

Emerging-Economy State and International Policy Studies

Keiichi Tsunekawa
Yasuyuki Todo *Editors*

Emerging States at Crossroads

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Emerging-Economy State and International Policy Studies

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This is the first series to highlight research into the processes and impacts of the state building and economic development of developing countries in the non-Western World that have recently come to influence global economy and governance. It offers a broad and interactive forum for discussions about the challenges of these countries and the responses of other countries to their rise. The term ‘emerging-economy state,’ a part of the series title, or its shorthand ‘emerging states,’ is intended to promote dialogues between economists who have discussed policy problems faced by ‘emerging-market economies’ and scholars in political science and international relations who have discussed ‘modern state formation.’ Many emerging states are still in the middle-income status and not immune from the risk of falling into the middle-income trap. The manner of their external engagement is different from that of the high-income countries. Their rise has increased the uncertainty surrounding the world. To reduce the uncertainty, good understanding of their purpose of politics and state capacity as well as their economies and societies would be required. Although the emerging states are far from homogenous, viewing them as a type of countries would force us into understand better the similarity and differences among the emerging states and those between them and the high-income countries, which would in turn to help countries to ensure peace and prosperity. The series welcomes policy studies of empirical, historical, or theoretical nature from a micro, macro, or global point of view. It accepts, but does not call for, interdisciplinary studies. Instead, it aims to promote transdisciplinary dialogues among a variety of disciplines, including but not limited to area studies, economics, history, international relations, and political science. Relevant topics include emerging states’ economic policies, social policies, and politics, their external engagement, ensuing policy reactions of other countries, ensuing social changes in different parts of the world, and cooperation between the emerging states and other countries to achieve the Sustainable Development Goals (SDGs). The series welcomes both monographs and edited volumes that are accessible to academics and interested general readers.

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ISSN 2524-5015

ISSN 2524-5031 (electronic)

Emerging-Economy State and International Policy Studies

ISBN 978-981-13-2858-9

ISBN 978-981-13-2859-6 (eBook)

<https://doi.org/10.1007/978-981-13-2859-6>

Library of Congress Control Number: 2018957641

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Preface

This volume of essays is part of a series presenting the outcomes of a five-year research project examining the birth, development, and future of the emerging-market states. The project team, consisting of six research groups bringing together more than fifty researchers specialized in economics, history, and political science, was led by Dr. Tetsushi Sonobe, Vice President of the National Graduate Institute for Policy Studies. Upon completion of the project, the groups decided to join forces in the publication of the project's research outcomes in a four-volume collection of essays. This book, the fourth volume, explores the economic, political, and social difficulties faced by emerging-market states in the course of their rapid economic development—difficulties they will need to overcome if they are to attain a higher level of development without seriously jeopardizing their internal and external stability.

This research project received financial support from the Japan Society for the Promotion of Science (JSPS), in the form of a Grant-in-Aid for Scientific Research on Innovative Areas [Research in a Proposed Research Area] for the period April 2013–March 2018 (Grant Numbers: 25101001~25101006). The project also received a JSPS International Activities Supporting Group grant for the period April 2016–March 2018 (Grant Number: 15K21728). Those sources of financial support are gratefully acknowledged here.

In the process of editing this volume, the editors received valuable assistance from many individuals. In particular, we wish to express our deep appreciation to Dr. Amiko Nobori and Dr. Chihiro Fueta for their assistance in coordinating and editing the various chapters. We also wish to thank Ms. Miori Maeda for her valuable assistance with many logistics matters. Finally, we want to express our deep gratitude to Ms. Juno Kawakami, Editor at Springer, Japan, who gave us much valuable advice during the publication process.

Tokyo, Japan

Keiichi Tsunekawa
Yasuyuki Todo

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Abbreviations

ADB	Asian Development Bank
AFC	Asian Financial Crisis
AFTA	ASEAN Free Trade Area
ANC	African National Congress
APT	ASEAN Plus Three
ASEAN	Association of Southeast Asian Nations
BEE	Black Economic Empowerment
BLT	Bantuan Langsung Tunai [Direct Cash Support]
BMPs	Better Management Practices
BOI	Board of Investment
BPS	Badan Pusat Statistik [Central Statistics Agency]
CAP	Capital goods
CASVA	Comparative Advantage Measured by Sectoral Value Added in Export
CCT	Conditional Cash Transfer
CON	Consumption goods
COSATU	Congress of South African Trade Unions
CRMA	Chunlachomklao Royal Military Academy
DA	Democratic Alliance
DOF	Department of Fisheries
DP	Democratic Party (South Africa)
DP	Democratic Party (Thailand)
E&E	Electrical and electronics
EEC	Eastern Economic Corridor
EFF	Economic Freedom Fighters
FDI	Foreign direct investment
FELDA	Federal Land Development Authority
FGP	Flying geese pattern
FTA	Free trade agreement
GAM	Gerakan Aceh Merdeka [Free Aceh Movement]
GAP	Good Aquaculture Practice

GDP	Gross domestic product
GEAR	Growth, Employment and Redistribution
GER	Gross enrollment ratio
Golkar	Golongan Karya [Functional Group]
GSRI	Government-sponsored research institute
HCI	Heavy and chemical industry
HSP	Hsinchu Science-Based Industrial Park
ICT	Information and communication technology
IFP	Inkatha Freedom Party
ILO	International Labour Organization
IMF	International Monetary Fund
IMP I	Industrial Master Plan I
IMP II	Industrial Master Plan II
ISI	Import substitution industrialization
ITRI	Industrial Technology Research Institute
JKN	Jaminan Kesehatan Nasional [National Health Insurance Scheme]
KGB	Komunisme gaya baru [New-style communism]
KIP	Kartu Indonesia Pintar [Smart Indonesia Card]
LE	Large enterprise
LGBT	Lesbian, Gay, Bisexual, Transgender/Transsexual
MAI	Market for Alternative Investment
MIT	Middle-income trap
MNC	Multinational corporation
MOEA	Ministry of Economic Affairs
MOOTW	Military operations other than warfare
MRB	Malaysian Rubber Board
MRRDB	Malaysian Rubber Research and Development Board
NACA	Network of Aquaculture Centres in Asia-Pacific
NAFTA	North American Free Trade Agreement
NDP	National Development Plan (South Africa)
NDP	National Development Plan (Thailand)
NEETS	Not in education, employment, or training
NEP	New Economic Policy
NFI	Net factor income
NIA	National Innovation Agency
NIC	Newly industrializing country
NIE	Newly industrializing economy
NNP	New National Party
NP	National Party
NR	Natural rubber
NSTDA	National Science and Technology Development Agency
NXR	Net export ratio
OAS	Organization of American States
ODM	Original design manufacturing/manufacture
OECD	Organisation for Economic Co-operation and Development

OEM	Original equipment manufacturing/manufacture
OPM	Organisasi Papua Merdeka [Papua Independence Organization]
OTC	Over-the Counter Securities Exchange
PAD	People's Alliance for Democracy
PCS	Processed goods
PKI	Partai Komunis Indonesia [Indonesian Communist Party]
PNPM	Program Nasional Pemberdayaan Masyarakat [Community Development Program]
PPP	Purchasing power parity
PPP	People's Power Party
PRM	Primary commodities
PRT	Parts and components
R&D	Research and development
RCA	Revealed comparative advantage
RDP	Reconstruction and Development Programme
RRIM	Rubber Research Institute of Malaysia
RSS	Ribbed smoked sheet
S&T	Science and technology
SACP	South African Communist Party
SII	Statute for Industrial Innovation
SME	Small and medium enterprise
SNS	Social networking service
SR	Synthetic rubber
SUI	Statute for Upgrading Industries
TARRC	Tun Abdul Razak Research Centre
TFP	Total factor productivity
TNC	Transnational corporation
TNI	Tentara Nasional Indonesia [Indonesian Military]
TSR	Technically specified rubber
TVCA	Taiwan Private Equity and Venture Capital Association
TVCA	Thai Venture Capital Association
TWSE	Taiwan Stock Exchange
VC	Venture capital
WTO	World Trade Organization

Chapter 1

Emerging Challenges for Emerging States



Keiichi Tsunekawa and Yasuyuki Todo

The purpose of this volume is to clarify the complex (economic, political, and social) problems that emerging states face in the process of their rapid economic development. An “emerging state” is a country (or economy) that has experienced economic growth that is much higher than that of high-income countries for an extended period of time. Thanks to the increasing importance of such states in the world economy, they have come to influence global governance, both in the economic field and in many other areas, as has been exemplified by G20 activities. Such international prominence notwithstanding, many difficulties have developed at home, which emerging states need to overcome to attain a high level development without seriously jeopardizing internal and external stability.

Actually, intensive discussion on various issues that (economic) latecomers face started more than half a century ago when the protagonists of the modernization theorem and their critiques debated the economic and political prospects of “developing countries.” This chapter will clarify the nature of contemporary challenges for emerging states—in comparison with those in the earlier period—by taking notice of how the material, technological, and ideational environments have changed. The discussion below will be organized into three spheres (economic, social, and political), but this division is only for convenience’s sake. As seen in our discussion, these three spheres are intimately related and need to be grasped as one comprehensive whole that must be attended to by emerging states.

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K. Tsunekawa and Y. Todo (eds.), *Emerging States at Crossroads*,
Emerging-Economy State and International Policy Studies,
https://doi.org/10.1007/978-981-13-2859-6_1

1.1 Middle-Income Trap?

1.1.1 Early Debate Concerning Development and Underdevelopment

Until the 1970s, the main issue regarding economic prospects of developing countries was the feasibility of capitalist economic development of those countries. Modernization theorists who were optimistic about such development debated its potential with Marxism-leaning dependency theorists who insisted that the developing countries would continue to be underdeveloped as long as they stayed in the capitalist world economy.

As one of the most influential modernization theorists, W. W. Rostow presented the “stages of economic growth” framework as early as 1960. According to this framework, every developing country would progress economically step by step from the pre-modern primary-economy stage, to the take-off stage, and finally to the stage of high mass consumption. The “product cycle” as theorized by Vernon (1966) would supposedly help this transformation by allowing a gradual transfer of manufacturing industries to the developing countries. According to the product cycle model, an industrial firm shifts its activity from domestic production (in the innovator country) to exportation to other countries, and, finally, to importation from less-developed countries as the domestic market is saturated and as the firm’s product is standardized and faces competition at home and in the export market.

Rostow’s and Vernon’s views were rather optimistic with respect to the possibility of industrialization in developing countries. In contrast, dependency theorists, such as Frank (1967) and Chilcote and Edelstein (1974), took a radical stance that developing countries would fail to escape their underdeveloped status unless they left the capitalist world and adopted socialism. This is because developing countries would continue to exist under a permanent system of exploitation imposed by the advanced capitalist countries.

Such an extreme view, however, was contradicted by the successful industrialization that several developing countries (or economies) experienced by the 1970s. At the end of the decade, the OECD started to call them newly industrializing countries (NICs) (OECD 1979).¹

Some radical theorists adjusted their views according to the new situation. For instance, Wallerstein (1979) accepted the possibility that some developing countries can move up the ladder from their peripheral position to a semi-peripheral one and from a semi-peripheral position to a core position, although he insisted that the three-layered hierarchy of the capitalist world economy would not change.

¹Given the non-state status of Taiwan, NICs were renamed “newly industrializing economies” (NIEs) in the late 1980s.

Other authors started to explore why certain developing countries could grow very rapidly and even catch up with the advanced countries. The concept of the “developmental state” (Johnson 1982) emerged from that exploration. Johnson’s study of the Japanese case was soon followed by studies of South Korea (Amsden 1989) and Taiwan (Wade 1990). These works share the earlier argument of Gerschenkron (1962) that latecomer industrializers can take advantage of their “backwardness” by importing the latest technologies from advanced countries. Rather than developing step by step or undergoing product cycle-based gradual growth, latecomers can quicken the speed of industrial upgrading if they can count on special institutions such as investment banks or effective pilot agencies within their governments.

However, the development-oriented interventionist states were not successful everywhere. Brazil and Mexico, which had been treated as NICs by the OECD in 1979, fell into a deep debt crisis during the 1980s. Even for East Asia, where industrialization looked to be advancing more smoothly, the research team of the World Bank found that the performance-based industrial policy did not work well except in very few countries (World Bank 1993). Several important works (Komiya et al. 1984; Samuels 1987; Friedman 1988; Calder 1993) even called into question the effectiveness of Japan’s developmental state.

Throughout the debate over the role of the state in economic development, the early image of a highly interventionist state was gradually replaced by the image of a more market-conforming state. By the middle of the 1990s, authors who still endorsed the idea of a “developmental state” seemed to have reached a minimum agreement that “embedded autonomy” is crucial for a developmental state to successfully lead industrialization (Evans 1995). To be effective in its effort for industrial promotion, a government must be autonomous of private economic interests (to avoid private capture and plundering), but at the same time, it must be embedded in the economy through close contacts with the private sector. The close connections with the private sector will allow the government to gather accurate information on the market conditions and to implement policies smoothly.

1.1.2 Globalization and Issues Concerning Emerging States

However, by the time Peter Evans’ work was published in the mid-1990s, drastic transformations had been occurring in the world economy. All the changes began in the 1970s or even earlier, but the full effects of these changes became clear for everybody only toward the end of the 1990s. For one thing, the international transaction of goods, services, and financial resources expanded much faster than world production. For example, the global trade of goods and services expanded from 33.3% of total world GDP (1975) to 51.6% (2000). The transaction of services alone expanded from 6.0% (1975) to 9.3% (2000). Financial transactions expanded even faster. The net inflow of foreign direct investment (FDI) in the world increased from 0.5 to 4.3%

of total GDP between 1975 and 2000. The net inflow of portfolio equity expanded from 0.1 to 2.0%.² As another indicator of financial transactions, the external debt stock of all developing countries increased from 2.6 to 5.2% of world GDP during the same period.³ It is clear that the world economy came to be integrated very closely through the enormous expansion of trade and financial transactions.

Market forces were the main drivers of globalization, but they were supplemented by international negotiations for free trade and investment regimes. The “end of the Cold War” strengthened the position of the United States, as it could now demand free trade and free financial flows without worrying about ideological and actual competition from the communist bloc. The excellent analysis of the Indian pharmaceutical and textile industries conducted by Sinha (2016) demonstrates how the Indian government and private sectors strived to realign their organizations and practices with the new requirements imposed by the WTO. The industries in developing countries must now secure their competitiveness in a highly competitive global market.

