

Too Systemic to fail: Consequences, Causes, and Potential Remedies¹

Perhaps the single biggest distortion to the free enterprise system is when a number of private institutions are deemed by political and regulatory authorities as too systemic to fail. Resources are trapped in corporate structures that have repeatedly proven their incompetence, and further resources are sucked in from the taxpayer as these institutions destroy value. Indeed, these institutions can play a game of chicken with the authorities by refusing to take adequate precautions against failure, such as raising equity, confident in the knowledge the authorities will come to the rescue when needed.

The consequences are observationally identical to those in a system of crony capitalism. Indeed, it is hard for the authorities to refute allegations of crony capitalism – after all, the difference is only one of intent for the authorities in a free enterprise system do not want to bail out systemically important institutions, but are nevertheless forced to, while in crony capitalism, they do so willingly. More problematic, corrupt officials can hid behind the doctrine of systemic importance to bail out favored institutions. Regardless of whether such corruption takes place, the collateral damage to public faith in the system of private enterprise is enormous, especially as the public senses two sets of rules, one for the systemically important, and another for the rest of us.

As important as the economic and political damage created in bad times, is the damage created in good times because these institutions have an unfair competitive advantage. Some institutions may undertake businesses they have no competence in, get paid for guarantees they have no ability to honor, or issue enormous amounts of debt cheaply only because customers and investors see the taxpayer standing behind them. Other institutions may deliberately create complexities, fragilities, and interconnections so as to become hard to fail. In many ways, therefore, I believe the central focus of any new regulatory effort should be on how to prevent institutions from becoming too systemic to fail.

Is it only too “big” to fail?

Note that I have avoided saying too big to fail. This is because there are entities that are very large but have transparent, simple structures that allow them to be failed easily – for example, a firm running a family of regulated mutual funds. By contrast, there are relatively small entities – the mortgage insurers or Bear Stearns are examples – whose distress caused substantial stress to build up through the system. This means a number of factors other than size may cause an institution to be systemically important including (i) the institution’s centrality to a market (mortgage insurers, exchanges) (ii) the extent to which systemic institutions are exposed to the

¹ Written statement by Raghuram G. Rajan, Eric Gleacher Distinguished Service Professor of Finance at the University of Chicago’s Booth School of Business to the Senate Banking Committee Hearings on May 6th 2009. The opinions expressed in this piece are mine alone, but I have benefited immensely from past discussions and work with Douglas Diamond, Anil Kashyap, and Jeremy Stein, as well as members of the Squam Lake Group (see http://www.cfr.org/project/1404/squam_lake_working_group_on_financial_regulation.html)

institution (AIG) (iii) the extent to which the institution's business and liabilities are intertwined, or are in foreign jurisdictions where US bankruptcy stay does not apply, so that the act of failing the institution will impose substantial losses on its assets, and (iv) the extent to which the institution's business interacts in complex ways with the financial system so that the authorities are uncertain about the systemic consequences of failure and do not want to take the risk of finding out.

This last point takes us to the role of regulators and politicians in creating an environment where institutions are deemed too systemic to fail. For the authorities, there is little immediate benefit to failing a systemically important institution. If events spin out of control, the downside risks to one's career, as well as short-term risks to the economy, loom far bigger for the authorities than any long term benefit of asserting market discipline and preventing moral hazard. Moreover, the public is likely to want to assign blame for a recognized failure, while a bailout can largely be hidden from public eye. Finally, the budgetary implications of recognizing failure can be significant, while the budgetary implications of bailouts can be postponed into the future. For all these reasons, it will be the brave or foolhardy regulator who tries to fail a systemically important institution, and give the experience of the events surrounding the Lehman bankruptcy, I do not see this happening over the foreseeable future.

If the authorities are likely to bail out systemically- or even near-systemically important institutions, the solution to the problem of institutions becoming "too systemically important to fail" has to be found elsewhere than in stiffening the backbone of regulators or limiting their discretion.² There are three obvious possibilities: 1) prevent institutions from becoming systemically important; 2) keep them from failing by creating additional private sector buffers; 3) when they do become truly distressed, make it easier for the authorities to fail them. Let me discuss each of these in turn.

