

# ***Governing for the Future: How to bring the long-term into short-term political focus***

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*Gouverner, c'est prévoir: to govern is to foresee.*

Pierre Mendès France (former French Prime Minister)

*The longer you can look back, the further you can look forward*

Winston Churchill (former British Prime Minister)

*The only limit to our realization of tomorrow will be our doubts of today.  
Let us move forward with strong and active faith.*

Franklin Delano Roosevelt (former American President)

## Introduction

Thank you for the invitation to speak here this evening. I owe a great debt of gratitude to Professor Dan Fiorino and his colleagues in the School of Public Affairs at American University for generously hosting me during my Fulbright Fellowship in the United States this Fall. Washington D.C. is a stimulating, engaging and enriching city in which to spend time as a policy researcher, and I am immensely grateful to all those who have assisted me in various ways, not least those who have agreed to be interviewed.

The broad topic of my current research project is ‘governing for the future: how to bring the long-term into short-term political focus’. To put it differently, how can we increase the political salience today of long-term risks and looming policy crises given the human tendency to discount or ignore problems that seem distant, remote or abstract? The basic governance challenge can be defined in various ways, but a commonly presented version is as follows: there are strong political incentives for democratically-elected government to focus on policy issues of immediate public concern and to give priority to policy options with positive, short-term electoral payoffs. But if such incentives drive their decisions, then long-term risks – whether fiscal, environmental or social – will be given insufficient weight, thus contributing to greater costs or fewer benefits in the future. As Warren Buffet (1977) put it succinctly: ‘when human politicians choose between the next election and the next generation, it’s clear what usually happens’. Or to quote Al Gore (1992, p.170), ‘the future whispers while the present shouts’.

In some cases, inter-temporal policy choices which favour the present over the future may not matter very much, but in other cases the consequences can be dire. With respect to climate change, for instance, the lack of early remedial action is rapidly increasing the risk of widespread, severe and irreversible damage. Morally, this is unacceptable. As Barack Obama (2014) justifiably commented at the climate change summit at the UN in September: ‘We cannot condemn our children, and their children, to a future that is beyond their capacity to repair’. But what options are available to reduce or minimize inter-generational buck-passing of this nature and, of these options, which are likely to be feasible, modestly effective and broadly desirable?

Currently, there is much anxiety in the United States about the capacity of the federal government to tackle the country’s serious, long-term fiscal, social and environmental challenges. Frequent references are made to political gridlock, polarization, electoral gerrymandering and policy failure. Many local interviewees have expressed deep pessimism, and are certainly gloomier about the prospects for sensible, domestic reforms than their counterparts in Britain, Finland and New Zealand, where I have also conducted interviews recently for this project. As one local interviewee commented, ‘In America, long-term planning is next week’s lunch’. While most local interviewees have responded approvingly to my research topic, no doubt many think my mission is futile. If economics constitutes the ‘dismal science’, the quest for prudent long-term governance is surely a thankless and fruitless journey, marked only by growing hopelessness, despondency and despair. I certainly understand such reservations, but for the present I am stoically soldiering on. (In any case, I have a book contract to fulfill!)

This paper outlines the broad contours of my research project and offers eight propositions which summarize some initial findings – or rather, emerging understandings. Given the breadth of the topic, I cannot do it justice in a short presentation. Accordingly, I must be selective. I will devote most of my attention to possible solutions and touch only briefly on defining the problem, identifying the causes and exploring the consequences. For those interested, a fuller version of the paper will be available on the website of the Centre for Environmental Policy. But first let me turn to the politics of time.

## Background

In 2011 the political scientist Alan Jacobs published a landmark book entitled *Governing for the Long Term: Democracy and the Politics of Investment*. Essentially, the book is about the politics of *time*: how do policy-makers handle inter-temporal policy trade-offs and how can inter-temporal policy choices best be explained? To quote:

The politics of public policy is at once a struggle over who gets what and a struggle over when. In designing state action, governments face choices not just about the cross-sectional incidence of gains and losses, but also about how the benefits and burdens of policy should be allocated over time. In arenas ranging from environmental protection to economic reform to the management of scarce natural resources, the impact of public policy on citizens and societies may depend as much on the inter-temporal character of governments' decisions as on their distributive profile (2011, p.241).

Jacobs develops a rigorous and elaborate theoretical framework to help explain the inter-temporal choices made by democratic governments over the past century or more, using retirement incomes policies (or pension schemes) in four countries – Britain, Canada, Germany and the United States – to explore, test and illustrate his approach. His analysis of how to understand and explain the politics of the long term, and in particular the extent of policy investments for the future, is both fascinating and persuasive.

In brief, he argues that three main factors explain the inter-temporal choices of policy makers in democracies: the degree of electoral safety they enjoy; the expected long-term social returns; and the institutional capacity at their disposal, most notably the way political institutions structure the opportunities and trade-offs for the cost-bearing groups within society. From this perspective, long-term policy investments, especially those which entail short-term social costs in the interests of long-term social gains, are most likely under the following three conditions. First, policy makers enjoy a degree of electoral safety or even insulation from competitive political forces. Second, the political elites are generally agreed that the proposed policy will deliver long-term social returns and the risks of failure are low (e.g. because the policy can be designed in ways that reduce the potential for political opportunism in the future). Third, the structure of opportunities and trade-offs facing well-organized groups is such that a long-term investment strategy appears to be adequately appealing. If one or more of these conditions is not met, long-term policy investments are less likely to occur resulting in net losses to society in the future.

Jacobs' stimulating analysis poses many critical questions. One of the most important is whether our democratic political institutions and the processes of decision-making can be designed in ways that increase the prospects of wise long-term 'policy investments' – that is, policy interventions which help create a better future either by generating long-term social gains or by reducing long-term harm, risk and vulnerability. Put differently, are there ways to encourage policy far-sightedness in democratic systems and thereby better protect the interests of people living many years, decades or even centuries in the future? And, if so, what particular strategies, institutional reforms, policy changes or conceptual innovations are most likely to achieve such a goal?

Of course, there is no shortage of impediments. Any endeavour to tip the scales in favour of prudent long-term policy investments must contend not merely with deep uncertainty, cognitive limitations, party competition, ideological divisions, ethical conflicts and low political trust, but also the abiding sway of narrow self-interest and the constant temptation to prefer short-term over long-term gains. Moreover,

even the most far-sighted leaders cannot bind their successors to pursue sound long-term governance. The predatory proclivities of human beings must inevitably remain a constant threat.

Bear in mind that the term ‘policy investment’ is not limited to the investment of public funds or even the prudent management of public resources in all their many and varied forms. The issue is much larger and extends to the entire framework of public policy and every level of government. This includes the regulation of all those forms of human behaviour, whether public or private, which have the potential to impact on long-term economic, social and environmental outcomes. Of particular importance is the incentive structure governing private sector investment. Annually, many trillions of dollars of private capital are invested globally in new long-term assets (e.g. in energy, transport, telecommunications and other forms of infrastructure). Whether this investment contributes to, or undermines, long-term economic, social and environmental sustainability is of fundamental importance.

The question of whether prudent ‘policy investment’ can be encouraged, and if so by what means, lies at the heart of my current research endeavours. Essentially, this is an issue of governance, especially inter-temporal governance. Necessarily, this includes, but is not limited to, what Leon Fuerth (2012, 2013) refers to as ‘anticipatory governance’. The fundamental challenge, in short, is how to improve the quality of long-term democratic governance.

### **The Long-Term Democratic Governance Problem**

For simplicity, this challenge can be called ‘the long-term democratic governance problem’ (or the ‘long-term governance problem’ for short). Each word in this brief description is important and needs underscoring.

#### ***The time horizon***

‘Long-term’ implies an extended timeframe. The precise time horizon will depend on the particular policy context, but it will typically be years, often decades and sometimes much longer. In the case of climate change policy, for instance, the relevant timeframes, given the very long lags in the climate system, are centuries or millennia. Hence, mitigation initiatives will need to be pursued over many generations, and adaptation efforts for much longer (IPCC, 2013; 2014a, 2014b). Or to take a different policy example, such as additional public investments to enhance the cognitive development and education of young children from deprived backgrounds. There is robust evidence that well-designed and appropriately targeted early invention programmes have the potential to deliver much better outcomes over the life-course of the recipients, including better health, improved educational attainment, enhanced employment prospects and higher life-time earnings (Conti and Heckman 2012; Duncan and Magnuson, 2013; Duncan et al., 2010; Early Action Taskforce, 2014; Heckman, 2007; Ladd, 2012; National Audit Office, 2013). Moreover, some of the benefits enjoyed by recipients are likely to spill over onto others, including peers and descendants. Hence, policy-making in such contexts needs to be guided by an appropriately extended time horizon. In thinking about *long-term* governance, therefore, we are necessarily dealing with inter-temporal matters, often of an inter-generational nature.

#### ***Governance***

Further, the problem under consideration is fundamentally one of ‘governance’ and how it can be improved. It is about societal steering and prioritization, especially steering and prioritization over extended periods of time. It is about how democratic societies can shape, ‘weave’ or ‘navigate’ the future in desirable directions (Dror, 2003), implement coherent and sustained efforts to address long-term challenges (Lempert, 2007a), minimize foreseeable, yet avoidable, damages, and prepare for the

unexpected – such as ‘wild cards’ (Fukuyama, 2007) and ‘black swan’ events (Taleb, 2007). Accordingly, it is not a narrow *policy* problem; nor is it limited to a particular policy domain or even a specific category or class of policy issues; and nor is it primarily about finding once-and-for-all solutions to major long-term policy problems. Such problems, after all, are frequently highly complex and require a never-ending series of efforts to address. And even if complete and durable solutions can be found, new and equally difficult problems are constantly emerging. The dilemma of how to govern well for the long-term, therefore, is enduring and relentless; it confronts each and every generation of policy-makers; it is not limited to one particular epoch. To be sure, the precise contours and the specific manifestations will be constantly evolving, thereby posing fresh, novel and distinctive challenges for each successive generation. But the broad structure of the problem – namely, of how best to encourage prudent inter-temporal decision-making – remains the same.

Hence, the heart of the problem is about governance, not particular policy issues. At the same time, of course, the problem manifests itself in numerous discrete policy contexts. Efforts to address the governance problem must, therefore, give proper attention to the distinctive content and attributes of the various policy problems where inter-temporal challenges are most acute. Examples include:

1. ensuring prudent long-term fiscal management;
2. ensuring effective environmental stewardship;
3. ensuring adequate investment in the construction and maintenance of long-term infrastructure;
4. ensuring adequate funding of preventative policy measures (e.g. prisoner reintegration and health care);
5. ensuring the wise management of risk, including systemic risk;
6. ensuring sound emergency management, including preparedness for low-probability but high impact events;
7. ensuring the sustainable management of resources and prudent urban planning;
8. ensuring the safe long-term storage of radioactive waste and other toxic substances;
9. ensuring the careful management of long-term social changes, including demographic change and increasing cultural and religious diversity;
10. ensuring adequate levels of social mobility (e.g. in the interests of social cohesion and the equitable and productive use of human capital); and
11. ensuring the proper assessment of the economic, social and environmental impacts of technological innovation and the creation of new organisms.

The wide-ranging and diverse nature of such policy issues suggests that any solutions to the long-term governance problem will need to be equally all-embracing and diverse, with solutions tailored to suit the requirements of particular policy contexts. Additionally, such solutions must take into account the distinctive constitutional, institutional and cultural circumstances of the countries in question.

In relation to governance, this study will focus primarily on the roles and conduct of democratically-elected officials (presidents, prime ministers, ministers, parliamentarians, etc.), and how it might be possible to enhance the incentives for them to pursue, as well as their capacity to deliver, prudent long-term governance. Of course, within all democracies many other actors exercise significant governance responsibilities – e.g. those serving on the governing bodies of regulatory agencies, statutory boards, health care and social service providers, education institutions, and so forth. Such people often have considerable discretion and oversee the operations of organizations, many of which are very large and which face a multiplicity of long-term challenges (e.g. the maintenance of major capital assets, investment in new long-term infrastructure, the management of long-term contracts, workforce planning, coping with technological change, etc.). Equally, in order to guide their organizations successfully in the near-term and invest wisely for the future they must give appropriate attention to relevant long-term

trends, developments, risks and opportunities. Plainly, a failure to exercise prudent long-term governance at the organizational level will have consequences for the overall quality of a nation's governance. Part of the challenge of achieving good, long-term, democratic governance, therefore, is to ensure that the multiplicity of public agencies and entities (i.e. at all levels of government) are well governed – and, moreover, that there are similarly strong incentives for the good stewardship of private organizations, whether commercial or non-commercial.

