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Why Didn't They See it Coming? Warning Signs, Acceptable Risks and the Global Financial Crisis

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In the immediate aftermath of a crisis, one of the most damning and penetrating questions asked of political leaders and senior state officials by the media, opposition parties and other actors is: 'why didn't they see it coming?' The question is often rhetorical, the implication being that warning signs were clear and should have been acted upon. In this article we identify the assumptions underpinning the 'why didn't they see it coming?' narrative as it has been expounded in relation to the global financial crisis in the UK and US. Since 2008 commentators have routinely argued that warning signals of an impending financial crisis were ignored by political elites, treasury officials and financial regulators. Such arguments are made in hindsight and we refer to them as backward mapping perspectives. In this article we advance a counter-narrative, from a forward mapping perspective, where the focus is on placing such 'failures' in the context of the time, without foreknowledge of the crisis that would happen. Accordingly, we argue that warning signals that, with the benefit of hindsight, now seem obvious, were actually ambiguous and fragmented because they were received and interpreted within a very different ideational environment.

Keywords: global financial crisis; warning signs; risk

The global financial crisis (GFC), which began in 2006 with a gradual fall in housing prices in the 'sandstone' states of Arizona, California, Florida and Nevada and which culminated in the financial panic of late 2008 and early 2009, is a complex event characterised by considerable inter-country and intra-country variation in bank performance. It was not just another credit-fuelled asset price bubble in equities or property markets. The gravity of the crisis also stemmed from the fact that the banking systems in a number of lead economies had become heavily exposed to what in retrospect were highly fragile investments in securitised credit markets built upon risky sub-prime mortgage and short-term money markets. Such exposures reflected a historic shift towards a high-risk/high-return banking model based on high leverage and financial innovation, and towards an 'equity' culture based on high shareholder returns. The International Monetary Fund (IMF) economist Oliver Blanchard (2009) estimates that total losses during the GFC exceeded $4,700 billion. In the two countries upon which we focus here, the UK and US, taxpayer support for the banking sector amounted to more than 80 per cent of GDP (IMF, 2009).

Should politicians, regulators and other policy makers have foreseen the crisis and so prevented it from occurring? The National Commission on the Causes of the Financial Crisis in the United States (2011, p. xvii) concludes that they should: 'The financial crisis was avoidable ... [it was] the result of human action and inaction, not of Mother Nature or computer models gone haywire. The captains of finance and the public stewards of our financial system ignored warnings and failed to question, understand, and manage evolving risks'.

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It is hard not to sympathise with such sentiments given how obvious the flaws in the financial system now seem. How could an estimated 64,000 securities have been issued with an AAA credit rating in 2005/6 when only a dozen publicly listed companies were considered equally as safe (Lawson, 2009, p. 77)? How could banks have been allowed to operate with 30:1 or even 40:1 leverage ratios when this meant that a 3 per cent fall in asset prices was enough to render them insolvent (Stiglitz, 2009, p. 331)? How could banks in the UK have been allowed to wind down their cash reserves to less than 1 per cent of liabilities (King, 2009)? How could credit rating agencies have been allowed to compete to package the securities they also rated? How is it that a Californian strawberry picker earning $14,000 a year was lent $720,000 to buy a house without paying a deposit (Lewis, 2010, p. 97)?

Yet such views are formed with the benefit of post-crisis hindsight. As Lloyd Blankfein (2010), the chairman and chief executive of Goldman Sachs, suggests, 'after the fact, it is easy to be convinced that the signs were visible and compelling'. From a particular vantage point in time investigators and commentators have access to knowledge, experiences and interpretations of a crisis that actually happened, coupled with the facility to scan back in time for evidence and argument of prior warning signals. Such 'backward mapping'[1] (Bovens and 't Hart, 1996) enables the construction of a causal story (Stone, 1989) in which crisis is the inevitable consequence of policy makers' failure to recognise and/or act on warning signs. Yet as Arjen Boin and Denis Fischbacher-Smith (2011) show in their recent re-examination of the space shuttle *Columbia* disaster, hindsight bias can produce superficially attractive but ultimately unconvincing causal narratives that are not rooted in the culture and context of pre-crisis periods. If we are to understand why it is that policy makers 'did not see the global financial crisis coming' we need to engage in a 'forward mapping' exercise, placing warning signals more carefully in their historical and ideational context.

When we now look back at the events of 2007/8 we do so while utilising often quite specific knowledge about the mechanisms by which an initially relatively small correction in a sub-prime housing market, which only accounted for 3 per cent of total US debt (Acharya *et al.*, 2009, p. 17), led to a systemic financial failure. In order to understand why warning signals were ignored, we need to recognise how easy and tempting it now is to exaggerate the volume and clarity of warning signals present prior to the crisis. But we do not simply look back at the GFC with more information. We also look back at it from an epistemic vantage point in which our underlying positive and normative ideas about how the financial system works and the value it generates for society have changed. In order to understand why warning signals were ignored we need to remember that the world prior to the crisis was indeed like a foreign country in which they not only *did* things differently (Hartley, 1953, p. 1) but in which they thought and so saw things differently.

