

ARE OUR STRATEGIC MODELS FLAWED?

Strategic Uncertainty, the Third Offset, and US Grand Strategy

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ABSTRACT: This article demonstrates the usefulness of rethinking our understanding of uncertainty and how that might affect the course of the Department of Defense's Third Offset Strategy and US grand strategy in general.

In the foreword to the 2015 national military strategy, General Martin E. Dempsey, then-chairman of the Joint Chiefs of Staff unequivocally states: "Today's global security environment is the most unpredictable I have seen in 40 years of service."¹ This bold statement fits the narrative of strategic discourse in Washington, DC, and other Western capitals during the past 25 years: today's international system is dominated by high uncertainty and unpredictability.² Despite the lip service paid to uncertainty, the Washington policy community and many academic experts have a narrow understanding of the concept. Emily Goldman describes the most common view of uncertainty in the strategic studies community well: "Uncertainty is present when the likelihood of future events is indefinite or incalculable."³

But is this simple definition of uncertainty really useful for guiding foreign policy strategic planning in today's highly unpredictable global environment? This article presents a more nuanced way of defining uncertainty and shows how separating different levels of uncertainty leads to more effective strategic planning.

The world of business strategy consulting offers a more sophisticated understanding of uncertainty than foreign policy and national security scholarship. Borrowing from this management literature, a middle way that avoids the two extreme views dominating national security scholarship on this topic materializes. As the next paragraphs show, foreign policy experts either regard the international security environment as inscrutable and unpredictable as Chairman Dempsey does, or they believe it is much more predictable and benign than the US national security community claims. Conceptualizing different levels of uncertainty, however, offers a more useful way to plan strategically for a range of foreign policy challenges, as detailed in the second section of the article. The article defines four levels of uncertainty, along with the recommended strategy tools associated with each one of them,

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1 Martin E. Dempsey, foreword to *The National Military Strategy of the United States of America 2015*, by the US Joint Chiefs of Staff (JCS) (Washington, DC: JCS, 2015).

2 Michael Fitzsimmons, "The Problem of Uncertainty in Strategic Planning," *Survival: Global Politics and Strategy* 48, no. 4 (Winter 2006–07): 131–46, doi:10.1080/00396330601062808; and Christopher J. Fettweis, "Threatlessness and US Grand Strategy," *Survival* 56, no. 5 (October–November 2014): 43–68, doi:10.1080/00396338.2014.962793.

3 Emily O. Goldman, *Power in Uncertain Times: Strategy in the Fog of Peace* (Stanford, CA: Stanford University Press, 2011), 13.

and then applies these new concepts to a few examples of uncertainty encountered in national security planning.

To demonstrate how this framework provides the US government with a useful perspective, the article uses examples of policy and strategic uncertainties from the National Intelligence Council's *Global Trends 2030: Alternative Worlds* report, and discusses them through the prism of the four levels of uncertainty.⁴ The *Global Trends* report, the most comprehensive and sophisticated effort of the US government to analyze long-term strategic uncertainty, showcases how some business ideas on uncertainty can improve planning for unknowns in the national security arena. The article applies this framework to the contentious debates on the Department of Defense's Third Offset Strategy and to the debates on America's grand strategic course. Before proceeding to this analysis, the article sketches the contours of the strategic studies community's current debate on uncertainty.

Cult of Complexity: The Binary View of Uncertainty

How do national security experts and academic students of international relations think of uncertainty? Broadly speaking, the academic and policy debates on uncertainty in the international system reveal two schools of thought, one of inscrutable uncertainty and complexity and one of overhyped threats.

