



Addressing Tipping Points for a Precarious Future

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Commentary 6.5

Private Sector Failure and Risk Management for Tipping Points

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[-] Abstract and Keywords

When running a global company of 10,000 employees who have to be kept in work, in markets which are unforgiving for the long term, tipping points have to be placed in context. Yet convulsions are becoming more extreme, violent, and unpredictable. This is not conducive for promoting sustainable business practice. Any successful adaptation will require sound regulation based on excellent academia and civil society guidance working within companies so that everyone learns and acts accordingly.

Keywords: sustainable business, tipping points, regulation, anticipatory markets, global company

I used to run a global multinational company, with 10,000 employees to maintain and many shareholders to please. Ensuring a monthly payout and a stock market return are legally binding requirements on any chief executive. Tipping points have to be placed in context. Building up the corporate portfolio is the job description. If we are going to get anywhere we need to realign science, social science, regulation, and the markets in a fresh alliance with business, governments, and civil society organizations.

The introductory chapters to this book make a credible case that there are significant tipping points, which climate change and other Earth system adjustments are likely to trigger, which are system changes (arguably failures) that are abrupt and inevitably have unforeseen, and, to date, unforeseeable consequences on other systems. Not only are their consequences unpredictable, the prediction of when they may occur, or the criteria for showing that they have occurred, is effectively impossible to determine in the near term.

The private sector, composed of organizations that make things or provide services as a group, simply do not invest in avoiding system tipping points. The recent banking crisis has demonstrated this. Banks as global organizations that should arguably have seen system failure points, did not do so. History has shown repeated boom and subsequent bust of stock markets.

The basic means for allocating capital in most economies has failed before, and all the evidence suggests that it will fail again.

There is one trend embedded in these failures. As economies become more connected and tend towards globalization, the highs and lows become more extreme, and their consequences increasingly unpredictable. Climate change has all of these characteristics. Individual companies do **(p.221)** however manage risk with varying degrees of aggression and successful results. It is the variability of performance which is the basis of the private sector. Good markets attract more companies and more capital; well-managed companies do even better in any market. However, the essence is that poor markets cause disinvestment, and badly managed companies fail. This is basic economic theory: to rely on the private sector en masse to invest in mitigating the potential consequences of non-immediate tipping points and to do so effectively has, to put it mildly, no historical precedent.

Accepting these limitations, there is a role that the market can and should play. The best companies do anticipate demand, and do create products prior to the demand being evident, and do so within the bounds of imperfectly functioning markets. To prepare for future events outside of the known operating parameters cannot be left to individual companies. It is a collective responsibility to explore the edges of the 'system'. This anticipatory work should provide an understanding of how potential failures are occurring, something that did not occur in the Great Depression, nor in the recent financial collapse. Both were relatively simple system failures compared to any of the currently identified climate-change-induced tipping points. Markets do not and will not manage risk or anticipate risk in a politically, socially, or environmentally effective manner.

So here I turn to the power of regulation. Businesses can work with targets and structures which can be implemented on reasonable timescales and where there is reliable and consistent government leadership and legislative commitment. For addressing tipping points, the process of regulation is flawed as it tends to lie in the hands of particular interests, and is often controlled by the whims of political expediency. Where we need to go lies in the field of co-implementation; this involves bringing in a wider group of players.

In this simplistic view there are two other parties; academia and government. But they also have severe limitations on how they can influence the management of tipping points. Academic research is fundamentally important to the progression of knowledge and tells its story to a wider public in a language that is incomprehensible at best. Probability and risk are not items humans logically deal with, but much research is about likely outcomes. Without research we are a dead society, but it does not mean society can or should be changed because of better stories in the *Mail on Sunday*. Whilst the internet gives extraordinary access to information, it does not always lead to accurate knowledge dissemination. The percentage **(p.222)** of US citizens who continue to believe their president is a Muslim is an interesting example. To convince, even with scientific evidence, that the melting of the permafrost is human-derived, that it is likely to cause a major global-wide problem, and that it will seriously affect their children's lives in a not particularly beneficial manner, is probably a stretch when it comes to US public opinion.

In recent years it has been the NGOs who have provided the link between science and society. They have the mission and the ability to synthesize research into an action agenda. The entities beginning to take note here are our professional institutions, The British Academy, The Royal Society, Confederation for British Industry, and the Institute for Civil Engineers. They not only

have the ability to communicate meaningfully with government and the private sector, they can transcend the extraordinary tribalism in the academic world.

Governments globally have begun a change to commit to a decarbonized global economy. It is progress when for the first time governments collectively look to avoid a problem rather than mitigate the after-chain of its effects. The rate of change required in the next ten years is unprecedented; however, it is fair to assume no single world order will suddenly come to pass but we will continue with a whole gamut of political, social, and economic models.

The potential for both lessening the likelihood of reaching tipping points, or preparing for the consequences of when they occur, lies in the interface between academia, government, and companies. This means effective concentrations at the interface - not singular, but also not as hopelessly informal as exist today. NGOs provide the glue at this interface: they can change companies and governments. They started the decarbonizing revolution and provided stunning leadership in setting the question. To set the answers we need to supplement this glue.

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