

# Operationalizing Anticipatory Governance

BY LEON FUERTH

The United States is confronted by a new class of complex, fast-moving challenges that are outstripping its capacity to respond and “win the future.” These challenges are crosscutting: they simultaneously engage social, economic, and political systems. They require measures that extend the horizon of awareness deeper into the future, improve capacity to orchestrate both planning and action in ways that mobilize the full capacities of government, and speed up the process of detecting error and propagating success. The result is anticipatory governance.<sup>1</sup>

Anticipatory governance offers a set of concepts about how to deal with the twin phenomena of acceleration and complexity, which together threaten the coherence of American governance. Various Cabinet-level agencies—most notably the Department of Defense—have internal planning systems that approximate anticipatory governance. No such system is available at the national level. As a result, government is increasingly confined to dealing with full-blown crises and is losing its capacity to design policies that enable America to shape the future. There is no mechanism at the national level for bringing foresight and policy into an effective relationship. The absence of such a system impairs the ability of the government to think and act strategically. The cost of this impairment to the Nation now rises to a level that threatens national security as conventionally defined, and even more so when it is thought of in expansive terms that go to national strength, as opposed to the more limited requirements of national defense.

Faith in U.S. ability to shape the future has been a constant factor in the development of the Nation. As events continue to outpace us, the evident loss of that faith will have serious implications for our ability to continue to find common cause among ourselves. This has a potentially

Leon Fuerth is the Founder and Director of the Project on Forward Engagement, which is based at The George Washington University and operated at the National Defense University.

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devastating impact on not only our domestic existence as a state, but also our behavior within the international system. There will be substitutes for American leadership, but none is likely to be premised on the existence of a win-win approach for all competitors. Any other approach, based on zero-sum thinking, will prevent rational action to preserve the future of our species. The stakes are high.

### Realistic Change

This is a problem that has deep political roots. It is, however, also a problem that reflects poorly designed systems for planning and execution.

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The political dimension of this problem is hard to deal with, given that every policy issue is automatically translated into partisan terms. Deep reform of the Federal system is therefore unlikely because it cannot occur without enabling legislation. Given the political climate, it is hard to imagine Congress passing a well-designed, bipartisan omnibus bill providing for major alterations in the way government operates, even though it is sorely needed. The best chance is to make limited improvements in the operation of executive branch systems, hoping to leverage these as ways to improve the performance of government as a whole. Fortunately, we do not need enabling legislation to get started, or to destroy the existing system to develop anticipatory governance. Much of the needed new capacity exists in latent form in the executive branch.

The elements of anticipatory governance can be put into place efficiently, quickly, and by means specifically suited to Presidential authority. Presidents already have substantial legal and customary authority to arrange the workings of their own offices—comprising the whole of the White House—as they see fit. The Executive Office of the President (EOP) is thus the necessary locus for innovative rethinking of the systems by which it is served. Presidents have at their disposal the means to create a core mechanism by using existing elements of the Executive Office to operate as an overall steering body. The Chief of Staff, National Security Council (NSC) staff, deputies committees, National Economic Council (NEC), Office of Management and Budget (OMB), individual agency policy planning staffs, and the layer of now famous czars can be used collectively as a means to ensure overall coherence. To some extent, they are already used for this purpose, but mostly on an ad hoc basis rather than systematically. It is possible that these existing authorities can be fashioned into a faster, nimbler whole-of-government process that can be used to correct our strategic myopia and secure America's global place in the 21<sup>st</sup> century.

### Acceleration and Complexity

Our era is destined to be marked by accelerating deep change. Major social change is accelerating at a rate fast enough to challenge the adaptive capacity of whole societies, including our own. Our national expectations of the future were set a generation ago by the baby boomers' exaggerated sense of entitlement. The future, however, will not be an extension of the past. A new normal awaits us, and it is likely to have rough edges. It is increasingly dangerous to make policy only in the short term or to arbitrarily diminish the universe of possibilities by ideologically limiting policy choices.



The White House (Pete Souza)

**President Barack Obama talks with advisors in Oval Office before phone call with President Ali Bongo Ondimba of Gabon to discuss situation in Côte d'Ivoire**

To deal with acceleration, we must begin installing new approaches to organization that feature much greater sensitivity to faint signals about alternative futures, and which enable us to respond to these with increased flexibility and speed. Bureaucracies are procrustean in responding to new problems by chopping them to fit old concepts. We need a form of management that could be called protean that is able to change its shape rapidly to match evolving challenges. If we do not find it, we risk being swamped by events and succumbing to systems failure.

