

The Turner Review on the Global Banking Crisis:

A Response from the Financial Services Research Forum

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1. Introduction

The recent review by Lord Turner (Turner 2009, henceforth TR) and accompanying FSA Discussion Paper (FSA 2009, henceforth FSA) represent a useful contribution to the growing literature on the causes of the current (2007-2009) banking crisis. Moreover these documents provide a very clear indication of our regulator's current thinking as to how UK, EU and International financial services regulation should change going forward. In so doing Lord Turner, along with many others at the FSA, should be commended for the considerable effort that they have gone to in order to produce such detailed documents and for their willingness to invite debate on future policy solutions, some time prior to the inevitable round of consultation papers and accompanying draft handbook text that will no doubt follow over the next few years.

Despite the merits of these publications we feel that their findings may be somewhat premature, even for discussion documents. Notably there are a number of issues that require further debate, covering both the causes of the current crisis and the optimum regulatory responses that should be implemented in order to prevent such events in the future. As such we believe that it is important to outline these issues in order to stimulate this debate, both within the regulatory and practitioner communities that make up the financial services sector and the academic community that observes and supports it.

More specifically the issues that we intend to address are as follows:

- The socio-technical nature of crises and the fundamental importance of people (usually directors/senior management), organisational structure and culture in explaining why they occur.
- The presumption that markets behaved irrationally or that shareholders could ever have been relied on to provide appropriate market discipline.
- The role of financial regulation as a key cause of the current crisis.
- A challenge to the belief that ever greater Pillar 1 capital requirements are required.
- The danger of knee jerk reactions by policy makers and regulators and notably their apparent desire to replace market forces and make financial services regulation more rather than less prescriptive.
- The questionable notion that any bank is 'too big' or 'too important' to fail.

We believe that a comprehensive analysis of the above issues is vital to understanding not only what went wrong in relation to the current crisis, but also how best to reduce the likelihood and impact of future crises. At their crux is the question of human/organisational behaviour, an area of research that the Financial Services Research Forum is committed to promoting. An understanding of why humans/organisations behave the way that they do lies at the heart of good economic and strategic decision making, both for financial services firms and their regulators alike. Indeed we believe that this is illustrated very powerfully by the current crisis,

where factors such as organisational culture and manager/stakeholder incentives lie at its core.

Moreover the fact that the TR and FSA have not considered the question of human/organisational behaviour to the depth that is required does rather call into question the validity of their initial policy proposals. Indeed, based on our interpretation of the current crisis we would recommend a somewhat contrasting approach to the future reform of UK, EU and International financial services regulation. Notably we challenge the conclusion that Pillar 1 capital requirements should be increased. Capital requirements are an expensive regulatory tool (particularly when it must be held in highly liquid/low risk assets) that can also inhibit growth and financial market innovation. In addition its ability to control the risk of major financial crises is limited, not only because losses can quickly exceed the amount held (no matter how large), but also because it is often ineffective in creating appropriate loss prevention behaviours. Similarly we contend that the energies of our regulators should be less directed at greater regulatory prescription and more focused on promoting appropriate market based incentives for risk taking, coupled with improvements in the risk management standards that are adopted by financial institutions.

The response of the Financial Services Research Forum proceeds with a review of each of the above issues and their implications for the policy proposals that are proposed by the TR and FSA. In so doing the Forum does not seek to respond to the FSA's list of questions. This being on the grounds that most of these questions are often not those that actually require consideration. Rather what is required is a more fundamental debate about the nature and direction of financial services regulation in the UK, EU and beyond.

This work has been endorsed by the academic team of the Financial Services Research Forum. However please note that the views contained within it are the author's own and may not reflect the opinions of all of its members.

2. Key Issues

2.1 The Socio-Technical Nature of Crises (Including This One)

On the Causes of Crises

Time and time again investigations into a wide range of crises (including some within the financial services sector¹), have revealed that it is socio-technical factors such as

¹ See for example the Penrose Report (2004), which looked at the failure of the insurance company Equitable Life. Perceptively this report concluded that one of the key reasons for this failure was a lack of knowledge and skills at Board level regarding the risks that Equitable Life were running. It also concluded that undue reliance had been placed at times on the Appointed Actuary and their staff to manage some very significant risks. Similarly the Bank of England did of course hold an enquiry into the failure of Barings (Bank of England, 1995). Although it is interesting that this report did not highlight the range of organisational and social factors identified by Waring and Glendon's (1998) study into this failure. For a broader study of a number of financial crises see Llewellyn (1998), who concludes that three common elements emerge in banking crises: bad incentive structures; weak management and control systems within banks; and poor regulation, monitoring and supervision.

human behaviour, corporate culture and organisational structure that are the underlying (i.e. root/core) causes of almost all disasters and crises. Notably they show that it is one or more of the following factors that usually lie at the heart of any crisis²:

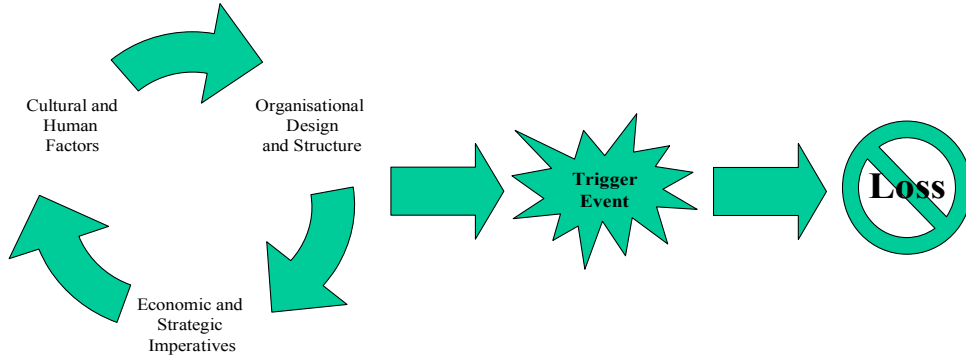
- An organisation's structure and associated management systems – whereby complex organisations with heavily interdependent production processes tend to be more prone to both minor and major loss events (including crises), as do those with ineffectual internal communication systems.
- Management risk perceptions – where crises are most likely to occur when managers fail to understand the risks that they are taking (arguably as in the case of Barings and Equitable Life in the UK). A problem that is sometimes compounded by 'groupthink', whereby individual mis-perceptions are reinforced by those of their peers and dissident views are stifled.
- An organisation's culture and or the social dynamics of a particular sub-group within the organisation – where some organisations and or subgroups seem to be more risk aware and more committed to effective risk management than others.
- Organisational change – that can divert attention from normal day to day risk management activities and or damage staff morale causing a rise in errors, fraud, etc.
- Internal politics and power dynamics – where particular individuals or departments within an organisation may yield a disproportionate amount of power and have a detrimental effect on risk management decision-making (e.g. staff within 'Marketing', 'Sales', 'Front Office', etc. may resist risk management initiatives on the grounds that they are costly, bureaucratic, time consuming, or attempt to circumvent them in order to maximise their short term, sales related bonuses, etc.).
- External social, political and economic pressures – where organisations may decide to cut corners in terms of their risk management activities when budgets are tight or alternatively they may over/under emphasise certain activities depending on prevailing political/social factors. The case of Lloyds TSB's takeover of HBOS being a possible recent example, where arguably insufficient due diligence was performed in the face of political pressures for a speedy merger.

In response to these findings a number of crisis causation models have been built by some eminent scholars (e.g. James Reason's 'Swiss Cheese Model'; Ian Mitroff's 'Onion Model'; and Barry Turner's 'Chain of Causation'), many of which have been successfully applied to a wide range of crisis events³. The basic premise of these models is outlined in the diagram below:

² See especially Waring and Glendon (1998) and Mitroff (2000) for a couple of good discussions on the various organisational and social factors that can cause operational loss events to occur.

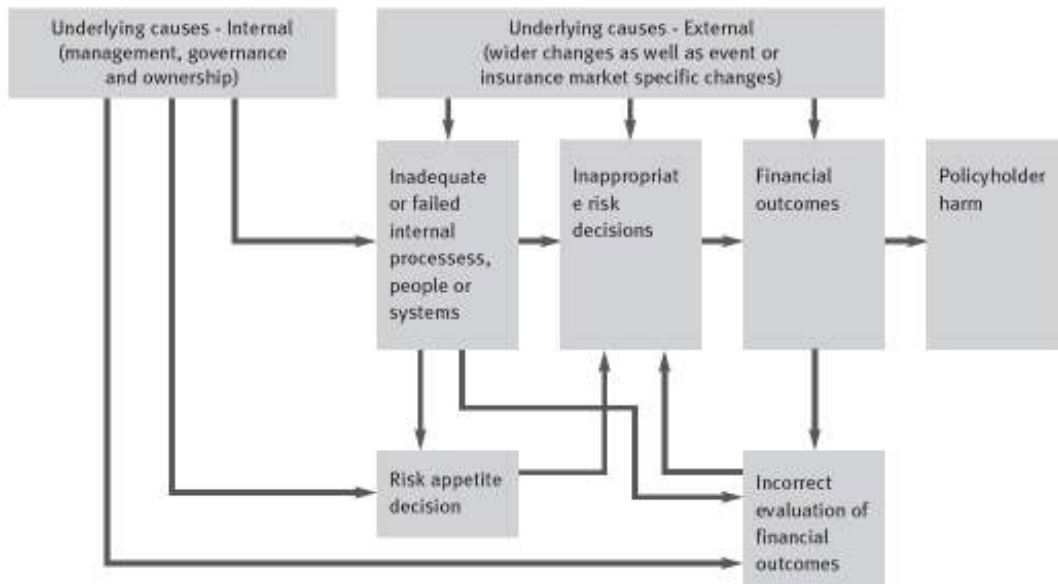
³ See Reason (1990), Mitroff (2000) and Turner (1978 & 1994).

