Stability, growth and regulatory reform

RANDALL S. KROSZNER

Professor of Economics University of Chicago, Booth School of Business

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n enormous effort has gone into banking and financial regulatory reform following the recent financial crisis. I could not begin to cover a small fraction of the key aspects of the ongoing worldwide debate. Instead, I will try to describe some key open questions about the relation among stability, growth, and regulatory reform and then raise some concerns about overemphasis on some instruments and underemphasis on others in the ongoing reform process. (The next three sections draw heavily on Kroszner forthcoming).

1 Does greater financial depth and development increase or reduce volatility?

As with any time of reform, it is crucial to clearly articulate the goals or objectives of banking and financial regulatory reform, including both public and private forms of regulation. I believe that the goal of banking and financial development and regulation should be to support and enhance sustainable economic growth, consistent with consumer protection that maintains the integrity of the markets. A large body of research suggests that a deep and developed financial system is a driving force behind economic development and growth (see, e.g., the summary in Levine forthcoming that I draw on here). Cross-country evidence suggests that such systems can be particularly helpful for those at the lower end of the income distribution. The primary mechanism for the positive growth impacts appears to be through increasing the efficiency of the allocation of capital to the highest return projects and giving the less affluent access to capital that they would not have in a less developed system.

This line of research, however, generally does not address a fundamental issue: Might there be a trade-off with volatility? (See Kroszner and Strahan, 2011.) That is, to obtain a higher growth "return" through financial development, is there a cost in terms of greater "risk" in the system? Following the crisis, this is a critical issue to investigate. For this reason, I included "sustainable growth" rather than simply "growth" as part of the goal of regulatory reform. This issue raises a further and much more vexing question: If there is such a trade-off, then

how would we determine the "optimal" size of the financial sector in an economy?

Theoretically, greater financial depth and development could either increase or decrease stability. On the one hand, a larger and more developed financial sector could improve risk sharing and diversification and thereby reduce volatility. On the other, a larger and more developed financial sector could allow greater concentrations of risk and generate interconnections, thereby potentially making the entire system more fragile and vulnerable to shocks. Policy makers engaged in financial regulatory reform need to consider these opposing forces in the financial system.

Unfortunately, little research exists to help guide policy makers. In earlier work with Luc Laeven and Daniela Klingebiel on banking crises (2007), for example, we indirectly addressed this by looking at whether firms that relied more on sources of external finance were hit harder during banking/financial crises than firms that relied more on internally generated cash flows. Not only did we find this generally across countries, we found that this affect was most pronounced in countries with the deepest financial systems. (See also Kroszner, 2007.) This evidence thus hints at the possibility of a trade-off. The deeper financial system might create more connections between the real and the financial sectors that could make the firms that rely most heavily on the financial system more vulnerable in a banking crisis. Our analysis, however, did not allow us to address in detail the welfare question of whether these types of firms or the economy as a whole was better off in the long run.

The data from branching deregulation across US states, however, suggests that there is no trade-off but that deepening of the financial sector is a "win-win." The evidence suggests that state growth rates tend to increase following branching deregulation. Examining the quarter century during which states removed barriers that had prevented banks from branching across states, Morgan, Rime, and Strahan (2004) and Kroszner and Strahan (forthcoming) find that measures of state economic volatility fell as the banking system integrated across state lines. The variability of state employment growth and the growth of gross state product, for example, decreased after interstate branching was permitted. Interestingly, both growth shocks and

trend growth rates become more alike across states as the degree of commonality of the ownership of banks in those states increased.¹

The relationship between the financial sector and volatility, thus, is an open question that more work on the most recent financial crisis may help to shed light upon.

2 How to Judge the costs and Benefits of Financial Innovation?

Although I believe that financial innovations are crucial in a dynamic, growing economy, in some cases these innovations may be Janus-faced. The "good" face of credit default swaps (CDS), for example, is that they are brilliant innovations that permit market participants to hedge default risk and give supervisors one metric to measure market perceptions of a firm's or a sovereign's risk in real time. The "bad" face of CDS, however, is that they can permit astonishing risk concentrations (e.g., AIG) that can generate fragile interconnections and systemic risk when such contracts are traded over-the-counter and not centrally cleared (see Kroszner and Shiller, 2011).