Most scholars and practitioners in the national security bureaucracy rely on the distinction that risks can be estimated using probabilities, while uncertainty cannot.⁵ Since today's security environment is seen as increasingly complex and uncertain, it is also considered increasingly less predictable and more dangerous. As the *Quadrennial Defense Review 2014* puts it, the Defense Department is facing "increasing uncertainty in the future" and warns that over the long term, US forces "will have less margin of error to deal with unforeseen shifts in the security environment."⁶ Colin S. Gray expressed a common view in the pages of this journal a few years ago when he wrote, "The future is not foreseeable, at least not in a very useful sense. The challenge is to cope with uncertainty, not try to diminish it. That cannot be done reliably."⁷

In recent Congressional testimony, Henry A. Kissinger similarly stated, "The United States has not faced a more diverse and complex array of crises since the end of the Second World War." In looking around the world to key geopolitical hotspots, such as Europe, East Asia, and the Middle East, he worries "the old order is in flux while the shape of the replacement is uncertain."⁸ Retired Lieutenant General James R. Clapper Jr., Director of National Intelligence (2010–17), similarly made front-page headlines when he told Congress we live in a uniquely "complex and dangerous world" and "looking back over my

4 US National Intelligence Council (NIC), *Global Trends 2030: Alternative Worlds* (Washington, DC: NIC, 2012).

5 *Ibid.*, 12–13.

6 Chuck Hagel, *Quadrennial Defense Review 2014* (Washington, DC: US Department of Defense, 2014), 39, 64.

7 Colin S. Gray, "The 21st Century Security Environment and the Future of War," *Parameters* 38, no. 4 (Winter 2008–09): 15.

8 *Opening Statement by Dr. Henry A. Kissinger Before the US Senate Committee on Armed Services at a Hearing Convened to Discuss "Global Challenges and US National Security Strategy,"* 114th Cong. (January 29, 2015) (opening statement, Henry A. Kissinger, former US Secretary of State).

more than half a century in intelligence I have not experienced a time when we've been beset by more crises and threats around the globe."⁹

Conversely, critics of this dominant narrative on uncertainty argue a "cult of complexity" leads to overhyping threats to US interests. These scholars insist substantial threats are easier to divine and are far less worrisome than "uncertainty hawks" contend.¹⁰ Christopher J. Fettweis argues strategists "assess realistic risks and allocate scarce resources according to the most likely threats of the future." Failure to do so "entails enormous costs, in both resources and opportunity, for the US." In his judgment, the United States lives in a world of "relative safety," only perceived dangerous because of the needless worry about vague uncertain exigencies.¹¹ Michael Fitzsimmons similarly contends policymakers should rely more on prediction and should stop focusing so much on the role of uncertainty in strategic planning. In his view, "While the complexity of the international security environment may make it somewhat resistant to the type of probabilistic thinking associated with risk, a risk-oriented approach seems to be the only viable model for national-security strategic planning."¹² Lastly, other experts worry uncertainty can lead to strategic paralysis in the face of the unknown: "Succumbing to complexity does not tell us how to react; indeed, if anything, it dissuades us from reacting at all, out of fear that we cannot possibly know what to do. . . . The Cult of Complexity demands confusion and even fear in the face of incomprehensible threats."¹³

Both of these approaches to characterizing uncertainty have some truth to them and both go too far in one direction; therefore, they do not provide an adequate framework for policymakers and Department of Defense strategists faced with making real-world decisions in the space between the two extremes. As two prominent academics with experience in the policy arena explain, "Exercising judgment under uncertainty is the essence of foreign policy decision making."¹⁴ This statement captures the importance of improving our understanding of uncertainty by adopting a more nuanced view than the binary distinction between knowable risk and unknowable uncertainty.¹⁵

Contrary to those views, Hugh Courtney introduces a conceptual roadmap based on four different levels of uncertainty indicating that, rather thinking of uncertainty as an "all or nothing phenomena," the level of external uncertainty can be usefully approximated. This

9 Remarks as Delivered by James R. Clapper, Director of National Intelligence, *Worldwide Threat Assessment to the Senate Select Committee on Intelligence*, 113th Cong. (January 29, 2014) (remarks, James R. Clapper, director of National Intelligence).

