6. The Future of International Financial Regulation

By John Eatwell

> "The modern risk-management paradigm held sway for decades. The whole intellectual edifice, however, collapsed in the summer of last year".
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> *Alan Greenspan, evidence to US House of Representatives, 23rd October 2008*

The financial crisis poses a major challenge for financial regulators. As the Chairman of the UK Financial Services Authority has admitted (following Alan Greenspan), the intellectual framework on which regulation was constructed over the past 35 years is seriously flawed—resulting in seriously flawed regulation (FSA, 2009). Creating an effective financial services regulator will not simply involve "more regulation". It will require completely different regulation. And, if the new approach is to be successful, at the heart of that difference will be the international dimension.

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The Conventional Wisdom

The analytical foundations of regulation over the past three decades are clearly defined in the structure of Basel II. The first and third pillars rest on the proposition that markets are efficient. Accordingly risk management by firms will ensure the management of risk for the economy as a whole, and exposing firms to greater competition and market scrutiny will enhance systemic efficiency. It is clear that neither of these propositions holds. Not only has the efficient markets hypothesis been exposed as a chimera, but also, perhaps even more remarkably, the neglect of the externalities associated with firms' risk taking was a fundamental analytical error. Given that the economic analysis was so misconceived, it is perhaps not surprising that the statistical theory and practice of risk management should have gone so badly awry. Even if the difficulties of modelling extreme events and the limitations of historical data in a fast changing market had not been so cruelly revealed, the economic framework within which statistical modelling was developed was deficient.

Yet it has been the combination of efficient markets theory, the neglect of systemic externalities and the accompanying statistical analysis that has driven not only the practice of regulation, but also structure of the financial services industry over the past thirty years. Without the tools that economic theory and statistical analysis (and modern data processing capacity) provided, the disintermediation of financial services would not have been possible. The combination of securitization and the techniques embodied in credit derivatives provided the means of pricing exotic and Over-the-Counter (OTC) instruments, and of rating credits. Add the confident belief that liquidity is marketability, and the seeds of current difficulties are sown and abundantly fertilized.

The familiar trology formed the heart of the "Basel consensus":

- **Geater transparency**
- **More disclosure**
- **More effective risk management by firms.**

The growth of disintermediated markets was fuelled by demand (high returns with relatively low risk on instruments tailored to buyers' needs), supply (the growth of profitable off-balance sheet instruments, with equity returns enhanced by growing leverage) and by the regulators, happy to endorse the securitised dispersion of risk to "those with greater risk appetites". The familiar trilogy—greater transparency, more disclosure, and more effective risk management by firms—defined the heart of the "Basel consensus", all that was required for regulation of efficient markets. This trilogy dominated the creation of principles and standards by the Basel committees and by national regulators, and is still a disturbingly dominant theme today. It is particularly striking that the trilogy remains at the core of the proposals from the Financial Stability Forum after the onset of the crisis. (See FSF, 2008a, 2008b). It was the policies derived from the trilogy that "hard-wired" pro-cyclical forces into the financial system (Turner, 2009).

Amongst the litany of analytical failings (all derived from the presumed social efficiency of financial markets) probably the most important was the belief that efficient risk management by firms would lead to socially efficient results. In an industry with major externalities, firms are incapable of managing the risks to which they are exposed (by others), and competitive, transparent markets are inefficient. The standard theoretical answer is to "complete the market", hence internalising the externality. Something of this thinking motivated the risk buckets of Basel I. But in financial markets risks are transmitted macro-economically, through interest rates or exchange rates, and, most important of all, through the general level of confidence. The value of financial assets is determined by their expected flow of future returns. Once confidence in future returns evaporates, so does their value. Hence, when the market for securitised sub-prime mortgages was in obvious difficulty, the consequent loss of confidence affected all securitised instruments, resulting in the collapse of first the entire market in securitised Collateralized Debt Obligations (CDOs) and subsequently of the marketability, i.e. liquidity, of a wide range of financial instruments—destroying the ability of the banks to issue liabilities and hence to lend.

