Exploring the parameters of systemic risk through the climate crisis and financial meltdown

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Abstract

Risks to financial and climate stability can be analysed independently yet also understood as tightly related. As systemic risks both are geographically dispersed, embedded within broader benefits and tightly coupled with both related and seemingly unrelated risks. The paper analyses how systemic risks pose particular challenges by sapping political motivation and defying control efforts. Progress falters in part because the geographic reach and legal complexity of control regimes increase possibilities for strategic gaming of government attempts to bring such risks under control by regulated industries. Further, systemic risks to climate and financial stability point to the potential limits of instrumentalism. If uncoupling economic growth from rising carbon emissions proves impossible dealing with climate change and financial instability cannot be tackled independently from one another and must confront the possibility of a third inter-related risk: the potential for deep and entrenched social conflict.

Keywords: Global warming, financial crisis, systemic risk, regulation, compliance

The current financial and looming climate crises both have galvanized government attention aimed at reducing the potential for future catastrophe. Hopefully, such efforts will prove effective (cf. Braithwaite 2008; Gunningham and Grabosky 1998). Yet, positive outcomes are made more difficult since both these crises result from underlying systemic risk problems, a web of complex and interconnected hazardous practices that extend beyond national borders. Yet, these same unsustainable practices also confer significant benefits on societies as a whole.

The systemic quality to these risks complicates significantly attempts to create effective risk-reduction regimes. The political and social benefits that accrue from continuing unsustainable but institutionalised practices dampens political will and requires immense political effort to introduce necessary change. Disparate efforts that do result in reform create a patchwork of regulatory standards that provides

opportunities for regulated entities to engage in "regulatory arbitrage" to exploit differences between jurisdictions in a broader goal of increasing profit or power. Such arbitrage is compounded a capacity of regulated entities to adhere to the letter of regulatory regimes yet avoid the spirit. Finally, systemic risk poses a challenge to conventional approaches to regulation which emphasise the importance of narrowing and isolating what "the problem" or "the risk" is in order for it to be reduced and ideally eliminated. This instrumental framing can ignore the relationship between risks and how particular contexts generate risk.

Such characteristics mean that the control of two of our most recent and pressing systemic risk problems, financial collapse and anthropogenic climate change, are particularly onerous. Firstly, political motivation to tackle these problems is undermined by an unwillingness to unwind the benefits of a global capitalist economy. Indeed, in recent decades the dominant political response to the threat of recession has been to pump money into individual economies stimulating demand, regenerating trade and investment (Krugman 2008). Whilst temporarily effective in staving off the spectre of depression this has created further difficulties in dealing with financial gaming that generates chronic and long term financial instability (Foster and Magdoff 2009). Further, the interconnection between the two crises then are revealed since risks to climate may lie precisely in overconsumption (Dauvergne 2008). If such over-consumption does lie at the heart of risks to climate these two risks cannot be dealt with as separate problems, as traditional approaches to regulation would prefer, rather they must be dealt with together.

Motivating and Enabling Government?

Economic globalisation, the globalisation both of finance and of production, has brought significant social and political benefits yet also is implicated in the generation of both the financial and climate crises (Held, McGrew, Goldblatt and Perraton 1999). A rising standard of living assisted by advances in technology from agriculture and medicine to communication have led to longer life spans for many (Krugman 2008) but certainly not all (Greider 1997). Technologies and globalised production generates risk (Beck 1992; Dauvergne 2008) but also bring significant benefits.

Governments have a strong desire to retain the benefits globalisation brings since being associated with prosperity is central to their legitimacy (Habermas 1989b). When a crisis appears governments must be seen to act, to reassure their citizens that they will be protected, but are likely to do so in a manner that does not threaten their political future (Haines, Sutton and Platania-Phung 2008). Governments may be unwilling to curtail the benefits of globalisation through stringent regulation that could lead to a multi-national corporation relocating its operations overseas with subsequent losses in employment (Haines 2005). These pressures can result in reform that appeases public discontent in the wake of a crisis yet which fails to deal adequately with the particular risk (Haines 2009).