10 Michael J. Gallagher, Joshua A. Geltzer, and Sebastian L. v. Gorka, "The Complexity Trap," *Parameters* 42, no. 1 (Spring 2012): 5–6. See also Fettweis, "Threatlessness"; and Fitzsimmons, "Problem of Uncertainty."

11 Fettweis, "Threatlessness," 35, 51.

12 Fitzsimmons, "Problem of Uncertainty," 143.

13 Gallagher, Geltzer, and Gorka, "The Complexity Trap," 10.

14 Bruce W. Jentleson and Andrew Bennett, "Policy Planning: Oxymoron or Sine Qua Non for U.S. Foreign Policy?," in *Good Judgment in Foreign Policy: Theory and Application*, ed. Stanley A. Renshon and Deborah Welch Larson (Lanham, MD: Rowman & Littlefield, 2003).

15 Paul K. Davis, *Lessons from RAND's Work on Planning under Uncertainty for National Security* (Santa Monica, CA: RAND Corporation, 2012), 1. Analysts at the RAND Corporation produced some valuable and sophisticated research that conceptually moves away from the binary view by further dividing uncertainty into normal uncertainty and deep uncertainty. But, a more granular discussion of the nature of uncertainty could provide government planners and strategic decision-makers with even more tools to improve their performance.

approximation is crucial in determining what strategic planning style and tools are most useful for achieving success.¹⁶ Each level of uncertainty presents different challenges and opportunities for leaders facing the key strategy question of whether to shape the environment or to *adapt* to it.

Strategic Planning under Different Uncertainty Levels

Level 1: A Mostly Stable, Linear Environment

The lowest level of uncertainty occurs in stable and slow-changing environments where long-term linear projections are generally reliable. In the business world, such examples include utility companies, fast-food restaurants, or big-box retail stores. Firms operating in these areas can rely on predictions of estimated future profits in order to make the right decisions. Uncertainty is not entirely eliminated but can be significantly reduced by careful trend analysis and deliberate, rigorous planning based on the wealth of data available. Traditional strategic planning works well in such situations, and firms can make point predictions, calculate the payoffs associated with different strategies, and choose the most effective option. In Level 1 uncertainty, business leaders more commonly choose adaptive strategies than shaping ones because a stable environment is hard to reshape and concurrently offers enough predictability to choose a profitable position in the market that best matches their competitive advantage. Efforts to shape a stable market are rare but can pay disproportionate rewards to a successfully disruptive firm.¹⁷

In the realm of international politics, trend analysis of Level 1 uncertainty represents the dominant approach to long-term strategic planning. The *Global Trends 2030* report presents four megatrends that will shape the future of the international system: individual empowerment, the diffusion of power, demographic patterns, and the “water, food, energy nexus.” More specifically, the report makes a number of confident predictions in each of these broad categories, urging policymakers to adapt to the expected changes in the strategic environment. Some of the trends falling under these categories represent good examples of Level 1 uncertainty such as the financial impact of an aging population on government social programs, of increasing global migration and urbanization, or of the expected increase in energy consumption driven by the expanding global middle class on the demand side as well as hydraulic fracturing technology on the supply side.¹⁸ When dealing with such areas where the trends are likely to be hard to reverse, the report is correct to call for a strategic approach that adapts to the inevitable changes.

Even though adapting is usually the preferred approach under Level 1 uncertainty, there is nevertheless one important lesson that can be derived from the business literature in planning for fairly stable environments. Unanticipated major changes can still occur even in generally predictable policy areas, and such disruptions present opportunities to reshape the environment favorably. The development of horizontal

¹⁶ Hugh Courtney, *20/20 Foresight: Crafting Strategy in an Uncertain World* (Boston, MA: Harvard Business School Press, 2001), 3–5.

¹⁷ *Ibid.*, 21–23, 49.