This brings us to the delicate issue of blame. As Christopher Hood (2011) recognises, 'blame games' are a pervasive feature of political life. The 'sensemaking' task of explaining why a crisis has occurred cannot be understood independently of efforts to apportion blame for the crisis having occurred (Bovens and 't Hart, 1996, p. 129). The 'why didn't they see it coming?' question may sometimes be genuine and inquisitorial, asked by those eager

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to establish what happened. More often, it is a rhetorical question based on an assumption that there *were* clear warning signals – metaphorical flashing lights and sirens – which policy makers *should* have recognised and acted upon. Blame attribution is not a matter of scientific precision because blame is an issue of morality (Tilly, 2008). It involves judgements regarding what we consider to be fair and reasonable behaviour by policy makers, the extent to which we are prepared to absolve decision makers of responsibility when institutional and societal contexts impinge on their roles, as well the extent of our faith and optimism in the fundamental structures, institutions and organising principles of society.

As political scientists we should not, however, simply excuse ourselves from the discussion of blame. In this respect, our argument about hindsight and ideational change cuts in different directions. On the one hand, we want to demonstrate how easy it now is to forget just how ambiguous the warning signals were prior to the crisis and the degree to which policy makers' limited attention was reasonably focused on other policy issues. At the same time, while an appreciation of ideational change can lead us to understand how policy makers did not see it coming, we might nevertheless reasonably blame policy makers for not questioning and testing the assumptions they were making about financial markets and, in particular, for allowing their policy choices to be corrupted by their interest in acquiring campaign donations and political endorsements from the finance sector.

Our analysis proceeds as follows. We briefly describe the contours of an emerging consensus about why the financial crisis occurred before documenting post-crisis claims that there were abundant signals of an impending crisis. We then identify relevant themes across a range of literature on threat perception, crisis management, risk management and public policy which point us toward threats being (to some degree) socially constructed. We then interrogate the generalised 'why didn't they see it coming?' question by identifying the conditions that would need to have existed for politicians, regulators and senior public servants to have anticipated and so prevented a crisis from occurring. Specifically, we argue that the 'why didn't they?' thesis makes a series of assumptions about the nature of warning signals and the institutional and policy environment in which they are interpreted. The assumptions are as follows: first, that warning signs existed prior to the crisis and were clear and credible; second, that these signals related to an obviously significant policy issue which ought to have commanded policy makers' attention; third, that the institutional environment was one (or ought, at least, to have been one) in which these warning signals were effectively communicated to policy makers; fourth, that the benefits of taking action to prevent the crisis outweighed the costs of that action; and, finally and crucially because it is the point at which blame is attributed, that decision makers somehow ignored evidence of impending financial crisis. We argue that in each case there is good reason to question the validity of these assumptions.

The Global Financial Crisis: Causes and Post-crisis Narratives

Within the official government reports and academic commentaries written since the time, a broad consensus has emerged about the causes of the crisis. These include global and structural factors such as the export of savings from China, other Asian countries and OPEC and a credit glut induced by low interest rates; the inadequacies of 'light-touch' and often institutionally fragmented regulatory systems; excessive leverage and insufficient liquidity

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within the banks; the corruption of the credit rating system; financial innovation; the shift towards proprietary trading and the emergence and eventual failure of the 'originate-and-distribute' system of securitisation; the growth of an unregulated 'shadow' banking system; bonus systems that encouraged short-term risk taking; inadequacies within banks' credit risk control systems; and unsustainable levels of personal debt.[2]

In November 2008 Queen Elizabeth II visited the London School of Economics to open a new building. During the course of a briefing on the turbulence in financial markets she asked: 'why did nobody notice?' (*Daily Telegraph*, 5 November 2008). One possible answer to this question is that nobody noticed the crisis coming because nobody *could* have seen the crisis coming. The chairman of the Federal Reserve, Ben Bernanke (2009), has argued that the crisis was the result of a 'perfect storm' of events which regulators could not have foreseen. In his memoirs, the former chancellor, Alistair Darling (2011, p. 3), suggests that 'no one foresaw the crisis that lay ahead ... many people have claimed to have predicted what was to happen. Most of them failed to mention it at the time'. Similarly, US Vice-President Cheney argued that it could not have been foreseen, stating that 'Nobody anywhere was smart enough to figure it out ... I don't think anybody saw it [the financial crisis] coming' (quoted in Roubini and Mihm, 2010, p. 1).

Claims that the crisis could not have been predicted and that there were no warning signals have, however, been vigorously challenged. Critics argue that policy makers could and should have anticipated and prevented the financial crisis. Joseph Stiglitz (2010, p. 1) argues that 'the only surprise about the economic crisis of 2008 was that it came as a surprise to so many'. Paul Krugman (2009, p. 163) maintains that 'politicians and government officials should have realised that they were recreating the kind of financial vulnerability that made the Great Depression possible'. The British Academy (2009), in its official reply to the 'why didn't they?' question asked by Queen Elizabeth, confirms that 'there were many warnings'. Willem Buiter (2009), an academic economist and former member of the Bank of England's Monetary Policy Committee, concludes bluntly that 'there were warnings and they were not heeded'. George Soros maintains that 'a number of people could see it coming. And yet somehow the authorities did not want to see it coming' (*New York Review of Books*, 15 May 2009). Finally, in their ironically titled *This Time is Different*, Carmen Reinhart and Kenneth Rogoff (2009) argue that rising levels of personal and government debt and asset-price inflation should have alerted policy makers to an impending financial catastrophe.