### ***Problem***

The word ‘problem’ also deserves emphasis. Weak, inadequate or inept long-term governance can cause grave harm, both to human beings and the natural environment. Morally, therefore, it matters. Our aim should be good long-term governance. This involves, amongst other things, efforts to prevent or minimize bad futures, encourage and facilitate good futures, identify and manage risks, and prepare for the inevitable shocks and surprises that will occur. Poor long-term governance fails to do such things; it lacks a coherent vision, clear goals and soundly-based strategies; it fails to anticipate risks or build resilience; and it fails to help shape the future in desirable directions. For those who reap the consequences, the problem is readily apparent.

But in what ways and to what extent do democracies encounter a long-term governance problem? What is the appropriate standard of governance to judge such matters? What are the relevant criteria? After all, reasonable people may differ vigorously over how best to distribute burdens and benefits over long timeframes, what priority to give to mitigating certain kinds of risk, and what discount rate to apply. I do not pretend that there are simple answers to such questions. There are many plausible ethical norms, principles and other considerations, and these are often in tension. Indeed, some of the relevant principles, such as the precautionary principle, have numerous different and competing interpretations.

One possible approach would be to define the standard of good governance in terms of minimizing clearly foreseeable, serious, avoidable and unjustified future harms. For instance, if a future harm is readily foreseeable, serious and avoidable, and if the required actions to prevent, or at least minimize, such harm are easily affordable, then a failure to take the necessary steps to avert the harm would be morally unjustified. Of course, applying such a standard in practice presents difficulties. Legitimate questions may arise about the probability or seriousness of the harm in question, or whether it can realistically be avoided (or minimized), or whether intervening is justified given the opportunity costs involved. Similarly, there is the issue of whether a failure to invest adequately to achieve foreseeable long-term benefits is as equally unjustified as a failure to avert an avoidable harm. Be that as it may, reasonable people are likely to be able to agree, at least in principle, that it is desirable to prevent (or at least minimize) a clearly foreseeable, preventable and serious future harm.

With such considerations in mind, are democracies falling short and, if so, how serious is the problem? Further, is it possible to sustain the proposition that democracies exhibit ‘political short-termism’, ‘policy myopia’ or ‘policy short-sightedness’? Do they manifest, to quote Jacobs (2011, p.266) a ‘substantial policy tilt toward the short run’, thereby inflicting unnecessary and unjustified future harms? And if so, how widespread, deeply-entrenched and troubling are such phenomena? To answer such questions carefully and rigorously would require a separate paper. Here there is space for just a few brief observations.

First, a substantial body of academic scholarship covering multiple democracies and multiple policy domains either assumes or reports that a problem exists (see, for instance, Boston and Lempp, 2011; Dror, 2003; the Oxford Martin Commission, 2013). The scholarly literature also points to the problem being relatively common and often serious. Indeed, some of the relevant literature suggests that the long-

term governance problem, and how to address it, constitutes one of the most daunting challenges facing humanity. Without better long-term governance, it is argued, humanity will inflict severe and in some cases irreversible, damage, including a massive loss of biodiversity and a likely shift to a more unstable and inhospitable climate system. (In relation to climate change risks, for instance, see Garnaut, 2008; Hansen, 2009; IPCC, 2007, 2013, 2014a, 2014b; Mellilo, et al., 2014; Nordhaus, 2013; Richardson et al., 2009; Rockström et al., 2009a, 2009b; Stern, 2006.)

Admittedly, there are differences of view over how the long-term governance problem should be defined. Likewise, the academic literature includes many different perspectives on the causes, consequences and potential solutions to the problem. Overall, however, there can be no question that many academic observers are pessimistic about the capacity of democratic institutions, whether of a presidential or parliamentary form, to tackle satisfactorily many of the serious long-term policy issues currently confronting the international community.

Political discourse is also replete with references to the long-term governance problem. To quote the former Japanese Prime Minister Yoshihiko Noda in a speech to the UN General Assembly in 2012:

Democracy is historically proven to be the best political system. However, we are faced with the enormous challenge of whether or not democracy can serve as a system to keep fairness between generations across the globe. Under the parliamentary democracy, comprised of representatives serving people living now, there are no guarantees when it comes to properly representing the interests of future generations. The structure invites politics that burden silent future generations and puts problems off (quoted in *Washington Post*, 1 October 2013, p.A19).

Similar quotations abound. Consider, for instance, the assessment of the US National Research Council and the National Academy of Public Administration in their major report – *Choosing the Nation's Fiscal Future* – in 2010:

The current federal budget process does not favor forward-looking assessment and management of the nation's fiscal position. The committee find that the present process gives too much weight to the interests of the current generation and too little weight to the interests of future generations (2010, p.7).

Second, of the 100 or more people I have interviewed or with whom I have discussed my research topic, no one thus far has seriously questioned the notion that democracies exhibit, for one reason or another, a bias towards the short-term and a frequent failure to address well-recognized long-term problems expeditiously; nor has anyone disputed the proposition that such tendencies can be damaging – sometimes highly damaging. Indeed, interviewees often took the opportunity to express deep concern about the capacity of democratic regimes in general, or their own in country particular (especially American interviewees), to give proper attention to long-term risks and vulnerabilities – whether fiscal, social or environmental. Amongst interviewees, there was wide agreement that decision-makers in democracies have a tendency to govern for today, rather than tomorrow. Their focus, it was argued, is all too frequently on the present day, the near-term or the next election rather than the impact of their actions, or their failure to act, over decades or generations.

Third, over the course of recent decades it is possible to identify numerous instances where democratic governments have failed to take sensible and effective steps to ensure fiscal, social or environmental sustainability and thereby protect both the long-term interests of *current* generations and the well-being of *future* generations. Amongst the many well-documented cases in the environmental arena are inadequate measures to reduce greenhouse gas emissions, protect global and local fish stocks, preserve

endangered species and allocate scarce freshwater resources in equitable and efficient ways (Millennium Ecosystem Assessment, 2005). Problems of this nature are to be found to one degree or another across much of the democratic world, not least here in the United States.

In Australasia and the South Pacific, for instance, there are many environmental issues where long-term interests have been overridden by short-term political considerations. The failure to address anthropogenic climate change represents the most concerning example. Despite overwhelming scientific evidence regarding the damaging impacts of unabated anthropogenic climate change, the centre-right coalition government in Australia abolished the carbon tax in June 2014, claiming that price-based mechanisms are neither necessary nor desirable for reducing emissions. Several months later, in September 2014, the coalition launched a new energy strategy (Department of Industry, 2014). The fundamental aim is to make Australia an ‘energy superpower’ – not a *renewable* energy superpower, but a *fossil fuel* superpower. Significantly, the strategy contains no expectation that carbon capture and storage will be widely used in the future, let alone mandated. Hence, it must be assumed that the extra greenhouse gas emissions resulting from the desired increase in fossil fuel exploration and production will be destined for the atmosphere.

Undeterred by such considerations, the Australian Prime Minister, Tony Abbott, believes that ‘few things more damaging to our future than leaving coal in the ground’ (*The Guardian*, 13 October 2014). Consistent with this view he declared, when opening the new \$4.2 billion Caval Ridge coalmine in Queensland in mid-October 2014, that ‘coal is good for humanity’, ‘vital for the future energy needs of the world’ and should not be demonized. The opening marked, he said, ‘a great day for the world’ ... ‘The trajectory should be up and up and up in the years and decades to come’; and it is ‘the responsibility for government to try to ensure that we are there making it easier for everyone wanting to have a go’.

Across the Tasman in New Zealand, the current National-led government has a target to reduce greenhouse gas emissions by 50% by 2050 compared with 1990 levels. But it has no long-term strategy to achieve this target (Macy, 2014). Moreover, it has systematically weakened the emissions trading scheme, introduced by the previous Labour-led government in 2008, thereby rendering it increasingly ineffective (Bertram and Terry, 2010; Cameron, 2011; Macey, 2014). The government has also decided to exclude about 50% of the country’s greenhouse gas emissions from the scheme – apparently forever. Like their Australia counterparts, the New Zealand authorities are committed to boosting oil and gas exploration and production – and quickly. The unspoken strategy is to make as much money as possible from fossil fuel production before the global community finally takes firm action to limit greenhouse gas emissions. Australia and New Zealand are not alone in adopting this approach. Brazil, Canada and many other countries are almost certainly following a similar path.

It must of course be acknowledged that climate change is a highly complex policy issue (see Stern, 2006; Nordhaus, 2013). It is characterized by a global collective action problem, huge uncertainties relating to impacts, timeframes and potential technological solutions, a range of challenging spatial and inter-temporal distributional issues, complex politically-relevant asymmetries, a daunting array of policy options and trade-offs, and formidable ethical and regulatory issues. In these circumstances, it would be unwarranted to blame inadequate policy responses by many governments over recent decades merely on political short-sightedness or the application of an unjustifiably high discount rate. Plainly, the causes of the policy dysfunction in this area are multiple.

Yet much simpler policy issues can be identified where political short-termism is more clearly the chief culprit. An obvious case involves the failure of many governments to take appropriate early corrective measures to deal with the well-understood fiscal consequences of demographic change. The current

underfunding of Social Security in the United States is a classic example (see Committee on the Fiscal Future of the United States, 2010; NAPA, 2014). On existing policy settings, the main Social Security Trust Fund (the Old-Age and Survivors Insurance) will be fully exhausted by around 2033, less than 20 years away. Yet here is an issue of relative simplicity: the relevant modeling of future liabilities is straightforward; there is a high level of predictability; the evidence highlighting the unsustainability of current policy settings is both compelling and widely understood; there are a number of straightforward policy options, and their pros and cons are clear. Yet despite this, policy makers have chosen to delay taking action, thus constraining future decisions and making the available choices all the harder.

There are many other policy examples where short-termism casts a long shadow. Amongst these is the failure of many governments across the democratic world to invest adequately in cost-effective, evidence-based programmes, such as early intervention to address childhood poverty, health needs and learning difficulties (see Boston and Chapple, 2014). Likewise, one can point to the very modest public funds allocated to health care prevention when compared to the huge resources devoted to the provision of curative service, or the limited investment in prisoner rehabilitation and reintegration despite huge expenditures on correction services and high rates of recidivism.

In summary, there is much evidence that democratic decision-makers often short-change the future. This evidence applies across numerous policy domains and multiple jurisdictions of widely varying constitutional arrangements and political cultures. Accordingly, it is reasonable to conclude that the long-term governance problem is both real and serious.

### **Research approach**

This research project has four main areas of focus. First, there is the issue of how best to define the long-term democratic governance problem. Put differently, is there one main problem or a series of separate yet closely related problems? For instance, are democracies ‘systematically biased in favour of the present’ as Dennis Thompson (2005) contends? Second, having defined the problem or problems, what are the causes and which are most important? Further, to what extent and in what ways do the causes vary over time, between jurisdictions and across relevant policy domains? And which of the causes can be most readily addressed? Third, what efforts have been made (e.g. constitutional, institutional or regulatory) over recent decades within democracies to help address the long-term governance problem and how effective have these been? Finally, what other possible solutions have been advocated and which, if any, of these is likely to be feasible, effective and desirable? While the problem definition (or definitions) and the causes of the problem are important to identify and evaluate, the primary objective is to explore possible solutions and assess their merits.

In undertaking this investigation, I am focusing primarily on the problem of long-term governance in *democracies*, and more particularly countries with developed economies. This is not to suggest that non-democratic regimes are immune from the dysfunctions of political short-termism or policy shortsightedness, but my interest – at least for this project – lies in enhancing the quality of democratic governance rather than reforming non-democratic regimes. Further, I am limiting my consideration of solutions to those which can be regarded as broadly democratic in nature. I am not interested in anti-democratic solutions. No doubt there are those who question whether feasible and effective democratic solutions can be found. From this perspective, benevolent dictatorship may offer the only viable way forward. The evidence, in my view, does not justify such a grim conclusion. Having said this, in some particular situations, the feasible, democratically acceptable options for improving long-term governance may be limited.