After the 1990s, the main issue concerning economic development is not the feasibility of capitalist development but the effectiveness of integration with the global economy. By that time, not only NIEs but also many other developing countries (especially in East Asia) were experiencing very high economic growth. NIEs such as Singapore, Taiwan, and South Korea had even attained the status of high-income countries. According to Yeung (2016), this success stems from “strategic coupling” with the lead global firms, a strategy pursued by large local firms such as Hon Hai Precision Industry of Taiwan and Samsung Electronics of South Korea. The opportunities for that kind of global integration in advanced technology segments were enhanced by the spread of organizationally fragmented and spatially dispersed production networks, which in turn were precipitated by the standardization and modularization of a wide range of products. Needless to say, the development of communication and transportation technologies contributed to simultaneously fragmenting and reintegrating global value chains.

The fragmentation of a production process was pointed out by Folker, Heinrichs, and Kreye as early as 1980. They analyzed the behavior of West German manufacturing industries (mainly the textile and garment industry) and observed the transfer of increasing portions of production processes to developing countries and the subsequent expansion of intra-industry and intra-firm trades. However, at that time, the developing countries were regarded as locations where lower value-added, cheap labor segments of the process were situated. Yeung, in contrast, argued that some of the Korean, Taiwanese, and Singaporean firms successfully entered relatively high technology segments and even grew to be lead firms themselves in some productive sectors. Suehiro (2014, pp. 81–83) explained this phenomenon by pointing out

²Portfolio equity is defined as “securities other than those recorded as direct investment and including shares, stocks, depository receipts (American or global), and direct purchases of shares in local stock markets by foreign investors.” All these figures are calculated from the data extracted from the World Bank’s World Development Indicators database.

³External debt is “the sum of public, publicly guaranteed, and private nonguaranteed long-term debt, use of IMF credit, and short-term debt.” These figures are calculated from the data extracted from the World Bank International Debt Statistics database.

that the lead firms that produce IT products (such as Intel, Genesis Microchips, and Texas Instruments) keep their core technologies within the chipsets protected by intellectual property rights, but standardize and open up the interfaces connecting the core technologies with related products. This practice has facilitated latecomer assembly firms to get into more advanced technological sections of the value chain much quicker than before.

However, to be chosen as a production site by the leading global firms, a county must have developed technological capabilities to combine core technologies with high-quality components/parts supplied locally or by imports. In addition, the growth of individual firms, in order to contribute to broader national economic growth, must be supplemented by deeper upstream and downstream linkages, the enhancement of business supporting services, and the improvement of local logistics infrastructure. Each of these requirements needs more advanced technological capabilities of local firms and the labor force. South Korea, Taiwan, and Singapore are success cases in these respects.

Today, the challenge of technologically upgrading the national economy is regarded as an imminent problem for many middle-income emerging states. They fear that failure in technological upgrading could cause them to fall into the “middle-income trap.” This situation is defined as a phenomenon in which a country (or an economy), after experiencing years of high growth, faces long-term stagnation at the middle-income stage. Such a country is regarded as being sandwiched by countries whose growth still depends on the enhancement of factor inputs and countries whose growth stems from technological upgrading (Gill and Kharas 2007, p. 5).

We can certainly discern divergent growth performances among the (former and current) developing countries. If their performance is measured by the speed at which they catch up with the reference country (the United States, in this chapter), then South Korea, Taiwan, Singapore, China, and India have shown spectacular achievement. As indicated in Table 1.1, the rates of catching up between 1979 and 1995 were 300% for South Korea, 224% for China, and 169% for Singapore. They continued to grow rapidly in the following twenty years during which India and Vietnam also joined the high-growth club.

In contrast, the performance of Latin American countries, South Africa, and Turkey was much poorer. Although Peru, Chile, and Turkey succeeded in growing faster than Singapore in the 1995–2014 period, they could not narrow the gap that had widened during the 1970–1995 period.

Southeast Asian countries are somewhere in between these two groups. They are certainly catching up with the United States in spite of the temporal retreat by the Asian Financial Crisis (AFC) of 1997–98. Nevertheless, their performance is not as good as the first group of countries. The middle-income trap is an ongoing problem for the second group of countries (Khoo et al. 2017), but even for the first and third groups of countries, there is concern that their catching-up speed may slow down and force them to remain at the middle-income level for an extended period of time.

As pointed out above, the factor that is frequently posed as the main culprit of the middle-income trap is the slowing-down of technological upgrading of industries. For instance, Suehiro argues in this volume (Chap. 2) that the middle-income trap

Table 1.1 Growth rate of the relative size of GDP per capita (%)

	1970–1995	1995–2014
China	224.0	279.0
India	2.7	101.5
Vietnam	n.a.	100.3
South Korea	300.3	53.2
Singapore	168.7	36.2
Taiwan	n.a.	24.8
Peru	−44.0	41.2
Chile	4.2	39.1
Brazil	9.5	5.7
Argentina	−34.8	3.0
Mexico	−15.5	−1.1
Turkey	4.4	38.6
South Africa	−44.7	3.4
Malaysia	89.7	26.2
Philippines	−27.8	26.7
Indonesia	73.3	26.7
Thailand	129.0	20.6

Note The relative size of the GDP per capita was calculated with the United States as the reference country (US = 1). Then, the growth rates for 1970–95 and for 1995–2014 were calculated on the basis of the relative size of each country

Sources Calculated from the GDP data (constant 2010 U.S. dollars) extracted from the WDI database; data on Taiwan (at 2006 market prices for 1995 and at 2011 chain prices for 2014) come from ADB (2016)

emerges as a result of the limitation of input-driven growth, which can be measured by a high rate of wage increase, stagnation of labor productivity, and a low level of R&D expenditure. In Chap. 3, Kumagai defines the middle-income trap as the stagnation stemming from the lack of transformation of industrial structure toward higher value-added sectors and attempts to measure it by looking at changes in the net export ratios of various merchandise categories. Shimamoto and Todo (Chap. 5) emphasize the importance of trade and FDI as sources of innovative knowledge for economic development. A lack of knowledge diffusion from abroad will result in the middle-income trap.

As the inadequacy of technological upgrading is regarded as the main cause of the middle-income trap, the measure most frequently prescribed for overcoming or avoiding it is naturally to enhance high-tech industries and services. As discussed above, if South Korea, Taiwan, and Singapore have been successful, it is because they have been locating higher-skilled, knowledge-intensive, and/or technologically advanced segments of the global value chains in their borders. Varying performances of catching up are, therefore, partly explained by different capabilities of absorbing, improving, and innovating technologies. Table 1.2 shows the total factor productivity

Table 1.2 TFP growth rate
(annual average, %)

	1991–2000	2001–2014
China	1.6	3.4
India	1.4	1.7
Vietnam	0.2	–1.1
South Korea	3.1	2.1
Singapore	0.8	1.4
Taiwan	1.9	1.7
Peru	0.8	0.7
Chile	1.4	–0.8
Turkey	–1.8	–0.9
Brazil	0.8	–0.3
Argentina	1.9	–0.4
Mexico	0.1	–1.4
South Africa	–0.8	–0.9
Malaysia	0.1	1.0
Philippines	0.2	1.3
Indonesia	–0.6	0.9
Thailand	–0.8	1.0

Source Calculated from the data extracted from the Conference Board Total Economy database

(TFP) growth rate, which is treated here as a proxy index for improvement in an economy's technological capability. As this table demonstrates, the performance of the first group (rapidly catching-up countries) is much better than that of the other two groups, except for Vietnam, whereas the performance of the second group (slowly catching-up countries) is much worse than that of the third group in recent years (2001–2014).

1.1.3 How to Cope with the Middle-Income Trap?

If technological upgrading of a national economy is indispensable for middle-income countries to continue their current catch-up pace, then one of the challenges for these countries, especially low-performing emerging states, is to raise the technological capabilities of their firms and labor force to locate higher value-added, higher skilled portions of global value chains in their countries and to utilize them to develop local industries and services. For this purpose, technological education and R&D activities must be enhanced; upstream firms and downstream firms will require closer cooperation for technological improvement and investment coordination; employers and employees will also need to cooperate to improve productivity in their facilities. Since close linkages with global production networks are also important for future

growth of the middle-income countries, as shown by the “strategic coupling” of South Korean, Taiwanese, and Singaporean firms, they also need to persuade foreign firms to cooperate in local-level efforts for technological upgrading.

The problem is that the improvement of technological sophistication of a work force and firms cannot be managed by the state as easily as the mobilization of labor and capital in the earlier phase of industrialization. The state can provide some R&D funds and expand technological education. However, due to uncertainty of successful technological development, financial burdens are too heavy for the state to bear. Coordination of market players’ interests is even more difficult. The private sector is fragmented. There are still many firms that benefit from traditional labor-intensive activities or from performing as simple OEM producers for foreign customers. It will not be easy to make them share the costs of improving the technological capabilities of the nation as a whole. Labor-management relations are also a contentious issue in many emerging states.

Still, many governments have attempted to foster R&D investments and/or intermediate joint efforts for technological upgrading by private firms. For instance, Chap. 6, written by Intarakumnerd and Liu, examines such promotion policies—taxes, grants, loans, and equity financing—in Taiwan and Thailand and concludes that Taiwan has been economically more successful than Thailand exactly because the government policies were much more effective. In Taiwan, the government assistance for private R&D was much more robust, better focused, and well integrated (with other policy initiatives). Intarakumnerd and Liu attribute the difference to both institutional settings (such as the degree of bureaucratic cohesiveness) and ideational inclinations (concerning entrepreneurship and the role of the public sector).

On the other hand, Kumagai (Chap. 3) sees a source of difficulty of technological upgrading in Southeast Asia, not in the government policies or public-private relations, but in the nature of the private sector. Different from their Northeast Asian counterparts, the Southeast Asian countries lack multinational corporations originating from their homelands; consequently, the private firms of the Southeast Asian countries cannot use FDI to extend production networks beyond their borders and concomitantly upgrade the industrial structure at home.

Although Intarakumnerd/Liu and Kumagai do not explicitly mention it, their argument is mostly concerned with machinery industries whose production chains are long and extend to continuously innovating high technology sectors.

In contrast to Intarakumnerd/Liu and Kumagai, several authors in this volume regard resource-processing industries (covering both midstream and downstream segments) as the main promoters of economic advancement of middle-income countries. Suehiro, for instance, observes that the Thai private firms, indifferent to the excessively ambitious government plan based on digital economy industries, focus on domestic services and resource-based industries such as food processing. They are even regionalizing their production networks in Southeast Asia, frequently in collaboration with Chinese firms.

As another resource-processing industry, Kawano (Chap. 7) examines the rubber industry in Malaysia and Thailand and finds that it has succeeded in the whole production chain (from raw material production to the downstream production) in

Malaysia whereas Thailand has seen a rapid expansion of the upstream sectors. In Chap. 8, Suzuki and Nam compare the development of pineapple production in Ghana and Thailand and shrimp production in Vietnam and Thailand. They determine that Thailand has been more successful in the both sectors mostly because it has better resource-processing industries that use pineapples and shrimp as raw materials. As these products are perishable, the upstream production (by small producers) cannot grow unless the market is assured by midstream and downstream sectors. Tsunekawa (Chap. 4) examines economic development in Latin America and points out that Chile is the best performer in the region, thanks to the development of divergent processing industries.

Resource-processing industries can certainly provide comparative advantages to resource-rich countries for many reasons. First, the transportation cost of raw materials is naturally low. Second, it is easier for the government and processing firms to exercise quality control of the raw materials they use. In addition to the cost and quality of raw materials, resource-rich countries have an advantage in their knowledge about production and marketing of resources, not only in the upstream segments, but also in some of the downstream segments due to their long-term experience of utilizing the resource. As Kawano's chapter shows, if astute entrepreneurship and appropriate government assistance are added to these natural and historical advantages, then resource-processing industries can, to a great extent, develop the whole production chain.

To develop the processing industries, public policies and public-private cooperation are as important as they are for the machinery industries. Kawano draws our attention to the process in which public research institutes have transferred technologies to the private sector in the Malaysian and Thai rubber industry (as they did in Taiwan's electronic industry). Suzuki and Nam vividly describe how the Thai—but not the Vietnamese—government facilitated the development of shrimp farming by regulating, certificating, and monitoring commodity quality. However, Shimamoto and Todo warn that public-private connections that are too close may hinder economic development. Analyzing an interview survey of managers of 276 manufacturing firms in Indonesia, they found that the Indonesian firms tend to have less trust in foreigners while having closer business relations with domestic partners when they have strong connections with the government. Their attitude is protectionist and impedes the positive learning of foreign knowledge.

Facilitation by the government is not the only available means. The voluntary associations of market players or existing social networks (both formal and informal) can help to mediate between various interests, as seen in the roles that the Thailand Shrimp Association, the Thailand Frozen Foods Association, and local "shrimp clubs" have played in information sharing and disease prevention (Chap. 8, this volume).

In spite of the many advantages that resource-processing industries have, we must be mindful of their limitations. Their production chains are not as long as those in machinery industries, which means that the possibility of adding value via technological upgrading is lower. In resource-processing industries, such as latex gloves, oleo-chemicals, and canned pineapple, the possibility of developing ICT-integrated

products is also lower than in the industries such as machine tools, automobiles, and electric/electronic products. Another drawback is competition. As the technological requirement is relatively low and product differentiation is difficult, resource-processing industries tend to face easy competition from emulators. When the emulators have the same raw materials at hand, they can enter the market quickly, as we have observed in the development of the rubber industry in Thailand and the palm oil industry in Indonesia, as formidable competitors against Malaysia.

Nevertheless, resource-processing industries will be able to provide short- and mid-term advantages to resource-rich countries by raising national income, earning foreign currency, and improving the capacity of technological adaptation/innovation of national firms, the labor force, and research institutions. Over time, such resource-rich countries may be able to develop the capability to enter high-tech manufacturing and service sectors on the basis of the expanded domestic market and enhanced technological capabilities.

1.2 How to Cope with Social Disparity

1.2.1 Early Views on Social Disparity in the Developing Countries

In addition to the issue of continuous economic growth, determining the ways in which to distribute the fruits of growth has always been an important issue for scholars and policymakers/practitioners working in the area of development. The issue was especially acute in the regions or countries where social inequality is deeply rooted in history.

For instance, Mine's chapter in this volume shows that the deprivation of native people's lands by white settlers in South Africa in the early twentieth century created a huge segment of the population who were fully dependent on out-of-village employment. This social dislocation brought about high and chronic unemployment, even after the African National Congress (ANC) came to power in 1994.