Who is right here? Should we believe those who argue that the crisis was impossible to predict or those who argue that policy makers could and should have seen it coming? There is no doubt that warning signals *had* been issued prior to the crisis. A number of academic and professional economists had issued public warnings about the importation of 'hot money', a bubble in asset prices and the damaging expectation within markets that the US Federal Reserve would respond to any signs of strain by cutting interest rates (National Commission, 2011, pp. 60–1). A number of economists, including the chief economist at the Bank for International Settlements, William White (2004), had expressed concerns about excessive leverage, deteriorating credit standards and banks' use of securitised investment vehicles – the fulcrum of the shadow banking system – to hold assets off balance sheets and so avoid capital controls. In 2002 Warren Buffett had described derivatives as 'weapons of

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financial mass destruction' devised by 'madmen', and derivatives trading as constituting a 'mega-catastrophic risk' (Berkshire Hathaway, 2002, p. 16). Two years before the crisis broke, the then president of the New York Federal Reserve, Tim Geithner (2006, p. 6), expressed concerns that high leverage and proprietary trading had made possible 'longer, fatter tails' and urged bank executives to 'assess their potential exposures to extreme events that lie outside past experience'. Why were these warning signals ignored?

Warning Signals and Threat Perception: A Primer

In order to begin to answer this question we need to think more carefully about the nature of warning signals. The issue is a classic ontological one. It has been discussed explicitly and implicitly across a range of literature, including intelligence failures (Bar-Joseph and Levy, 2009; Dahl, 2005; Gentry, 2008; Rousseau, 2006), foreign policy decision making (Astorino-Courtois, 2000; Vertzberger, 1990), stress and behaviour (Janis and Mann, 1977; Post, 2004), crisis management (Boin *et al.*, 2005; Robb, 2007) and risk management (Bostrom and Ćirković, 2008; Bracken *et al.*, 2008; Eriksson, 2001). We focus here briefly on debates within international relations (IR) theory, partly because they deal with cross-national warning signs but also to illustrate broader points about the lack of a universally agreed 'hard science' of warning signs. Much of the IR literature is couched in terms of 'threat perception' in relation to one state explicitly threatening another that sanctions or negative consequences will follow unless behaviour is changed. Clearly in terms of the GFC, actors raising awareness of financial threats do not have the same capacity for retribution. However, the IR literature is still useful because it alerts us to the political dimensions of 'warnings', in the sense that it highlights differing approaches to how we understand 'dangers' to nation-state security. One tendency in this literature is towards the treatment of warning signs as objective and indisputable. To use a colloquialism, threats exist 'out there', although this is not to deny the capacity of actors to misperceive threats. Such views are typified in western-based Cold War studies of threats from the communist world (e.g. Brodie, 1959), and are alive and well in modern realist approaches to international relations where (for example) threats to Western states emerge from the rising power of other states such as China (Mearsheimer, 2001) or non-state-based movements such as al-Qa'eda (Barnett, 2004). If threats are 'real', the broad implication is that in order to understand why signals might be downplayed or even ignored we need to be sensitive to the institutional contexts in which agents receive warning signals, as well as the individual cognitive dimensions of threat perception.

A counter-tendency emphasises the socially constructed aspect of threats. This view is typified by the Copenhagen school of securitisation studies, which focuses on the ways in which events, structural conditions and actors may be interpreted and dramatised as security threats (see, e.g., Buzan, 2007; Buzan *et al.*, 1998). A constructivist perspective does not deny that there is a world 'out there', but of fundamental concern is its 'meaning' to us, as manifested in speech acts and discourse (Epstein, 2008, pp. 6–8). Overall, therefore, vastly divergent theoretical positions share some commonality in acknowledging the importance of threat *perception*. The clear implication is that the nature and existence of a 'warning signal' is far from straightforward – certainly a lot less straightforward than a backward mapping perspective tends to imply. Warning signs are not simply 'brute facts' (Searle, 1995,

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p. 27) which sit waiting for policy makers to pick them up like suitcases on a train platform. Whether information is thought to constitute a warning signal will be a matter of perception and interpretation. The broad implication here is that in order to understand why a piece of information which we now recognise as a warning signal was not recognised as such, we need to be sensitive to the institutional rules in place and the ways in which actors interpret and make sense of their environment.

Signal Clarity and Credibility

The implied logic of the 'why didn't they see it coming?' thesis is that clear and credible warning signals existed. Yet we do not need to stray far into the realms of the crisis management literature to be aware that unless a crisis or disaster arrives with devastating rapidity (such as a tsunami or terrorist bombing), signals of extraordinary and unacceptable risks are likely to emerge slowly. Also, as Boin *et al.* (2005, p. 25) argue, we should not assume that threats lurk objectively, waiting only to be recognised. Phenomena need to be interpreted as warning signals, and this 'sense-making' task can prove difficult for many reasons. Signals may be ambiguous and even contradictory, pointing partly towards 'normal' problems (requiring no or only minor action) and partly towards 'extraordinary' ones (requiring major attention).

