America is both a brief for and a very accessible introduction to a quite different and understudied set of interventions.

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L Industrial Organization

Industrial Policy and Development: The Political Economy of Capabilities Accumulation. Edited by Mario Cimoli, Giovanni Dosi, and Joseph E. Stiglitz. Initiative for Policy Dialogue Series. Oxford and New York: Oxford University Press, 2009. Pp. xix, 575. $45.00, paper. ISBN 978–0–19–923526–1, cloth; 978–0–19–923527–8, pbk. *JEL 2010–0994*

There has been a remarkable convergence over the last several decades in thinking about the building blocks of economic growth. The importance of macroeconomic stability, high rates of physical and human capital investment, a strong rule of law, and capable institutions are generally agreed to be critical components of success. There is one ingredient, however, on which a typical economist in Beijing and a random professor from Harvard or Princeton are likely to disagree: the role for industrial policy.

The book *Industrial Policy and Development: the Political Economy of Capabilities Accumulation* makes a fervent case for the supportive role played by industrial policy in development. The book is coedited by three well-known critics of laissez faire capitalism: Mario Cimoli, Giovanni Dosi, and Joseph Stiglitz. Like a number of other iconoclasts, they see the 2008–09 financial crisis as heralding the failure of modern capitalism. They are not shy about their claims:

> At last, the realization of the impressive failures of the recipe has finally sobered up a significant share of both economists and policy makers . . . the tsunami hitting the world financial markets is forcing even the most stubborn believers in the miraculous properties of 'markets' to accept markets as they exist and not as they are portrayed in economic textbooks . . . this book, however, is not about beating a dead horse . . . rather, this book is about industrial policies seen as intrinsic fundamental ingredients of all development processes. (1)

The vision of development and the critical role for industrial policy proposed by the various contributors in this volume could be summarized as follows. Economic growth occurs when an economy is able to go through radical structural shifts, such as the movement from an agrarian to an industrial economy. That change can only happen through the accumulation of knowledge, the implementation or adaption of new technology, and the coordination across many different sectors. The source of the market failure stems from both the public goods nature of knowledge as well as the coordination problems involved in bringing together many different actors to make innovation happen. The authors are skeptical that the market by itself will both generate sufficient knowledge and solve the coordination problem. Hence they argue that there is a critical role for industrial policy. They write that "the idea that a Toyota, a Samsung, a Tata, an Embraer can just naturally spring up out of a multitude of peasants, just due, again, to the 'magic of the market', is a fairy tale that few ought to be ready to believe" (4).

In their view, the effectiveness of industrial policy involves the interplay of two forces: congruence between "ingredients," such as investment in human capital and subsidies to pivotal sectors, and the "institutions" that would allow the coordination and exploitation of knowledge. Hence, success of industrial policy will require an interaction of key policies (such as educational investments or R&D) and institutions that ensure that those policies are used to transform the economy and not to line the pockets of rent-seeking politicians.

From this perspective, allowing a country's development path to follow market forces will condemn it to languish forever in the land of cheap textiles and shoddy toys. Comparative advantage can be tinkered with. No country has moved from a backward to a leading industrial producer without extensive involvement from the state in the form of tariffs, subsidies, and targeted sector-level support.

One of the most provocative claims by the authors is that the successful industrial countries applied steep tariffs on their way to success, and now seek to maintain their edge by discouraging its use among others. One ongoing theme is that all successful industrializers, from Germany and the United States two centuries ago to Korea, Taiwan, Brazil, China, and India, have used industrial policy. Chapter 6 (written by Yilmaz Akyuz) is particularly effective, documenting very high tariff rates in Great Britain, Germany, France, and the United States. Akyuz, a former director at UNCTAD, points out that in the past, "protectionism was the rule, free trade the exception" (147). It was only after World War II that the United States reduced its tariffs from averages of 20 to 50 percent, having successfully established its dominance behind protectionist barriers. Akyuz attacks computable general equilibrium studies suggesting extravagant benefits from liberalizing for developing countries under the Uruguay Round. He points out that many of these studies focus on static gains from trade, while what developing countries care about are innovation and the ability to shift comparative advantage so that countries end up on a higher growth trajectory.

