BOOK REVIEW

Mario Daniels and John Krige, *Knowledge Regulation and National Security in Postwar America*

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Julia E. Marino

Princeton University

Mario Daniels and John Krige present export controls as crucial, yet underappreciated, tools in techno-economic policymaking. They trace the US government's role in defining and regulating technological progress from the First World War to the present, arguing that such regulations have significantly impacted scientists, industry leaders and national security policymakers. Concern about national security, noted as an 'intellectual innovation of the 1940s' (p. 5), was the driving force behind many of the export control debates covered in this work. Daniels and Krige illustrate that both the concept of 'security' and the technological developments affecting it were flexible and subject to change. In contrast to this malleability, the practice of export controls has long remained an enduring (albeit contentious) aspect of national policy.

Scholars have neglected export controls for several reasons: the arcane and complex nature of the control lists, their sporadic prominence in public debates and the broad disciplinary knowledge required to grasp them. Daniels and Krige took on this challenge, and I concur with their assertion that the neglect of export controls has left a substantial gap in our understanding of the evolution of technology, policy, the economy and US power.

The book charts the trajectory of export controls, exploring the forces that shaped them and their wide-ranging consequences, from the First World War to the present, with seven out of ten chapters focusing on the post-1970 period. After the Second World War, when export controls were institutionalized in peacetime, their definition was heavily influenced by the perceived military threat from the Soviet Union and dominated by the Department of Defense's authority. By the late Cold War, the narrative of export controls became increasingly complex due to various factors: the rise of globalization, détente in the early 1970s, the swift escalation of Cold War tensions under Reagan, the rising economic power of Japan and the economic boom of certain commercial technologies, which led to a push from certain industry groups for more lenient secrecy standards.

Daniels and Krige's work teems with insights that will engage historians of technology and any scholars interested in the evolving definition of the US 'national interest' and the importance of technology therein. In their examination of export controls, the authors note how policymakers used the concept of the 'grey zone' to describe the often blurry boundary between secrecy and openness. Analysing the contested nature of the 'grey zone', along with the emergence of terms like 'technology transfer' and 'economic security', this history of export control debates explores questions at the heart of the history of technology, offering insights about the nexus of politics, ideas and knowledge. Another

strength is the book's chronological scope, with a close analysis of tech policy extending from the 1970s to the present, a period less examined by historians of technology.

As Daniels and Krige elucidate, export controls not only are relevant to historians of technology but also merit the attention of historians across various subfields. Their work, which deciphers decades of export control reports and debates, offers significant insights and challenges established assumptions on the nature of US global power throughout the twentieth and twenty-first centuries. For instance, their book challenges the idea that the 1980s heralded a transition to unfettered market capitalism. Instead, it reveals that export controls demonstrate the persistent governmental influence in market dynamics, significantly affecting military and commercial technology sectors. Additionally, Daniels and Krige reveal that, despite the rhetoric of policymakers of the late twentieth century and the twenty-first lauding globalized, borderless capitalism, the nation state has remained an influential force. As the authors observe, export controls 'are an unabashed tool to assert, defend, and enhance state power' (p. 14).

Evidencing its generative nature, this expansive and ambitious book has raised some further questions for me. My primary questions arose when considering Daniels and Krige's discussion of the evolution of security concepts and their influence on export control policies. They frequently reference terms such as 'technological edge', 'competitiveness', 'national interest' and 'economic security', noting their flexibility and variability. These terms, as the authors show, are central to the organization of alliances among various interest groups that collectively exert political influence over export controls. These coalitions have contributed to many of the reports examined in the book, including the Bucy report (1976), the 1982 AAAS conference Striking a Balance: Scientific Freedom and National Security, and the National Academy of Science's 1987 study Balancing the National Interest. Daniels and Krige primarily investigate published governmental sources and the internal records of entities like the Department of Defense and Commerce. Further research might examine the views and the contestations between diverse interests – such as defence contractors, business leaders, scientists, university leaders and congressional leaders – to shed further light on how the behind-the-scenes negotiations over terminology and policy played out.

In summary, the work of Daniels and Krige is both groundbreaking and essential background for comprehending current issues in US technology policy. From President Trump's techno-nationalistic rhetoric aimed at restricting Chinese technology transfers to President Biden's pledge to reinvigorate American technology jobs and innovation with the Build Back Better initiative, the topics Daniels and Krige raise remain relevant and will likely feature prominently in the 2024 presidential campaign. Daniels and Krige underscore that today's debates about export controls and US technological leadership are far from new. Historians and voters might look beyond superficial political discourse to consider deeper implications: who truly benefits from the use of techno-nationalistic rhetoric and the export control policies which have emerged as a result?