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Abstract

An Anglo-American regulatory 'culture' became associated with 30 years of worldwide economic reforms, global growth and monetary stability. American and British officials identified major sources of instability in their own financial markets before 2007 but remained non-interventionist, invoking the concepts of virtuous markets and moral hazard. They also ignored the policy defects revealed by past crises. Despite record banking losses and fiscal imbalances during the global crisis, their current resistance to regulatory reforms is supported by a powerful political and business consensus.

Keywords: Non-Interventionism, Basel, Virtuous Markets, Moral Hazard, Regulatory Culture

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In the ten years from 1997, the world financial system 'stood tall...self-regulating and self-repairing' even in the face of 'oil prices shocks, wars and dotcom mania'. Yet, in 2007, world markets were brought close to collapse by defaults on the United States sub-prime market, a shock that 'was by global financial standards rather modest'. (Haldane 2009a: 9, 10) The calamitous consequences seemed almost without parallel.

Between summer 2007 and early 2009, the global financial system suffered its worst crisis for at least 70 years, indeed in some ways the worst crisis since the emergence 200 years ago of modern industrial capitalism. (Turner 2009f)

Only 17 of the 182 economies followed by the IMF are expected to grow faster [in 2009] than they did [the previous] year. Some 71 – including 30 of the world's 34 advanced economies – are expected to shrink. The collapse of world trade will likely be the worst since the end of World War II. (Geithner 2009)

This global crisis was not the result of a downturn in either national business cycles or the international economy. Its causes could be attributed, almost entirely, to:

a series of gaps with regard to the oversight of financial institutions... a flawed set of prudential rules particularly for capital and liquidity... [and] a series of governance failures and poor business judgements by the financial institutions themselves. (Sants 2009)

1. Finding Fault

This grim record has not undermined the political credibility of leading American and British regulators, however. They candidly describe how they failed to recognise a growing mismatch between regulatory protocols and market realities before 2007. They admit that 'the [subsequent] widespread economic damage has called into question the fundamental assumptions ...that have directed our regulatory efforts for decades'. (FSA 2009; Bair 2009a) Yet, in the wake of the crisis, they have retained a powerful influence over national policy which has been reconfirmed in striking terms.

The incoming Obama administration, for example, was quick to publicly endorse 'the expertise and powers' of the Federal Reserve Board as 'indispensable for preventing and managing financial crises'. The new Secretary for the Treasury added that 'the programs [the Board] has initiated since the onset of this crisis have played a critical role in helping to contain the damage to the broader economy'. (US Treasury 2009) The British Parliament confirmed the reappointment of the Governor of the Bank of England in mid-2008 in equally fulsome terms. '[His] skills, qualities and experience... will be greatly needed and tested', it declared, 'in facing the challenges... arising from the current market turmoil and from anxieties over inflation'. (House of Commons 2008c)

The survival of the existing policies and protocols of these central bankers and financial regulators owes a great deal to a remarkable political and professional consensus in the two countries on the overriding merits of free markets and the dangers of state involvement in business. With this consensus has come a 'culture' which has shaped regulatory outlook and behaviour in the United States and the United Kingdom and has had considerable influence throughout the rest of the world. Despite wholesale destruction of wealth in the last two years, neither country's government, nor their business communities, believes that financial deregulation has been discredited.

The Anglo-American 'culture' consists of a set of shared attitudes and preconceptions which, it will be shown, shape regulatory behaviour to a remarkable degree and reduce the differences between the two countries' policy decisions on major issues to a very low level. A common frame of reference has emerged despite considerable differences between the two countries' political and institutional arrangements for overseeing monetary and financial affairs. The collective 'culture' does not depend on the so-called 'special relationship' between American and British political leaders or shared political and strategic interests.

This paper seeks to assess the accusation that the regulatory 'culture' of the United States and the United Kingdom encouraged a complacent non-interventionism even in the face of mounting evidence of self-destructive business practices so that 'market discipline' was turned into 'a philosophy to ward off appropriate regulation during good times', to quote an American official. (Bair 2009b) This concentration on the American and British role in the global crisis seems justifiable given the IMF estimate that almost 60 per cent of total write-offs by the world's banks for 2007-10 will be caused by the losses of financial institutions domiciled in the United States and the United Kingdom. (IMF 2009b: 10)

2. From Boom to Bust

The contrast between the impressive performance of global financial markets and institutions until 2006 and the calamity that followed creates a considerable policy challenge. Because the regulatory environment that prevailed up to 2006 proved so positive for growth, its basic principles cannot be dismissed out of hand.² Over the last three decades, 'the global market economy, which requires a global finance system at its core, has for all its faults been a better mechanism for delivering rising prosperity to an increasing number of people', a leading British regulator has argued, 'than any other system we've

On these differences and their significance, see Jackson (2005: 4, 12 especially).

Lord Turner, Financial Services Authority Chairman, has disputed the contribution made by the pre-2007 'light touch' regulatory régimes to genuine wealth creation: 'If the [financial services] industry grew dramatically in the decade to 2007 [the Chicago School claims] that must be because it was performing value added services: if complex product innovations were able to sustain themselves economically, they must have been socially useful innovations. But after what has happened, I think we know that that is not the case'. (Turner 2009a)

ever seen'. How is that record to be reconciled with the unprecedented financial turmoil and corporate collapses from 2007, for which both the regulators and their policies must bear considerable responsibility?

This paper adopts a simple methodology. The focus is on delineating the main preconceptions and policy constraints which can be shown to have shaped regulatory policy and enforcement in the two countries. The analysis explores the connections between these 'cultural' factors and major regulatory challenges to show why a specific policy decision was taken and how its consequences have been explained by the officials responsible. In this way, policy decisions and their implementation can be linked to the economic environment and prevailing market conditions, so that a realistic assessment of the performance of the regulatory system can be achieved. The paper also illustrates the collective Anglo-American nature of the world's dominant regulatory arrangements and how closely matched has been the thinking of officials in Washington and London.

In seeking to identify the principal features of this 'culture' and their relevance to the global crisis, the analysis will rely, almost exclusively, on the public accounts of their stewardship given by senior American and British monetary officials themselves. It may be objected that this public record must be misleading because it excludes any account of the policy-making process and the political, commercial and personal pressures that were involved. On the other hand, these central bankers and financial regulators have to account for themselves in considerable detail before congressional and parliamentary forums. They are engaged, too, in a constant and extensive dialogue with the financial services industry, the wider business community and opinion makers. Thus, the public record involves discussions of considerable technical sophistication, as well as more 'political' presentations. This material allows the officials' outlooks, priorities and responses to events to be examined in considerable detail, both during the global crisis and over the preceding decade.

Reliance on the official record involves a risk of self-censorship or self-serving presentations by leading officials. This paper will show that these officials have been remarkably candid over the years. They are, in practice, the prime source of accurate information on the regulatory failings that created the business environment which led to the global crisis.

Turner has also been one of the sharpest critics of the regulatory 'culture'. (Turner 2009a)

Not that these dangers can be excluded entirely. In a 2009 account of its response to the financial crisis, for example, the Securities and Exchange Commission stated: 'Charged Fannie Mae and Freddie Mac with accounting fraud in 2006 and 2007 respectively, and the companies paid more than \$450 million in penalties to settle the SEC's charges'. (SEC 2009) Few readers could be expected to follow the links shown to other webpages that revealed both actions related to offences committed in 2004 or earlier and were thus unrelated to the current crisis.

3. 'Siamese Twins'?

It is tempting to assume that any consensus between the United States and the United Kingdom must involve an unequal partnership and that London has no choice but to accept Washington's leadership and adopt its agenda.