A Typical Causal Model



Indeed one such model has actually been developed by a group of insurance supervisors, who in 2002 completed a detailed analysis into the failure of twelve European insurers. In so doing they found that some insurers were much more prone to failure than others and that this vulnerability was related to internal factors like those outlined in the bullets above (see Ashby, Sharma and McDonnell 2003, McDonnell 2002, Sharma et al 2002). An overview of their model is provided below:

Risk Map - Overview



On the Current Banking Crisis

The Financial Services Research Forum believes that industry focussed academic research can be of immense value to practitioners. Such research usually benefits from being more independent and less politically motivated than other sources. Moreover,

academics often have the time necessary to produce work that is both reflective and rigorous, utilising the widest possible range of literature/data sources to arrive at their conclusions.

As such, given the wealth of evidence and analysis that has been conducted into the causes of previous crises, it is surprising that the TR and FSA have not used this work to support their own analysis into what has gone wrong with the UK/International banking sector. Instead it would appear that they have provided only a partial and rather hasty picture of the causes of the current crisis, focusing as they do on the following factors:

- The interplay between an unholy trinity of macro-economic imbalances (e.g. the spare cash that flowed from growing countries like China), financial market developments and innovation (notably the ‘originate to distribute’ model and associated growth in securitisation).
- Self-reinforcing irrational exuberance (during a period of sustained economic growth) and an associated loss of confidence in financial markets when the ‘bubble’ finally burst.

The TR summarises this as follows:

“At the core of the crisis lay an interplay between macro-imbalances which had grown rapidly in the last ten years, and financial market developments and innovations which have been underway for about 30 years but which accelerated over the last ten to 15, partly under the stimulus of the macro-imbalances.”

However, while the factors that are described by the TR and FSA undoubtedly had a role to play in causing the current crisis, it is very unlikely, based on the analysis of previous crises, that they sit at its core. Instead it is much more likely that they sit somewhere along the chain of causation for the current crisis and in some cases are more closely aligned to its triggers (e.g. the sudden loss of confidence in financial markets that occurred) than its underlying causes.

Of course it could be argued that the current crisis is different and that the macro economic/market-wide factors outlined by the TR and FSA do in fact sit at its core. However this is at odds with some other eminent work into the causes of the current crisis. Notably see COP (2009), SSG (2008) and IIF (2008) who all identify a range of socio-technical issues as being key causes of the current crises, including: managerial risk perception, weaknesses in firms’ risk appetite frameworks and risk cultures, along with inflexible/silo based corporate structures that hindered both risk management and reporting. Indeed the US Congressional Oversight Panel (COP 2009) went as far as to place risk management failures (both by firms and regulators) at the heart of the current crisis:

“As the current financial meltdown makes clear, private financial markets do not always manage risk effectively on their own. In fact, to a large extent, the current crisis can be understood as the product of a profound failure in private risk management, combined with an equally profound failure in public risk management, particularly at the federal level.”

Similarly the UK Parliament (House of Commons Treasury Committee 2009a) recently stated that:

“Bankers complicated banking to the point where the location of risk was obscured, abandoned time-honoured principles of prudent lending and failed to manage their funding requirements appropriately. There were major failures in the modelling, procedures and structures for risk management.”

Admittedly the TR does not ignore the area of poor management completely, devoting one page of its considerable content to a general discussion of the corporate governance issues that Lord Turner believes require addressing in response to the crisis. Plus the TR refers to a number of other socio-technical related issues that are salient to the current crisis, such as the “misplaced reliance” that some firms placed on mathematical modelling as well as the fact that there were failings in some firm’s liquidity risk management practices and management compensation schemes. However these comments are rather scattered throughout the report, meaning that their underlying significance is blurred. Moreover they appear to be far from comprehensive when compared to the work of say the SSG and IIF.

It may also be that the TR and FSA did not want to pre-empt the Walker Report on the corporate governance practices of the UK banking industry that is due later this year (in the Autumn). However, it remains to be seen how comprehensive this report will be, not least since it appears to be restricted to risk management/corporate governance practices at the board level, rather than across firms as a whole. Moreover, in the absence of the Walker Report, and given the crucial underlying role that socio-technical factors have to play in crises, including the current banking one, the recommendations made by the TR and FSA would seem at best premature and at worse misguided, since they are not based on a full explanation of the causes of the current crisis.

In short, policy proposals that are based on a hasty and arguably superficial analysis of the current crisis are unlikely to be effective. In fact they may even contribute towards the next crisis (e.g. by diverting management/supervisory attention from certain important underlying issues) or at best impose unnecessary costs that restrict competition/innovation within the financial services sector, as well as growth in the wider economy, for years to come.

2.2 Market Failure and Irrational Behaviour

The TR contains a section (1.4) on what is described as “fundamental theoretical issues”. In this section the Review raises a number of interesting and perceptive questions, all of which are worthy of debate. However, despite the value of this analysis, we have particular concerns about the conclusions drawn in relation to two of these issues. Notably we refer to sub-sections: 1.4(i) “Efficient markets can be irrational”; and 1.4(iv) “The failure of market discipline”.

Can efficient markets really be irrational?

In the face of the available evidence, and with the very considerable benefit of hindsight, it is hard to argue against the proposition that many financial firms/markets have, at the very least, had the appearance of acting irrationally⁴. However the question remains why such behaviour occurred and whether it was truly irrational. Moreover, even if we accept that some degree of irrationality may have occurred we must still consider why, as observed by some commentators (e.g. SSG 2008 and IIF 2008), many financial institutions chose not to follow the seemingly irrational ‘herd’. It is only by answering these questions that we can truly understand why our domestic/international financial markets behaved the way that they did and the associated optimum policy response.

In terms of answering the first question (whether efficient financial markets really can behave irrationally) it is important to consider whether these markets were truly efficient. Indeed a quick review of the available literature on the current crisis reveals a number of potential market failures that could well have caused various financial markets to deviate from their rational price equilibria. For example:

- Information deficiencies in both securitisation markets (e.g. see SSG 2008, IIF 2008) and the market for home loans (where US mortgage customers did not benefit from the same level of product disclosure as in the UK, see COP 2009).
- Information deficiencies in terms of shareholder reporting, coupled with the growth of widely held, ‘ownerless’ corporations (see House of Commons Treasury Committee 2009b).
- Inappropriately designed executive/senior management compensation schemes (see House of Commons Treasury Committee 2009b).
- An imperfectly competitive market for non-executive directors (see House of Commons Treasury Committee 2009b, which calls for a “broadening of the talent pool” for non-executive directors).
- Regulatory interventions such as the use of depositor protection schemes, bank bailouts, and the limited liability organisational form (see Acharya & Yorulmazer 2007, Dowd 2008 & 2009).

Such failures can culminate in a range of effects that may, at face value, seem irrational, but which are actually quite rational⁵. See, for example, Acharya (2009), who demonstrates how the limited liability organisational form, coupled with recessionary spill-over effects (a negative externality caused by investors/creditors having insufficient firm specific information), can lead to ex-ante herding effects amongst *profit maximising* banks. The observation being that it is often more profitable for banks to correlate their returns, thus surviving or failing together, because the benefits of surviving when your rival fails (e.g. possible growth and or an increase in market share) are outweighed by the associated costs. The main cost being

⁴ See for example Shiller 2008 and Cooper (2008) who both suggest that irrational market behaviour contributed to the current crisis.

⁵ In fact it is also possible for seemingly irrational behaviour to occur quite rationally even without any explicit market failure. Notably Shiller (2008), the creator of the term ‘Irrational Exuberance’, indicates that it can be quite rational for investors to speculate on a bubble, where they believe that they can generate a profit from doing so (the trick of course being to exit the bubble before it bursts).

an increase in the market clearing rates for consumer deposits and or wholesale funds, where, as observed during the current crisis, the failure of any one bank can lead to a significant reduction in the aggregate supply of deposits/funds for the surviving banks – since the suppliers of these funds cannot always distinguish between financially sound and unsound banks.

Similarly many of the above market failures can also culminate in a classic moral hazard problem, whereby self interested parties expose their market counterparts to excessive amounts of risk – this occurring because the risk taking party does not bear all of the associated costs of their activities, but gains all of the associated benefits.

Such moral hazard problems can infect entire financial markets, forcing many of their participants to take excessive amounts of risk. Dowd (2008) illustrates this point by explaining that an imprudent (i.e. ‘bad’) bank, who for one reason or another receives the full benefit of its risk taking, but who does not bear the full costs of any losses that might be incurred, can sometimes drag normally prudent (i.e. ‘good’) banks down to its level. The issue being that the imprudently run bank is able to corner the market (i.e. steal market share) by offering an overly generous price for the products that it is selling (e.g. it might offer cheap loans to high risk customers or very high investment returns). Hence in order to remain competitive and retain its market share the ‘good’ bank may be forced to follow the same strategy as the ‘bad’ bank.

There is already evidence to support this hypothesis in relation to the current crisis. Notably the Senior Supervisors Group (SSG 2008) identified that⁶:

“Competition in underwriting new credits weakened the standards that some firms applied. This was evident in both the underwriting of residential mortgages and leveraged loans.”