Acceleration is accompanied by increasing complexity, which inevitably has the effect of eroding the customary boundaries that differentiate bureaucratic concepts and the missions that are based on them. Modern policy issues are complex phenomena, not linear. Linear problems can be broken down into components, and then sequentially administered and resolved. Complex problems are the result of concurrent interactions among multiple systems of events. They do not lend themselves to permanent solutions, but instead tend to morph into new problems, even as the result of our interventions to deal with them. They do not automatically move toward stable outcomes, but instead can exhibit highly disproportionate consequences in response to relatively small changes of condition. Complex challenges cannot be permanently resolved because they continuously mutate. Instead, they must be constantly monitored and managed.

We assume that for every problem in politics there is a unique solution. Under linear theory, change in input will give a proportionate change in output; there are no interruptions or collapses to a curve. Complexity more accurately describes the way human affairs transpire. Everything is interacting with everything else. However, it is difficult for us to analyze in terms that do not

*reduce* the reality. If we pretend the problem is not complex, we fail to understand what is really happening. What is needed is a robust effort to keep track of how things alter, and particularly knowing when to fold the cards on an obsolete policy. We tend to follow what we have implemented to the bitter end; we do not change course until the costs become impossible to ignore. Complexity has become a bumper sticker, but it has real and profound meaning.

*Complex priorities* are combinations of complex challenges that are urgent, thematically related, interactive, and resistant to treatment

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in isolation.<sup>2</sup> Complex priorities form systems that must be managed concurrently. Short-range goals must be examined against long-term objectives. Complex priorities cannot be dealt with by means of linear approaches based on individual elements of government. No single agency possesses the authority or the expertise needed to manage them. The traditional interagency system provides only intermittent coordination of effort among executive branch agencies, and therefore is unlikely to handle complex priorities successfully.

Complex priorities require an integrated approach to the formulation and execution of policy. In the end, responsibilities have to be broken down and assigned to individual agencies. But at some point, the efforts of all these agencies have to be coordinated with reference to an evolving central concept. The array of agencies engaged

should depend on the nature of the priority. Certain kinds of issues transcend the capacities of individual agencies, and require such a broad spectrum of collaborators as to become whole-of-governance challenges. This does not mean that every agency is simultaneously engaged, or that all are engaged at the same level of intensity. It does mean that no part of the government is considered an island unto itself; that as circumstances demand, conscious arrangements of agencies and missions will be deployed.

### **Broad Scope Definition of National Security**

If we are overtaken by the accelerating rate of change and increasing complexity, our national security will be jeopardized. We must therefore also broaden our concept of national security and upgrade systems for making and monitoring national security policy. The concept of *national security* is often conflated with that of *national defense*, but it is actually a much broader term, requiring a far deeper integration of domestic and international policy than has been practiced in American governance. The fundamental characteristic of national security is that it is complex—not linear—and that systems of governance based on the assumption of linearity must be redesigned.

National security absolutely begins with the ability to defend the Nation against its enemies, both foreign and domestic. But more is needed. We are in the presence of new forces, rapidly accelerating in speed and growing in power. To deal with these forces, we need to overhaul the concept of national security and the apparatus used to sustain it. The concept of national security has expanded from time to time in response to new threats, including terrorism after the September 11 attacks, and only recently to include economic security after the 2008–2009

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financial crisis. It remains, however, mainly focused on the elimination of physical danger in the immediate present. It pushes away longer range concerns having to do with the foundations of our national power. These “discounted” challenges are pressing for acceptance as officially recognized major components of national security. Included among them are maintenance of technological leadership, maintenance of economic leadership, and maintenance of global moral leadership (that is, soft power).

An appropriately expanded definition of *national security* would:

- ❖ protect the Nation from violent assault, whether from within or without, by means of a national capacity to anticipate threat, deter threat, respond to attack by destroying enemies, recover from the effects of attack, and sustain the costs of preparedness
- ❖ secure against massive societal disruption as a result of natural forces (specifically including the national and international effects of environmental collapse at the systems level, including climate change)
- ❖ secure against the failure of major man-made systems by means of the capacity to plan for contingencies, organize systems capable of containing the damage, and organize systems capable of expeditiously repairing the damage
- ❖ secure against societal collapse and demoralization as a consequence of massive economic failure
- ❖ maintain the foundations of national power by means of sound fiscal policy over time combined with long-term investment in the elements of

competitive strength, including physical infrastructure, public health, public education, and especially the nurturing over time of broad areas of deep excellence in the sciences and in engineering

- ❖ maintain the capacity to perform such guarantees as extended to formal allies and associates
- ❖ preserve the ability to do all of the above within the framework of the Constitution in a free society, governed by law faithfully and transparently administered.