Signals may also seem ambiguous (and easily discounted) if no time-specific prediction is made about when a crisis will occur or how severe it will be, or if counter-signals are also being received. At other times, policy makers might decide that a piece of information does not constitute a valid warning signal because the source lacks credibility. When allegations first emerged that the Australian Wheat Board Limited was engaged in financial dealings with Iraq in breach of UN sanctions, the Australian foreign minister, Alexander Downer, dismissed the source as stemming from a commercial rival, Canada (Overington, 2007). All things being equal, ambiguous and unclear warnings, coming from sources lacking credibility, are conducive to signals being perceived as unthreatening (no risk), or as 'routine' threats (acceptable risks) which need no or minimal action in order to dampen the prospect of failure.

Looked at in isolation, warning statements issued prior to the GFC seem horribly damning. We should, however, remember that policy makers were *also* being exposed to counter-signals which would have confirmed their view that financial markets were operating effectively and safely. Crucially, market sentiment as revealed through share prices and credit default swap premiums on debt showed that traders themselves believed the risk of a systemic financial crisis to be extremely low. Overall capital reserves within the banks were stable (Bank for International Settlements, 2011), and inflation, which might have been expected to have been rising rapidly during an asset bubble, was in fact steady. We now know that these signals were either false or misleading. Share prices and credit default swap premiums were low but this was only because so many investors had misread or ignored the warning signals. Inflation was stable despite rapid rises in asset prices because the prices of manufactured goods, often imported from China, were falling. Capital reserves only appeared to be increasing because banks had learned to take advantage of regulatory rules to move their assets off their balance sheet and into the shadow banking system (Acharya and Schnabl, 2009, p. 89). We might hold policy makers culpable here for not asking

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whether investors had succumbed to 'irrational exuberance' and whether, as eventually transpired, banks would have to assume financial and legal liability for their off-balance sheet, structured investment vehicles. Yet it is not hard to see why warning signals which, with the benefit of hindsight, now seem to constitute persuasive evidence of an impending crisis could, at the time, have been interpreted differently.

We should also recognise that, on other occasions, warning signals which, when taken out of context, seem compelling, were actually contained within generally positive assessments. Consider, for example, the Bank of England's December 2005 *Financial Stability Review*. It suggested that: 'the continued search for yield could be leading some investors to under-estimate risk'; that 'current conditions may have generated a degree of over-optimism about the underlying risk of some financial products'; and that 'the capacity [of UK banks] to absorb the consequences of a generalised re-pricing of risk is uncertain' (Bank of England, 2005, p. 12). This appears, with the benefit of hindsight, prescient. Yet the clarity of such warning signals was undermined not only by the reluctance of those issuing this warning to specify *when* a threshold of unacceptable risk might be breached, but also by their prior affirmation that 'the UK financial system remains healthy' and that 'near-term risks to stability from the domestic economic environment and from conditions in global financial markets seem limited' (Bank of England, 2005, p. 9).

Finally, warning signals were sometimes dismissed because the person or organisation issuing them was not considered credible. Bank executives frequently dismissed warnings from (and sometimes actually dismissed) risk managers who were regarded as professional pessimists, lacking the required skills to understand trading patterns (Senior Supervisors Group, 2008). Warning signals were also dismissed as lacking in credibility by government agencies. In the US, Treasury officials interpreted warnings issued by the Commodity Futures Trading Commission about the dangers of derivative trading as a form of self-interested bureaucratic imperialism (National Commission, 2011, pp. 47–8). Congressional Democrats dismissed warnings about the staggering debts of Fannie Mae and Freddie Mac and their exposure to the sub-prime market as an ideologically driven effort to curtail government efforts to extend homeownership (Banks, 2011, pp. 84–5). Such behaviour seems particularly blameworthy because of the motives of the actors involved. Policy makers who did not see warning signals because they genuinely believed that the financial system was resilient appear foolish but not necessarily insincere. There were, after all, plenty of signals prior to the crisis that the financial system *was* performing well. Where signals were dismissed because they were politically inconvenient, politicians seem more culpable.

Significance of the Phenomenon under Threat

Public policy, defined conventionally as a course of action or inaction taken by governmental entities with regard to a particular issue or set of issues, is never devoid of risk. Governments are bombarded constantly with 'warnings' that some of their policies are failing and that new and previously unanticipated risks have emerged in sectors ranging from health care and farming to border control and public order. Innumerable predictions of crisis will lead every now and again to 'successful predictions', but we cannot assume that governments simply know which signals pose the greatest risks. Indeed, in a pluralist democracy, coping with multiple warnings from innumerable sources is part of the

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day-to-day business of governing. As much of the literature on agenda setting indicates, governing is not just about letting issues 'in', but reconfiguring them to make them manageable, marginalising them or even suppressing them (Bachrach and Baratz, 1970; Cobb and Ross, 1997; Schattschneider, 1960). For policy makers, governing is about managing risks – attempting to sift through multiple potential threats and classify them, either through a formal and conscious process of risk assessment (as is sometimes the case) or often informally and even unconsciously through hunches and instinct (see Althaus, 2008; McConnell, 2010; May, 2005).

