

important and nuanced. The overarching history and associated vignettes are fascinating and well chosen. Weiss brings the wisdom derived from decades of study to a complex subject with great force.

The author's argument is an important one for the United States and its allies. Liberal civil society and its complex architecture are often strained in times of crisis by the requirements of national defense. The United States and Great Britain before it have been able to withstand such pressures because of their abilities to find a firebreak, if you will, that limits the magnitude of resource mobilization to counter adversaries. High defense resource demands can be a powerful excuse for clamping down on the inefficiencies and chaotic domestic conflicts at the heart of pluralist, liberal democratic polities and free market economics. For Britain, the most dramatic of firebreaks was the use of a limited portion of its population and resources to build and operate the wooden walls of the Royal Navy that could exploit the geographic advantages of its island location. Similarly, the maintenance of military capabilities strongly enabled by cutting-edge technologies has allowed the United States to limit its resources and the portion of its population devoted to national security. But as threats mount and geography shrinks, the costs of maintaining an effective qualitative advantage become more daunting.

America Inc.? provides trenchant analysis and raises important questions for policymakers and national security professionals to contemplate in linking technological innovation to national security.



New York: Oxford
University Press, 2016
427 pages
\$27.95

The Politics of Innovation: Why Some Countries Are Better Than Others at Science & Technology

By Mark Zachary Taylor

Reviewed by Charles D. Allen, Professor of Leadership and Cultural Studies, US Army War College

Popular literature has focused on creative individuals (Walter Isaacson's *Innovators*, 2015) and innovative organizations (Schmidt and Rosenberg's *How Google Works*, 2014) in attempts to discern key traits, processes, and cultures that produce the "secret sauce" and lead to success. At the heart of this success is the ability of individuals and organizations to develop and exploit new technologies with phenomenal results. At a higher level of analysis, scholars seek to discern the factors and conditions among nations that support growth in science and technology. Arguably, science and technology fuel the engines of national economies and are linked inextricably to security interests.

One such scholar is Mark Zachary Taylor, a political scientist with a doctorate from the Massachusetts Institute of Technology. His continued interest in technology and the behavior of nations has resulted in several publications on national innovation and political economy—the latest is *The Politics of Innovation*. An associate professor of international affairs at Georgia Institute of Technology, Taylor is well equipped to determine "why some countries are better at science and technology."

Taylor is intrigued by the analysis of British historian Donald Cardwell which led to Cardwell's Law: "no nation has been very creative for more than a historically short period. Fortunately, as each leader has

flagged, there has always been, up to now, a nation or nations to take over the torch” (3). Thus, in *The Politics of Innovation*, Taylor examines historical and regional cases of nation-states to test the law and in doing so uncovers his insights. The introductory chapter includes a section, “The American Imperative,” that demonstrates the applicability of Cardwell’s Law to the United States. An obvious inference is the United States is faltering as a leader in innovation and must therefore understand the critical contributing factors in order to regain and sustain its global leadership.

Taylor presents a comprehensive and systematic analysis of international innovation practices, results, and trends. He provides a series of definitions for often-used terms in science, technology, and innovation that enable the use of frameworks and accepted metrics for his wide-ranging examination. One framework is the “five pillars” of innovation—“intellectual property rights, research subsidies, education, research universities, and trade policies” (74)—he uses to scrutinize the performance of countries. In chapter 5, “Why Nations Fail,” and in chapter 6, “How Nations Succeed,” Taylor finds, “domestic institutions and policies do not determine the rate and direction of national inventive activities . . . institutions and policies do influence outcomes, but are not, causal factors” (139) and “successful science and technology states are typified by international networks of trade, finance, production, knowledge, and human-capital flows that play important roles in determining national innovation rates” (178). He also concludes that domestic policies seeking to encourage innovation may have a paradoxical effect of impeding it because of stakeholder resistance; therefore, governmental intervention is necessary to sustain the effort. A major portion of the book focuses on how nations innovate through the use of institutions, policies, and networks. In the end, the interplay of political agendas among powerful members within a society has the greatest impact on national innovation performance.

Taylor introduces the concept of “creative insecurity” to propose why nations innovate. Creative insecurity is “the positive difference between the threats of economic or military competition from abroad and the dangers of political-economic rivalries at home” (13). Taylor’s analysis confirms the use of external threats as the impetus for national-level innovation in both the economic and military domains. While he does not name the military-industrial complex as a major driver and benefactor of research-and-development and science-and-technology programs, he provides several cases where defense funding is viewed as investments that generate innovation spin-offs for civilian use. Because of the potential consequences of state-on-state conflict, he cautions against constructing and contriving external threats for the purpose of creating growth in innovation.

In the United States of the twenty-first century, we have had several calls to pursue science, technology, engineering, and mathematics as education policy and to invest in research and development through economic and defense policies aimed at securing national-level interests. In a November 2014 memorandum, then-US Secretary of Defense Chuck Hagel announced the Defense Innovation Initiative, a major component in the development of the Department of Defense Third Offset Strategy. The initiative’s charter is to “pursue innovative ways

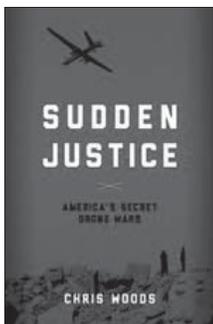
to sustain and advance our military superiority for the 21st century and improve business operations throughout the Department.” Hagel closed the memo with: “America’s continued strategic dominance will rely on innovation and adaptability across our defense enterprise.” For this reviewer, Taylor’s caution about threat narratives rings true—witness current concerns about the emerging power of China, the resurgence of Russia, and the recurring call to regain technological overmatch over potential adversaries.

Parameters readers will be interested in the four-page section “Military Resistance to Innovation” where Taylor asserts:

“Innovation is threatening to military personnel because changes to their technology can sometimes demand changes to long-established strategic doctrines, battlefield tactics, or bureaucratic organizations. Military advancement is built on these things . . . new military technologies can privilege one branch or mission over another, thereby triggering interservice or intraservice rivalries.” (191)

We have seen the introduction of new technologies (e.g., stealth, precision-guided munitions, sensors, cyber, etc.) that have shaped new strategic and operational concepts—and met resistance from many within the US military.

Taylor’s work is well researched, enlightening, and a worthy read. His major contribution offers the lens of political science to the strategic choices nations make in search of competitive advantage in the global environment. National security professionals will recognize this book is about the interaction among the instruments of national power—diplomatic, information, military, and economic—and thus the innovation performance of nations is based ultimately on political decisions. Whether Cardwell’s Law will hold for the United States remains to be seen.



New York: Oxford
University Press, 2015
416 pages
\$27.95

Sudden Justice: America’s Secret Drone Wars

By Chris Woods

Reviewed by Whitney Grespin, Director of Strategic Studies, Precision Integrated Programs, PhD Candidate, Defence Studies Department, King’s College London, and Graduate Teaching Assistant at the UK Joint Services Command and Staff College

Public discourse about unmanned aerial systems—drones, colloquially—has proliferated in years past, yet scholarly literature on the topic has only recently begun to accumulate. In *Sudden Justice: America’s Secret Drone Wars*, Chris Woods documents and assesses the use of armed drones by the United States (and in some cases its close allies).

It is unclear whether the goal of the book is to serve as a thorough historical record or a comprehensive policy prescription. Unfortunately, the book does neither completely. The disjointed chapters largely record the increasing utilization of drones for kinetic missions since 2001 in both Iraq and Afghanistan, as well as missions further afield in Pakistan, Somalia, and Yemen. Interspersed amongst these fragmented vignettes are underdeveloped ruminations on the legal and moral