The possible two-faced nature of innovation raises the question of how a supervisor (or market participant) can determine in advance the risks associated with a new instrument or the market structures that would be necessary to reduce those risks. Obviously, with a new instrument, it is difficult – if not impossible – to undertake the empirical testing to assess the two faces that such an innovation may have. The cost of stopping all types of financial innovation due to insufficient data, however, seems too great. Developing a framework for evaluating the costs and benefits of innovation is another crucial issue raised by the recent crisis. How to do this, however, remains a fundamental challenge.

Even in cases where we do have relatively long data sets, it is possible that the innovation itself can change the historical correlations and risks – that is, they may be endogenous to the innovation. (See Kroszner, 2010a.) For most of the 20th century, for example, the mortgage market in the United States

was relatively fragmented geographically, so geographic diversification of a mortgage portfolio could reduce risk. Interstate banking as well as geographically diversified pools of mortgage-backed securities (MBS) helped to provide a national source of financing. In principle, banks could then diversify away from local housing risk concentrations and individual home owners could tap a national rather than localised market for financing their mortgages.

These innovations, however, changed the historical correlations and risks by helping to increase the integration, hence correlation, of housing markets across the country. Thus, the benefits of geographical diversification waned precisely as instruments such as MBS rose to provide that diversification. As this example shows, trying to assess the faces of a financial innovation is a particularly vexing task but one that deserves much attention.

3 COULD HIGH CAPITAL REQUIREMENTS PROVIDE A FALSE SENSE OF SECURITY?

The crisis revealed that both the quantity and quality of capital held by banking and financial institutions were clearly inadequate to deal with shocks to the system. I want to state unambiguously that I believe that imposing higher capital requirements following the crisis is the right response. My concern, however, is that raising capital requirements is not a cure-all and in some cases seems to be relied upon as a substitute for directly addressing fragilities in the system.

High capital requirements, I worry, can provide a false sense of security to regulators and to the public about the safety and soundness of the financial system and lead to complacency in crucial areas of regulatory reform. (See also Tucker, 2012.) A high capital requirement, for instance, is not a substitute for developing orderly resolution procedures, both domestically and cross-border, or for improving market infrastructure, such as central-clearing of over-the-counter derivatives (see Kroszner and Shiller, 2011). I believe that it is best to address problems and vulnerabilities directly rather than indirectly in order to reduce the likelihood of unintended consequences.

¹ In more recent work, however, Loutskina and Strahan (2011) find that financial integration raised the sensitivity of local economies to housing price shocks during the 1990s and 2000s, thus amplifying volatility.

Relying too heavily on any one instrument, such as capital requirements, may not be a prudent approach for regulators and supervisors – much as we would not want banks to put too many of their eggs in one basket! Very high capital requirements can generate incentives to the owners of the financial institution to try to take on more risk in order to reach return on equity goals (see Levine forthcoming). More generally, the higher the requirement, the more incentive there is to find ways around it. These incentives can lead to a number of unintended consequences.

A very high capital requirement, for example, can lead to more off-balance-sheet activity and risk exposures by a regulated institutions that may be harder for supervisors and the public to detect. Second, it can push activities off into the "shadows," to markets and institutions that are not directly regulated but that may be closely interconnected to the regulated institutions, e.g., borrowers, funders, and counterparties. Third, it can channel efforts in financial innovation to create instruments that may evade particular capital requirements but not reduce risks to an individual institution or to the system as a whole. It is quite difficult for the Basel Committee as well as national regulators to get the risk pricing "right" in a dynamic market. Thus, rather than conserving supervisory resources and providing greater cushions against shocks, very high capital requirements could paradoxically require greater vigilance by supervisors, generate more fragile interconnections, and thereby potentially reduce the overall safety and soundness of the system.

I will draw an analogy with the Maginot Line: the more heavily you rely on any one instrument, the more incentive there is to evade it and the fewer resources may be allocated to other instruments of defense (or offense). Following the large losses of life in Word War I, the French debated the most effective way to prevent a repeat of that tragedy. Charles de Gaulle argued that France should invest in new types of armored mobile vehicles, airpower, and the training of large standing army to deter a German invasion and allow a rapid and flexible response if one did occur. André Maginot countered

that resources would be more effectively used to build a heavily fortified barrier to deter and slow a German invasion. If an invasion were to begin, he argued, this defense would give sufficient time for France to mobilise and call up reserves, thereby substituting for a large standing army and investment in new means of rapid response.² Maginot of course won the argument, and France built what came to be known as the Maginot Line along its eastern border in the 1930s.

