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**Understanding Risk  
(Micropaper)**

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# Risk

## Introduction

The latest in-word for policy wonks is 'superforecasting'. It is the science, or rather social science, behind trying to nail down the percentage likelihood of a given event happening.

It is an area deserving far better study.

Across both the public and private sectors, contingency planning is essential – everything from prepping for fire drills to buying the right insurance, or keeping an eye open that critical customers or suppliers aren't on the point of becoming bankrupt. The concept of horizon scanning, and using that analysis to inform policy, is a common practice even if we don't always consider it in those terms.

The two big events of recent years, Brexit and now Coronavirus, reveal the importance of getting the interpretation of risk right. But they also demonstrated the repeated failure to do so, particularly amongst the commentariat.

With baffling frequency, seasoned journalists and prominent academics would accept at face value statements on the absolute certainty of events happening, without any appreciation of potential mitigating factors. That included recognising that certain events could be avoided by actions undertaken unilaterally by the very parties that were affected.

Government itself is not immune. Whitehall predictions about the consequences of certain "cliff edge" Brexit scenarios were set up on pre-aligned tramways, stripped of their context, and deliberately politicised. This was especially the case during the referendum, though the trend did not afterwards entirely abate. The full story deserves to be investigated by a Commission, because the reporting that has emerged (including from whistleblowers to this author during the referendum) suggests a level of politicising civil service and rigging outputs at a level not seen since the 'dodgy dossier' of the second Iraq War.

The Covid-19 outbreak now raises new questions about state preparedness. It was predicted as a practical certainty by analysts that at some point another major epidemic would emerge that ran a considerable risk of entering Europe. 2020 has seen a domino effect of countries in turn chasing after events rather than anticipating them. Some have been found to have made astonishing decisions; the Belgian Government is reported to have destroyed a reserve stock of six million face masks in 2009. With better strategic forward planning, some of these effects in some countries may have been mitigated.

When the dust eventually settles, rather than reflect on simply the question of Prediction, policy makers should instead take a more ambitious plunge beyond and into the more general fields of Risk Management and Resilience across wider contingency planning. An encompassing strategic review is overdue.

Happily, the strong likelihood is that Brexit planning has given the UK a considerable head start.

## Exploring 'risk'

At the core to any new policy survey is the difference between what a state may do to cover eventualities as part of its normal preparatory work; and the act of policy thinkers sitting down and considering danger from first principles. It may prove that planning for a range of contingencies has been based on available funding for a level of risk that is no longer politically acceptable. Of particular concern is the prospect that budgets have been set at a rate because the nature of risk itself is not being properly understood.

The level of strategic risk policy we are referring to here goes far beyond issues of Health and Safety legislation. It is more than simply the contingency planning, since it frames their parameters. It obviously goes far beyond making simple precautions, or even the question of managing local risk and adapting risk assessments to any highly localised conditions - where framework policy may either be irrelevant or may not have considered the local environment.

Risk management does have its practical and pragmatic aspects. But there are also core cultural ones that may be harmful. The attempt in particular to take risk management to its other extreme, and for politicians to seek to 'ban risk', can prove to be both a futile and prohibitively expensive exercise that removes resources from where they could be better deployed. It can also carry extremely damaging second order effects – an example being the reputational harm done to armed forces with low risk tolerance thresholds for patrolling on peacekeeping operations.

An abridged defence doctrine document, JSP 892, that has been placed in the House of Commons Library helps provide a definition of risk. It defines it as an uncertain future event that could affect the Government's ability to achieve its objectives. A risk has five elements to it. It is set in the future and not a current issue; it has an element of uncertainty; it could affect the achievement of objectives; and it can have both positive and negative effects. But there is an important fifth criterion; it must be credible and reasonably foreseeable. A risk is made up of a cause, an event and a consequence. Any attempt to describe risk should correspondingly be done in a way that allows for the understanding of the three components.

As a department that trains leaders to assess risk, and ideally to export it to their opponents, it is not surprising that the MoD is ahead of the curve in intellectually defining and even embracing its uncertainties. Even when sagaciously defined though, it is not alone in not having had the budget assigned over the long term to properly match it.

