

Designing Integrated Industrial Policies: For Inclusive Development in Asia and Africa
Edited by Shigeru Otsubo and Christian Otchia

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DESIGNING INTEGRATED INDUSTRIAL POLICIES

—For Inclusive Development in Asia and Africa—

**Volume I
&
Volume II**

Edited by Shigeru Otsubo and Christian Otchia

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PREFACE

Rationale for this book

Promotion of sustained development of domestic industry is essential to boost economic growth and employment creation that will bring about poverty reduction in developing countries. Under a system of international economic institutions that allowed a relatively broad policy space, Japan and other East Asian countries that achieved rapid economic growth have succeeded in developing their infant and key industries under a diverse set of industrial policies. They have also achieved higher productivity, advanced their industries, and promoted exports by making use of foreign capital and imported technology; thus, all these countries have realized “catch-up” industrialization through the traditional follower-country strategy. However, developing countries in the 1980s and onward had to promote their industries under economic globalization and international economic systems that were oriented toward free trade and overseas investment. They also had to face competitive pressure from China and India, and were forced to develop their own industries within a limited policy space, attributed to the expanded global production network of multinational corporations (MNCs), while under stricter international economic governance. In addition, global manufacturing activities have considerably shifted into higher value-added products that embody innovations in the forms of product upgrading and branding, leaving little room for most manufacturers in developing countries unless they are content with lower value-added activities. However, this share of lower value-added manufacturing has been declining on top of the declining share of manufacturing itself in the global economy. As a result, the world has come to witness the process of deindustrialization, often at a premature stage of economic development, in many developing countries.

Taking into consideration that those economies of developing countries have been caught in low-income and middle-income traps, and that today the term “industrial policy” is considered in a rather broader sense as a collective development policy which is being applied more widely, this book, which is an outcome of international joint research projects financed by the Japan Society for the Promotion of Science (JSPS), intends to focus on the design of an “integrated industrial policy.” The central aim of this book is to promote inclusive and sustainable industrialization (Sustainable Development Goal [SDG] 9) and to promote sustained, inclusive, and sustainable economic growth, as well as full and productive employment (SDG 8) in order to end poverty (SDG 1).

This book will (1) present the history and current state of industrialization and deindustrialization in developing countries, (2) introduce typologies of industrial policies and surrounding arguments, (3) discuss the importance of

the manufacturing sector and the causes of deindustrialization, (4) account for the roles of SMEs and global value chains (GVCs), (5) utilize both macro-econometric and firm-based micro-econometric analyses of (de-)industrialization, (6) present country cases as concrete examples, (7) discuss and analyze topical issues such as the role of China in Africa's industrialization, (8) present tools for industrial policy simulation for evidence-based policy making, and (9) address the roles of public-private partnership (PPP) and international development cooperation in promoting industrial development in developing countries. All in all, this book intends to serve as an integrated and balanced reference work which offers policymakers, researchers, and students in the international development cooperation community a guideline in designing integrated industrial policies for inclusive development in today's globalized world.

Uniqueness of this book

The salient features of this book are the following:

- 1) it is compiled as an output of a well-coordinated four-year international joint research project participated in by 16 academic and research institutions with researchers from 11 countries (Austria, Bolivia, the Democratic Republic of Congo, Ghana, Indonesia, Japan, Laos, Tanzania, Thailand, Turkey, and the UK), with support from the Japan Society for Promotion of Science (JSPS);
- 2) it contains conceptual/typological discussions, rigorous empirical studies both at the macro- and micro-economic (firm) levels, with an interesting set of country case studies, and a collection of cross-cutting thematic issues and analyses;
- 3) it does not rehash the success stories of Japan and the Asian Tigers (Hong Kong, Singapore, South Korea, and Taiwan) as they have already been well-documented and the global economic environment today is much different from when the "East Asian miracle" was created;
- 4) it, instead, focuses on ordinary developing countries in Asia and Africa including countries such as Indonesia and Thailand where governments have tended not to subscribe to industrial promotion by so-called industrial policies;
- 5) it includes analyses on "China in Africa" and an analysis on the future of China's industrial development "Made in China 2025" and its impact on developing countries;
- 6) it is produced as a joint venture between academic researchers and policymakers;
- 7) contributors include those with working experiences in trend-setting international organizations such as the UN, the UNIDO and the World Bank, as well as those working for national institutions in developing countries which deal with policy making and execution in industrial promotion such as the National Developing Planning Agency of Indonesia (BAPPENAS), the Ministry of Industry and Commerce of the Laotian government and the Ministry of Finance and the Central Bank of