In response, the Germans naturally tried to find ways around the fortification and invested heavily in innovative armored mobile vehicles (Panzer Divisions) and airpower (Luftwaffe). The Germans made a lightning fast strike (Blitzkrieg) through the Ardennes forest, the weakest point of the Maginot Line. Given the denseness of the forest and their fortifications, however, the French military did not believe that a quick invasion through the Ardennes was possible. Obviously, they were wrong and soon the Maginot Line was surrounded, and France fell to Germany two months after the initial invasion.

In regulatory reform, it is important to try to avoid the false sense of security and excessive reliance on one instrument. Capital "barriers" can be helpful but they can also create strong incentives to find innovative ways to evade them. As the crisis demonstrated, what may have been seen as a well-capitalised institution can have this "fortification" erode extremely quickly in tumultuous market conditions. "Prompt corrective action" relied on capital layers above the regulatory minimum to provide sufficient time for remedial action, but the rapid decline of Washington Mutual's capital ratios, for instance, demonstrates that the capital "fortification" may not give supervisors sufficient time to act. In addition, activities that were thought to be relatively low risk, such as housing (as evidenced by low Basel I risk weights), could actually be the places of greatest vulnerability, much like the Ardennes.

The lesson for supervisors and regulators is not to rely on very high capital as a substitute for dealing with fragilities and vulnerabilities throughout the system. The unintended consequences of doing so

² The purpose of the Maginot Line "was to halt a German attack long enough for the French Army to mobilise and then to serve as a base for a counteroffensive," (Romanych and Rupp 2010, p. 8).

^{3 &}quot;Believing permanent defenses would compensate for shortcomings in training and equipment, the divisional commander [in the Ardennes where the Germans first invaded] emphasised the construction of fortifications rather than training," (Romanych and Rupp 2010, p. 33).

have the potential to reduce, rather than enhance, stability of the system. Capital requirements should be understood as a complement to supervisory vigilance and not a source of complacency. I am concerned that so much emphasis in the supervisory community has been put on capital that other reforms, such as cross border resolution and moving OTC derivatives onto centrally cleared platforms, have not been receiving the priority they deserve.

4 WILL MACROPRUDENTIAL APPROACHES BE EFFECTIVE?

Supervisors and central banks around the world are being asked to do more, and being given more authority, to engage in "macroprudential" policy. In particular, central banks are being asked to act not only in their traditional role as "fire extinguishers" as the flames of a financial crisis have begun to burn but also to act as macroprudential "smoke detectors" before the flames appear. (The following draws on Kroszner, 2010b and 2011, and Kroszner and Strahan, 2011.)

The "fire extinguisher" role is the classic one that central banks have played as lenders of last resort and liquidity creators in times of financial stress and tumult. Once the flames of the crisis appear, the central bank can then douse them with liquidity to prevent the fire spreading from one institution or market to another in order to avoid a system-wide conflagration. By moving beyond institution-specific regulations, this "macroprudential approach" may lead to less regulatory arbitrage.

The "smoke detector" or "macroprudential" role emphasises that the central bank has a fundamental responsibility to act early to prevent the tinder from igniting into flames. Being proactive in monitoring individual institutions and interconnected markets for signs of froth and fragility is what macroprudential policy should focus upon. In some cases, it make involve effective credit allocation but raising the costs of funding in some sectors relative to others. The macroprudential role certainly does not conflict with the more traditional "fire extinguisher" role, but

it requires a much expanded set of authorities and activities on the part of the central bank.

The macroprudential approach, however, has at least three challenges. First, what metrics of financial stability or systemic risk will trigger macroprudential actions? Following the financial and currency crises in the 1980s and 1990s, academics and researchers at the International Monetary Fund and World Bank tried to develop "early warning" systems to anticipate where a crisis might occur. This exercise has proved difficult, and there are no generally accepted early warning indicators to allow authorities to act early enough to avoid the next crisis.

