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Financial Crises and Market Regulation

by Jerry L. Jordan

Financial crises typically arise from risk mismanagement by governments. Usually with the most sincere and honorable of intentions, governments seek to reduce or eliminate the exposure to risk of some constituent. But risk cannot be eliminated, it can only be redistributed. Jerry L. Jordan, President and Chief Executive Officer of the Federal Reserve Bank of Cleveland, recently discussed this problem when he spoke at the Eighth Annual Financial Markets Conference sponsored by the Federal Reserve Bank of Atlanta. This *Economic Commentary* is adapted from his remarks.

Financial crises are inevitable. Both government intervention and market innovations can influence the frequency and severity of these episodes, but they cannot eliminate them. Evolution toward stronger political and economic institutions is a discovery process, and the sometimes dramatic financial market adjustments labeled "crises" are an unavoidable part of that process.

Government intrusions into financial markets typically make financial crises more serious. For the most part, official programs seem designed to act as sponges for absorbing risk exposures from particular groups of economic agents. This can lead market participants astray. Unless the resulting incentive to overinvest in risky projects is offset by an effective program of supervision, agents are likely to misallocate resources. Moreover, especially before a crisis, a government may act as though the capacity of its risk sponge is unlimited. Only when that capacity is tested—by calls on foreign exchange reserves, by demands on taxpayers through the budget—does information about limits emerge. Crisis ensues.

Financial crises are not predictable. If they were, actions would be taken to alter the predicted event, and the crisis would be avoided. It is the surprise contained in new, unexpected information that sets off these episodes. If there were no surprise, there would be no basis for the sudden and substantial changes in market prices of financial instruments that are characteristic of crises.

The Element of Risk and the Lessons of Failure

Financial outcomes always have an element of uncertainty as well as an element of risk. I choose the words uncertainty and risk deliberately.[1] They describe two different kinds of exposure to chance events. Uncertainty is impossible to describe probabilistically because the distribution of possible outcomes essentially is unknown. Therefore, exposure to uncertainty cannot be hedged or insured against. Gains and losses from uncertain events are pure economic rents. They are either borne by those exposed to them or socialized in an act of community greed—such as a steeply progressive tax—or in an act of community compassion—such as Red Cross, Federal Emergency Management Agency, or Marshall Plan assistance. We cannot help but be surprised by the occurrence of uncertain events. This is why crises are unpredictable.[2]

Risk, on the other hand, is used for exposure to the other kind of outcome. This exposure can be described probabilistically, typically by using a model of some sort to filter past experience. Exposure to losses from risky events can be bought and sold in the marketplace. An insurance company will assume your exposure to loss from the death of a partner in return for an insurance premium. Financial institutions accept exposure to the bankruptcy of debtors in return for a sufficiently large risk premium.

The existence of risky situations is not a source of crises, for rational economic agents will have incorporated calculations about potential outcomes into their

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decision-making. Instead, crises typically result from risk mismanagement.

Risks can be transferred from one party to another, but they cannot be eliminated. Exposure to loss from a partner's death can be shifted through an insurance company to a diversified set of policyholders. Exposure to loss from lending can be shifted through a bank and the FDIC to all insured depositors or general taxpayers. Exposure to exchange-rate changes can be shifted to someone else through the organized exchanges or an over-the-counter transaction or by government to general taxpayers.

While individual parties can take actions to reduce, minimize, or avoid their own risk exposure, they can do so only when another party is willing and able to bear such risks. This is where government behavior can become a problem. Usually, with the most sincere and honorable of intentions, governments seek to reduce, minimize, or eliminate the exposure to risk of some constituent.

But allowing borrowers and investors to suffer the losses incurred in a crisis is a necessary and useful way to bring about adjustments in the technology of investment. For example, adopting regulations now that would proscribe practices that appear to have made the 1997 Asian crisis so severe should be unnecessary because borrowers and lenders now understand what happened and will not be surprised again. If the parties were to repeat the same behavior, markets would discount the now-expected result, leading to substantial risk premiums in loan and currency markets. There would be no crisis because there would be no surprise. More likely, however, borrowers and investors would not repeat the behavior that brought them grief the last time. Instead, faced with markets that extract more accurate premiums, they would adopt new practices—that is, innovations—some of which would work and some of which would not.

Lessons learned in a crisis lead to changes in behavior that prevent a repeat of the conditions that led to the crisis. The discipline exerted by global financial markets is beneficial in that it erodes local resistance to more efficient domestic markets. This is what the president of Korea had in mind when he said recently that there is a "silver lining" to the Asian currency crisis. The restructuring and reforming of the banking institutions now occurring in Asia will leave them better off. It would have taken much longer to implement these reforms without the "crisis atmosphere." As a result, these nations may soon have better credit risk analysis, have better asset and liability management techniques, be less subject to politically connected bank lending, and develop both internal audit and external supervision that is essential to sound banking.[3]

Crises are not desirable, but given that they are inevitable, we would do well to recognize that they lead to more efficient financial systems—so long as the consequences of risk taking are borne by those responsible.