My overall approach is comparative and qualitative. I am focusing principally on the governance of nation states, rather than global governance or the role of international organizations. But I recognize that in many policy areas – such as the management of systemic financial risks and pandemics, and the stewardship of the global commons – national and international governance are inextricably linked. Likewise, my primary focus is at the national or federal level rather than the sub-national level.

For a variety of reasons, I am giving particular attention to the experiences of four developed countries with long-standing democratic traditions – Finland, New Zealand, the United Kingdom and the United States. These countries have diverse constitutional frameworks and political institutions, as well as significant ideological, cultural and policy differences. Such differences help illuminate the varied dimensions of the long-term governance problem. To help make the project manageable, I am focusing on a limited selection of policy issues rather than trying to cover all potentially relevant topics. In terms of data gathering, I am exploring a wide range of secondary sources and conducting open-ended and semi-structured interviews with politicians, civil servants, researchers, business leaders and civil society representatives in the four jurisdictions. To date, I have completed about 70 interviews. I have also met with small groups and received useful feedback from a series of presentations to audiences across the four countries. The interviews and discussions have almost all been enormously rewarding and illuminating, and I am extremely grateful to all those who have made themselves available to discuss my project.

### ***Challenges***

I am deeply mindful of the enormous scope and scale of this topic. The relevant literature is vast. It traverses numerous academic disciplines – economics, history, international relations, political science, philosophy, psychology, sociology, management studies, strategic studies, futures studies, and cognitive science to name but a few. There are many different analytical, theoretical and philosophical perspectives, including public choice theory, systems theory, complexity theory, complex adaptive systems theory, organizational theory, the insights of behavioural economics and social psychology, and research in such areas as performance management, risk management and disaster management, fiscal policy, environmental sustainability, and so forth. The relevant literature also deals with many different dimensions of the issue. This includes detailed treatments of the nature and contours of the governance problem, lengthy discussions of the causes and consequences, and a vast array of suggested solutions.

Further, the topic raises a multiplicity of normative, conceptual, analytical and empirical questions. In normative terms, there are, as noted above, fundamental questions about the nature of *good* governance, and more particularly, good *long-term* governance. What are the relevant criteria for making qualitative judgments and how should such criteria be applied? Further, given the necessity in many policy areas of making inter-temporal trade-offs, what principles should be used to determine what is fair and reasonable? How should benefits and burdens be allocated over long periods of time? What discount rate, for instance, should be adopted (see Caney, 2008, 2009; forthcoming)?

From an empirical perspective, many fascinating questions also arise. For instance, in relation to cognition and decision-making, how do human beings perceive time and process inter-temporal information? How do people understand and contemplate the future, how are various outcomes which occur over time weighed and assessed, and how are inter-temporal choices made (see Scholten et al, 2014; Sunstein, 2014, pp.35-37)? Likewise, in what ways do people, including political leaders and other decision-makers, vary in their handling of inter-temporal trade-offs? At the broader societal level, to what extent and in what ways does the quality of long-term governance vary over time, between countries and across policy domains? What are the critical determinants of the variations that can be observed? What role do political, social and cultural institutions play (see, for instance, Knight and

Sened, 1988; Weaver and Rockman, 1993)? These are just some of the many issues pertaining to this topic.

### **Initial Findings or Emerging Understandings**

Let me now turn to some initial findings or emerging understandings. I will summarize these in the form of eight propositions and discuss each in turn. I must emphasize, however, that I am only part of the way through my research, so what follows is necessarily tentative and incomplete.

***Proposition 1: Enhancing long-term governance constitutes a wicked and complex problem. This implies the need for caution and realism about the prospects for improvement, but provides no grounds for despair***

A diagnosis of the problem must precede any attempt to prescribe a solution. With respect to diagnosis, the long-term governance problem has many of the characteristics often associated with so-called ‘wicked’ policy problems, as originally identified by Rittel and Webber (1973). For instance, the relevant literature contains multiple problem definitions and there is no agreed or definitive formulation; the problem, although analytically distinct, is connected to numerous other problems, and can also be regarded as a symptom of some of these; the problem has multiple and complex causes; there is no fixed set of potential solutions; there are multiple intervention points; most of the suggested solutions are difficult to test, and at best can be expected to yield only a modest improvement; and most of the ideas for reform face one or more significant constraint, whether normative, constitutional, political, institutional or economic. With respect to the causes of the problem, there is wide agreement that these include innate aspects of the human condition, the abiding phenomenon of uncertainty, including deep uncertainty (Walker et al., 2012), and multiple political and institutional factors. While some of these can be tackled in various ways, others constitute an inherent and immutable feature of reality (e.g. our uncertainty about the future). Hence, they must be accommodated, tolerated or circumvented rather than overcome.

To compound matters, the long-term governance problem has two of the three characteristics associated with ‘super-wicked’ problems, at least as defined by Richard Lazarus (2009). For one thing, those endeavouring to solve the problem are also amongst the very people who are causing it. Hence, they are likely to face contradictory pressures. For another, there is no inter-temporal authority or governance structure enduring across multiple generations that is able to enforce lasting solutions, ensure that costly long-term policy investments are properly implemented or hold recalcitrant governments to account. Accordingly, whatever policy farsightedness the current generation of policy-makers may be able to muster at any given juncture they face two related, ongoing challenges. First, there the long-term assurance or compliance problem: how can policy makers ensure that their successors also exercise farsightedness? Second, there is the problem of ‘dynamic inconsistency’ or ‘time inconsistency’ – that is, a person’s preferences in Time 1 may diverge from their preferences in Time 2, and their future actions may undermine their earlier decisions. In terms of policy consistency, how can political leaders bind their future selves to remain committed to a prudent long-term strategy, especially if there are powerful, electorally-driven temptations to defect? If such problems cannot be overcome, there is an obvious risk that prudent, long-term policy investments will not deliver their hoped-for gains. This risk, in turn, poses a further challenge: what is the logic of making costly policy investments today if the long-term payoffs are highly uncertain? After all, there is little point making hard choices in the short-term if there is little prospect of future benefits. The immediate question posed by such a dilemma is whether policy-makers can bind themselves and their successors in order to increase the chances of desirable long-term goals being achieved. Is some kind of commitment device available and, if so, what particular sort of device might be most appropriate and effective? I will return to this matter shortly.

One other dimension of the long-term governance challenge deserves underscoring: the problem is characterized by a complex relationship between cause and effect, with causal relations often being hard to establish with any certainty in advance. For instance, it is typically unclear exactly what effect a proposal ‘solution’, such as an institutional reform or policy change, will have on decision-makers’ inter-temporal preferences or how it will affect their approach to policy problems with significant inter-temporal trade-offs. We can, of course, surmise and draw on previous experience, but given the multifaceted and constantly evolving nature of social environments we cannot be certain. Indeed, causal relationships may only become clear in retrospect, perhaps long after a particular course of action has been adopted. Using the Cynefin (pronounced Cu-nev-in) framework developed by Snowden and Boone (2007), therefore, the long-term governance problem fits primarily within the ‘complex’ category, rather than the ‘simple’, ‘complicated’ or ‘chaotic’ categories. If this diagnosis is correct, then the problem does not lend itself to the ready preparation of a *best* practice guide – or even a *good* practice guide! There are typically no simple ‘right’ answers or universally applicable solutions. Rather, the relevant territory is that of emergent and adaptive practice, the domain of trial and error. In accordance with the Cynefin framework, the appropriate approach in such circumstances is one of probing, making sense and then responding – or learning through experimentation, evaluation, iteration, adaptation and refinement. Taking the ‘complexity’ of the problem seriously, therefore, has major implications for how it should be conceptualized and tackled (see Collander and Kupers, 2014; Room, 2011).

Yet, to suggest that the challenge of governing well for the future is ‘complex’ or ‘wicked’, and perhaps even ‘super-wicked’, does not render improvement impossible. The causes of the problem may well be multiple, deep-seated and enduring, but there are no grounds for fatalism or despair. For one thing, it is clear that human beings have dual capacities or tendencies – including the capacity for both short-term and long-term thinking, self-interest and altruism, instant gratification and deferred enjoyment, self-indulgence and self-restraint, impulsive decision-making and reflective contemplation (Kahneman, 2011; Princen, 2009). The challenge, in Kahneman’s language, is how to ensure that our System 1 thinking, which is impulsive and myopic, is tempered adequately by our System 2 thinking.

For another, the historical evidence suggests that democratic governments are not compulsively or inescapably myopic. To be sure, there is evidence of a bias towards short-termism, but policy shortsightedness is not inevitable. To quote Jacobs:

While the myopic pressures of electoral politics are indeed formidable, the actual record of policymaking in the democratic world suggests a far more complicated pattern. Even a casual glance at the cross-national policy landscape suggests that democratic governments have, in a range of spheres, made widely differing inter-temporal policy choices (2011, p.5).

Hence, across the democratic world numerous examples of far-sighted policies can be identified, including cases of governments taking brave decisions to protect long-term interests in the face of significant political opposition and in the firm knowledge that substantial short-term costs – both economic and electoral – are highly likely. In reference to the United States, the Government Accountability Office in a major report in 2005 on the challenges facing policy-makers in the 21<sup>st</sup> century made the following observations:

Some may be skeptical as to whether our political system is able to address long-term problems or commitments. However, such skepticism ignores past examples of attention to long-term goals. The interstate highway program took a generation to plan and complete. The Social Security system was created with very long time horizons in mind and has undergone major restructuring in both 1977 and 1983, with an eye toward improving the program’s longer-term

sustainability. As a nation, we also anticipated, and as a result met, the educational capacity needs of the baby boom all the way from primary school to college (GAO, 2005, p.81).

In short, the available evidence does not support the grim and pessimistic conclusions, often associated with a public choice perspective, that policy myopia is inevitable. Policy-makers are not driven solely by narrow electoral imperatives; they are not simply opportunistic, untroubled by long-term policy goals, programmatic commitments or ethical principles. Nevertheless, by virtue of being a wicked problem, none of the many solutions on offer can be expected to be fully effective or sustainable over lengthy time periods. Each generation of policy-makers must, therefore, continue to wrestle with the challenge.

***Proposition 2: The gravity of the long-term governance problem varies, and is particularly acute in certain political and policy contexts***

While the long-term governance challenge arises in all democratic systems, the evidence also suggests that the magnitude and complexity of the challenge varies. Relevant contextual factors affecting this variability include the constitutional rules, the structure of organized interests and party competition, the degree of ideological polarization, the level of societal trust and reciprocity, the characteristics of particular policy problems and the pay-off structure associated with various policy solutions. There can be little doubt, for instance, that securing agreement on how to address major long-term issues, such as fiscal and environmental sustainability, is much harder when there are multiple veto points, when the policy community is deeply divided ideologically and when trust in government is low. Without at least a modest consensus on long-term policy goals and how best to achieve them, governing well for the future will be difficult – as is readily apparent in the United States at present.

Similarly, particular kinds of policy problems pose especially serious challenges for prudent long-term governance. The most difficult problems are those exhibiting one or more of the following characteristics: high complexity; low predictability and causal certainty; spatially dispersed effects; impacts that are mostly experienced in the future and/or are largely invisible and intangible (thus reducing the apparent urgency to respond); impacts that fall predominantly on politically weak or marginalized groups; and, as noted earlier, problems which require investment-type solutions (i.e. up-front costs are required in order to secure long-term benefits). Human-induced climate change exhibits most, if not all, of these features, which helps account for the difficulty of securing prudent policy responses. But many policy problems also exhibit investment-type payoff structures, thus creating a temptation for inter-generational buck-passing. Such temptations will be all the greater when the short-term costs are direct, specific, certain, tangible and visible while the long-term benefits are more generalized, less certain and more intangible.

Dealing with asymmetrical pay-offs of this nature poses the hardest dilemmas for those seeking prudent long-term governance. It is also where the greatest effort is required. Possible solutions may include reframing the policy problem in a manner likely to broaden the level of political support or adjusting the distributional and inter-temporal payoffs in order to reduce short-term opposition and electoral losses. Changing the choice architecture facing citizens and consumers may also offer a way forward in certain policy contexts (see Sunstein, 2014; Thaler and Sunstein, 2008). I will return to the issue of political tactics shortly. For now the critical point is this: for a solution to be feasible and effective it must be tailored to the requirements of the specific constitutional, political and policy context. Generic approaches are unlikely to gain traction. This brings me to a third proposition.

