

MACRO-PRUDENTIAL FINANCIAL REGULATION: PANACEA OR PLACEBO?

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A veil of unprecedented uncertainty has descended over global financial markets. Amidst the resulting pandemonium, it has nevertheless become possible to divine a few precious truths from the current global financial crisis. Paramount amongst these is perhaps that financial regulators from Washington D.C. to London failed to recognise the gathering storm: that they did (and do) not possess the requisite mandates, information or expertise to effectively monitor – or indeed fully appreciate – the nature or extent of potential systemic risks.¹ In ostensible acknowledgement of this regulatory myopia, governments, financial regulators and commentators have in recent weeks, and in almost perfect harmony, advocated a more ‘macro-prudential’ approach toward financial regulation to be executed under the watchful eyes of ‘systemic risk regulators’.²

Distilled to its essence, macro-prudential regulation involves the gathering and analysis of macro-economic data respecting, *inter alia*, asset price inflation, credit expansion, leverage ratios, funding mismatches and the interconnectedness of financial institutions and markets with a view to detecting, and ultimately deterring, socially sub-optimal levels and concentrations of risk within the financial system. Stated somewhat differently, the primary objective of macro-prudential regulation is to identify and preemptively deflate potential asset bubbles before their bursting can threaten the stable and fluid operation of financial markets. In furtherance of this objective, macro-prudential regulation contemplates enhancing existing surveillance systems and disclosure obligations (especially in respect of financial institutions deemed systemically important), expanding the perimeter of financial regulation (to encompass institutions such as hedge funds and instruments such as ‘over-the-counter’ derivatives), harmonising national prudential regulation regimes and building more robust cross-functional and cross-border information sharing and co-ordination mechanisms.³ However, while representing an intuitively appealing response

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¹ M. Brunnermeier, A. Orockett, C. Goodhart, A.D. Persaud & H. Shin, *The Fundamental Principles of Financial Regulation* (2009), Geneva Reports on the World Economy 11, International Center for Monetary and Bank Studies (ICMBS), pp. vii and 6; The High-Level Group on Financial Supervision in the EU, *Report of the High-Level Group on Financial Supervision in the EU* (2009), p. 11.

² “More Than Just Repairs”, *The Economist*, March 26 2009.

³ International Monetary Fund, *Lessons of the Financial Crisis for Future Regulation of Financial Institutions and Markets and For Liquidity Management* (2009), Monetary and Capital Markets Department; The High-Level Group on Financial Supervision in the EU (2009), *supra* note 1, pp. 59, 63.

to an almost universally acknowledged deficiency in the pre-credit crunch global regulatory environment, there exist a number of compelling reasons to question whether macro-prudential regulation is capable of achieving its laudable, and lofty, objectives.

I. Financial Markets are Very, Very Complex

It is almost impossible to overstate. The frequency and complexity of interactions within and between financial markets and the real economies they support – to say nothing of the nature and pace of change within these markets – make the timely and comprehensive evaluation of potential systemic risks an unrealistic prospect. Accordingly, it is all but inevitable that systemic risk regulators will be called upon to design and implement macro-prudential regulatory mechanisms armed with imperfect information. Precisely how imperfect this information can be was amply illustrated by the International Monetary Fund (IMF) in its April 2006 Global Financial Stability Report:

“[T]he dispersion of credit risk by banks to a broader and more diverse set of investors, rather than warehousing such risk on their balance sheets, has helped make the banking and overall financial system more resilient.”⁴

Indeed, none of the financial regulators presently vying with the newly created Financial Stability Board for the crown as lead global systemic risk regulator – including the IMF and U.S. Federal Reserve Board – correctly forecast either the onset or pernicious effects of the current crisis. Blame for this failure has, not entirely inappropriately, been variously located in the absence of formal systemic mandates, fragmented regulatory structures, legal constraints on information sharing and a general failure to demand and receive timely and relevant information.⁵ Yet the complexity of financial markets gives us reason to question whether these regulators, in the absence of such impediments, would have possessed either the capacity or expertise to evaluate all relevant information, generate clear and accurate forecasts and deliver timely and effective regulatory action. Many of the factors which contributed to the formation of the asset bubble which triggered the current crisis – including historically low interest rates, the rapid expansion of credit, ballooning trade imbalances and the growth and importance of the so-called ‘shadow’ banking sector⁶ – were readily observable. What was missing was not *data*, but a comprehensive *understanding* of the complex interactions within and between global financial markets.

⁴ International Monetary Fund, *Global Financial Stability Report* (April 2006), p. 51.

⁵ The High-Level Group on Financial Supervision in the EU (2009), *supra* note 1, p. 11; IMF (2009), *supra* note 3, p. 3.

⁶ The term ‘shadow’ banking sector is used to describe entities such as hedge funds and instruments such as over-the-counter derivatives which often, and to varying degrees, reside outside the scope of financial services regulation.

Proponents of macro-prudential regulation level two species of argument in response. First, they observe the existence of a discernable pattern – an ‘internal, self-amplifying dynamic that has lain at the root of both the recent, and virtually all prior, financial crises’⁷ – which will assist systemic risk regulators in identifying the formation of future asset bubbles. Second, they assert that neither the complexity of financial markets nor our incomplete understanding of them represent sufficient justification for failing to intervene in order to avoid potential systemic crises.⁸ The persuasiveness of the first argument is undermined by both logic and experience: while it may be possible to discern a pattern *ex post*, this must be distinguished from the *ex ante* identification of its recurrence – an undertaking at which we have repeatedly and demonstrably revealed ourselves to be generally inept. The persuasiveness of the second argument is undermined by its wholesale disregard for the social welfare consequences – in terms of lower productive output, growth and employment – of regulatory action designed to deflate potential asset bubbles. Indeed, while beyond the present scope, the social welfare calculus associated with this growth/stability tradeoff introduces an additional layer of complexity with which systemic risk regulators must inevitably grapple.