¹⁸ NIC, *Global Trends 2030*, iv, 21–38.

drilling and hydraulic fracturing, for example, allowed the United States to reshape the oil supply market in a very short period. Notably, the previous version of the *Global Trends* report predicted Russia and Iran were well placed to become “energy kingpins” given their oil and gas reserves, while the United States was seen as continually dependent on energy imports.¹⁹ Such dramatic shocks could happen again on both the supply side and the demand side due to technological advances. To take another example, the increasingly anti-immigrant political sentiment rising in Europe and North America could drastically alter the linear growth in migration anticipated by *Global Trends 2030* and bring about unanticipated and dangerous political, economic, and humanitarian consequences such as those witnessed by the Syrian refugees roiling Western European societies. In addition to adapting to changes, therefore, policymakers must also consider actively reshaping these megatrends as well as reacting to dramatic shifts caused by unexpected shocks to the system.

Level 2: Alternate Futures and Bifurcated Choices

At the next level of uncertainty, strategists face an environment with a few clearly distinguishable possibilities out of which only one will occur. Common examples of such areas in the business world include regulatory choices—which regulations lawmakers will adopt—and industry standards—Windows or Mac and DivX or DVD. Strategists estimate the probabilities of each option and the expected rewards, deciding accordingly. The tools for these kinds of choices include well-known techniques such as decision-trees and game theoretical computations as well as scenario analyses. In such a Level 2 environment, both shaping and adapting strategies can be successful depending on the firm’s internal strengths. Firms can try to shape the environment to bring about the option most favorable for them by adopting a strategy that changes the likelihood of each scenario, or they can hedge their bets initially and focus on adapting and updating their investment choices later based on indicators from the market.²⁰

The idea of using scenarios and game-theory as strategic planning tools is of course familiar to national security experts, and the *Global Trends 2030* report offers possible scenarios to illuminate a number of important questions about the future, referred to as potential game-changers. The major weakness of the report, however, is that it does not distinguish between scenarios characterized by Level 2 uncertainty—a known number of possible options—and more speculative ones—a known range of outcomes—discussed in the following section of the article. The report sometimes implies its scenarios cover all realistic options, while other times it offers best- and worst-case scenarios with some intermediate options. This presentation is of limited use for strategic planners because the tools and strategic approaches best suited for Level 2 are different than the ones for Levels 3 and 4. In the rest of this article, the author will provide a more useful framework for both intelligence analysis and long-term strategic planning by separating three sets of the *Global Trends* scenarios into the levels of uncertainty used in business.

19 NIC, *Global Trends 2025: A Transformed World* (Washington, DC: NIC, 2008), 42.

20 Courtney, *20/20 Foresight*, 25–28, 50.

The future of East Asia, for example, is described in a Level 2 framework with four distinct options collectively exhausting the plausible alternatives:

1. A continuation of the present order mixes rules-based cooperation and quiet competition within a regional framework structured around existing alignments sustained by US leadership.
2. Dynamic shifts in relative power and a reduced US role fuels a balance-of-power order to the unconstrained great power competition.
3. An East Asian community consolidates along the lines of Europe's democratic peace, with China's political liberalization a precondition for such a regional evolution.
4. A Sinocentric order centered on Beijing sustains a different kind of East Asian community on the basis of China's extension of a sphere of influence across the region.²¹

Once the possible futures are outlined, planning for Level 2 uncertainty begins by using a cost-benefit analysis for each of the options and determining whether a shaping or an adapting approach would be more likely to succeed for each outcome. The first option above, continued US leadership in East Asia, presents the most benefits for the United States, and the "Pivot to Asia" strategic shift undertaken by the Obama administration arguably suggests the cost to pursue this option are worth it. The second option, a return to a balance-of-power approach, seems the most likely option based on the history of the region and the dominant pattern of power-balancing in the international system. The third option is the least likely one, but its potential outcome of a secure and politically free East Asia without the need for large American resource commitments would represent the most effective cost-benefit calculus from the US perspective. The fourth option would harm US regional interests, but it is also fairly unlikely given the strong skepticism of China's regional hegemonic ambitions among many of its neighbors, most importantly Japan. The key uncertainty for Washington, therefore, is whether it should aim to shape the environment toward options one or three. Another possibility, strategists might select an adaptive approach, hedging to prepare for all options, with a particular focus on option two, the most likely to occur.²²

