Preventing Future Crises

Priorities for regulatory reform after the meltdown

Noel Sacasa

THE financial crisis has exposed weaknesses in the current regulatory and supervisory frameworks. The recent developments have made it clear that action is needed in at least four areas to reduce the risk of crises and address them when they occur. These are (*a*) finding a better way to assess systemic risk and prevent its buildup in good times; (*b*) improving transparency and disclosure of risks being taken by various market participants; (*c*) expanding the cross-institutional and cross-border scope of regulation while safeguarding constructive diversity; and (*d*) putting in place mechanisms for more effective, coordinated actions.

Effective regulation is needed to realize the potential of open financial markets. How to improve regulation was central to the discussion at the November G-20 Summit on Financial Markets and the World Economy. Financial innovation and integration have increased the speed and extent to which shocks are transmitted across asset classes and countries, blurring boundaries between systemic and nonsystemic institutions. But regulation and supervision have remained geared toward individual financial institutions. The regulatory mechanisms do not adequately consider the systemic and international implications of domestic institutions' actions.

This article takes a look at substantive issues in the current debates on reforming the financial sector. The first section identifies crucial weaknesses that the reforms need to address, and the second outlines key areas for policy action.

What went wrong

Reform proposals should address destabilizing failures in markets and regulation. Although the jury is still out, three groups of mutually reinforcing factors that did not receive adequate attention from regulators and monetary authorities arguably contributed to increased systemic risk. First, global macroeconomic imbalances resulted in lower interest rates during the past decade, inducing more risk-taking and contributing to the creation of asset price bubbles worldwide. Second, changes in financial sector structure and the failure of risk management to keep up with financial innovation during the past two decades rendered the system more prone to instability. And, third, leveraged financial institutions have inherent incentives to take on excessive risks without internalizing systemic risk, which is the main reason they need to be regulated.

Global imbalances and housing bubbles

Regulators and central banks failed to adequately acknowledge and deal with the systemic risks attached to fast credit growth and asset price bubbles. During this decade, some economies ran persistent large current account surpluses, which generated a huge demand for financial assets issued in deficit countries—notably for U.S. assets. This, together with an accommodative U.S. monetary policy, contributed to low real interest rates worldwide, which in turn induced considerable risk-taking and fed fast credit growth. In the United States, the credit market debt of households and nonfinancial businesses grew from 118 to 173 percent of GDP between 1994 and 2007 (see chart). The growth of the credit debt of households accelerated even more since 2000, jumping in seven years from 98 to 136 percent of disposable personal income. During the same period, similar ratios grew from about 120 to 180 percent in the United Kingdom and from 72 to 91 percent in the euro area. At the same time, an unprecedented home price increase in the United States was accompanied by similar booms in many developed economies.

Innovation and structural changes

In their April 2008 analysis of the causes behind the current crisis, both the IMF and the Financial Stability Forum (FSF) highlighted the striking nature of shortcomings in risk management practices, as well as the collective failure to assess and address the extent of leverage—the ratio of debt to equity—taken on by a wide range of institutions and the associated risks of a disorderly unwinding (IMF, 2008; and FSF, 2008). Risk management, disclosure, regulation, and supervision did not keep up with rapid innovation, leaving scope for excessive risk-taking and asset price inflation.

Four sets of innovations and structural changes in particular have contributed to weakening risk management and rendering the system more prone to instability: the originate-to-distribute business model and reliance on wholesale funding markets; procyclical capital and accounting practices and regulations; excessive reliance on backward-looking, market-based risk management models and systems; and a more complex and opaque configuration of players.

The originate-to-distribute model and wholesale funding. Securitization and the development of private-label com-

The U.S. Federal Reserve in Washington, D.C.

