

Domestic and international influences shape the politics of R&D and innovation

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In the last three decades, research across the social sciences has made great advances in the political economy of technological change (also called innovation or R&D). There exists a better understanding how domestic institutions shape R&D and innovation rates. However, the global system of production is rapidly changing, so there is a need to review the impacts of the international system on technological changes across many countries. A special issue of the journal *Review of Policy Research* attempts to make an understanding of the interplay of national institutions and the globalized political economy of technological change. While widely varied in their approaches, the nine articles advance conceptions of the internationalization of R&D and the politics of innovation.

In this special issue, prominent contributing authors consisting of economists, political scientists, and sociologists explore these ideas within the context of business and national politics for explaining [technological change](#) and its policy implications for both governments and corporations.

John H. Dunning, co-author and editor of over 35 books on industrial and regional economics, argues that domestic institutions still matter most in R&D but also show that international sourcing of technology is rapidly growing in importance for the world's most important companies. Rafiq Dossani, Executive Director of the South Asia Initiative at the Shorenstein APAR of Stanford University, emphasizes how both global and domestic variables interacted to propel the meteoric

rise of the Indian industry, and how this rise has completely changed the behavior of companies around the globe.

However, Richard F. Doner, Allen Hicken, and Bryan K. Ritchie present a less optimistic view on the benefits of the internationalization of R&D and global politics of [innovation](#) to emerging economies, showing how difficult it can be for countries to become a sustained source of technological change.

Using the case of telecommunication technology, a key driver of globalization, Peter F. Cowhey, former chief of the International Bureau of the Federal Communication Commission, shows how the politics of regulation and innovation in the United States significantly shaped the global course of telecommunication technology. It is the particularity of U.S. regulations which lead to the development of both technology and business practices worldwide. Petri Rouvinen and Rikard Stankiewicz argue that decisions by U.S. politicians and the courts had significant negative impact on global innovation. And finally, John Zysman, a key player in the Berkeley Roundtable on the International Economy (BRIE) that was particularly influential in the Clinton administrations' focus on American competitiveness, points attention to the fact that technological change is shaped by both local and international variables, as well as the particular regulatory history of specific technologies.

The articles in the special issue provide a rich understanding on regional and national levels and should be merged with insights on how the links between locales, as well as the dynamics of the international system itself, are influencing technological change both globally and in different, specific places. In his conclusion of the special issue, Mark Zachary Taylor explains that "this collaboration has revealed that a diverse set of scholars using diverse methods and data can indeed improve our understanding of the political-economy of technological innovation. If we really want to understand technological change, then

we must develop a more general theory of the international [political economy](#) of technological change."

"The articles in this special issue together should be seen as a call for future research across the social sciences," notes Dan Breznitz, Assistant Professor at the Sam Nunn School of International Affairs at the Georgia Institute of Technology. "It is rapidly becoming apparent that if we want to understand the political economy of technological change, under globalization and the changing modes of production and delivery, we must recast our current models."

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