A simple logic would suggest that warning signals are more likely to be perceived as pointing to an extraordinarily high and unacceptable risk threat when they are perceived as posing a threat to a core societal value. Intelligence warnings in 2004 that Iraq had reactivated its nuclear weapons programme were false. Yet is it not hard to understand why such signals were accorded priority. Conversely, signals believed to relate to more marginal policy areas will often either languish unnoticed or be given a low priority in terms of a response because governments lack the capacity to devote serious attention and resources to more than a handful of policy issues at any one time (Baumgartner and Jones, 2005). Political attention is subject to threshold effects and punctuations. Political and policy elites will generally not be made aware of issues deemed relatively insignificant and, if they are made aware of them, may isolate (and if necessary blame) the 'other world' of street-level officials and bureaucrats (Hill and Hupe, 2009).

When we look back at the events of 2007/8 we now know not only how the crisis unfolded but also what the consequences of the crisis were. We know that the crisis led to bank deleveraging and a fall in investment; to a global recession in 2008/9; to significantly increased public debt incurred as a result of the bail-outs, fiscal stimulus packages and falling tax revenues; and a sovereign debt crisis and fears of a second recession. We invest warning signals prior to the crisis with great significance because we know how significant it is that these signals were ignored. It is now too easy to forget that between 2004 and mid-2007 the policy issues that were understood to pose a threat to society's core values and which, consequently, attracted the plurality of policy makers' attention were terrorism, the wars in Iraq and Afghanistan and climate change negotiations. To the extent that economic and financial issues were accorded attention, it was a growing budget deficit and trade talks rather than financial stability that were prioritised.

Furthermore, if we put the signals in the context of the time (without specific knowledge of the crisis that would happen), we can see that warning signals were usually presented to policy makers as relating to relatively minor issues concerning the implementation of regulatory rules, rather than the well-being of the entire financial system. For example, while warning signals were received about exposures to derivatives and credit default swaps, these were interpreted by regulators and central banks in the UK and US as demonstrating the need, at most, for a central regulatory clearing house to register trades – as was proposed by the Commodity Futures Trading Commission's chair, Brooksley Born (National Commission, 2011, p. 46) – and not the riskiness of trading per se. Similarly, to the extent that warning signals were received about securitisation and the 'originate-and-distribute' finance system, these were interpreted as relating exclusively to exposures in the sub-prime market and not to the housing market in general (National Commission, 2011, p. xxi).

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We can criticise politicians and other policy makers here for failing to recognise a key lesson of history: that financial crises are recurring and extremely costly events (Hoggarth and Reis, 2002; Reinhart and Rogoff, 2009). We might therefore conclude that warning signals *ought* to have been taken more seriously even if those warnings only related to sub-parts of the financial system. Policy makers believed that markets were efficient and safe. This did not, however, mean that they regarded the market as flawless. Rather, the view of policy makers, economists and financial commentators was that the development of derivatives markets in general and the credit default swap market in particular meant that risks had been hedged and redistributed and that the financial system could therefore withstand disturbances. This was not simply a theoretical argument. The IMF (2006) joined Alan Greenspan (2005) in arguing that a rapid recovery in the aftermath of the bursting of the dot-com bubble in 2000 and 11 September 2001 showed just how resilient financial markets were. In retrospect, it is clear that this argument was flawed and that the recovery on these occasions had more to do with the willingness of the Federal Reserve to cut interest rates – the 'Greenspan put' (National Commission, 2011, p. 61). In order to understand why policy makers 'did not see it coming' we do, however, need to understand why warning signals about flaws in parts of the financial system were not considered portentous.

Institutional Framework for Signal Transmission

The 'why didn't they see it coming?' thesis, in constructing a story that culminates in policy makers failing to recognise and/or act on warning signals, implies that the 'message' was received by policy makers. Yet innumerable works from those on bureaucratic conflicts and crisis management (Rosenthal *et al.*, 1991; Svedin, 2009) to organisational studies (Anheier, 1999; Miller, 2011; Weick, 2001) demonstrate that intra- and inter-agency communication can suffer from multiple communication problems. Messages may be received in one place at one level but not communicated to more senior officials or be 'joined up' with signals received in other organisations. As complexity theory suggests, knowledge is 'local' and tends to proceed through incremental sharing (Gilpin and Murphy, 2008). Furthermore, signals may be diluted or not even recognised because they do not fit with institutional norms, goals and policies. Amy Zegart (2007), in her analysis of the CIA, argues that it failed pre-September 2001 to recognise threats from al-Qa'eda simply because it was stuck in an organisational framework and culture where threats were perceived as 'Cold War' ones. An emerging literature on constructivist or discursive institutionalism (see, e.g., Hay, 2006; Schmidt, 2006) attributes special significance to cognitive processing of signals in an institutional context, focusing particularly on processes of 'normalisation' and their effectiveness or otherwise.

Furthermore, organisations maintain, sometimes quite deliberately, varying norms and policies relating to the discovery and processing of warning signals. 'High reliability' organisations like nuclear power plants and air traffic control centres invest considerable resources in identifying and responding to warning signals (La Porte, 1996; Roe and Schulman, 2008). In other organisations, the pressure to deliver upon immediate goals results in a bias towards the preservation of institutional norms and policies and the routinisation and downplaying of threat filtration and communication.