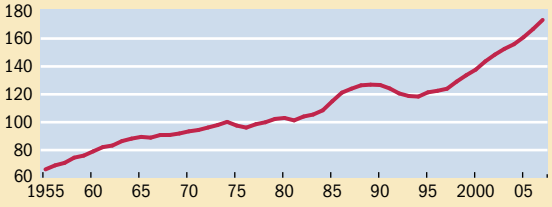
plex structured credit instruments have undeniably improved access to credit. However, they may also have contributed to greater aggregate risk-taking and, instead of resulting in an efficient dispersion of risks, have led to a destabilizing shift of risks toward institutions that could not adequately manage them, to the reversion of some of these risks to banks that had supposedly offloaded them, and to much more uncertainty about the actual distribution of risks among market participants. In addition, both banks and the off-balance-sheet special-purpose vehicles created in the securitization process have come to rely excessively on wholesale funding markets, thus incurring maturity mismatches without adequate consideration of the risks of such funding drying up. Although the originating and arranging entities lacked appropriate credit screening and monitoring incentives, many investors failed to sufficiently question such incentives or to examine the quality of the loans underlying structured products. Instead, they relied excessively on the reputation of the institutions involved and on the credit ratings of the instruments (FSF, 2008).

Credit rating agencies, in turn, assigned high ratings to complex structured subprime debt based on limited historical data; in some cases, on flawed models; and on inadequate due diligence of underlying collateral. They also failed to adequately disclose assumptions, criteria, and methodologies; clarify the meaning and risk characteristics of structured finance ratings; and address conflicts of interest (FSF, 2008). Finally, financial institutions did not always sufficiently disclose the type and magnitude of their on- and off-balance-sheet risk exposures, particularly those related to structured products.

Soaring debt

Lower interest rates worldwide led to fast credit growth in many countries, including the United States.

(U.S. credit debt of households and nonfinancial businesses as percent of GDP)



Source: IMF staff calculations based on data from the Flow of Funds Accounts of the United States and the U.S. Bureau of Economic Analysis.

Procyclical capital requirements and accounting. During upswings, the value of marked-to-market assets and collateral increases, while loan-loss allowances decrease because default rates are expected to decline in the short run. This raises the value of reported equity and lowers the typically shortsighted probability of default estimates for both borrowers and lenders. At the same time, risk-based capital requirements can be eroded in good times because risk measures tend to ignore risk buildup during upswings. This underestimation of risks allows lenders to increase leverage and credit, which in turn reinforces asset price increases, generating a self-feeding spiral between leverage and asset prices (Adrian and Shin, 2008).

Conversely, when risk measures mount during a downswing and losses materialize, capital buffers insufficiently built up in good times are eroded and cannot be easily replenished, since external capital becomes more scarce in bad times. Interactions between capital, credit, and asset markets can then magnify the intensity of the turmoil by forcing broad-based chain reactions of asset fire sales, and a self-reinforcing credit crunch and contraction of economic activity can ensue.

Excessively market-based, backward-looking risk management. Too much reliance on market prices and on oversimplified, backward-looking models to manage risks, while neglecting due diligence and analysis of fundamentals, appears to have resulted in grossly underestimating risks, inducing complacency, and decreasing monitoring. Moreover, when many market participants use similar models, they may be induced to take similarly oriented market positions, thus exacerbating systemic risk.

A more complex but less differentiated configuration of players. Compared with 30 years ago, the current financial system shows more blurred distinctions between different types of players, greater consolidation, many new types of players, and tighter but more opaque interconnections between them (Borio, 2007). Although these developments may have come about as a result of innovations aimed at improving the efficiency of financial intermediation, they also created opportunities for increasing leverage and for shifting risks among players in opaque ways. This made it more difficult for the market and for regulators to assess risks at any given level, while reduced diversity may have increased the likelihood of coordinated movements that could destabilize the system.

Destabilizing incentives

The recent events suggest that some regulators have relied excessively on the ability of financial institutions to manage risk and to regulate themselves. At the same time, they have allowed the erosion of capital buffers through securitization and opaque off-balance-sheet structures, and through insufficiently supported risk mitigation techniques (such as credit default swaps issued by institutions without sufficient assets or capital). Regulators could instead have better acknowledged and countered the inherent incentives of leveraged financial institutions to take on excessive risks without internalizing systemic risk, through more effective use of available supervisory tools and stronger enforcement.

