a final blow to its weakened economy: A change in tax policy in the late 1980s abolished the tax-deductible status of interest paid on consumer debt, effectively increasing households' interest burden.

It is hard to maintain speculative asset price growth when the credit feeding it becomes costlier. From 1990 to 1995, residential real estate prices dropped 25 percent and commercial real estate prices dropped 42 percent (inflation-adjusted rates). Banks' nonperforming loans mushroomed from 0.2 percent–0.5 percent of total loans in the 1980s to 5 percent in 1992. Then came George Soros's infamous 1992 attack on the European exchange-rate mechanism (ERM). After the krona was floated, domestic banks' losses increased significantly.[5] Nonperforming loans hit 11 percent of GDP in 1993. The institutions that suffered most (especially among the large banks) were those funded by foreign funds.

The first victims of the economic downturn were two of Sweden's six largest banks, Första Sparbanken and Nordbanken.[6] After they announced in the fall of 1991 that they could no longer meet the regulatory capital requirements (8 percent of assets), the state eventually guaranteed all their existing liabilities, took full ownership of Nordbanken, and helped Första Sparbanken with a loan guaranty to the owners. Within a year, a third major institution, Gota Bank, became undercapitalized. When its largest owner refused to provide additional funds, the state guaranteed all its liabilities to prevent a meltdown; Gota declared bankruptcy the same month. Once again, the state took ownership of the bank.

FIGURE 2 DEBT LOAD OF SWEDISH HOUSEHOLDS



Note: The shaded bar marks the recession.
Sources: Statistics Sweden; and the Riksbank.

5. Once the fixed exchange rate was abandoned, the krona immediately dropped by 11.5 percent against the reference basket of currencies. A year later, the decline exceeded 30 percent.

6. I borrow this description of events from Calomiris, Klingebiel, and Laeven (2004) and Bergstrom, Englund, and Thorell (2003).

After acquiring Nordbanken, the state owned 22 percent of all banking-system assets. As a resolution strategy, it elected to divide each bank into two separate entities, one with its good assets, the other with its bad ones. The entities holding the good assets continued to operate under their old names and were later merged under the name Nordbanken. The bad assets were transferred to two asset management companies (AMCs): Securum for Nordbanken's assets and Retrieva for Gota's.[7]

The Recovery

In creating the AMCs, the legislature gave them a high degree of independence from political and regulatory constraints. The state never explicitly assumed the role of an active owner; however, the chairman of Securum's board resigned when he could not agree with the Ministry of Finance about compensating the AMC's leading staff, so the state seems to have had some say, at least on compensation-related issues. Still, the AMCs, which were adequately overcapitalized in relation to the expected costs and losses during their expected life-time, held their own purse strings. Securum alone was capitalized with SEK24 billion, an amount equal to Sweden's defense budget. This deliberate overcapitalization enabled the AMCs to carry out their salvage operations autonomously; they did not have to request funding from the legislature, which might have tried to influence their decisions.

The AMCs were also free of many regulations and activity restrictions that applied to banks, even though managing the loan portfolio, collecting payments, and possessing collateral in case of bankruptcy might be considered banking activities. The AMCs needed broad leeway because they had to be more than banks. They injected equity into troubled borrowers to maintain and restore their values as well as revive the real economy. In many instances, this meant that they had to take over defaulting companies. They became responsible for running those companies, much as a private owner would (including hiring and firing management, rehabilitating neglected property, acquiring supplementary property, changing the focus of companies' operations, and so on) until liquidation.

A second area in which they were exempt from bank regulation was the timing of collateral liquidations. Swedish banks were required to dispose of any collateral within three years.[8] Because the AMCs' portfolio was so large, policymakers worried that selling all the problem assets within a short period would put too much pressure on market prices. To ease those concerns, the AMCs emphasized from the very beginning that cleaning up the bad assets would take a long time, more than a decade if necessary (Bergstrom, Englund, and Thorell, 2003).

In the end, the resolution occurred much more quickly than initially anticipated, thanks to the rapid growth of the Swedish economy, which paralleled the global economic boom of the 1990s. Liquidations were completed by 1997 at a smaller cost to the taxpayers than was anticipated. Securum returned to the state nearly SEK14 billion ($1.8 billion in 1997

7. Part of the reason for rehabilitating an existing insolvent bank by stripping away its bad assets stems is a desire to protect (or at least salvage) the value of the bank's relationships, particularly its lending relationships (see Diamond, 2001).

8. During the crisis, the Swedish banks were also exempted from the three-year rule.

dollars) of its SEK24 billion ($4.5 billion in 1997 dollars) initial capital—admittedly, in depreciated kronas.[9] That being said, the cost of the crisis to Sweden was not limited to the capital spent by the AMCs. There have been significant income and output losses associated with the crisis. In the early 1970s, Sweden had one of the highest income levels in Europe; today, its lead has all but disappeared. Cerra and Saxena (2005) found that the crisis caused a permanent decline in output that can explain the *entire* fall in Sweden's relative income. So, even well-managed financial crises don't really have happy endings.