"The right way of thinking about New York and London is that they are Siamese twins," said Martin Wolf, the economics columnist for The Financial Times... having hitched its wagon to Wall Street more than a decade ago, the City of London cannot afford to untether itself. It simply has too much at stake... Britain can't regulate unilaterally anymore — it is simply too dependent on American institutions... "If regulation is transformed in London it is because of what the U.S. does," Mr. Wolf said. "The U.S. will say, 'You are to follow us.' We now have no regulatory autonomy." It's tough being a Siamese twin. (Nocera 2009)

Such assessments ignore the extent to which the financial services of the two countries struggle for market share on relatively equal terms.⁵ For example, only in respect of this industry could a Bank of England official claim without sounding totally ridiculous that Americans feared British competition.⁶

The emergence of a shared American and British approach to financial regulation can be traced to the early 1970s. 'By 1974, London had become host to a group of multinational banks seeking regulatory refuge, particularly from the United States'. The Bank of England became concerned as to who would take ultimate responsibility for their oversight and stability. Multiple financial crises that year made an overwhelming case for a forum to tackle the challenges of the globalisation of financial markets. With the backing of American regulators, a British proposal to establish what was to become the Basel Committee was accepted by the ten leading industrial nations and Switzerland. (Kapstein 1989: 328-9) It was in this environment that the Anglo-American consensus first established its credentials.

In the 1980s, a spate of banking scandals in both countries gave the issue of financial regulation a new priority. Washington and London shared much the same policy dilemma: the need for enhanced regulation to maintain public confidence in their financial systems and a fear that effective regulation would restrict market expansion and competitiveness especially in the global context. American and British officials were alarmed by a growing threat from Japanese banks, which gave a new impetus to their consensus. There was a recognition in both countries of the danger of regulatory arbitrage if they imposed different standards of conduct on their market participants.⁷

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⁵ British politicians are not so convinced, however, about the special importance of the financial sector's contribution to the country's economy when judged by international standards. (House of Commons 2009: 48, 49)

Over the past few months there has been renewed talk of London overtaking New York as the world's leading financial centre. And it has reflected fears in the US as much as self congratulation in this country'. (Gieve 2007a: 2)

The analysis in this paragraph is based on Singer (2004, 550-1, 554-60) who provides an impressive analysis of the early stages of the Anglo-American consensus at work (although he does not use this terminology).

The Basel Accords that emerged during this decade appeared to represent international cooperation at its best. They were a breakthrough in the reconciliation of competing national interests and the establishment of uniform regulatory policies to promote international financial stability. (Carpio and Honohan 1999: 51) They were also an ingenious arrangement for creating international agreements that lacked any formal binding force and yet would be given legal status at the national level. (Tarbert 2000: 1782, 1784-5) Nevertheless, national interests (small German firms, for example, and Japanese banks) and the demands of business lobbies remained powerful forces especially after negotiations on Basel II began. (King and Sinclair 2003: 349, 351, 356)

From the start, American and British regulators, and their mutual understandings, set the agenda for the other participants in the formal discussions. (Caesar 1992: 1534-5) These officials continued to play the leading role in this forum, chairing the Basel Committee (and its predecessor) for 24 of the years between 1974 and 2006. The European Union, in theory, could have offered a challenge to the Anglo-American consensus, especially after the Euro replaced national currencies for most of its members in 2002. But Europe split the management of monetary affairs. Monetary stability goals were to be set centrally, while fiscal policies and financial stability would remain the responsibility of member governments whose priorities have tended to be national rather than European or global. Differences between Eurozone members in their monetary and fiscal policies have produced very different outcomes for individual national economies within the Union during the global crisis. Consequently, harmonisation of policy towards current rescue measures and future reforms has been a complex and contested process.

For the United States and the United Kingdom, by contrast, there has been a closer match between their national and international interests. Even the choice of rhetoric employed by those responsible for monetary and financial affairs is strikingly similar, as will be evident from the analysis that follows. Their common outlook withstands occasional, sharp conflicts of opinion.¹² It persists regardless of changes in national leadership or ruling party, and the year after the 2008 presidential election in the United States, mutual commitment to the consensus was reaffirmed publicly in the context of the 'SEC-FSA Strategic Dialogue' and what the American side described as an important role of 'the regulators of two of the world's major market centres'.¹³

The British were in the chair for 17 years, Americans for seven. (BIS 2007)

⁹ On the difference in constraints on regulators and legislators, see Singer (2004, 543).

Data on the varied impact of the global crisis on the United States, the United Kingdom and individual members of the EU, and their very national responses, are summarised in Horton (2009: 28-30).

The conflicting national interests among Eurozone leaders are very public. See, for example the reporting in Economist (2008a and 2009a) and Dougherty (2009).

Interest rate policy provided a notable example of public recrimination. A British official declared publicly: 'Some would attribute the asset price bubble at least partly to the Fed's own actions, specifically its policy of holding interest rates at extremely low levels for nearly three years (from the end of 2001 to the end of 2004)'. (Huertas 2009)

The SEC chairman described how 'As the regulators of two of the world's major market centres, the SEC and the FSA have a strong interest in collaborating [to]... achieve coherent oversight of global actors and limit opportunities for playing the

4. Intellectual Legitimacy

The legitimacy of their consensus has been greatly enhanced by the shared regulatory 'culture' whose key principles have enjoyed overwhelming political support and academic endorsement. 'The absolutely dominant intellectual conventional wisdom [worldwide] of the years running up to 2007', a senior British official has explained, was 'confidence in the ideas that markets were self correcting' together with a conviction that 'it was not the role of regulators to interfere with what the market did'. Officials should not concern themselves with financial market innovation, it was argued for example, no matter how menacing 'the explosion of sub-prime lending', on the grounds that market excesses are 'self-correcting'. (Turner 2009b: EV280, 281)

This world view began with a commitment to financial liberalisation which appeared to be validated by the available research.

- With financial liberalisation, the economy as a whole enjoys faster growth because constraints on lending are reduced, which gives entrepreneurs easier access to bank finance.
- By definition, the retreat from controls on bank lending encourages risk-taking and increases the potential for financial institutions to fail and for bank runs to occur. But gains from faster economic growth will more than compensate for the occasional crises even when they have 'severe recessionary effects'.¹⁴
- In any case, markets are best left to regulate and discipline the banks, and investors are better placed than regulators to understand how sound or otherwise a financial institution is.¹⁵
- Economic growth is best promoted by monetary stability, and appropriate monetary policies will keep recession at bay and maximise prosperity.¹⁶ In consequence, inflation targeting will prove 'the best policy framework for promoting wider economic prosperity and stability'.¹⁷

regulatory seams'. In a joint statement, the FSA Chief Executive declared that 'the strategic dialogue with the SEC is a valuable component of the discussions around these reforms, particularly in areas of joint interest and in identifying potential regulatory gaps'. (Sants and Schapiro 2009)

The data in support of this conclusion are derived from 60 countries relating to crises which occurred between 1980 and 2002 analysed in Ranciere (2006). But it is only proper to record that central bankers acknowledged the very heavy costs that financial crises could inflict on an economy, *e.g.*, Clementi (2001).

For an evidence-based presentation in favour of the market's wisdom, see Flannery (1998).

The classic expressions of this outlook came from Professor Bernanke as chairman and, earlier, as a governor, of the Federal Reserve. (Bernanke 2003, 2008)

The Bank of England denied that 'the *Inflation Targeting* regime... imposed a straightjacket on central banks including ours by setting too narrow a remit'. (Gieve 2009: 13-4)

On the basis of such research findings, minimalism seemed the best approach to financial regulation. The policy conclusions that followed included:

- reliance on market forces as a safer and more effective strategy than government oversight; and
- priority for monetary rather than financial stability.