While many people respond favorably, at least in principle, to the idea that the scope of national security should be broadened, others oppose the idea on grounds that it is not actionable. Typically, they say that national security is inherently limited to the core mission of protecting the United States against violent attack and subversion and that widening the scope of the term will destroy its meaning and create something impossible to administer. They argue that it is impossible to predict the longer range future, or even to make good long-range forecasts, so there is no point in attempting to couple policy to systematically researched foresight. The political system in any event discounts the future in favor of current priorities. Even if we could reform the executive branch, such changes would be pointless unless the Congress reforms itself, which it will not. The bureaucracy will resist and ultimately wait out any serious redesign of its functions.

National security, however, is manifestly a broader concept than national defense, encompassing the foundational sources of America’s material and moral power. We ignore this reality at our peril. When we have to do something vital

for the national security, we do not get it done by describing as impossible an urgent departure from obsolete practices. We underutilize the forecasting tools at our disposal. In any event, no one is talking about predicting the future: the issue is how to think rigorously about alternative long-term possibilities and their implications for policy in the near term. If the political system is not challenged to excel, it will not. That is what leadership is for. As Chief Executive, the President is not the curator of legacy systems, but he is the most important modernizer and innovator in government. The bureaucracy responds to positive leadership. Its willingness to serve can be used to offset its natural inertia.

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### Anticipatory Governance

Anticipatory governance is a system of institutions, rules, and norms that provides a way to use foresight, networks, and feedback for the purpose of reducing risk and increasing capacity to respond to events at earlier rather than later stages of development. It would register and track events that are barely visible at the horizon; it would self-organize to deal with the unexpected and the discontinuous; and it would adjust rapidly to the interactions between our policies and our problems. In anticipatory governance, systems would be designed to handle multiple streams of information and events whose interactions are complex rather than linear. As a complex system of systems, anticipatory governance is not only the sum of its components, but also its own environment with its own set of characteristics. These characteristics

would represent the interplay of subsystems for foresight, networking, and feedback systems. Anticipatory governance would be a scalable process, with similar relationships displayed at every level of governance, from the bureaucratic base to the political apex. A fully operational form of anticipatory governance would be a system of systems, incorporating a foresight system for visualization, a networked system for integrating foresight and the policy process, and a feedback system to gauge performance and to manage “institutional” knowledge.

#### *Systems for Foresight and Visualization.*

Foresight is about the disciplined analysis of alternative futures. It can be organized as the product of a process to monitor prospective events, provide timely warning of oncoming major events, and alert policymakers to potential consequences. There is always something new and consequential brewing; if potentially transformative or destabilizing developments are detected early, we can take action in the present while they are still nascent enough to be shaped for preferred future outcomes. Systematic, organized foresight is the instrument by which we can imagine alternative futures, allowing us to simulate actions that would otherwise have to be tested against reality, where the consequences of error are irrevocable.

In government, foresight methodologies can be used to create and test alternative constructs about the future. Foresight can be cultivated as the product of a network of organizations, both public and private, employed to bring together forecasting, scenario development, and modeling. This system would be designed to identify and track “weak signals” of potentially major long-range trends and events. The system would hand off these weak signals for tracking and evaluation and use them as drivers in the development of alternative

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scenarios, including the testing by analysis and simulation of alternative policy responses and their first- and second-order consequences. Scenarios are case studies of the future—looking forward to possible events, rather than backward to known events. They provide a means to test in the mind, or in a virtual setting, what we might otherwise have to try in reality. Other nations and bodies are already well on their way in developing and deploying these capabilities, most notably Singapore, the United Kingdom, and the European Commission.