Preventing Institutions From Becoming Systemically Important

Many current regulatory proposals focus on preventing institutions from becoming systemically important. These include preventing institutions from expanding beyond a certain size or limiting the activities of depository institutions (through a modern version of the 1933 Glass-Steagall Act). I worry that these proposals may be very costly, and may still not achieve their intent. Here is why.

Clearly, casual empiricism would suggest that some institutions have become too big to manage. If in addition they are likely to impose costs on the system because they are too big to fail, it seems obvious they should be constrained from growing, and indeed should be forced to break

² For example, the Federal Deposit Insurance Corporation Improvement Act (FDICIA) in many ways was meant to ensure regulators took prompt corrective action, by reducing their leeway to forbear. However, FDICIA was focused on the problem of relatively small thrifts, not too-big-to-fail institutions.

up.³ Similarly, it seems obvious that the peripheral risky activities of banks should be constrained or even banned if there are underlying core safe activities than need to be protected.

Economic Concerns

More careful thought would, however, suggest serious concerns about such proposals. First, consider the economic concerns. Some institutions get large, not through opportunistic and unwise acquisitions, but through organic growth based on superior efficiency. A crude size limit, applied across the board, would prevent the economy from realizing the benefits of the growth of such institutions. Furthermore, size can imply greater diversification, which can reduce risk. The optimal size can vary across activities and over time. Is a trillion dollar institution permissible if it is a mutual fund holding assets? What if it is an insurance company? What if it is an insurance company owning a small thrift? Finally, size itself is hard to define. Do we mean assets, liabilities, gross derivatives positions, net derivatives positions, transactions, or profitability? Each of these could be a reasonable metric, yet vastly different entities would hit against the size limit depending on the metric we choose. Given all these difficulties, any legislation on size limits will have to give regulators substantial discretion. That creates its own problems which I will discuss shortly.

Similar issues arise with activity limits. What activities would be prohibited? Many of the activities that were prohibited to commercial banks under Glass-Steagall were peripheral to this crisis. And activities that did get banks into trouble, such as holding sub-prime mortgage-backed securities, would have been permissible under Glass Steagall.⁴ Some suggest banning banks from proprietary trading (trading for their own account). But how would regulators distinguish (illegitimate) proprietary trading from legitimate risk-reducing hedging?

Regulatory Concerns

Regulating size limits would be a nightmare. Not only would the regulator have to be endowed with substantial amounts of discretion because of the complexities associated with size regulation, the regulated would constantly attempt to influence regulators to rule in their favor. While I have faith in regulators, I would not want them to be subject to the temptations of the license-permit Raj of the kind that flourished in India. Indeed, even without such temptations, regulators are influenced by the regulated – one of the deficiencies uncovered by this crisis is that banks were allowed under Basel II to set their levels of capital based on their own flawed models.

Moreover, the regulated would be strongly tempted to arbitrage draconian regulations. In India, strict labor laws kicked in once firms reached 100 employees in size. Not surprisingly, there

³ The academic literature lends support to such a view for banks because it finds few economies of scale for banks beyond a certain size.

⁴ Banks like Citibank have found sufficient ways to get into trouble in recent decades even when Glass Steagall was in force.

were a large number of firms with common ownership that had 99 employees – every time a firm was to exceed 100 employees, it broke up into two firms. Similarly, would size limits lead to firms shifting activity into commonly owned and managed, but separately capitalized, entities as soon as they approach the limits? Will we get virtual firms that are as tightly knit together as current firms, but are less transparent to the regulator? I fear the answer could well be yes.

Similar problems may arise with banning activities. The common belief is that there are a fixed set of risky possibilities so if enough are prohibited to banks, they will undertake safe activities only – what one might call the “lump of risk” fallacy. The truth is that banks make money only by taking risks and managing them carefully. If enough old risky activities are banned, banks will find new creative ways of taking on risk, with the difference that these will likely be hidden from the regulator. And because they are hidden, they are less likely to be managed carefully.

Political Concerns

Finally, the presumption is that the political support for heavy regulation will continue into the future. Yet, as the business cycle turns, as memories of this crisis fade, and as the costs associated with implementing the regulation come to the fore without visible benefits, there will be less support for the regulation. Profitable banks will lobby hard to weaken the legislation, and they will likely be successful. And all this will happen when we face the most danger from too-systemic-to-fail entities. If there is one lesson we take away from this crisis, it should be this – regulation that the regulated perceive as extremely costly is unlikely to be effective, and is likely to be most weakened at the point of maximum danger to the system.

