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g ... y of bringing some calm to markets, history shows that such guarantees have their dangers: They bail out investors who should have done a better job at evaluating and managing their risks and disciplining financial institutions that were mismanaging their money. It is worth emphasizing this point, as the smooth operation of our financial system depends on market discipline. In normal (stable) financial environments, investors protect their investments by actively monitoring people who manage their money. By refusing to provide funding, they can raise borrowing costs for firms and force ineffective or imprudent management to change. Limiting losses for investors during a crisis causes them to anticipate bailouts in the future, which erodes their incentive to do such monitoring during the good times. Likewise, pledges by policymakers to extend unlimited liquidity to troubled institutions open the door for investors to exit their investments without incurring losses in their entirety, potentially leaving taxpayers to take the hit further down the line.

Nevertheless, it is possible for regulators to clean up systemic messes without inviting new ones. In a recent paper, economists Emre Ergungor and James Thomson analyze the research done to date on the impact of different approaches taken to resolve financial crises across the globe. They identified a handful of practices common to successful financial crisis resolutions.

Most important, according to Ergungor and Thomson, is that successful crisis resolutions have been characterized by **transparency**. When officials move to contain a financial crisis, their primary task is to identify which institutions are viable and which assets are good, and conversely which institutions are insolvent and which assets are bad. This triage and full disclosure of associated losses clears the uncertainty surrounding the financial institutions and makes it possible for the viable institutions to raise new funds from private investors or from the government if private sources are not available. Failing to acknowledge the true value of assets or the condition of troubled banks early on makes it easy for them to live on as propped up "zombies" (as happened in Japan during the 1990s)—healthy on paper but economically insolvent. Initial full disclosure avoids these situations, and improves efficiency during industry restructuring.

Second, crisis resolutions have been most successful when they were handled by a **politically and financially independent** agency. Granting independence to those responsible for containing the crisis and restructuring shields decision makers from political pressures, which mount as institutions are closed and assets are liquidated. The decision to close a financial institution 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. Independence from changing political environments is also important because it allows for a rapid response to emergent funding needs (as when new losses are discovered in a financial institution). Having to wait for the legislature to appropriate funds in these situations can be impractical.

A third practice associated with a successful resolution strategy is the **maintenance of market discipline**. Without it, note Ergungor and Thomson, the stage is set for future crises. If market discipline is to be effective, investors who assumed greater risks must be credibly exposed to loss; that is, they must suffer the consequences of having ignored or failed to detect signs of trouble. Blanket guarantees of uninsured depositors and investors are an example of a policy maneuver that might lessen the pain of a crisis but could also distort market discipline. As numerous historical examples demonstrate, the stability of financial markets after crises largely depends on the incentive framework that is left in place.

Finally, Ergungor and Thomson observe that containing troubled financial assets and restructuring institutions has typically not been enough to resolve a financial crisis entirely, though doing so positions the system to return to more normal functioning. They find that full crisis resolution must also achieve some **restoration of credit flows** within the economy. For that to happen, the creditworthiness of borrowers must be restored throughout the economy—a difficult task, given that the economic fallout from a crisis (such as rising unemployment) actually erodes credit quality further.

The case of Sweden—one of the relatively successful crisis resolutions of the past 30 years—provides good insight into most of these practices.

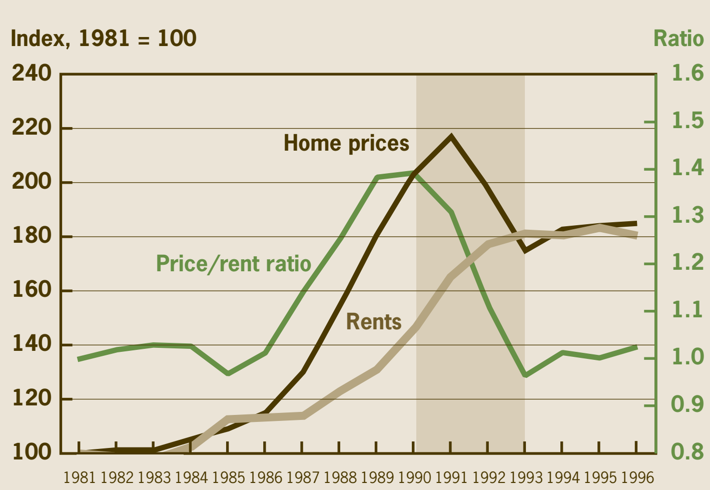
The Swedish Financial Crisis

The early 1990s crisis in Sweden followed a massive credit bubble largely characterized by speculative real estate ventures and booming consumer debt. With inflation creeping up and growth stagnating in the 1980s, Swedish policymakers gave a boost to economic growth by loosening lending restrictions on banks and devaluing the country's currency, the krona, which was kept at a fixed exchange rate. Domestic banks used their new-found power to pump credit into a system with pent-up demand. Foreign investors were happy to channel their money to this underserved credit market. The economy boomed on funds borrowed in foreign currencies.