Level 3: A Known Range of Possibilities

In Level 3 uncertainty, strategists face a range of possible outcomes within fairly well understood lower and upper boundaries without details on the possible scenarios presented in Level 2. Specific examples from the business world include the uncertainty present in the customer demand for new or improved products or services, such as a new commercial airplane or high-speed broadband. Firms have a good sense of the lowest and highest possible values, but they are uncertain about where the actual outcome of their strategic move will fall within the known range of possibilities. Strategic planning tools, such as scenario-planning exercises under Level 3 uncertainty, serve to show merely

²¹ NIC, *Global Trends 2030*, 80.

²² *Ibid.*, 83. A similar analysis could also be performed regarding Russia's future grand strategy as the report outlines three possibilities for Moscow's approach to the West: reluctant partner, ambivalent relationship, or antagonist.

plausible descriptions of different futures, not exhaustive ones such as those under Level 2 uncertainty. Courtney's study recommends firms develop a limited number of alternative scenarios with unique implications for strategic choices that also focus on the probable range of future outcomes and not the possible range.²³

Similar to Level 2, a shaping strategy under Level 3 focuses on evolving the industry toward the firm's strengths. An adaptive hedging strategy similar to Level 2 is harder to sustain across the range of possible futures, but firms can successfully employ emergent strategies under Level 3 uncertainty when they choose an adaptive style.²⁴ The key to a successful emergent strategy is the ability to continuously *learn* from actions through trial and error and to maintain a flexible leadership approach that can quickly capitalize on shifts in external conditions.

In the world of international affairs, a large number of policy areas fall under Level 3 uncertainty. The *Global Trends* report lists best- and worst-case scenarios for issues such as trade liberalization, climate change, nuclear proliferation, and responsibility to protect, as well as failed states and ungoverned spaces; however, the report's weakness is a mere outline of the best and worst without also fleshing out other scenarios between the two extremes. Thus, employing the strategic planning tools suited for Level 3 uncertainty is difficult.

In the case of nuclear proliferation, for example, the report highlights the following lower and upper boundaries:

Worst case: Iran and North Korea trigger others' active interest in acquiring or developing nuclear weapons. Terrorists or extremist elements also acquire weapons of mass destruction material. The non-proliferation treaty erodes, potentially triggering a total breakdown in the international system.

Best case: Iran and North Korea are dissuaded from further weapons of mass destruction development and terrorist groups do not acquire such weapons. The West may need to extend the nuclear umbrella to those countries feeling threatened by proliferation.

While these two scenarios describe the likely range of possibilities well enough, they are not enough for the challenge of managing uncertainty in a Level 3 environment. Without sketching out intermediate scenarios, policymakers' efforts to shape the policy environment in a more positive direction or to adapt their strategies if external conditions negatively shift the environment will be without guideposts and metrics. In the particular case of nuclear proliferation, some possible scenarios could examine a case where Iran's nuclear program is somewhat contained but other Middle East states aim to achieve limited nuclear capability, a scenario where Iran's nuclear program is temporarily stopped but North Korea sells weapons of mass destruction material to terrorist groups, or a situation where Iran's program develops in secret and tests a nuclear device but other countries in the region rely on other forms of deterrence rather than pursuing nuclear programs of their own.

23 Courtney, *20/20 Foresight*, 29–31, 126–27.

24 Ibid., 51. For more on emergent strategies in the business world, see Henry Mintzberg, *Tracking Strategies: Toward a General Theory* (New York: Oxford University Press, 2007).

Once several such scenarios have been developed and rigorously analyzed, Western policymakers could potentially shape the environment more adroitly by manipulating threats and incentives to would-be proliferators. Policymakers might also be better prepared for potential surprises and better able to learn from these developments so they might shift their strategies to prevent the proliferation of nuclear weapons.