Macro-prudential Regulation

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Given that the fragility of financial markets derives in large part from these macroeconomic linkages, future regulation will be macro-prudential, as well as micro-prudential (As will be made clear below, the two dimensions do, to some extent, contradict one another). At least seven major macro dimensions have been identified:

First, regulators must introduce stress testing for the system as a whole. Financial firms are encouraged by supervisors to conduct thousands of stress tests on their risk models, but few have been conducted by regulators on a system-wide scale (The failings of firm-based stress testing are outlined in Haldane, 2009). If it is possible to have system-wide stress tests on the impact of Y2K, or of avian flu, why not loss of liquidity? The regulator should conduct system-wide stress tests of those scenarios most likely to produce systemic stress—such as a 40 percent drop in house prices. The information gleaned in this exercise should feed into regulatory measures that are likely to be quite different from those suggested by the risk management of an individual firm. After all, banks end up concentrating their resources in places where their individual risk management systems tell them, erroneously, they are safe. So the risk management by individual firms should be determined in a framework defined predominantly by macro-risk modelling by the regulators, micro-prudential regulatory interventions being based on macro-risk assessment (Brunnermeier et. al. 2009; FSA, 2009).

Second, as an important component of macro-risk management, financial institutions must be required to undertake pro-cyclical provisioning, raising their capital reserves in good times and using those reserves as a cushion in bad times. The rules determining these reserves would be quite different from those governing the regulatory capital that financial institutions are required to hold today. That capital is a charge, not a buffer. Since the firm must hold a certain capital reserve to be allowed to operate, it cannot use that reserve to tide it over in bad times (of course, capital charges may need to be raised too). The provisioning requirements should be based on the health of the economy as a whole, so capturing systemic strength and weakness. A policy with some of these characteristics has been pursued in Spain (so-called "dynamic provisioning") where, despite the massive real-estate crisis, the banks have so far remained strong. Astonishingly, it had been proposed that the Spanish system should be dismantled because it is not in accord with international financial accounting standards.

Third, the adoption of highly leveraged positions, both in the banks, and in the chain of banking counterparties, has proved to be a significant weakness of the system as a whole during the current downturn. High leverage should attract high capital charges. In addition, it may be necessary to impose limits on leverage (leverage collars) as capital charges alone are not sufficient to limit leverage expansion in an upswing. In addition to the overall level of leverage, serious mismatches between liabilities and assets have exposed firms to liquidity risk. A distinction should be drawn between short-term funded leverage and longer-term funding. Consider, for example, the current debate over the impact of mark-to-market accounting. From a risk management perspective, the problem with the current value accounting rules is that the focus is on the asset: its perceived liquidity and the intention of the asset holder to hold it to maturity or to trade it. Asset liquidity and holder intentions can change rapidly in a crisis leading to an increasingly artificial view of value and solvency. It would be far better to focus on the funding liquidity of the asset. Where assets are funded with short-term liabilities, then whatever the perceived liquidity or intentions of the asset owners, it is appropriate to mark the value of that asset to market in case funding dries up and the assets need to be sold tomorrow. But where assets are funded with long-term liabilities or set against long-term liabilities, as is typically the case with a young pension fund, then marking asset values to market is not appropriate and can lead to an artificial view of risk and investment decisions based on a risk that is not important to the holder. Indeed, an incentive to match assets and liabilities would remove much of the sting from mark-to-market accounting.

Fourth, detailed supervision of firms' business models should be conducted within a context of macro-risk assessment. The second pillar of Basel II, "enhanced supervision", is firm-specific. As the failings of the Basel approach have become clear, more and more has been piled on this pillar. But when the content of supervision is limited to the individual firm, the essentially qualitative process is not capable of bearing the weight of the social cost of externalities, especially in an international context (Ward, 2002). However, if business models are related to macro-prudential goals, supervision may play a part in reinforcing regulatory strictures.

Fifth, a return to the separation of "utility banking" from the "casino banking" of the investment banks. This proposal, popular with some and deemed impossible by others, seeks to break the dangerous chains of counter-party relationships in the disintermediated financial system. If commercial banks had no access, or very limited access, to wholesale funding and the markets for securitised instruments, they would have to source their funding from their depositor base. This could not be achieved in one country.

Sixth, there should be strict regulation of non-tradable financial instruments, encouraging instead the issue of standardised instruments, readily susceptible to clearing. This has been characterised, erroneously, as increased transparency. But most securitised instruments are perfectly transparent, accompanied as they are by hundreds of pages of detailed documentation. The problem is not transparency, but complexity. Limiting the issuance of complex, customised, often non-tradable instruments would reduce the risk of the massive write-downs seen over the past 12 months, and provide a ready flow of information on market stress. In addition, commercial banks might be restricted to instruments that can be cleared on markets with central counterparties, a sort of "Glass-Steagall lite".