Motivation alone, however, is not sufficient in tackling systemic risk. Even motivated national governments can find their options for effective independent action to be limited (Held, et al. 1999). Indeed, a desire to tighten regulation by a developing nation may be prohibited under foreign direct investment agreements (central to economic globalisation) that require "investment certainty" (Tienhaara 2006). Further, even if one country brings about an aggressive reduction of its own atmospheric emissions it is not shielded from the negative consequences of climate change. At best, a motivated country might engender a race to the top in terms of emissions

reduction. Yet, arguably what has been experienced to date is the enshrining of weak regimes as successive (and in particular the most influential) countries seek to protect their own populations from the difficulties associated with a shift to a low carbon economy (Christoff 2006; Koehn 2008).

The interconnection between risk-elements within finance and climate spheres also provides significant challenges. Such complexity heightens uncertainty. For example, overcoming economic recession requires encouraging desirable entrepreneurial practices. Yet at the same time governments must reduce damaging and excessive risk taking that could threaten economic stability. The border between desirable and excessive risk taking is blurred. The perennial danger is replacement of one speculative bubble with another. Arguably, speculation around "sub-prime" mortgages in the US reanimated investment fervour in the wake of the dot.com collapse only to create the seeds of future destruction (Krugman 2008). The satirical newspaper *The Onion* (2008) captured well this dynamic:

> Congress is currently considering an emergency economic-stimulus measure tentatively called the *Bubble Act*, which would order the Federal Reserve to being encouraging massive private investment in some fantastical financial scheme in order to get the nation's false economy back on track.

From an historical vantage point it is clear that despite multiple attempts at reform of financial regulation speculative "bubbles" continue to occur, which in the face of recession reveal unsustainable levels of risk-taking (Clarke, Dean and Oliver 2003; Krugman 2008). Reforms designed to ameliorate past excessive risk taking (for example the *CLERP 9* reforms that followed the collapse of HIH insurance in 2001 or the *Sarbanes-Oxley Act* in the United States following Enron) then are revealed as inadequate protection against corporate excess in the context of the next crisis and new demands for further reform arise.

Complexity also is inherent in determining the interconnected risk-elements present in anthropogenic climate change. This generates uncertainty, for example, around whether abrupt climate change is likely and how it may occur (Dakos, Scheffer, van Nes, Brovkin, Petoukhov and Held 2008). Further, determining what levels of reduction in emissions are needed remain tentative with research since the signing of the Kyoto Protocol deepening the level of reduction now considered necessary (IPCC 2007). Scientific uncertainty provides grist for those wishing to shed doubt on the reality of anthropogenic climate change further sapping political motivation.

Motivating Compliance?

The systemic properties of these risks also provide greater scope for those wishing to avoid or minimise their regulatory responsibilities. Essential to understand here is the strategic rationality at play (Habermas 1989a), together with the valorisation of the self-interested pursuit of profit that is at the legislative and philosophical core of economic globalisation (Dunkley 1997). Creative tactics in the pursuit of competitive advantage and the primacy of the profit motive not only are seen as desirable but often are mandated in corporate law and international trading rules.

Creative strategies to avoid or minimise compliance occur at a number of junctures. Firstly, industry can lobby and threaten disinvestment to pressure governments to accommodate their needs (Reichman 1998). Secondly, companies can engage in "regulatory arbitrage" by shifting to a more congenial regulatory environment or by arranging their financial affairs so they fall outside regulatory control. If these strategies fail, companies can push for greater legal certainty that enables them to abide by the letter of the law yet avoid the spirit (McBarnet and Whelan 1999). Taken

together these strategies present a formidable challenge to even the most motivated government.

Financial regulation arguably is the most high profile area where risky practices develop from strategic compliance. The gaming nature of finance and the pursuit of profit generate chronic challenges of strategic compliance leading to regulatory failure. But creative compliance also is a potential problem in emerging regulatory regimes set to tackle climate change. The creation of global trading systems in carbon risks the same sort of dynamic to that found within financial regulation. Indeed nascent problems with carbon emissions trading markets (e.g. manipulation of carbon prices, dubious use of the Clean Development Mechanism and ambiguous standards for quantification of carbon emissions (essentially the carbon accounting equivalent to challenges in financial accounting)) (Oleschak and Springer 2007) suggest that the problems in using market mechanisms to tackle climate change may institutionalise similar problems of strategic compliance. Industry strategies involving pushing for exemptions, free permits and weak targets already are in evidence in Australia.