***Proposition 3: The long-term governance problem requires multiple solutions, but many of the proposals that have been advanced in recent decades are unlikely to meet the critical tests of feasibility, effectiveness and desirability***

Even a cursory exploration of the relevant literature dealing with the challenges of long-term governance reveals an astonishing variety of reform proposals designed to mitigate the problem.<sup>1</sup> The proposals cover virtually every option in the policy tool kit; they touch upon all stages of the policy cycle, from agenda setting to evaluation; they address every level of public governance, including reforms to international, national and sub-national institutions; and they cover many different fields of human endeavour, including both the business and not-for-profit sectors. Many of these proposals have been implemented in one form or another somewhere across the democratic world over recent decades, but many others are novel and untested.

Thus far, I have identified over a dozen broad solution ‘types’ and well over 60 distinct proposals. But that number would swell greatly if all the various combinations and permutations were included. Table 1 outlines the main solution types and, within each type, a number of specific proposals. Some examples include:

1. reforms to global governance institutions, such as the creation of a High Commissioner for Future Generations;
2. constitutional reforms, such as new or stronger provisions to protect the interests, welfare and/or rights of future generations;
3. the transfer of important decision-rights to independent, non-elected bodies;
4. changes to electoral rules and voting rights;
5. changes to the design of executive and legislative institutions;
6. the strengthening of foresight mechanisms and planning processes;
7. the establishment of new strategic, analytical and advisory bodies focused on long-term issues;
8. the creation of new organizations with certain kinds of stewardship or guardianship responsibilities;
9. the instigation of new rules, both procedural and substantive, to constrain decision-makers;
10. the reform of budgetary systems, performance management regimes and accountability mechanisms;
11. the development of new conceptual frameworks, accounting conventions and analytical techniques, and much enhanced metrics, including a stronger focus on measures of wellbeing and stocks of natural capital; and
12. the genetic modification of human beings with the aim of enhancing our capacity for moral reasoning and ethical conduct.

Many of these proposals, of course, are designed with multiple objectives in mind, not merely the improvement of long-term governance. But whatever the precise goals, each proposal deserves a rigorous and objective assessment. For my project, three main evaluative criteria will be employed: *feasibility*, *effectiveness* and overall *desirability*.

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<sup>1</sup> See, for instance, Ascher, 2009; Binder, 2006; Boston et al., 2014; Boston and Lempp, 2011; Dewar, 2006; Dobson, 1996; Ekele, 2005, 2009; Elster and Slagstad, 1988; Fuerth, 2012; Gill et al., 2011; Gonzalez-Ricoy and Gosseries, forthcoming; Goodin, 2007; Helm, 2014; House of Commons Public Administration Select Committee, 2007; Jackson, 2009; James, 2013; Kay, 2012; Lempert et al., 2003; McLeod, 2013; Natural Capital Committee, 2013, 2014; O’Donnell et al., 2014; Oxford Martin Commission, 2013; Rejeski, 2003; Porritt, 2009; Thompson, 2005, 2010; Van Parijs, 1998; United Nations, 2013; Vestergaard and Wade, 2012; Ward, 2011; Welsh Government, 2014; Whitby et al., 2014; World Future Council, 2012, 2014.

All such criteria, of course, are open to debate and interpretation. What is technically or politically feasible will vary over time and space, and is often within the power of policy-makers to change. Plainly, however, proposals involving constitutional reform will be inherently more difficult to implement than those requiring only changes to ordinary statutes or regulations.

Assessing effectiveness poses a range of challenges. For proposals which have already been implemented somewhere, empirical evidence can be gathered. But this may be inconclusive. Also, a particular reform may achieve apparently positive results in one political context but not in another. Aside from this, many efforts to encourage better long-term governance have not survived the test of time. Numerous long-term advisory groups, for instance, have come and gone over the years, such as the Central Policy Review Staff in London (1970-83), the Priorities Review Staff in Canberra (1973-76), and the Planning Council in Wellington (1976-91). Much the same applies to bodies established to undertake strategic foresight activities or promote sustainability.

For untested proposals, assessing effectiveness poses even greater difficulties. Nevertheless, intervention logics for each proposal can readily be constructed and carefully scrutinized. For instance, the underlying assumptions which embody the various steps in the causal chain can be identified and their validity assessed. Likewise, the risks of failure can be evaluated and possible remedies considered. Table 2 provides some brief examples (the details of which could be greatly expanded). Given the uncertainties surrounding cause and effect, however, determining categorically in advance whether a particular proposal will enhance prudent long-term governance is not possible. Realistically, therefore, an experimental approach is the only option.

Overall, six distinct intervention logics underpin the various proposals for addressing the long-term governance problem. In other words, each proposal is presumed to make a difference through one or more of the following mechanisms:

1. By changing the *motives* of decision-makers (i.e. values, norms, preferences, priorities, etc.) and activating future-oriented interests and concerns (or what might be regarded as ‘internal drivers’);
2. By enhancing the *capacity* to make farsighted decisions (e.g. via better information, analytical resources, foresight processes, modelling, more holistic policy frameworks, etc.);
3. By changing the formal *constraints* within which decisions are made (e.g. via constitutional rules, procedural rules and substantive policy rules to limit decision-makers);
4. By *insulating* decision-makers from short-term political pressures;
5. By changing the political *incentives* facing decision-makers (e.g. via changes to public opinion/preferences, political culture, the balance of political forces, accountability mechanisms, outcome-based performance measures, etc.) (or what might be regarded as ‘external drivers’); and
6. By establishing new *coordinating* mechanisms to enable decisions to be taken which would otherwise not be possible (e.g. via new and/or stronger international agencies and instruments).

In effect, each of these intervention logics relies on changing some aspect of the *decision context* or *choice architecture* facing policy actors. But which particular logics are likely to be most effective and under what conditions remains uncertain.

Determining the overall desirability of each proposal necessarily involves a normative judgment, and reasonable people may well differ on their merits. For instance, there are some who believe that a constitutional amendment requiring balanced budgets is the best, and perhaps only, way to avoid long-term fiscal irresponsibility. Many others, of course, reject such a proposal, arguing that this would constrain decision-makers to an undesirable extent and wreck economic havoc. I strongly suspect that the

critics are correct, and in any case there are many other ways of encouraging greater fiscal discipline (see, for instance, Boston and Prebble, 2013; Cullen, 2013; Hagemann, 2011; Heller, 2003a, 2003b, 2006; Posner, 2011; Redburn, 2014; Upton, 2013).

I have yet to complete a proper evaluation of the dozens of proposals for mitigating the long-term governance problem. But my initial assessment is that many proposals, while no doubt well-intentioned, are likely to be neither feasible (at least in many contexts) nor effective. Similarly, the desirability of many proposals is questionable, whether on constitutional, philosophical or ethical grounds. For instance, there are various suggestions for changing voting rights and the composition of legislatures, such as reducing the age of eligibility for voting, weighting the votes of younger citizens more highly, removing the right to vote from those over a certain age, and providing for the representation of future generations in legislative assemblies (see Table 1). In theory, such reforms are designed to encourage governments to give greater weight to long-term interests and better protect the welfare of future generations. However, the intervention logics often rest on questionable assumptions, and some of the proposals are inherently illiberal or anti-democratic. Likewise, proposals for the moral enhancement of humanity through genetic manipulation pose huge ethical concerns.

Based on my initial inspection, the tests of feasibility, effectiveness and overall desirability seem likely to remove a substantial number of proposals from serious contention. But this still leaves no shortage of ideas that may have merit. Of these, the following warrant particular attention:

1. strengthening and expanding the range of commitment devices used to incentivize and constrain the actions of decision-makers;
2. enhancing the role of stewardship or guardian-type organizations;
3. improving governments' strategic foresight capacity and better integrating this into the policy process;
4. improving the analytical frameworks used in policy analysis (e.g. with respect to the handling of discounting, natural capital and ecosystem services, etc.);
5. enhancing the metrics employed for assessing, monitoring and reporting on performance (see Stiglitz et al. 2009); and
6. developing more comprehensive systems of national accounting (e.g. see the World Bank project on Wealth Accounting and Valuation of Ecosystem Services or WAVES).

With respect to prudent environmental stewardship, which is essential for good long-term governance, there is a strong case, in my view, for establishing new and more demanding rules for managing stocks of natural capital, both renewable and non-renewable. The British government, for instance, established a Natural Capital Committee in 2012 to advise on the sustainable use of natural assets (see Natural Capital Committee, 2013, 2014). The Committee is considering a number of far-reaching policy principles to govern the management of natural capital stocks. The most demanding of these would require societies to bequeath to future generations an aggregate stock of renewable and non-renewable natural capital that is at least equivalent to, if not better than, at present. Under such an approach, any loss of *non-renewable* natural capital would need to be fully compensated via 'equivalent' forms of natural capital (not by other forms of capital, such as manufactured or human capital). Losses of *renewable* natural capital would need to be fully compensated via offsets of natural capital elsewhere (see Helm, 2014). Applying such rules would pose a range of conceptual, analytic and measurement issues. Nevertheless, proposals of this kind could have profound consequences in terms of promoting environmental sustainability. They would, of course, require global implementation to be fully effective.

***Proposition 4: Governing well for the future requires a focus on both the demand-side and the supply-side of the democratic process***

If the long-term governance problem is to be mitigated, it is essential to consider both the demand-side and the supply-side of the democratic process (Coston, 1998). Fundamentally, this means addressing political incentives, on the one hand, and analytical and delivery capacity, on the other. Similarly, efforts are required at each stage of the policy cycle to ensure that long-term interests are properly identified and weighed in the balance. This must include attention to data sources, strategic foresight, the methods and models of policy analysis, the criteria used for decision-making, and systems for policy feedback and evaluation.

On the demand-side, democratically-elected governments understandably respond to electoral pressures, with the quantity, pattern and intensity of these pressures affecting their policy choices. As noted earlier, there are bound to be strong electoral pressures for policy-makers to prioritize short-term interests over longer-term considerations. Future generations, after all, have neither a voice nor a vote; and there is evidence that current voters tend to favour proximate payoffs over distant benefits (see Jacobs and Matthews, 2012). But policy makers are also independent actors: their actions can help shape the demand conditions in which they operate; their actions also influence what demands are placed on other actors in the policy community, including policy advisers, regulators and those involved in service delivery. At the same time, the capacity of elected officials to respond to demand-side pressures depends on various supply-side factors, including the policy instruments that are available, and the ease and effectiveness with which these instruments can be deployed.

Overall, addressing the demand-side is more challenging than the supply-side; certainly this has been the view of interviewees. If the inter-temporal asymmetry on the demand-side is to be mitigated, ways must be found of bringing the long-term into short-term political focus; that is to say, we need to increase the incentives on policy-makers to give proper attention to future interests. Obviously one option, at least conceptually, is to shift voters' inter-temporal preferences so that they give greater weight to their future interests (i.e. their future selves) and the generations who will follow. But this is not easy, and even when long-term threats become more politically salient – perhaps as a result of major focusing events – sustaining a heightened focus on the future for lengthy periods is difficult. While not ignoring the issue of voters' inter-temporal preferences, therefore, other ways of magnifying the voice of the future need to be found. This could include additional efforts to identify, monitor and report on long-term risks and vulnerabilities, procedural or even legal requirements for decision-makers to take future interests properly into account in all decisions with significant long-term consequences, and the establishment or strengthening of agencies with long-term guardianship roles – that is, agencies which have a formal mandate to speak for, or protect, future interests, including a healthy and sustainable environment. As part of such a strategy, there must be a proper emphasis on the foresight capability of governments, which I will turn to shortly.

But one other point deserves highlighting: if there is only a limited capacity to change the structure of political demand to incentivize policy-makers to give adequate weight to long-term considerations, then other options must be considered. These include additional legislative *constraints on what policy-makers are able to decide* and *transferring formal decision-rights* on designated policy matters to bodies that are partially insulated from short-term political pressures. In each case, of course, the overall desirability of such options must be carefully weighed. Not all constraints and insulating techniques are democratically acceptable.