## Risks of our times

Some of us are old enough to recall the enduring threat of imminent nuclear war with the Soviets. This author can well remember in the 1980s sitting on the school bus crossing Lincolnshire's Fens, reflecting on the obvious threat of an imminent nuclear strike on Peterborough, and wondering in such circumstances where would be the nearest dyke to hastily leap into.

Personal fears and concerns can be a safeguard, but in turn they might also lead to false emphasis. It was precisely that concept that was part of the inspiration behind penning a (not entirely serious) book on the Apocalypse. The *Discerning Tourists' Guide to the End of the World* looked at the history of how people have seen the world ending.<sup>1</sup> It looked at past scares and cults; reviewed sites

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<sup>1</sup> See <https://www.facebook.com/watch/?v=1492363917447089> for a discussion

and events traditionally associated with the timeline; and brought into it popular culture in order to compare the relative likelihood of scenarios given not just the past but also trends.

It was really though a book about priorities and elitist crisis fads, driven by the question as to why throw so many hundreds of billions of pounds at an environmental apocalypse, when cold reflection revealed just as many other good (and better) candidates for budget holders to be concerned about.

Including the prospect of a pandemic.

At the time of writing, the world rests on the threshold of dark and sinister uncertainty. It is also already acting as a spur for pseudo-environmentalist anti-capitalists to protest about the economic system rather than any system that generates more immediate risk. These Anarcho-Leninists will demand more *juche* and Bronze Age self-reliance, under false flag ideology. For a country like the UK that has not just thrived on free trade but is dependent on it, this would be an absurd act of economic self harm. That is especially the case given that the movement of people is at core to blame, rather than the movement of goods (or ship rats).

### How 'super' is superforecasting?

We could more profitably direct our thoughts elsewhere. Unhelpfully, the brand of the superforecaster has been latterly tarnished by the sacking of a SpAd who self-identified as one (though his actual credentials are unclear). This should not distract us from the key lesson that until very recently there has been a shortfall across political advisers in understanding deep risk.

The key book on Superforecasting is the eponymous volume, recommended by Dominic Cummings, by Philip Tetlock and Dan Gardner. As a result of extensive analysis and testing, their research identified methods that can improve prediction making, and therefore might by extension inform risk taking.

But there are still key gaps in their work. Superforecasters' output and relevance are for example overwhelmingly dependent on the choice and parameters of a binary question, one set by someone else. Methodology is so diverse that some even deliberately choose to not share their working assumptions on the basis it might affect the mean estimate, ruining the 'wisdom of crowds' averaging-out approach. In any case, as non-Subject Matter Experts (SMEs), they are utterly dependent on expertise of others; indeed, some of the most successful superforecasters gain that rank precisely because they chase after informed opinion more persistently than their counterparts.

So superforecasting as a tool rather than an academic research project is really best deployed as an adjunct. It would correspondingly seem the best way to use it is to lift the principles rather than find the principals - not to test thousands of people to determine who is the best go-to Vulcan for oracular advice, but to train the professional analysts to better frame the problem, to disentangle the root variables, to glance more at indicative windsocks, and to repeatedly challenge assumptions.

Combining the two, that might at times mean uniting a team of experts with an outsider brought in to challenge baseline assumptions. Such an approach could operate as a safeguard check – a version of the 'Tenth Man Rule' made famous in the film *World War Z* but actually a Red Cell principle introduced by the Israelis after the Yom Kippur War.

It's also worth contrasting the Superforecasting approach with that set out by Nicholas Taleb, who introduced the celebrated Black Swan principle to the world – the idea of flawed analysis that fails to factor in 'unknown unknowns' and which takes recent lack of surprises as proof of absence of risk.

That's the sort of business approach that saw the calamitous housing bubble that broke banks, as well as for that matter the Tulip Bubble, the South Sea Bubble, and the Mississippi Bubble. It's what saw people building Pompeii where it is today, despite the Pompeii under their feet; and the people of Pompeii in turn doing so despite the buried prehistoric villages of Nola - though in that case the critical knowledge may have been lost or even led to false assumptions about safe slopes.