Global Trends 2030 also shows the limits of a binary view of uncertainty when it applies a trend analysis Level 1 methodology to issues that would be more properly addressed under Level 3. One such area worth mentioning here is the alleged diffusion in power from West to East, and more directly from America to China. Not only would such an approach allow for a richer scholarly discussion about future developments related to these issues, but it would also broaden the spectrum of strategic responses to include shaping options or emergent learning in addition to the planned adaptation usually used for Level 1 megatrends. As the recent dramatic fall in China's stock market showed, Beijing's future economic growth path appears far less certain than commonly predicted.²⁵ Meanwhile, the US economy performed better than anticipated during the same time, and some of its fundamental strengths relative to the emerging economies appear to have been underestimated.²⁶

Level 4: True Ambiguity

The most uncertain environment is characterized by true ambiguity; thus, it is fundamentally unpredictable. This is the realm of the “unknown unknowns” famously described by Donald Rumsfeld and the “black swans” popularized by Nassim Nicholas Taleb.²⁷ In the business world, such Level 4 uncertainty can be found in the aftermath of major politico-economic changes (i.e., entering the Russian market postcommunism), in entering entirely new markets, or in planning for very long-term market conditions.²⁸

In such highly uncertain environments, Courtney recommends strategic planning should proceed backwards: instead of analyzing the environment and choosing the appropriate strategy to reach goals, leaders should start with various possible strategies and reason backwards about the future to support each strategy. Because qualitative judgments ultimately dominate strategy choices under Level 4 uncertainty, a rigorous and systematic examination of the likely assumptions that would need to be true for the strategy to succeed is all the more important. And, as Courtney observes, “working backwards” also provides one with incremental evidence “to determine if a strategy is on track.” Paradoxically, Level 4 uncertainty sometimes favors a shaping strategy because of the opportunity to set the rules and achieve first-mover advantage. Alternatively, an adaptive approach in high uncertainty

25 Keith Bradsher, “China Falters, and the Global Economy Is Forced to Adapt,” *New York Times*, August 26, 2015.

26 Nelson D. Schwartz, “As Economies Gasp Globally, U.S. Growth Quickens,” *New York Times*, August 27, 2015.

27 Donald Rumsfeld, “Known and Unknown: Author's Note,” Rumsfeld Papers, December 2010, <http://papers.rumsfeld.com/about/page/authors-note>; and Nassim Nicholas Taleb, *The Black Swan: The Impact of the Highly Improbable* (New York: Random House, 2007).

28 Courtney, *20/20 Foresight*, 32–33.

requires a firm to constantly take advantage of emerging opportunities before its competitors.²⁹

One example of true ambiguity the United States and its allies repeatedly mishandled in recent decades is the uncertainty in the aftermath of military operations resulting in regime change. The failure to properly plan for the Level 4 uncertainty that characterized Iraq and Libya after the removal of their dictators led to many of the negative strategic consequences of those tactically successful initial military campaigns. The working backwards approach suitable for such truly ambiguous situations would start with several possible desired end states for the military campaign (i.e., strong central government, democratic government, federal system, etc.) and would question what would need to be true for each outcome to occur. Then, civilian and military leaders should work together to design various strategic paths to the desired political objective and set benchmarks and guideposts to indicate whether the strategy is working as intended or it needs to be adapted.

One of the worst problems for the US military in Iraq was the failure to adapt to the rapidly deteriorating situation once the initial assumptions and predictions for the post-Saddam period proved inaccurate. Even though parts of the State Department and the Pentagon conducted some planning that focused on the likely best- and worst-case scenarios, the entire US government did not approach post-Saddam Iraq expecting the true ambiguity of Level 4 uncertainty. Otherwise, the US military arguably would have prioritized short-term goals like maintaining order and stability more than long-term goals such as the establishment of a democratic political system.