II. Our Quantitative Models for Understanding Financial Markets are Not Sufficiently Robust

In the heady days leading up to the current global financial crisis, the prevailing intuition was that the complexity of modern financial markets had been matched by the robustness of our quantitative models for measuring and managing risk. We now know this not to be the case – the crisis having spectacularly illustrated the philosophical and methodological shortcomings of these models and, by implication, our own bounded rationality. More specifically, the current crisis has exposed the frailty of many of the fundamental assumptions imbedded within these models respecting, *inter alia*, the efficiency of markets, the rationality of market participants, the independence of variables and the normal distribution of events within financial markets. The crisis has also exposed the impotence of these models in terms of their ability to both account for network externalities and exogenous shocks and correctly distinguish between the formation of potential bubbles and shifts in the underlying price fundamentals of an asset. Indeed, the time has come to acknowledge that the principles of ‘Brownian motion’⁹ in physics upon which these quantitative models are based may be of constrained utility in terms of understanding economic and social interactions: that what we are dealing with in many contexts is not statistically

⁷ ICMBBS (2009), *supra* note 1, p. 5.

⁸ The High-Level Group on Financial Supervision in the EU (2009), *supra* note 1, p. 14.

⁹ Named after botanist Robert Brown, Brownian motion refers, *inter alia*, to the random movement of particles in liquid. The same principle of randomness and, importantly, the mathematical models used to describe it, reside at the heart of the efficient markets theory (EMT) upon which the quantitative models employed in finance are typically premised.

quantifiable risk, but true Knightian uncertainty.¹⁰ To the extent these models and their progeny remain the primary quantitative basis for measuring risk – and thus the fundamental value of assets – the effectiveness of macro-prudential regulation will, accordingly, be similarly constrained.

III. Complexity Breeds Conflict, Not Consensus

The success of macro-prudential regulation is clearly predicated on the existence of a high level of both positive and normative consensus *within* systemic risk regulators respecting, *inter alia*, prevailing financial market conditions, the socially optimal balance between economic growth and financial stability and the appropriate course of regulatory action. Similarly, within the context of an increasingly integrated global economy, the success of macro-prudential regulation hinges on the existence of consensus, harmonisation and co-ordination *between* systemic risk regulators. Yet given the complexity of financial markets and our incomplete understanding of them, it is not unreasonable to expect a significant measure of healthy disagreement respecting these matters both within and between systemic risk regulators. Compounding matters, to the extent that they find themselves in different macro-economic environments, differentially exposed to the effects of a potential systemic crisis, subject to different internal political pressures or possessing other divergent incentives, it is reasonable to expect the development of frictions between national governments respecting the appropriate course of regulatory action and thorny issues such as burden sharing. Finally, building the requisite consensus invariably takes time – perhaps the most precious commodity in the face of a potential global financial crisis. The necessity of consensus is thus likely to undermine both the timeliness and effectiveness of macro-prudential regulation.

IV. Even Consensus Does Not Guarantee Timely and Effective Regulatory Action

Assuming the requisite level of internal and cross-border consensus can be forged, the success of macro-prudential regulation will still be contingent on the potency of the regulatory mechanisms at the disposal of systemic risk regulators. Beyond sounding the global risk alarm, these mechanisms will likely continue to center around the recalibration of existing national monetary policies and prudential banking requirements – albeit in a more comprehensive, coordinated and nuanced fashion than has historically been the case. However, to the extent that these mechanisms generate unintended downstream consequences and require precious time to manifest their desired effects, they represent less than perfect conduits for reshaping risk

¹⁰ A. Turner, *The Turner Review: A Regulatory Response to the Global Banking Crisis* (March 2009), U.K. Financial Services Authority, p. 45. Named after economist Frank Knight, Knightian uncertainty refers to risk which is not susceptible to quantifiable (i.e. statistical) measurement; F.H. Knight, *Risk, Uncertainty and Profit* (Houghton Mifflin Company, Boston, 1921).

preferences (and thus the allocation of resources and, ultimately, prices) within financial markets. Collectively, these imperfections light the way toward a potentially more effective arsenal of regulatory mechanisms based not on the real-time evaluation of financial market conditions, but on *actual* prudence. Examples of such mechanisms include the Spanish system of 'dynamic provisioning' (effectively mandating the accumulation of capital buffers during economic upswings which can then be drawn against during downswings) and Canadian rules imposing maximum leverage ratios on financial institutions. While such mechanisms require periodic re-evaluation with a view to, *inter alia*, striking the appropriate balance between economic growth and financial stability, they are superior to macro-prudential regulation to the extent that they necessitate neither significant cross-border consensus nor the ability to accurately read financial market tea leaves.

Clearly, financial regulators failed to recognise the macro-economic signals which warned of the impending global financial crisis and, in its wake, must re-evaluate their approaches toward prudential regulation. Enhancing existing surveillance systems and disclosure obligations, expanding the perimeter of financial regulation, harmonising national prudential regulation regimes and building more robust cross-functional and cross-border information sharing and co-ordination mechanisms represent logical, and arguably necessary, reforms. However, to the extent that financial regulators have identified macro-prudential regulation as a panacea in respect of future systemic crises, they have blinded themselves to what may ultimately be the most important lesson to be drawn from the current crisis. Stated simply, we possess neither the tools to fully understand the complexity of financial markets, nor the macro-economic regulatory mechanisms to actively manage them. In these respects, it is not that the current global financial crisis has precipitated uncertainty within financial markets so much as it has revealed it.