Lessons of 20/20 Hindsight

How much of Sweden's success in crisis resolution can be credited to its wise policies and how much to a strong global economic expansion in the years after the crisis? Did sensible policies pay off, or did the rising tide lift all boats? I suspect it was a bit of both. As evidence for the rising-tide hypothesis, foreign demand for Swedish goods and services (measured by exports) rose from 0.89 percent of GDP in 1990 to 1.2 percent of GDP in 1995. Unfortunately, there is no evidence that quantifies each factor's contribution. Still, we can evaluate the resolution strategy in light of previous crises and those that followed.

Ergungor and Thomson (2006) point out a number of traits that successful resolution strategies have in common. I focus here on four: First, the process must be *transparent*; expected losses must be recognized early on to preserve the market's confidence in the process. Second, crisis resolution is best handled by a *politically and financially independent agency*. An independent structure is desirable because it shields decision makers from political pressures, which mount as banks are closed and borrowers are pushed into liquidation. The decision to close a bank or a business must be an economic—not a political—one. Financial independence is necessary to give credibility to political independence: If a government agency holds the purse strings, it can dictate policy. Financial independence is also important because it allows rapid response when funding needs emerge suddenly (as when new losses are discovered in a financial institution) and waiting for the legislature to appropriate funds is impractical.[10]

A case in point is the Resolution Trust Corporation (RTC), which was founded in 1989 to handle the U.S. savings and loan crisis. With no internal source of funding, it relied on Congressional appropriations, which made long-term planning difficult. Between March 31, 1992, and December 17, 1993, the RTC had to reduce its crisis-resolution activity for lack of funds (Spade and Thomas, 1998; also see Kane, 1990).

The third trait of a successful resolution strategy is the *maintenance of market discipline*. Without it, the stage is set for future crises. For example, extending blanket guarantees during a crisis weakens the market discipline exerted by uninsured creditors in the postcrisis period. Uninsured depositors and nondeposit creditors have strong incentives

9. Constant dollars are calculated using the GDP deflator.

10. As a comparison, in its financial crisis, Finland decided on a fixed and limited amount of funds for bank resolution, and when this amount proved inadequate later, a new Parliamentary decision had to be requested and taken at a significant cost to the credibility of the resolution process.

to monitor and discipline financial institutions by raising their cost of funding when their risk increases. At some point, as the probability of default increases, uninsured claimants will threaten to liquidate their claims. If market discipline is to be effective, these investors must be credibly exposed to loss; that is, they must suffer the consequences of ignoring or failing to detect signs of trouble. An explicit blanket guarantee of all the liabilities of problem institutions in the throes of a crisis reduces the credibility of claims that de facto guarantees will not be extended in future bank failures.

Similar incentive problems arise when regulators and policymakers respond to the crisis by bailing out banks' creditors through a policy of capital forbearance and unlimited liquidity support. Although bailouts tend to alleviate pressures on the financial system, forbearance and unlimited liquidity support allow uninsured investors to take their money out of the bank, shielding them from loss and reducing their incentive to monitor in the future. In essence, capital forbearance and unlimited liquidity support provide an implicit blanket guarantee and serve as a taxpayer-funded rescue package for sophisticated investors who purposely took on risk and were compensated for bearing it.

The fourth—and final—requirement for successful crisis resolution is a plan to jumpstart credit flows in the financial system by *repairing the damaged creditworthiness of the real economy*. Even if banks can be completely restored to health through recapitalization, borrowers may be in no position to repay any new loan they may get. This was the case in the United States during the Great Depression. The Reconstruction Finance Corporation (RFC) was founded in 1932 to handle banking crises. Noticing that loan growth was very slow, in 1934 Congress authorized the RFC to make loans to business and industry. The RFC invited local bankers, who would have superior knowledge about borrowers, to participate in the lending. The banks' response was unenthusiastic. Jesse Jones, head of the RFC under President Franklin D. Roosevelt, reported (Jones and Angly, 1951):

> At one time I sent a letter to every one of the 14,000 banks in the United States asking their cooperation in making loans to business. Only 1 percent acknowledged receipt of our letter. That seems hardly credible, because more than half of the banks had been directly assisted by the RFC and all had been indirectly assisted; but it is human to forget.

The RFC was disappointed by the lack of participation and criticized the banks for it. Jones even admits doing some arm twisting to induce bankers to lend, even when denying the loan might have been the right decision. When they refused to participate despite such pressure, the RFC made the loans itself. In hindsight, Jones admitted that these were loans that "no one would have expected a careful banker to make" because businesses' balance sheets had been severely damaged by the long recession and lack of funding.