This argument is missing a crucial step. Simply because the United States had high tariffs while it was developing into a world power does not prove that the United States developed *because* of its high tariffs. Perhaps the United States (or China, or India) would have grown even faster without these high tariffs. We don't know what the counterfactual would have been. To identify the gains from industrial policy would require either a properly implemented randomized trial—where some countries or sectors are randomly allocated high tariffs—or a convincing instrumental variable approach. The authors of the volume present neither.

This fallacy is one important weakness of this otherwise intriguing book. In the second half of the book, the authors present country case studies. So we learn that Latin American countries extensively employed industrial policy throughout the 1950s, 1960s, and 1970s. In the 1990s, there has been a return to the use of industrial policies, including sector-level encouragement, cluster policies, and so-called horizontal policies which are in theory neutral but ex post always promote some sectors over others. The real issue—as Wilson Peres points out in his chapter on "The (Slow) Return of Industrial Policies in Latin America and the Caribbean"—is the lack of impact evaluation to allow us to link sectoral or country success with the use of industrial policy.

My least favorite chapter explores the role of multinational firms. Alice Amsden argues that foreign firms do not play an important role in the industrialization and catch up of developing countries. All the evidence that I have seen (see my summary of the literature in Harrison and Rodriguez Clare (2010) or my work on China in Du, Harrison, and Jefferson (2012)) contradicts this claim. Accumulated evidence shows that joint ventures consistently exhibit higher productivity and play an important role in promoting industrialization through vertical linkages with domestic suppliers. Amsden, who claims that MNCs in developing countries act like bureaucrats without any important innovative or entrepreneurial role, does not provide evidence to back up her claims.

On the other hand, I particularly enjoyed the iconoclastic treatment of Industrial Policy in India, written by Ajit Singh. Singh presents a rebuttal to the orthodox claim that India's industrial policies hurt the country and that without them India would have done much better. In the 1980s, India's growth rate accelerated. Some have attributed this change to globalization and dismantling of the industrial policy regime but Singh argues that the results were due to internal deregulation and not to abandonment of India's industrial policy. He also argues that India's achievement in science and technology was accomplished by following an educational path dictated by the country's own political economy rather than by implementing policies advocated by the World Bank.

Singh argues that, contrary to conventional wisdom, India's great success with information technology was due in large part to its industrial policy, not to the fact that this sector benefited from benign neglect. In assessing the information technology sectors success, he suggests that "the characterization of benign neglect by the government is grossly inaccurate and misleading" (284). India's comparative advantage in software development, which stems from its comparative advantage of cheap skilled labor, "did not arise

spontaneously but was helped, in fact established, by the government" (285). Government support helped not only in the information technology sector but also in the biotechnology and pharmaceutical industries. The government played a critical role in the establishment of Bangalore as a hub attracting the bulk of India's scientific and technological activity. Looking forward, Singh sees industrial policy as critical in helping to foster employment-creating growth and helping to address the problem of rising inequality.

Ultimately, what policymakers would like to know is which kinds of industrial policies have been most successful and how should industrial policy be used—if at all—going forward? In particular, have the benefits of industrial policy from addressing market failure outweighed the possible costs of government failure? There is one chapter that specifically addresses this issue—chapter 13. Chapter 13 correctly identifies the biggest puzzle associated with industrial policies: different countries have adopted seemingly identical policies, but the outcomes are quite different. As an example, Brazil tried the same types of export promotion policies adopted by South Korea, but did not succeed. The question is why. The chapter takes a different tone than the usual explanation based on the weak capacity of the state. Mushtaq Khan and Stephanie Blankenburg, the chapter authors, argue that blaming the failure of industrial policy on weak state capacity underestimates the importance of industrial policy in successful developing countries. They also argue that the distinctive feature of successful East Asian industrial policy was *not* exceptional state capacities. Rather the distinctive feature of success was "that the particular variant of industrial policy that each tried was compatible with internal power balances that allowed the state to create incentives and compulsions in critical areas". They continue on page 344:

> The widespread failure of developing countries to catch up with advanced countries is at least partly attributable to the failure of their institutions to compel productivity growth in the learning industries, which requires institutions that can manage provided rents and provide credible compulsions and conditions for rapid learning. Thus, the institutions for inducing learning must both provide the incentives for learning and have the credibility to impose costs and sanctions on industries and firms that fail to achieve the required rate of learning. If the state does not have the credibility to withdraw a subsidy when there is underperformance, there will be a short-run costs as well as a permanent cost, because infant industries will never grow up.