Similarly, the observation in the TR, that the last boom was characterised by a search for yield that lead many financial institutions to increase their risk exposures is also likely to have been driven in part by moral hazard, rather than just a decline in the value of ‘risk free’ assets:

“In 1990 an investor could invest in the UK or the US in risk-free index-linked government bonds at a yield to maturity of over 3% real; for the last five years the yield has been less than 2% and at times as low as 1%. These very low medium- and long-term real interest rates have in turn driven two effects:

Firstly, they have helped drive rapid growth of credit extension in some developed countries, particularly in the US and the UK – and particularly but not exclusively for residential mortgages – with this growth accompanied by a degradation of credit standards, and fuelling property price booms which for a time made those lower credit standards appear costless.

⁶ It may also be that the decline in due diligence that was witnessed in relation to the purchase of credit derivatives was driven in part by moral hazard, since firms investing in such due diligence would have been as a cost disadvantage to their rivals.

And secondly, they have driven among investors a ferocious search for yield – a desire among investors who wish to invest in bond-like instruments to gain as much as possible spread above the risk-free rate, to offset at least partially the declining risk-free rate. Twenty years ago a pension fund or insurance company selling annuities could invest at 3.5% real yield to maturity on an entirely risk-free basis; now it would be only 1.5%. So any products which appear to add 10, 20 or 30 basis points to that yield, without adding too much risk, have looked very attractive.” (Turner 2009)

In short, while there may be a range of “theoretical and empirical” criticisms of the neo-classical economic model of market behaviour, it is far too soon to write off this model. Not least this is because much of the seemingly irrational behaviour that has occurred can be explained very effectively by resorting to this model.

Despite our reservations about the proposition that efficient markets can behave irrationally it is clear that this debate will continue to run for some time after the crisis, with proponents on either side promoting the merits of their arguments. However even if we accept that some degree of irrational behaviour is possible we must still consider the fact that not all firms felt the need to follow the ‘herd’ by exposing themselves to an excessive amount of risk (or at least they left the herd in sufficient time to significantly mitigate the effects that the crisis has had on them). Notably some of the UK’s retail banks showed considerable prudence during the previous boom period (e.g. Co-operative Bank, Lloyds TSB, HSBC), as did many building societies (e.g. Nationwide, Skipton, plus most of the smaller ones).

At the current time there is little hard evidence to show why some financial institutions bucked the trend. However based on the evidence that is available it is possible to hypothesise:

- These firms were able to generate sufficient margin from their traditionally prudent banking activities. For the most part this was probably due to their ability to exploit a loyal customer base, and or their ability to cross-sell coupled with the scale/diversity of their operations (in the case of the larger firms).
- These firms had better risk management systems and so were more aware of the risks involved.
- These firms had better quality boards/senior management, with considerable experience in the financial services sector.

Indeed the last two points above have already received attention from the Senior Supervisors Group (SSG 2008) and the Institute of International Finance (IIF 2008), both of whom highlight the fact that some financial institutions have performed significantly better than others in relation to the current crisis. This is illustrated by the quote below:

“While firms were neither universally effective nor ineffective across all relevant dimensions, our supervisory group identified actions and decisions that have tended to differentiate firms’ performance during the period of market turbulence through year-end 2007. Some firms recognized the emerging additional risks and took deliberate actions to

limit or mitigate them. Others recognized the additional risks but accepted them. Still other firms did not fully recognize the risks in time to mitigate them adequately. Many of our observations on risk management practices relate to the decisions that firms made to take, manage, measure, aggregate, and hedge (or not hedge) such exposures.” (SSG 2008)

So finally to the crux – what are the implications of these questions and their associated answers in terms of the optimum policy response going forward?

The discussion within the TR on market irrationality implies that such a market-wide phenomenon requires a market-wide response. In part that may well be so, at least up to the point at which regulators or other market-wide agencies can help to alleviate information asymmetries and their accompanying problems (moral hazard, herding, etc.). However what our regulators must not forget is that another and often better way to deal with seemingly irrational markets is to address them at source and implement measures that help to encourage more appropriate risk taking at the level of the individual firm, for example by ensuring that they maintain appropriate risk management systems and levels of managerial competence. Hence what we need going forward is less market-wide tinkering/interference and more focus on the fundamentals of what makes markets work: sound corporate risk management, coupled with experienced decision makers who have a modicum of common sense (for more on these policy recommendations see Section 3 of this response below).

Was there a failure of market discipline and what should we do about it?

Our second area of concern relates to the TR’s comments about the failure of market discipline. The suggestion being that investors and, in particular, institutional shareholders have failed in their duty to restrain excessive risk taking and that they should, to a large extent, be replaced by more invasive regulation and supervision.

While this may seem a logical conclusion in the wake of such a major banking crisis, it does not stand up to scrutiny, not least because:

- Market discipline is not just about institutional shareholders.
- Many existing regulatory measures (e.g. deposit insurance schemes and bank bailouts) can interfere with the efficient functioning of market discipline (see for example, Dowd 1996, 2009).
- Our regulators not only failed to see the crisis coming, but also failed to ensure that the stakeholders of financial services firms had the information that they needed to see it coming and hence do their jobs properly.

In order to understand the significance of these points (see also section 2.6 for a more detailed discussion of the middle one) it is important to remember two of the fundamental tenets of modern finance theory/economics:

- Many larger shareholders, particularly institutional ones, have comparatively little incentive to restrain excessive risk taking on their own account⁷.

⁷ Of course the same does not necessarily apply to smaller shareholders, many of whom have lost significant sums. However, their relatively small shareholdings – coupled with the costs that can be

- Effective market discipline requires that all parties have symmetric information.

The fact is that shareholders, particularly the larger, institutional ones, are relatively immune to the adverse consequences of corporate risk taking. This is, in part, because they are typically protected by limited liability and hence risk nothing more than their original stake⁸. Moreover they can create diversified share portfolios that render them immune to firm specific (non-systematic) risk⁹.

Hence fully effective market discipline (at least in relation to corporate risk management decisions) will never be achieved by relying on institutional shareholders. Instead reliance must also be placed on other key stakeholders, such as: appropriate senior managers (e.g. those within risk and audit functions), non-executives, consumers, market counterparties, wholesale creditors and perhaps even the smaller 'domestic' shareholders. Of course whether such groups have ever had the support or for that matter the incentives that they actually need to exercise appropriate discipline over their financial institutions is another matter.

This brings us onto the subject of symmetric information. As highlighted in the section above, markets can only operate efficiently where each party (the buyer and seller) possesses the same information. The purpose of this being to prevent one or other party from taking actions that fulfil his or her own self interest at the expense of the other. Near symmetric information is of course achievable in many markets (for example in the market for apples it is relatively easy for a buyer to assess the quality of an apple prior to purchase and thus prevent the seller from supplying a rotten one). However it is particularly difficult to achieve in the financial services sector, not only because of the intangible nature of the products, but also because of their complexity.

Hence, while many stakeholder groups may need to shoulder some of the blame for their inability to exercise adequate market discipline (not least those investors who failed to exercise appropriate due diligence and or who placed undue reliance on third party rating agencies when valuing assets), they cannot shoulder all of it. Notably there are a number of things that regulators could/should have done to improve information symmetry:

associated with monitoring firms and controlling the natural tendencies that larger shareholders and inappropriately remunerated managers/directors may have to take risk – means that their voice is rarely heard.

⁸ See Dowd (2008) & (2009) and Kingston (2009) for discussions, in the context of the current crisis, of the moral hazard problem that can be associated with the limited liability corporate form.

⁹ Admittedly shareholders are concerned about systemic risk, but only to the extent that they receive sufficient returns to compensate themselves for bearing this risk. Of course it could be argued that because they failed to see the current systemic crisis coming they failed to require sufficient returns over recent years to compensate themselves for this area of risk and as such are not competent to exercise adequate market discipline. However given that our regulators also failed to see the current crisis coming, this is hardly a good argument to use to justify replacing market discipline with greater regulatory intervention. For more on how our regulators helped to cause the current crisis see section 2.3 below.

- Encourage the disclosure of appropriate and easy to understand risk management information that allows consumers and other relevant counter-parties to monitor the risks being taken by their financial institutions¹⁰.
- Pay more attention to the activities of rating agencies (as one of the key market based solutions to the problem of asymmetric information).
- Improve the consistency and quality of the information being reported about securitisation products¹¹.

In short it is far too soon to write the free market off as the ‘best’, or perhaps more accurately ‘least worst’ economic structure that is available to us today. Especially given that our regulators also failed to see the current crisis coming, meaning that there is no empirically justifiable reason to believe that they can do better going forward.

So rather than viewing market discipline as a spent force and replacing it with ever more prescriptive regulation, regulators should instead identify how market discipline is broken and find ways to fix it¹². It must be remembered that all regulation brings with it considerable costs and that the best, most effective, regulation is typically that which supports the efficient functioning of the market. In the words of Llewellyn (1999):

“The purpose of regulation is not to replace competition but to enhance it and make it effective in the marketplace by offsetting market imperfections which potentially compromise consumer welfare. Regulation and competition are not in conflict. Regulation has the potential to enhance consumer welfare both by reinforcing the degree of competition, and by making it more effective in the marketplace. Information, and therefore disclosure requirements, are an important part of this process.”

¹⁰ The current Pillar 3 disclosures that are within the New Basel Accord (Basel 2004) are a long way from achieving this goal and in any case were rather late to the party, having only been put in place over the last couple of years.

¹¹ See for example the IIF (2008), who suggest that more could be done to improve the consistency, brevity and digestibility of the documentation for many securitised products.