How does Sweden's experience relate to these four traits of successful crisis resolution?. With respect to *transparency*, Sweden did particularly well in terms of recognizing the magnitude of the losses, assigning realistic values to seized collateral, and giving markets a clear picture of how the crisis was being managed (Ingves and Lind, 1996; Bäckström, 1997).The Swedes also get high marks on the second trait, the *independence of the resolution agencies* they created. As Klingebiel (2000) notes, the success of asset management companies depends greatly on the type of asset that must be disposed of, professional management, political independence, a skilled resource base, appropriate funding, adequate bankruptcy and foreclosure laws, good information and management systems, and transparency in operations and processes. In every category, Sweden is a success story.

As to the third trait, resolution policies that *maintain market discipline,* Sweden, to its credit, refused to go down the path of forbearance and unlimited liquidity support. However, by guaranteeing all bank liabilities, Sweden is likely to have reduced incentives to monitor bank risk on the part of uninsured creditors, who would have anticipated implicit insurance. Such a guarantee, intended to calm markets at the onset of a crisis, has been governments' typical response to crisis situations around the globe. However, being typical does not make it the only alternative. Kane and Klingebiel (2004) argue that the best response would be a bank holiday long enough to allow bank examiners to determine the extent of the damage, while also giving insured depositors access to their funds.This response would solve the problem of market discipline because uninsured depositors could not move out and would be forced to take a haircut if losses were large. It would also save taxpayers money because banks that were not viable would not receive liquidity support during the holiday and good money would not be thrown after bad to keep a nonviable institution operating.

The Swedish experience also demonstrated the fourth trait of a successful resolution, as the asset management companies showed clearly their ability to *repair the creditworthiness* of the economy. They moved quickly, making equity injections to revitalize borrowers who were damaged but still viable, and acquiring a majority of their shares in most cases. The ones that were deemed beyond repair were liquidated, and their collateral was seized. The efficiency of Sweden's legal infrastructure was a critical factor in the country's speedy resolution process (Klingebiel, 2000).There was some criticism that the AMCs were trigger-happy in initiating liquidations and too quick to dispose of the assets (mentioned in Bergstrom, Englund, and Thorell, 2003). If the AMCs had waited a few years, the quick-disposition argument goes, the government might have recovered a larger share of its losses by selling the assets at higher prices during the recovery. The main weakness of such criticism is that the market may never recover if a large inventory of assets is sitting on the sidelines, ready to be dumped onto buyers when prices go up.

Whether or not the AMCs were too quick in initiating liquidations is debatable, but there seems to be no conclusive evidence either way.

Still, there may be room for criticism (again, in hindsight) of the methods used to rescue viable firms. One alternative to injecting equity and assuming ownership of firms is provided by Mexico's response to the 1994 Tequila Crisis. After some failed attempts to revive the economy after the onset of crisis, the Mexican government started the Punto Final program in December 1998, targeting mortgage holders, agribusiness, and small- and medium-sized enterprises. The program offered debtors a subsidy of up to 60 percent of a loan's book value if they began to repay it. The cost of the subsidy was shared by the banks and the government. Moreover, the government promised to increase its share of the subsidy by one peso for every three pesos in new loans that the bank made.

This program incorporated some very intelligent incentives. First, borrowers could get a chunk of their debt erased only if they started to repay it. Because a borrower who is not hopeful about his business's prospects is unlikely to throw more money at it, this subsidy mechanism reveals which borrowers expect to do well in the future, solving the adverse-selection problem. Second, the program gave banks an incentive to provide new credit: They could reduce the amount they had to charge off as a part of the subsidy deal by making new loans. Third, the program got more bang for the buck by targeting small enterprises, the businesses that depend most heavily on banks for funding and are least likely to have government connections.[11]

I am not suggesting that this strategy would have been more successful in Sweden than the AMCs' quick-liquidation approach, only that—in hindsight—one can see alternatives to (or steps that might precede) taking possession of a troubled company.

Conclusion

We have analyzed the resolution of the financial crisis that hit Sweden during the 1990s in terms of four traits that are essential to a successful crisis resolution in a developed economy: transparency, independence, the maintenance of market discipline, and the restoration of credit flows. Transparency is necessary to gain credibility in the market. Independence of the agencies charged with resolving the crisis protects the resolution process from political pressures, prevents politically connected forbearance, and guarantees that taxpayers' money is used to save viable banks and borrowers, not the well-connected ones. Policies that preserve market discipline are critical for reducing the likelihood and severity of future crises. Finally, it may be necessary to rehabilitate the real sector because the financial sector's troubles may cause a credit crunch that damages healthy firms. Without healthy borrowers, bank restructurings will fail to restart credit flows. The keys to successful rehabilitation are to use incentives that separate viable from nonviable borrowers and to dispose of seized collateral as quickly as possible.

11. Although it incorporated the right incentives, the program was impaired by Mexican supervisors' lack of enforcement authority, an inefficient bankruptcy system, and the presence of politically connected lending (Calomiris, Klingebiel, and Laeven, 2004). One would hope that these problems would be less prevalent in a developed economy.

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