Leverage and risk. Shareholders and managers of leveraged financial institutions have incentives to increase returns upfront by taking on excessive longer-term tail risks—they can exploit information asymmetries to shift those risks to the future or to less-informed market participants. In particular, they can be driven to boost the short-run return on equity by increasing leverage, even though this raises the risk of default, as long as creditors do not price this risk into the cost of debt (for example, because of deposit insurance or lack of transparency), and as long as the shareholders' and managers' own exposure to downside risks is small (Dewatripont and Tirole, 1994; and Rajan, 2005).

Disregard of systemic risk. In past financial crises, incentives for financial institutions to internalize systemic risk have also proven to be weak. The following are examples of behavior that can create systemic risk when many financial institutions act similarly: (*a*) increasing leverage during an upswing, without regard for the potential creation of unsustainable asset price bubbles; (*b*) replacing core deposit funding and liquid asset reserves with volatile wholesale financing and backup liquidity facilities that can suddenly dry up in a crisis; and (*c*) excessively increasing the supply of credit to certain sectors when interest rates are abnormally low, thereby disregarding risks to loan portfolios when interest rates eventually rebound and hit highly leveraged borrowers. Financial institutions and their managers also have incentives to follow the herd and increase risks together, because of competitive pressure to retain market shares, compensation schemes based on relative performance, or the expectation that losses from systemic risks will be socialized.

Regulatory reform priorities

Although a consensus is emerging on some measures that can address the shortcomings outlined above, an intense debate continues on other issues related to improving financial sector regulation. Four areas of regulatory reform stand out in these discussions: better addressing systemic risk and procyclical risk-taking; enhancing transparency and disclosure; changing the role of credit rating agencies; and adequately balancing comprehensiveness and diversity in the scope of regulation, along with providing for better international coordination.

Systemic risk and procyclical risk-taking

Making both capital requirements and macroeconomic policy more countercyclical. There is growing support among policymakers for at least mitigating procyclicality (G-20, 2008), but implementation is challenging. On the prudential side, one idea is that capital and/or provisioning requirements, and perhaps minimum haircuts on collateral, should recognize upfront mounting risks during booms and allow for the buildup of adequate capital buffers in good times. But macroeconomic policies may also need to play a complementary role in preventing booms and long periods of low interest rates, because the latter distort incentives and breed speculative excesses that are very difficult to counter solely through prudential regulations.

Reassessing mark-to-market accounting. The discussion on this topic is more heated. On the one hand, maintaining adequate transparency is important. On the other, market prices tend to delink from fundamentals during both speculative booms and panic situations. Mark-to-market accounting could therefore unrealistically exaggerate procyclical swings in equity and regulatory capital, potentially contributing to financial instability, as discussed above. Transparency criteria, as well as prudential and systemic stability concerns, thus lend support to the suggestion that the effect on capital of adjustments to market values may need to be slowed down or limited—especially when market prices go up—for a range of assets beyond those held to maturity (excluding assets held for immediate liquidity). The intended dampening effect, as well as the desired transparency, may be obtained through appropriately disclosed provisions or reserves that are built up when prices rise above some threshold and drawn down as prices recede.

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Making securitization more compatible with incentives. Portfolio diversification is not enough to manage credit risk, and it cannot fully replace due diligence. Securitization contracts should make sure that originating and sponsoring institutions retain sufficient risks on the securitized assets, so that these institutions have an incentive to adequately screen and monitor individual loans. In addition, the Basel Committee on Banking Supervision recently (BCBS, 2008b and 2008c) issued proposals to raise capital requirements for certain complex structured credit products; to introduce additional capital charges for incremental risks in the trading book due to factors such as default, credit migration, or changes in credit spread or in equity price; and to strengthen the capital treatment of liquidity facilities to off-balance-sheet conduits.