Foresight is a discrete form of information with distinct characteristics. Foresight is not a synonym for *vision* or *prediction*. Visionaries are exclusive in their views about what should happen and are blind to alternative outcomes. Visionaries seek to knock out the competition. Prediction is a point statement of what will happen in the future. Life does not behave that way. Foresight, on the other hand, means openness to multiple futures; it is about ranges of possibilities, not point predictions. Additionally, foresight is not exclusively future oriented. It is concerned with what *will* happen, but is used to inflect what *is done* in the present. Otherwise, we blunder forward with no visibility. Foresight is about conceptualizing what may be happening and what needs to be done in alternative models to protect our interests. It is not a single statement, a single J-curve, an ideology, or a doctrine; it is the capacity to rapidly formulate alternative constructs and examine the consequences of different forms of response in theory and practice.

Anticipation has a dual nature: it is possible to anticipate consequences by visualizing alternative ways in which events play out in response to exogenous events; it is also possible to initiate the events ourselves, in which case, the decision to do so must be enveloped in a concept of what

the consequences might be, including both the desirable and undesirable. Either way, foresight entails mindfulness of consequences, especially including those that may not be obvious, and which could be drastic and discontinuous.

***Networks for Whole-of-Government Operations.*** Our legacy systems represent 19<sup>th</sup>- and 20<sup>th</sup>-century concepts of organization, constructed on the basis of an 18<sup>th</sup>-century constitution. Oddly enough, it is the Constitution that continues to be the source of creative change in American government, while our organizational concepts—based on industrial principles—are outmoded. This vertical mode of organization (stovepiping) is based on an understanding of events as linear rather than interactive and complex. This form of organization significantly impedes the ability of government to deal with complex challenges. Authority to act in the present system requires detailed supervision from the top, mediated by large bureaucracies. Information about real-world conditions does not travel easily between field-level components of institutions and the policymaking levels. It flows even less readily between the executive agencies. These shortcomings expose the government to system failure, which takes the form of sudden collapse of function in the presence of unanticipated shocks to the system.

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We have left a period when our most serious security problems were by nature stovepiped, when information about these problems was linear, and hierarchical management was

sufficient. We have entered a period when the problems we face are themselves networked: information about them is marked by complex interaction, and organization for dealing with them must become flattened and integrated.

The interagency system is especially ill-suited for managing complex priorities that involve strong interactions among formerly isolated policy domains (for example, climate policy in its relationships with energy policy, trade policy, fiscal policy, and defense policy). A more subtle and continuous form of integration between policy and management is needed—what is now being referred to as a whole-of-government

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approach. Network theory offers an alternative way to organize governance. Networking expands the mandate of lower echelons to act, eliminates bottlenecks latent in middle layers of management, and radically improves the flow of information throughout the new system.

The fundamental idea is that large organizations will—if organized in the form of networks that feed information to the “periphery” and that enable that “periphery” to act toward broadly but clearly stated goals—display a capacity for rapid, internally generated responses that will consistently outmaneuver conventionally organized hierarchical systems. The basis for networking civilian governance can already be found in the uniformed armed Services, where it has been developing for more than two decades as the theory and practice of network-centric warfare. Net-centric warfare

is an approach to military operations based on complexity theory, network theory, and advances in command, control, and communications. We need similar networked processes for collection and assessment of intelligence and for policy analysis and implementation. As has been the case in the military, networked civilian operations will require encouragement of a culture of governance adapted to the requirements of action within the framework of complexity.

**Gauging Performance.** Feedback is employed in engineering as a way to confine the performance of a system within specific bounds, by detecting indicators of error and applying corrections sufficient to redirect the system. In organizations, feedback would depend on sampling mechanisms and on arrangements for converting the outputs of these into corrective actions. The White House does not systematically use sampling and feedback systems to measure the performance of policies. As a result, the United States often does not detect early signs of policy failure until it has become patent and costly. To counter this, we need to design systems to provide feedback connections between estimates and results. These feedback systems should be coupled into the policymaking process to support a constant reassessment and recalibration of policies. Constant feedback is also needed from the policymaker to generators of foresight in order to keep pace with what information is useful and what overloads the circuits.

There are two forms of feedback. What is needed is negative feedback, which serves as a stabilizer to filter out unwanted distortions and to emphasize the signal. All negative feedback systems permit a certain amount of error to pass through as output. This feature of feedback design, when applied to human organization, accommodates the reality of underaction and overaction. It can be used to permit a network

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to incorporate greater latitude for experimentation and rapid, local response to stimuli, but at the same time it is insurance against rogue or runaway behavior. This link between networking for flexibility and feedback for fidelity is important.