The regulators had two further, quasi-academic (and debatable) preconceptions about financial crises.

- Financial crises are unavoidable, even in advanced economies, 'especially while maintaining a dynamic and innovative financial system'. As a result, regulators cannot be held responsible if a crisis occurs.
- Financial crises tend to have little in common, which makes their occurrence hard to predict and their origins difficult to comprehend. (Clementi 2001)¹⁹ As a result, recent experience is not a sound basis for substantial changes to regulatory policies and protocols.

Leading academics endorsed the broad principles on which the Anglo-American 'culture' was based, and their views commanded great weight even when their research concerns were not primarily with the business of finance. The limitations of current economic orthodoxy when applied to financial regulation tended to be little discussed. As a result, it has been argued, modern economics has been perilously remote from market realities. 'Current macroeconomic research has had little to say about bank lending, financial instability and house and asset price bubbles', a prominent academic involved in British central banking has complained, 'Modern macroeconomic research pointed policymakers in the wrong direction'. (Blanchflower 2009)

A further complication was that consensus at the macro level was not matched by agreement among economists about what would work best at the level of the financial firm and its markets Nor were they united in their views on the regulatory arrangements needed to ensure a flourishing banking industry which would find an effective balance between risk-taking to fund maximum economic growth while maintaining institutional stability to safeguard depositors.²⁰ Economists were not even agreed about the contribution which banking makes to the overall development process.²¹

Washington and London have used almost identical wording on this issue, although in the British case, the bank closures since 2007 were without parallel since the nineteenth century. (Bernanke 2009; House of Commons 2008c: EV4)

This view is shared by one of Hong Kong's most experienced regulators after an extensive survey of evidence from the previous century. But his conclusion is challenged by an impressive essay in the same volume. (Sheng 1998: 325; Miller 1998: 280)

This finding reflects a study of the principal regulatory issues in the light of data gathered from 107 countries at the end of the previous century. (Barth 2002)

For a summary of the key issues, see Ahn and Hemmings (2000: 41–3).

The global financial crisis could have discredited the intellectual consensus. Indeed, 'many people view the financial crisis that began in 2007 as a devastating blow to the credibility not only of banks but also of the entire academic discipline of financial economics'. (Economist 2009b) ²² Yet, despite this disenchantment, the consensus survived, and the Anglo-American regulatory 'culture' has not been overthrown. Its economic principles and its financial and monetary prescriptions continue to command majority support among political and business leaders, academics and much of the media.

5. Cultural Comfort Zone

The Anglo-American 'culture' begins with a firm belief in the virtues of free market forces. This assumption has gained increasing international credibility because of the growing trend over the last 30 years, even among socialist countries, to dismantle state controls and liberalise both domestic markets and the foreign trade and investment sectors. Nations which have abandoned state direction of their economies have achieved sustained growth at extremely high levels, especially in Asia. The period also saw the transformation of advanced economies into post-industrial societies, relying on their service sectors to generate their own wealth and on emerging and transition economies for manufactured products.

A key element in the shared Anglo-American 'culture' is the market reality: their enormously successful financial services industries. The United States and the United Kingdom led the international trend towards deregulation, and they have enjoyed exceptional profit opportunities thanks to worldwide economic growth over the last three decades. The two countries currently dominate world financial and securities markets, and they are the largest exporters of financial services. But 'cultural' factors have also played a substantial part in the success of their financial services. New York and London have the biggest concentration of regulatory expertise, and they have become the arbiters of world best practice with which other countries must conform. ²³ Thus, American and British firms have the additional and market-enhancing advantage that they operate internationally within a 'cultural' zone originally designed for their convenience.

Officials in Washington and London often talk as if theirs are the decisive views on such issues as the Basel Accords and that their financial markets are where the proper balance between market discipline and prudential supervision are achieved. Market share means that the United States and United Kingdom financial authorities are able to impose a large measure of harmonisation of regulatory goals and behaviour – if not the specific political and legal rules and practices – on the day-to-day oversight of global financial business. (Simmons 2001: 592-5)

Legal services provide a good example of how New York and London obtained what have been criticised as unfair advantages. (Rogoff 1999: 38)

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This verdict was promptly challenged by the University of Chicago's Professor Robert Lucas (2009).

Until 2007, this dominance was held to be a natural consequence of how global markets led to 'financial integration and capital mobility'. (Crawford 2001: 47) The assumption was that Anglo-American regulatory practices would work equally well anywhere regardless of cultural and institutional differences.(Barth 2002: 1) The danger seemed small that imitation of Anglo-American models would open global capital markets to the malignant as well as the benign features of American and British financial behaviour. On the contrary, the message from Washington and London was that their standards of excellence would ensure global stability.

American and British regulators claimed to have studied the impact of increasingly esoteric and exotic products in their financial markets and to have found the risks involved to be limited and acceptable. For example, the Enron scandal offered abundant evidence of how blind the market and its supporting institutions (accounting firms, in particular) could be to the real worth of a major corporation. In response, American regulators pledged a commitment to greater watchfulness on the part of the banking industry. (Spillenkothen 2002) Subsequent events showed that, in practice, the underlying weaknesses had not been eliminated. But for the foreign clients of the world's largest financial markets in New York and London, the Federal Reserve Board's commitment to better corporate performance seemed close to a regulatory guarantee that Anglo-American financial institutions would operate at the highest standards of prudential management.

6. Taken by Surprise

The financial disaster which emerged in 2007 was made all the more traumatic because this was a crisis that should not have happened. Never had the capacity to counter worldwide financial instability and global recession seemed so strong. As an additional reassurance, agreement had been established among the world's central bankers on the regulatory measures that would minimise the risks of institutional failure and prevent potential contagion across individual countries. In the following year, market failures and corporate collapses began, which have proved enormously costly for their citizens, both as investors and as taxpayers.

For the United States, the costs of the first government rescue programme could be described only in epic terms.

The \$700 billion TARP program alone is worth more, in inflation-adjusted dollars, than the combined cost of the Hoover Dam, the Panama Canal, the first Gulf War, the Marshall Plan, the Louisiana Purchase, and all of the moon missions. Multiply that ninefold, and you have the current running total of the federal government's economic rescue programs. (Cox 2008)

A typical example of such reassurance to the world at large was an American central banker's detailed review of financial innovation which advised that 'the potential for the new instruments and techniques [i.e., mortgage-based and other derivatives] to produce instability has been overestimated'. (Ferguson 2002)

The consequences for the public finances of the United Kingdom were disastrous: 'Fiscal deficits have widened sharply and are expected to be about 13 percent of GDP in 2009 and 2010. Gross general government debt is set to double over the next five years to nearly 100 percent of GDP'. (IMF 2009a) The effects on the capitalisation of the British banking industry were catastrophic. The value of its shares had risen by an annual 16 per cent from 1985 to 2006 (compared with only 2 per cent a year in the period 1900-84). They then slumped. By March 2009, they had lost 80 per cent of their cumulative value, a bigger fall even than during the Great Crash in 1929. (Haldane 2009b: 1-2)

The global crisis was a brutal and unexpected reversal of the sustained but stable growth that had seemed to be norm for the new century. From the 1990s, the leading economies had appeared to have put behind them a long period of monetary instability during which frequent inflationary and budgetary setbacks had disrupted growth. They now enjoyed a prospect of unbroken prosperity glowingly described in an official, post-crisis British report.