Latin America shares a similar colonial legacy in which large landowners and mine owners dominated native and African labor forces. Some Latin American countries, such as Mexico and Peru, implemented land reform in the twentieth century, but it only contributed to creating a large number of poor unproductive peasants. Urban workers who were employed in the public utilities or the manufacturing firms were more fortunate than peasants because they could take advantage of the political competition between the traditional elites and the emerging middle-class people. Middle-class politicians needed the support of organized labor to implement import substitution industrialization (ISI) against the free trade-oriented landed elites and therefore supported labor's demand for higher wages and better social benefits. As a result, the social security system developed relatively well in Latin America although the coverage was limited to the formal sector workers. Informal sector workers did

Table 1.3 Ratio of household income of the highest 20% to the lowest 20%

	Around 1992/94 (1)	Around 2009/12 (2)	Decrease in income disparity (1) – (2)
Brazil	27.3	16.9	10.5
Chile	17.8	12.6	5.2
Peru	10.3	11.9	–1.6
Mexico	13.8	11.1	2.7
Argentina	11.2	10.6	0.6
Malaysia	11.4	11.3	0.1
China	5.9	10.1	–4.2
Philippines	8.3	8.4	–0.1
Thailand	8.2	6.9	1.3
Vietnam	5.6	6.1	–0.5
Indonesia	4.1	5.7	–1.6
India	4.4	5.0	–0.6
South Africa	21.8	28.5	–6.7
Turkey	8.2	8.0	0.2

Source Calculated from data extracted from World Bank WDI database

not benefit from specific welfare programs but only from general price subsidies for food and energy.

The historically determined acute social inequality was not overcome by the ISI. Table 1.3 demonstrates that, as late as 1992–94, Latin American countries (and South Africa) were characterized by much more unequal societies than the Asian countries and Turkey.

In contrast with Latin America and South Africa, high-performance Asian economies were generally praised by the World Bank for having realized high growth with greater equity (World Bank 1993). However, it is said that people's welfare in East Asia was guaranteed not by the welfare state as it was in other regions of the world (including Latin America), but by the increase in employment opportunities that the government helped to create by promoting labor-intensive manufacturing industries and by investing in education. Social policy was subordinate to economic policy. Scholars called the scheme “productive welfare capitalism” (Holliday 2000), the “developmental welfare state” (Kwon 2002), or the “Listian workfare national state” (Jessop 2016).

Social security schemes for pensions and medical care did exist first for civil servants and soldiers and were later extended to formal sector employees in many Asian countries. However, the universalization of the coverage was delayed. Moreover, social security schemes, such as the Central Provident Fund of Singapore and the Employee Provident Fund of Malaysia, were based more on self-help principles than on collective security principles. These funds managed contributions from employers and employees in the form of individual participants' saving accounts usable for their own expenses (including pensions and medical care). Only in coun-

tries such as South Korea and Taiwan, where democratic pressures started to mount early, did the Western-style welfare state also start to emerge early (before the Asian Financial Crisis).⁴

1.2.2 Financial Crisis and Reformulation of Welfare Mechanisms

Although the nature of the welfare-guaranteeing mechanisms may have been different in Latin America and East Asia, both faced a grave threat when monetary and financial crises hit the regions. Since the 1970s, financial globalization had brought serious challenges to developing countries. On the one hand, it became easier for the governments and private firms in these countries to borrow from foreign banks or raise capital from foreign investors. On the other hand, they became more vulnerable to changes in international interest rates or in the international flow of financial resources.

Latin American countries became the first victims of the financial globalization. Their governments borrowed from abroad so heavily that many of them fell into default when international interest rates went up and international reserves earned from the export of natural resources declined due to the drop in commodity prices. The debt crisis as well as the inadvertent responses by the Latin American governments caused inflation of the magnitude of three or four digits during the 1980s and the first half of the 1990s. The fiscal bankruptcy and the deep economic recession shattered the viability of the existing social security system and general subsidy schemes. In addition, the Latin American governments were forced to accept structural adjustment programs in exchange for financial assistance from the IMF and the American government. All in all, they had to implement a drastic overhaul of their social welfare schemes.

A similar mishap happened in East Asia fifteen years later. The massive outflow of foreign capital that started in Thailand in May–July 1997 rapidly spread to the surrounding countries and suddenly brought several so-far prosperous economies to the brink of collapse.⁵ As unemployment expanded and threatened the well-being of many people, Asia’s “developmental welfare states” were forced to implement or expand social programs. South Korea achieved universal pension coverage in 1999. Thailand saw the establishment of a virtual universal medical care service in 2001 when the Thaksin administration decided to distribute 30-baht medical care cards to the entire population, including those who had never before had any benefits. Even Indonesia, with a much lower per capita income, enacted the National Social Welfare System Act in 2004, aiming to establish an integrated universal social welfare system

⁴For instance, universal medical insurance was introduced in South Korea in 1989 and in Taiwan in 1995 (Kabumoto 2010; Kamimura 2010).

⁵Net capital inflows to Indonesia, South Korea, Malaysia, the Philippines, and Thailand turned from \$93.0 billion in 1996 to negative \$12.1 billion in 1997 (Radelet and Sachs 1998, p. 3).

(Masuhara 2014). The implementation, however, was delayed and the introduction of a universal medical care system started only in 2014.

Despite these efforts by the Asian governments, Table 1.3 demonstrates that social inequality deteriorated in Asia between the first half of the 1990s and around 2010. The deterioration was especially conspicuous in China and Indonesia although the situation in the latter country is not yet noticeably bad.

However, this deterioration does not necessarily mean that people's well-being was permanently destroyed by the AFC. The crisis-hit countries in East Asia actually realized a V-shaped recovery in one or two years. Although their annual average growth rate dropped after the AFC, they still grew faster than most of the developing and developed countries in the world. The failure to narrow the income gap has been most probably caused by the rapidity of the growth itself. Everybody somewhat benefited from the high growth but the rapid growth has widened the gap between those who most benefited from economic growth and those who were left behind. In this regard, Henry Yeung's warning is noteworthy. He illustrates how the spread of global production networks precipitated by the "strategic coupling" of firms beyond borders has contributed to the high growth of the Asian countries; simultaneously, he warns that the "strategic coupling" may bring negative consequences by debilitating existing cultural, social, and economic networks and systems in individual countries (Yeung 2016, p. 215).

In comparison with Asia, most of the Latin American countries listed in Table 1.3 experienced the narrowing of social inequality. The improvement in Brazil, Chile, and Mexico is especially noticeable. This phenomenon may seem contradictory to the fact that these countries were forced to dismantle many of the social security schemes during the crisis period. In practice, the new social schemes such as private pensions and conditional cash transfer replaced traditional social security programs and the latter helped mitigate adverse effects of welfare reforms in Latin America.

Chile took the lead in introducing a private pension system in 1981. With this reform, the old defined-benefit pay-as-you-go system was replaced by a defined-contribution individual account system. The scheme is similar to the provident funds in Southeast Asia, but the Latin American system is more radically privatized in the sense that individuals are allowed to transfer their accounts from one company to another. After the 1990s, other Latin American countries including Mexico, Argentina, and Peru adopted a similar scheme (Kritzer et al. 2011).

Another reform was the introduction of a social assistance program relying upon conditional cash transfer (CCT). With this reform, benefits are not generally distributed among the population, but are targeted at the poor population. The first national CCT program was introduced in Mexico in 1997, but spread to other parts of Latin America during the 2000s. As of 2010, beneficiaries reached 29% (Argentina), 27% (Brazil), and 24% (Mexico) of the total population.⁶

After all these budget-saving reforms were implemented, the level of governmental social spending was still much higher in Latin America than in Asia, as shown in

⁶The equivalent figures for Chile and Peru, however, were low: 0.08 and 0.09%, respectively (Stampini and Tornarolli 2012, p. 10).

Chap. 4. Notwithstanding, it is not clear to what extent new social programs have contributed to the shrinkage of social inequality in Latin America. The private pension system is not redistributive because it mostly benefits the formal sector population with sufficient income to pay a premium. Furthermore, the proportion of contributors as a percentage of the labor force was 62.2% in Chile, but was much lower in other countries: 31.7% in Mexico, 19.8% in Argentina, and 13.6% in Peru, all in 2008 (Kritzer et al. 2011, p. 39). The great majority of the population is not covered by the private pension scheme.

The CCT is more redistributive. However, a study of Goñi et al. (2011, p. 1560) showed that the difference between the GINI index calculated on the basis of market income and one based on disposable income (after transfer and direct tax) is minimal in Latin America, which means that the redistributive function of Latin America's fiscal system is still very low.

Stampini and Tornarolli (2012, p. 12) pointed out that it was economic growth and the general income improvement (more than the redistributive schemes) that explain the sharp decline of the number of poor households. The income improvement can, in turn, be explained by several factors. One is the huge commodity boom in the 2000s, which contributed to stimulating domestic economies and allowed the governments of resource-rich countries in Latin America to expand social expenditures. The second factor is a sharp drop in the inflation rate. For one example, the annual average of consumer price increases in Brazil was 979% for 1986–1990, but it dropped to 8.6% for 2001–2005.⁷ The sharp decline in the inflation rate helped lower-income people who have few assets and live on current income. Third, most of the Latin American countries have been under full democracies since the 1980s; they are continuously subject to strong electoral pressures to enhance (or avoid reducing) social expenditures. As a consequence of all these factors, the income disparity between the highest-income households and the lowest-income households generally declined in Latin America.

1.2.3 Sustainability of the New Social Welfare Schemes

Such improvement in Latin America, however, was accompanied by serious deterioration of governments' fiscal positions after the commodity boom ended and the global recession deepened in the first half of the 2010s. In addition to the fiscal constraints, we need to recall that Latin American countries belong to the group of countries whose catching-up speed in terms of both GDP per capita and TFP has been much lower than Asian countries. Investment in higher technology sectors is an urgent challenge for Latin American countries if they are to escape the middle-income trap in the long run. Consequently, balancing economic development and

⁷Calculated from data provided in United Nations Economic Commission for Latin America and the Caribbean reports (various years).

social protection will be a daunting challenge for the region (and also for South Africa as discussed in Chap. 9).

Although the catching-up speed is much faster, social challenges are no less serious in Asia. After having experienced the post-AFC devastation and subsequent expansion of social programs, people in Asian countries will continue to demand greater social welfare. The rapid aging of society, partly brought about by the development of medical sciences, will also put pressure on governments to enhance pension and care programs for the elderly. The universal pension and medical care systems (such as the ones adopted by South Korea), once matured, will lead to the fiscal viability problem that Latin American countries have faced for some time.

In addition, the enhancement of social insurance and protection is not the only challenge for the emerging states in the social issue field. As technological upgrading advances and national income goes up, a new social issue can emerge and pose a new challenge. Isozaki's chapter on South Korea illustrates the serious social problem stemming from the high and chronic unemployment among young university graduates. In South Korea, an increasing number of households desire to have their children receive higher education for a quantitatively and qualitatively better life. The government responded by enhancing the admission quota for each university. Isozaki shows that the mere increase of the number of university enrollments cannot be a solution. Such numerical expansion must be accompanied by the improvement of educational quality that fits the human resource requirements not only of the big *chaebol* companies but also of small and medium-sized enterprises that are major creators of employment. She also insists that a new type of incentive policies should be developed to help highly educated youth venture into new businesses.

1.3 Pressures for Political Opening

1.3.1 *Early Debate Concerning Democratization in the Developing Countries*

The economic and social issues discussed above are closely associated with political transformation. During the first few decades after WWII, political scientists debated the prospect of democratization in the developing countries. In the early literature, the issue was frequently analyzed in connection with economic and social transformation.

For instance, Lipset (1959, 1960) argued that economic development generally contributes to the growth of the middle class and subsequent enhancement of democracy. Here the nature of political regime is explained by the degree of economic development. His argument was mostly based on the experiences of modernizers in the nineteenth century and the first half of the twentieth century (in Western Europe, the United States, and Latin America). His view, however, was contradicted by the view of authors who focused on the historical and contemporary experiences of the

post-WWII developing countries. Huntington (1968) observed many cases of political instability and the lack of a stable democracy in the economically developing countries and argued that instability would result if the expectation for greater participation was not met by the development of absorptive institutions. O'Donnell (1973) examined the experiences of Argentina and Brazil during the 1960s and concluded that economic development could lead to the breakdown of democracy because the middle class could turn reactionary when it met an upsurge of demands from the masses.

Many quantitative analyses were attempted, thereafter, to probe the relationship between economic development and the nature of political regimes. Larry Diamond (1992, p. 108) reviewed these studies and concluded that there is “a strong positive relationship between democracy and socioeconomic development (as indicated by both per capita income and measures of physical well-being).” However, he admitted that the path of democratization is not linear, but takes an N-curve in which a country, once democratized, may experience the breakdown of democracy at the middle-income level before turning to democracy again. He also introduced many intervening variables, such as political culture, class structure, state-society relations, and civil society (Diamond 1992, pp. 126–27). By doing so, he eventually annulled his argument for a close association between economic development and political regimes.

Przeworski and his associates offered a highly sophisticated analysis on this theme by examining the four-decade experiences of 141 countries. Their conclusion was that a higher per capita income does not necessarily bring democracy. However, the chance of an (already) existing democracy being broken down declines as the income goes up beyond \$4,000 (at 1985 PPP) (Przeworski et al. 2000, p. 98). Similarly, Mainwaring and Pérez-Liñán (2005) analyzed the experience of nineteen Latin American countries. They could find little correlations between the level of economic development (measured either by GDP per capita or growth rate) and the nature of political regime.

1.3.2 The Third Wave and Its Demise

As the decade of the 1980s saw the spread of democracy in Latin America, Eastern Europe, and a part of East Asia, many observers endorsed Huntington's view of the “third wave” of democratization. Military governments and one-party regimes were replaced by democracy one after another. Many believed that the “end of the Cold War” was accompanied by a clear victory of liberal democracy in the world.

This belief was shattered in a decade. The demise of the democracy euphoria was as rapid as its advent. By the beginning of the 2000s, scholars started to write that the dominant pattern of political transformation is not democratization but the emergence and consolidation of a hybrid regime characterized partially by democracy and partially by authoritarianism. They call these regimes by various names—competitive authoritarianism (Levitsky and Way 2002, 2010), semi-authoritarianism (Ottaway

2003), and electoral authoritarianism (Schedler 2013)—but they all agree that these regimes are not short-term transitory ones, but long-lasting ones.

All these transformations seem unrelated to the degree of economic development. Table 1.4 shows the Freedom House scores together with GDP per capita for some of the most important emerging states. The Freedom House index is a composite index of political rights and civil liberties that are supposedly protected in each country. The smaller the figure is, the more democratic the regime is. As far as the countries listed in Table 1.4 are concerned, few correlations are observed between GDP per capita and transformation of the political regime. Comparison of Tables 1.1 and 1.4 also disproves the link between the speed of catching up and the nature of a political regime. Among the rapidly catching up countries, only two (South Korea and Taiwan) experienced a clear trend of democratization. Singapore, China, and Vietnam did not change the authoritarian nature of their regimes. A similar discrepancy is observed among the third group to which the medium-speed catching-up countries, such as Malaysia, Thailand, Indonesia, and the Philippines, belong. Only in the second group, which is mostly comprised of Latin American countries and whose catching-up speed is generally slower than the countries of the first and the third groups, is the tendency of democratization most clearly discerned.