In addition, can financial economics provide a straightforward and theoretically grounded benchmark to assess if risks are being improperly managed or priced? Reasonable people could disagree about appropriate assumptions about or shifts in risk aversion, discount rates, "tail risks," and other factors in asset pricing. Regulators thus may face criticism of being arbitrary and attempting to substitute their judgment for those of investors who are putting their own money on the line. Such assessments are particularly difficult in new and innovative areas where data histories are short.

Finally, will a central bank's independence be challenged if it engages in macroprudential policymaking?4 In the case of housing in the United States, many programs subsidise home ownership, by lowering down payments or subsidising securitisation. The large costs of these subsidies have become clear as losses at Fannie Mae and Freddie Mac mount. Yet neither the 2010 Dodd-Frank Act nor any subsequent acts have been taken to address these issues. If a central bank again becomes concerned about "frothiness" in housing, policies to reduce loan-to-value ratios, restrict securitisation, or raise capital might run into political headwinds. The unelected body of the central bank could be accused of overruling an elected body. This certainly could put the central bank in the political cross hairs and lead to questions about its judgments and demands for greater political oversight. Effective macroprudential policies thus may involve risks for central bank independence and good governance.

⁴ Charles Goodhart (2010) suggests that "the combination of operational independence to set interest rates and liquidity management together with prospective macroprudential regulation just vests too much power in a non-elected body."

5 WILL RESTRICTIONS ON BANK ACTIVITIES, SUCH AS THE VOLCKER RULE, IMPROVE STABILITY?

In response to the financial crisis of the early 1930s, the United States adopted a separation between investment banking and commercial banking with the Glass-Steagall Act. This Act prohibited a commercial bank or commercial bank holding company from having any affiliates engaged in a variety of activities such as securities underwriting. The 1999 Gramm-Leach-Bliley Act relaxed parts of the Glass-Steagall Act to allow bank holding companies to have separately incorporated and capitalised subsidiaries engage in investment and merchant banking activities, even though the commercial bank itself is still prohibited from doing so directly or through its own subsidiary. During the last decade, a few large US banks have become significant global players in, for example, market making and securities underwriting through their investment banking subsidiaries.

In response to the most recent crisis, the Dodd-Frank Act included a form of activities restriction called the Volcker Rule. The Volcker Rule strictly limits commercial bank activities in proprietary trading, private equity, and hedge funds. The prohibitions on private equity and hedge funds have not created much controversy because these activities are relatively easy to define and had not become an important part of commercial bank operations. Propriety trading, however, involves much greater challenges to define and implement. The recent notice of proposed rulemaking from the US regulatory agencies ran more than two hundred pages and asked for comments on 383 questions!

Depending upon what the regulators choose to define as "proprietary" (the Dodd-Frank legislation provided little concrete guidance and, hence, the long list of questions), the Volcker Rule has the potential to reduce rather than increase risk at the banks in the markets. First, natural hedging activities of banks could be curtailed. Second, the role that banks play as market makers in key global markets, such as those for government securities, could be reduced or eliminated. The unintended consequence could be

to reduce liquidity and increase bid-ask spreads. A number of international regulators, in addition to the banks, have raised the concern that the Rule may make important markets less liquid and less stable.

In addition, it is difficult to find systematic evidence from the recent crisis that involvement in proprietary trading increased the risk of failure.⁵ In the United States, the major banks that collapsed did so primarily because of high exposure to mortgages, not due to proprietary trading. Internationally, "universal" banks did not fare worse than their more "traditional" brethren and in many cases benefitted from the diversification of income sources that are associated with engagement in a wide variety of activities (Kroszner and Melick, 2011).

As we have experienced from earlier episodes of regulatory arbitrage, restrictions that apply to one set of institutions may just move risks to other institutions or markets and may, at the same time, increase inter-linkages and market opaqueness. Depending upon what constitutes "proprietary" trading, pushing risk-taking activities just outside of the commercial banking system could have the unintended consequence of making the entire system more, rather than less, fragile. Making markets more, not less, robust is crucial for the stability of the financial system and must be an important factor taken into account in the debate over activity restrictions on banks (see Kroszner, 2010c and Kroszner and Strahan, 2011).