¹² Interestingly Robert Shiller, one of the founding fathers of Behavioural Finance, and who is referenced within the TR (see section on ‘Fundamental theoretical issues’), has argued that the majority of the solutions to the current crisis should be market based and focused on alleviating information asymmetries, widening participation in financial markets, etc. In his words: “Mend it, don’t end it” (Shiller 2008).

2.3 Did Financial Regulation Help to Cause the Current Crisis?

One of the strengths of the TR and FSA is that they recognise the role that regulatory policy and supervision had to play in causing the current banking crisis. In so doing these reports suggest that:

- There have been gaps in prudential banking regulation and or elements of lax regulation (for example in relation to liquidity risk management, market risk, the shadow banking sector, etc.).
- There are weaknesses in the design of prudential banking regulation (for example in relation to the pro-cyclicality of the current Basel regime and its reliance on short time horizon VaR models for the purposes of calculating market risk capital requirements).
- There were weaknesses in the conduct of macro-prudential regulation, whereby regulators failed to respond appropriately to the build up in systemic risk over the last few years.
- There was weak supervision, at times, on the part of some regulators (e.g. in relation to Northern Rock and in Iceland certain Icelandic banks).
- There were fault lines in international/EU supervision. Whereby the home country supervisors of cross border institutions took actions to protect their local economies at the expense of international considerations. The TR and FSA cite the Lehman Brothers and Landsbanki failures as examples of this phenomenon.

However, while we commend the TR and FSA for their candidness we have two fundamental concerns, notably:

- They downplay the negative impact that the New Basel Accord (Basel 2004) has had on the banking sector and the way in which it manages risk.
- They fail to explain why regulators did not deal with a clear case of ‘creative compliance’ – the growth of the shadow banking sector. Moreover, they do not seem to realise that more costly/prescriptive regulation is only going to make the problem worse.

The failure of the New Accord

It is well known that the history of the New (Basel 2) Accord has been a long and tortuous one. Designed as the antidote to previous bank failures (such as Barings), coupled with a desire to improve the sophistication and risk sensitivity of international banking regulation, the Accord took a long time to finalise and was nearly rejected by the Americans. Moreover it prompted significant industry and regulatory activity/expenditure as organisations came to terms with and implemented the requirements of the New Accord¹³.

¹³ It is interesting that the TR notes that the attention devoted to the New Accord may have caused both firms and regulators to take the eye of the ball and fail to notice the emerging crisis:

“[I]t is noticeable in retrospect that where there was a focus on bank prudential regulation, it was heavily skewed towards the agreement and then implementation of the Basel II capital adequacy standard, which required the commitment of very large skilled resources both within the FSA and across all of the banks. In retrospect this skew was mistaken since (i) it meant that insufficient attention was paid to growing risks in trading

There are of course a number of merits to the New Accord, not least its stated desire to improve risk management practices and market discipline via enhanced risk based capital and disclosure requirements. Ultimately though the New Accord has failed, as some suspected it would (see, for example, Dowd 2008 and 2009b), since it has got the balance of its approach to regulation all wrong.

The key problem with the New Accord is its obsession with capital and capital modelling, the idea being that somehow better, more quantitative, models mean better risk management. This is simply not the case. Ask any competent risk manager in any sector outside of financial services and they are likely to tell you that quantitative risk modelling is just one of many risk assessment tools, and often not the best one, especially when dealing with (very) low probability, high impact events like the one we have just witnessed (for more on the current capital hegemony see section 2.4 below)¹⁴. Indeed the TR notes the “mis-placed reliance” that some firms placed on mathematical models¹⁵. Similarly the SSG (2008) and IIF (2008) have noted this as well.

What the Accord should have done is devote more attention to the provision of effective rules and guidance for the management of risk. Admittedly a variety of ‘Sound Practices’ papers were issued (see, for example Basel 2000, 2003 & 2006), however these were never included as part of the Accord, and within the EU were not converted into Directive text (although a variety of similar ‘Guidelines’ have been issued under the complex Lamfalussy arrangements, see for example CEBS 2008). Indeed the FSA actually scrapped its own proposals to issue Handbook text on risk management systems and controls for banking institutions, deciding instead to only apply it to insurers¹⁶.

In short the old adage ‘don’t run before you can walk’ springs to mind. The New Accord, along with the EU and UK policy that followed it, focuses far too much on capital and sophisticated capital modelling, without trying to get the fundamentals of good risk management right in the first place. Indeed it is interesting to note that the Basel Committee have recently consulted on a range of new additions to the Accord, many of which relate to banks’ corporate governance arrangements and risk management systems (see especially Basel 2009). Similarly the FSA would do well to follow Basel’s lead, especially given that, in their own words, the changes made to the

books where Basel II did not change the Basel I approach to any significant extent; (ii) it meant that insufficient attention was directed to liquidity risks, which as Section 1.1 (iii) described, were fundamental to the crisis.”

¹⁴ See the recent British Standard on Risk Management (BS31100) for a comprehensive list of risk management tools.

¹⁵ In fact it is not too long a leap of faith to answer why some firms placed such reliance on models – the answer being that their regulators were doing the same thing. Northern Rock being a case in point, since, other than a technical breach of its regulatory capital requirements in the spring of 2007, it appeared to be maintaining sufficient capital to meet the risks that it was running (FSA Internal Audit Division 2008).

¹⁶ Admittedly there is some policy on other (non-capital related) aspects of risk management within ‘SYSC’, the FSA’s Sourcebook for ‘Senior Management Arrangements, Systems and Controls’ (e.g. policy on financial crime, risk control and outsourcing). However, it is not as comprehensive or as easy to understand as the bespoke policy for insurers. This is perhaps due to the fact that much of the policy for banks and investment firms was ‘cut and pasted’ from the EU’s MiFID and Banking Consolidation Directives – Directives, 2006/73/EC and 2006/48/EC respectively.

prudential regulation of insurance companies, between 2002-2004 (which included detailed new standards for risk management systems and controls), “significantly improved” their ability to withstand the “challenges” of the current crisis.

Creative Compliance

The term creative compliance has been around since the 1980s (see McBarnet 2006) and effectively refers to the use of legal loop holes in order to allow the legitimate circumvention of criminal/civil laws and regulations¹⁷. McBarnet, who coined the term, defines it as follows:

“Creative compliance refers to the use of technical legal work to manage the legal packaging, structuring and definition of practices and transactions, such that they can claim to fall on the right side of the boundary between lawfulness and illegality. It is essentially the practice of using the letter of the law to defeat its spirit, and to do so with impunity.”
(McBarnet 2006)

Creative compliance is a common phenomenon in many circles (e.g. tax avoidance), including the financial services sector. Notably the originate-to-distribute model, coupled with the creation of much of the shadow banking sector is a clear example of creative compliance, whereby many larger banks, especially in the USA, created Special Purpose and Structured Investment Vehicles (SPVs and SIVs), to hold a range of assets, including securitised loan assets. These arrangements were not subject to the same degree of regulation as the banks themselves and hence were able to operate with less capital and greater leverage ratios (see Alexander 2009).

The fact that our regulators failed to address the risks inherent in the shadow banking sector was clearly unfortunate. Of course hindsight is a wonderful thing and is often used, rather unfairly, to blame regulators for taking/not taking particular courses of action. However in this case there is perhaps more scope to claim negligence, particularly because the dangers of off-balance sheet special purpose entities as a vehicle for creative compliance were highlighted by the Enron case (see McBarnet 2006).

Admittedly there is no point ‘crying over spilt milk’ and thinking of what might have been. However, it is vital that lessons are learned for the future. One key issue is that more prescriptive regulation typically provides more scope for creative compliance – since the precise wording that it requires will often provide ample scope for the exploitation of loop-holes. Moreover, more costly regulation (e.g. higher capital requirements or minimum leverage ratios) may serve to further to increase the incentives for financial institutions to find and exploit such loop-holes. Indeed one of the best ways to avoid creative compliance is to adopt a principles based approach to regulation, since this allows regulators to enforce the spirit rather than the letter of the law (a fact highlighted by McBarnet in her analysis of the Enron case, see McBarnet 2006).

¹⁷ The term creative compliance is very similar to that of ‘regulatory arbitrage’, which is in common use in the financial services sector. However, McBarnet’s work provides an extra dimension, by not only outlining how regulation can influence organisational behaviour, but also by providing some potential strategies for preventing such misplaced and potentially destructive regulatory incentives.

2.4 Breaking the Hegemony of Regulatory Capital

Despite its expense, most banking regulators, and many financial institutions for that matter, seem obsessed with the importance of capital as a risk management tool. Indeed, as highlighted above, the New Basel Accord contains very little discussion of anything else and effectively writes off other equally important risk management considerations in the following statement:

“It is not the Committee’s intention to dictate the form or operational detail of banks’ risk management policies and practices.” (Basel 2004)

While we accept that capital is a useful tool and that some firms might have been able to better survive the crisis and avoid government bailouts if they had held more/better quality capital, we are not convinced that blanket increases in Pillar 1 capital requirements represent the optimum solution to the prevention of future financial crises. Not least because:

- Capital is very expensive to maintain, especially ‘high quality’ capital that is held in low risk, liquid assets that generate a low return.
- Capital requirements penalise efficient businesses and restrict competition. This is not only because they restrict growth and innovation (unless such innovation is to avoid regulation, as outlined in the last bullet below), but also because they serve as a barrier for new entrants.
- Capital is of very limited use in mitigating the impact of low probability high impact events, such as financial crises – the underlying causes of which are usually socio-technical (i.e. behavioural) in nature and hence very difficult to quantify.
- Capital is of even less use in helping to prevent low probability, high impact events from occurring – indeed as outlined below many better tools are available.
- Supposedly risk based capital rules can provide firms with the wrong sort of incentives and may not only divert attention from more qualitative, but no less useful risk assessment tools, but also encourage inappropriate risk taking behaviour, as arguably witnessed in the creation of shadow banking institutions (see section 2.3 above).