Whereas Superforecasting suggests you can apply logic to call better odds on a specific event taking place, Taleb's countervailing observation is that while you can spot people making bad assumptions based on false constants, nevertheless you cannot properly predict the rare wild cards. Superforecasters thus are as bad as everyone else in missing the 'fat tail' big events.

### Prepping for the reasonable worst case

Notwithstanding, the critical variable sits outside of this debate and in the separate realms of the policy maker and the policy funder. Having superb forecasters, even if they are well directed, isn't enough.

Democracies tend to be short termist in their strategies, and even shorter in their funding plans. That works well until it doesn't.

Both policy drafters and especially those advising the guardians of the purse strings need to be better informed on what relative value any spending on insurance policies may bring. Cost-Benefit thinking needs to be strategically appraised by politicians over a longer term.

The process involves a difficult balancing act. The weights on the scales include;

- The assessed risk of something happening - or not happening
- The historic frequency of the event happening (often tied into the above)
- The cost (or scale) of it happening
- The impact of the types of mitigation available
- The cost of different types of mitigation
- Side effects of mitigation (for instance, destroying the economy)
- The prospect of alternative and better forms of mitigation emerging over time, and the desirability of pushing resources into these

### Re-evaluating scenarios

An obvious candidate for policy review today is over a globally-agreed strategy for quarantining countries with infectious outbreaks at an earlier stage, since direct travel bans applied only unilaterally still left Italy open to travellers arriving via intermediary destinations. It will more often involve the acquisition of a larger and wider range of physical reserve stocks.

On fresh audit, it probably means even if Covid-19 quickly fades away, that the decision is still taken to dedicate more finances to fund resilience preparation for the next virus that hits the world in pneumonic form: and to remember unlike the Belgians to maintain that stockpile despite short memories.

In a number of cases, resources and reserves can be useful in different scenarios and carry correspondingly multiple insurance value: 'third person, fire and theft'. Prepping for another viral

outbreak for example can carry across to help generate a measure of extra resilience should there ever be another Salisbury-style nerve agent attack.

The basic solution is to commit funding to allow greater physical resources to be stockpiled once more, as in Cold War days, in some latterday RAF Burtonwood.

In medical terms, part of the response may be about ensuring that the UK simply has the core facilities for a future conflict should the country be engaged in something bigger than a peacekeeping or support mission. There was a fierce amount of lobbying by the late Michael Colvin MP over keeping the Royal Hospital at Haslar open. Its closure removed a critical part of the Defence infrastructure. More recently, there was an attempt by Penny Mordaunt, the Secretary of State for International Development, to get her department to fund a mediship. Both of these are wasted opportunities that departments should revisit. It is also an open question as to how many people will shortly be begrudging the Queen in retrospect the use of HMS Britannia, given its stand-by medical role.

The examples worthy of risk analysis will vary from country to country. Occasionally Italy hits the news when it gets hit by an earthquake, especially if a beautiful mediaeval building gets badly damaged. But how soon has society forgotten the 1908 Messina Earthquake and tidal wave, that killed maybe 80,000 and smashed two Sicilian cities. On an entirely different scale, the tendency for planners to sign off building on flood plains without requiring the architects to take the simple geographical reality of the environment into consideration in their designs and when considering the support infrastructure is frankly staggering.

### Tech protection

The UK may not itself have to face anything more tremulous than something that brings slight ripples to a cup of tea. But how prepared are the nuclear states from avoiding an accidental nuclear conflict? This is not to make the case for disarmament given the genie and the bottle, but policy makers do need to understand the history of an alarming number of near misses the world has had, and where a human being has been put on the spot to make a decision based on what turned out to have been false readings, and could have made a different call. In our book we gave six examples, two of them indeed just a month apart.

Bond's mission in Goldeneye highlighted the effects from an ECM pulse from a nuclear blast. What has received less public attention is the prospect of something entirely natural. A surge in solar flare activity would have a critical effect on everything that depends on satellites, but also on electrical apparatus on the ground. The US military has done work to protect its electronics from frying during such a Carrington Event, but what about everyone else?