The Regulatory Cycle

The interaction between motivation and strategy creates a particular dynamic to regulatory control of systemic risk. In the aftermath of crises reform efforts can, for a time at least, constrain strategic behaviour aimed at circumventing regulations. New regulations specifically are designed to address the loopholes exposed by the crisis which, together with heightened political attention, can ensure sufficiently comprehensive regulation and stringent enforcement to bring about effective short-term risk reduction. Over time, however, strategic behaviour re-emerges. New schemes are designed exploiting and widening loopholes in the reformed regulatory

apparatus (Shah 1996) creating new financial risks largely outside of regulatory control. Companies then push back against "excessive red tape" as public confidence rises with governments pulling back their efforts at patrolling regulatory boundaries until the next crisis erupts.

Systemic Risk and Instrumentalism

Arguably instrumentalism is the least well understood and most problematic feature of developing effective strategies to tackle systemic risk. The narrow focussing of regulation (targeted exclusively at financial or environmental regulation for example) often fails to appreciate the interconnected nature of risk both within and between particular systemic risks.

As with economic globalisation, however, instrumentalism has both beneficial and harmful qualities. Indeed, regulatory reform protocols often demand exactly such precision to ensure the logical consistency of reforms (i.e. that they are really addressing the precise cause of a tightly defined and well understood problem) (Better Regulation Task Force 2005). Yet, this approach can overlook interconnected risks where risk reduction in one area generates increased risk in another (Sunstein 2005). Political priorities then decide which risk is dealt with and which left to fester.

Instrumental approaches underplay the interconnectedness between financial and climate risks. To date the principle reason for rising carbon emissions is economic growth (Christoff 2006). A healthy economic outlook remains a threat to a sustainable future in terms of climate. Put simply, to date recession is good for the environment (in particular carbon emissions) but bad for economic wealth (and government revenue) whilst economic booms together with the ensuing growth are good for economic wealth but problematic for the climate.

For some the solution lies in decoupling the economic system from climate impacts such that economic growth and its beneficial social impacts can be preserved whilst also dealing with the very real need of reducing carbon emissions. Nicholas Stern (2008), for example estimates that the cost of reducing our emissions to 550 ppm CO_2e should lead to only a 1% drop in GDP. For others (Jackson 2009), such decoupling is fanciful and the solutions to both will only ever be resolved by tackling the problem of unsustainable economic growth and environmental harm together not separately. Societies (in particular western developed nations) must be weaned off their addiction to economic growth as the principal indicator of prosperity.

At least at first blush, both Stern and Jackson share a common goal in decarbonising the economy. Vigorous and aggressive pursuit at all levels of government and internationally is necessary to reduce our reliance on fossil fuels. Clearly, this task is proving difficult enough.

However, critical differences soon emerge and are highlighted by responses to the current economic crisis. If there is the possibility of effective decoupling of economic growth from its negative climate impact, financial regulation can be dealt with separately from climate regulation. There is no inherent reason, then, why regulations designed to engender financial stability and sustained economic growth need to be overly concerned with reducing carbon emissions. Dealing with the systemic risks inherent in the financial system and to the climate remains challenging but they can be dealt with separately. Indeed, if sustainable economic growth is achievable there is the possibility for synergistic learning through comparative research where design problems overcome in one area can inform design of risk management in the other.

If “green growth” is impossible then responses to the financial crisis that stimulate economic growth inevitably risk the climate. Instrumentalism perpetuates institutional

blindness. Further, other interrelated risks surface. “No growth” proponents (Jackson 2009) recognise the crucial social benefits of economic growth, namely its capacity to engender human wellbeing and social stability. Indeed, this echoes a central sociological insight. Students of the sociology of deviance long have understood the import of realistically achievable aspirations (the “American” or “Australian” dream) in maintaining social cohesion (Merton 1938). If decoupling climate risks from economic growth proves impossible, additional risks to human wellbeing and social stability are brought into play. In dealing with the systemic risks of the financial and climate crises we must also be cognizant of an additional interrelated risk to social stability.

Conclusion

This paper has provided a succinct analysis of the systemic nature of risks in the financial and climate spheres. Systemic risks are well understood as geographically dispersed, embedded within broader benefits and tightly coupled with both related and seemingly unrelated risks. Introducing controls for systemic risks presents enormous difficulties for both governments and regulators. Systemic risks increase avenues for strategic gaming of government attempts to bring the risks under control. Finally, systemic risks point to the limits of instrumentalism. If “no growth” scenarios are proved right, dealing with climate change and financial instability requires simultaneous appreciation of a third risk: that of deep and entrenched social conflict.

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