Notwithstanding the lack of clear-cut relations between economic development and political regime, an outright retreat to the authoritarian past seems to be unlikely. After the “end of the Cold War,” the ideational influence of democratic principles was strengthened. The authors writing about the competitive or semi-authoritarian regimes mentioned above recognize that it is hard for the leaders of these regimes to wipe out or neglect the democratic rules of the game, even if they frequently violate them. Semi-authoritarian regimes constantly face the possibility of being challenged electorally by oppositions.

Furthermore, the rapid development of communication technologies has helped democratic forces rather than authoritarian conservatives. As shown repeatedly in the democracy movements, such as the Arab Spring and the Umbrella Revolution, technologies (both hard and soft) that include international TV news networks, mobile devices, and SNS helped rebels to mobilize unorganized masses in confrontation with repressive governments. These technologies can also be utilized by authoritarian leaders to control the people. However, given the previous weaknesses of the non-government forces in the authoritarian regimes, the new technologies seem to be giving greater advantages to otherwise powerless oppositions. Consequently, the emerging states, including ones still ruled by authoritarian regimes, will be most possibly placed under continuous pressure to liberalize their political regimes.

1.3.3 Toward a Greater Political Uncertainty

This political prospect means that the governments of emerging states will need to negotiate with a greater number of participants to make and implement policies for technological upgrading of their economies and for correction of social disparity.

Table 1.4 Freedom house ratings

	Average of Freedom House evaluation of political rights and civil liberties (annual average) ^a		GDP per capita at constant 2010 US\$
	1981–85	2011–14	2014
China	6.0	6.5	6,108
Vietnam	6.6	6.0	1,596
Singapore	4.5	4.0	51,866
India	2.5	2.5	1,647
South Korea	5.0	1.8	24,324
Taiwan	5.0	1.5	21,811
Mexico	3.6	3.0	9,493
Peru	2.5	2.5	5,824
Brazil	3.0	2.0	11,866
Argentina	3.1	2.0	10,323
Chile	5.5	1.0	14,702
Turkey	4.4	3.4	13,312
South Africa	5.5	2.0	7,628
Thailand	3.5	4.4	5,590
Malaysia	3.8	4.0	10,399
Philippines	4.3	3.0	2,506
Indonesia	5.3	2.8	3,693

Note ^aThe closer the figure is to 1.0, the more democratic the regime is

Sources Freedom House database and World Bank WDI database; GDP per capita data on Taiwan (at 2011 chain prices) comes from ADB (2016)

They have to persuade entrepreneurs to cooperate with the governmental efforts to build greater technological capacity and to transfer their resources from the familiar sectors based on factor inputs to more risky, skills-based, higher technology sectors. Entrepreneurs also need to be encouraged to deepen coordination between upstream and downstream sectors and between their companies and other relevant players, such as labor unions and local research institutes, for the same purpose of technological upgrading.

Political opening will also strengthen the pressures for social welfare improvement from below. If a government easily succumbs to these pressures, then fiscal burdens may become so heavy that the economic environment for growth is jeopardized as we observed in Brazil in recent years (Chap. 4). Mine writes in Chap. 9 that social spending for the poor African population has expanded in South Africa under the African National Congress governments without any long-term solution in sight. The Korean experience with higher education demonstrates that the government's easy submission to the strong parental demand for the enhancement of university enrollment has led to the deterioration of social conditions among the young university

graduates because such enrollment expansion was not accompanied by appropriate policies to improve the quality of education and help venture businesses.

In contrast with these cases of excessive democracy (or the mismanagement of democracy), some of the chapters in this volume reveal a gloomy prospect concerning actual functions of democratic institutions in the emerging states. As seen above, Mine's chapter demonstrates that the democracy in South Africa that was once praised as it fostered conciliation between the white and African populations has been found to be dysfunctional in improving the living conditions of the great mass of the people. Chapter 11, which was written by Kawamura, examines social policy and its result in Indonesia; it reveals that democratization in that country has not led to the enhancement of budget allocation for social assistance and welfare because political parties cannot effectively articulate the poor people's interests and only work for the maintenance of the highly regressive fuel-subsidizing system.

What is more alarming is that elections provide increasing opportunities for xenophobic populist forces in Indonesia. Honna's chapter (Chapter 12) shows that such political movement is increasingly connected with the military. After the downfall of Soeharto, the Indonesian military looked as if it had been retreating from the political and economic scene of the country. In actuality, it has maintained political and economic influence through the strengthening of the regional command system and by taking advantage of the spread of international norms (such as anti-terrorism) and nationalist sentiment against foreign values including LGBT rights, human rights, and environmental protection. The Thai case analyzed by Tamada (Chap. 13) is even gloomier. The mass-oriented policies of the Thaksin administration broke the balance among the monarchy, conservative elites, lower-class masses, and elected politicians, resulting in the military coup d'état in 2006 and 2014. As a result, a seemingly strong autocracy led by the military and supported by the monarchy and upper/middle classes was created, although it involves seeds of instability both in the monarchy (due to the death of former King Phumiphon) and in the military (due to fluctuations of the intra-military promotion pattern).

1.4 Can Politics Manage Economic and Social Difficulties?

The economic, political, and social problems that the emerging states face today share several features with issues debated or discussed a half-century ago with regard to economic development and political transformation in developing countries. Both are concerned with the prospect of continuous economic development for the latecomer countries, the relationship between economic development and political regimes, and the effect of economic development on social equity.

Contemporary challenges, however, contain many elements that are qualitatively different from the old problems. This is because the nature of economic development and political coordination has largely changed due to enormous advances in communication/transportation technologies and the unprecedented expansion of the global transaction of goods, services, and financial resources. In order to maintain the catch-

up speed, the emerging states today need to compete to locate higher value-added, high-skill, and technology-intensive segments of value chains within their borders. Some of the emerging states, especially those endowed with rich natural resources, may be able to rely on the resource-processing industries to continue catching up for the short run. However, given the limitations of value addition in the resource-processing industries and the high possibility of the emergence of emulators, the emerging states will need to get into higher technology sectors for the long run. In addition, they need to connect the vitality of the leading firms/sectors with related local industries and services. To do so, they must strengthen the technological capabilities of local firms and labor forces, a complex task that requires the coordination of many market players' interests.

The room for a government to play a role is narrower than before in the face of the complexity of the problem and the increasingly liberal international trade and investment regimes. Still, it may be able to provide public goods such as the enhancement of technological education and assistance for R&D activities. It can also help intermediate employers and employees, upstream and downstream firms, firms and local research institutes, and even domestic and foreign firms, thus eventually helping the technological upgrading of the nation.

This kind of intermediation can also be shouldered by non-public institutions such as business associations and more broadly by social networks. However, since the social equity problem is increasing in importance in the emerging states, the role of a government in coordinating various social and economic interests seems to be growing. If it can successfully build a satisfactory and sustainable social welfare/assistance system for its population, it will have greater political stability, which in turn will enhance predictability and facilitate negotiation and consensus-building among market players. However, since the world seems to be moving toward a more (rather than less) politically open environment, the governments of emerging states are required to play a coordinator's role by persuading, not suppressing, the increasing number of participants.

Certainly, a greater number of the emerging states have experienced democratization of their political regime in recent years. In some cases, however, greater demands for distribution and redistribution were precipitated by democracy and made prudent policymaking and interest coordination for technological upgrading difficult. In still another cases, democracy has not functioned as it was expected to correct social disparity. In the worst cases, democracy is in danger of degenerating into a xenophobic populist regime or an outright autocracy.

The economic, political, and social challenges for emerging states combine to form a complex whole that requires simultaneous attention. An extraordinarily challenging task is ahead.

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Part I
Middle-Income Trap and Beyond

Chapter 2

Responses to the Middle-Income Trap in China, Malaysia, and Thailand



Akira Suehiro

2.1 Rethinking the Middle-Income Trap

2.1.1 Studies on the “Middle-Income Trap”

Starting around the end of the 2000s, a certain term was often used in discussions about emerging Asian countries. This was the “middle-income trap,” a favored term of economists at international institutions and in American think tanks.¹

For example, in *Asia 2050* (ADB 2012a), the Asian Development Bank (ADB) provided two long-term forecasts for Asia as a whole, giving an optimistic scenario (the Asian century) and a pessimistic scenario (the risk of getting caught in a middle-income trap). The ADB addressed this issue in relation to China in 2012 in *Growing Beyond the Low-Cost Advantage: How the People’s Republic of China Can Avoid the Middle-Income Trap* (ADB 2012b). They suggested the path that China could take to upgrade from an upper-middle-income country to a high-income country through a combination of four elements: technically advanced domestic firms, high-value goods and services, developed markets, and innovation in products and processes (ADB 2012b, p. 11).

That same year, the World Bank raised the same issue in a report titled *China 2030: Building a Modern, Harmonious, and Creative High-Income Society* (World Bank et al. 2012). They pointed out the difficulty involved for middle-income countries to shift to high-income countries. In fact, among 101 middle-income countries or economies in 1960, only thirteen countries or economies could reach the high-income

¹This literature includes the World Bank (Yusuf and Evenett 2002; Gill and Kharas 2007), IMF (Aiyar et al. 2013), the National Bureau of Economic Research (Eichengreen et al. 2013), and the Levy Economics Institute of Bard College (Felipe et al. 2012).

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K. Tsunekawa and Y. Todo (eds.), *Emerging States at Crossroads*,

Emerging-Economy State and International Policy Studies,

https://doi.org/10.1007/978-981-13-2859-6_2

level in 2008, namely Equatorial Guinea, Greece, Hong Kong, Ireland, Israel, Japan, South Korea, Mauritius, Portugal, Puerto Rico, Singapore, Spain, and Taiwan (ADB 2012b, p. 12). Four out of those thirteen (Hong Kong, South Korea, Singapore, and Taiwan) belong to the so-called Asian newly industrialized economies, or the Asian NIEs (Suehiro 2008).

The term middle-income trap was first used by the World Bank's Gill and Kharas in *An East Asian Renaissance* (Gill and Kharas 2007). They argued that three transformations were required for emerging Asian countries (middle-income countries) to continue their growth: (1) transformation from diversification to more specialization in production and employment; (2) transformation from a focus on investment to a focus on innovation; and (3) a shift from equipping workers with skills to adjust to new technologies to preparing them to shape new products and processes. Gill and Kharas sounded a warning that economic growth in these countries would be sluggish without steady progress through these three transformations and that the emerging Asian countries would be caught in a middle-income trap, as is the current situation for many middle-income countries in the Middle East and Latin America (Gill and Kharas 2007, pp. 17–18).

Likewise, Eichengreen et al. (2013) defined countries suffering the middle-income trap as those that had undergone average GDP growth of at least 3.5% for several years and subsequently stepped down by at least 2% between seven-year periods. Similar observations are shared by Felipe and his colleagues (2012) and Veerayooth (2015).

In particular, the study of Felipe and his colleagues notably explored the issue of middle-income trap by employing two major criteria: the income range used to distinguish a middle-income country, and the average duration of stagnation in the same category of middle-income country on the basis of past experiences. They surveyed 124 countries or economies and categorized middle-income countries as those having GDP per capita of between \$2,000 and \$11,749 in terms of 1990 PPP (purchasing power parity) U.S. dollars.² They calculated the average years of transition and discovered two facts: twenty-eight years for the transition from a lower-middle income to an upper-middle income level and fourteen years from an upper-middle income level to a high income level.

As of 2010, thirty out of thirty-eight lower-middle income countries remained as such for more than twenty-eight years. Five out of fourteen upper-middle income countries stayed in the same income range for more than fourteen years. If looking at Southeast Asian countries, we find that Malaysia is one of the five that may have fallen into the upper-middle-income trap, while Indonesia is in danger of remaining in the lower-middle income trap.

²A lower-middle-income country having less than \$7,250 and an upper-middle-income country having more than \$7,250.

2.1.2 Several Questions About the Discussion of the Middle-Income Trap

This paper first considers the example of Malaysia, which is a typical country facing the middle-income trap (Suehiro 2014, pp. 127–129).

Malaysia transitioned into what the World Bank defines as an upper-middle-income country in 1979. It subsequently dropped back down to lower-middle income status, and, although it regained its status as an upper-middle income country in 1991, it has so far been unable to join the group of high-income countries, as the study of Felipe and others has pointed out (Felipe et al. 2012).

Between 2010 and 2015, per capita GDP (current) in Malaysia increased from \$9,069 to \$9,766, or by merely \$700, in contrast with the case of China, which impressively increased per capita GDP from \$4,516 to \$7,925 in the same period. Malaysia clearly remains at a standstill compared to Taiwan, which took fifteen years to transition to a high-income country after becoming an upper-middle-income country in 1973, and South Korea, which took fifteen years to transition to a high-income country after becoming an upper-middle-income country in 1978 (Suehiro 2014, p. 128).

This highlights how Malaysia has been caught in the middle-income trap. More precisely, Malaysia has hit the “wall for transitioning to a high-income country” or the high-income hurdle (Suehiro 2014, p. 127). By contrast, Thailand and China both joined the group of upper-middle-income countries in 2010. It is unfair to apply the middle-income trap theory used in relation to Malaysia to countries that have only just become upper-middle-income countries.

Moreover, an issue confronting both of these countries, and an issue for Indonesia, which is on the verge of becoming an upper-middle income country, is the clarification of what policies are required to transition into high-income countries. Lastly, India and Vietnam both finally escaped from the group of low-income countries in 2007 and 2008, respectively, so they cannot be discussed in the same terms as Thailand and China.

At any rate, it is clearly unreasonable for international institutions to group emerging Asian countries together as middle-income countries, and assert that they are all caught in a hidden trap. What instead must be considered are the hidden problems in the growth patterns common to these countries; in other words, the problems of growth limitations grounded in the low-cost advantage.

2.1.3 From “the East Asian Miracle” to “Innovative East Asia”

A similar argument to that of the middle-income trap was presented in “The Myth of Asia’s Miracle,” a paper by Paul Krugman (1994) that aimed to criticize *The East Asian Miracle*, published by the World Bank (1993). Krugman asserted that the

previous high growth in East Asia was due to additional inputs of capital and labor, not technical innovation. He thus predicted that if wages in Asia rose and investment efficiency declined, Asian growth would eventually slow down and the “miracle age” would end.