Levels of Uncertainty and the Third Offset

Where and how the US Armed Forces will fight a war 20 or 30 years from now arguably represent the most critical questions for the Pentagon's strategic planning, programming, and budgeting process. Moreover, the answers to these questions impact defense investments in weapon systems that need years of research to develop and are scheduled to stay on the battlefield many decades into the future. In light of the conceptual framework discussed above, answering the main questions requires first deciding which level of uncertainty best captures the future operational warfighting environment and consequently deciding whether the Pentagon should predominantly adopt a shaping or an adapting approach.

Indeed, a debate has been raging among defense experts on whether the United States should embark on the Pentagon's current Third Offset Strategy fueled by futuristic high-end technologies that will allow the United States to shape the battlefield over the next decades according to our preferred way of war or if America should focus more

²⁹ Ibid., 52, 129–31.

on adaptable investments, on short-term needs, and on a balanced portfolio across all domains of warfare.³⁰

Pentagon leaders during the Obama era embraced the Third Offset and attempted to institutionalize the strategy throughout the department, essentially regarding future warfare as a Level 1 uncertainty. These leaders argue the winning strategy for the United States is reshaping the battlefield by offsetting the current trends threatening American interests through a leap in technology that would give the United States a first-mover advantage. More specifically, Third Offset proponents contend recent Chinese, and to a lesser extent Russian, advances in anti-access/area denial warfighting equipment (particularly advanced missiles, cyber, and electronic warfare), as well as the efficacy of “ubiquitous precision munitions” on the battlefield against state and nonstate actors, requires the United States to invest in futuristic systems such as unmanned submarines, electromagnetic rail guns, directed-energy weapons—high-energy lasers that could blind enemy sensors, and a range of other new technologies.³¹

On the contrary, former Secretary of the Navy Richard J. Danzig advocated in a report on future defense planning strategies for the Pentagon to shape the type of conflict it will be asked to fight next as a Level 4 uncertainty:

The number and diversity of variables that influence the national security environment confound multi-decade forecasting. Accurate prediction would need to anticipate changes in, among other things, technologies, economies, institutions, domestic and international politics and, of course, the nature of warfare. Each of these alone would be imponderable. Getting them all right at once is wildly improbable. Worse still, the evolution of these variables is complex and nonlinear.³²

The most appropriate resource allocation strategy, therefore, involves keeping options open with multiple “bets” on the future, choosing the most adaptable investments, and relying on emergent learning to make the right choices down the road.³³ Versatility and balance, military strategist Frank Hoffman writes, should guide defense investments rather than a search for the “disruptive breakthroughs” or “silver bullets” currently promoted by what he calls “technology optimists.”³⁴

Conceptualizing uncertainty through the prism of the four different levels presented in this article allows a different way to think about the US defense strategy debate outlined above. If the Third Offset

30 For the Third Offset arguments, see Robert Martinage, *Toward a New Offset Strategy: Exploiting U.S. Long-Term Advantages to Restore U.S. Global Power Projection Capability* (Washington, DC: Center for Strategic and Budgetary Assessments, 2014); Robert O. Work, “The Third Offset Strategy” (speech, Reagan Defense Forum, Reagan Presidential Library, Simi Valley, CA, November 7, 2015), <http://www.defense.gov/News/Speeches/Speech-View/Article/628246/reagan-defense-forum-the-third-offset-strategy>; and Shawn Brimley and Loren DeJonge Schulman, “Sustaining the Third Offset Strategy in the Next Administration,” *War on the Rocks*, March 15, 2016, <https://warontherocks.com/2016/03/sustaining-the-third-offset-strategy-in-the-next-administration/>. For the adaptive strategy view, see Richard Danzig, *Driving in the Dark: Ten Propositions about Prediction and National Security* (Washington, DC: Center for a New American Security, 2011); and Frank Hoffman, “Black Swans and Pink Flamingos: Five Principles for Force Design,” *War on the Rocks*, August 19, 2015, <https://warontherocks.com/2015/08/black-swans-and-pink-flamingos-five-principles-for-force-design/>.

31 David Ignatius, “America Is No Longer Guaranteed Military Victory. These Weapons Could Change That,” *Washington Post*, August 16, 2016, A15. For more, see Martinage, *New Offset Strategy*.