***Proposition 5: Improving strategic foresight capability is critically important, but foresight activities must be properly embedded within the political system and adequately coupled with day-to-day policy-making***

All governments in developed democracies undertake or sponsor strategic foresight activities of various kinds. But countries differ greatly in the extent to which they invest in structured foresight, the kinds of activities that are conducted, how well such activities are embedded within the political system and how much they influence day-to-day governmental decision-making (see Dreyer and Stang, 2013; Fuerth, 2012). Britain, Canada, Finland and Singapore, for instance, invest quite heavily (e.g. see the numerous reports of Horizons Canada on long-term issues).

In brief, foresight involves producing greater knowledge of possible futures. As Sardar (2010) highlights, the focus is neither on prophesy nor prediction – that is, knowledge of what *will* happen – but rather ‘manufactured knowledge of [a] restrictive number of possibilities’. Such possibilities are generated via a range of methodologies, such as horizon scanning, the analysis of trends and the creation of scenarios, and various techniques, such as the Delphi method, which are designed to ascertain the level of agreement amongst experts about the likelihood of certain outcomes (Dreyer and Stang, 2013; Lempert et al., 2003; Lempert, 2007b). An important objective of such activities is to identify important trends, emerging issues and potential risks in the hope that such information and analysis will enable policy makers to take corrective measures, thereby avoiding crises or being blindsided by events. Foresight activities can also identify emerging opportunities, and thus facilitate new and beneficial initiatives.

In terms of the long-term governance problem, systematic foresight has the potential to play an important role in generating (or expanding) the *capacity* for policy-makers to engage in ‘anticipatory governance’ – to envision, imagine, strategize and respond. Hence, in some respects it is more relevant to the supply-side than the demand-side of the problem. At the same time, robust and well-designed foresight processes can also affect the *context* of decision-making in ways that may enhance the political *incentives* on policy-makers to make prudent long-term decisions. For instance, if the processes engage the key players in the political community on a regular basis, they can help build a shared understanding of possible futures and thereby influence attitudes and motivations. They can also exercise a political *constraint* in the sense that once looming policy problems or hard choices have been clearly identified and widely discussed, it is more difficult for them to be ignored. Further, the conduct of high-quality foresight processes and the production of useful and timely outputs (e.g. reports and advice) not only increases the capacity for anticipatory governance but may also help induce greater demand for long-term thinking and wise stewardship. Nevertheless, it is readily apparent that a greater foresight capacity does not guarantee that this resource will be used by policy-makers – or that it will be employed wisely. Hence, one of the critical questions, in terms of institutional design, is how to build a close linkage between foresight processes and on-going governmental policy-making.

The Finnish approach to foresight, which I investigated earlier this year, is highly instructive in this respect (see Committee for the Future, 2012; Kuosa, 2011, pp.33-46; Prime Minister’s Office, 2009, 2013, 2014; Tiihonen, 2011). Over the past few decades Finland has developed a unique institutional framework for incentivizing thinking about the future, with processes that are comprehensive, cooperative, continuous, embedded and relatively well-resourced. The Finnish model is the product of a distinctive and often painful history: a relatively small nation on the margins of Europe which has been vulnerable to aggressive neighbours (especially Russia) and economic shocks, most recently the collapse of the Soviet Union in 1990, the global financial crisis (2008-10) and the Euro crisis (2010-12). The Finnish foresight regime represents a deliberate and concerted effort by policy makers to prepare for surprises, build a more resilient economy and society, and foster an innovative, forward-thinking, adaptive, learning culture.

The current Finnish model is built on at least five separate, yet closely related, pillars:

1. a significant public investment in futures research, training and related activities including a strong network of futures-oriented organizations, such as the Finnish Society for Futures Studies (established in 1980), the Turku-based Finland Futures Research Centre (established in 1992) and the Finland Futures Academy network (established in 1998), and dedicated foresight units in various government agencies;
2. the coordination of foresight activities via a Government Foresight Network (created in 2004) and, more recently, the establishment of a high-level Government Foresight Group;
3. a constitutional requirement since the early 1990s for the government to produce a report on the future during each parliamentary term (i.e. every four years);
4. the conduct of an increasingly wide-ranging and transparent national foresight process as an integral part of the government's preparation of its report on the future; and
5. the establishment in 1993 of a Parliament Committee for the Future (which became permanent in 2000) with a mandate to investigate major long-term policy issues, consider the impact of important trends and developments (e.g. new technologies), and review the government's report on the future.

These 'pillars' sit on top of the normal governmental processes which are fundamental to sound decision-making, including prudent long-term governance: the generation of robust and comprehensive data (e.g. via the system of national statistics), the conduct of detail policy analysis, the setting of goals, targets and strategies for specific policy areas, the regular preparation of detailed, long-term revenue and expenditure forecasts, the prioritized allocation of resources through the annual budget process, and the implementation of rigorous performance management systems (including regular monitoring, reporting and evaluation).

The Finnish foresight model has undoubted strengths. First, it encourages all the key actors in the policy community – cabinet ministers, parliamentarians, senior civil servants, business leaders, civil society representatives and researchers – to reflect periodically on some of the major long-term challenges facing Finland and how these might be addressed. It also brings together many of these actors in deliberative settings, both in the capital (Helsinki) and other centres across the country. In so doing, it helps foster a deeper understanding of, and to some extent a shared perspective regarding, the main problems that need to be tackled, the nature of the policy trade-offs and choices available, and the strengths and weaknesses of the principal options. While such a process does not necessarily generate a political consensus on the best way forward, it certainly provides an opportunity for consensus building and probably makes it easier politically for governments to make tough decisions, including investment-type decisions which entail the imposition of short-term costs (or losses). In other words, such a process, if well managed, can help blunt opposition to hard choices, temper the level of party competition and reduce the electoral risk associated with such choices.

Second, a relatively open, deliberative, nation-wide foresight exercise now forms an integral part of the process of preparing the government's report on the future (see Prime Minister's Office, 2014). This exercise provides an opportunity for the leaders of Finnish society to engage periodically in a structured process of what might be called 'collective imagining' or 'institutionalized visioning' – that is, imagining what the future could be like, reflecting on how it might be shaped through cooperative action, and deliberating about what Finland should aspire to become and how such aspirations might be achieved. Importantly, too, the foresight process is closely coupled with the Finnish innovation system and the wider research community through the participation of senior academics and representatives of the major research funding bodies – the Academy of Finland, Tekes (the Finnish Funding Agency for Innovation)

and Sitra (the Finnish Innovation Fund). Few other countries undertake this kind of formal, high-level ‘imagining’ on a regular basis, or if they do, the foresight processes are much less open and transparent (e.g. as in China and Singapore) or are limited to specific policy domains (e.g. national security, as in the US) (see Dreyer and Stang, 2013; Kuosa, 2011).

Third, the constitutional requirement for governments to produce a report on the future every parliamentary term, together with the establishment of a permanent parliamentary committee dedicated to thinking about the future and the more recent legislative requirement for foresight processes to be conducted at the regional level, serve as political ‘commitment devices’. They oblige the political community to undertake forward thinking and strategizing on a regular basis and in a reasonably comprehensive and systematic manner. As a result, there is no choice but to devote time, energy and public resources to such tasks. In a sense, therefore, the Finnish political community has bound itself to the most of futures thinking; it has no choice but to engage. Of course, this does not guarantee high-quality outcomes; nor does it mean that major policy decisions are different from what might otherwise have been the case. But it certainly increases the chances that such decisions will be better informed and tempered by a longer-term perspective.

Fourth, the establishment of a permanent Parliamentary Committee for the Future not only ensures that the legislature undertakes regular horizon scanning and considers some of the big long-term policy problems facing the country (especially in relation to the impact of technological change), but it also provides a training ground in foresight methods and approaches for many of those who will subsequently become cabinet ministers (see Tiuhonen, 2011). Over the years, quite a few Committee members have been appointed into the ranks of the executive, including several who have become the leaders of their respective political parties. While it is impossible to assess to what extent and in what ways service on the Committee changes how politicians think, including how they reflect on the future or make inter-temporal judgements, it is highly likely that the kind of investigations undertaken by the Committee and the processes it employs will enhance the members’ awareness of long-term risks and opportunities and increase their sensitivity to the interests of future generations.

Fifth, the preparation of the periodic governmental reports on the future is overseen by senior ministers, including the Prime Minister, and coordinated by the Prime Minister’s Office. It thus involves policy-makers at the highest level in the Finnish political system. This helps ensure that government departments and agencies, as well as influential external actors in the policy community, take the process seriously. Accordingly, there is no problem in securing high-level participation in the related foresight exercises, both formal and informal. Such buy-in and engagement would not be possible if the process were to be conducted by a government agency and lacked significant ministerial involvement and ‘ownership’.

Sixth, the Finnish foresight model is relatively flexible, adaptive and the subject of regular scrutiny. During the past decade, the government has twice evaluated key aspects of the model – most recently in 2014 – and on both occasions a variety of changes were instigated (see Prime Minister’s Office, 2014). Critical scrutiny and periodic refreshment is likely to reduce the risk of ossification and help ensure that the model remains both relevant and sustainable.

Against this, the Finnish foresight model is not without weaknesses and limitations. First, on the output side, the most recent government report on the future – on the theme of *Well-being Through Sustainable Growth* – is relatively bland, generalized and predictable. More surprisingly, it contains no analysis of alternative scenarios, has no discussion of ‘black swan’ events or lesser surprises, and is devoid of explicit long-term policy targets. While emphasizing the need to build a more resilient society, it says relatively little in practical terms about how this might be achieved. Equally, while endorsing a range of

high-level, long-term political goals and identifying some of the difficult domestic and external challenges facing Finland, it largely avoids discussion of alternative policy choices and their respective costs and benefits. Nor does the report outline a clearly defined medium-term strategy for moving towards the realization of the long-term goals.

Second, interviewees noted that although most of the key policy-makers are involved to one degree or another in the periodic foresight processes, there remains a disjuncture between foresight-type deliberations and day-to-day governmental policy making. The two processes are largely separate, not helped by the fact that the Prime Minister's Office has only a limited strategic-policy capability, having allocated remarkably few resources to support futures thinking.

Could the Finnish model be replicated in other democracies? Currently, while most countries invest in foresight activities of various kinds (see Dreyer and Stang, 2013; House of Commons Public Administration Select Committee, 2007; House of Commons Science and Technology Committee, 2014), no other long-established democracy has either a parliamentary committee on the future (or an equivalent) or a constitutional requirement for regular government reports on the future. To be sure, governments in various countries produce reports from time to time on major long-term challenges (for instance, see Commission on the Future of Sweden, 2013), but these are usually one-off exercises rather than part of a structured on-going process. Similarly, few countries have the same degree of regular, high-level political engagement in futures thinking as is evident in Finland.

Replicating the Finnish model elsewhere poses a number of difficulties. First, there is the challenge of generating, and then sustaining, the necessary political demand for a more comprehensive, regular and better integrated system of foresight. Not all politicians see the value in strategic foresight, and there is the constant pressure to attend to short-term demands. Realistically, therefore, regular, embedded foresight processes will not be sustainable without new institutional arrangements, dedicated resources and some means of binding successive governments to maintain their investment in futures thinking – such as a legislative requirement for periodic reviews and government statements. But such mechanisms do not arise automatically or spontaneously: they require substantial political effort to establish – as the Finnish experience highlights (see Tiihonen, 2011).

Second, Finland is a small, relatively homogeneous, parliamentary democracy, with little over 5 million inhabitants. Conducting a regular, open, national, foresight process in such a political system is manageable. Doing so in larger democracies would be much harder. Yet size is not the only barrier. Ideological and constitutional hurdles also arise. In the United States, for instance, the executive branch could readily prepare a regular report on the future, mapping out the long-term challenges the nation faces and how the federal government planned to tackle these challenges, but without buy-in from the Congress or a future President such exercises might achieve rather little. President Jimmy Carter, for instance, commissioned a report in May 1977 exploring the major issues facing the world over the coming decades. The Global 2000 project was directed by Dr Gerald O. Barney and produced a substantial and impressive document – *The Global 2000 Report to the President* – in July 1980. But the report was largely ignored by the Reagan Administration, and no similar reports have been commissioned by Presidents since then (Rejeski and Wobig, 2002, p.15).

Undertaking comprehensive, regular and meaningful foresight processes will be all the harder in countries with deeply divided or polarized political communities. While such processes do not require agreement on values or goals, generating useful results will be much harder if there are divergent views about the nature of the policy problems that need to be faced or if major parts of the political community dispute the existence of certain problems, notwithstanding overwhelming evidence to the contrary. In the United States, for instance, the rejection by many leading Republicans of the findings of the scientific

community with respect to anthropogenic climate change poses formidable obstacles to the use of foresight processes to guide and improve long-term governance.

