

Transforming industrial policy for the digital age

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The topic of this volume is very timely as both issues – industrial policy and structural changes driven by digital technologies – are in the intense focus of the business community, policymakers and academics. In the post-Corona period, these issues are likely to become even more critical as firms and countries struggle to find ways to recover and restructure in the light of new constraints and opportunities driven by globalisation and digitalisation.

The volume is the outcome of a conference organised by the Emilia-Romagna Region of Italy and contains contributions mainly by a network of academics. It includes three parts of which one is about the impact of industry 4.0 on manufacturing while the other two are addressing industrial policy issues.

Introduction by editors is a standard overview of different chapters and does not aim to provide an in-depth synthesis of the key messages. In this respect, the volume is typical of conference proceedings where an interested reader will find a variety of contributions of different orientation and analytical depth. The overall aim of the book is quite broad as it tries to contribute to a better understanding of the ongoing structural transformations and its implications for industrial policy. Within that broad agenda, the most interesting is Part I where three contributions focus on different aspects of the impact of industry 4.0. A chapter by Hauge and Chang well documents and elaborate argument about the continued importance of manufacturing versus services in economic development. They very systematically review cases for post-industrial society and pro-service discourse and contrast them with pro-manufacturing arguments. It is very well written, argued and well-referenced overview of debate which as would be expected knowing Change's previous writings veers sharply towards the inevitability of manufacturing capabilities in economic development. If you are teaching any of these issues, your students will find this handy chapter primer into the literature and debate. Probably, the most analytical chapter in the volume is by Brun, Gereffi and Zhan, which brings new evidence on the impact of digital economy MNEs on global value chains. These firms are unique in that they can achieve foreign market sales with fewer assets and employees overseas. Authors then very systematically explore the effects of 'lightness' of digital MNEs on the global economy and GVC in particular. The core of the argument is about different scenarios which depend on whether digital economy MNEs will complement or displace 'brick and mortars' MNEs or they will successful adapt Industry 4.0 technologies to maintain competitiveness.

Lee and Lee use a framework developed by Lee in his 2013 book on Schumpeterian analysis of catch up and apply it to Korea and four European economies (UK, Germany, Italy and France). The idea is

that five features of technological capabilities (originality, a cycle time of technologies, knowledge localization, technology diversification and concentration of patents) can be useful to illustrate the extent to which these countries are prepared for the fourth industrial revolution. It is a brief but insightful analysis well worth further studying.

Part II is about US, Chinese and Latin American industrial policies. Each of them is quite different and looks at industrial policy from a different perspective. Di Tommaso et al. provide a very informative synthesis of the history of the US industrial policy since Hamilton until Trump. They persuasively show how, despite liberalist rhetoric, in this long run, the US government played a decisive role in the country's economic growth and technology upgrading. I find it particularly valuable that authors have tried to extract the recurrent practices that characterised government industrial policy in the long run. In that respect, the chapter is not only an illuminating summary of different periods of policy but also a valuable attempt to draw more profound generalisations from this rich historical case. The relevant issue that context is whether Trump represents discontinuity as it has shifted the country towards neo-protectionism. Authors are uncertain whether this represents an exception within a scenario of long-run continuity or it is a new permanent change of the American model.

A chapter on Chinese industrial policy by Di Tommaso et al. is about southern China's specialised towns' policy. It is an in-depth analysis worth reading as it is a very detailed account of the achievements and stages of this policy but also about the limits and social costs of that policy. They point why specialised towns are not districts but the outcome of the interaction of industrial policy with global companies. Authors are agnostic about the sustainability of this growth model and concerned about the social implications of this fast economic development. In overall, their analysis is rich in content and reflections.

Jorge Mattar outlines long term challenges of industrial policy in Latin America and the Caribbean. It relies on several ECLAC reports, and I find it too normative and lacking in analytics. To my tastes, this is too far a bird's eye view which is from that perspective probably right but also not very illuminating. I have a similar impression of Ruiz Duran's chapter on 'the future of industrial policy in the world: towards a new manufacturing narrative'. It suffers from overly holistic framing of industrial policy which is so broad that everything of global relevance is there but in too much broad-brush terms.

Part 3 contains two chapters which complement each other by focusing on different dimensions of industrial policy. Chapter by Bellandi et al. is an ambitious attempt to outline challenges for territories in the context of industry 4.0 by focusing on value creation and value redistribution. It develops the idea of place-based integrated industrial policies which is not easy to grasp as it suffers from excessive conceptualisations without really bringing new policy insights which would be recognised by the reader as qualitatively new. Why authors have ignored global value chains which feature so prominently in chapter Brun et al. while they also point to the systemic nature of a new technological regime is a puzzle.

The last chapter by Piore and Skinner on 'economic policy in the time of reactionary populism' is a highly readable essay which briefly overviews policy paradigms: Keynesian, Washington Consensus, Silicon Valley consensus and the last one which they frame as combined Washington/Silicon valley consensus. Of course, the most interesting is their evaluation of the last policy paradigm where they see as the main problem, the focus on the end change and complete ignorance of the process adjustment and the change itself. Technological determinism of Silicon

Valley consensus and market determinism of Washington consensus are all about end states which are proclaimed as inevitable while completely ignoring the process of adjustment, adaptation and the change itself. From that perspective, it is probably not surprising why we have ended in a world where the social costs of this change are never stated explicitly but are implicitly present in the rising populism. This is the political economy essay worth your attention. However, a reader may be puzzled why is 'reactionary populism' in the title about which there is almost nothing in the text itself.

In overall, the volume has some very insightful chapters which bring new content and are analytical in exploring digitalisation. I find the industrial policy side much less developed and far too much heterogeneous. Some of the chapters are not focusing on the digital age and could be part of some other volume. However, I still find the book worth your attention, especially if you are interested in a particular topic. I wish editors had invested more effort to bring more coherence to the volume and to draw their comparative insights based on what are heterogenous contributions. In that respect to my taste, the volume did not go further enough to reduce the key limitation of the conference based volumes.

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