Ultimately it does not matter how much capital a firm holds, if it exposes itself to an excessive amount of risk it is going to run out. A fact the FSA is well aware of, or at least it was in 2001:

“But we have learnt, from better experience, that no amount of capital is enough if the management in charge of it is incompetent, and the control systems are fatally flawed.” (Davies 2001)

Indeed Howard Davies (the initial head of the FSA) went onto illustrate the point with the case of Barings.

What the FSA and indeed other regulators must do is go back to first principles and recognise/address the root causes of the current crisis – notably flawed risk management that was exacerbated by flawed organisational structures, cultures and management decision making (see 2.1 above). In so doing they should consider, based

on their “better experience”, whether industry-wide increases in capital requirements really are the best policy response or whether more direct and market focused measures to improve firms’ risk management decisions will provide a more permanent solution¹⁸. Indeed there is a very real danger that such requirements, particularly if they are believed to be ‘risk based’, will create a false sense of security, whereby inappropriate risk taking may be justified on the mistaken belief that all possible contingencies have been identified and that adequate capital is in place to mitigate them¹⁹. In short additional capital requirements may actually help to create an even bigger crisis.

That is not to say that capital does not have a role, just less of a central one than it has been given in the past. In this regard the Pillar 2 ICAAP (Internal Capital Adequacy Assessment Process) and ICA (Individual Capital Assessment) supplementary capital requirements, for banks and insurers respectively, represent a useful step forward in recognising that well managed firms may require lower levels of capital. However, even these requirements remain capital biased, focusing more on trying to ensure that firms have enough resources to withstand losses rather than preventing them in the first place – which is surely the best possible response²⁰.

Indeed the merits of a ‘prevention is better than cure’ risk management strategy is well understood outside of the financial services sector where capital is seen as just one aspect of a comprehensive risk management strategy that involves mechanisms for:

- Risk avoidance (e.g. not entering into a particular market segment or undertaking a particular activity).
- Loss prevention (devices for reducing the probability of loss, such as effective underwriting, due diligence, physical security measures, etc.).
- Loss reduction (devices for mitigating the impact of a loss if one does occur, which might include early warning systems or contingency planning).
- Risk financing (which is concerned with ensuring that a firm has sufficient liquid resources to finance any losses that do occur, such devices including the creation of accounting provisions, contingent financing or the holding of capital).
- Risk transfer (devices for physically transferring a risk, or perhaps only the financial effects of a risk, to another party, examples of which include outsourcing, derivatives and insurance).

¹⁸ It is interesting to note that Robert Shiller, whose work on ‘Irrational Exuberance’ (Shiller 2005) has clearly had a major impact on Lord Turner’s and the FSA’s thinking regarding the causes of the current crisis, makes no mention of the need for increased capital requirements in his analysis of the current crisis (Shiller 2008), instead he proposes a range of primarily market based solutions. Notably he concludes that:

“It may be difficult, in the present climate of public anger directed at our financial markets, for political candidates to win support on the promise of expanding and developing our financial markets. But that is exactly what is needed now to solve the subprime crisis and prevent a recurrence of similar economic crises in the future.”

¹⁹ This is sometimes known as the ‘Titanic Effect’ – see Hood and Jones (1996), Chapter 2.

²⁰ Indeed, rather than holding more capital, it would probably have been better if those firms that required government support had invested more in their risk management systems, so that they were better able to detect and respond to the risks to which they were exposed.

Moreover non-financial firms and indeed their regulators²¹ take for granted the fact that the control of any risk will typically require multiple responses, utilising a range of mechanisms from all of the above categories. Why can't financial service regulators, and indeed some financial services firms, do the same?

Of course the TR and FSA try to justify their approach using the traditional argument that financial services firms and banking firms in particular are different because of the systemic nature of banking crises, coupled with the link between the health of the financial services sector and that of many domestic economies. That the financial services sector is a key player in any capitalist economy is hard to dispute, however it is not a sufficient argument to justify increased capital requirements. In particular we would reiterate that, for the most part, it is surely better to prevent crises, rather than hoping against hope that there will be sufficient capital in the system to counteract the risk taking excesses (or simple bad luck) of certain players within the financial services sector²². Indeed it is interesting to note that some other economically important sectors, like the motor sector, are far less capitalised (usually because they prefer to invest the majority of their capital back into their own businesses)²³.

Another fallacy is the notion that risk based capital is an effective means to motivate improvements in risk management. In truth such measures often promote gaming of the system, whereby firms seek to develop risk frameworks/models with the sole purpose of reducing their capital requirements. Of course the so called 'Use Test' is designed to prevent this and only allow firms to derive capital related benefits from their 'improvements' in risk management if they can prove that they are embedded. However in practice such tests have not worked, as illustrated by the failures of Northern Rock, Royal Bank of Scotland and HBOS – who all passed the FSA's 'Use Test' and were granted IRB (Internal Ratings Based Approach) waivers for the purposes of calculating their credit risk capital requirements. Indeed HBOS even achieved an AMA waiver (Advanced Measurement Approach) for the calculation of its operational risk capital requirements.

Finally there is anecdotal evidence to suggest that, prior to the crisis, some financial institutions specifically targeted resources at risk areas where the greatest capital

²¹ Take for example health and safety regulation in the UK, that combines minimum requirements for employers liability insurance, with a range of other regulations designed to prevent accidents and or mitigate the impacts of those that do occur.

²² Even in the case of post loss mitigation there are some powerful alternatives to capital. See for example Dowd (2009), who suggests that the adverse systemic/macro-economic effects of bank failures could be managed quite simply via the implementation of alternative receivership arrangements, whereby a bank's assets would be kept secure (i.e. withdrawals would be limited to prevent a run), while they are quickly written down (according to pre-arranged, conservative formulas) and re-capitalised. Admittedly this would mean significant losses for shareholders (although these are relatively easy to mitigate via diversified shareholdings) and some also for depositors however Dowd notes that the assets of smaller depositors could be ring-fenced, thus protecting the more vulnerable.

²³ There are quite a few similarities between the motor and financial services sectors. For example in many countries/regions the motor sector is a key generator of economic wealth, providing employment and investment in a range of ancillary industries – indeed as we have seen in the UK the decline of this sector has brought significant and prolonged adverse economic effects to regions like the West Midlands. Moreover consumers tie up significant financial sums in the cars that they buy, often more than they save in banks. Plus the value of such investments can be closely related to the financial health of the manufacturer in question, as illustrated by the failure of Rover a few years ago. Yet no one has suggested that this sector should be subjected to capital requirements?

benefits could be gained and all but ignored other, equally important, areas. An example of this is the case of operational risk (which is typically defined as the risks arising from people, failures in processes/systems and external events), where many firms have chosen to maintain significantly smaller operational risk functions than for credit or market risk. Arguably one of the reasons for this is that the net benefits of obtaining an IRB waiver is greater than that for an AMA, thus meaning that it makes economic sense to invest more in credit risk management than in operational risk. However, given that the root causes of the current crisis are almost exclusively operational in nature (failures in people, risk management systems, etc.), this bias has, with hindsight, proved rather unfortunate²⁴.

2.5 The Death of Principles Based Regulation – Do We Really Need More Prescription?

In addition to arguing for greater capital requirements the TR and FSA also indicate that prudential regulation and supervision must become more prescriptive. In so doing they attempt to justify the process that they have already begun to move the UK away from a lighter touch ‘principles based’ approach towards an ‘intensive supervision’ model.

No matter what the reservations that some may have about the obvious costs and potentially limited benefits of additional regulation and or supervision it is likely that the financial services sector will be subjected to more rather than less regulation going forward. Especially as political opinion appears biased in this direction²⁵. Indeed we agree with the TR and FSA that regulatory and supervisory reform is required in some areas, notably:

- The increased focus on high impact firms, which should be a cornerstone of any risk based prudential regime.
- Greater focus on the technical skills of approved persons.
- Increased sector-wide analysis in order to improve the identification of systemic risks.
- A focus on remuneration policies.
- Improvements in the quality of supervisory staff.

However, despite these probable enhancements to the current regime we have a number of concerns with other aspects of the suggested approach. Notably these concerns relate to:

²⁴ See for example McConnell (2008), who notes that: “The subprime crisis fits somewhere between Basel’s definition of operational risk”.

²⁵ See the House of Commons Treasury Committee (2009a), which states:

“The rebuilding of consumer trust is closely wound up in depositors having faith in the safety of their deposits, and the stability of payment systems and other utility aspects of banking. In our view, depositor reassurance can in the short term best be provided through improving and strengthening the regulatory regime for all types of bank”.

It is however, interesting to note that politicians and regulators are subject to the same “irrational” heuristics and biases as industry practitioners (see the criticism of “economic agents” in section 1.4(i) of the report) – and hence often succumb to the availability heuristic, where they over-weight and over-react to the significance of recent/newsworthy events that are easier to recall (see Tversky and Kahneman 1974, Kuran and Sunstein 1999, Jolls, Sunstein and Thaler 2000).

- The proposed shift away from focusing on the appropriateness of a firm's systems and controls.
- The assumption that outlying firms are doing something wrong.
- The metrics that supervisors will have at their disposal to assess and compare firms' risk exposures.
- The belief that the key decision makers within financial services firms (directors and senior managers) cannot be trusted to do their jobs properly without increased regulatory interference.