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In the case of the GFC, US and UK financial regulators and central banks *were*, as a part of their organisational configuration, encouraged to remain alert to new sources of risk that could threaten financial stability. In the aftermath of the Asian financial crisis, UK and US governments pressed for the creation of a new intergovernmental organisation, the Financial Stability Forum. In the years prior to the crisis, this organisation, along with the IMF, the Bank of England and the Federal Reserve, published regular horizon-scanning financial stability reports which contained some prescient warnings.

Yet there was, we can now see, a crucial institutional disjuncture between horizon scanning conducted by central banks and the IMF, and the day-to-day 'light-touch' regulation of banks which was focused upon compliance and internal risk-management procedures. Alistair Darling (2011, p. 20) observes that, although the Bank of England had overall responsibility for financial stability, it was focused upon its monetary policy duties and did not have 'a sufficiently deep understanding of what was going on in the individual banks'. The priority the Bank of England gave to interest-rate management and inflation over financial stability perhaps brings into question the subsequent decision to give the Bank an enhanced financial oversight role. Yet the relative neglect of financial stability also serves as a powerful reminder of just how embedded the view was that financial markets were efficient and resilient.

Regulators within the Financial Services Authority (FSA) in the UK have been widely criticised for failing to ask banks difficult questions about financial trading liabilities, their cash reserves and their dependence upon often short-term wholesale funding. In one respect the FSA does seem especially blameworthy. Having failed to anticipate the implosion of Northern Rock it then failed to identify just how vulnerable other banks were to the same funding difficulties and corporate governance problems. Yet regulators within the FSA did not operate in a political vacuum. The FSA was constituted as a 'principles-based' regulatory body focused upon the supervision of individual institutions rather than upon overall 'systemic' risk; upon internal procedures and processes relating to the management of risks within banks rather than upon the nature and level of risks themselves; and upon conduct of business regulation rather than prudential regulation (Turner, 2009, pp. 86–7). As the FSA's (2011, p. 262) own report into the failure of the Royal Bank of Scotland comments, 'FSA senior leaders were conscious of the need to reassure political leaders that the supervisory approach being pursued was not heavy-handed'.

Furthermore, New Labour's attachment to light-touch regulation proved highly durable. In a speech delivered to the Worshipful Society of International Bankers in February 2008, more than six months after the collapse of Northern Rock, the newly appointed chancellor, Alistair Darling (2008), argued that the UK had been 'right to resist a disproportionate response to the [2001] Enron and Worldcom scandals', that the 'principles-based regulatory system allows firms more flexibility to take decisions that are right for their business and for their customers' and that 'to revert to more heavy-handed or mechanistic regulation ... would not fulfil our objectives and would stifle innovation'. Ministers' refusal to reconsider their working assumptions about the efficiency and safety of financial markets in the aftermath of the failure of Northern Rock is blameworthy.

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Benefits of Crisis-Type Intervention in Relation to Costs

No government will be completely successful in meeting all its goals in relation to a particular policy. Governments can clearly be more or less successful in achieving their goals, depending on the size of the gap between aspirations/goals and outcomes (McConnell, 2010). If shortfalls are insignificant and a policy is viewed as generating high returns, there will be little incentive for policy makers to incur the costs of perceiving 'warning signs' as urgent and dramatically rethinking an existing policy. Indeed where a policy is perceived as being generally successful, a positive feedback loop is likely to emerge in which pressures arise to extend a policy, and warning signals are discounted (Baumgartner and Jones, 2002). By contrast, a shift in risk perceptions is more likely, all things being equal, when there are significant shortfalls in returns which are proving incompatible with core values and policies. In other words, a warning signal is more likely to be interpreted as requiring a response when a policy is already regarded as failing in some other respect.

Politicians received warning signals about financial instability in a context in which, in the UK and US, the financial sector had emerged as a key source of profits, taxation, employment, growth, exports and even national prestige. The CityUK (2008) estimated that, in 2007, financial services employed 303,000 people in London, generated a £44 billion trade surplus, attracted £40 billion in foreign direct investment and accounted for 25 per cent of corporation tax revenue. In 2006 financial sector profits constituted 27 per cent of all corporate profit in the United States (National Commission, 2011, p. xvii). The money generated by financial trading funded ambitious programmes of welfare expenditure. Some of it also found its way into the political system. Johal Sukhdev *et al.* (2012) argue that the decay of mass party membership and new regulations governing corporate donations mean that the major political parties in the UK became increasingly dependent upon donations from wealthy individuals – often from the financial sector. By 2010 nearly 50 per cent of cash donations to the Conservative party were from the financial services sector (Watt and Treanor, 2011). The Center for Responsive Politics estimates that the US commercial banks donated $37 million to the political parties in 2008, this money being split nearly evenly between Republicans and Democrats. Furthermore, the commercial banks invested an estimated $339 million in professional lobbying services between 1998 and 2008.