### An island nation

For those operating on a lower special effects budget, what about the appropriateness of the contingency planning around an aggressive trade war? The UK still has North Sea oil on tap, but what of the knock-on impacts of Russian gas being switched off for Western Europe as it has for Eastern? How quickly as a nation we have forgotten the Three Day Week. What similarly of stockpiles of rare earths, or even basic metals?

The same principle applies to the security of supply of water supplies, and of power. There are historic examples of attempts of wartime sabotage and also of terrorist intent, and cases of known targeting of infrastructure by hostile hackers. Even the NHS has not been immune to malware. This is without even considering the prospect that a system might fall over simply by an inherent flaw in the design.

What too of strategic food stocks, or of processed fuel reserves? Two World Wars were almost lost by the deliberate attempted interruption of imports, and even then resulted in severe rationing.

Given the reluctance of the Belgians to sell the UK any ammunition during the Falklands War, what about the UK military's munition reserves? Or the reserves of high-tech military equipment that is slow to replace, and whether we are capable of even plugging existing shortfalls in time? Policy towards stocks such as are held in 'aircraft boneyards' deserves to be reconsidered at least in the long term, so that as types are replaced, serviceable kit remains available as material of last resort. It is a policy with celebrated precedent; naval guns Churchill had ordered to be preserved after World War I were available to him when he returned to the Admiralty in 1940.

In many of these cases, considered review will reveal trusted suppliers – and the added incentive in terms of policy direction of developing the UK's post-Brexit alliances with our CANZUK brethren.

### Economic prep

Into this mix we must throw the running of strategically-sound long term economic policy.

Are our gold reserves sufficient, such as they are post-Gordon Brown? The logic of the sell off was never clearly reasoned. Other countries notably have not gone 'reserves light', and certainly did not sell the assets off when the rate was so low.

In particular on the economy, public figures need to reconsider from the absolute basics what is the purpose, and consequence, of running a deficit – beyond getting elected that is, and letting someone else pick up the pieces when the rate becomes unsustainable. Coupled with this is the complex double edged sword of who holds it.

The open pit of subsidising potentially the entire economy for weeks or months during any national shut down is only sustainable if you haven't already run a longstanding deficit, leaving you carrying debt like Atlas before you start.

As we cover in our history of the UK's National Debt, the country survived decades of deep indebtedness for two main reasons.<sup>2</sup> Firstly, it borrowed to survive in wars that it tended to win, rather than see territory ceded, market access lost, and assets needing to be replaced (like destroyed fleets). Secondly, while the British Government did run up massive debts, it then over many decades went about trying to pay them down – at least to a low enough point that when another crisis moment arose, the country had enough credit that people were confident that anything lent they would get back.

The conclusion we might draw from this is that economically, Socialism is inherently a risk multiplier.

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<sup>2</sup> <https://bretwaldabooks.com/history/a-fate-worse-than-debt/book/120>

### Calling the odds

The above basically constitutes a short and partial list of very big potential crises. They are of variable risk and unknown imminence, though some are cyclical.

No doubt the relevant parts of Whitehall have over the years made considered and detailed contingency plans covering every eventuality, however remote. Isolated audits can and do reconsider risk on a given area within individual departments.

But these are inevitably bounded from the outset. The deep challenge doesn't lie in the contingency planning itself; it rests on the preparatory thinking needed to draw out the assumptions to make the contingency plan the best one.

Funding is where the politics lies. This takes the matter out of the hands of civil defence, and into the arena of politicians and their advisors. In turn, this makes it a matter of manifestos, voter concerns, and political debate - and a level of strategic barnstorming undertaken from first principles. Because of the timescales and the infrequency of high impact low risk events arising, the necessary deep thinking largely does not take place within political parties.

Uninformed policy makers make for bad policy, or none, and there is an inherent disincentive for any "here today, gone tomorrow" politician to dedicate funding.

Even to ask the question and explore the odds invites ridicule. Ask Lembit Opik.