Government Intrusions and Altered Incentives

A myriad of government intrusions into the marketplace—often in the form of controls or guarantees—have altered the incentives of participants to accept risk exposures in affected markets. The stated justification for regulation often is a contention that a market failure or imperfection is present. It is important to understand that the perceived failure or imperfection often was introduced by another government intrusion. In that circumstance, then, regulation or supervision may represent an effort to recreate the competitive situation that would have been present without the initial government involvement in the market.

Banking supervision is a prime example of this effort. One of the most familiar government intrusions into financial markets of this century has been a government-supplied guarantee called deposit insurance. Much of the regulation governing firms covered by deposit insurance is rationalized by the need to neutralize the moral hazard introduced by the insurance (that is, to reduce the bank's incentive to make risky investments because depositors, knowing that insurance will bail them out in the event of bank failure, do not demand a risk premium). The challenge always has been to construct government regulations that do not undermine the effectiveness of market regulation—the discipline that comes from having to compete.

The prior presence of guarantees by government has been a common element underlying many episodes labeled crises. Most often, such guarantees are introduced as a well-intentioned effort to shelter someone from exposure to the costs of some type of risk. But those costs and risks are real; as I mentioned earlier, they are not eliminated by the presence of government-supplied guarantees. They merely have been shifted to someone else, usually in a very diffused or opaque way.

When governments offer guarantees, one of two possible problems is created. Because market participants engage in behavior that is conditioned on the existence of the guarantee, government has become a third contractual partner to any transaction or agreement. In so doing, government has caused someone else—often the general taxpayer—to bear a risk or cost, usually unknowingly. Then, when unforecastable events force government to make good on the guarantee, general taxpayers belatedly are informed that they must incur a wealth loss as a result of risk having been shifted to them without their prior knowledge and agreement. As long as economic agents are unable to fully internalize the potential costs of government promises, financial markets are not complete and thus are not efficient.

The alternative problem is that withdrawal of a guarantee has the effect of breaking a contract, thereby imposing losses on someone. Abandoning an exchange-rate peg is a good example of this breach of contract. Many of the events that have come to be labeled financial or banking crises involve the breaking of an explicit or implicit contract or the withdrawal by government of the offer to make new contracts—that is, to provide guarantees—for the future. Because past behavior was influenced by past guarantees, the anticipated withdrawal of the guarantees must be reflected in surprise adjustments of relative prices. If these price changes are large and occur within a short time interval, the event is labeled a crisis.

For example, exchange-rate crises of the early 1970s involved the withdrawal of the U. S. guarantee that foreign governments could exchange dollars for gold at a ratio of 35 to 1. Most exchange-rate crises since then have simply been reflections of unsustainable government promises to redeem their own fiat currency for a foreign currency at preannounced rates.

A related aspect of crises concerns the quality of a nation's legal and financial infrastructure. The surprise that triggers

a crisis is some new piece of information about the inability of debtors to meet the terms of financial contracts. Contracts are drawn up according to a nation's rules and regulations.[4] If those rules are lacking, unclear, or capable of manipulation, then the opportunity for surprise is greater than if the rules are clear and stable.

Of course, I don't mean to imply that all crises are purely domestic, for there is little point in trying to distinguish between an international crisis and a domestic crisis. In the context of late twentieth century global capital markets, all financial markets have an international element. In fact, global financial asset portfolio managers can be thought of as a new class of voters—stateless citizens of the world, empowered to roam the globe casting votes for and against economic policies of the 200 or so nation-states. As a result, a common, and ultimately hopeful, element of crises has begun to emerge. Various types of government guarantees and promises—on deposits, on foreign investments, on domestic pensions—may be on the "endangered species list" because so many are being revealed as impossible to honor. That is the lesson of Mexico in 1994–95 and Asia in 1997. That is what the current political turmoil in Germany may be all about. To the extent that global capital market vigilantes are becoming more effective in evaluating the true costs of national governments' promises, there should be less opportunity for big surprises to bring on financial crises.

The Role of Market Innovations

Crises also originate in failed market innovations. For example, the collapse of Long Term Capital Management last year raised questions about the relationship between financial innovations and crises. Innovations are tests of ways of doing things. Some succeed, but, just as surely, others fail. Innovation is bound to bring profits to some and losses to others. That's the way the market system works.

In the case of hedge funds, massive doses of computer technology are combined with finance theory and online, real-time global information gathering to exploit perceived anomalies in the prices of related financial instruments. This is a valuable role to play in perfecting markets, and it can be a very profitable role if all goes according to plan. However, as we have seen in a few cases, it can be a very unprofitable role if market prices do not move toward the assumed past relationships. The resulting losses can be multiplied manyfold to the extent such funds are leveraged. As long as there is uncertainty about market relationships, surprises are capable of inflicting big losses—perhaps big enough to be called crises.

