

Fundamental Principles of Financial Regulation

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*This short column introduces the latest ICMB-CEPR Geneva Report to be published in March 2009. The annual Geneva Conference organised together with CEPR by the International Centre for Monetary and Banking Studies looked this year at financial market regulation. The latest title in the **Geneva Reports on the World Economy** series, "**The Fundamental Principles of Financial Regulation**", has been prepared by Markus Brunnermeier (Princeton and CEPR), Andrew Crockett (JPMorgan), Charles Goodhart (LSE), Avinash Persaud (Intelligence Capital) and Hyun Shin (Princeton and CEPR).*

Summary

This is neither the first nor the last banking crisis the world has seen. While we cannot prevent crises, we can make them fewer and milder by adopting and implementing better regulation. The objective is not more regulation but better regulation. In particular, micro-regulation as in Basel II must be supplemented by macro-regulation that recognises the phenomenon of endogenous risk.

The fault lies in regulation, not greed or financial innovation

We may well have seen one hundred severe banking crises. This undoubtedly means that the authorities must change something. That does not mean that they should superficially react to recent developments and prepare to fight the last war. Chiding bankers is satisfying; but insufficient. They must plug fundamental market failures that have either been ignored or improperly dealt with.

Goal of regulation should be to moderate financial cycles

The current crisis is nothing but yet another instance of an all too familiar boom and bust cycle. A type of crisis that repeats itself cannot easily be put down to particular or new and complex instruments, institutions, individuals or information. Moreover, reinforcing a regulatory mechanism that has failed to mitigate unstable cycles is not likely to be a successful strategy.

The prevention of crises in the banking system is more important than in the case of other industries because their costs to society are invariably enormous. The root cause of banking crises arises because the social cost of systemic financial collapse exceeds the private cost to the individual financial institutions. Effective regulation should provide incentives for financial institutions to internalise these externalities. The main tool is capital adequacy requirements.

You can't make the system safe by making each bank safe

The current approach to systemic regulation implicitly assumes that we can make the system as a whole safe by simply trying to make sure that individual banks are safe. This sounds like a truism, but in practice it represents a fallacy of composition. In trying to make themselves safer, banks, and other highly leveraged financial intermediaries, can behave in a way that collectively undermines the system.

As a result, risk is endogenous. Selling an asset when the price of risk increases, is a prudent response from the perspective of an individual bank. But if many banks act in this way, the asset price will collapse, forcing institutions to take yet further steps to rectify the situation. Responses of the banks to such pressures lead to generalised declines in asset prices, and enhanced

correlations and volatility in asset markets.

Busts usually follow booms

Financial crashes do not occur randomly, but generally follow booms. Through a number of avenues, some regulatory, some not, often in the name of sophistication and modernity, the role of current market prices on behaviour has intensified.

These avenues include mark-to-market valuation of assets; regulatory approved market-based measures of risk, such as credit default swap spreads in internal credit models or price volatility in market risk models; and the increasing use of credit ratings, which tend to be correlated, directionally at least, with market prices.

In the up-phase of the economic cycle, price-based measures of asset values rise, price-based measures of risk fall and competition to grow bank profits increases. Most financial institutions spontaneously respond by (i) expanding their balance sheets to take advantage of the fixed costs of banking franchises and regulation; (ii) trying to lower the cost of funding by using short-term funding from the money markets; and (iii) increasing leverage. Those that do not do so are seen as underutilising their equity and are punished by the stock markets.

When the boom ends, asset prices fall and short-term funding to institutions with impaired and uncertain assets or high leverage dries up. Forced sales of assets drives up their measured risk and, invariably, the boom turns to bust.

Micro and macro-prudential regulation

Micro prudential regulation concerns itself with the stability of individual institutions. Macro-prudential regulation concerns itself with the stability of the financial system as a whole.

Micro-prudential regulation examines the responses of an individual bank to exogenous risks. By construction it does not incorporate endogenous risk. It also ignores the systemic importance of individual institutions such as size, degree of leverage and interconnectedness with the rest of the system.

This is why we need to complement micro-prudential regulation with macro-prudential regulation. The purpose of macro-regulation is to act as a countervailing force to the natural decline in measured risks in a boom and the subsequent rise in measured risks in the subsequent collapse.

Macro-regulation has to be as rule-based as possible. Supervisors have plenty of discretion, but their ability to utilise it is limited by the general short-sighted desire to prolong a boom and by bankers pleading for equality of treatment.

Counter-cyclical capital charges

The first proposal of the Geneva Report is to make capital requirements counter-cyclical. Regulators should increase the existing capital adequacy requirements (based on an assessment of inherent risks) by two multiples.

The first is related to above average growth of credit expansion and leverage. Regulators should agree on the degree of bank asset growth and leverage that is consistent with the long-run target for nominal GDP. The multiple on capital charges rises the more credit expansion exceeds this target. The purpose of this capital charge is not to eliminate the economic cycle, something which would be unrealistically ambitious. Rather the aim is to ensure that banks are putting aside

an increasing amount of capital in a boom, when risk measures are suggesting banks can safely leverage or lend more. Some of this capital can then be released when the boom ends and asset prices fall back.

The second multiple on capital charges should be related to the mismatch in the maturity of assets and liabilities. Indeed, one of the significant lessons of the Crash of 2007/8 is that the risk of an asset is largely determined by the maturity of its funding. Northern Rock and other casualties of the crash might well have survived with the same assets if the average maturity of their funding had been longer. When regulators make little distinction how assets are funded, there is a tendency for financial institutions to rely on cheaper, short-term funding, which increases systemic fragility. The Geneva Report proposes to adjust mark-to-market accounting to provide a further incentive to reduce maturity mismatch. This can be done by imposing a capital cost that is inversely related to the maturity of funding of long-term assets.

Not all banks are alike

The vast majority of banks are small enough that their failure would not have the kind of repercussions that the demise of Lehman Brothers triggered. It stands to reason that regulation should acknowledge that some banks are systemically important. The Geneva Report proposes that, in each country, the regulators/supervisors establish a list of systemically-important institutions.

All banks, and any other financial institution subject to deposit insurance, would be subject to some (low) minimum capital requirement as a protection for the deposit insurance fund. Systemically-important institutions would be subject both to micro-prudential regulation and to macro-prudential regulation, related to their contribution to systemic risk. This can be done by adjusting the micro-prudential ratio by a coefficient corresponding to their macro-prudential risk.

Banker's pay

The Geneva Report does not share the zeal of some for governments to be involved in the decisions of private firms in matter of executive compensation. While not ruling out particular measures, it argues that macro-prudential regulation will push banks to develop incentive packages that are more encouraging of longer-term behaviour.

Regulatory structure: Form should follow function

There is a tendency amongst politicians to want to reshape the regulatory system before considering the potential instruments to achieve better regulatory control. Quite to the contrary, regulation should reflect the purposes and powers of the regulatory authorities. Moreover regulation should always be justified as a consequence of specific market failure.

Macro and micro-prudential instruments differ in their needed professionalism. Macro-prudential regulation should be carried out by Central Banks and micro-prudential regulation by Financial Services Authorities.

Global arrangements for global banks

How to deal with banks which are present in several countries? Currently, unless local banks are set up as independent subsidiaries, regulation and supervision is carried out in the home country. Yet financial conditions normally differ from country to country.

The Geneva Report proposes that each host country should have the right to designate a cross-

border subsidiary, or branch, as 'systemic'. Systemic branches should be required to become subsidiaries. Foreign-owned subsidiaries should be subject to the same capital requirements, and hold that in domestic assets, as domestic banks.