Seventh, to secure effective macro-risk management financial regulation must escape from its present focus on the nature of institutions—commercial banks are regulated differently from investment banks, hedge funds are not regulated at all—and concentrate instead on function. Major macro-risk stems from the liability side of the balance sheet, which is in turn linked to chains of counter-party transactions in the disintermediated system. After all, the two systemically critical failings in the US occurred outside the banks, in an investment bank, Lehman Brothers, and an insurance company, AIG. Targeting regulation on highly leveraged financial institutions, whatever their formal legal status, would be an important step. Some years ago the only significant highly leveraged institutions were commercial banks. Today, leverage is a characteristic of firms throughout the financial system, whether they are deposit-taking banks, investment banks, hedge funds, mutual funds, private equity firms or insurance companies. It is this leverage that threatens market gridlock. Regulation must switch from an institutionally defined approach to a functionally defined approach as a vital component of systemic regulation. National juridical boundaries are equally irrelevant.

Some Difficulties

The development of macro-prudential regulation will require a substantial integration between securities and markets regulation and the management of monetary stability. One of the peculiarities of the practice of monetary policy over the past few years has been the apparent lack of concern about the balance sheets of banks and other financial firms, the focus predominantly being on interest rate policy and targeting the inflation rate of current goods and services. In other words, there has been a lack of concern about the growth of credit and the dynamics of asset prices. However, not only do balance sheets matter in the determination of overall monetary demand, but also credit dynamics have a direct impact on money demand. And it is these balance sheets that will be the focus of macro-prudential regulation.

Another difficulty will be to develop an approach to risk management by firms that does not undermine macro-prudential regulation. Firms' risk management procedures, enforced and/or endorsed by regulators, have "hard-wired" pro-cyclicality into financial markets, and have contributed significantly to current difficulties (see Alexander, et.al., 2007, sections 1.32 and 1.33). Yet micro-risk management is a necessary part of prudential regulation. Higher capital charges will be a valuable means of diminishing the appetite for risky investments, but will not overcome the problem that adoption of similar risk models, based on similar data, will result in stressed firms doing the same thing at the same time. Offsetting this herding effect may become a major challenge for macro-surveillance and rules.

The International Dimension

But the biggest challenge to the new macro-prudential framework derives from its "macro" character, since in a world of open financial markets the macroeconomy is the global economy. The risks taken in one jurisdiction may well have macro consequences in other jurisdictions, and, conversely, macroeconomic financial events abroad may well impinge on firms at home. This takes the international dimension of regulation far beyond the issues faced in the past 35 years.

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The impact of international factors on financial regulation was felt almost immediately after the liberalization of financial markets began in the early 1970s. The liberalization left financial regulators trapped in increasingly irrelevant national juridical boundaries. The failure of the Herstatt Bank in 1974 exposed the dangers in the new regime by threatening all banking settlement in New York, whilst both the Federal Reserve (not our bank) and the Bundesbank (not our market) disavowed responsibility. The response was the establishment of the Basel Committees by the G-10 club of central bankers, whose first task was to sort out home-host responsibilities. Over the succeeding 34 years the Basel committees became the main forum for the establishment of international banking standards, most notably in the specification of capital requirements in the Basel Accord of 1988 (Basel I) and Basel II. These international banking committees have been joined by international groupings of securities markets regulators (IOSCO) and insurance regulators (IAIS). All these organizations propagate principles and standards, and rely on national bodies for implementation. They operate by consensus, with no treaty status, creating "soft law" (Alexander, 2000; Alexander et.al. 2006, chpt. 4).

In 1999, following the Asian financial crises and the near collapse of Long Term Capital Management (LTCM), the G-7 established the Financial Stability Forum, bringing together finance ministers, central bankers, regulators and the IMF, the World Bank and the BIS to formulate responses to international regulatory problems. In the same year the IMF and World Bank began their Financial Sector Assessment Program (FSAP), to study the conformity of national regulatory structures to the principles and standards established by the Basel committees, IOSCO and the IAIS. And in 2001, the IMF established its International Capital

Markets Department (now the Monetary and Capital Markets Department) "to enhance … surveillance, crisis prevention and crisis management activities". It proposed that the new Department's responsibilities would include "systematic liaison with the institutions which supply the bulk of private capital worldwide".