The function of feedback is to monitor actual events to help alert policymakers to the known consequences of actions already taken. In this matter, a feedback system should be regarded as consisting of sensors up front. These sensors provide the earliest evidence that events are following one particular course out of an infinite number of possibilities. One is critically dependent here on the sensitivity of the sensor system and on the way in which information is passed through from this detection mechanism for evaluation by other systems.

### Proposals for Operationalization

There are multiple ways to establish these systems, but the system as a whole should be designed to meet criteria for actionability. The pulse of government cannot be stopped while the system is redesigned, and Congress is unlikely to produce an omnibus bill to upgrade government systems. Therefore, to comport with reality, the design of anticipatory governance as a whole, and of its constituent systems, should be:

- ❖ light on resources
- ❖ executable on the basis of existing Presidential authority, without requiring new legislation
- ❖ compatible with existing executive branch systems and processes
- ❖ ultimately compatible with deeper, more profound reform involving the executive branch as a whole, if and when that becomes possible
- ❖ integrated with advanced methodological approaches, including methods potentially important to foresight generation and to systems operations.

The following proposals share a common feature in that all of them aim to pass this test for feasibility. The proposals are categorized as follows: creating a high-level incentive for foresight; establishing a foresight-policy bridge; linking foresight methodology to the budgeting process; designing networked arrangements to share information and work across jurisdictional boundaries; and implementing feedback protocols to gauge performance of policy, speed up the learning process, and encourage midcourse correction.

#### *Create High-level Incentives for Foresight*

- ❖ *Establish a staffing function for foresight:* Assign individual staff members to maintain a flow of foresight-related information as part of the data flow to principal officials.<sup>3</sup> There could also be a staff function to make sure foresight issues were identified and inserted into the agendas for deputies and principals meetings. An important part of this function would be to connect foresight to the here-and-now and decide which day-to-day decisions require integrating longer range consideration into the calculus.

- ❖ *Add precepts for foresight to terms of reference for policy analysis:* Mandate that major intelligence assessments and new policy recommendations include foresight-based analysis sections to explore alternative consequences. This would require analysts to go beyond purely evidence-based analysis and include disciplined assessments of plausible hypotheticals that could have major consequences. New precepts could incentivize a stream of foresight-based reporting tied to policy and budget, which is presently lacking. Insights about the future should be tied to actions that can be taken to seize an opportunity or avoid a threat. These requirements could be written into standards via supporting directives at the department or agency level. Measures would have to be taken to prevent these requirements from being mechanically applied to so many documents as to destroy their value, as well as to ensure that hypothetical analysis from the intelligence community does not become policy advocacy.
- ❖ *Revise career incentives to encourage long-range analysis:* Foresight analysis needs to become integrated and valued. Foresight should be asked for in the Presidential Daily Briefing. Rewards and promotion could be issued for good foresight analysis, specifically for analysis that leads to seizing opportunities (in addition to averting risks). New incentives could be designed for civil servants who self-organize across bureaucratic boundaries to share information on a mission-by-mission basis.
- ❖ *Educate/train in foresight:* Create opportunities for Federal officials to acquire formal education in foresight generation and application—using existing government educational institutions or outside consortia. We do not train civil servants to think across categories, and this kind of training is necessary to give the next generation of civil service the capacity to operate under 21<sup>st</sup>-century complex conditions. Short-course training in foresight methodology (analysis of alternative futures) should be part of the experience of senior civil service (including senior executive service and national security professionals) as well as military officials. Exposure to joint planning and joint operations should be an expected element of professional development. There should also be a revised approach to training at the academic level, stressing interdisciplinary study and exploring the relationship between theory and practice.

### ***Establish a Foresight-Policy Bridge***

- ❖ *Use small teams to broker between foresight producers and policymakers:* There are multiple concepts for organizing foresight into a specific stream of information available to policymakers. The central problem is that no mechanism exists for bringing foresight and policy into an effective relationship. A brokering function could improve communication between producers and potential users of foresight. Small, ad hoc translation teams could be organized and composed of foresight and policy specialists tailored for specific issues, but with broad experience in both domains (foresight and policy). Their job would be to serve as translators: translating to policy what is available from foresight sources, and translating for foresight producers what is needed by policymakers. It would also be helpful to include experts who can help policymakers and computer

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modelers find a way to communicate. Over time, brokers could help policymakers practice foresight methods. Such a function would bridge the cultural gap between policymakers and foresight producers who do not think in the same terms and who do not understand each other's approach.