But, as James Thurber (2013, p.332) highlights, it is not only climate change where ideological divisions limit the capacity for prudent governance. The lack of a 'vigorous bipartisan centre' has also thwarted progress on a range of 'crucial issues' like 'job-creation programs, tax reform, the rising accumulation of public debt, the looming Medicare and Medicaid shortfall, immigration reform, gun control, a failing education system'. As Thurber (2013, pp.332-33) laments:

Our separated system of government that is polarized and ideologically deadlocked seems incapable of effectively confronting these critical public policy challenges and may lack the reserves of comity and trust to face any unknown and sudden – and perhaps even more dangerous – crises.

Fortunately, few other Western democracies currently display the same degree of polarization and gridlock.

How best to design a foresight system will depend on the particular constitutional, institutional and cultural conditions of the country in question. With respect to the United States, for instance, Leon Fuerth (2012) has produced a detailed and thoughtful blueprint of how a foresight system could be constructed. Under his approach, there would be: a small foresight unit inside the White House; a Presidential Advisory Council for Foresight; a virtual organization bringing together those involved in foresight activities across the federal government; various mechanisms for linking foresight and policy-making (including strategies for encouraging policy advisers to draw on foresight analysis); and additional training opportunities in foresight methods and approaches. Under Fuerth's model, the development of much better organized and professional foresight system would be part of an integrated series of steps to improve 'anticipatory governance'. Other critical elements include a stronger emphasis on networked governance and a greater investment in policy monitoring, evaluation and feedback systems.

There is much to commend in Fuerth's proposals, but two matters deserve further reflection. The first is how to ensure on-going presidential interest in, and hence demand for, foresight analysis. Without such interest, there will, as Fuerth (2012, p.25) acknowledges, be 'little incentive with the bureaucracy to produce foresight and integrate it with current analysis, and staff will revert to the routine of crisis management'. This, in turn, raises questions about the policy approach, intellectual disposition and leadership skills of those who achieve the presidency (and other senior policy-making roles) and whether there might be ways to enhance the value such individuals place on foresight activities. The assumption here, of course, is that a disposition for forward thinking and long-term strategizing can be nurtured and cultivated, for which cognitive science provides at least some evidence (Berns, et al., 2007). The second issue concerns the role of Congress in the foresight process and whether, as in Finland, there might be scope for establishing a committee, whether in the Senate, the House or perhaps a joint committee, specifically devoted to long-term issues.

The Finnish model is, of course, but one of a number of ways of conducting regular strategic foresight and embedding such activities within the political system. Nevertheless, it is a workable and, thus far, durable model. Part of the durability lies in the legally binding requirement to produce periodic government reports on the future and the permanent nature of the Parliamentary Committee on the Future. Such features can be seen as 'commitment devices', and it is to this topic that I now turn.

***Proposition 6: Improving long-term governance can be assisted by the use of commitment devices that bind future decision-makers or at least generate political incentives for maintaining prudent policy settings; how these commitment devices are designed is important***

As noted earlier, governing well for the future requires some means of addressing the problems of compliance and dynamic inconsistency. In other words, ways must be found to enhance the incentives on policy-makers to pursue a consistent long-term strategy over time and ensure that they are not deflected from a prudent path by short-term electoral pressures or other temptations. The literatures in the sub-disciplinary fields of social psychology and behavioural economics suggest that one solution may lie in the use of ‘commitment devices’ of various kinds, as these can serve as powerful drivers of human behaviour. The aim of such devices is to bind decision-makers to particular courses of action, thereby helping to mitigate any problems arising from inconsistent or fluctuating motives, a weak will or countervailing external pressures. They are relevant to all spheres of life, both public and private, but are particularly applicable to issues where the evolving pay-off structures may contribute to decisions dominated by short-term expediency. Commitment devices work by limiting actors’ future discretion or by reinforcing their desire to exercise self-restraint – whether by increasing the rewards for good behaviour or by penalizing bad behaviour (or via both mechanisms).

A famous historical example where a commitment device was employed to overcome the problem of dynamic inconsistency is that of Odysseus (also known as Ulysses), the legendary Greek king, and the Sirens, dangerous yet beautiful creatures with the capacity to lure sailors near to the rocky shores of their island. Desirous to hear the Sirens' enchanting songs but aware of the risk of being shipwrecked, Odysseus commands his sailors to block their ears with beeswax and bind him to the mast of the ship. Aware of the risk of acting irrationally in the future, he also orders his men not to heed his cries to release him from the mast when the ship passes the Sirens. By means of this commitment device, Odysseus attempts to limit his future agency and thus survive the perils of dynamic inconsistency.

Commitment devices vary greatly in their nature, design, durability and effectiveness (Binder, 2006; Brocas, et. al., 2004; Bryan et al, 2010; Debrun and Kumar, 2008; Hagemann, 2011; Rutter and Knighton, 2012; Sunstein, 2014). Distinctions can be made between hard and soft, formal and informal, public and private, procedural and substantive, and so forth. In the political and policy arenas such devices take many different forms and are widely used (although they are not always recognized as ‘commitment devices’).

At one end of the spectrum, they include constitutional provisions that are deliberately designed to limit the actions of future decision-makers and are deliberately difficult to change or circumvent (see Holmes, 1988; Sunstein, 1988). At the other end of the spectrum are such things as election promises and verbal commitments. The latter are reinforced by the risk of embarrassment, shame and the loss of credibility if they are not upheld. Between these two extremes are a wide range of mechanisms, including the setting of policy targets and goals, incorporating particular rules, procedures or requirements into legislation, establishing institutions with long-term missions, negotiating bipartisan or multi-party agreements on important long-term policy issues, and designing policies and programmes in ways that make them more difficult politically to alter – for instance, by establishing endowments and trust funds, creating social insurance arrangements based on individualized, earnings-related benefits, and so forth. If the aim of the commitment device is to help encourage a consistent pattern of behaviour over time, then the device needs to be workable, credible impose a genuine constraint (e.g. by being costly to change). Yet if the device is to be durable, there must also be the flexibility for policy makers to respond to unexpected contingencies. Designing devices that strike a sensible balance between these contrary imperatives requires skill and dexterity. In the end, governments can only constrain their successors to a modest

degree. Whereas Odysseus could rely on others to limit his future agency, governments always retain the power to unbind themselves.

Nevertheless, commitment devices have a long and impressive record in the political arena and, in my view, constitute a critically important instrument for enhancing prudent long-term governance. Examples include the setting of legislative principles for responsible fiscal management and sustainable resource management, the establishment of ‘guardian-type’ organizations, and the use of targets to help drive the achievement of desirable long-term goals.

In relation to targets, the Millennium Development Goals provide an excellent example at the international level of how suitably designed, long-term targets can provide a focus for international cooperation, mobilize action, alter governmental priorities and improve organizational accountabilities. It will be interesting to see whether the Sustainable Development Goals which are currently under negotiation achieve the same level of agreement and commitment. Likewise, at the national and sub-national levels there are numerous examples of where targets have helped to reinforce and underpin a particular forward-looking strategy and contributed to better long-term results (see Boston and Chapple, 2014). Of course, setting targets also runs risks. They may generate goal-displacement, encourage shortcuts and contribute to misdirected efforts. If they are unduly ambitious, they may invite ridicule or cause demoralization. If they are set for dates too far ahead (e.g. decades) or fail to include appropriate milestones, they may lack relevance and political currency. Designing policy targets, and the framework within which they operate, must therefore be undertaken with care. Important issues include: where the responsibility for setting the targets should reside; on what basis they should be determined; whether they should be legally binding; over what time period they should apply; who should be assigned responsibility for achieving the desired outcomes and what flexibility they should have with respect to the allocation of resources; the nature of the framework for monitoring and reporting performance; and how often the targets should be reviewed.

As part of this research project I am exploring a number of commitment devices in different policy domains, such as fiscal policy, climate change and child poverty, across various jurisdictions. The aim is to identify which particular design features contribute most to better long-term governance in the selected areas. I realize, of course, that such devices may not be readily transferable, either between policy domains or across jurisdictional boundaries; but there are, I think, some useful lessons to be gleaned from experiences over recent decades.

***Proposition 7: Governing well for the future not only depends on desirable long-term goals, but also adroit political strategies and tactics***

Many interviewees emphasized that while it is helpful for governments to embrace specific long-term goals and targets (and related milestones), it is equally important to develop coherent and politically adroit strategies for achieving them. This latter requirement is all the more essential when significant policy investments are required, and especially if such investments entail pain today for gain tomorrow and if some of the pain is borne by powerful groups. As noted earlier, investment-type policies differ greatly in their characteristics and contextual environments. The magnitude of the political challenge facing policy-makers will vary depending on such factors. For instance, convincing the public to support a policy investment designed to deliver long-term gains or minimize long-term losses will be easier under the following conditions: there is little debate about the basic facts or relevant scientific evidence, there are clear and unmistakable early warning signs, the consequences of alternative courses of action are tangible or easy to specify and imagine, it is clear on whom the various costs and benefits will fall, and at least some of the benefits of the investment are enjoyed in the near-term (see Jacobs, 2011,

pp.264-65). By contrast, making a credible case for a policy investment will be much harder when these conditions do not prevail.

Climate change provides an excellent example. Some of the evidence remains contested – or at least the seeds of doubt have been well-watered by climate skeptics and the fossil fuel industry. For many people, the risks seem abstract, generalized, indirect and remote, rather than concrete, specific, local or near-term. Some of the policy instruments to deal with the problem are complicated and difficult to understand. The costs and benefits of the various policy options are often hard to calculate. And demonstrating that sacrifices today will produce gains in the future – or at least fewer losses – is complicated by the global collective action problem and the risk of free riding.

As noted earlier, few policy problems are as complex as climate change or pose such formidable challenges for prudent long-term governance. Nevertheless, many other policy issues – such as protecting global biodiversity, encouraging compact urban development and funding early intervention programmes – have some of the same attributes. They thus raise the question of how to make a credible case for a policy investment. What political strategies and tactics may be available? What lessons might be drawn from the literatures on political persuasion, leadership, policy framing and consensus building (see Mulgan, 2009a)? There is not the space to answer such questions in detail here. But several points deserve mention.

First, it may be possible to create an informational environment that is more conducive politically to the adoption of an investment approach (see Jacobs, 2011, esp. pp.263-66). Relevant strategies could include:

1. *Enhancing the types or quality of warning signals of possible or likely future harms.* In some situations it may be feasible to generate additional warning signals, for example through more extensive research, better data collection and more regular reporting of certain kinds of information. It might be possible, for instance, to develop new early warning devices or mandate an independent agency to monitor major trends, undertake regular analyses and forecasts, and publish regular reports on important long-term policy issues, especially those where they may be significant long-term risks. Many foresight and related activities of this nature are, of course, already conducted in most democracies (e.g. the periodic reports of the Intergovernmental Panel on Climate Change, regular reports on long-term fiscal projections, etc.), but their scope is patchy. Additionally, where focusing events do occur, policy makers need to be adept at seizing on these not merely to address the current difficulties but also to secure support for long-term remedies.
2. *Enhancing the clarity, specificity and transparency of the consequences of failing to respond to looming problems.* Again, in some situations it may be possible to enhance the range and quality of information available to the public concerning future threats so that citizens have a better understanding of what is at stake and how they may be directly or indirectly affected if prudent steps are not taken to avert a potential crisis.
3. *Enhancing the quality of the spatial, sectoral and inter-temporal distributional analyses of proposed inventions.* Often the distributional impacts of policy problems and the available solutions are poorly analysed and even less well understood. Greater clarity and transparency may, at least in some situations, help policy makers secure greater acceptance of an investment-type approach. But it will be important to ensure that proper attention is given the future gains, and how these might be distributed, and not just the short-term costs.