Krugman’s prediction came true with the outbreak of the Asian currency crisis three years later, and his thesis became famous overnight. The currency crisis was ultimately attributed to a combination of such international factors as large, speculative movements of short-term international funds and such domestic factors as fragile financial systems and poor corporate governance (Suehiro 2008). It was not a consequence of the higher wages and lower investment efficiency purported by Krugman.

Nevertheless, World Bank economists took the currency crisis as a turning point, considering all East Asian economic development after that time as “input-driven growth” and emphasizing its negative aspects. For example, Yusuf and Evenett (2002, pp. 3–4) asserted the following in *Can East Asia Compete?*

Except for the low-income economies, innovation will be the engine of growth for much of East Asia now that the initial resource-intensive phase of industrialization is ending [meaning the end of the input-driven growth era]. Innovation in a broad range of areas, from products to services and business organizations, will be the principal source of increases in productivity and in export competitiveness.

Furthermore, they note the importance of tackling three areas: (1) creating an environment that stimulates research and development by public and private entities, (2) integrating the manufacturing sector with the financial and services sectors, and (3) leveraging information and communications technology.

The arguments presented in these reports are virtually the same as the middle-income trap argument that became popular in the early 2010s (Aiyar et al. 2013; Eichengreen et al. 2013). The phenomenon had, therefore, been noted more than 10 years earlier.

2.2 Higher Wages and Lower Labor Productivity

2.2.1 *End of the Low-Cost Advantage Era*

The main reason that the ADB and others discussed China from the perspective of the middle-income trap was the pronounced rise in nominal wages starting in the late 2000s. The main attribute of East Asia’s economic development is that its industrialization is labor-intensive and focuses on export-oriented industries. Therefore, the ability to continually secure a high-quality labor force at comparatively low wage levels is vital to sustaining East Asian industrialization.

On this point, China has a population of 1.3 billion, with enormous labor reserves living in its countryside. Back around the early 2000s, it was even said that there was no limit to China’s labor supply. In fact, farmworkers who have moved from

rural villages to the city (i.e., 180 million people as of 2011) have supported the development of labor-intensive industries (Kan 2013).

However, a labor shortage appeared in coastal cities' industrial areas in the late 2000s, and both nominal and real wages started to rise. For instance, the nominal wage level among urban workers in China increased from 9,333 yuan per year in 2000 to 36,539 yuan in 2010, and further to 56,360 yuan in 2014 (National Statistical Office, China 2016). Therefore, the rate of wage increase during the 2000s has constantly exceeded ten percent per year.

While the degrees vary, sharp wage increases also occurred in Thailand. For example, in January 2013, the Thai government adopted a policy concerning the minimum wage, increasing it from a daily wage level of between 162 baht (regional provinces) and 215 baht (Bangkok and its surrounding five provinces) to a nationwide uniform figure of 300 baht. While this policy was intended to confirm that wage levels in the capital had already exceeded 300 baht, it also reflected the Thai government's desire to shift to an industrial structure oriented toward technology and knowledge-intensive industries by constraining the entry of foreign companies that were looking for a low-wage labor force.

Furthermore, Thailand had been confronted with a chronic labor shortage since 2000. Therefore, the government not only issued work permits to foreign workers from Cambodia, Laos, and Myanmar (CLM) who had legally entered the country to work, but also gave temporary work permits to illegal immigrants from CLM on the basis of agreements with those countries. These foreign workers were employed in such wide-ranging occupations as fishing, transporting of paddy, harvesting of natural rubber, and construction, as well as in menial jobs in various manufacturing sectors and housework.

According to publicly released data (Ministry of Labour, Office of Foreign Workers Administration), as of 2011, Thailand had 580,000 legal workers and 1.25 million illegal immigrants and people with temporary work permits, for a total of 1.83 million foreign workers, of whom more than eighty percent were from Myanmar. Needless to say, the large presence of foreign workers may become an obstacle to the improvement of labor productivity in Thailand.

2.2.2 Labor Productivity in East Asia

Even though wages are rising, economic growth can be maintained as long as increased labor productivity is vital. Two metrics indicate increased labor productivity.

One metric is growth of labor productivity, which is measured as the annual growth rate in the amount of production per capita (the amount of value added). The other is the differential in labor productivity, which is measured by taking the amount of added value produced per capita in the top developed country (the United States) as 100 and looking at how much the same figure for a given country varies from the U.S. figure.

It is important to note that the annual growth rate in labor productivity has constantly been higher in Asia than in all other regions in the world. According to the review by McMillan and Rodrik concerning an International Labour Organization (ILO) survey, the annual growth rate in labor productivity from 1990 to 2005 averaged 3.87% for Asia as a whole, and 3.33% for Asia excluding China. By contrast, labor productivity growth in Latin America was a very low 1.35% (McMillan and Rodrik 2011). In addition, the figure for Asia was about twice that of the United States (1.80%) and Japan (1.41%).

The issue to be raised here is not the annual growth rate of labor productivity in general, but the change in the annual growth rate over time. This issue is significant because the growth rate of labor productivity tends to fall when capital stock increases with progress in industrialization. Empirical data are shown in the *Productivity Data-book* of the Asian Productivity Organization (APO 2016), which provides the dataset for each country over four time periods (1990–1995, 1995–2000, 2000–2005, and 2005–2014).

According to this report, all countries apart from China and India are trending downward in their per-hour labor productivity growth using 2011 PPP.³ For instance, Thailand has experienced a sharp decline, from 5.2% in 2000–2005 to 3.2% in 2005–2014, while Malaysia also showed a similar decline, from 3.1 to 2.3%, in the same period. A downward trend can also be confirmed for South Korea (from 4.3 to 3.5%) and Singapore (from 3.7 to only 1.1%), which are high-income countries (APO 2016, p. 73).

Still, we cannot necessarily say that China does not have a problem with labor productivity. Taking the United States to be 100 and comparing the amount of added value produced per worker indicates that China was only five in 2000, eleven in 2010, and fifteen even in 2014 (computed from Table 11 in APO, 2016, p. 71). Furthermore, Malaysia was thirty seven in 2014, compared to thirty two in 2000, and Thailand was also low at seventeen as compared to twelve in the same year. What should be noted here is that two countries have hardly shown the development of catching up with the United States over the fifteen years from 2000 to 2014.

One way to reduce the differential in productivity with industrial developed countries is to upgrade the country's industrial structure by shifting the manufacturing sector from low-value-added industries to high-value-added ones. Another way is to switch from an input-driven growth path to an innovation-led growth path.

³In China, the annual growth rates of labor productivity were 10.3% in 1990–1995, 6.3% in 1995–2000, 7.7% in 2000–2005, and 9.0% in 2005–2014, while India shows 3.1, 4.1, 4.7, and 5.8% in the corresponding period (APO 2016, p. 73).

2.3 Innovation and R&D in East Asia

2.3.1 *R&D Activities in Asian NIES, ASEAN Countries, and China*

Innovation can be discussed in terms of the national and corporate levels. This section considers innovation at the national level. Metrics to measure the R&D activities at the national level include (1) the ratio of R&D expenditure to nominal GDP, (2) the per capita R&D expenditure, (3) the number of patent applications and acceptances, (4) the population density of R&D personnel, and (5) the number of scientific articles published in international peer-refereed journals. These metrics assess whether a particular country is actively innovating.

Table 2.1 highlights the results of the first three of the above-mentioned metrics using data from information on the UNESCO Institute for Statistics (UNESCO STAT) and the World Intellectual Property Organization (WIPO). As the table illustrates, compared with European countries (apart from Sweden), Japan and Asian NIEs have a higher ratio of R&D expenditure relative to GDP. Regarding international patent applications, the United States still exceeded Japan in 2015, even though the gap between the two countries has narrowed in recent years.

What is most interesting here is the extremely wide gap between the Asian NIEs and ASEAN countries. One indicator of whether a country is science and technology focused is whether its ratio of R&D expenditure to GDP is more than 2%. As shown in the latest year (2015), Malaysia had 1.30%, Thailand had 0.63%, and Indonesia was less than 0.1%. This puts these three countries a long way from transitioning to high-income countries.

Another feature common to ASEAN countries is the lack of notable improvement in performance between 2000 and 2015. Pursuing R&D should have been important national targets for both Malaysia and Thailand. Nevertheless, no results are evident in the two countries in general and in Thailand in particular. There is a striking contrast in this regard when compared to China's performance in both the ratio of R&D to nominal GDP and the number of international patent applications, indicating that China seeks to be a leading nation in science and technology.

China's technology promotion policy was provided in the "Guidelines on the National Medium-Term and Long-Term Program for Science and Technology Development (2006–2020)," announced in 2006 (Science Portal China 2017). The key words in these guidelines are "indigenous innovation, leapfrogging in priority fields, enabling development, and leading the future." "Indigenous innovation" is not borrowed technology, but refers to the "national innovation capability" to develop domestic new technologies.

At the same time, the government established four major national targets in science and technology: (1) the ratio of R&D expenditure to GDP will reach 2.5% by 2020, (2) the contribution of technological progress to GDP growth or total factor productivity will account for 60% and over, (3) the cost of importing foreign technology against the total cost of developing new technology will account for less than 30%, and

Table 2.1 R&D activities in major countries including emerging Asia, 2000 and 2015

Countries/Economies	R&D expenditure against nominal GDP (%)		R&D expenditure per capita (\$)		International patent applications (cases)	
	2000	2015	2000	2015	2000	2015
Japan	3.00	3.28	786	1,344	9,569	44,052
South Korea	2.18	4.23	401	1,476	1,582	14,564
Taiwan	1.90	3.06	419	1,434	n.a.	n.a.
Singapore	1.82	2.20	767	1,828	222	907
China	0.89	2.07	26	298	781	29,817
Malaysia	0.46	1.30	60	344	5	267
Thailand	0.24	0.63	18	102	8	133
Indonesia	0.06	0.08	3.1	8.5	9	6
Philippines	n.a.	0.14	n.a.	9.1	0	27
Vietnam	n.a.	0.37	n.a.	19.5	1	21
India	0.74	0.63	15	38.3	190	1,412
Sweden	3.42	3.26	930	1,564	3,090	3,841
USA	2.62	2.79	953	1,563	38,015	56,995
France	2.08	2.23	555	945	4,137	8,417
Germany	2.39	2.88	640	1,398	12,581	18,002

Note R&D expenditure per capita includes both public and private sectors.

Sources R&D expenditure per GDP and per capita: http://www.globalnote.jp/p-data-g/?dno=1190&post_no=10315 and http://www.globalnote.jp/p-data-g/?dno=2580&post_no=10315 (Original data come from UNESCO STAT). International patent applications: http://www.globalnote.jp/p-data-g/?dno=4240&post_no=5380 (Original data come from the World Intellectual Property Organization)

(4) China will be ranked in the top five, in terms of the number of patents and the citation of scientific articles in peer-refereed international journals. In brief, the Chinese government's stance is completely focused on the creation of a national system of innovation, as Nelson and Freeman have emphasized.⁴

On the other hand, the reference to "leading the future" in the guidelines indicates the government's vision to enable basic research and create new industries from a long-term perspective. They focus on eight fields: biotechnology, information and technology, new materials, advanced manufacturing technologies, advanced energy, maritime technology, laser technology, and space development. These industries are assumed to develop under the dominant role of large-sized state-owned enterprises.

⁴Concerning the discussion about the "national system of innovation" on the basis of Japanese experiences, please see Nelson (1993) and Freeman (1995). A brief introduction of these works is seen in Suehiro (2014, pp. 137–139).

Therefore, the government is expected to make a more *direct* contribution rather than an *indirect* contribution to innovation. Such an approach is quite different from that in the work of Yusuf and Evenett (2002) and Yusuf (2003), which emphasized the collaboration between the government and the private sector, and the networking between the manufacturing sector and the non-manufacturing sector.

Propelled by this technology promotion policy, China's ratio of R&D expenditure to GDP successfully exceeded the national target of 2% in 2014. Therefore, even though both China and Thailand occasionally became upper-middle-income countries in 2010, China seemed to gain an advantage with regard to advancing to become a high-income country.

2.3.2 *Strategies to Avoid the Middle-Income Trap*

In the next part, three countries—China, Malaysia, and Thailand—are examined in relation to their strategies of avoiding the middle-income trap, or more exactly, their strategies of the growth pattern of overcoming the low-cost advantage. According to the survey research of Veerayooth (2015), the patterns of avoiding the middle-income trap are classified into three major groups: (A) establishing appropriate education and institutions, (B) changing export composition through comparative advantage, and (C) promoting industrial upgrading through state intervention.

Differences in the three groups are affected by the different roles played by governments in instituting innovative measures. Group C is characterized by the most active role of government in innovation and industrial upgrading, while group A is characterized by a minimal state role in industrial promotion; rather, the state is expected to facilitate such infrastructure as an educational system for the sake of promoting innovation. Group B maintains a position between group A and group C, where both private firms' efforts (supply side) and the condition of the world market (demand side) are more important. A shift to higher-value-added exports is realized through market mechanisms rather than state intervention (Veerayooth 2015, pp. 56–57).

In this chapter, China is supposed to represent group C, while Malaysia and Thailand belong to group B. It is true that the governments of Malaysia and Thailand have constantly intended to play significant roles in both industrial upgrading and changes in export composition. But new industries and new products have eventually been introduced by foreign firms. In addition, local private firms seem to have discovered their competitive advantages in resource-based industries and the service sector rather than core manufacturing industries. They also seem to have focused on niche products and niche markets rather than new products and new production technology (Khoo Boo Teik et al. 2017).

Comparing two countries in particular reference to the role of government in formulating national economic plans, Malaysia seems to follow the pattern of group C because the government is empowered to supervise the private sector under the Mahathir administration (Torii 2006). On the other hand, the Thai government is

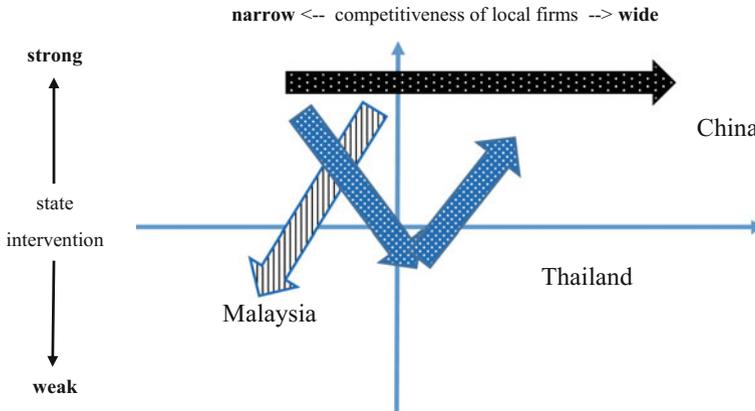


Fig. 2.1 Relationships between the state and local firms. *Note* Local firms include state and public enterprises. *Source* Drawn by the author

given the power to support targeted industries through tax incentives and semi-government institutions (*sathaban*) under the Thaksin administration (Suehiro 2010). After the military coup d'état in 2006, the government role was going to decline. However, as will be discussed later, since 2014, the Prayut government has attempted to restore the state leadership in economic development and proposed an ambitious national strategy of “Thailand 4.0.” In this sense, Thailand shows the shift from group C to group B, and then returns to group C in recent years.