Systems and controls

If, as outlined in section 2.1 above, financial crises are a socio-technical phenomenon, then the effective analysis of firms' systems and controls must form a key part of trying to prevent them. In so doing our regulators should remember that the prevention of crises is all about delving into the detail and understanding factors like corporate structure and reporting, human behaviour and organisational culture (see Ashby, Sharma and McDonnell 2003, McDonnell 2002, Sharma et al 2002). Moreover they could also learn some valuable lessons in this regard from other industry sectors, where it is accepted that understanding the economic factors and outcomes that relate to specific risk events or crisis is much less important than analysing and addressing their underlying causes (see Ashby 2008).

In short, given the socio-technical nature of crises, including the current banking crisis, the FSA would be advised to retain its focus on systems and controls. Granted there have been significant weaknesses in the implementation of this approach (as per the case of Northern Rock). Moreover the rather mechanistic ARROW process could probably benefit from an overhaul by some external risk management experts (both practitioner and academic). However this is not grounds for shifting supervisors' focus from a fundamentally sound methodology that is likely to prove instrumental in the prevention of future crises²⁶.

Outliers

Both the TR and FSA use the term 'outliers' when referring to firms who may be following business models/strategies that are outside the norm for their contemporaries.

The term outlier in this context is heavily value laden, suggesting as it does that outlier firms are following models/strategies that are not only significantly different from their rivals, but also inappropriate. Indeed in statistics numerically distant values from the main data pool are often seen as faulty/erroneous and therefore deleted.

²⁶ It is though curious that when talking about increasing its focus on "outcomes testing" the FSA refers to mystery shopping and branch visits – both of which are mechanisms by which a variety of systems and controls can be tested to determine their effectiveness. This seems contradictory with the business outcomes focus that is discussed in the TR. Is the FSA going to be assessing a firm's strategy, or simply testing the quality of its controls more rigorously? We would recommend that more clarification is required here.

However, just because a financial services firm is following a different business model/strategy to its contemporaries within the main ‘herd’, does not mean that it is taking inappropriate risks or threatening the viability of the whole sector. Many firms in a variety of sectors have adopted business strategies/models that deviated from the norm, but resulted in significant profits for them and welfare gains for society at large (e.g. Sony Walkman, Virgin, Direct Line’s use of the telephone to supply insurance, etc.). Hence, if the FSA comes down too hard on these so called ‘outliers’ (whether by forcing changes to their strategies or simply by pestering them for information) then there is a very real danger that it will stifle innovation and the growth of not only the financial services sector, but also the UK economy as a whole²⁷.

There is already, within some financial services firms, a fear of being an outlier, the perception being that such firms have their activities disrupted more and run a greater risk of enforcement action. Moreover, this fear is only going to increase with the prescriptiveness and invasiveness of the FSA’s suggested new supervisory approach. As such the FSA should be very careful when using such terms since there is a very real danger that they will do more harm than good.

The Value of Metrics

It is clear that the FSA’s new ‘Intensive Supervision’ approach will involve supervisors using a wider range of risk metrics than before – at both the firm specific and system-wide level. Taken at face value such a move is hard to argue with since the more metrics a supervisor has at his or her disposal, the more likely they are to detect potentially serious risk exposures. Similarly they are more likely to detect these exposures early, giving them more time to take appropriate action.

However, there are three key problems with the use of metrics:

- Metrics are expensive to collect and process. In the context of the FSA’s work this will impose significant costs on both itself and the firms required to supply these metrics. Information requests from the FSA already take a lot of time/money to process – whether scheduled, as in the case of firm’s regular returns, or ad hoc.
- The use of too many metrics can make it hard to see the ‘wood for the trees’ – whereby those tasked with monitoring them can get confused by the wealth of information they have at their disposal.
- Not every good metric can be quantified (e.g. metrics concerning organisational culture) or stems from accounting and finance data.

In particular it is disappointing to note that despite criticising financial institutions for their misplaced reliance on mathematical models, the TR and FSA pay particular attention to reviews of financial and accounting information, believing that this may provide them with the best picture of the risks that are inherent in firms’ business models/strategies.

²⁷ Interestingly, Acharya (2009) suggests that the level of systemic risk can actually fall where financial firms adopt a variety of strategies. In such markets the returns from firms will be imperfectly correlated, thereby reducing the possibility that multiple firms will fail at the same time. Hence by eliminating outliers and encouraging firms to remain within the ‘herd’ the FSA could actually increase the UK’s exposure to systemic risk going forward.

In reality more detailed reviews of quantitative data (such as accounting data) are unlikely to provide an accurate/comprehensive picture of firms' risk exposures. This has already been highlighted by the SSG (2008) and IIF (2008), who state that:

“Those firms that were the most successful through year-end 2007 in dealing with the turmoil challenged their internal assumptions about the valuation and the behavior of products and markets by applying a wide range of credit and market risk measures and tools; equally important, they used judgment as well as these more quantitative techniques in deciding how to respond to market developments.

Firms that experienced more significant problems were too dependent on a single methodology, or a limited set of tools, or they relied on inflexible applications that could not be adjusted to crisis conditions or that were flawed. This second group of firms tended to apply a “mechanical” risk management approach, accepting the estimates of their primary risk systems without challenges based on other tools and expert judgment.” (SSG 2008)

“Risk management decisions should never be based solely on metrics or ratings. Models are powerful tools but necessarily involve simplifications and thus should be approached critically. Therefore, expert judgment and critical analysis are always needed, and the metrics, models, and ratings themselves should not be allowed to become ends in themselves or obstacles to risk identification.” (IIF 2008)

By focusing on quantitative metrics, and in particular on finance and accounting data, there is a very real danger that the FSA will fall into the trap of adopting the same type of “mechanical” risk management approach that is outlined in the quotes above (especially as such an approach would clearly make it easier to compare firms and ensure consistency across supervisory assessments). Moreover, the FSA would do well to remember the above discussions on the socio-technical nature of crises and that it must also review qualitative factors such organisational culture and the dynamics, politics and motivations (which are not always financial) of top management teams.

Can we trust to market forces or its key corporate decision makers?

In their argument for greater regulatory prescription and supervisory intervention the TR and FSA turn once more to criticising market forces and the behaviour of boards/managers. The suggestion being that because of their failure to prevent the current crisis they cannot be allowed the decision making freedom that they have been allowed in the past.

However, as we saw in Section 2.2 above, such an argument is far too simplistic. Moreover, given the many regulatory and supervisory failures that have occurred, it seems an act of extreme hubris to suggest that the FSA should be given more power at the expense of the market.

In short it is far too soon to give up on the market or boards/senior management just yet. Crises have occurred in the past and despite this the free market approach has continued, at least over the long run, to generate significant wealth and welfare benefits for the economies that make use of it. Hence rather than replacing the free market or, for that matter, boards/senior managers, the FSA and its international contemporaries would do better to find ways to support these mechanisms by making them work better.

Some recommendations on how markets could be made to work better are outlined in section 3 below.

2.6 Are Financial Institutions too Big or too Many to Fail?

Our final concern regards the underlying assumption that during a major banking crisis most, if not all, institutions should be bailed out (i.e. they should not be allowed to fail). The basic arguments being that the continued survival of these banking institutions is:

- Essential to the operation of the credit system, providing credit to both other financial institutions and the economy at large.
- Essential to the operation of the payment system, ensuring that money is transferred between the suppliers and consumers of goods and services (including financial services).
- Essential to maintaining confidence in the financial system (whereby their failure could undermine public confidence in the banking system at large).

Many observers, including it would seem the current UK Government and Bank of England (through their recent actions to bailout certain financial institutions and protect them from bankruptcy), now take these arguments as given and claim that many, if not all²⁸, deposit taking institutions and their stakeholders must be protected, at all costs, from the adverse consequences of their bad decisions, or simply their bad luck – via deposit insurance, lender of last resort arrangements, or even, as seen recently, direct cash injections.

However, we would remind our Government and regulators that they must not underestimate the significant costs that can be associated with such ‘zero failure’ regimes. Notably:

- They create significant moral hazard problems, whereby:
 - Financial institutions and their shareholders receive all of the benefits from their risk taking activities, but not all of the associated costs (since they know that they will be bailed out if anything goes wrong)²⁹.

²⁸ Northern Rock and Bradford and Bingley could hardly be classified as ‘too big to fail’. Moreover, it will be for history to judge whether the run on Northern Rock could have ‘infected’ other firms causing bank runs elsewhere, or whether full depositor guarantees and nationalisation were the right response. Indeed Dowd (2009) has shown that there is at least one alternative response to the problem via effective insolvency processes which ensure that a bank is wound up quickly and cleanly.

²⁹ Admittedly shareholders and board directors/senior managers may still pay a high cost, losing their entire investment, or in the case of directors/senior managers their livelihoods. However providing that

- Depositors become unconcerned about the risk taking activities of financial institutions, because they know that whatever happens their funds are protected.
- They can lead to herding effects (see Acharya & Yorulmazer 2007)
- They require prescriptive regulatory requirements and artificially high capital requirements in order to mitigate the above moral hazard problem.
- They are immensely costly, both for the public purse and, depending on the nature of the regime (e.g. where partial bailouts are provided via co-insurance type depositor protection arrangements), other financial services firms. Notably in the UK, the co-insurance nature of the current depositor protection scheme means that the banks that have failed have been partially bailed out by their better managed rivals – what sort of incentive do you think that provides for financial services firms to manage their risks appropriately³⁰?