- ❖ *Set up a dedicated office for foresight as a component of the EOP:* Establishing an office dedicated to the production of foresight within the Executive Office of the President would provide a service similar to that of Singapore's Risk Assessment and Horizon Scanning process. Functions of the office would be scanning for weak signals of impending major events, linking long-range assessments to ongoing policy formation, and possibly running games and scenarios to study potential consequences. This office would supplement the short- and medium-term emphasis of the National Security Council by focusing exclusively on the long term. Many questions would have to be answered: Would it be possible to do this effectively with a small staff? Would the office take the initiative to create its own agenda? Would it instead be responsive to instruction from somewhere else in the system? If the latter, would it retain independence of thought? How would it relate to intelligence input, especially longer range input? Where would it connect in the larger system? How would its output be related to policy formation (a Presidential order establishing that this be part of the dimensionality of all policy products coming out of the White House staff)? What is the handoff between long-range and current issues (at what point is an issue no longer prospective in the long term and active in the here and now)?
- ❖ *Nest and synchronize the national strategy documents:* Congress has mandated an array of reports on national strategy (the Quadrennial Defense Review, Quadrennial Homeland Security Review, Quadrennial Intelligence Community Review, National Security Strategy, and so forth, plus the Quadrennial Diplomacy and Development Review initiated by the Secretary of State). These reports are asynchronous, syncopated, and disjointed from one another. Instead, these strategy documents should have a cumulative impact toward a common goal, understood in common terms. They should have direct relevance to each other and be treated as if "nested" one within the other. They should have a clear progression from broad strategy down to programmatic detail. Their due dates should be aligned to promote a strategic progression. The planning process should allow time for planning and reflection. Time is needed to do workmanship and to synchronize strategies. It is an iterative process where the parts take time to gel. Each one of these documents should be readily convertible into budgetary implications. It would make sense to insert parallel requirements for long-range analysis in each of these reports to establish the link between the national strategy and longer range foresight.

**Link Strategy to the Budget.** Policy can be linked to resources by creating a venue for OMB–NSC–NEC exchanges at the level of complex priorities.

- ❖ *Use alternative budgets to reflect scenarios for alternative futures:* There are many possible futures—so why do we have one budget? We have had a succession of single-image views of

The White House (Chuck Kennedy)



First Lady Michelle Obama joins students for “Let’s Move!” Salad Bars to Schools launch event at Riverside Elementary School in Miami, Florida

budget cuts and taxes that have not been adaptive enough to withstand a range of contingencies. It would be helpful to have a set of scenarios that show where we are supposed to end up after these transactions so we can buy into or buy out of alternative visions of where we want to be. Developing alternative budgets based on alternative national strategies would provide for better informed decisions as to how to pursue and resource our national strategies.

- ❖ *Use the budget process to develop strategic priorities:* OMB already requires alternative budget proposals, but the emphasis is on alternative decrements without considering alternative priorities or how alternative priorities can shape the country over the longer term. Alternative budgets should be used to model the effects of different decisions about strategic national priorities. If we have budgets that really do address the fiscal crisis, alternative approaches are going to mean alternative futures for how we live in the United States and how the Nation relates to the international system.
- ❖ *Establish an OMB–NSS interface:* OMB could serve as an active party to strategic planning and coordinating resources. Regular meetings between OMB and the National Security Staff (NSS) to translate strategies into budget implications would be a form of brokering function. The purpose would be to clarify strategic priorities by translating them into budgetary terms. (This could be done by regularly having representatives from OMB present at NSS meetings to shed light on the budgetary implications of strategy, and representatives of NSS present to shed light on the strategic implications of budget decisions.)

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- ❖ *Translate long-range priorities into language compatible with the congressional appropriation cycle:* The United States will periodically spend several billion dollars on long-term projects meant to shape the future, and then cancel them with nothing to show. Instead, proposals for large projects could be broken down into manageable chunks that are independently valuable but collectively aligned toward a larger goal. These chunks would be turned into policy recommendations and then translated into legislative language and timelines. Each component is valuable in its own right and can stand on its own so that benefits are achieved regardless of whether the final goal is achieved. Success depends on describing a desired long-term endstate and developing a series of short-term steps to achieve it. This Component-level Implementation Process (CLIP) is a way to analyze the programmatic implications with terms that are in sync with congressional politics by breaking down the long-term goals into progressive short-term legislative steps that offer substantial stand-alone benefits. CLIP mitigates the political risk inherent in introducing legislation when the final results may not be seen for decades.