In brief, Malaysia has shifted from the area where the state has been expected to play an active role to the area where the state has eventually played a less important role, while Thailand has indicated the V-shaped curve in terms of degree of state intervention (Fig. 2.1). If we look at the scope or the field where local firms, including state enterprises, will be able to demonstrate their competitiveness in the world market, we find that Thailand seems to show wider fields in comparison to Malaysia, but narrower ones in comparison to China. Keeping these characteristics in mind, let me examine the experience of each country in reference to its government policies of avoiding or overcoming the middle-income trap.

2.4 Cases of China, Malaysia, and Thailand

2.4.1 China: ADB Policy Options

In *Growing Beyond the Low-Cost Advantage: How the People's Republic of China Can Avoid the Middle-Income Trap*, the ADB stated that many countries that attained middle-income status could no longer compete with low-income countries because of rising wages on the one hand, and they were also unable to compete with

Table 2.2 The middle-income trap for China and the ADB policy options, 2012

Fields	Risks and problems	New direction for long-term growth
Productivity	Large technology and productivity gaps with advanced countries	PRC growth needs to be driven increasingly by productivity improvements through innovation and industrial upgrading
Labor markets and wages	Rapid rise of wages. PRC is approaching the so-called “Lewis turning point”	
Sources of growth	Growth has relied too much on investment (high saving) and net exports	Shift of the sources of growth from public investment and exports to domestic consumption and service industries
Income inequality	Rising income inequality: Gini coefficient increased from 30 in the early 1980s to 43.4 in 2008	Reducing income inequality to make growth more inclusive; enhancing governance
Pressures on natural resources	Rapid growth has created pressure on its natural resources and the environment (water shortage, air pollution)	Promoting green growth to conserve resources and protect the environment
External economic environment	As the world’s second largest economy, impact of the PRC becomes significant	Strengthening international and regional economic cooperation
General	Weakness in governance and institutions to support the long-term growth	Deepening structural reforms: reforms of enterprises, labor and land markets, the financial sector, and the fiscal system

Source Summarized by the author based on information from ADB (2012b)

high-income countries because they had not shifted into higher-value production through innovation and industrial upgrading. This is just the middle-income trap, and China is going to be caught in it as well (ADB 2012b, p. 3).

Table 2.2 summarizes the points highlighted in the report in association with major issues China faces in transitioning into a high-income country.

The ADB listed seven risks and problems for China: (1) large productivity gaps as compared to advanced countries (see also Sect. 3 of this chapter), (2) labor market changes and the rapid rise in wages (see Sect. 2.2), (3) a growth pattern that relies excessively on public investment and exports, (4) widening domestic income inequality, (5) exploitation of natural resources and environmental degradation, (6) an international backlash against the rapid growth in China’s presence in the world economy, and (7) the weakness of institutions in supporting long-term growth. These

elements almost duplicate the items listed in the World Bank's *China 2030* report (World Bank et al. 2012).

The measure that is stressed the most in the report is productivity improvement through innovation and upgrading of the industrial structure. The report also proposes the adoption of three strategies: (1) inclusive growth to reduce income inequality, (2) a shift from a growth path that has relied too much on public investment and exports of industrial goods to one based on increasing domestic demand and developing the service sector, and (3) environmentally friendly growth (green growth) that both conserves resources and protects the environment.

Still, these economic challenges are very broad, although China has started the state-led policy of developing self-reliance technology. Among the seven policy issues in Table 2.2, the most important one is probably structural reform. However, structural reform is a problem that lies at the root of the socialist system (Kan 2013). The implementation of a "reform and open" path provides the dream and incentives for economic growth shared by both corporations and Chinese citizens, but the pain that accompanies structural reform creates conflicts of interest for related parties. Considering such difficulties, China's path of transition to a high-income country is not necessarily going as smoothly as was projected in the government long-term plan on the development of science and technology.

2.4.2 Malaysia: From "National Vision Plan" to a "New Economic Model"

Malaysia seems to have been caught in the middle-income trap, as was pointed out in Sect. 2.1 of this chapter. Under the Mahathir administration, the economy achieved a certain degree of success, with growth in production and exports of industrial goods, mainly from the home appliance and electronics sector, as well as rectification of inequalities between ethnic groups under policies favoring ethnic Malays (the Bumi-putera Policy) (Torii 2006). However, there has clearly been an economic stagnation since the 2000s.

Let's compare the growth rates of two periods on either side of the 1997 Asian currency crisis: the ten years from 1987 to 1996 and the ten years from 2000 to 2009. In the ten years before the Asian currency crisis, the annual growth rate for Malaysia's manufacturing sector was 13.9%, which was higher than that of China (12.6%), Thailand (11.8%), and Vietnam (6.6%).

However, in the decade starting in 2000, Malaysia's growth rate plummeted to 3.7%, which was lower than that of China (10.8%), Vietnam (10.5%), and Thailand (5.6%). The same is true for the annual growth rate of exports. Malaysia's annual rate of export growth was 11% from 2000 to 2009. This was not only below that of booming China (23%) and Vietnam (21%), but also below that of Thailand (14%).

Yusuf and Nabeshima (2009) attributed this economic stagnation to the bias of export products toward electric and electronic goods. While the makeup of Malaysia's

exports was similar to that of other East Asian countries and economies (and competition with China was severe), little progress was made toward diversification, there was no shift towards high-value-added export products, and personnel was not trained to develop new technologies and new products.

The electric and electronics sectors, which drove the Malaysian economy, grew into a large industry accounting for more than 70% of manufactured exports and more than 50% of total exports at the end of the 1990s. However, after Seagate (the largest manufacturer of hard disk drives in the world) closed its plant in 2000, Intel, Motorola, and Dell all either shrunk their operations or closed their plants by 2001, shifting their production bases to China (Yusuf 2003, p. 294). In 2002, Malaysia ceded to China its title as the number one exporter of PCs to the U.S. market.

The most serious issue for Malaysia was the high proportion of foreign workers, mostly employees from Indonesia, in the manufacturing sector. The percentage of foreign workers, which accounted for a mere 2% in 1990, rose to 21% in 2004 and surpassed 28% in 2008. Migrant foreign workers are thought to have hardly contributed to the improvement of labor productivity. This is because they have no incentives due to their short-term employment contracts and their unstable working status. As a result, the Malaysian government froze new employment of foreign workers in 2009, when the number of foreign workers totaled 2.3 million, and set a policy to reduce it to 1.5 million by 2015 (Tham and Loke 2011).

Nevertheless, the number of foreign migrant workers in unskilled fields remains at a very high level. According to the latest survey of the ILO, the ratio of migrant employment to total manufacturing employment was 37% in 2009, and 34% even in 2014 (ILO 2016, p. 2).⁵

To deal with this situation, the Najib administration announced its New Economic Model (NEM) in March 2010 following the expiry of the National Vision Plan (NVP, 2001–10), which was aimed at correcting the economic inequalities between ethnic groups. At the same time, the government embarked on the Economic Transformation Programme (ETP), which sought an escape from the middle-income trap.

Comparing the NEM with the National Development Plan (NDP, 1991–2000) and NVP, the NEM under the Najib administration consists of seven strategies. It is a radical transformation that involves a shift (1) from an investment-driven growth path to a productivity-focused growth path, (2) from being government driven to private sector led, (3) from centralization to local autonomy, (4) from a focus on balanced regional growth to the creation of strategic clusters, (5) from favoring specific industries and companies (steel, cement, automobiles, etc.) to favoring technologically capable industries and companies, (6) from an export focus on the G3 market (Europe, the United States, and Japan) to a focus on markets within Asia; and (7) from relying on foreign workers to selectively appointing foreign specialists and attracting skilled professionals from overseas (National Economic Advisory Council, Malaysia 2010).

⁵To tackle this problem, the Eleventh Malaysia Plan (2016–2020) has stated that a comprehensive immigration policy for foreign workers will be developed, with the Ministry of Human Resources (MOHR) assuming the lead role in policy making (Othman and Rahim 2014).

Among the aforementioned policies, the productivity-focused growth path in item (1) is the same as the policy proposals made by the ADB in relation to China. In other words, the aim is to revise the input-driven growth path. Meanwhile, items (2) to (5) aim at correcting the distortions in resource allocation resulting from the Bumiputera Policy (in the New Economic Plan or NEP for 1971–90, NDP and NVP) so that the economic structure is in tune with the era of globalization.

However, there is strong resistance to revising the Bumiputera Policy, even from within the ruling party. In addition, the percentages of R&D expenditure against nominal GDP are stagnant—1.03% in 2010 and 1.30% in 2015, lower by far than those of China (see Table 2.1). As Kawano introduced interesting examples of local private firms' activities in the natural rubber industry, Malaysia has begun to promote notable innovation in resource-based industries (Kawano 2017). However, carefully examining these case studies, we recognize that local private firms (Top Glove and Kossan) have mainly developed niche products, such as medical surgical gloves, with the improvement of imported technology rather than new products with new production technology.

In core manufacturing industries such as the automotive industry, the government has not been successful in inviting new multinational corporations into Malaysia after the Asian currency crisis. Reviewing these elements, Malaysia is likely to face a much harder path of transition into a high-income country than China.

2.4.3 Thailand: Pursuing Thai-ness and Next-Generation Industries

In May 2014, a Thai military group launched a coup d'état to stop unproductive political conflict between pro- and anti-Thaksin groups that started in 2013. Under the Prayut Chan-ocha government, the special economic team led by Deputy Prime Minister Somkid Jatusripitak⁶ and the Ministry of Industry rearranged the previous policies and provided a new long-term national strategy in order to truly overcome the middle-income trap. This national strategy is called “Thailand 4.0” and combines the ideas of the creative economy of the NESDB, the promotion of next-generation industries proposed by the Board of Investment, and rehabilitation of the Eastern Seaboard Industrial Development projects (now known as the Eastern Economic Corridor or EEC project).⁷ The idea of Thailand 4.0 is summarized in Fig. 2.2.

From 2006 to 2015, the Thai manufacturing sector has suffered low-level growth: annual growth rates are 3.0% for manufacturing industries, 2.0% for investments in these industries, 5.4% for manufactured exports, and a mere 0.7% for total factor productivity (TFP). To overcome such economic stagnation or the so-called middle-

⁶Somkid had served as finance minister and deputy prime minister for the Thaksin administration between 2001 and 2006.

⁷For the national strategy of Thailand 4.0 and the EEC project, please see Ministry of Industry (2016, 2017) and Kanit (2017).

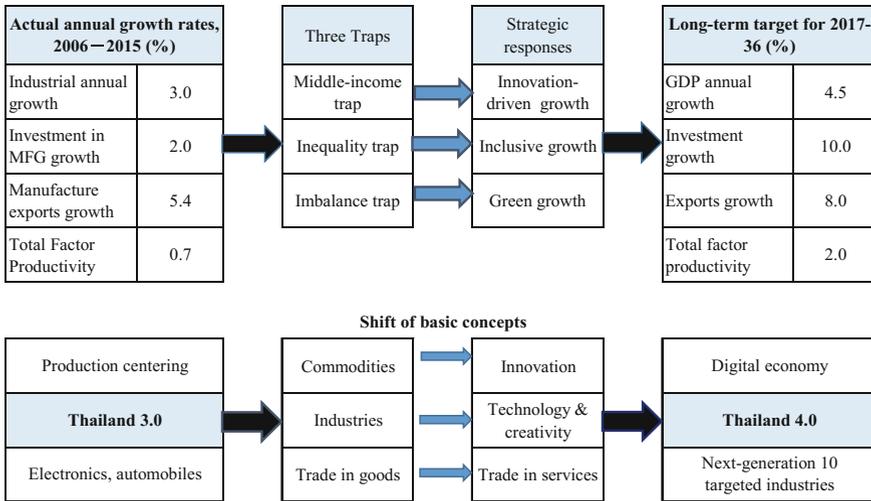


Fig. 2.2 Thailand 4.0 and Long-term Economic Strategy, 2017–2036. Sources Constructed by the author on the basis of the Ministry of Industry, Thailand (2016)

income trap, Thailand is expected to shift the stage of economy from Thailand 3.0, based on production centering, to Thailand 4.0, based on the digital economy, by focusing policy targets on innovation, technology and creativity, and trade in services.

To implement this policy, the Prayut government enacted the National Strategy Act (Prarachabanyat Yutthasat Chart) in July 2017, which empowered political leaders such as Prayut to manage national matters in the next twenty years beyond the authority of each cabinet organized through general election. Indeed, the national strategy committee members consist of the prime minister (chairperson); two deputy prime ministers (vice chairpersons); the chair of the National Security Council; commanders of the army, navy, and air force; representatives of business associations such as the Thai Federation of Industries; and top leaders of large local firms such as the CP Group and the Siam Cement Group.⁸ This act clearly indicates that the Prayut government intends to create strong state leadership in economic fields and is following the Chinese model (state intervention or group C).

Essential projects in Thailand 4.0 are the promotion of next-generation industries (ten industries) and the introduction of the Eastern Economic Corridor or EEC project. As shown in Table 2.3, the targets of next-generation industries include five existing industries and five future industries.

Types of targeted industries overlap substantially with those of China’s long-term program for science and technology development (see Sect. 2.3). However, the development of such high-tech industries as next-generation automotives, smart electronics, robotics, biochemicals, and the digital economy will depend crucially

⁸See “Prarachabanyat Kan Jat-tham Yutthasat Chart” in *Rachakichanubeksa* (Government Gazette) 134, no. 79, Ko, 31 July 2017, pp. 1–12.

Table 2.3 Comparison of eleven targeted industries (1997) and ten targeted industries (2015)

Eleven targeted industries in the industrial restructuring plan (Adopted by a cabinet meeting in November 1997)		Ten targeted Next-Generation Industries © <i>Depending on FDI</i> (Adopted by a cabinet meeting in November 2015)	
1	Food, food processing	<The first stage> enhancement of existing industries	
2	Textiles, dyeing, and bleaching	1	<i>Next-generation automobiles</i> ©
3	Garments	2	<i>Smart electronics</i> ©
4	Sport shoes and footwear	3	Medical and wellness tourism
5	Leather and leather products	4	Agriculture and biotechnology
6	Plastic products	5	Food for the future and food processing
7	Precious stones and jewelry	<The second stage> nursing the future industries	
8	Ceramics and glass products	6	<i>Robotics</i> ©
9	Medical and chemical products	7	<i>Logistics and aviation</i> ©
10	Electronics and electricals	8	<i>Biofuels and biochemicals</i> ©
11	Auto parts	9	<i>Digital economy</i> ©
		10	<i>Medical hub</i> ©

Sources Suehiro (2000, p. 45) and the Ministry of Industry (2017, p. 21)

on the regional strategy of multinational corporations and their decisions with regard to new investment in Thailand. Local firms, even large firms, can appeal their advantages in medical and wellness tourism, agriculture and biotechnology, and food for the future, as Arkhom Termittayapaisith addressed in his treatise on the creative economy (Arkhom 2011). Frankly speaking, however, local firms have neither the capacity to sustain nor practical experience in core future industries.