### Informed people with personal responsibility

At least the Swedes have seen some value in publicly pushing risk management as a matter for ordinary citizens to consider. They are almost certainly seeing some benefits right now.

Even though Stockholm considers the prospect of conflict with its near neighbour to be low, the Swedish Government nevertheless in 2018 distributed a 20 page pamphlet "If Crisis or War Comes", giving every household advanced planning time to prep in case the country ever went offline or shut down for whatever reason.

The fact of encouraging people to make such preparations would also incidentally have sent a message to anyone considering engineering such an asymmetric attack, thereby reducing not just the consequences but the prospect.

A similar approach needs to take place in the future, encouraging UK households to consider maintaining a small stockpile of essential, very long life goods, in case of an extended disruption of supplies, water, or power. Regardless of whether the cause is natural, economic, or terrorist, a small measure of personal prep reduces the risk of later panic buying or antisocial behaviour.

### Measured state response

The same precaution in a dangerous world also underwrites the need for the UK to spend 3% of GDP on Defence today, rather than being forced into a bankrupting amount later. We have covered this elsewhere and won't go over the arguments here, but the 2% NATO figure was reached arbitrarily



and seemingly only on compromise political grounds, rather than on an assessment of what capabilities are needed and what they would cost.<sup>3</sup>

That root prerequisite affects the national budget, and the amount of spending that can go elsewhere. State funding commitments require political agreement, challenge, support, but above all an understanding of the level and prospect of risk **without** overcompensating and generating waste on an epic scale.

Causality is not always obvious, and so determining value for money can be difficult to explain, and decisions difficult to defend. Were “Palmerston’s follies” an effective response to French hostility in the 1860s, or a waste of resources given how they soon became obsolete and then redundant? In their defence, technology is always evolving, no one could have foreseen the tectonic political shifts from the unification of Germany, and the building of the forts by itself may have acted as a deterrent. Fifty years later, the decision to build battleships instead of spend funds on social care was extraordinarily contentious, but proved to be an investment when the Great War broke out. Precautionary funding is a difficult political call.

But we should be wary of using such a word that has acquired a specific new sense. This is not a call to throw billions at uncertain science and a misapplied Precautionary Principle – a policy of considering all unproven things as being an unwarranted risk, even when evidence is so lacking things are banned where there is an *absence of proven risk*. That approach can end up leading to solutions to problems themselves being banned, such as GM crops.

### Risk management

Understanding risk is about accepting the limits of our perspectives, while grappling with the statistical prospects of the worst case scenario, as well as the costs and the strategic consequences of both action and inaction.

In some cases, that requires politically accepting that spending might have to go on assets that may never be used – indeed, hopefully just so. That makes risk management a complex policy area, especially if it means changing from running a just-in-time system towards building up a stockpile.

It might help if a couple of think tanks such as the IEA, Legatum Institute, or the Institute for Government recruited a specialist or ‘chair’ to look at risk management as a feature of public spending, since the qualities of getting it wrong at either extreme are so comprehensive. They might start with a cold review of the cost-benefits of specific Emissions targets and rules.

More widely, the leading policy crafters, and certainly more Treasury policy drivers, need to grapple with both the logic and the long odds - balancing the insurance premiums versus the pay outs.

We recommend that the political elements in Whitehall, and within Westminster parties more generally, tackle this head on. Perhaps a SpAd conference might be in order, to think the unthinkable from their very foundations, and to red game such wild cards. This could be the precursor to a Chequers ministerial weekend to set out new ground rules. Such a conclave can only take place once the current crisis - long-predicted but somehow still a surprise - finally subsides.

## About the Author



**Dr Lee Rotherham** is Director of the Red Cell. He has been an adviser to John Major's whipless rebels, Eurosceptic MEPs, three Shadow Foreign Secretaries, the Conservative delegate to the Convention on the Future of Europe, a delegate to the Council of Europe, and government ministers. He was Head of Opposition Research for the No Campaign in the AV Referendum, and Director of Special Projects at Vote Leave, the designated pro-withdrawal campaign during the 2016 referendum.

Outside of Westminster he has worked in publishing, teaching, heritage, and in Defence.