The reckoning came in 1990, when Germany was reunified and its deficits soared. The Swedish krona, which was strongly tied to the German mark, automatically imported Germany's high interest rates to Sweden. This started to squelch demand for real estate, and when the Swedish government eliminated its consumer debt subsidy, demand in this market all but disappeared. Real estate prices that had more than doubled in the 1980s now fell more than 40 percent (see figure 1). Then in 1992, the krona plummeted in value after it was taken off the fixed exchange rate. Banks, businesses, and individuals that had borrowed in foreign currencies—but whose incomes were in kronas—found themselves unable to meet their obligations. Domestic nonperforming loans hit 11 percent of GDP in 1993.

With conditions so dire, and with Swedish banks so heavily exposed to the real estate market, the banking system began to disintegrate. In 1991, two of Sweden's largest banks, Föreningsbanken and Nordbanken, fell below their required capital levels. Afraid of a meltdown, the government guaranteed all of Nordbanken's liabilities and took ownership of the bank, while at the same time arranging a guarantee for Förenings. When a third large institution, Gota Bank, was taken over shortly thereafter, the government was left holding 22 percent of the nation's banking assets. Policymakers acted quickly to separate the good from the bad. Government-held assets that were deemed viable were merged under one name, Nordbanken, and permitted to continue operating. Bad assets were transferred to two asset management companies (AMCs)—Securum for Nordbanken's assets and Retrieva for Gota's.

Figure 1: Housing Price-Rent Ratio in Sweden



Note: Shaded bar indicates a recession.
Source: Statistics Sweden (www.scb.se).

The AMCs were charged not only with managing and liquidating the bad assets of these banks, but also with taking on the assets of nonbank companies that were in default. Swedish legislators made sure that the AMCs were adequately capitalized and granted exemptions from regulatory rules that would have rushed their actions or limited their effectiveness, including an existing rule that required seized collateral to be liquidated within three years.

Often, the AMCs became managers of otherwise private, failed companies, performing such tasks as hiring and firing, managing property, and changing operation strategies until their assets could be favorably sold. Their tremendous flexibility and financial resources shortened their own existence from an expected duration of 15 years to a few years. Liquidations were completed in 1997, and what funds the AMCs had remaining (less than half of their original capitalization, in real dollars) were returned to the Swedish treasury.

Is Sweden a Useful Model for Crisis Resolution?

On the surface, it would appear that Sweden's resolution of the crisis was a success. The nation returned the assets of failed banks and corporations to more productive uses via asset sales, and avoided the economic carnage that could have followed a complete systemic meltdown in the financial sector. However, the global economic boom that marked most of the 1990s makes it difficult to disentangle keen Swedish policy choices from macroeconomic "luck" when examining the resolution's outcome.

An IMF study by economists Valerie Cerra and Sweta Saxena further questions the extent of Sweden's success in limiting the aftermath of the crisis. They found that the long-term trend of Swedish per capita GDP growth fell from at or above similar countries' levels to a much lower level in a time interval that coincides with the financial crisis. The trend has remained at these relative levels since, reminding us that temporary damage to the financial sector may have longer-lasting detrimental effects on the real economy. That some amount of macroeconomic damage will follow a crisis is not surprising, given the financial and, sometimes, structural rebalancing that a systemic panic necessitates.

Even at slower growth levels, Sweden emerged from its credit market turmoil without the zombie banks and nonexistent growth of Japan's "lost decade" in tow. This achievement has to do at least partly with Sweden's containment and resolution strategies. With regard to transparency, Sweden performed remarkably well. The magnitude of losses was established early on by a Bank Support Authority, which was independent from the Ministry of Finance and the central bank. Good assets were separated from bad assets, and the full extent to which government would be involved was clearly outlined. Initial transparency about losses at the outset likely avoided the "zombie" effect and what Douglas Diamond has called "evergreening," a process whereby undercapitalized banks choose not to address problem loans because doing so would force asset write-downs, possibly prompting technical insolvency. The Swedish government's swift moves to liquidate failed banks and its emphatic pledge to recapitalize viable ones avoided large-scale evergreening, the papering-over of losses, and the prolonged stagnation that lingering bad assets entail.