4. *Establishing clearer baselines.* There may be ways in some situations, perhaps through better research and more extensive information, to establish relevant benchmarks against which various options can be considered. Where an investment-type approach is designed primarily to prevent future losses, it will be important to clarify exactly what form these losses will take and why they matter. Vague statements about, say, preventing ‘long-term environmental damage’ will not usually suffice.
5. *Securing independent and authoritative support for the proposed policy investment.* In the final analysis, no investment-type approach to a policy problem is likely to be durable politically if the claimed long-term societal benefits are difficult to justify. Where the evidence of the expected gains is hard to establish – perhaps because of considerable uncertainties over the validity of the assumptions underpinning the intervention logic on which the proposal is based – it will obviously be hard to convince voters to accept short-term pain. Costly gambles are rarely welcomed. Providing credible and authoritative evidence that the proposed intervention has a high probability of delivering net long-term benefits may thus be a necessary condition for securing the required support. One common strategy designed to help convince potentially skeptical voters that an investment approach offers the best way to address a recognized policy problem is to establish an independent committee or multiparty commission to review the evidence and recommend a preferred option.

Second, it will often be possible to reframe the purpose of the proposed policy investment in order to attract greater electoral support. Many policies have multiple goals and objectives. Often some of these are more widely endorsed by voters than others. These differences in acceptability reflect the impact of ideological, philosophical and ethical considerations on how voters conceptualize issues, define problems, understand risks and conceive causal linkages. For instance, with respect to climate change, the polling evidence suggests that how the problem is framed has a major bearing on the public response (see Ansolabehere and Konisky, 2014). Framing the issue in terms of long-term economic and environmental risks, and asking citizens to make near-term sacrifices in order to mitigate such risks is not a vote-winning strategy. The risks are simply too remote and abstract. By contrast, framing the problem as a current health issue, or in terms of greater energy security and cleaner energy, or as an opportunity to create new, innovative industries with more sustainable and higher-paid jobs is likely to cut more ice. Indeed, of these alternative framings, the quest for better health outcomes through reduced air and water pollution is particularly salient, at least in the United States where the value of good health resonates with voters across the ideological spectrum. It is something which matters to voters now, not just in the distant future. It thus enables a narrative to be crafted which speaks to the short-term priorities of citizens and the electoral timeframes of politicians. In this way, an issue with predominantly inter-temporal dimensions – as is certainly true of climate change – can be given a sharper short-term political focus.

Third, and related to this, in many situations investment-type interventions will generate near-term benefits or co-benefits, not only long-term gains (or reduced losses). As part of a political strategy to win support for such policies, these benefits need emphasis. Alternatively, it may be possible to compensate those who are likely to suffer most in the short-term from the proposed policy. Obviously, such compensation must not be so generous that it undermines the overall logic for the proposed policy.

Finally, there may be ways to build greater cross-party support or a wider societal consensus in favour of a particular policy investment, perhaps through the use of collaborative governance approaches (see Eppel, 2013). These involve bringing all the major stakeholders together in a series of discussions designed to enhance understanding of the issues and options, identify disagreement and seek common

ground. Where such approaches succeed in securing broad agreement they provide the foundation for a more durable policy framework and help reduce any associated short-term electoral costs.

Needless to say, some of these suggestions will be easier than others to implement. Moreover, there can be no guarantee of success. Where a substantial section of the community doubts the claimed gravity of a looming policy problem and/or is ideologically hostile a particular kind of policy investment, no amount of empirical evidence, tactical compensation, careful reframing, skillful messaging, stakeholder deliberation or a focus on the short-term dimensions of the problem may be sufficient to persuade the large chorus of opponents to endorse the proposed intervention. In such circumstances, only a substantial shift in cognitive understanding, attitudes and values will suffice. And this may not occur until significant damage has already been inflicted or is unavoidable.

***Proposition 8: Governing well for the future requires a particular cognitive disposition, ethical stance and commitment of faith – nurturing such a frame of mind is critically important***

To govern well for the future requires a particular kind of orientation, outlook and belief system. It requires, for instance, a fundamental and genuine interest in the future – not only an awareness of the potential risks and avoidable harms, but also a willingness to embrace new opportunities and possibilities. Likewise, it rests upon a deep and abiding hope that humanity has a future, that this future will be worthwhile, and that even the most challenging problems will not prove overwhelming nor the worst disasters unmanageable. Such a hope, of course, must ultimately rest on a commitment of faith; it cannot be founded solely on empirical realities.

Furthermore, to govern well for the future arguably entails important normative commitments. It implies, for instance, a strong and pervasive concern not only for the needs of citizens of today but also for those of the citizens of tomorrow; and it acknowledges certain kinds of inter-generational duties and principles of inter-generational justice. Particularly relevant here are the notions of stewardship, guardianship, trusteeship and fiduciary duties (see Thompson, 2005). From a Burkean standpoint, for instance, each and every generation of humanity is part of an enduring partnership or intergenerational contract, a partnership which both cherishes the inheritance of the past and seeks a safe and fruitful prospect for the generations yet to come. The idea, then, is that of a close and continuing community which exists across time and space and which is bound together by inextricable bonds. Alternatively, notions of stewardship can be rooted in various theological traditions and doctrines. Under this approach, humanity is deemed to have a moral obligation to care for a God-given created order and to show love and compassion to every person, whatever their background, circumstance or need. Being a good neighbour knows no bounds: it must extend both spatially and temporally. Failure to fulfill such obligations will ultimately be met with divine justice.

Of course, not all theological traditions display the same emphasis on wise planetary stewardship. For instance, there are those who believe that God will soon annihilate the cosmos with this planet playing no part in any new divine order. Such an eschatological perspective provides few grounds for prudent stewardship of the Earth's resources. But this merely serves to underscore my point, namely that without a particular kind of orientation, vision and ethics, both the inner desire and moral imperative to govern well for the future will be much diminished.

For those interested in prudent long-term governance, therefore, a crucial question is how to cultivate and foster the specific dispositions, virtues and values which underpin such a quest. In the past, certainly in most developed democracies, these nurturing responsibilities were undertaken to a considerable extent by faith communities – and in the West particularly by the Christian faith and the various educational institutions to which it gave rise. With most democratic societies having become more secular, these

theological underpinnings have necessarily weakened. In their absence, the question arises as to whether any alternative philosophical tradition will be sufficiently robust to provide a durable and inspiring foundation. On this matter, the jury has yet to offer a conclusive verdict.

In the meantime, part of the challenge of governing well for the future must be to foster a political culture which takes the interests of future generations seriously and values a healthy and sustainable environment. This requires persistent advocacy and continuing efforts to change people's hearts and minds. As Jack Nagel (1988, pp.77-78) argues, we need to cultivate empathy for those who are yet to be born, especially amongst those with power. The aim, he contends, must be to 'wage a campaign of persuasion' designed to inculcate within present citizens a proper concern for future citizens and ensure that the preferences of present actors are shaped by a long-term perspective. Such a duty, of course, falls on each one of us. We must all play our part in this campaign of persuasion, just as we must all hold to account those who are entrusted with the task of inter-temporal decision-making.

### **Concluding remarks**

To sum up, governing well for the future is a fundamental responsibility of all those charged with leadership, whether in the public or private spheres of life. Yet it is a daunting obligation. In the realm of democratic politics, there are always loud and powerful voices speaking for short-term priorities, and these have an ever-present tendency to crowd out, if not silence, the quieter voices who speak for the future. There is thus an intrinsic, politically-salient, inter-temporal asymmetry. This public asymmetry is mirrored privately within each person, with the tug of our present selves pulling hard and constantly against the interests of our future selves. These inherent asymmetries carry serious risks. To quote the Scottish philosopher, David Hume (quoted in Caney, 2009, p.163):

There is no quality in human nature, which causes more fatal errors in our conduct, than that which leads us to prefer whatever is present to the distant and remote, and makes us desire objects more according to their situation than their intrinsic value.

In an age where humanity has the means to inflict irreversible harm, if not destroy all life on the planet, there is an even greater need to encourage far-sighted leadership and sound, anticipatory governance.

Yet, securing these desirable ends poses formidable challenges. As I have argued in this paper, the nature of the long-term governance problem is such that there are few, if any, best practice solutions. We are dealing, after all, not with a simple or even a complicated problem, but with a profoundly complex problem. We cannot readily turn the 'whispers' of the future into a dominant, resounding chorus. But there are, I believe, ways to make this voice more vivid and audible and increase the incentives on decision-makers to heed its call. Necessarily, the available options must be tailored to suit the many different political, institutional and cultural contexts across the democratic world; necessarily, too, they must be constantly refined and refreshed. Our approach must be rigorous, experimental and adaptive, but it must also be pursued with vigour and passion. The future depends on it!

**Table 1: Mitigating the long-term governance problem: solution types with selected examples and a summary of their underlying intervention logics**

	Type of solution	Selected examples	Summary of underlying intervention logics for solution types
1	Create new and/or stronger international institutions	<ul style="list-style-type: none"> <li>a. Establish a High Commissioner for Future Generations within the UN</li> <li>b. Create new supra-national bodies with decision-rights to manage global public goods and protect the global commons</li> <li>c. Reform existing international institutions</li> <li>d. Increase the protection for the rights of future generations within international instruments</li> </ul>	<ul style="list-style-type: none"> <li>a. Enhance capacity for international coordination</li> <li>b. Constrain the behaviour of nation states via stronger incentives and sanctions</li> <li>c. Improve international advocacy on behalf of future generations</li> </ul>
2	Strengthen constitutional (or quasi-constitutional) constraints	<ul style="list-style-type: none"> <li>a. Amend existing constitutions to constrain the decision-rights of legislators and policy-makers by imposing, for instance, a duty on governments to safeguard the interests (welfare or rights) of future generations and/or to protect a healthy, ecologically balanced environment</li> </ul>	<ul style="list-style-type: none"> <li>a. Constrain the behaviour of executives and legislatures via the rule of law</li> <li>b. Threat of judicial review – anticipatory constraint</li> </ul>
3	Change the level within a polity at which formal responsibility lies for certain kinds of policy decisions	<ul style="list-style-type: none"> <li>a. Decentralize responsibility for certain decisions to sub-national governments</li> <li>b. Centralize responsibility for certain decisions</li> </ul>	<ul style="list-style-type: none"> <li>a. Increase the incentives on decision-makers to consider future interests</li> </ul>
4	Delegate decision-rights for specific policy matters to independent bodies	<ul style="list-style-type: none"> <li>a. Strengthen the existing decision-rights of independent bodies</li> <li>b. Transfer additional decision-rights to independent bodies</li> </ul>	<ul style="list-style-type: none"> <li>a. Reduce the influence of short-term political (electoral) pressures on decision-making</li> <li>b. Technocrats assumed to be more future focused</li> </ul>
5	Reform electoral rules and voting rights	<ul style="list-style-type: none"> <li>a. Reduce the voting age (e.g. to 16 or lower)</li> <li>b. Place greater weight on the votes of younger generations</li> <li>c. Remove the voting rights of older voters</li> <li>d. Introduce compulsory voting</li> <li>e. Establish separate legislative representation for future generations (e.g. via proxies, etc.)</li> <li>f. Reform the rules governing political (or campaign) finance to reduce the power of vested interests and wealthy donors</li> <li>g. Ensure that electoral boundaries are determined by independent (i.e. non-partisan) bodies</li> <li>h. Where primary contests occur as part of the election process, ensure that all voters can participate (not only those registered with a particular party)</li> </ul>	<ul style="list-style-type: none"> <li>a. Reduce the influence of short-term electoral pressures (for periods immediately following elections)</li> <li>b. Increase the incentives on decision-makers to consider future interests</li> <li>c. Enhance the representation of dispersed and future interests</li> </ul>
6	Reform legislative institutions	<ul style="list-style-type: none"> <li>a. Extend the tenure of legislators</li> <li>b. Change the voting rules in legislatures on matters which have major long-term implications</li> <li>c. Create a committee dedicated to long-term issues</li> <li>d. Create (or reform) an Upper House – give it a</li> </ul>	<ul style="list-style-type: none"> <li>a. Reduce the influence of short-term electoral pressures (for periods immediately following elections)</li> <li>b. Increase the incentives on decision-makers to consider future interests</li> </ul>