6 CONCLUDING REMARKS

The relation among stability, growth, and regulation is crucial for assessing reform proposals and priorities. I have sketched a framework for thinking about these issues and touched on a few specific reforms. Policy-makers should clearly articulate goals and trade-offs, avoid overreliance on any one regulatory instrument, and be sensitive to potential unintended consequences of regulatory reforms. Identifying fragilities and then addressing them as directly as possible would be an effective way to enhance the robustness of the financial system.

⁵ The historical evidence also does not support an argument in favour of the Glass-Steagall separation (see for instance, Kroszner and Rajan, 1994 and Kroszner, 1996).

REFERENCES

Goodhart (C.) (2010)

"The changing role of central banks," BIS Annual Research Conference, June.

Kroszner (R. S.) (1996)

"The evolution of universal banking and its regulation in twentieth century America", pp. 70-99 in Anthony Saunders and Ingo Walter, eds., Universal Banking: Financial System Design Reconsidered, Chicago: Irwin.

Kroszner (R. S.) (2007)

"Analysing and assessing banking crises," speech at Federal Reserve Bank of San Francisco, Conference on the Asian Financial Crisis Revisited, September 6.

Kroszner (R. S.) (2010) (a)

"The paradox of financial innovation," Working Paper, February.

Kroszner (R. S.) (2010) (b)

"What should central banks do? A comment on Goodhart," BIS Annual Research Conference, June.

Kroszner (R. S.) (2010) (c)

"Interconnectedness, fragility, and the financial crisis", Financial Crisis Inquiry Commission, February.

Kroszner (R. S.)

"Volatility, innovation, capital, and macroprudential policy: A comment on Ross Levine," Federal Reserve Bank of Kansas City, Jackson Hole Symposium Proceedings, forthcoming.

Kroszner (R. S.) (2011)

"Challenges of macroprudential policy," in Claassens (S.), Evanoff (D.), Kaufman (G.) and Kodres (L.), eds., Macroprudential regulatory policies: the new road to financial stabilty?, Hackensack, NJ: World Scientific Publishers, pp. 379-86.

Kroszner (R. S.), Laeven (L.) and Klingebiel (D.) (2007)

"Banking crises, financial dependence, and growth," *Journal of Financial Economics*, April, 84(1), pp. 187-228.

Kroszner (R. S.) and Melick (W.) (2011)

"The response of the Federal Reserve to the recent banking and financial crisis", in Jean Pisani-Ferry, Adam Posen, and Fabrizio Saccomanni, eds., An Ocean Apart? Comparing Transatlantic Response to the Financial Crisis, Brussels: Bruegel Institute and Peterson Institution for International Economics.

Kroszner (R. S.) and Rajan (R. G.) (1994)

"Is the Glass-Steagall Act justified? A study of the US experience with universal banking before 1933", *American Economic Review*, pp. 810-32, September.

Kroszner (R. S.) and Shiller (R. J.) (2011)

Reforming US financial markets: reflections before and beyond Dodd-Frank, Cambridge, MA: MIT Press.

Kroszner (R. S.) and Strahan (P. E.) (2011)

"Financial regulatory reform: challenges ahead," *American Economic Review, Papers and Proceedings*, May, 101(3), pp. 242-46.

Kroszner (R. S.) and Strahan (P. E.)

"Regulation and deregulation of the US banking industry: causes, consequences, and implications for the future," forthcoming in Nancy Rose, ed., *Studies in Regulation*, Chicago: NBER and University of Chicago.

Levine (R.)

"Regulating financial markets and institutions to promote growth," Federal Reserve Bank of Kansas City, Jackson Hole Symposium Proceedings, forthcoming.

Loutskina (E.) and Strahan (P. E.) (2011)

"Financial integration, housing, and economic volatility," *Working Paper*, Boston College, November.

Morgan (D.), Rime (B.), and Strahan (P. E.) (2004)

"Bank integration and state business cycles," *Quarterly Journal of Economics*, 119, pp. 1555-85.

Romanych (M.) and Rupp (M.) (2010)

Maginot Line 1940: Battles on the French Frontier, Oxford: Osprey Publishing.

Tucker (P.) (2012)

"Banks must reclaim their proper role," *Financial Times*, January 30.