Sweden's response to the crisis also extended considerable political and financial independence to the AMCs, which allowed them to carry out their task with adequate resources. It also served as a public signal that their operations would not be subject to changing political winds. Similarly, Swedish officials' relaxation of collateral liquidation requirements implied that the dispensation of assets would take place over an extended period of time. This regulatory change may have had conflicting effects on investor perceptions. On one hand, it signaled that a large overhang of assets would not flood the market early on and drive down the value of similar, privately held assets. However, early liquidation, even at what appears to be distressed price levels, can quickly return assets to more productive uses and lower the cost to taxpayers if asset values continue to slide. Though this is a difficult balance to strike, Sweden's AMC managers were at least given the option to liquidate at later times if they deemed it necessary.

With respect to the restoration of credit flows, Sweden moved quickly to provide incentives to bank owners to inject additional capital into their banks or to inject government capital into banks directly, when necessary. AMCs played a key role in restoring the financial health of the nonbank companies they were operating. Some viable corporations were allowed to survive through capital injections, though in return the government acquired a majority of their shares so that taxpayers could profit from any upside. Recapitalized institutions could return to ordinary operation, gradually rebuilding the creditworthiness of the overall economy. Credit restoration has proved to be among the most difficult resolution steps to execute effectively, and it can involve different public–private hybrid models to enhance the probability of success. An alternative to the Swedish method that is both bank and borrower-based was attempted by Mexico in the late 1990s, with a program called Punto Final. The program subsidized 60 percent of a loan if the borrower started repaying it, a cost that was shared equally by the government and the lender. The government's share of the cost would also increase in proportion to the number of new loans the lender made. This had the effect of subsidizing only good loans (failed borrowers would rather default than keep throwing money at a loan they could not repay) and incentivized lenders to start credit flowing again.

Sweden's success at maintaining market discipline was perhaps more limited. Ideally, discipline can be sustained by not taking actions that may weaken investors' incentive to discipline, such as issuing blanket guarantees and unlimited liquidity. In the Swedish case, policymakers avoided the liquidity pitfall but still ended up guaranteeing bank liabilities before the banks themselves were taken over. Investor disincentives to closely monitor financial institutions in the future may still exist as a result. The economists Edward Kane and Daniela Klingebiel have suggested an alternative to such incentive-skewing guarantees. They have argued that the optimal response to a systemic banking crisis is to call a bank holiday long enough for examiners to determine which banks are viable, while still giving insured depositors access to their funds. Doing so would insure business as usual for insured depositors without permitting uninsured depositors to cash out before taking their share of unrecoverable losses.

Most of the criticisms that can be leveled at the Swedish crisis resolution are easy to make in hindsight. Facing the prospect of imminent systemic collapse, incentive-skewing actions like blanket guarantees and liquidity provision can seem like sure-fire ways to restore confidence and avoid meltdown.

Sweden's financial crisis containment and resolution strategy largely avoided these mistakes. Policies were enacted transparently and with political independence, and attempts were made to restore credit flows in the broader economy. Although some research has shown that a per capita growth penalty has been exacted from Sweden, its postcrisis decisions avoided the preventable pain of holding toxic assets for too long.

Altogether, the Swedish case illustrates the trade-offs and considerations of market discipline that crisis managers must contend with if they are to minimize taxpayer losses and speed the return to a rebalanced, growing economy.

Recommended Readings

"Eurosclerosis or Financial Collapse: Why Did Swedish Incomes Fall Behind?" by Valerie Cerra and Sweta C. Saxena. 2005. International Monetary Fund, working paper no. 05/29.

"Should Banks Be Recapitalized?" by Douglas W. Diamond. 2001. Federal Reserve Bank of Richmond, Economic Quarterly, vol. 87, 71–96.

"On the Resolution of Financial Crises: The Swedish Experience, by O. Emre Ergungor. 2007. Federal Reserve Bank of Cleveland, Policy Discussion Papers, no 21.

"Systemic Banking Crises," by O. Emre Ergungor and James B. Thomson. 2006. In Research in Finance, edited by Andrew H. Chen. Elsevier.

"Alternatives to Blanket Guarantees for Containing a Systemic Crisis," by Edward J. Kane and Daniela Klingebiel, 2004. Journal of Financial Stability, September, 31–63.

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