The period since the economic downturn of the early 1990s, which affected almost all developed countries, came to be known as the 'great moderation' in the United States and the 'great stability' in the United Kingdom... characterised by low and stable global inflation, as well as high and stable global real GDP growth over the past decade. (House of Commons 2008b: 9)

Officials in Washington and London took credit for creating the monetary environment which allowed the expansion of world imports by 180 per cent from 1990, while world GDP rose by 80 per cent. (Gieve 2007a: 9) They expressed satisfaction at the way their banking systems proved their ability to withstand severe strains from changing trade patterns, sharp swings in business cycles and direct threats to national survival.²⁵

The last decade has seen some big and unanticipated changes. Since 1999, oil prices have risen from below \$20 a barrel to over \$70 a barrel, the US Fed funds rate has varied between 1% and 6.5%, and the stock market has experienced its post dotcom boom, bust and recovery, with the FTSE All Share falling from its 2000 high of over 3200 to below 1660 in 2003 before now recovering to over 3400. We have seen 9/11 and the onset of a new form of international terrorism, the explosive growth of new financial instruments and new players to exploit them, and we have seen the emergence of China and India into major forces in the world economy. (Gieve 2007b: 4)

7. A Disaster Waiting to Happen

Initially, American and British officials refused to believe that this 'golden' age had started to crumble. In the second quarter of 2006, financial institutions began 'to liquidate portfolios to meet margin calls or

Earlier, in making similar comparison of this sort, another British central banker had quoted Alan Greenspan, then Federal Reserve Board Chairman. (Large 2003: 6)

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solvency requirements', which caused significant funding problems. The Bank of England linked this trend to mounting competition in financial markets 'to stay ahead of, or keep up with, the pack [which] stretches risk management systems in the process'. Nevertheless, no special response was deemed unnecessary because of officials' deeply-held conviction that the markets were self-correcting.²⁶

The previous 30 years of sustained global growth and the last decade of monetary stability and booming financial markets had distracted attention from the radical and, in retrospect, retrograde changes taking place in the business models of the American and British banking industries. What was to prove the most damaging shift got underway in the United States. Here, the direct link between the banker and the borrower was being broken with the emergence of an 'originate-to-distribute' model. Arguably, without this innovation, the sub-prime mortgage business would have been confined to the American market, and its collapse in 2006 would not have been followed by extensive contamination of the global banking system. (Berndt and Gupta 2008: 1)

The serious consequences of this model for banking supervision were not widely recognised. Before the advent of the 'originate-to-distribute' model, a bank loan almost always created a deposit with the bank, thus establishing an overlap between the interests of depositors and borrowers. Banking supervision traditionally had been able to assume that what was good for the borrower was also good for the depositor. Under the 'originate-to-distribute' model, that identity of interest could no longer be taken for granted. Now, the borrower's relationship with the bank became limited and specialised. Typically, the bank sold a mortgage to a client with whom it had no previous customer relationship and about whom, therefore, the bank had far less information as to credit-worthiness than traditionally would have been the case. (In the sub-prime mortgage industry, the bank offloaded the extra risk involved by selling on the loan to a third party which had even less direct knowledge of the borrower.)²⁷

Securitisation aggravated this process, transforming the model from 'originate and distribute' to 'acquire and arbitrage' Its disastrous consequences for the world's financial markets have been summed up by British regulators.

... credit intermediation [now] meant passing through multiple trading books in banks, leading to a proliferation of relationships within the financial sector. This 'acquire and arbitrage' model resulted in the majority of incurred losses falling not on investors outside the banking system, but on banks and investment banks themselves involved in risky maturity transformation activities. The explosion of claims within the financial system resulted in financial sector balance sheets becoming of greater consequence for the economy, with financial sector assets and liabilities in the UK and the US growing far more rapidly as a proportion of gross domestic product than those of corporates and households. (FSA 2009: 457)

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The adverse trend was well below the levels which had led to crises in 1987 and 1998, the Bank of England concluded. (Gieve 2006: 6, 8-9)

This analysis draws heavily on Berndt and Gupta (2008).

A different but no less radical transition was taking place in the United Kingdom. Once again, the direct link between the banker and the customer was being weakened, but this time on the deposit rather than the lending side. As in the United States, British 'commercial banks followed the path of investment banks'. A high priority was given to 'expansion of proprietary trading' and 'the funding of long-term assets in short-term wholesale markets'. This transformation of British banking behaviour was extraordinary, declared the Governor of the Bank of England.

Forty years ago, the clearing banks in London held around 30% of their assets in short-term liquid instruments. [In 2009] that liquid assets ratio is about 1%. For the major UK banks, almost 25% of customer loans are now funded by short-term borrowing in wholesale markets. At the turn of the new century it was close to zero. This was the distinctive feature of the contemporary British model of banking. Distinctive it may have been; sensible it was not. (King 2009: 4)

Once again, the consequences of this major change in banking practice were to prove disastrous. As the global crisis got under way, the fragility of this business model could not be disguised. First, investors lost confidence and then depositors, and two of Britain's largest banks were brought down, together with all the property-related firms which had acquired bank status in the last two decades of the previous century.

8. Ignoring the Past

The regulators would not have been taken by surprise in 2007 but for their failure to learn from crises and scandals in the previous decade. In 1998, the United States faced a serious emergency with the collapse of LTCM. This firm 'received generous terms from the banks and broker-dealers that provided credit and served as counterparties, even though LTCM took exceptional risks', the Chairman of the Federal Reserve Board later observed, because investors, 'awed by the reputations of LTCM's principals, did not ask sufficiently tough questions about the risks that were being taken to generate the high returns'. ²⁸ The dire consequences of continuing regulatory tolerance of such imprudence were to cause an even bigger shock to the system in 2007.

The Enron collapse was another scandal whose lessons were largely ignored. Publicly, officials declared that the incident should be seen as a serious warning to the markets. But few practical measures were taken to strengthen the investor's protection against malpractices, according to a senior regulator in 2009. 'The same off-balance sheet-vehicles were permitted beyond the reach of prudential regulation, including holding company capital requirements', she alleged, and, as in the Enron case, there was little effort to block financial products that threatened the safety and soundness of financial institutions. (Bair 2009a)

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Significantly, while he pledged that 'authorities should (and will) try to ensure that the lapses in risk management of 1998 do not happen again', he warned that this 'systemic risk' could not be eliminated: 'To try to do so would likely stifle innovation without achieving the intended goal'. (Bernanke 2006)

Regulatory behaviour was reluctant to respond to negative feedback, however traumatic for the markets, not out of blind complacency or bureaucratic defensiveness. The Anglo-American 'culture' included the firm conviction that past crises were dangerous guides to the future. 'It is not uncommon to see legislators and regulators rush to promulgate new laws and rules in response to market breakdowns', Alan Greenspan insisted, 'and the mistakes that result often take decades to correct'. (Greenspan 2007: 375-6) The British view, as expressed by the Governor of the Bank of England, echoed his American counterpart.

After another twenty years or so, memories of the Panic of 2008 will have faded, and the regulations put in place in its wake will no doubt be seen as old-fashioned, inhibiting of the potential of the City, and as ripe to be swept away as was the Glass-Steagall separation of commercial and investment banking in the United States a few years ago.²⁹

Fear of reform leading to regulatory expansion has continued to shape policy As the Bush presidency was coming to an end in 2008, regulators warned that 'events have called... into question' the benefits generated by free and competitive markets. The public, therefore, should be left in no doubt that the massive rescue operations launched by the government ought to be regarded as temporary measures and 'there has to be a deliberate design to eliminate them'. (Cox 2008)

But there was no need for alarm among the out-going administration: the regulatory 'culture' and its commitment to the market proved to have bipartisan appeal. The in-coming Secretary for the Treasury declared that it was imperative that 'we commit now to unwind and reverse the extraordinary actions we have been compelled to take to address the crisis, once the risks have receded and a recovery is firmly in place'. (Geithner 2009)

9. Virtuous Markets

A companion paper, 'The Global Crisis: Fatal Decisions – Four Case Studies in Financial Regulation' (HKIMR No. 35/2009), analyses the main areas in which American and British central bankers and financial regulators identified potential threats to stability but decided not to act on the grounds that markets should be trusted to find the appropriate remedies. This behaviour reflected a deeply-entrenched belief in the sound judgment of markets and their ability to impose whatever discipline was necessary to achieve efficiency and integrity. The belief in the superiority of this collective market wisdom was, and remains, a defining doctrine in the Anglo-American regulatory mindset.