Thailand; and

- 8) it is also a contribution to the worldwide discussion of SDGs as this book intends to present discussions/analyses about industrial promotion and industrial policies not only for the sake of economic growth and job creation but also for “inclusive” development. To this end, the book addresses impacts on income and spatial (geographical) inequalities, thereby capturing industrial promotion in the context of the Poverty-Growth-Inequality (PGI) triangle.

At present, there is no single reference book that intends to serve as a well-balanced guide for those in the international development community on the subjects of inclusive industrial promotion in the PGI context in order to provide integrated policy packages that bridge interrelated Sustainable Development Goals (including SDGs 1, 8, and 9).

Readership of this book

The book’s intended readership includes the following:

- 1) Policymakers (including their bureaucratic brains) and practitioners in the international development community such as the governments (and aid-related agencies) of developed and developing countries, international organizations, NGOs, and so forth.
- 2) Academics, students, and other researchers seeking well-balanced and rather comprehensive references regarding the role of industrialization in development, the impacts of globalization on industrialization and deindustrialization, and the integrated strategies for industrial promotion of inclusive development.
- 3) International and local business leaders who wish to understand key trends in the ongoing process of (de-)industrialization and surrounding policy frameworks including new public-private partnerships (PPPs).

Structure of this book

Having reconfirmed the importance of proactive industrial promotion policies for sustained economic growth and poverty reduction in developing countries, recent discussions focus more on design, implementation, and evaluation for evidence-based policy making. It is also widely recognized today that policy coordination and integration is highly desired for industrial policies to take on the challenges of producing “inclusive” development under the SDGs framework. In order for us to deal with these issues and challenges in industrial promotion, this book consists of the following four parts in two volumes (Volume I and Volume II).

- Part I: Industrial Promotion in Retrospect and Prospect
- Part II: Designing Integrated Industrial Policies in Asia and the Pacific
- Part III: Designing Integrated Industrial Policies in Africa
- Part IV: Designing Integrated Industrial Policies in Sub- and Super-National Regions

Part I consists of three introductory chapters. Chapter 1 presents industrial promotion and industrial policies in retrospect and prospect. It provides concepts, definitions, and issues to be discussed in this book while stressing the need for modern and integrated strategies. It also captures industrial promotion in the Poverty-Growth-Inequality (PGI) triangle in order for us to discuss “inclusive” strategies. Chapter 2 presents data and descriptive statistics that constitute a common background. What do we really know about the changing state of global manufacturing? How and why has the trend of premature deindustrialization emerged in many parts of the developing world? Chapter 3 revisits the importance of manufacturing and the risks associated with premature deindustrialization in pursuing pro-poor growth and inclusive development. Chapters 2 and 3, together, present a holistic picture of the past and present state of industrialization, structural change, and their impact on increases in value added and employment.

As most of the chapters in this book deal with issues/topics of industrial promotion not only by applying theories and conceptual frameworks but also in relation to existing problems and policies within a specific country context, the next two parts of the book present chapters by countries used as cases or targets of rigorous economic/econometric analyses. Part II (Chapters 4-12) is for countries in Asia and the Pacific region. Part III (Chapters 13-16) presents chapters that use countries in Africa as their cases. However, this does not mean that any particular topic is only relevant to a particular set of countries or a region. Instead, it means that realistic industrial policy discussion needs cases and targets on the ground.

Part IV contains two chapters that deal with regional issues/topics of industrial promotion. Chapter 17 discusses the impact of super-national regional economic cooperation such as the Regional Trading Agreement (RTA) and the Regional Comprehensive Economic Partnership (RCEP) for industrial promotion at the regional level. Chapter 18 discusses regional parity and regional “inclusiveness” in the context of sub-national regions as a country pursues industrial development in a balanced or unbalanced manner. Chapter 17 introduces policy simulations using Computable General Equilibrium (CGE) models. Chapter 18 introduces the analyses of regional convergence/divergence to investigate the interaction between industrial development and regional convergence.