Often, what gets missed in considering new vehicles for risk bearing is that they are methods of redistributing risk. Far from increasing risk in the financial system, as some have thought, they in fact serve the primary purpose of unbundling risk into its components and, thus, allowing each type of risk to be managed separately. This allows for specialization in risk bearing, as particular types of risk can be transferred from one party, who is averse to that risk, to another party, who is less averse to that risk. In this way, financial innovations lower the cost of bearing risk by transferring it to those most willing, and presumably able, to bear it. However, some financial innovations don't work, and investors lose money.

Moral Hazard

"All that's very well," you will say, "but haven't many market participants come away from the 1997 Asian crisis with an entirely different lesson?" Namely, "Don't worry, 'cause the IMF or someone else will pull our chestnuts out of the fire next time—just as they did last time." Indeed, moral hazard is a real and serious problem. Not only are financial rescues likely to impede effective reforms, but they may also induce backsliding by encouraging an inattention to risk that will make the next crisis worse than the last one and thus induce more pernicious moral hazard through even stronger rescue efforts. Notice that moral hazard involves intervention in the market by a government-type authority that relieves certain market participants of a risk exposure by assuming that exposure itself—that is, on behalf of the general taxpayer. Especially in cases where the risk transfer is only implicit, a big danger is that the authority fails to create a supervisory mechanism to manage or control the risk it has assumed. At least the current U.S. deposit insurance and lender-of-last-resort institutions maintain an active supervisory presence in the banking system. Without a supervisory presence, rescue efforts may promise relief in the short run, but will be incapable of keeping that promise in the long run.

What Can Be Done

One approach to reducing the perceived need for government agencies to mount rescue operations is to strengthen private market facilities for monitoring and dealing constructively with potential crisis situations. I'll mention just two examples of proposals that have been getting attention. One would improve the transparency of the financial positions of debtors through more consistent and thorough financial disclosure. Creditors could then derive earlier warnings of trouble and force actions to limit losses. Greater transparency is a desirable feature of efficient financial markets in its own right. It is not clear that it would do much good in preventing the kinds of surprises that trigger financial crises; however, it might aid in crisis resolution.

Another approach would include "collective action clauses" or other such provisions in debt contracts that would facilitate action by private creditors to reschedule, restate, or otherwise resolve situations in which debtors need relief. Especially with a growing share of credit going directly to private firms rather than through sovereign borrowers, creditors should be better equipped to protect their own interests without the intervention of a government or international agency.

Of course, arming private investors will not provide an incentive for them to use new provisions as long as government agencies appear willing to intervene and achieve settlements on more favorable terms than produced by private negotiations. Given that a "just say no" intervention policy is politically difficult, judgment must be exercised in drawing the line between productive and unproductive intervention.

Critical to any successful reform is a reduction or elimination of uncertainty arising from official responses to international market disruptions. Governments and international agencies might clarify for markets what actions they would be prepared to take, and under what circumstances. This could reduce incentives for creditor runs on sovereign borrowers. Moreover, it would increase the accountability of policymakers for their actions and, in turn, reduce the attractiveness of ex post creditor bailouts. This is by no means as easy as it might sound. More fruitfully, perhaps, agencies might explore a structured format for precommitment, comparable to that made familiar in bank capital regulation.

In summary, financial crises are inevitable, I'm afraid. They are not predictable. Typically, they arise from financial mismanagement by governments, sometimes in response to failed financial innovations. Moral hazard compounds the inevitability of crises by encouraging private inattention to risk exposures without any assured supervisory offset.

Footnotes

1. This taxonomy was introduced by Frank Knight. See *Risk, Uncertainty, and Profit.* Chicago: University of Chicago Press, 1971 (1921).

2. Others describe the origins of crises by suggesting that an objective distribution of possible outcomes of investments includes a significant region of bad results. This region (sometimes referred to as the "fat tail" of the distribution) reflects the slight, but not negligible chance of simultaneous losses to many investors in a crisis. Investors are shortsighted, however, in ignoring this region of possibilities when constructing portfolios and, therefore, surprised when it actually materializes.

3. Or they may not. Suppose, instead, that these governments heed the advice of those who would throw more sand in the gears of cross-border financing to discourage susceptibility to capital flight. A turnaround tax on capital withdrawn within a few months or a year of entering a country is a popular suggestion. The approach might work, just as capital controls seem to have worked for most nations during and after World War II, but at the cost of a less efficient global allocation of capital. If regulation were to be part of the reform process, it would make more sense to remove regulations that discourage long-term capital flows than to add regulations that discourage short-term capital flows.

4. An interesting exception has been proposed by Howell E. Jackson in "The Selective Incorporation of Foreign Legal Systems to Promote Nepal as an International Financial Services Center," forthcoming in an Oxford University Press symposium volume on regulatory reform. His suggestion is that firms be permitted to establish operations in Nepal if they agree to abide by their home countries' regulations and submit their Nepalese operations to their home countries' supervision.

Jerry L. Jordan is President and Chief Executive Officer of the Federal Reserve Bank of Cleveland.

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Federal Reserve Bank of Cleveland
Research Department
P.O. Box 6387
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