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But note that earlier in this speech, he had declared: 'We must ensure that an institutional memory is maintained so that the lessons from the crisis are not forgotten and those impediments to excessive risk-taking are not swept away once memories of the crisis recede'. (King 2009: 4, 15)

This conviction seems to have been born originally out of a sense of personal inadequacy. After his retirement, Alan Greenspan, the doyen of British as well as American central monetary officials, ³⁰ revealed that his reluctance to regulate was inspired not by a perception of markets as wise or virtuous but, rather, by what sounds like a counsel of despair. He was convinced that markets were beyond human control, which made financial regulation an empty pretence. 'Markets have become too huge, complex, and fast-moving to be subject to twentieth-century supervision and regulation', he declared, 'This globalized behemoth stretches beyond the full comprehension of even the most sophisticated market participants'.

Greenspan also believed that markets recovered best from crises when left alone by governments to 'rebalance'.

Today, oversight of these [financial market] transactions is essentially by means of individual-market-participant counterparty surveillance. Each lender, to protect its shareholders, keeps a tab on its customers' investment positions. Regulators can still pretend to provide oversight, but their capabilities are much diminished and declining.... Since markets have become too complex for effective human intervention, the most promising anticrisis policies are those that maintain maximum market flexibility – freedom of action for key market participants such as hedge funds, private equity funds, and investment banks. .. Regulation by its nature, inhibits freedom of market action, and that freedom to act expeditiously is what rebalances markets. (Greenspan 2007: 489)

As a result of this sort of thinking, regulation itself was identified as a serious source of financial instability, which should be opposed. For example, in a 2006 discussion of the risks that followed the rapid growth of hedge funds, the Federal Reserve Board Chairman warned of the capacity of financial markets to erase the pain of previous crises and to seek to evade market discipline once more, aided and abetted by overgenerous credit from banks and other sources. He, nevertheless, declared his opposition to any form of 'prescriptive regulatory regime' on the grounds that, 'by creating moral hazard in the marketplace, it leaves the system less rather than more stable'. (Bernanke 2006)

Although resistance to intervention in the markets remains strong, their virtues are no longer beyond challenge, and a British central banker has attacked the fundamental assumptions propounded by economists and espoused by regulators.

... the economics profession has oversold the virtues of unfettered financial markets. We usually start from a presumption that markets work best when they are left to themselves, unless there are obvious market failures present. By the same token, even though not strictly the case. In theory, we usually start from a presumption that expanding the range of available securities is beneficial. Yet that has resulted in a deeply unsatisfactory outcome (Bean 2009)

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For the British regulators' sense of Greenspan's influence, see Turner (2009b: EV280, 281).

Regulatory Resistance

Regulators willingly concede that the current global crisis was foreseeable. 'Most of the underlying causes of the crisis [had] attracted attention from economists, central banks, international financial institutions and regulators', the Governor of the Bank of England has confessed. However, 'regulators could never prove that the risks they identified would crystallize', he has asserted, while 'central banks and the IMF discussed the imbalances for so long that some came to believe that they were crying wolf'. (King 2009: 15) The American view is that the international regulatory community as a whole was misguided in assuming that, even if capital requirements were significantly reduced, financial institutions could continue to operate safely in global markets, thanks to the introduction of 'diversification and advanced risk management practices'. (Bair 2009a)

A major contributing cause of the catastrophe was more humdrum: a reluctance to enforce the law. An official British review of the worst banking crisis for more than a century heard ample evidence of 'poor execution of existing regulatory powers'. House of Commons 2008d: 15) American officials admit in retrospect that they had considerable legal powers to halt the malpractices and mismanagement which destabilised financial markets (notably in relation to mortgages). 'For various reasons, these powers were not used effectively and, as a consequence, supervision was not sufficiently proactive'. (Bair 2009a)

The central bankers and financial regulators argue that their reluctance to regulate represented political realities. They contend that their minimalist approach to regulation reflected the majority view in most countries. Public opinion would have opposed efforts to improve the regulation of the banks as unacceptable 'constraints on the growth and profitability' of the industry and 'a tax on the success of the investment banking community', a British official claimed, while a more liberal regulatory régime was identified in 2007 as an important asset in London's rivalry with New York. (King 2009: 9) On this view, the politicians and the public would have rejected any regulatory initiatives that reduced this competitive advantage.

11. Articles of Faith

The global crisis called into question the notion of markets as spontaneously correcting their excesses and disciplining wayward participants. The case against the 'invisible hand' and the free operation of market forces was made very powerfully by an official British report.

In the past, an important school of thought has argued that market discipline can play a key role in incentivising banks to constrain capital and liquidity risks... But a strong case can be made that the events of the last five years have illustrated the inadequacy of market discipline: indeed, they suggest that in some ways market prices and market pressures may have played positively harmful roles... A reasonable

conclusion is that market discipline expressed via market prices cannot be expected to play a major role in constraining bank risk taking, and that the primary constraint needs to come from regulation and supervision. (Turner 2009c: 45-6)

The principle that the market must be left free to decide the fate of banks and other financial institution remained, nevertheless, a dogma at the heart of Anglo-American 'culture'. Its resilience in the face of a calamitous gap between policy and performance has been put in context by an American official. Financial liberalisation won its credibility during a long period of prosperity, he notes, in which 'articles of faith accumulate'. 'Some of these understandings are strong and enduring and well grounded'. he observes, 'others, more problematic or misplaced; others still, properly and promptly discarded'. (Warsh 2009) In this case, the 'misplaced' articles of faith are protected by officials who, as this presentation has already shown, chose not to take action against threats to market integrity and financial stability out of a confidence in the operation of free markets, which the global crisis has shown to be wholly unjustified.

For central bankers, the concept of moral hazard was sacred, and they defended the right let financial institutions fail. The Chairman of the Federal Reserve Board was still taking much the same approach in 2009 as he had done in 2005 when expounding this doctrine. Despite the Lehman affair, he remained determined to dispel the notion that the government would automatically 'prevent the failure of a large, highly interconnected financial firm' despite the disruption that the financial system and the broader economy might suffer in consequence. The price to be paid for classifying some firms as 'too big to fail' would be dire, he insisted.

... it reduces market discipline and encourages excessive risk-taking by the firm. It also provides an artificial incentive for firms to grow, in order to be perceived as too big to fail. And it creates an unlevel playing field with smaller firms, which may not be regarded as having implicit government support. Moreover, government rescues of too-big-to-fail firms can be costly to taxpayers, as we have seen recently. Indeed, in the present crisis, this issue has emerged as an enormous problem. (Bernanke 2005, 2009)

In the United Kingdom, a very similar attitude prevailed. In 2006, the Bank of England had argued that banks must be allowed to fail except 'to avoid serious disturbance' to the national economy.