Indeed it is interesting to note that market discipline can only work effectively where banks do not expect to be bailed out (see Stern and Feldman 2004, Mishkin 2006)³¹. Hence by criticising the market for failing in its duty to exercise appropriate discipline (see section 2.2 above) the TR and FSA are in fact criticising the UK Government's current policy stance – since without the prospect of bank bailouts the market would have had a much stronger incentive to monitor the risk taking behaviour of firms.

So to sum up this issue, bank bailouts may seem politically expedient in the heat of a crisis, however there are strong arguments to suggest that in the longer run they can do more harm than good³². Moreover we would reiterate that:

- No increase in regulation can ever be justified on the basis of weak market forces when one of the most significant factors to have weakened these forces (moral hazard) is a direct consequence of the existing regulatory regime.
- Given that our regulators and their existing regime have failed to prevent the current crisis, why should we accept that they should be given more powers in the future?

they make sufficient returns during the 'good times', they are unlikely to be overly concerned about this. The scandal surrounding Fred Goodwin, the former CEO of RBS, is a case in point.

³⁰ It is pleasing that the issue of how the current UK deposit insurance scheme is funded has been noted as an area requiring reform by the House of Commons Treasury Committee (2009a) – whereby the current link between the size of a firm's levy and the value of its customer deposits has meant that it is the generally well managed mutual building societies who have had to shoulder much of the associated costs. However it remains to be seen whether a 'risk based' levy scheme will prove more workable/effective in the future. A better response might be to scrap the scheme altogether and require a firm's owners/directors to shoulder most of the financial burden if it fails (see recommendations below).

³¹ Where free banking regimes have been allowed to operate they have often been far more innovative and stable than their more heavily regulated contemporaries (e.g. in Scotland before 1845 – see Dowd 2009).

³² Note that it is not only 'laissez faire' economists like Kevin Dowd who criticise bank bailouts. See also Shiller (2008), who notes that bank bailouts are not the panacea that they appear to be, concluding that: "...we cannot go forward with an assumption that ad hoc bailouts will be an appropriate mechanism for protecting human, economic and social welfare in the future".

3. Recommendations

Although there are some eminent dissenters (e.g. Dowd 1996, 2009), most practitioners and academics recognise the need for financial services regulation, however what must be questioned is the nature and extent of this regulation. Notably, as outlined above, we do not believe that many of the recommendations made by the TR and FSA will prove to be the most effective long run solutions to the prevention of future banking crises, even if they can be justified on cost benefit grounds³³. In particular we are concerned that a move to higher capital requirements, coupled with many of the proposed approaches to more prescriptive regulation and invasive supervision, will not only stifle the growth of the financial services sector, but also lay the foundations for future crises.

Instead we would recommend that regulators like the FSA should fundamentally rethink their approach and develop mechanisms to strengthen market forces rather than work against them. In so doing they should:

- Recognise that additional Pillar 1 capital requirements and supervisory measures such as the greater scrutiny of strategic ‘outliers’, business models and balance sheets will not address the underlying socio-technical causes of the current crisis (e.g. corporate cultures, board dynamics, etc.).
- Ensure that shareholders and other key stakeholders (including directors/senior managers, consumers, etc.) are properly incentivised to manage risk in an effective way (i.e. that they ensure an appropriate balance between risk and return).
- Eliminate information asymmetry problems, by increasing the availability and clarity of risk management information (both quantitative and qualitative).
- Improve the ability of stakeholders to process risk management information, including, where necessary, improving the quality of financial services management.
- Ensure that their own supervisors have the necessary qualitative skills and experience to assess the effectiveness of firms’ risk management and governance frameworks.

In order to flesh out these points we present some alternative recommendations below. We accept that many of these recommendations require further development in order to flesh them out into viable policy and supervisory initiatives. However given the early stages of the current process for reform we feel that this is appropriate, especially as the crisis is not yet over and there may be more to learn before it is. Moreover, should our recommendations be accepted we believe that they would require no more effort to implement, and in many cases less effort, than the FSA’s current change agenda.

On the TR’s and FSA’s Analysis of the Crisis and Their Associated Recommendations

³³ Just because the benefits of a particular policy option exceeds the associated costs does not mean that it is the best available, indeed there may be better policy options available, with lower costs and or higher benefits.

- The TR and FSA should broaden their analysis of the causes of the current crisis. At the current time it is too macro-economic in focus. Instead they must also consider socio-technical and inherently qualitative factors like organisational culture, communication mechanisms, board dynamics, etc. This though should not be too hard as bodies such as the Senior Supervisor’s Group (SSG 2008) and Institute of International Finance (IIF 2008) have already conducted detailed reviews in these areas.
- While we accept that certain individual firms might, as part of a balanced risk control framework, need to increase the amount of capital that they hold, we do not believe that there should be blanket increases in capital. Hence, at the very least, Pillar 1 capital requirements should not increase. As argued in section 2.4 above, any blanket increase in capital requirements is unlikely prevent/mitigate the effects of a significant future crisis. Moreover it will be costly for firms and stifle growth. Plus in any case there are superior risk management tools available to supervisors that will better help to prevent crises, by dealing with them at source (e.g. improving the quality of boards/senior management, enhanced information disclosure, etc.).
- The UK Government and its regulators must avoid creating a blame culture across the financial services sector. The establishment of blame, while a popular human pastime, rarely leads to outcomes that are either “efficient or just” (Horlick-Jones 1996). As such a ‘blamist’ approach to regulating the risks inherent in financial services activities is unlikely to lead to the intended outcome of fewer crises in the future. Rather it will simply encourage financial services firms to find compensating behaviours that will allow them to escape blame (e.g. greater secrecy and potentially creative compliance), while diverting attention from correcting the underlying socio-technical problems that caused of current crisis.
- Regulators/supervisors should not seek to replace market forces or constrain the independence of firms (at least in relation to those firms who can demonstrate the adequacy of their risk management systems, corporate structures and organisational cultures, along with the skills/experience of their directors and senior managers). Since it is highly unlikely that they will be able to do a better job³⁴. Does the FSA really want to bear most of the blame for the next crisis?

Our Recommended Way Forward – Regulatory Policy

- To help improve risk management practice International/European regulators (including the FSA) should work with the global financial services sector to develop some new basic standards for risk management and corporate governance – *standards that are given the same importance and regulatory impetus as the current Basel capital requirements*. Here we note that an attempt at this has already been made by the Basel Committee (Basel 2009). However, its proposals seem rather rushed and quite piecemeal, reflecting the risk management and governance failures that have been identified in relation to the current crisis, rather than setting out a clear and comprehensive set of principles for the design and implementation of corporate risk management/governance frameworks over the

³⁴ As Kingston (2009) points out, regulators “...can never be a match for those that they are supposed to regulate, the Masters of the Universe who eat, sleep and dream their project in hand”.

long run³⁵. In addition, by being presented as an addition to the existing Pillar 2 rules (which are concerned with individual firm and supervisory assessments of capital adequacy) these standards remain tied to the existing capital hegemony of the Basel regime.

- All such regulatory standards must be principles based and give financial services firms' sufficient freedom to develop risk management and corporate governance frameworks that are proportionate to the nature, scale and complexity of their activities (as in the case of the current policy on systems and controls that is applied to FSA authorised insurers). This will help to keep the costs of compliance to a minimum, while alleviating problems such as 'creative compliance'.
- The above regulatory standards must fully embrace the enterprise-wide approach to the management of risk³⁶. Notably, while claiming to promote a firm-wide approach to risk the new Basel standards (Basel 2009) are inevitably banking biased and also remain resolutely focussed on credit, market and liquidity risk (notably, where are the references to operational and business risk?). Hence regulators must move away from their current silo mentality and develop policy that transcends both risk types (market, credit, operational, etc.) and sectors (e.g. insurers, banks, investment firms, etc.).
- International policy initiatives should be developed to alleviate the asymmetric information problems that hinder the efficient functioning of many financial markets and in so doing helped to create the significant moral hazard problems that contributed to the current crisis (see Dowd 2008 & 2009). In our opinion the priorities in this area are:
 - Further reforming the Pillar 3 Disclosure rules within the Basel Accord to make them more comprehensive and relevant to a wider range of stakeholders (the existing reforms, as outlined in Basel 2009, are a useful step forward, but remain accounting biased). Notably firms' disclosure documents must contain information that is both relevant to a wider range of stakeholders (e.g. small shareholders/consumers) and easy for a non-accountant to digest. They should also contain qualitative information about the future prospects for the firm and the suitability of its risk management and governance frameworks³⁷.
 - Enhancing the transparency of board/management incentive schemes. For example additional information on the design of these schemes could be disclosed within a firm's Pillar 3 document.
 - Improving the education of more vulnerable stakeholders (e.g. small shareholders/consumers) to help make them better aware of the risks that financial services firms are taking, as well as the consequences of these risks. In this regard, what about producing prudential/systemic risk league tables, in a manner similar to the current 'Moneymadeclear' initiative and its product price related league tables?

³⁵ Indeed there is already a template for such a set of principles in the guise of the forthcoming International Standard for Risk Management (ISO 31000).

³⁶ This is important because, as highlighted by the SSG (2008) and IIF (2008), those firms that adopted an enterprise-wide view of their risk exposures were better able to both anticipate the current crisis and respond to its effects.

³⁷ In relation to this point we concur with the House of Commons Treasury Committee (2009b) that firms should provide a "jargon free" overview of their business model and future risks (see recommendation no. 40).