Strengthening liquidity management. An updated set of principles for sound liquidity risk management and supervision were issued by the Basel Committee in September 2008 (BCBS, 2008a), addressing weaknesses identified in the recent turmoil. The importance of maintaining adequate liquid asset buffers may need to be stressed more in the future.

Reassessing risk management models and systems. Pillar 2 of the Basel II framework can be used by supervisors to strengthen risk management practices by banks, sharpen banks' control of tail risks, and mitigate the buildup of excessive exposures and risk concentrations (Caruana and Narain, 2008). This could help ensure that risk management, capital buffers, and estimates of potential credit losses are appropriately forward looking and take account of uncertainties associated with models, valuations, concentration risks, and expected variations through the business cycle. Regulators and supervisors could work with market participants to mitigate the risks arising from perverse incentives in remuneration policies (FSF, 2008).

Transparency and disclosure

Risk disclosure and valuation. To prevent the use of off-balance-sheet entities from misleading market participants about the actual risk exposures retained by the arranger, accounting and disclosure standards for derecognition and consolidation are being improved. Also, finding ways to highlight the uncertainty that inevitably surrounds the point estimates of accounting valuations of financial instruments is important so as to not give a false impression of precision, especially when markets have ceased to be active (FSF, 2008).

Securitization processes and markets. Information on securitized products and their underlying assets at each stage could be expanded. In particular, transparency by originators and issuers of securitized products about underwriting standards for, and the results of due diligence on, the underlying assets could be strengthened (FSF, 2008).

Role of credit ratings

Quality of the rating process and conflicts of interest. Credit rating agencies have revised rating methodologies for structured products and are taking steps to separate rating activities from other business activities; delink rating managers' compensation from the financial performance of their business unit; enhance the surveillance of the rating process; and strengthen internal oversight of rating methodologies. The International Organization of Securities Commissions revised its *Code of Conduct Fundamentals for Credit Rating Agencies* in May 2008 (IOSCO, 2008) to further improve the quality of the rating process, address conflicts of interest, and provide investors with more data on the historical performance of ratings and with more information on rating methodologies and criteria and on how data limitations are addressed.

Uses of ratings. Investors should not use ratings to replace strong risk analysis and management, appropriate to the complexity of the instruments they buy and the importance of their holding. In this context, supervisory authorities might consider reviewing the use of ratings in regulations, to ensure that such use does not induce uncritical reliance on credit ratings as a substitute for independent evaluation.

Balancing comprehensiveness and diversity

Expanding regulatory scope to contain regulatory arbitrage. All leveraged financial institutions, as well as any entities significantly linked to them, may need to be put under the same regulatory umbrella. Regulators could also be more careful not to allow the circumvention or erosion of capital requirements through the buildup of opaque market structures, through the nontransparent shift of risks to nonconsolidated entities or any other transactions in which the resulting assignment of risks is in any way doubtful, or through risk management models and techniques that may not adequately measure or hedge actual underlying risks.

Improving cross-border information exchange and cooperation. The use of international colleges of supervisors has proved helpful in developing good practices, diagnosing large and complex financial institutions, and addressing cross-border issues. Such arrangements should be established in the short run for each of the largest global financial institutions (FSF, 2008; and G-20, 2008).

Safeguarding diversity to promote systemic complementarities. The degree to which financial institutions with long-maturing liabilities (for example, pension funds and life insurance companies) should be subject to mark-to-market requirements or to risk management standards based on risk models focused on short-run price volatility in managing their assets could be reconsidered. Regulations could increase the scope for such institutions to play the role of long-term, hold-to-maturity investors. But low-leverage financial institutions with limited systemic importance may need only light, if any, regulation, thus allowing them to play a potentially stabilizing role in taking more risky or contrarian positions compared with other market participants (Nugée and Persaud, 2006). ■

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