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On a personal note, I, Shigeru Otsubo, wish to express my gratitude to my wife Mikako. Her devoted support keeps me hopeful, despite being a researcher in the process of losing the ability to see. Christian Otchia also wishes to express his gratitude to his wife Hiroko for her inspiring assistance and constant understanding and patience.

March 2020

Shigeru OTSUBO
Christian OTCHIA

NOTES ON THE EDITORS

Dr. Shigeru Thomas OTSUBO, a Japanese national, is a professor of International Development Economics and the director of the Economic Development Policy & Management Program at the Graduate School of International Development (GSID), Nagoya University, Japan. Prior to his present assignment that started in 1996, he worked as an assistant professor at the Economics Department of Stanford University, an economic affairs officer at the Department of International Economic and Social Affairs of the United Nations, and as an economist at the International Economics Department of the World Bank. He also served as a researcher at the Economic Research Institute of the Economic Planning Agency of Japan, a member in the Council of Economic Advisors to Japanese Prime Ministers, an advisor to the National Development Planning Agency of Indonesia (BAPPENAS), a consultant to the chief economist of the African Development Bank for the millennium issue of the African Development Report, and as a visiting fellow for the JICA Research Institute. His recent publications include *Leading Issues in Development with Globalization* (in Japanese), *Introduction to International Development Studies: An Interdisciplinary Approach* (JASID Special Award; in Japanese), *Globalization and Development Volume I: Leading Issues in Development with Globalization; Volume II: Country Experiences; Volume III: In Search of a New Development Paradigm* (in English from Routledge), and numerous journal articles and reports on global and regional economic integration, global crises, and on growth and poverty reduction. He holds a Ph.D. in Economics and Operations Research (Stanford University, USA).

Dr. Christian Samen OTCHIA, a Congolese (DRC) national, is an associate professor of Development Economics at the Graduate School of International Development (GSID), Nagoya University, Japan, where he teaches Development Microeconomics and Industrial Development. He is also an affiliate member at the African Growth and Development Policy modeling consortium. He has extensive practical experience in industrial policy design and implementation, having worked with various local and national governments (Burkina Faso, DRC, Ethiopia, Chad, Cameroon) and international organizations (FAO, UNCTAD, UNECA). Previously, he was an assistant professor of Economics at Kwame Ninsin University in Japan and at the University of Kinshasa in DRC. His main research interest includes the design and use of economic tools (such as input-output tables, social accounting matrices, and computable general equilibrium models) for policy analysis in developing countries. More recently, he was awarded the 2016 Lawrence R. Klein Award from the Pan Pacific Association of Input-Output Studies and the inaugural Thomas Rutherford GAMS Prize from the GAMS corporation and the Center for Global Trade Analysis, Purdue University, for his work on computable general equilibrium models and microsimulation in Africa. He has published in several academic journals and has written several policy papers. He holds a Ph.D. in International Development (Nagoya University, Japan).

CHAPTER ABSTRACTS

Part I: Industrial Promotion in Retrospect and Prospect

Chapter 1

Leading Issues in Industrial Promotion in Today's Globalized World

By Shigeru OTSUBO, Professor, GSID, Nagoya University

& Christian OTCHIA, Associate Professor, GSID, Nagoya University

This opening chapter introduces the issues discussed in this book. The chapter introduces first how and in what context industrial promotion is explicitly targeted in the Sustainable Development Goals (SDGs). By reviewing the scorecard of poverty reduction in the world during the Millennium Development Goals (MDGs) era, it generally associates the success in poverty reduction with industrial promotion using the Poverty-Growth-Inequality (PGI) triangle. In this way, the analyses presented in this book will try to capture industrial policies not only in the context of promoting economic “growth” but also of designing “inclusive” development. Then, this chapter presents industrial policies in retrospect and prospect. It describes how industrial policy was once regarded as a “dirty word,” but has now returned to center stage in generating sustainable and inclusive industrial promotion. Old and new arguments for industrial policies are reviewed against the arguments against them. The chapter categorizes kinds and instruments of industrial policies in both narrow/traditional and broad/modern senses. The chapter then introduces some of the key challenges we face in promoting industries and productive sectors in developing countries under today's globalized world economy and in the context of the changing shape of global and local manufacturing industries. The last section lists the issues and questions to be addressed in this book, and shows the structure of the book.