32 Danzig, *Driving in the Dark*, 15.

33 *Ibid.*, 19.

34 Hoffman, “Black Swans.”

school rightly thinks the future shape of warfare could be confidently forecasted based on recent trends in advances in military technology, then their recommendation for engaging in efforts to reshape future warfare according to areas of US competitive advantage are potentially very rewarding, but also very hard to accomplish given the difficulty of shaping an environment characterized by Level 1 uncertainty.

Conversely, if the analysts calling for a balanced and versatile force correctly understand the future of warfare as a Level 4 true uncertainty, then their emphasis on adaption is the right way to go only if the US military and Department of Defense leadership will be able to outperform their adversaries in terms of learning from the emerging characteristics of the future operational environment. This incremental and reactive approach does not offer the potential first-mover advantage of a more ambitious shaping approach, but it may nevertheless be the one that also has a higher expected value given it is arguably easier to implement and relies less on tenuous long-range forecasts.

Levels of Uncertainty and American Grand Strategy

Separating uncertainty into levels also provides a different way to think about the vigorous debates on the future of American grand strategy under the new Trump administration. Micah Zenko and Rebecca Friedman Lissner recently warned that Trump would “regret not having a grand strategy,” echoing a sentiment expressed by other Washington observers who perceive an improvisational style in the president’s foreign policy decisions.³⁵ Other scholars claim that Trump has a consistent grand strategy, albeit a misguided one.³⁶ Both of these schools of thought implicitly believe that the administration should pursue a grand strategy, but according to business theorists whether the focus should be on long-term plans versus short-term emergent adaptation depends on the level of uncertainty.

Business theorist Richard P. Rumelt argues that, rather than focusing on long-term goals, in conditions of high uncertainty short-term goals should be prioritized: “The proximate objective is guided by forecasts of the future, but the more uncertain the future, the more its essential logic is that of ‘taking a strong position and creating options,’ not looking far ahead.”³⁷ If at lower levels of uncertainty a traditional focus on long-term deliberate strategic planning might work at higher levels, as Henry Mintzberg puts it, the strategist would be more of “a pattern recognizer” and “a learner,” as opposed to a “designer.”³⁸ Similarly, the Boston Consulting Group, a leading management consulting firm, advances a concept of “adaptive strategy” as the key to strategic success.

In today’s world, which is often characterized by Level 3 and Level 4 uncertainties in many markets, the emergent adaptive approach “largely

35 Micah Zenko and Rebecca Friedman Lissner, “Trump Is Going to Regret Not Having a Grand Strategy,” *Foreign Policy*, January 13, 2017; and Karen DeYoung, “Do Campaign Statements and Tweets Add Up to a Trump Foreign Policy Strategy?,” *Washington Post*, January 10, 2017.

36 Hal Brands and Colin Kahl, “Trump’s Grand Strategic Train Wreck,” *Foreign Policy*, January 31, 2017.

37 Richard P. Rumelt, *Good Strategy, Bad Strategy: The Difference and Why It Matters* (New York: Crown Business, 2011), 111.

38 Mintzberg, *Tracking Strategies*.

erases the distinction between planning and implementation, since successful strategies emerge from practice rather than from analysis and design.”³⁹

Therefore, before even debating the substantive merits of one long-term grand strategic framework versus another, policymakers and government planners should focus their attention on analyzing the type of uncertainty characterizing the environment surrounding their most pressing national security threats.

This article presented four levels of uncertainty, as they have been developed in the business world, and discussed some of the strategic tools and styles best suited for each level. The uncertainty surrounding many national security challenges could be similarly divided to categorize specific policy problems in one of the four levels and subsequently choose whether to adopt shaping or adapting strategies to address them.

39 Martin Reeves et al., “Adaptive Advantage,” *bcg.perspectives*, January 20, 2010, para. 11, https://www.bcgperspectives.com/content/articles/future_strategy_business_unit_strategy_adaptive_advantage/.