In his recent memoirs, the former UK chancellor, Alistair Darling (2011, p. 100), accepts responsibility for failing to ask whether the growth of the financial sector was potentially counterproductive, let alone sustainable. What he does not discuss is *why* he and other politicians failed to ask these questions. Reasonable questions can once again be asked here about motives. Did the close links between the City and Wall Street and political parties deter politicians from asking difficult questions about the resilience of the financial system? The temptation here is to conclude that this must indeed have been the case. However, the very fact that the financial sector was performing so well was, itself, taken by politicians as a counter-signal, that is, as evidence that there were no unacceptable and overlooked risks, and so no need to change policy direction. Any regulator who had sought to persuade bank executives that they needed to take fewer risks, or persuade politicians that the banks required further regulation would, in the words of the governor of the Bank of England, Mervyn King (2009), have confronted a 'massively difficult task'. Overall, and especially in

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the context of signal ambiguity and fragmentation, a forward mapping perspective makes it plausible to understand a climate conducive to perceiving the status quo as continuing to yield high returns.

Decision Makers' Attitude to Evidence

Implicit in the 'why didn't they see it coming?' thesis is the assumption that it is at the decision-making stage where the key pathology occurs and that it occurs when policy makers for some reason choose to ignore clear and significant warning signals about an impending catastrophe. The familiar textbook ideal here is one of rational decision makers who constantly update their beliefs as they receive new information; who are aware of and actively seek to avoid commitment, framing, priming or groupthink effects; and who remain aware not only of what they know, but also of the limits and uncertainties of their knowledge. This is the 'rational actor' view of leadership, arguably approximated, or at least celebrated, in Graham Allison and Philip Zelikow's (1999) account of President Kennedy's handling of the Cuban missile crisis.

Once we hold policy makers to a standard of rational decision making, it is exceptionally hard to see why they 'did not see the GFC coming' and, precisely for this reason, exceptionally easy to blame them for their failure to do so. Such an account, however, makes heroic assumptions about the manner in which information is collected, processed and stored. Individuals are boundedly rational not only in the sense that there is a limit to how much they can know but in the sense that they tend to search for evidence that confirms their existing prejudices and to filter out or dismiss as implausible conflicting evidence (Jervis, 1976; McConnell, 2010; Preston and Hermann, 2004).

In the decade prior to the 2007/8 crisis, an assumption that markets were both efficient and self-correcting became, as Simon Johnson and James Kwak (2010, p. 5) argue, the 'working ideology' of both Wall Street and the City of London. Politicians' commitment to financial deregulation was not simply instrumental (Bell and Hindmoor, forthcoming). Policy makers did not weigh the benefits of higher employment and tax revenues from a growing financial services sector against the potential costs of greater financial instability. Policy makers favoured a light-touch regulatory system because they genuinely believed in the economic virtues of a light-touch system. In his 2006 Mansion House speech, the then chancellor, Gordon Brown, praised the assembled delegates for their 'leadership skills and entrepreneurship'. He went on to argue that the City offered an economic example to the rest of the country:

> The message London's success sends out to the whole British economy is that we will succeed if like London we think globally. Move forward if we are not closed but open to competition and to new ideas. Progress if we invest in and nurture the skills of the future, advance with light touch regulation, a competitive tax environment and flexibility. Grow even stronger if this is founded on a strong domestic market built on the foundation of stability (Brown, 2006).

At the psychological apex of financial decision-making agendas was the 'efficient market hypothesis' and its corollary, the Capital Asset Pricing Model. The assumption that markets were efficient and that participants in the market could be trusted to manage their own risk exposures was crucial. It meant that regulators' default position was that they could not

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out-guess the market and that if, as was the case, investors were willing to buy bank shares and insure their trading activities through credit default swaps, this could only be because risks *were*, in reality, negligible (Turner, 2009, p. 87). It also meant that those instances where the market *had* in the past failed were interpreted not as evidence of the fragility of the system but as demonstrating a capacity for self-correction. In the aftermath of the GFC, critics argued that the failure of long-term finance capital in 1998 and the huge losses incurred by Orange County, California, in 1994 ought to have shown policy makers just how dangerous derivative trading could be (Ritholtz, 2009). Yet in reality, policy makers interpreted the same evidence as proof that the market worked; that those taking excessive risks would be exposed and forced out of the market and that this could be done without causing any *systemic* damage.

Furthermore, the grip of the efficient market hypothesis meant that regulators were concerned that any regulations they imposed upon the market in response to warning signals could distort incentives and create sources of systemic risk. In the years prior to the crisis occurring, regulators became increasingly aware that the Basel I capital adequacy regime had, unexpectedly, created incentives for banks to engage in additional securitisation in order to reduce their capital requirements (Acharya and Schnabl, 2009). Regulators sought to address these concerns through the revised Basel II agreement which, in turn, has been cited by some economists as encouraging banks to extend their leverage at precisely the moment when they should, in retrospect, have been hoarding capital (Blundell-Wignall and Atkinson, 2008). Confronted with further demands to regulate securitisation and derivative trading, policy makers – specifically the then chairman of the Federal Reserve, Alan Greenspan – cited such difficulties and argued that the costs of financial regulation had, in the past, clearly outweighed its benefits.