On the other hand, the EEC projects seem to face similar limitations to the promotion of next-generation industries. The EEC has planned fifteen investment projects (deep seaports, a high-speed train, an aviation industry, tourism, new cities, etc.) amounting to as much as 1,500 billion baht or US\$43 billion (Ministry of Industry 2017, p. 11). Meanwhile, the government expects most of the investment funds to come from local and foreign private firms. Both the promotion of next-generation industries and the EEC project are closely connected not only with state leadership, but also with the movement of local large firms as well as multinational firms.

In this context, the author’s recent work is important (Suehiro 2017). After examining the possibility of Thai firms demonstrating their advantages, I pointed out three major fields: (1) oil refineries, natural gas, and petrochemicals under the control of the PPT (the former Petroleum Authority of Thailand) group or government-linked companies; (2) export-oriented agro-industry, including new energy industries based on biotechnology; and (3) service industries based on

Thai-ness and Thai hospitality, such as tourism, medical and health-care services, fast food, housing, and entertainment.

Several industries that favor Thai firms are included in the next-generation industries as we see agro-industry, food processing (food for the future), and medical and wellness tourism. Typical cases are the Charoen Pokphand (CP) Group of the Chearavanont family, the Central Group of the Chirathivat family, the TCC Group of the Sirivadhanabhakdhi family, and the Bangkok Dusit Medical Service, or BDMS Group, of the Prasarthong-Osoth family.

These groups are active in developing new products as we see agro-industry in collaboration with government-sponsored institutions (Intarakumnerd 2018). They also are very active in promoting their overseas activities in ASEAN countries in general, and in CLMV (Cambodia, Laos, Myanmar, and Vietnam) in particular. They look for new business opportunities in manufacturing and non-manufacturing by constructing strategic business alliances with large Chinese firms (Suehiro 2017). More importantly, large Thai firms can demonstrate wider fields of competitiveness in agro and service industries in comparison to Malaysian firms (see Fig. 2.1).

However, these groups have no competitiveness in high-tech industries. If these groups advance into fields such as high-speed trains, next-generation automobiles, robotics, and the digital economy, they need full support from foreign firms—Japanese, Western, and Chinese corporations—in both investment funds and technology.⁹ This is quite different from the case of China, where the government aims at promoting a self-reliant type of development in science and technology.

2.5 The Role of the State in New Challenges

Computing the average annual growth rates for the three countries in the 16 years from 2000 to 2015, China shows the best economic performance (9.5%), followed by Malaysia (5.1%) and Thailand (4.1%).¹⁰ As compared to the average figure in the world (3.79%), Thailand still maintains a better position. However, the increased rate of per capita GDP in Thailand between 2010 and 2015 is merely 114% (from US\$5,112 to US\$5,816), lower than the average figure of upper-middle-income countries, 124% (\$6,240 to \$7,737).

Malaysia suffered the lowest rate of 108%, but its absolute level of per capita GDP of US\$9,766 in 2015 is the nearest position to the rate of high-income countries (\$12,736 and over, according to the World Bank's definition). It is apparent that Thailand is far behind Malaysia.

Contrary to the expectations of Yusuf and Evenett (2002), in emerging Asia, the role of the state was not replaced by flexible networking of various actors in manufacturing, services, and academic circles. Rather, as the case of China apparently

⁹For instance, the Chinese Alibaba Group led by Jack Ma promised the Prayut government with a full support to the plan of digital economy development in the EEC projects in April 2018.

¹⁰These figures are computed from the IMF (2016).

demonstrates, the state has continued to play its active role in promoting a national system of innovation, and in otherwise facilitating the institutions' support of private firms' innovation.

Under the Thaksin administration (2001–2006), Thailand also formulated the National Competitiveness Plans on the basis of a partnership between the public and private sectors (Suehiro 2010). This ambitious plan is comparable to the 10-year national plan, “Made in China 2025,” to transform Chinese manufacturing industries into the strongest ones in the world. However, the military coup d’etat took place in September 2006, ending the Thaksin government and the state leadership in economic fields.

Since the military coup d’etat in May 2014, the Prayut government has successfully realized political stability throughout the whole country, but has failed to bring about economic recovery. To overcome economic stagnation, in May 2015 Prime Minister Prayut appointed Somkid Jatusripitak as deputy prime minister in charge of economic fields. Under the initiative of a special economic team led by Somkid, Thailand seems to have restored strong leadership of the state in economic fields. However, as we look at the movement of local firms, it is not easy to construct a strong partnership between the public and private sectors.

Furthermore, Thailand must also tackle emerging social problems, such as expanding economic inequalities, the high-speed progress of becoming an aging society, and a worsening environment. As depicted in Fig. 2.2, Thailand is expected to pursue both an inclusive growth strategy and a green growth strategy, in addition to an innovation-led growth strategy to overcome the middle-income trap. This policy option was expressed in the NESDB’s 20-year national strategy (2017–2036) that was published in May 2016. The direction of this plan is quite different from Thailand 4.0, which focuses on industrial development rather than social development (NESDB 2016). Such a dual structure in national targets will make it difficult for Thailand to achieve the targeted growth of 4.5% that was announced in Thailand 4.0 (See Fig. 2.2).

The World Bank optimistically predicted that China would transition to a high-income country in the mid-2020s (World Bank et al. 2012). It is highly likely that Thailand’s transition to a high-income country will be later than China’s and even Malaysia’s. On the other hand, the direction being targeted by Thai local firms and their choice of fields with competitive advantage are much clearer than Malaysia’s. At the same time, it is true that the projects of EEC are beyond the capacity of Thai local firms and are essentially determined by the regional strategy of foreign firms.

This fact suggests to us that Thailand is possibly seeking a different path from China, namely, not becoming a high-income country with a relatively high economic growth rate, but instead remaining an upper-middle-income country with a moderate economic growth rate. The latter is a more realistic path for a country and puts less of a burden on the Thai people.

Even though Thailand's income level stalls at that of an upper-middle-income country (approximately \$13,000), I do not think this would be a wrong choice for the Thai people if Thailand can find its own place within Asian markets and use this position to gain social development. This is because I do not see a transition to a high-income country as the only path available for upper-middle-income countries.

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Chapter 3

The Middle-Income Trap in the ASEAN-4 Countries from the Trade Structure Viewpoint



Satoru Kumagai

As described in the “East Asian Miracle” by the World Bank (1993), East Asian countries have successfully developed their economies over the last half century. Sometimes the sequential economic development process in East Asia is illustrated as the “flying geese” pattern (FGP; Akamatsu 1935, 1962; Kojima 2000) in which Japan is regarded as the leading goose in East Asia, followed by Asian newly industrialized economies (NIEs), the four leading members of the Association of South East Asian Nations (known as the ASEAN-4), China, and finally, the latecomer ASEAN countries.

However, skepticism over this catching-up process of economic development in East Asia had been spreading for the last decade, along with the concept of the “middle-income trap” (MIT). The fear of failed industrial upgrading, especially for ASEAN countries and China, is a key topic that attracts the attention of governments, international organizations, and academia against the backdrop of the trend of a reduced economic growth rate.

In this chapter, we investigate the issues of the MIT for the ASEAN-4 countries (Indonesia, Malaysia, Thailand, and the Philippines) from the viewpoint of the trade structure. If the ASEAN-4’s changing trade structure is not following the precedent set by the front “geese” in Asia, namely Japan, Korea, and Taiwan, then we should be concerned about the MIT caused by the failed industrial upgrading of the region. In particular, the trade structure of the ASEAN-4 had followed Japan and Korea relatively well until the mid-1990s, but started to diverge from its predecessors in the 2000s. We will interpret the meaning of this diversion in the trade structure later in this chapter.

The chapter is structured as follows. In the first section, we summarize the arguments surrounding the MIT and check the historical record of economic development

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K. Tsunekawa and Y. Todo (eds.), *Emerging States at Crossroads*,
Emerging-Economy State and International Policy Studies,
https://doi.org/10.1007/978-981-13-2859-6_3

for the ASEAN-4. In Sect. 3.2, we relate the FGP with the trade structure by using the net export ratios (NXRs) for different product categories based on the United Nations' broad economic categories (BEC). In Sect. 3.3, we investigate the trade structure of the ASEAN-4 by the NXR and reveal that the industrial upgrading in the ASEAN-4 seems to have stalled after the year 2000. In Sect. 3.4, we discuss the reason why the industrial upgrading in ASEAN-4 has stalled, and propose two possible factors, namely a "resource curse" and the lack of homegrown multinational corporations (MNCs) in the manufacturing sector. Finally, we conclude the paper by summarizing the findings and propose some policy implications for the ASEAN-4 countries.

3.1 Middle-Income Trap and the ASEAN-4

3.1.1 Arguments of MIT for East Asia

Although the concept of the MIT, which is first proposed by Gill and Kharas (2007), has become popular among development agencies and policy makers in the last decade, the definition of the MIT is blurred and the theoretical foundation is rather weak. The common denominator of the MIT definitions is slowed economic growth in the middle-income level. However, the previous literature on the MIT for East Asia generally seems to share the viewpoint that "failed industrial upgrading" is or will be a major cause of the MIT for the countries in this region.

Kohli et al. (2011, p. 34) define the MIT as a situation in which middle-income countries are "unable to compete with low-income, low-wage economies in manufacturing exports and unable to compete with advanced economies in high skill innovations." This definition shares a common view on the cause of the MIT in East Asia, namely, failed industrial upgrading. There are plenty of studies that suggest the risk of the MIT for each ASEAN country. Yusuf and Nabeshima (2009) conducted a comprehensive analysis on the electronics sector in Penang, Malaysia, and concluded that weak industrial linkages and an insufficient innovation capacity possibly prevent the island state from upgrading and diversifying its economy. Ohno (2009) used the analogy of a "glass ceiling" to explain the MIT, suggesting that none of the ASEAN countries has broken through the glass ceiling between the stage in which a number of local SMEs have appeared, but still need foreign guidance, and the higher stage, in which local firms have mastered management and technology and can successfully produce high quality goods. Tran (2013) comprehensively discussed the MIT for ASEAN countries, comparing them against Korea, and recommends the enhancement of R&D capability and productivity for advanced ASEAN members to avoid the MIT.

3.1.2 *How Slow Is the Rate of the Trap Threshold?*

One of the difficulties in defining the MIT is to determine how slow the growth must be to be called a “trap.” For instance, Felipe (2012) defined the MIT as passing through the middle-income category at a less-than-average speed. The author first defined four income categories: low income (1,990 per capita PPP below \$2,000), lower-middle (between \$2,000 and \$7,250), upper-middle (between \$7,250 and \$11,750) and high income (above \$11,750). Then, using data from 1950 to 2010 for 124 countries, the author determined that the average number of years taken to graduate from the lower-middle income category to the upper-middle income category was 28 years; from the higher-middle income to the high-income category was about 14 years. Based on this analysis, among the ASEAN-4, as of 2010, Malaysia and the Philippines have been in a middle-income trap.

The definition by Felipe (2012) suggested a way to analyze the MIT with a clear criterion, but has some weakness. For instance, a country with no growth at all for a decade and a country with a growth rate just below the average growth rate of very successful countries, such as Japan, Korea, or European nations, are both classified as a “trapped” country under this definition.

In contrast, Aiyar et al. (2013) defined the MIT as sudden and sustained deviations from the ordinary growth path predicted by a standard conditional convergence framework. They improved the methodology of Eichengreen et al. (2012) to capture economic slowdown in broader income levels and analyzed the data for 138 countries over 11 five-year periods (1960–2005) to identify trapped countries and the relevant time periods. They detected 123 slowdown episodes out of 1,125 observations, and they include Malaysia in 1980–1985 and 1995–2000, Thailand in 1995–2000 and Indonesia in 1995–2000 as slowed down episodes.

Aiyar et al.’s (2013) definition is reasonable from the viewpoint of growth theory. However, it is not perfect because, with this definition, it is impossible to distinguish a sharp decline in growth rate caused by a temporary shock, such as the Asian financial crisis in 1997–98, from a prolonged slowdown caused by structural problems.

3.1.3 *Historical Growth of the ASEAN-4*

Figure 3.1 shows the historical record of the GDP per capita in nominal USD for the ASEAN-4 countries. The dotted line is the threshold between four income categories set by the World Bank, namely, low income, lower-middle income, upper-middle income, and high income, which varies year by year. It is obvious that the Asian financial crisis in 1997–1998 affected the ASEAN-4, except for the Philippines, preventing these countries from climbing to a higher income category. The 2000s, however, was a good decade for ASEAN-4 countries because they stably increased their GDP per capita in nominal USD during that timeframe. Malaysia approached the top of the upper-middle income threshold and Thailand crossed the

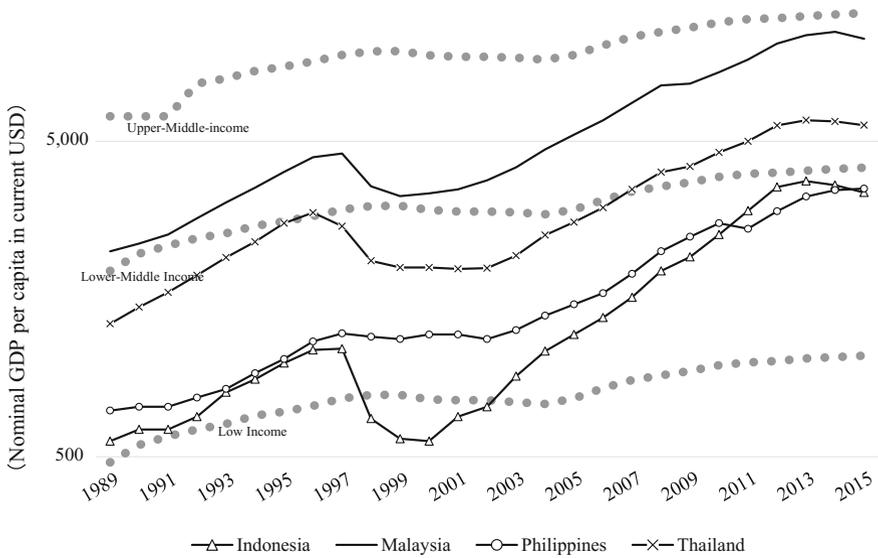


Fig. 3.1 GDP per capita for ASEAN-4 countries and income thresholds, 1989–2015. *Source* Drawn by the author based on World Development Indicators online data

border between lower-middle income to the upper-middle income category in 2007. Indonesia recovered rapidly from the Asian financial crisis and approached the top of the lower-middle income category. The Philippines grew steadily during the decade, approaching the top of the lower-middle income category.