Chapter 2

State of Global Manufacturing and Risks of Deindustrialization in the Developing World

By Christian OTCHIA, Associate Professor, GSID, Nagoya University

& Shigeru OTSUBO, Professor, GSID, Nagoya University

This chapter compliments Chapter 1 in presenting the evolution and current state of industrialization and deindustrialization using hard

facts (statistics) and the results from indicative regression analyses shown in a series of informative graphic visualizations. What do we really know about the changing state of global manufacturing and manufacturing-related services? How has the trend of premature deindustrialization emerged in many parts of the developing world? How have the changing shares of manufacturing in total output (value added), total employment, and international trade been associated with international income convergence/divergence? With the rapid technological upgrading and extension of Global Value Chains (GVCs) for manufacturing, are there any spaces where developing countries can establish manufacturing activities? Global, regional, and sample countries' statistics are presented for the readers to identify ongoing real-world changes. Past evolution, current trends, and challenges in promoting inclusive industrial development are shown in graphics so that readers can identify and visualize them before proceeding into finer and specific accounts of issues in designing and implementing integrated industrial policies for sustained and inclusive development.

Chapter 3

Importance of Manufacturing Development and Structural Change for Pro-Poor Growth

By Nobuya HARAGUCHI, Senior Research and Industrial Policy Officer,
UNIDO

& Juergen AMANN, Ph.D. Fellow, University of Nottingham, UK

This chapter sets out to elaborate on the importance of industrial structural change by investigating development patterns within manufacturing. Its goal is to highlight the relevance of manufacturing and to promote pro-poor growth pathways of industrial development. This is done by means of carefully disaggregating and analyzing structural change patterns taking into account various sources of heterogeneities and variations, all of which are discussed in the context of their theoretical ramifications derived from the literature. We revisit the current debate on whether the importance of manufacturing for economic development has changed by reviewing the latest advances in the field which we link to supplementary empirical evidence. Our analysis highlights the continued importance of manufacturing and the key role of industrial policies in the process of industrialization. Taking a more granular view on the topic of manufacturing development, this chapter furthermore explores the dynamics of structural change within manufacturing and delineates a path of inclusive manufacturing development for pro-poor growth.

Part II: Designing Integrated Industrial Policies in Asia and the Pacific

Chapter 4

A De Facto Industrial Policy and Its Effects on the Least Developed Countries

By Nobuaki MATSUNAGA, Professor, GSICS, Kobe University
& Kana HARAGUCHI, Ph.D. Student, GSICS, Kobe University

It has been argued that an increasing number of international arrangements have limited the “policy space” in industrial policies for developing countries. Such WTO rules as the TRIPS, TRIMS and SCM made poor countries face more difficulties in devising and implementing industrial policies to develop their economies. However, a scrutiny of international arrangements could make some developing countries enjoy a *de facto* industrial policy, thereby widening the policy space. In this chapter, we demonstrate that the Multi-Fiber Arrangement (MFA) and the Generalized System of Preferences (GSP) functioned as a *de facto* industrial policy to foster the export-oriented garment industry in one of the least developed countries, Bangladesh. The industry has had latent comparative advantage but was totally different from the known comparative advantage industry (jute products). This case defied the theory of comparative advantage yet eventually and signally succeeded. Likewise, the policy space can be widened by studying possible effects of international arrangements on developing economies and utilizing them as a *de facto* industrial policy. Even the Brexit and the US-China trade frictions may have similar effects. Academics should play a role in devising it.