Since the 2008 crisis a broad consensus has emerged on the need for financial re-regulation. Despite considerable push-back from the financial sector, international agreements have been reached to increase minimal capital requirements, limit leverage and require banks to hold higher liquidity. In the UK an in-principle decision has been taken to ring-fence retail and investment banking and, in the US, to impose limits upon proprietary trading (Bell and Hindmoor, forthcoming). The banking crisis does not constitute an ideational year zero. In the US a large number of economists argue that the root cause of the financial crisis was not deregulation but excessive government regulation of the housing market and poor decision making by the Federal Reserve and Treasury (Taylor, 2009; Wallison, 2011). In the UK the coalition government has wielded its veto within the European Union in order to protect the City. But in order to understand why apparent warning signals were ignored prior to the crisis we need to recognise that the ideational environment in which financial markets now operate has changed significantly since 2008.

Conclusion

Once a crisis has occurred, little time passes before it seems inevitable – and is considered predictable – that the crisis *would* have occurred. Hindsight or backward mapping assumptions have become the common currency of post-crisis periods, seeking out warning signs that were ignored and using such 'evidence' as the basis for not only

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Table 1: Backward Mapping vs. Forward Mapping of Warning Signals

Underlying assumptions	*Backward mapping* (Seeks explanations for crisis in 'warning signs' that were ignored)	*Forward mapping* (Seeks explanations for crisis in 'warning signs' that were perceived as non-existent or insufficient to warrant crisis-level intervention)
Signal clarity and credibility	• Warning signals related to an obviously significant policy issue which ought to have commanded policy makers' attention	• Warnings are ambiguous (time or severity) • Source issuing the warning is considered to lack credibility • High levels of conflicting or distracting signals
Significance of the phenomenon under threat	• Warning related to a high and unacceptable threat to a core societal value	• Policy makers' attention diverted by other issues thought to require immediate attention • Warning interpreted as relating to a minor issue requiring the revision of existing rules rather than fundamental reform
Institutional framework for signal transmission	• Signals effectively communicated to decision makers	• Inter- or intra-organisational communication failures • Institutional rigidity, organisational bias toward diluting or failing to transmit messages which conflict with prevailing norms, goals and policies
Benefits of crisis-type intervention in relation to costs	• Benefits of early intervention obvious and overwhelming	• Existing policy currently generating high-level returns and supporting core policy objectives • Intervention to prevent crisis potentially costly and counterproductive
Decision makers' attitude to evidence	• Decision makers ignored evidence of warnings	• Schematic decision making characterised by ideational filtering and framing of information/evidence • Decision making characterised by groupthink and stress avoidance

explaining how a crisis episode emerged, but also as the basis for attributing blame. In addressing the issue of the GFC, we propose that our analysis and argument provide two key contributions.

First, in relation to the GFC itself, they offer a plausible counter to the common 'why didn't they see it coming?' thesis. Dominant ideational pathways created biases whereby ambiguous and fragmented warning signs tended to be marginalised or framed loosely as 'acceptable risks'. In effect, without the benefit of hindsight and backward mapping, political

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elites, officials and regulators engaged in forward mapping and considered warning signs to be tolerable (if they were considered at all) in the pursuit of market efficiency. We do not need to invoke rank incompetence or corrupt greed to explain the failure of policy makers to respond to signals warning of an impending financial crisis. There is a certain banality to our account of failure to see the GFC coming, but we argue that it is also a plausible one.

Second, our analytical framework stems specifically from the GFC, but we hope that it has broader heuristic utility. Table 1 summarises. It identifies five factors (signal clarity and credibility, significance of the phenomenon under threat, institutional framework for signal transmission, benefits of crisis-type intervention in relation to costs and decision makers' attitude to evidence) around which competing post-crisis narratives coalesce in attempting to explain failures to anticipate crisis, despite the existence of some warning signals. From school shootings and nuclear meltdowns to terrorist attacks there is never any shortage of calamitous events that give birth to searches for meaning and catharsis. Typically, such processes involve attempting to figure out why those in positions of power and responsibility did not seem to have the foresight to anticipate a crisis on the horizon. Our framework allows researchers to approach crisis episodes in a more systematic fashion. It does not deny the possibilities of lack of foresight through incompetence, greed or other such media-attracting pathologies. However, it does lead us to consider 'lack of foresight' in its decision-making, institutional and societal contexts – devoid of knowledge of the damage that would be done in the future. Doing so should make us sensitive to the reality that policy-making environments are much more contingent, complex and nuanced than 'why didn't they see it coming?' rhetoric often suggests. In our view, this is certainly the case with regard to the GFC.

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Notes

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1 We borrow the terms 'backward mapping' and 'forward mapping' from Bovens and 't Hart (1996) and their work on policy fiascos, but use the terms in a different way. In our usage, backward mapping starts from the point that a crisis has occurred and seeks explanations based on 'warning signs' that were ignored. By contrast, forward mapping starts from the point of view of decision makers in pre-crisis periods, and seeks out explanations why 'warning signs' were perceived as non-existent or insufficient to warrant crisis-level intervention.

2 For general reviews on the causes of the crisis see Davies, 2010; Friedman, 2009; Hindmoor, 2010; Turner, 2009.

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