... the authorities cannot and should not be expected to intervene with a support package every time a bank – even a large one – gets into difficulties. The cost of such an interventionist approach, in terms of market discipline and fiscal burden, would be substantial. And it would in all likelihood compromise the efficient provision of financial services and inhibit the exit of weak firms from the industry. (Bond 2006: 3)

As the global crisis gathered momentum the following year, the Bank stuck to its principles, and the banking system came close to ruin. As the crisis in the United Kingdom intensified in 2008, the Bank's Governor continued to fight strenuously for the right to allow banks to go out of business 'to encourage prudent behaviour by others'. (King 2008: 3-4)

A parliamentary investigation into the collapse of British financial institutions seemed prepared to challenge the regulators' outlook. It described banks as 'special' organisations, 'similar in some ways to utility providers'. 'We are unconvinced that the Bank of England's focus on moral hazard was appropriate for the circumstances in August [2007]', it declared. As the global crisis accelerated and Northern Rock was about to become the first British commercial bank to suffer a run since 1878, 'only the Bank of England took no contingency measures at all', it continued, noting how the European Central Bank, for example, had moved swiftly to restore market confidence. When the government finally intervened to rescue Northern Rock's depositors, the damage had been done: the fragility of the British banking system's financing had been laid bare.

But moral hazard was not so easily discredited. In the end, the parliamentary investigation's report remained loyal to the prevailing regulatory 'culture' and advised that 'banks should be allowed to "fail" so as to preserve market discipline on financial institutions'. It was essential, the report added, 'to ensure that its framework for maintaining financial stability does not provide free insurance to banks' or a guarantee that no bank would be allowed to fail. (House of Commons 2008a: 43-4, 74, 77) Moral hazard remained the regulators' gold standard.

12. End of an Era?

Yet, there was a feeling that the financial world could never be the same again: 'The autumn of 2008 marks the end of an era'.

After a generation of standing ever further back from the business of finance, governments have been forced to step in to rescue banking systems and the markets. In America, the bulwark of free enterprise, and in Britain, the pioneer of privatisation, financial firms have had to accept rescue and part-ownership by the state. (Economist 2008b)

For this unhappy close to 30 years of liberalisation, the laisser-faire mentality of central bankers and financial regulators had much to answer. Investor and depositor confidence had been shaken to a degree not matched in any previous crisis, an American central banker reported. It was dramatised by 'the inability of Bear Stearns to borrow even against U.S. government securities [which] led to its collapse'. (Duke 2009) Decades of optimism about the financial markets' ability to generate prosperity were replaced by cynicism. Long-standing assumptions about the market's collective good sense were being discarded, and disillusionment, if not despair, was the dominant sentiment at every level by early 2009, an American official lamented.

Investors of all stripes – sovereign wealth funds, large long-only institutional investors, private equity sponsors, hedge funds, and retail investors – are searching for new rules of asset allocation and appropriate risk premiums in an uncertain and unusual economic environment. (Warsh 2009)

The search for solutions was handicapped by the disarray within the financial services industry, a British official complained.

The business models of the first years of this century have already been consigned to the dustbin. The acquire-to-arbitrage model employed by leading investment banks is dead. The stand alone investment bank is dead; they are now bank holding companies. Also dead is the retail banking model that depended practically exclusively on securitisation to fund a growth in mortgages and other consumer credit far in excess of the institution's retail deposits. And, the so-called "free banking" model is under attack – at least in the UK – under pressure from the courts and from zero interest rates. (Huertas 2009)

Against this background, political leaders and monetary officials could not deny the need to reform regulatory policies and practices. But they did not intend to deviate drastically from the long-established consensus. In theory, the Anglo-American regulatory 'culture' recognises that 'supervision (looking at the individual institutions and markets) and the systemic factors involving concentrations, inter-relationships and behaviour in relation to the system as a whole' must both be regarded as 'an essential element in the provision of financial stability oversight'. (Large 2004: 19) In discussing the control of systemic risk, the US Treasury had accepted this principle: 'This crisis has also clearly demonstrated that risks to the system can emerge from all corners of the financial markets and from any of our financial institutions'. (Barr 2009)

In policy debates, however, the two were not of equal weight, and 'systemic' risk was regarded as the more urgent priority. The 'culture' and its 'articles of faith' were simply too persuasive, and belief in the market's superiority to intervention by the regulator remained unshaken. Thus, the Chairman of the Securities and Exchange Commission defined 'systemic risk' in 2009 as including an 'imbalance' created by 'unintentionally favor[ing] large systemically important institutions over smaller, more nimble competitors, reducing the system's ability to innovate and adapt to change'. (Schapiro 2009) This claim ignored the crucial lessons of the previous two years and their ample evidence:

- that unrestricted innovation had made the crisis possible; and
- that the largest institutions had been as quick to 'innovate' as the rest of the market.³¹

The Chairman of the Federal Reserve Board was to prove even less enthusiastic about a larger role for regulators. He insisted during a 2009 discussion of reforms that 'strong and effective regulation and supervision of banking institutions' is not enough to reduce systemic risk. What he recommended was a much vaguer goal: 'reforms to the financial architecture, broadly conceived' and regulation of 'the financial system as a whole, in a holistic way, not just its individual components'. (Bernanke 2009) The lack of

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The reality was that before the crisis started in 2007, innovation had been perceived as a potential but manageable source of increased risk. A long-standing assumption was that regulators would have the analytical tools needed for monitoring innovations. (e.g., Flannery 1998: 275) Subsequent events showed that this view had over-estimated the capacity of market participants, rating agencies and regulators to assess the ramifications of the risk involved. (Bair 2009a)

precision was understandable. As a British parliamentary report had noted a little earlier: 'There is no consensus about what financial stability means, how it should be measured and how the balance should be struck between the pursuit of a financial stability objective and other public policy objectives'. (House of Commons 2008d: 100-2)

13. Conclusions

The basic Anglo-American regulatory 'culture' has demonstrated remarkable powers of survival. Even the more enthusiastic advocates of reform within Washington and London are unconvinced that better supervision of financial institutions would have made any significant difference to the events of 2007 and 2008. By contrast, the analysis presented here suggests that probably the greatest damage was done by regulators who regarded themselves as largely irrelevant once free markets prevailed – even in the face of clear evidence that markets were malfunctioning. Officials, nevertheless, do not accept that 'too many banks had made too many rotten individual-loan underwriting decisions'. (Tucker 2007) They remain unconvinced that prudential supervision to minimise unsound and unlawful business practices makes a worthwhile contribution to financial stability.

The assumptions about a self-regulating market and moral hazard have not been overthrown, although there has been a debate about whether or not the largest banks can be allowed to fail. Conventional wisdom has continued to argue that increased regulation would handicap innovation and would do more economic damage than the collapse of a mismanaged financial firm. Thus, the prevailing regulatory policies and procedures are unlikely to shift very dramatically in the immediate future, and a radical departure from the minimalist regulatory approach of the past looks improbable.

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^{32 &#}x27;But the blunt fact is that even if we had had a better supervisory process in place, it would have made only a small difference to the evolution of the financial crisis in the UK'. (Turner 2009e)

References

- Ahn, Sanghoon and Philip Hemmings (2000), "Policy Influences on Economic Growth in OECD Countries: An Evaluation of the Evidence," Economics Department Working Papers No.246, Paris: OECD.
- Bair, Sheila C. (2009a), FDIC Chairman, testimony on Modernizing Bank Supervision and Regulation before the Senate Committee on Banking, Housing and Urban Affairs (19 March 2009).

 URL: http://www.fdic.gov/news/news/speeches/chairman/spmar0319.html
- Bair, Sheila C. (2009b), FDIC Chairman, testimony on Regulatory Perspectives on Financial Regulatory Reform Proposals before the House of Representatives Financial Services Committee (24 July 2009).
 - URL: http://www.fdic.gov/news/news/speeches/chairman/spjuly2409.html
- Barr, Michael (2009), "Regulatory Reform," speech to the Exchequer Club (15 July 2009). URL: http://www.treas.gov/press/releases/tg213.htm
- Barth, James R., Gerard Caprio and Ross Levine (2002), "Bank Regulation and Supervision: What Works Best?" NBER Working Paper No.9323, Cambridge MA: National Bureau of Economic Research.
- Bean, Charles (2009), "The Great Moderation, the Great Panic and the Great Contraction," Annual Congress of the European Economic Association (25 August 2009).

