

Economics focus

Cycle-proof regulation

In a guest article, Raghuram Rajan argues for a regulatory system that is immune to boom and bust

AS THE G20 summit showed, we typically regulate in the midst of a bust. That is when righteous politicians feel the need to do something, bankers' frail balance-sheets and vivid memories make them eschew risk, and regulators have their backbones stiffened by public disapproval of past laxity.

But we reform under the delusion that the regulated, and the markets they operate in, are static and passive, and that the regulatory environment will not vary with the cycle. Ironically, faith in draconian regulation is strongest at the bottom of the cycle, when there is little need for participants to be regulated. By contrast, the misconception that markets will take care of themselves is most widespread at the top of the cycle, at the point of most danger to the system. We need to acknowledge these differences and enact cycle-proof regulation.

If we don't, there are many dangers. Recent reports have argued for "counter-cyclical" capital—raising bank capital requirements a lot in good times, while allowing them to fall somewhat in bad times. While sensible *prima facie*, these proposals may be far less effective than intended.

That is because in boom times, the market requires banks to hold very low levels of capital, in part because euphoria makes losses seem remote. So when regulated firms are forced to hold more costly capital than the market requires, they have an incentive to shift activity to unregulated operators, as banks did with structured investment vehicles and conduits during the current crisis. Even if regulators are strengthened to prevent this shift in activity, banks can subvert capital requirements by taking on risk the regulators do not see or do not penalise adequately.

Attempts to reduce capital requirements in busts are equally fraught. The risk-averse market wants banks to hold a lot more capital than regulators require, and its will naturally prevails. Even the requirements themselves may not be immune to the cycle. Once memories of the current crisis fade and the ideological tide turns,

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there will be enormous political pressure to soften capital requirements or their enforcement.

The three Cs

To have a better chance of creating stability through the cycle—of being cycle-proof—new regulations should be comprehensive, contingent and cost-effective. Those that apply comprehensively to all leveraged financial firms are likely to discourage the drift from heavily regulated to lightly regulated institutions during the boom. This drift is a source of instability since the activities that heavily regulated banks hive off often return to haunt them in the bust, through unforeseen channels. Regulations should also be contingent so that they have most force when the private sector is most likely to do itself harm, but impose fewer restrictions at other times. This will make regulations more cost-effective and so less prone to arbitrage or dilution.

What form could such regulations take? First, instead of asking institutions to raise permanent capital, ask them to arrange for capital to be infused when they or the system is in trouble. Because these “contingent-capital” arrangements will be entered into in good times when the chances of a downturn seem remote, they will be cheap (compared with raising new capital in the midst of a recession) and thus easier to enforce. Because the infusion is seen as an unlikely possibility, firms cannot raise their risk profile, using the future capital as backing. And since it comes at bad times, when capital is scarce, it protects the system and the taxpayer.

One version of contingent capital is for banks to issue debt which would automatically convert to equity when both of two conditions are met: first, the system is in crisis, either based on an assessment by regulators or based on objective indicators; and second, the bank’s capital ratio falls below a certain value*. The first condition ensures that banks that do badly because of their idiosyncratic errors, rather than because the system is in trouble, don’t avoid the disciplinary effects of debt. The second condition rewards well-capitalised banks by allowing them to avoid the dilutive effect of the forced conversion (the number of shares the debt converts to will be set at a level so as to dilute the value of old equity substantially). It will also give banks that anticipate losses an incentive to raise new equity.

A collateral benefit is that, anticipating forced conversion, banks will raise new capital expeditiously when they make losses, thus protecting taxpayers. Of course, learning from the recent experience of foreign investors who put in money just before American banks declared more losses, new equity investors will need to be convinced that banks have disclosed fully all potential losses they know about.

Another version of contingent capital is the requirement that systemically important, and leveraged, financial firms buy fully collateralised insurance policies (from unleveraged firms, foreigners, or the government) that will capitalise these institutions when the system is in trouble**. Yet other versions would require banks to issue capital to top up losses based on public signal†.

Got any weekend plans?

There could also be regulations aimed at institutions regarded as “too big to fail”. Imposing limits on their size and activities will become very onerous when they are growing fast, thus increasing the incentive to water down any curbs. Perhaps, instead, a more cyclically sustainable approach would be to make them easier to close. What if firms big enough to pose a threat to the stability of the financial system were required to develop a plan that would enable them to be resolved over a weekend?

Such a “shelf-bankruptcy” plan would require banks to track, and document, their exposures much more carefully, probably through better use of technology. The mechanism would need to be stress-tested by regulators periodically and supported by legislation—such as one to facilitate an orderly transfer of the institution’s swap books to third parties. Not only would the need to develop a plan give these institutions the incentive to reduce needless complexity and improve management, it would not be particularly onerous in the boom, and might force management to think the unthinkable.

A crisis offers us a rare opportunity to implement reforms. The temptation will be to over-regulate, as we have done in the past, only to liberalise excessively over time. It would be better to think of regulation that is immune to the cycle.