- Enhancing the documentation for securitised products, which should be made clearer, easier to digest and be consistent across regulatory regimes (see IIF 2008 for a comprehensive set of recommendations)³⁸.
- Enhancing the oversight of rating agency activities and ensuring greater transparency in relation to their rating methodologies (see IIF 2008 for a comprehensive set of recommendations). This should particularly regard new/less well understood areas of rating agency activity, as errors in relation to the rating of mortgage backed securities (an area that rating agencies had comparatively less experience in) helped contribute to the current crisis³⁹.
- The FSA should support the development of training and education initiatives to ensure that UK boards/senior managers (including senior risk managers) have the skills that they need to manage financial services organisations. This might include developing a new professional qualification or promoting those offered by the likes of the ifs School of Finance or Chartered Insurance Institute. It might even include supporting the University sector, which already offers many high quality courses in financial services and risk management.
- The Boards of UK authorised firms should be required to demonstrate (both to the FSA and other stakeholders) that they have sufficient experience of the financial services sector. This could be easily achieved by requiring the disclosure of comprehensive CVs for all board members.
- The UK Government should consider giving its financial services regulators and or the civil courts the ability to ‘pierce the corporate veil’, thereby circumventing the moral hazard incentives created by the limited liability corporate form. Notably:
 - Arrangements could be made to require shareholders to meet additional cash calls, where this is necessary to meet a financial institution’s liabilities as they fall due⁴⁰.
 - Where a financial services firm has failed its directors could be required by the FSA to forfeit a percentage of the remuneration that they have acquired during their tenure (assuming of course that the failure of the firm can be linked to some error or omission on their part). This could be in the form of a fine, in order to prevent this loss from being insured⁴¹.
 - Key stakeholders (consumers, shareholders, creditors, etc.) should be able to sue the directors of a financial services firm, where they can

³⁸ We welcome the conclusion of the House of Commons Treasury Committee (2009a) in this regard and also agree that the trading of securitised products via clearing houses and where, appropriate, exchanges would help to improve transparency.

³⁹ See Crouhy (2008), IIF (2008), and the SSG (2008) for critiques of rating agency activities, in relation to the rating of mortgage backed securities, prior to the crisis. It is also reassuring that this issue was addressed by the House of Commons Treasury Committee (2009b).

⁴⁰ We accept that this may be difficult to achieve in practice, especially following the Lloyds of London Scandal in the 1990’s where many names claimed that they were misled about the risks that they were taking. However, with greater market transparency the problems that were experienced by Lloyds could have been circumvented. Similarly, as highlighted by the success of the Lloyds model prior to the 1990’s, investors can find such arrangements attractive where the returns from bearing an increased level of risk are sufficient.

⁴¹ Such a measure would require a relatively simply extension of the Approved Persons Regime, which already allows for the levying of personal fines against a variety of misdemeanours.

prove negligence and or a deliberate failure in the fiduciary duties of these directors.

- While the points raised in the above bullet have considerable merit from a classical economic perspective, we accept that they may be politically unpalatable. Therefore at the very least we would recommend that firms should be encouraged to develop long term bonus arrangements which include significant claw-back provisions in the event that they experience a loss⁴². Moreover the directors of financial services firms could be required to deposit a pre-agreed percentage of their wealth in their firms (this deposit could pay a standard rate of interest). This money would then be forfeited if the firm was to become insolvent⁴³.
- UK deposit insurance arrangements must become more risk based to help alleviate the significant moral hazard problems that they can create. Plus the £50,000 limit must be applied⁴⁴.

Our Recommended Way Forward – Supervision

- The FSA should continue with its current approach to supervision, which is to work in partnership with firms. Granted this may require closer ‘partnerships’ with some firms than before (e.g. those that expose the UK economy to a high degree of systemic risk and or those that have significant weaknesses in their corporate structures/cultures or risk management frameworks). However it must not, except in the most extreme circumstances (i.e. where a firm is very likely to breach the FSA’s Threshold Conditions or Principles for Business), seek to over-rule the business decisions of their duly appointed directors and senior managers.
- To the extent that greater scrutiny of firms’ activities is required the FSA should consider basing its approach to supervision on the standard audit type methodology – combining elements of the internal and external audit models, where appropriate. In so doing supervisors would, under normal operating conditions (i.e. where a firm is unlikely to breach COND or PRIN – the High Level Standards referred to in the bullet above), work with (rather than against) financial services firms to seek assurance that they are being run effectively (with appropriate risk management systems, governance arrangements, etc.). Moreover they would, as now, have the power to make ‘strong recommendations’ where they believe that there are weaknesses in a firm’s risk management/governance frameworks or in relation to the attitudes/experience of its senior management. However crucially firms must be allowed the freedom to reject these recommendations (on a permanent or temporary basis), where they have gone through a suitable risk acceptance process⁴⁵.

⁴² For an interesting discussion of possible compensation strategies see Acharya & Richardson (2009), Part 3.

⁴³ This is no different to the owners of many smaller limited companies and partnerships, who often have significant amounts of their wealth tied up in the firms that they run.

⁴⁴ In this regard we welcome the conclusions of the House of Commons Treasury Committee (2009a) that the UK deposit insurance arrangements must become more risk based and that the £50,000 limit must be applied (see paragraphs 90 and 96).

⁴⁵ Indeed the audit metaphor could be extended further with the FSA choosing to attend occasional risk and audit committees or even board meetings. Providing the FSA maintains a spirit of partnership, with appropriate safeguards to avoid any breach of a supervisor’s independence (as is achieved by many successful internal and external auditors) then it is likely to find that financial services firms will not only become more open with their regulator, but also more willing to listen to its recommendations.

- The FSA should develop qualitative risk assessment tools that allow its supervisors to assess socio-technical factors such as the suitability of a firm's corporate structure, risk culture and the motivations of its board/senior management. In so doing the FSA could utilise/adapt a variety of pre-existing tools, many of which are already in use by other government/quasi government agencies (for example the security forces and Health and Safety Executive). Such techniques include⁴⁶:
 - Root cause analysis (e.g. see Finlow-Bates 1998).
 - Cause and effect analysis, Failure Mode Effects Analysis (FMEA)⁴⁷ or the use of fault and event trees.
 - Hazard and Operability Studies (HAZOP – as developed by ICI in the 1960's)⁴⁸.
 - 'What if' analysis/workshops (which is effectively a simplified version of HAZOP).
 - CRAMM (the Central Computing and Telecommunications Agency Risk Analysis and Management Method – that incorporates the analysis and management of both the technical and non-technical aspects of risk)⁴⁹.
 - Process mapping.
 - SWOT (Strengths, Weaknesses, Opportunities and Threats) and PEST (Political, Economic, Sociological and Technical) analysis.
 - Gap analysis (for example against agreed standards of good practice or the common socio-technical causes of financial crises).
 - Risk culture analysis (notably see Human Engineering 2005).
- Supervisors should be trained in the proper use of selected qualitative risk assessment tools and more generally should be recruited on the basis of their industry experience and ability to exercise expert judgement over factors such as board dynamics, management capability, the suitability of risk frameworks, etc.
- The FSA should consider recruiting a small unit of experts in qualitative risk assessment, rather like they have done in the field of quantitative risk assessment to support the processing of IRM/AMA waivers. Due to a lack of 'home grown' talent these experts may need to be recruited from outside of the financial services sector. However this is, in many ways, advantageous, since the individuals that are recruited will provide a fresh perspective to the rather stale culture of quantitative risk assessment that dominates the financial services sector.

⁴⁶ See the new British Standard on risk management (BS31100) for a list of possible risk assessment tools, many of which are qualitative in nature. See also Waring and Glendon (1998) and Glossop, Ioannides and Gould (2000) for overviews of a wide variety of qualitative risk assessment techniques.

⁴⁷ See Stamatis (2003) for a detailed review of the FMEA technique.

⁴⁸ See Kletz (2006) for a detailed discussion of the theory and practice of the HAZOP approach.

⁴⁹ CRAMM is a risk analysis tool that is already in use by some UK Government agencies. It is primarily used in the fields of physical/information security however it could be adapted more widely. For more information, see: <http://www.cramm.com/>.

4. Conclusion

Despite the clarity and timeliness of Lord Turner's Review and the FSA's accompanying Discussion Paper we do not believe that their recommendations should be accepted in their current form. One key problem is that the TR and FSA only tell part of the story of the current crisis – virtually ignoring the key underlying behavioural causes that lead us to the mess that many western economies are now in. Moreover they show a lack of faith in market forces that is at odds with the prevailing theory and practice in this area.

The implementation of additional regulation can never be taken lightly, especially when it could have damaging consequences for the economic health of a nation for years to come. Moreover given the historic failures of our regulators it is far from certain that they could do any better than the free markets that have brought prosperity for many – at least over the long run. This is especially the case where our regulators suggest enhancing those aspects of the current regime that have actually contributed to the crisis.

Ultimately any effective regulatory response to future financial crises requires mechanisms that help to prevent them from occurring in the first place. Moreover we believe that these mechanisms should be behavioural in focus, identifying and addressing the underlying preconditions that are likely to form the basis for future crises. In so doing we cannot accept that greater Pillar 1 capital requirements represent the ideal solution, or that more prescription is required. Instead the focus should be on raising risk management standards and creating the right sort of incentives for managers and stakeholders so that financial services firms are not only better prepared for the next crisis, but may also be able to stop it from happening in the first place.

That our regulators have been part of the problem is difficult to dispute and they may continue to be so if UK, EU and International regulation moves in the directions outlined by the TR and FSA. However, it is not too late for them to become part of the solution. In so doing our regulators must develop regulatory responses that simultaneously enhance the effectiveness of both market forces within the financial services sector and board/management decision making – rather than working against them.

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