Chapter 5

Towards Pro-Poor Industrial Policies in Indonesia: Progress, Challenges, and Future Directions

By Anang Budi GUNAWAN, Regional Development Planner, Ministry of National Development Planning (BAPPENAS), Republic of Indonesia,

Rulyusa PRATIJKO, Head of Center of Business Studies, Graduate School of Social Sciences, Parahyangan Catholic University,
& Teguh DARTANTO, Head of Department of Economics, Faculty of Economics and Business, University of Indonesia

In Indonesia, it was only after mid-1960s that industrial development took off as trade and investment liberalization boosted foreign and

domestic investments in manufacturing sectors. For more than three decades, Indonesia's living standards had significantly improved, the incidence of poverty had significantly decreased and inequality had been maintained at a low level. This remarkable economic growth lasted until the Asian Financial Crisis hit Indonesia's economy in 1997/98. However, since the aftermath of the Asian Financial Crisis, Indonesia began to deindustrialize even before industrialization had matured. What explains the successful and unsuccessful impacts of Indonesia's industrial policies on poverty reduction? This chapter aims to investigate which of Indonesia's industrial policies, or absence of particular policies, tend to be pro-poor or anti-poor, and which particular set of industrial policies should be adopted and implemented by Indonesia's policymakers. Here, we explore the evolution of industrial policies that have been implemented in Indonesia. This chapter will focus on trade orientation and protection, upstream-downstream linkages, minimum wage regulation, and transportation infrastructure. We will present a survey of past studies, stylized facts, and empirical evidence to provide insights as to whether these policies are truly pro-poor.

Chapter 6

Industrial Policy and Development in Laos: Trade, Industrial Estates, and Enterprise Development

By Souksavanh VIXATHEP, Associate Professor, School of Economics and Management, University of Hyogo
& Alay PHONVISAY, Assistant Professor, Faculty of Economics and Business Management, National University of Laos

In the history of economic development, governments in most developing countries that have successfully industrialized their economy, have used industrial policy, in one or another way, to achieve their development goals and targets. Upon obtaining independence in 1975, the Government of Laos has pursued socioeconomic development and industrialization by formulating and implementing the so-called National Socio-Economic Development Plan (NSED) which encompasses an industrial development plan. Lao industrial policy has been embedded in NSEDs, which can be viewed as de facto industrial policy. This chapter examines industrial policy of the Lao Government in two aspects. First, it discusses the historical development of industrial policy. Second, the study evaluates the contribution of industrial policy to economic development in three areas: trade liberalization, special economic zone development, and small and medium enterprise promotion. The evolution of industrial policy in Laos has gone through two phases, the centrally planned economy (1975-1985) and transition to a market-oriented economy (1986-present). The case studies illustrate the importance of a sound industrial policy with well-coordinated policy components (trade, special economic zone development, enterprise development, foreign direct investment, etc.). More efforts are necessary to improve capacity building for government officials and thereby enhancing

effective policy implementation.

Chapter 7

Promoting Local SMEs through GVCs: A Framework and Case Study of Laotian SMEs

By Chanhphasouk VIDAVONG, Economist, Economic Research Institute
for Industry and Trade, Ministry of Industry and
Commerce, Laos
& Shigeru OTSUBO, GSID, Nagoya University

According to the UNCTAD's *World Investment Report 2013*, MNC-coordinated GVCs account for roughly 80% of global trade, and this value added in trade contributes about 30% on average to the GDP in developing countries (UNCTAD, 2013, pp. 134-135). While an extension of the GVC network would be conducive to job creation and income growth in developing countries, participation in GVCs should also bring about upgrading of supply capacity on the part of local firms. For the local SMEs that have only limited exposure to global business practices, GVC participation could provide access to new technologies, innovations, and new markets. This, in turn, should lead to improvements in productivity and competitiveness. In reality, however, benefits to local firms are not automatically created, and proper facilitations by the public offices and conscious efforts by local firms in upgrading their capacities are called for. This chapter introduces the roles of GVCs in developing countries, and challenges and opportunities for local firms focusing on SMEs. This chapter then presents the main findings from a field-survey-based case study of SMEs in Laos, in order to understand, in a realistic manner, the challenges that local SMEs in developing countries face.