I would suggest that rather than focusing on regulations to limit size or activities, we focus on creating private sector buffers and making institutions easier to fail. Let us turn to these now.

Adding Additional Private Sector Buffers.

One proposal making the rounds is to require higher levels of capital for systemically important institutions. The problem though is that capital is costlier than other forms of financing. In boom times, the market requires very low levels of capital from financial intermediaries, in part because euphoria makes losses seem remote. So when regulated financial intermediaries are forced to hold more costly capital than the market requires, they have an incentive to shift activity to unregulated intermediaries, as did banks in setting up SIVs and conduits during the current crisis. If systemically important institutions are required to hold substantially more capital, their incentive to undertake this arbitrage is even stronger. Even if regulators are strengthened to detect and prevent this shift in activity, banks can subvert capital requirements by taking on risk the regulators do not see, or do not penalize adequately with capital requirements.

So while increased capital for systemically important entities can be beneficial, I do not believe it is a panacea.⁵ An additional, and perhaps more effective, buffer is to ask systemically important institutions to arrange for capital to be infused when the institution or the system is in trouble. Because these “contingent capital” arrangements will be contracted in good times when the chances of a downturn seem remote, they will be relatively cheap (compared to raising new capital in the midst of a recession) and thus easier to enforce. Also, because the infusion is seen as an unlikely possibility, firms cannot go out and increase their risks, using the future capital as backing. Finally, because the infusions come in bad times when capital is really needed, they protect the system and the taxpayer in the right contingencies.

Put differently, additional capital is like keeping buckets full of water ready to douse a potential fire. As the years go by and the fire does not appear, the temptation is to use up the water. By contrast, contingent capital is like installing sprinklers. There is no water to use up, but when the fire threatens, the sprinklers will turn on.

Contingent Debt Conversions

One version of contingent capital is for banks to issue debt which would automatically convert to equity when two conditions are met; first, the system is in crisis, either based on an assessment by regulators or based on objective indicators such as aggregate bank losses (this could be cruder, but because it is automatic, it will eliminate the pressure that would otherwise come on regulators), and second, the bank’s capital ratio falls below a certain value.⁶ The first condition ensures that banks that do badly because of their own errors, and not when the system is in trouble, don’t get to avoid the disciplinary effects of debt. The second condition rewards well-capitalized banks by allowing them to avoid the forced conversion (the number of shares the debt converts to will be set at a level so as dilute the value of old equity substantially), while also giving banks that anticipate losses an incentive to raise new equity well in time.

Capital Insurance

Another version of contingent capital is to require that systemically important levered financial institutions buy fully collateralized insurance policies (from unlevered institutions, foreigners, or the government) that will infuse capital into these institutions when the system is in trouble.⁷

Here is one way it could operate. Megabank would issue capital insurance bonds, say to sovereign wealth funds or private equity. It would invest the proceeds in Treasury bonds, which would then be placed in a custodial account in State Street Bank. Every quarter, Megabank

⁵ See the comprehensive discussion of capital requirements in the Squam Lake Group’s proposal http://www.cfr.org/publication/19001/reforming_capital_requirements_for_financial_institutions.html

⁶ This describes work done by the Squam Lake Group, and a more comprehensive treatment is available at <http://www.cfr.org/publication/19002>

⁷ This is based on a paper I wrote with Anil Kashyap and Jeremy Stein, which is available at <http://www.kc.frb.org/publicat/sympos/2008/KashyapRajanStein.03.12.09.pdf>

would pay a pre-agreed insurance premium (contracted at the time the capital insurance bond is issued) which, together with the interest accumulated on the Treasury bonds held in the custodial account, would be paid to the sovereign fund.

If the aggregate losses of the banking system exceed a certain pre-specified amount, Megabank would start getting a payout from the custodial account to bolster its capital. The sovereign wealth fund will now face losses on the principal it has invested, but on average, it will have been compensated by the insurance premium.

Clearly, both the convertible debt proposal and the capital insurance proposal will have to be implemented with care. For instance, it would be silly for any systemically important institution to buy these instruments, and they should be deterred from doing so. At the same time, some obvious objections can be answered easily. For instance, some critics worry whether there will be a market for these bonds that fall in value when the whole economy is in distress. The answer is there are already securities that have these characteristics and are widely traded. Moreover, a bank in Canada has actually issued securities of this sort.