For a discussion of this article, see Economist.com/freeexchange

*The idea for convertible debt with two triggers is developed by the Squam Lake Group and their proposal is laid out in greater detail in cfr.org/publication/19002

**The idea for collateralised insurance is by Anil Kashyap, Raghuram Rajan and Jeremy Stein, and their proposal is laid out in kc.frb.org/publicat/sympos/2008/KashyapRajanStein.03.12.09.pdf

†The idea for capital topped up automatically is by Oliver Hart and Luigi Zingales, and their proposal is explained in experts.foreignpolicy.com/posts/2009/03/30/to_regulate_finance_try_the_market

To regulate finance, try the market

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As Timothy Geithner pushes for an overhaul, it's time to rehabilitate one of the tools that got us into this mess: the credit-default swap.

By Oliver Hart and Luigi Zingales

Just days after announcing his plan to clean up banks' balance sheets of toxic assets, U.S. Treasury Secretary Timothy Geithner hit the airwaves, priming audiences for his next big project: a regulatory system to ensure that this financial crisis is a one-time event. "[The] core thing is to make sure that the institutions at the center of our financial system are subject to much more conservative, much tougher requirements on capital and leverage," he told NBC's David Gregory on Sunday's *Meet the Press*. Geithner will be taking his show on the road this week as the G20 convenes in London, where regulation will be high on the agenda.

Should we welcome Geithner's regulatory rethink? In principle, yes. If there is one lesson to be learned from the 2008 financial crisis, it is that large financial institutions (LFIs) such as Citigroup or AIG are too big to fail. Whether this doctrine is based on economics -- the cost of LFI failure is too high -- or politics -- the pressure to save LFIs is too strong -- the conclusion is the same: We need to reimagine how we regulate these institutions.

We'll explain why a market-based system is the best way to achieve this, and how credit default swaps -- yes, the same financial tools that helped get us into this mess -- can play a role. But first, some basic principles.

So what's wrong with bankruptcy for financial giants? In a free-market economy, bankruptcy accomplishes two crucial goals: it resolves conflicting claims and it shifts control away from incumbent management. By penalizing owners and managers, bankruptcy gives firms an incentive to repay their debts, thus permitting them to raise capital in the first place. But for LFIs, bankruptcy is a dangerous option. Given their size and the dense web of derivative and short-term financing contracts that these institutions have, bankruptcy spreads uncertainty throughout the economy, as we saw in the case of Lehman Brothers. So, we want a system that achieves the goals of bankruptcy, but at the same time ensures that these other contracts are safe.

How do we thread this needle? Here, we can learn from a common market practice: margin accounts. In a margin account, an investor buys stock and puts down only part of the cost. When the stock price drops, the broker who extended a loan for the rest of the stock price asks the investor to post new collateral. The investor then has a choice: He can post the collateral, thereby re-establishing the safety of his position, or he can liquidate his holding, allowing the broker to be paid in full.

This analogy can help us figure out how much capital large financial institutions should be required to keep on hand. The answer: an LFI will have to post enough collateral (equity) to insure that its liabilities are always paid in full. When the fluctuation in the value of the underlying assets puts creditors at risk, the LFI's equity holders will be faced with a margin call: They will either have to inject new capital or lose their equity. In both cases the creditors will be protected.

The main difference between margin calls and our new capital requirement system is the trigger mechanism. In a margin account, the broker looks at the value of the investments (which is easily determined since all assets are traded) and compares the value of the collateral posted with the possible losses the position might have in the following days. Creditors of LFIs, however, are often dispersed and so unable to coordinate to make a margin call. And since most LFI assets, such as commercial loans and home equity lines, are non-standardized and not frequently traded, their value is hard to assess. Another mechanism will be needed to determine when the margin is too thin.

One possibility is to leave the decision of when to make a margin call in the hands of a regulator. However, the risk here is twofold. Either the regulator is powerful, leaving financial institutions exposed to the risk of abuse, or the regulator is weak and will be unduly influenced by failing institutions and intervene too late.

Regulators should therefore rely on a market-based trigger: a credit default swap (CDS). Despite being viewed by many as a "financial weapon of mass destruction," CDSs are like any tool that can be used wisely or foolishly. In this context, they are potentially some of the best regulatory instruments available. A credit default swap on an LFI is an insurance claim that pays off if that institution fails and creditors are not paid in full. Since the CDS is a "bet" on the institution's strength (or weakness), its price reflects the

probability that the LFI debt will not be repaid. Such CDSs, in essence, indicate the risk that a large financial institution will fail.

In our mechanism, when the CDS price rises above a critical value (indicating that the institution has reached an unacceptable threshold of weakness), the regulator would force the LFI to issue equity until the CDS price and risk of failure back down. If the LFI fails to do this within a predetermined period of time, the regulator will take over.

This regulatory takeover would not be dissimilar to a milder form of bankruptcy, and it achieves all the other goals of bankruptcy -- discipline on management and shareholders -- without imposing any of the systemic costs.

Credit-default swaps have been demonized as one of the main causes of the current crisis. It would be only fitting if they were part of the solution.

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