The authors suggest that states are unlikely to have the capacity to be able to first provide and subsequently withdraw rents when a country has both a strong landed elite and early urbanization. Reading this essay, I found it difficult to see the difference between exceptional state capability (which the authors argue is not necessary) and the ability to design industrial policies in line with state capacity.

This volume is a pleasure to read for several reasons. First, it brings together in one book the different proponents for industrial policy and the range of arguments for its implementation. This book aligns itself against the Washington Consensus view, and makes it clear that in many parts of the world there is no such "consensus" that laissez faire is optimal. The volume is also very persuasive in documenting the extensive use of industrial policy across all countries, and its historically important role in the now successful industrial countries. Finally, the book brings together a number of arguments for why industrial policy is needed.

The book comes up short in two respects. First, it fails to persuade the reader that the use of IP led to better outcomes. The authors argue that their thesis is not amenable to empirical testing, because they are focusing on the interaction between good (IP) policies and proper enabling institutions. But a clever empiricist could introduce such an interaction in an estimating equation. More fundamentally, without any sort of serious empirical work attempting to sort out the identification from policies to outcomes, it is difficult for the reader to accept correlation as proof.

Second, what policy makers need is a practical "how to" guide that will help them successfully address market failures and minimize rent-seeking from greedy agents. Chapter 13 begins to address this question but ends with very general

statements about the need to tailor industrial policy to each state's individual capabilities. One solution, which I advocate with my coauthors (Aghion et al. 2012), is to ensure that all industrial policies are conducted in a highly competitive environment. The book is agnostic and sometimes contradictory on the need to combine industrial policy with competition, which it shouldn't be. India's industrial policies and the License Raj would have been much more effective if internal competition had been encouraged. Nevertheless, the book is engaging and refreshing in its perspective. All too frequently, collected volumes put together a disparate set of viewpoints, which leave the reader bewildered. In this volume, the authors speak with nearly one voice. While not everyone will agree with this book, it presents a viewpoint which has resonated in East Asia. For that reason alone, readers should take note.

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The Economics of Collusion: Cartels and Bidding Rings. By Robert C. Marshall and Leslie M. Marx. Cambridge and London: MIT Press, 2012. Pp. xii, 302. $35.00. ISBN 978–0–262–01732–9. *JEL 2012–0682*

The Economics of Collusion is a compact treatise that examines cooperative behavior among supposed free-market competitors.[1] Robert Marshall and Leslie Marx (not Alfred and Karl) synthesize recent research on cartels and collusion in a style that generally is accessible to human beings (vis-à-vis professional economists). The mathematics is limited and examples are numerous, although most references to the literature are, curiously, limited to recent decades. There was serious study of cartels before the 1980s that uncovered many essential insights still used today.

The volume benefits enormously from the authors' experience working on antitrust matters. It would be richer if it incorporated tales from more of the classic price-fixing cases. For example, I would think it is difficult to write a book about collusion in the manufacturing sector (Marshall and Marx focus on homogeneous manufactured intermediate goods) without mentioning the very first federally prosecuted cartel, Jellico Mountain Coal (1891), or the Great Electrical Conspiracy of the 1950s, in which Westinghouse, General Electric, Allis-Chalmers, and several dozen other sellers of large-scale electrical equipment to public utilities were convicted of price fixing. (Lean, Ogur, and Rogers 1982.) Their agreements were varied, involving identical bids, pricing formulas for complicated products, and even a "phases of the moon" system used to allocate the low-bid for high voltage switchgear. The bidding ring eventually was brought to the attention of federal antitrust authorities by a purchasing agent who noticed patterns in the bids. Federal prosecution in 1960–61 led to the incarceration of seven executives, the first time price fixers found themselves staring out at the world through vertical bars rather than off the country club veranda. The story fits into Marshall and Marx's book well, offering numerous examples supporting their theses, and for several decades was *the* big collusion story.

The authors highlight a helpful subtle distinction between a cartel comprised of all firms in an industry and a single-firm monopoly, which superficially may appear to be quite similar. While a monopoly is transparently a single seller with market power, a successful cartel is clandestine, promoting the appearance of a competitive industry, thereby inducing suppliers or customers that deal with it to relax their guard and possibly dispense with strategies to diminish or combat the economic power of the invisible monopolist or monopsonist. Moreover, a clandestine cartel

[1] This review was prepared while the author was a Visiting Scholar at the University of South Australia.