All these institutions developed and/or implemented policies-based principles and standards derived from the Basel trilogy, a micro-prudential approach. This approach tends to concentrate on conduct of business regulation, with prudential issues confined to the risks encountered by the individual firm. As a perceptive, but ignored, IMF study noted in 2004:

"The objectives of regulation and regulatory components could be more expressly linked to the goal of system-wide financial stability. The standards are useful to regulators charged with assessing the strength of regulated entities within each sector. However, their use in addressing system-wide stability issues is limited, partly because they were not written for this purpose. The standards take little account of structural issues, or of interlinkages among different types of financial firms and markets" (IMF, 2004).

The Micro and Macro Factors in International Regulation

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The micro-prudential approach, focussed on transparency, disclosure and the process of risk management, is peculiarly susceptible to international agreement and implementation, for three reasons:

First, once home-host issues have been sorted out, the regulatory domain is national.

Second, the international dimension of the regulatory process takes the form of principles and standards that can be adapted to national legislation.

Third, the micro concerns of the regulators do not impinge directly on other aspects of national economic policy. Such impact as there may be is confined to regulatory arbitrage (encouraging the growth of financial services by "lighter" regulation) and tax avoidance.

This contrasts significantly with the international dimensions of the seven macroprudential measures outlined above:

First, in a regime of liberalised international financial markets, macroeconomic factors are necessarily international.

Second, it will be necessary to capture macroeconomic externalities by means of common rules, since a seamless market will require common actions irrespective of juridical boundaries.

Third, macroprudential measures will impinge directly on other aspects of national policy, whether monetary policy, credit, housing and other asset markets, corporate structure, and so on. Moreover, the management of seemingly micro-risks, such as currency mismatches, might be better managed by macromeasures, such as capital controls.

To these new issues should be added the divergence of national interests that will be generated by countries being at different stages in the economic cycle. If cycles are not coordinated (and coordination is very undesirable) the implementation of macro-measures appropriate to the cycle (such as counter-cyclical capital charges) could lead to macro-prudential regulatory arbitrage.

Institutions

These are major problems. However, they are probably susceptible to pragmatic solutions if there is sufficient international commitment (recognition of national self interest), and an effective institutional structure within which policy may be developed and implemented. An ideal type might be the World Financial Authority (Eatwell and Taylor, 2000). But whilst the concept provides a useful template against which to test existing institutional structures, there is clearly no appetite at present for the creation of such a potentially intrusive organization.

These are major problems: pragmatic solutions are possible with sufficient international commitment (recognition of national self interest), and an effective institutional structure within which policy may be developed and implemented.

So if there is to be macro-prudential supervision, and this is necessarily international, what will be in the institutional framework within which it is conducted? The Turner Report (FSA, 2009) suggests that there should be a single rule-making financial services regulator for the European Union. More broadly, the two major candidates would seem to be the Financial Stability Forum (FSF) and the IMF. Both have major weaknesses.

The FSF has recently widened its membership beyond the G-7, adding the G-20 members that are not already members, Spain and the European Commission. As the major international financial "think tank" the FSF would be a logical location for the development of the new rules (notwithstanding the depressing Basel trilogy dominated reports of 2008). It has the right sort of membership—gathering together regulators, central banks, and treasury departments—and it could form a macro-prudential counterpart to the Basel committees. Its major weakness, is their major weakness. It is a consensual, soft law, organization, not well designed for surveillance and the propagation of rules.

The IMF is a treaty organization, with powers in its articles of association to conduct macroeconomic surveillance, and it has taken steps in recent years toward a role in international financial regulation. It may well be given a financial surveillance role in any future structure. However, the IMF's powers have in recent years typically been used with respect to developing countries, where its approach has, to say the least, been controversial. It has "baggage". Moreover, the IMF has not been effective in dealing with the major advanced economies that might be deemed financially systemically relevant. The United States, for example, simply refused to participate in the Financial Sector Assessment Program FSAP, and it is well known that IMF surveillance reports on advanced economies are subject to considerable national "influence".

However, there is clearly at present a shared perception of national interests in effective international macro-prudential regulation, and there may well be a willingness to establish a new framework that combines the policy making potential of the FSF with the treaty sanctioned surveillance powers of the IMF. The resultant entity would be legitimised by a wide membership (G-20+), and would perhaps be the subject of general scrutiny at the Fund annual meeting. It will, of course, need to steer a difficult course between national interests, but if this is within a coherent intellectual framework (and the trilogy is superseded) then there may be significant progress. It will not be easy.

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