Chapter 8

The Role of Thailand's Industrial Promotion in ASEAN

By Chalaiporn AMONVATANA, Associate Professor, Faculty of Economics,
Chulalongkorn University

As the ASEAN Economic Community (AEC) is now fully in effect, the Thai government is obliged to help increase the region's competitiveness. The AEC Blueprint has attracted attention from academics and researchers with specific attention paid to the impact of the AEC Blueprint on individual countries. For Thailand, economic growth is one clear positive result from economic integration. Empirical studies also suggest that poverty reduction relates to economic growth. However, what has been questionable is the relationship between economic growth and income

disparity, especially between Bangkok and other regions. More importantly, what has been understudied is the impact of the industrial policy of particular countries on the growth and development of ASEAN as a whole. Taking into account the existing literature, this chapter looks at two levels of Thailand's industrial policies. First, it aims to analyze whether the policies that the Thai government adopted have helped to close the poverty gap or have instead created a wider gap and worsened Thailand's regional disparities. Second, it aims at examining whether the policies initiated by the Thai government have promoted regional growth and development for the AEC.

Chapter 9

Thailand's Industrial Policy: Its History and Recent Development

By Nalitra THAIPRASERT, Assistant Professor, Faculty of Economics,
Chiang Mai University
& Phanida ROIDOUNG, Economist, Ministry of Finance, Kingdom of
Thailand

From the days of the East Asian Miracle (World Bank, 1993), industrial promotion in Thailand (like that in Indonesia) has been considered as market-driven with minimal direct government intervention, as opposed to the widely-known and well-studied models of Japan, South Korea, and Taiwan. In reality, however, there exist conscious and unconscious efforts by the public offices in promoting industrial growth and development. This chapter introduces the history, issues, and initiatives of industrial promotion in the Kingdom of Thailand. The chapter introduces i) the mix of direct and indirect interventions, modalities utilized, and the recent Thailand 4.0, ii) the roles of the U.S., Chinese immigrants, and Japan, and iii) the role of Public-Private-Partnership (PPP). Overall, this chapter intends to provide contexts for further discussion on whether industrial policies were/should be intentionally developed or occur spontaneously when opportunities arise under the constantly changing global economic environment.

Chapter 10

Process of Change in the Economic Development Model of the Pacific Island Countries under the Influence of Globalization

By Tetsuo UMEMURA, Professor, GSID, Nagoya University

Although the Pacific Small Island Developing States (SIDS) achieved independence after WWII, economic development was initiated from the production of commodities under colonization and a subsistence economy. The main feature of the Pacific SIDS is the so-called “MIRAB” (Migration [MI], Remittance [R], Foreign Aid [A], and the Public Bureaucracy [B]). These countries were affected by their small domestic markets and populations, and their remoteness from continents or developed countries. The MIRAB model has been developed into the “TOURAB” (Tourism [TOU], Remittance [R], Foreign aid [A], and the Public Bureaucracy [B]) model and the “SITES” (Small Island Tourist Economies) model. In this chapter, economic development models of the Pacific SIDS are examined in three periods: postwar independence, the first wave of globalization in the 1990s when international trade had grown at a much faster pace than before, and the second stage of globalization during the 2000s onward when international tourism had expanded. These changes in the international economic environment have affected the development policies and management of industrial promotion in the Pacific SIDS.

Chapter 11

‘Made in China 2025’ and The Recent Industrial Policy in China

By K. Ali AKKEMIK, Associate Professor, Faculty of Economics,

Yamaguchi University

& Murat YÜLEK, Professor and President, OSTIM Technical University,
Ankara, Turkey

After a long period of high economic growth and industrialization, the Chinese economy has recently entered a period of relatively low economic growth. Behind the past remarkable performance lies the government’s ambitious and interventionist industrial policies. To ensure a swift transition and avoid falling into a middle-income trap, the Chinese government has recently devised a new industrial policy named ‘Made in China 2025.’ This strategy envisages that China will join the rank of industrialized countries through a structural change towards high-tech industries and by nurturing domestic production and absorption of ‘smart manufacturing’ technologies. This new strategy favours domestic firms against foreign competitors and imposes strict domestic content requirements. In the past, these were essential characteristics of traditional industrial policies in East Asia (such as in Japan, Korea, and Taiwan). But the scale of the Chinese economy ensures that such a policy will have a significant impact on the world economy. In this chapter, we overview and evaluate contemporary industrial policies in China in conjunction with criticism from some advanced countries, which recently

led to trade frictions. We set up a theoretical and analytical framework to analyse industrial policies and apply it to the Chinese case.