		specific constitutional mandate to consider long-term issues	<ul style="list-style-type: none"> <li>c. Enhance representation of dispersed and future interests</li> <li>d. Enhance the analysis of long-term issues and risks</li> </ul>
7	Enhance strategic foresight and planning processes	<ul style="list-style-type: none"> <li>a. Improve the identification and assessment of long-term risks, including the development of better early warning devices</li> <li>b. Improve analysis of long-term economic, social and environmental trends</li> <li>c. Improve the assessment of the impact of new technologies</li> <li>d. Undertake regular and comprehensive horizon scanning, scenario analysis, forecasting, etc.</li> <li>e. Improve strategic management systems and processes</li> </ul>	<ul style="list-style-type: none"> <li>a. Enhance the information base, analysis of long-term risks and anticipatory capacity of policy makers</li> </ul>
8	Institute new <i>procedural</i> rules and requirements for decision-making	<ul style="list-style-type: none"> <li>a. Enact (or strengthen) legal requirements for some/all decision-making bodies to consider the interests of future generations (or long-term outcomes) as part of their normal decision-making processes</li> <li>b. Enact (or strengthen) legal requirements for the conduct of regular, transparent future-related reviews and other exercises, such as regular: <ul style="list-style-type: none"> <li>o foresight processes</li> <li>o government reports (or a manifesto) on the future</li> <li>o reports on long-term fiscal projections</li> <li>o reports on long-term environmental conditions</li> <li>o posterity impact statements, etc.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>a. Reduce the risk of long-term considerations being overlooked</li> <li>b. Improve the information base (transparency) and quality of policy analysis</li> <li>c. Enhance public debate and understanding of long-term issues</li> <li>d. Enhance the constraints on decision-makers via justificatory requirements</li> </ul>
9	Institute new <i>substantive</i> policy rules (and other kinds of ‘commitment’ devices) to constrain decision-makers	<ul style="list-style-type: none"> <li>a. Enact (or strengthen) legally-binding requirements for decision-makers to set long-term targets to achieve desirable policy goals (e.g. to reduce greenhouse-gas emissions, child poverty, recidivism, etc.)</li> <li>b. Enact (or strengthen) legally-binding substantive policy rules (or principles) which must be adhered to by decision-makers, such as <ul style="list-style-type: none"> <li>o principles of fiscal responsibility</li> <li>o principles of environmental sustainability</li> <li>o policy rules relating to natural capital stocks (e.g. stocks of non-renewable natural capital can only be depleted if replaced by ‘equivalent’ stocks of renewable natural capital)</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>a. Enhance the information base (transparency)</li> <li>b. Require the signalling intent (politically binding)</li> <li>c. Enhance the prioritization of resources and political effort</li> <li>d. Constrain decision-makers via rule of law</li> <li>e. Strengthen political accountability for long-term outcomes</li> </ul>
10	Establish (or strengthen) institutions with mandates to protect the interests of future generations or exercise long-term guardianship roles	<ul style="list-style-type: none"> <li>a. Establish a Minister for the Future (or Future Generations)</li> <li>b. Establish (or strengthen) Commissions (Councils, Academies, etc.) for the Future</li> <li>c. Establish (or strengthen) an Ombudsman for Future Generations</li> <li>d. Establish (or strengthen) a Sustainable Development Commission</li> <li>e. Mandate the civil service to undertake long-</li> </ul>	<ul style="list-style-type: none"> <li>a. Constrain decision-makers via rule of law</li> <li>b. Enhance the analysis of long-term issues</li> <li>c. Enhance advocacy (voice) on behalf of future interests</li> <li>d. Enhance the government’s capacity to exercise stewardship</li> </ul>

		<p>term stewardship responsibilities</p> <p>f. Establish (or strengthen) organizations such as National Trusts, National Park Services, etc.</p> <p>g. Establish (or strengthen) intergenerational trust funds, future funds and related endowments</p>	
11	Establish or strengthen institutions with specific long-term analytical and advisory responsibilities – legislative, executive, civil society, etc.	<p>a. Establish (or strengthen) long-term think tanks (both inside and outside the government)</p> <p>b. Establish (or strengthen) strategy units in central agencies and other government bodies</p> <p>c. Establish (or strengthen) independent bodies to undertake long-term fiscal forecasting and advise on long-term fiscal issues</p>	<p>a. Enhance the information base (transparency)</p> <p>b. Enhance long-term risk identification</p> <p>c. Enhance the analysis of long-term policy issues and options</p> <p>d. Enhance the quality of political debate</p>
12	Develop new conceptual approaches, analytical frameworks, methodologies, metrics and accounting conventions designed to assist with decision-making under uncertainty and ensure that long-term considerations are considered at all stages of the policy process	<p>a. Develop new approaches to discounting for analysing policy issues with long-term costs and/or benefits</p> <p>b. Develop further and apply the concepts of national wealth accounting, natural capital accounting, and the valuing of ecosystem services</p> <p>c. Institute better monitoring of changes in the stocks of natural, human and social capital, and incorporate such data into relevant national reporting frameworks</p> <p>d. Develop further and apply more holistic analytical frameworks for policy analysis, such as the Australian Treasury’s Wellbeing Framework and the New Zealand Treasury’s Living Standards Framework, and new policy approaches for handling deep uncertainty (e.g. ‘robust decision-making’ models)</p> <p>e. Develop new policy rules for maintaining and improving all capital <i>stocks</i> (rather than simply maximizing <i>flows</i>, etc.)</p> <p>f. Develop, and extend the application of, outcome-based performance measurement and budgeting</p> <p>g. Reform public sector financial management regimes, with multi-year and cross-agency budgeting, the use of forward liability models, etc.</p> <p>h. Develop new metrics for assessing long-term organizational and policy performance (e.g. a long-term impact index)</p> <p>i. Enhance reliance on evidence-based policy making; harness the findings and opportunities of big data and policy evaluations/pilots</p>	<p>a. Change mental models (hearts and minds)</p> <p>b. Change the framing of policy problems</p> <p>c. Increase the incentives on decision-makers to consider future interests</p> <p>d. Enhance the information base (transparency)</p> <p>e. Change what counts politically</p> <p>f. Enhance accountability for long-term outcomes</p>
13	Enhance long-term governmental, organizational and societal resilience	<p>a. Maintain organization slack or redundancy to cope with unexpected shocks or ‘rude’ surprises</p> <p>b. Improve future-proofing of all forms of infrastructure</p>	<p>a. Improve preparedness for economic, environmental, seismic, meteorological and other shocks</p> <p>b. Improve the capacity to recover from shocks</p>

14	Create a more conducive enabling environment for prudent long-term decision-making	<ul style="list-style-type: none"> <li>a. Enhance governmental transparency and openness</li> <li>b. Increase investment in (strategic) research and development</li> <li>c. Enhance long-term planning and strategizing by civil society organizations and business</li> <li>d. Encourage the formation of more encompassing interest groups (e.g. a more corporatist approach)</li> <li>e. Support the creation and funding of groups to represent dispersed interests, especially inter-temporal interests</li> <li>f. Encourage more farsighted political leaders via better civic education, exposure to foresight methods, analysis of ethical values and virtues (e.g. prudence), etc.</li> <li>g. Apply the insights of behavioural economics (e.g. choice architecture)</li> <li>h. Change aspects of the human condition (e.g. using genetic engineering for ‘moral enhancement’)</li> <li>i. Seek to change the inter-temporal preferences of citizens and foster greater empathy with the needs and interests of future generations (e.g. via deliberation days to focus on the future)</li> <li>j. Change regulatory frameworks to encourage decision-makers in the private sector (both commercial and non-commercial) to give more emphasis to the long-term</li> <li>k. Establish institutional mechanisms designed to enhance understanding of, and seek greater political consensus on solutions to, long-term policy issues (e.g. deliberative or collaborative governance arrangements)</li> <li>l. Undertake initiatives designed to enhance societal trust and solidarity (e.g. by reducing income and wealth inequality, and other forms of social inequality, and encouraging social mobility)</li> </ul>	<ul style="list-style-type: none"> <li>a. Enhance the evidence base for decision-making</li> <li>b. Enhance the identification of future risks and opportunities</li> <li>c. Enhance the quality of policy debate</li> <li>d. Enhance the quality of civil society programmes and actions</li> <li>e. Increase the incentives for policy-makers to consider future interests</li> <li>f. Enhance the effectiveness of policy interventions</li> </ul>
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**Table 2: The intervention logics underpinning four proposals to enhance policy farsightedness**

<b>Proposal</b>	<b>Intervention logic</b>	<b>Core assumptions</b>	<b>Risks and problems</b>	<b>Empirical evidence</b>
Insert specific wording in constitutions to protect the interests, needs and/or rights of future generations (or to protect a healthy environment)	Decision-makers in democracies can be constrained by the rule of law (legal authority) to give greater protection to future generations	<ul style="list-style-type: none"> <li>• The constitution is able to be changed</li> <li>• The new provisions are appropriate and justiciable</li> <li>• Relevant cases come before the courts</li> <li>• The courts give weight to the relevant provisions and are willing to override the legislature</li> <li>• The courts are authoritative and their rulings are adhered to</li> </ul>	<ul style="list-style-type: none"> <li>• Some democracies lack an entrenched written constitution</li> <li>• One or more of the assumptions is not valid</li> <li>• The revised constitution results in less protection for future generations than expected and is difficult to change</li> </ul>	<ul style="list-style-type: none"> <li>• Few relevant cases have been brought before the courts in countries with specific constitutional protection for future generations (or the environment)</li> <li>• Little impact on policy or overall outcomes</li> </ul>
Establish institutions (legislative, executive, etc.) with specific long-term analytical and advisory responsibilities (e.g. a Parliamentary Committee for the Future, a Sustainable Development Commission)	Institutions of this kind can encourage policy farsightedness by changing the structure of political incentives – via better information, risk identification, analysis of long-term issues and options, contributing to enhanced political debate, public understanding and accountability	<ul style="list-style-type: none"> <li>• The institution is adequately resourced</li> <li>• Analyses are rigorous, with clear policy implications</li> <li>• Reports attract political and public attention, and prove persuasive</li> <li>• Governments change policy settings in response</li> </ul>	<ul style="list-style-type: none"> <li>• One or more of the assumptions is not valid</li> <li>• The institution is not durable</li> </ul>	<ul style="list-style-type: none"> <li>• Many institutions of this kind have been created</li> <li>• Many have not survived</li> <li>• Few appear to have had a significant or on-going influence on policy</li> </ul>
Require regular fiscal (or environmental) sustainability reports by an independent agency (e.g. the Office for Budget Responsibility) – and require a timely government response	Regular reports of this kind can encourage policy farsightedness by changing the structure of political incentives – via better information, risk identification, analysis of long-term issues and options, and mandatory government responses contributing to enhanced political debate, public understanding and accountability	<ul style="list-style-type: none"> <li>• The institution is adequately resourced</li> <li>• Analyses are rigorous, with clear policy implications</li> <li>• Reports attract political and public attention, and prove persuasive</li> <li>• Governments change policy settings in response</li> </ul>	<ul style="list-style-type: none"> <li>• One or more of the assumptions is not valid</li> <li>• The credibility of the institution is undermined</li> <li>• Regular reporting is discontinued</li> </ul>	<ul style="list-style-type: none"> <li>• Many countries have instituted regular reporting of this kind, especially on fiscal sustainability matters</li> <li>• There is as yet little evidence of such reports having had a major impact on policy</li> </ul>
Institute substantive policy rules for maintaining aggregate stocks of natural capital (e.g. at the national level)	Such rules serve as commitment devices, and can constrain decision-makers and change the political incentives they face –	<ul style="list-style-type: none"> <li>• The policy rules are clear and enforceable</li> <li>• There are adequate mechanisms for enforcement</li> </ul>	<ul style="list-style-type: none"> <li>• Reaching agreement on meaningful and enforceable rules, especially for non-renewable natural</li> </ul>	<ul style="list-style-type: none"> <li>• Such rules have yet to be implemented</li> <li>• Global application would be necessary for goals to be fully realized</li> </ul>

	<p>via new and better information, specific goals/targets, etc. contributing to changes in public attitudes/values, and enhanced accountability for performance</p>	<ul style="list-style-type: none"> <li>• There are few, if any, override provisions</li> <li>• The relevant information is available (or can be generated) to ensure effective implementation and compliance</li> <li>• Sub-national decisions do not undermine national-level policy goals</li> <li>• Climate change and other external shocks (e.g. invasive species) do not undermine policy goals</li> </ul>	<p>capital, may be difficult</p> <ul style="list-style-type: none"> <li>• One or more of the assumptions is not valid</li> <li>• Maintaining aggregate stocks may be insufficient where significant ecological damage or degradation has occurred</li> </ul>	
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