### *Networks for Whole of Governance*

- ❖ *Organize virtually for foresight:* Create a virtual foresight system by existing organizations in government that have foresight or policy planning functionality. A system of portals could be designed into the system, where nongovernmental foresight producers could deliver their products to a government system able to assimilate and direct the contents (that is, a “wisdom of the crowds” approach to integrating foresight). This would not be a brick and mortar organization; it would use existing personnel. Currently, foresight and policy planning are done in stovepipes from a subject-matter perspective. A virtual organization could bring together all department and agency foresight and policy planning processes into a structured, methodical approach in the direction we as a nation should be moving. It would be beneficial to center this process at the White House to help enrich flow of foresight materials to the policy system. This virtual organization could be created using interprocess communication (IPC)—for example, the Federal Advisory Council on the Future, a sub-IPC focused on determining priorities and objectives over the next decade or longer.
- ❖ *Create a committee of deputies for managing complex priorities:* This committee could serve as a nucleus for long-term foresight and warning and cross-disciplinary policy formulation as response. Its function would be to consider the intersection of multiple issues and match potential consequences to policy priorities. This would be a lightweight way to add formal consideration of the foresight dimension to the White House policy process. It would also enable the exploitation resources from a variety of bureaucracies while coordinating cross-bureaucracy policies. Efforts would have to be made to limit the additional burden on deputies and to integrate this committee into the policy formulation process in order to avoid competition for buy-in.
- ❖ *Create mission-based teams of czars:* Organize the now-infamous executive branch czars<sup>4</sup> into strategic groupings (for example, heads of interagency task forces). It is possible that

czars—who should be viewed more as *integrators* than *autocrats*—collectively possess the totality of the information about where the government is and where it is headed. Some report directly to the President and others to Cabinet officers, and some have hybrid responsibilities with lines of responsibility running more than one way. Integrators—individually and corporately—can perform a crucial knowledge management function in the executive branch by connecting top-of-system awareness to political authority. They are in a unique position to provide the visioning, networking, and feedback functions necessary for anticipatory governance. Such functions would not threaten the oversight authority of Congress providing it is clearly established that responsibility for the execution of policy remains in the hands of Senate-confirmed officials. They can generate situational awareness across the whole of government, during both the formation and execution of policy and track progress of policy implementation and needs for midcourse adjustment. The proposal is, therefore, to create a venue that brings these integrators together for systematic consultation and cross-fertilization. This creates a network of existing officials, with a collective responsibility focused on national priorities. It would *not* substitute for the NSC or the deputies and principals committees, nor would it displace Senate-confirmed Cabinet officers from their authorities and responsibilities. It would simply augment the existing process by adding a critical missing element: the ability to visualize policy formation and execution in relation to *mission*, as opposed to *bureaucratic jurisdiction*. This arrangement would require an authority responsible for coordinating the groupings and rearranging them as the problem or priority on which they are focused inevitably morphs.

- ❖ *Use the Cabinet strategically:* Use key White House officials and members of the Cabinet to manage the mission by establishing ad hoc task forces for complex priorities. Currently, the Cabinet has little corporate existence, but it is possible to organize groupings according to strategic requirements. Agencies could get involved in subgroups to ensure their organizations are aligned from the top down. This is similar to commander's intent in the Defense Department. These groupings can help make sure they mesh when they encounter each other. Congressional oversight would need to be taken into account here since Congress does not hold Cabinet secretaries accountable for how well they have interacted and interlinked with others (even if that is what is required to strategically maneuver the government under the pressures of complexity).

### *Systems for Feedback and Learning*

Every policy sent to the President (or any senior decisionmaker) for approval should be part of a package including the following explicit terms:

- ❖ statement of key assumptions on the basis of which the recommendation has been made
- ❖ definition of *success*, including overall definition of success as well as specific key objectives
- ❖ information streams to be monitored on an ongoing basis

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- ❖ performance indicators that would automatically trigger a review of the policy
- ❖ points of responsibility and accountability in the system for collecting and applying such information
- ❖ periodic audits of performance by teams that will independently report their conclusions to higher levels of consideration
- ❖ provisional date for an audit of the policy and its performance to occur even in the absence of a trigger date built into the White House calendar.