 URL: http://www.bankofengland.co.uk/publications/speeches/2009/speech399.pdf
- Bernanke, Ben S. (2003), "The Legacy of Milton and Rose Friedman's *Free to Choose*," (24 October 2003) URL: http://www.federalreserve.gov/boarddocs/speeches/2003/20031024/default.htm.
- Bernanke, Ben S. (2005), "The Transition from Academic to Policymaker," Annual Meeting of the American Economic Association (7 January 2005).

 URL: http://www.federalreserve.gov/boarddocs/speeches/2005/20050107/default.htm
- Bernanke, Ben S. (2006), "Hedge Funds and Systemic Risk," Federal Reserve Bank of Atlanta Financial Markets Conference (16 May 2006).
 - URL: http://www.federalreserve.gov/newsevents/speech/bernanke20060516a.htm
- Bernanke, Ben S. (2008), "On Milton Friedman's Ninetieth Birthday," (2 November 2008).

 URL: http://www.federalreserve.gov/boarddocs/speeches/2002/20021108/default.htm

Bernanke, Ben S. (2009), "Financial Reform to Address Systemic Risk," Council on Foreign Relations (10 March 2009).

URL: http://www.federalreserve.gov/newsevents/speech/bernanke20090310a.htm.

Berndt, Antje and Anurag Gupta (2008), "Moral Hazard and Adverse Selection in the Originate-to-Distribute Model of Bank Credit," (November 2008)

URL: ssrn-id1290312[1].pdf

BIS (2007), "History of the Basel Committee and its Membership," (August 2009) (Basel Committee on Banking Supervision, 2007)

URL: http://www.bis.org/bcbs/history.pdf

Blanchflower, David (2009), "The Future of Monetary Policy," (March 2009)

URL: http://www.bankofengland.co.uk/publications/speeches/2009/speech382.pdf

Bond, Ian (2006), "Managing a Bank-Specific Crisis: A UK Perspective," BBA workshop on managing a bank-specific crisis, (26 October 2006)

URL: http://www.bankofengland.co.uk/publications/speeches/2006/presentation061026.pdf

Caesar, Camille M. (1992), "Capital-Based Regulation and U.S. Banking Reform," *Yale Law Journal*, 101(7): 1525-49.

Carpio, Gerard and Patrick Honohan (1999), "Restoring Banking Stability: Beyond Supervised Capital Requirements," *Journal of Economic Perspectives*, 13(4): 43-64.

Clementi, David (2001), "Banks and Systemic Risk – Theory and Evidence," Bank of England Conference (23 May 2001).

URL: http://www.bankofengland.co.uk/publications/speeches/2001/speech130.htm

Cox, Christopher (2008), Joint Meeting of the Exchequer Club and Women in Housing and Finance (4 December 2008)

URL: http://www.sec.gov/news/speech/2008/spch120408cc.htm

Crawford, Darryl (2001), "Globalisation and Guanxi: The Ethos of Hong Kong Finance," *New Political Economy*, 6(1).

Dougherty, Carter (2009), "European Central Bank Resists Rush to Print More Money," International Herald Tribune, 24 March 2009.

Duke, Elizabeth A. (2009), "Credit Availability and Prudent Lending Standards," testimony before the House of Representatives Committee on Financial Services (25 March 2009).

URL: http://www.federalreserve.gov/newsevents/testimony/duke20090325a.htm

Economist (2008a), "The European Union's Week from Hell," Economist, 9 October 2008.

Economist (2008b), "A Short History of Modern Finance," *Economist*, 16 October 2008.

Economist (2009a), "Central Banks' Exit Strategies This Way Out," Economist, 4 June 2009.

Economist (2009b), "Financial Economics Efficiency and Beyond," Economist, 16 July 2009.

- Ferguson, Jr., Roger W. (2002), "Financial Engineering and Financial Stability," Annual Conference on the Securities Industry, American Institute of Certified Public Accountants (20 November 2002). URL: http://www.federalreserve.gov/boarddocs/speeches/2002/20021120/default.htm
- Flannery, Mark J. (1998), "Using Market Information in Prudential Bank Supervision: A Review of the U.S. Empirical Evidence," *Journal of Money, Credit and Banking*, 30(3, Part 1): 273-305.
- FSA (2009), "Memorandum from the Financial Services Authority (FSA)," House of Commons Treasury Committee, *Banking Crisis*, Vol. II Written Evidence (HMSO: HC 144–II, March 2009).

 URL: http://www.publications.parliament.uk/pa/cm200809/cmselect/cmtreasy/144/144ii.pdf
- Geithner, Timothy F. (2009), Speech at the Economic Club of Washington (22 April 2009). URL: http://www.treas.gov/press/releases/tg97.htm
- Gieve, John (2006), "Financial System Risks in the UK Issues and Challenges," Centre for the Study of Financial Innovation Roundtable (25 July 2006).

 URL: http://www.bankofengland.co.uk/publications/speeches/2006/speech280.htm
- Gieve, John (2007a), "The City's Growth: The Crest of a Wave or Swimming with the Stream?" London Society of Chartered Accountants (26 March 2007).

 URL: http://www.bankofengland.co.uk/publications/speeches/2007/speech306.htm
- Gieve, John (2007b), "Uncertainty, Policy and Financial Markets," Barbican Centre (24 July 2007). URL: http://www.bankofengland.co.uk/publications/speeches/2007/speech321.htm
- Gieve, John (2009), "Seven Lessons from the Last Three Years," (19 February 2009).

 URL: http://www.bankofengland.co.uk/publications/speeches/2009/speech377.pdf

- Greenspan, Alan (2007), The Age of Turbulence: Adventures in a New World, New York: Penguin Press.
- Haldane, Andrew G. (2009a), "Rethinking the Financial Network," Financial Student Association Amsterdam (28 April 2009).
 - URL: http://www.bankofengland.co.uk/publications/speeches/2009/speech386.pdf
- Haldane, Andrew G. (2009b), "Small Lessons from a Big Crisis," Federal Reserve Bank of Chicago Annual Conference (8 May 2009).
 - URL: http://www.bankofengland.co.uk/publications/speeches/2009/speech397.pdf
- Horton, Mark, Manmohan Kumar and Paolo Mauro (2009), "The State of Public Finances: A Cross-Country Fiscal Monitor," IMF Staff Position Note SPN/09/21, July 30 2009.
 - URL: http://www.imf.org/external/pubs/ft/spn/2009/spn0921.pdf
- House of Commons Treasury Committee (2008a), *The Run on the Rock Fifth Report of Session 2007-08*, Vol. I (London: HMSO, HC56-I, January 2008).
 - URL: http://www.publications.parliament.uk/pa/cm200708/cmselect/cmtreasy/56/56i.pdf
- House of Commons Treasury Committee (2008b), *Financial Stability and Transparency Sixth Report of Session 2007–08* (London: HMSO HC 371, March 2008).
 - URL: http://www.publications.parliament.uk/pa/cm200708/cmselect/cmtreasy/371/371.pdf
- House of Commons Treasury Committee (2008c), *Re-Appointment of Mervyn King as Governor of the Bank of England Tenth Report of Session 2007–08*, Vol. I (London: HMSO HC 524-I, June 2008). URL: http://www.publications.parliament.uk/pa/cm200708/cmselect/cmtreasy/524/524.pdf
- House of Commons Treasury Committee (2008d), *Banking Reform Seventeenth Report of Session 2007—08* (London: HMSO, September 2008 HC 1008).
 - URL: http://www.publications.parliament.uk/pa/cm200708/cmselect/cmtreasy/1008/1008.pdf
- House of Commons Treasury Committee (2009), *Banking Crisis: Regulation and Supervision*, Fourteenth Report of Session 2008–09 (London: HMSO, HC 767, July 2009).
 - URL: http://www.publications.parliament.uk/pa/cm200809/cmselect/cmtreasy/767/767.pdf
- Huertas, Thomas (2009), "The Outlook for Banking and Banking Regulation," ICFR Inaugural Summit (1 April 2009)
 - URL: http://www.fsa.gov.uk/pages/Library/Communication/Speeches/2009/0401_th.shtml