Chapter 12

Promoting Exports by the ASEAN SMEs: Impediments, Drivers, and Conducive Policies

By Utumporn JITSUTTHIPHAKORN, Senior Economist, Central Bank of Thailand

& Shigeru OTSUBO, Professor, GSID, Nagoya University

Taking into consideration that exporting activities are often associated with FDIs and GVCs, this chapter looks into impediments, drivers, and conducive policies in internationalizing SMEs in developing countries. Access to export markets often signifies higher productivity and competitiveness, leading to firm survivability. Using the World Bank enterprise surveys of eight countries in ASEAN, this chapter introduces export experiences of these eight ASEAN countries in comparison to those of the East Asian economies, focusing on the SMEs' shares in total employment, exports, and GDP. The need for higher export performance by the ASEAN SMEs is discussed. This chapter analyses the dynamic changes in the impediments faced by ASEAN firms, separately by country and firm size. The issue is discussed in the context of internal factors (firm characteristics, access to finance, ICT) and external factors (trade facilitation, real effective exchange rate, policies conducive to SME promotion) that may influence exporting activities of SMEs. The chapter then introduces key results obtained from regression analyses on the drivers of SMEs' exporting activities. Regression analyses are also conducted by firm size (SMEs and large firms) and by selected key sectors. The chapter concludes with policy implications from the study findings.

Part III: Designing Integrated Industrial Policies in Africa

Chapter 13

Mechanisms and Impacts of Innovation on Firm Survival: Evidence from Sub-Saharan Africa

By Christian OTCHIA, Associate Professor, GSID, Nagoya University

This chapter explores the reasons for the observed differences in African firm survival in international markets. Using a unique dataset that matches firm-level panel data and intersectoral input-output linkages

data, the research finds that product innovation and process innovation are strong determinants of firm survival in the international market, but the effect of process innovation is larger than that of product innovation. While there is a considerable heterogeneity in the effects of product and process innovations on firm survival, there is no evidence that these variables are complementary. Furthermore, the research establishes that the speed of propagation of technological innovation has a strong effect on firm survival, especially through backward linkages.

Chapter 14

Local and Chinese-Invested SMEs' Contribution to Industrial Development through Knowledge Spillovers in Africa: The Case of Tanzania

By Jean-Claude MASWANA, Professor, School of Economics, Ritsumeikan University
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While spillover effects generated by the presence of large foreign firms have been well documented in the literature, little is known in the case of spillovers associated with small foreign-owned or returnee-migrant-owned enterprises in developing countries. Focusing on these two unaddressed aspects and based on a case-study approach, this chapter outlined interviews of SMEs in Tanzania and examined their technology spillover mechanisms from the perspective of industrial development. Major findings indicate that, for the most part, entrepreneurs have little or no knowledge of how to upgrade technical capabilities of their firms, and many of them end up building failed businesses that could have been profitable. Moreover, the lack of interactions with their counterparts owned by Tanzanian returnee migrants and Chinese-invested enterprises seems to have been hindering their opportunities for technology absorption and upgrading. For this reason, the presence of foreign- and returnee-owned firms might not be helping in the technology upgrading of SMEs. Therefore, policy priority should focus on overcoming some of the identified limitations of SMEs, such as through identification of their technology needs and strengthening of their exchange of information through networking. There is a need for a platform of knowledge-sharing for entrepreneurs so that they can better manage the accumulation of technical knowledge.

Chapter 15

Is China's Growing Interest in Africa a Blessing or Curse for the Continent's Industrialization Drive?