A feedback system could be embedded into the policy process using these mechanisms. It can serve as a basis for ongoing evaluation, reassessment, and recalibration of policies. This is vital for preventing breakdowns and system failures that routinely go undetected until it is too late. It will also speed up system learning from experience to improve the conduct of ongoing policies and to improve the design of policy in the future.

### Political Leadership

Reconfiguring the government to handle complex priorities—to be anticipatory rather than reactionary—will ultimately require deep changes within the executive branch involving legislation and a lengthy period of organizational adjustment to new processes. However, as we know from experience with the Goldwater-Nichols Department of Defense Reorganization Act of 1986, once a new legal foundation is laid, it will be the work of a generation to integrate it completely into the processes and culture of government. Meanwhile, the Nation is immersed in multiple ongoing crises, with more coming. Something needs to be done now to

capitalize on existing law and precedent. This process can be initiated from the top of the executive branch, using existing Presidential authorities and for the most part by redeploying personnel and using them in new ways rather than by tremendously expanding the staff.

This article's proposals for establishing anticipatory governance are focused on actions which can, to the extent possible, be carried out by the President under existing authorities and precedents. However, even if this approach were to succeed within the White House and/or at the tops of agencies, the larger task of reforming the executive branch bureaucracy would remain, and that job is so big as to eventually

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require congressional buy-in. In a politically charged atmosphere, this may seem impossible. Nevertheless, it is a mistake to make premature concessions to pessimism. Congress has the flexibility under its own rulemaking powers to adjust to the urgent need for long sighted approaches sustained over considerable periods of time. Doing this is not a constitutional question; it is a question of political leadership.

### Conclusion

The national security of the United States is a complex megasystem of systems and needs to be managed as such. The endstate should not be visualized as a vast unitary process, but as many systems harmonized by common strategic direction, conveyed through a networked administrative system. To this point, however, the U.S. Government is without an integrated foresight

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system, a networked approach to the management of complex priorities, and a formal feedback system to help it learn from experience. The consequences are visible in terms of an increasing number of collisions with “unforeseeable events,” and in terms of economic opportunities lost to rivals who are consistently pursuing winning strategies. This pattern is feeding an increasing conviction at home and abroad that the United States is in irreversible decline. Such a conviction feeds on itself and becomes a negative force in and of itself.

The truth is hard to face. For decades, we have acted as if American primacy was the natural order of things rather than a legacy built on the vision and the sacrifices of our predecessors. We have been encouraged to think of ourselves as fortune’s favored children, and the sad consequences of that are all too apparent. We must now learn to govern ourselves more intelligently. The first step is to accept that, in a complex universe, the only true constants are surprise and change. Success goes to those who anticipate. **PRISM**

The author acknowledges the work of Evan Faber, whose substantive expertise, critical comments, and organizational skill were of great value in the preparation of this article.

### Notes

<sup>1</sup> The term *anticipatory governance* first came to the author’s attention when it was used in an email written by former student Neil Padukone. The term also appears to have been used in relation to nanotechnology and is somewhat similar to the term *anticipatory democracy* as used by Alvin Toffler and Clem Bezold.

<sup>2</sup> The fall 2007 Graduate Seminar on Forward Engagement created the concept and defined *complex priorities* as:

*the consideration of multiple intersecting issues across time which may have unintended or unexpected effects, and involve factors beyond those normally considered relevant to the issue. Complex Priorities specifically cater to the practice of policy-making, where the importance assigned to various issues is constrained by resources, but nonetheless must consider interactivity, short-term gains, and long-term interests. Complex prioritization involves a more in-depth, comprehensive view to ensure that decisions made are not simply surface-level political band-aids, but rather, provide broad-range, profound solutions to policy issues.*

<sup>3</sup> The Chief Operating Officer as mandated by the Government Performance and Results Modernization Act (2011) could be a model or used as a functional equivalent.

<sup>4</sup> The term *czar* is a misleading concept, weighed down by a great deal of historical baggage. It unavoidably suggests vertical organization, rigid hierarchy, and an imperious style of decisionmaking. Nothing could be further from what is required: laterally networked organization characterized by decentralized authority, operating with flexibility and transparency. The present random assortment of czars may somewhat improve coordination within and among various agencies but cannot do that for the system as a whole. In their present configuration, the czars cannot help the President achieve overall system coherence. They cannot provide an overall awareness of the operations of government, the interactions of policies with each other, and the impact of these forces on complex challenges.