Making Institutions Easier to Fail.

Let us now turn to the other possible remedy – making systemically important institutions easier to fail. There are currently a number of problems in failing systemically important institutions. Let me list them and suggest obvious remedies.

- (i) Regulators do not have resolution authority over non-bank financial firms or bank holding companies, and ordinary bankruptcy court would take too long – the financial business would evaporate while the institution is in bankruptcy court. This leaves piecemeal liquidation, with attendant loss in value, as the only alternative to a bailout.
Regulators need resolution authority of the kind the FDIC has for banks.
- (ii) Regulators do not have full information on the holders of a systemically important institution's liabilities. They have difficulty figuring out whom the first round of losses would hit, let alone where the second round (as institutions hit by the first round fail) would fall. While in principle they could allow the institution to fail, and ensure the first and second round failures are limited by providing capital where necessary, they do not have the ability to do so at present. Furthermore, because the market too does not know where the exposures are, the failure of a large institution could lead to panic. **More information about exposures needs to be gathered**, and the authorities need the ability to act on this information (including offering routine warnings to levered regulated entities that have high exposure to any institution), as well as the ability to disseminate it widely if they have to fail an institution.
- (iii) The foreign operations of institutions are especially problematic since there is no common comprehensive resolution framework for all of a multi-national bank's

operations. Failing a bank in the United States could lead to a run on a branch in a foreign country, or a seizure of local assets by a foreign authority in order to protect liability holders within that country. These actions could erode the value of the bank's international operations substantially, resulting in losses that have to be borne by US taxpayers, and making authorities more reluctant to fail the bank. **A comprehensive international resolution framework needs to be negotiated with high priority.**

- (iv) The operations of some systemically important institutions are linked to their liabilities in ways that are calculated to trigger large losses if the bank is failed. For instance, if a bank is on one side of swap transactions and it fails, the counterparties on the other side need to be paid the transactions costs incurred in setting up new substitute swap contracts. Even if the market is calm, these seemingly small transactions costs multiplied by a few trillion dollars in gross outstanding contracts can amount to a large number, in the many billions of dollars. If we add to this the higher transactions costs when the market is in turmoil, the costs can be very high. **Regulators have to work with the industry to reduce the extent to which business losses are triggered when the institution's debt is forced to bear losses.** These cross-default clauses essentially are poison-pills that make large institutions too costly to fail.
- (v) Finally, the implicit assumption that some of these institutions will not be failed causes market participants to treat their liabilities as backed by the full faith and credit of the government. These liabilities then become the core of strategies that rely indeed on their being fully backed. Any hint that belief in the backing is unwarranted can cause these strategies to implode, making the authorities averse to changing beliefs.⁸ **Regulators have to convince the market that no institution is too systemically important to fail.**

The problem is that none of this can be achieved if the financial institutions are working at cross-purposes to the regulator – all will be for naught if even while the regulator is working with international authorities to devise a comprehensive resolution scheme, the financial institution is adding on layers of complexity in its international operations. Therefore I end with one last suggestion: **Require systemically important financial institutions to develop a plan that would enable them to be resolved quickly – eventually over a weekend.**

Such a “shelf bankruptcy” plan would require institutions to track, and document, their exposures much more carefully and in a timely manner, probably through much better use of technology. The plan will need to be stress tested by regulators periodically and supported by enabling legislation – such as one facilitating an orderly transfer of the institution's swap books

⁸ Mohamed El Erian of Pimco phrases this as a situation where what the market thinks of as constant parameters become variables, resulting in heightened risk aversion. One example of this is the failure of Lehman, which resulted in the Reserve Primary money market fund “breaking the buck”. The strategy of money market funds investing in the debt of systemically-important-but-weak banks in order to obtain higher yields imploded, causing a run on money market funds.

to pre-committed partners. And regulators will need to be ready to do their part, including paying off insured depositors quickly where necessary.

Not only will the need to develop a plan give these institutions the incentive to work with regulators to reduce unnecessary complexity and improve management, it may indeed force management to think the unthinkable during booms, thus helping avoid the costly busts. Most important, it will convey to the market the message that the authorities are serious about allowing the systemically important to fail. When we emerge from this crisis, this will be the most important message to convey.