By Eric OSEI-ASSIBEY, Associate Professor, Department of Economics, University of Ghana

The chapter investigates the effect of Chinese growing engagements in Africa on value-added manufacturing and industrial growth in Africa. More specifically, the chapter investigates first, the effects of China's investments, trade, loans, and financing of infrastructure in Africa on manufacturing and on overall industrial sector growth in Africa. Second, the chapter examines the potency or effectiveness of Chinese activities on industries within a differing enabling policy and institutional context (such as political stability, government effectiveness, and control of corruption or rule of law). Using data from 40 African countries that span from 2003 to 2016 and applying an Autoregressive Distributed Lag model and a Pooled Mean Group estimator, the study reveals a range of interesting findings. The study finds generally that Chinese activities such as exports, FDI and infrastructure contract in Africa have a positive impact on industry growth but only in the short run. In the long run however, Chinese activities have a repetitive negative influence on manufacturing and industry GDP growth. Further, the negative impact becomes more pronounced in the context of weak institutions, inadequate government effectiveness, and corruption. These findings suggest that without a stronger institutional and governance framework, Africa cannot benefit from China's growing influence on the continent.

Chapter 16

New Partnership between Business and Development: A Case Study of Ethiopia's Industrial Development

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With accelerated globalization, private financial flows to developing countries have dramatically increased, superseding the volume of Official Development Assistance (ODA). Particularly after the 2008 financial crisis, multinational corporations (MNCs) have actively expanded their business operations in emerging economies and developing countries. Furthermore, due to technological progress and reduced costs of transport and telecommunication, production of goods and services is increasingly becoming fragmented and arranged in global networks spanning many countries (so called, global value chains [GVCs]) (Barrientos et. al 2011). As a result, the interface between business and development cooperation activities is growing, and major donors began to introduce new instruments to promote public-private partnerships (PPPs) for development. This chapter aims to review the recent trends of development partnerships with the private sector, analyze the practices of major donors (traditional donors such as Western donors and Japan, as well as non-traditional donors such as China and Turkey) and MNCs, and draw implications for

industrialization of latecomer countries. The chapter consists of two main sections: (i) an overview of development partnerships with the private sector in recent years, and (ii) a case study of Ethiopia, which is endeavoring to achieve inclusive and sustainable industrial development.

Part IV: Designing Integrated Industrial Policies in Sub- and

Super-National Regions

Chapter 17

Taking Part in RCEP: CGE Analysis Focusing on Industrial Impact

By Ken ITAKURA, Professor, Graduate School of Economics, Nagoya City University

Computable General Equilibrium (CGE) models are based on inter-industry input-output data, and therefore, are considered to be useful tools for industrial policy simulations. After all, most of the industrial policies intend to create industrial structural changes, often in favor of targeted sectors, by impacting the inter-industry (productive) resource flows. Multi-sector and multi-country models can also ensure macro-economic consistency such as balancing investment and savings in a national and/or world/regional context. They are also suitable to evaluate the impacts of industrial promotion with international initiatives under the globalizing world economy. This chapter considers taking part in a mega-regional trade agreement (MRTA) as an industrial policy one country can adopt for industrial development. It takes the Regional Comprehensive Economic Partnership (RCEP) as a policy scenario for a computable general equilibrium (CGE) simulation. While some industries expand by the RCEP, other industries contract because of resource constraints. Three features in simulating RCEP are i) accommodation of Global Value Chains (GVCs), ii) liberalization of trade in goods and services, and iii) investment measures.

Chapter 18

Promoting both Industrial Development and Regional Convergence:
Towards a Regionally Inclusive Industrial Policy

By Carlos MENDEZ, Associate Professor, GSID, Nagoya University

Industrial policy boosts economic growth through targeted interventions that affect the allocation of skilled labor, output composition, and industrial productivity growth. A commonly omitted consequence of

these changes is that, depending on the initial cross-regional distribution of income, policies aiming to foster industrial development may change regional inequality in unintended ways. In this context, this chapter aims to explore the interaction between industrial development and regional convergence. The ultimate goal of this exploration is to identify possible lessons that could guide the design and implementation of regionally inclusive industrial policies (RIIPs). The first part of this chapter revisits some key facts about industrial development and regional convergence. Next, industrial and regional interactions are evaluated through the lens of an industry-based model of regional convergence. The chapter concludes by outlining some lessons that may prove helpful for the design and implementation of regionally inclusive industrial policies.