- IMF (2009a), "IMF Executive Board Concludes 2009 Article IV Consultation with the United Kingdom," Public Information Notice (PIN) No. 09/84 (16 July 2009).
 - URL: http://www.imf.org/external/np/sec/pn/2009/pn0984.htm
- IMF (2009b), Global Financial Stability Report: Navigating the Financial Challenges Ahead October 2009 (Washington: International Monetary Fund, 2009)
 URL http://www.imf.org/external/pubs/ft/gfsr/2009/02/pdf/text.pdf
- Jackson, Howell E. (2005), "An American Perspective on the U.K. Financial Services Authority: Politics, Goals & Regulatory Intensity," Harvard Law School Discussion Paper No.522, 08/2005. URL: SSRN-id839284[1].pdf
- Kapstein, Ethan B. (1989), "Resolving the Regulator's Dilemma: International Coordination of Banking Regulations," *International Organization*, 43(2): 323-47.
- King, Mervyn (2008), "Banking and the Bank of England," (10 June 2008).

 URL: www.bankofengland.co.uk/publications/speeches/2008/speech347.pdf
- King, Mervyn (2009), "Finance: A Return from Risk," (17 March 2009).

 URL: http://www.bankofengland.co.uk/publications/speeches/2009/speech381.pdf
- King, Michael R. and Timothy J. Sinclair (2003), "Private Actors and Public Policy: A Requiem for the New Basel Capital Accord," *International Political Science Review*, 24(3): 345-62.
- Large, Andrew (2003), "Convergence in Insurance and Banking: Some Financial Stability Issues," Mandarin Oriental Hotel (12 June 2003).
 - URL: http://www.bankofengland.co.uk/publications/speeches/2003/speech196.htm
- Large, Andrew (2004), "Financial Stability Oversight, Past & Present," London School of Economics (22 January 2004): 19.
 - URL: http://www.bankofengland.co.uk/publications/speeches/2004/speech212.htm
- Lucas, Robert (2009), "In Defence of the Dismal Science," Economist, 6 August 2009.
- Miller, Geoffrey P. (1998), "Banking Crises in Perspective: Two Causes and One Cure," in Gerard Caprio, Jr., William C. Hunter, George G. Kaufman and Danny M. Leipziger, eds., *Preventing Bank Crises:*Lessons from Recent Global Bank Failures, Washington: The World Bank.

- Nocera, Joe (2009), "Talking Business: New York and London: Twins in Finance and Folly," *New York Times*, 9 May 2009.
- Ranciere, Romain, Aaron Tornell and Frank Westermann (2006), "Decomposing the Effects of Financial Liberalization: Crises vs. Growth," NBER Working Paper No.12806, Cambridge MA: National Bureau of Economic Research.

URL: http://www.nber.org/papers/w12806

- Rogoff, Kenneth (1999), "International Institutions for Reducing Global Financial Instability," *Journal of Economic Perspectives*, 13(4): 21-42.
- Sants, Hector (2009), Speech to the Association of Corporate Treasurers (14 May 2009).

 URL: http://www.fsa.gov.uk/pages/Library/Communication/Speeches/2009/0514_hs.shtml
- Sants, Hector and Mary Schapiro (2009), "FSA and SEC Discuss Approaches to Global Regulatory Requirements," FSA/PN/124/2009 (16 September 2009).

URL: http://www.fsa.gov.uk/pages/Library/Communication/PR/2009/124.shtml

Schapiro, Mary L. (2009), testimony on Regulation of Systemic Risk before the Senate Committee on Banking, Housing and Urban Affairs (23 July 2009).

URL: http://www.sec.gov/news/testimony/2009/ts072309mls.htm

SEC (2009), "SEC Actions during Turmoil in Credit Markets," (12 March 2009).

URL: http://www.sec.gov/news/press/sec-actions.htm

- Sheng, Andrew (1998), "Bank Restructuring Revisited," in Gerard Caprio, Jr., William C. Hunter, George G. Kaufman and Danny M. Leipziger, eds., *Preventing Bank Crises: Lessons from Recent Global Bank Failures*, Washington: The World Bank.
- Simmons, Beth A. (2001), "The International Politics of Harmonization: The Case of Capital Market Regulation," *International Organization*, 55(3).
- Singer, David Andrew (2004), "Capital Rules: The Domestic Politics of International Regulatory Harmonization," *International Organization*, 58(3).
- Spillenkothen, Richard (2002), "Oversight of Investment Banks' Response to the Lessons of Enron," testimony before the Senate Permanent Subcommittee on Investigations of the Committee on Governmental Affairs (11 December 2002).

URL: http://www.federalreserve.gov/boarddocs/testimony/2002/20021211/default.htm

- Tarbert, Heath Price (2000), "Are International Capital Adequacy Rules Adequate? The Basle Accord and Beyond," *University of Pennsylvania Law Review*, 148(5): 1771-849.
- Tucker, Paul (2007), "The Turner Review Conference," (27 March 2009).

 URL: http://www.bankofengland.co.uk/publications/speeches/2009/speech384.pdf
- Turner, Adair (2009a), "The Financial Crisis and the Future of Financial Regulation," The Economist's Inaugural City Lecture (21 January 2009).
 - URL: http://www.fsa.gov.uk/pages/Library/Communication/Speeches/2009/0121_at.shtml
- Turner, Adair (2009b), *Banking Crisis*, Vol. I Oral evidence (HMSO: HC 144–I, March 2009). URL: http://www.publications.parliament.uk/pa/cm200809/cmselect/cmtreasy/144/144i.pdf
- Turner, Adair (2009c), *The Turner Review A Regulatory Response to the Global Banking Crisis,* (London: Financial Services Authority, March 2009): 45-6.
 - URL: http://www.fsa.gov.uk/pubs/other/turner_review.pdf
- Turner, Adair (2009d), The Turner Review Conference, (27 March 2009).

 URL: http://www.fsa.gov.uk/pages/Library/Communication/Speeches/2009/0327_at.shtml
- Turner, Adair (2009e), "Building a More Stable Global Banking System," Global Financial Forum, New York (27 April 2009).
 - URL: http://www.fsa.gov.uk/pages/Library/Communication/Speeches/2009/0427_at.shtml.
- Turner, Adair (2009f), Annual Public Meeting Speech (23 July 2009).

 URL: http://www.fsa.gov.uk/pages/Library/Communication/Speeches/2009/2307_at.shtml
- US Treasury (2009), "The Role of the Federal Reserve in Preserving Financial and Monetary Stability: Joint Statement by the Department of the Treasury and the Federal Reserve," (23 March 2009). URL: http://www.treas.gov/press/releases/tg66.htm
- Warsh, Kevin (2009), "The Panic of 2008," Council of Institutional Investors (6 April 2009). URL: http://www.federalreserve.gov/newsevents/speech/warsh20090406a.htm