In the 2010s, we observe a slowdown in the growth rate in GDP per capita in nominal USD for the ASEAN-4 countries. It appears that Malaysia has been struggling to cross the border into the upper-middle income category and Indonesia and the Philippines are struggling to cross into the lower-middle income category. Thailand is also stuck in the lower half of the upper-middle income stage. This slowdown is a backdrop for the growing fear of the MIT for the ASEAN-4 countries.

Figure 3.2 shows the average growth rate of real GDP in local currencies for Japan, the Asian NIEs (Hong Kong, Korea, Taiwan and Singapore), the ASEAN-4, China, and the group of countries known as CLMV (Cambodia, Lao PDR, Myanmar and Vietnam) for each decade. Japan, which had led the economic growth in East Asia, lost its growth momentum after the 1990s. The Asia NIEs, as a group, had a high recorded growth rate, but it gradually slowed to 3% per annum in the 2010s. China and CLMV had high growth in the 1990s and the 2000s, but seem to be slowing down in the 2010s, although the average annual growth rate is still above 7%. Compared with the other groups of countries, the average growth rate of the ASEAN-4 has been stable. After the high growth era of the 1960s and the 1970s, their GDP growth rates have all been hovering around 5% per annum until today.

Figure 3.3 shows the average annual growth rate of real GDP in local currencies by decade for each ASEAN-4 country. The 1970s was a decade of high-growth

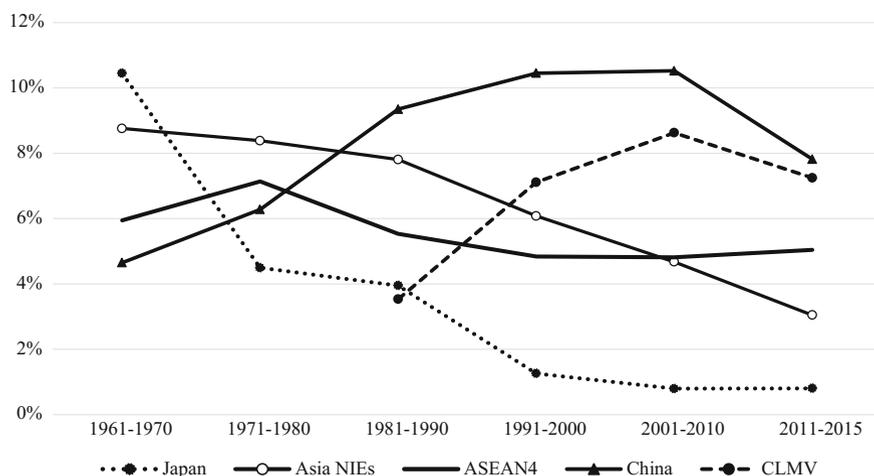


Fig. 3.2 Average GDP growth rates by decade, 1961–2015. *Source* Drawn by the author based on World Development Indicators online data

for the ASEAN-4 with the Philippines showing the lowest growth rate at 5.9% per annum and the other four countries all over 7%. The 1980s was a lost decade for the Philippines with a growth rate of only 1.8% per annum, while the other three countries recorded another decade of relatively high growth. In the 1990s, the ASEAN-4 countries, except for the Philippines, were severely affected by the Asian financial crisis in 1997–1998. Still, in that decade, Malaysia had an average growth of 7.2% and Thailand and Indonesia experienced 4.6 and 4.4% growth per annum, respectively. In the 2000s, all of the ASEAN-4 countries grew at around 5% per annum for the decade. In the 2010s, Indonesia and the Philippines have accelerated their economic growth to around 6% per annum, Malaysia's growth rate has been stable at around 5%, and Thailand has been experiencing a decline of its economic growth to below 3%.

All in all, there is no tendency of sudden slowdown of the economic growth for the ASEAN-4 in terms of GDP in local currency, except for Thailand in the 2010s. Indeed, the Philippines and Indonesia have accelerated their economic growth. Still, the stagnant per capita GNI growth rate in terms of nominal USD fosters the “fear” of a MIT, not an actual MIT. The stagnation seems more relevant to the recent depreciation of Asian currencies against the USD, including the Japanese Yen and Chinese Yuan. Only for Thailand does the MIT seem to be a real threat; however, it is not very clear whether the slowdown is caused by economic factors or by the political instability and floods in that country in 2011 and 2013.

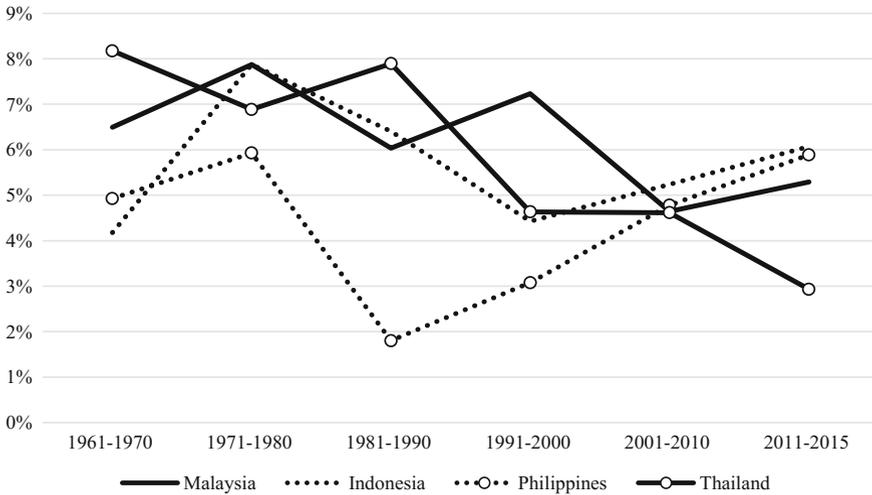


Fig. 3.3 Average GDP growth rates by decade for ASEAN-4 countries, 1961–2015. *Source* Drawn by the author based on World Development Indicators online data

3.2 The Flying Geese Pattern from the NXR

3.2.1 Explanation of the FGP

If one subscribes to the “failed industrial upgrading” view of the MIT, the FGP of economic development is worthy of exploration. Economic development in East Asia has been characterized by the sequential “take-off” of member countries, often termed the FGP of economic development. Actually, the FGP is applicable both to the sequential development of different industries within a country and the sequential development of countries internationally. If a country does not follow the FGP of economic development, then we suspect that the country is failing in the process of industrial upgrading and may be in a MIT.

The FGP supposes that a country’s exports usually start with consumption goods, followed by parts and components and capital goods. This recognition is clear in Akamatsu (1935, 1962), from whence the FGP was initially postulated. Akamatsu explained the fundamental pattern of the FGP through the following four stages:

- Stage 1: Import of manufactured consumer goods begins.
- Stage 2: Domestic industry begins production of previously imported manufactured consumer goods while importing capital goods to manufacture those consumer goods.
- Stage 3: Domestic industry begins exporting manufactured consumer goods.

Stage 4: The consumer goods industry catches up with similar industries in developed countries. Export of consumer goods begins to decline, and the capital goods used for production of the consumer goods are exported.

Kojima (1960) attempted to explain that the accumulation of capital (i.e., the Heckscher-Ohlin factor) is the fundamental driving force of the FGP. Kojima (2000) also mentioned that other driving forces are the Ricardian advantage of learning-by-doing and economies of scale.

3.2.2 FGP in Trade Structure

There are several ways to depict the characteristics of trade patterns for a country. Proper measures are needed to investigate a country's trade structure in conjunction with the FGP. The revealed comparative advantage (RCA) index is often used in trade analyses. For instance, Dowling and Cheang (2000) showed how the export structure of Asian NIEs shifted from 1975 to 1985, while that of the ASEAN-4 shifted more rapidly between 1985 and 1995, according to analysis using the RCA in conjunction with FDI. Ginzburg and Simonazzi (2005) also used the RCA at the SITC 3-digit level to show that the FGP is still a relevant way to explain the trade structure in the electronics industry in East Asia.

However, a large exporter of one good may also be a much larger importer of the same good. In this case, the RCA cannot properly detect the comparative advantage for a country. Here the NXR is another index to be considered. It is theoretically more valid in the context of trade analysis and allows for an empirical illustration of the competitive advantages of each country. The NXR is calculated as follows.

$$NXR_{ci} = (X_{ci} - M_{ci}) / (X_{ci} + M_{ci})$$

where X_{ci} is the export of goods i from country c , while M_{ci} is the import of the goods i for country c . Basically, if the NXR is more than 0, it means that country c has relative strength in exporting goods i . The NXR is also known as a theoretically sound index to investigate trade structure because it is highly correlated with the concept of the factor content of trade (Deardorff 1982).

Moreover, the NXR is an intuitive method to illustrate the changing trade structure along the FGP with Akamatsu's four stages (Fig. 3.4). The vertical axis is the NXR of consumer goods (solid line) and capital goods (dotted line). By utilizing the NXRs for two types of goods, we can visually illustrate the four stages of FGP.

Here, we investigate the NXRs for five types of goods for the United States, Japan, Korea, and China. The five types of goods are capital goods (CAP), parts and components (PRT), processed goods (PCS), consumption goods (CON), and primary commodities (PRM).¹ In order for the NXRs to be meaningful to investigate the

¹The classifications of goods are as follows: CAP (BEC 41,521), PRT (42,53), PCS (BEC 121,22,32), CON (BEC 112,122,51,522,61,62,63), PRM (BEC 111,21,31).

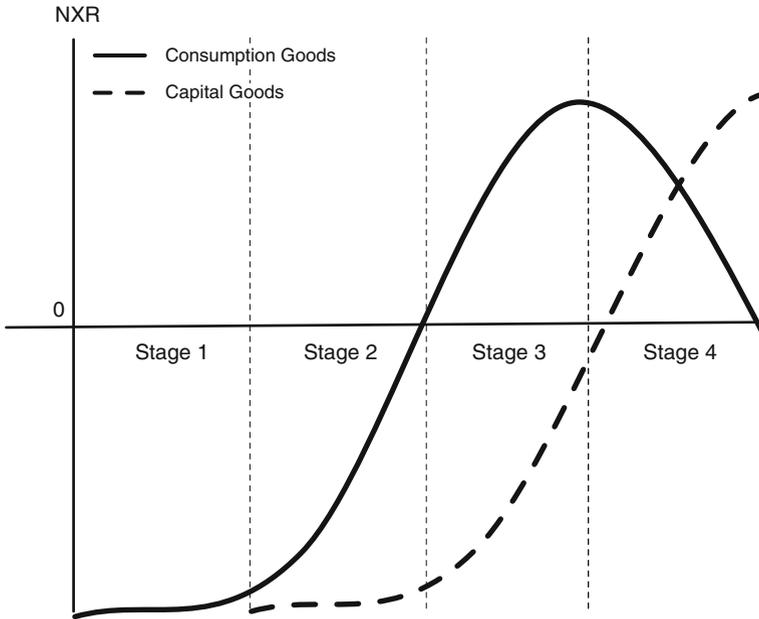


Fig. 3.4 FGP Depicted by the net export ratio. *Source* Constructed by the author

trade structure, the types of goods should be selected to represent different degrees of factor intensity. We suppose the order of the goods along the lower-to-higher capital/labor ratio is $CON < PCS < PRT < CAP$, while PRM includes either resource- or land-intensive goods.

We suppose that the United States is the most advanced economy among these four countries, followed by Japan, Korea, and China, from higher to lower income levels. We would find that the United States has the most advanced trade structure (i.e., exporting capital-intensive goods while importing labor-intensive goods) if the FGP is applicable. For China, the rearmost country among the four nations, the FGP predicts that it exports more labor-intensive goods while it imports capital-intensive goods.

We also investigate the net factor income as a percentage of GDP. We suppose that if one country has reached the high-income stage and starts to deindustrialize its economy to become a service-oriented one, then that country starts exporting capital (i.e., starts outward FDI), which causes the later inflow of factor income back to the home country. Thus, the net factor income (NFI) is expected to be neutral to negative at a lower income level and positive at a higher level of income.

Figure 3.5 shows the NXRs for five types of goods and the net factor income, percent of GDP, for the United States, Japan, Korea, and China, from the 1960s to 2010. The United States was already a net importer of consumption goods in the 1960s. The NXRs for CAP and PRT were largely positive in the 1960s, but gradually

decreased to the negative zone after the mid-1980s. On the other hand, the NFI became positive in the late 1960s and continues to be positive through the present. Thus, the United States was an advanced industrial country exporting capital-intensive goods in the 1960s, but gradually deindustrialized and became a service-oriented advanced economy in the mid-1980s.

Japan is a net exporter of almost all goods except for primary commodities in the 1960s and its highest NXR is for CON at that time. The NXR for CON had been decreasing since the mid-1980s, and is in the negative area after the 1990s. The NXRs for CAP and PRT are always positive; the NFI apparently became positive after the 1980s and has been increasing rapidly in the 2000s. Thus, Japan has successfully upgraded its export structure from labor-intensive goods to capital-intensive goods in the 1970s and the 1980s, and was transformed into a service-oriented economy after the 2000s.

South Korea is always a net exporter of CON, but the peak was in the 1970s and the 1980s. The NXRs for CAP and PRT were both negative during the 1960s and the 1970s, but after the 1990s, the NXRs for both goods became positive. The NFI also became positive in the 2010s. Thus, South Korea was assembling imported parts and utilizing imported capital goods and parts to produce consumption goods for export during the 1960s and the 1970s, but successfully upgraded its exports to more sophisticated capital-intensive goods after the 1990s. It has now become an advanced industrialized economy.

For China, data is only available after the 1980s. The transformation of its export structure was very rapid. China's NXR for CON has been very high since the late 1980s through the present, although it declined slightly in the latter half of the 2000s. The NXR for CAP has increased steadily since the 1980s and became positive after 2000; the NXR for PRT also became positive after the mid-2000s. Thus, China became a successful exporter of consumption goods after the 1990s and upgraded its export structure to be a net exporter of capital goods and parts in the 2000s.

The comparison of NXRs by type of goods for these four countries reveals that there is a clear order in the changing NXRs of each good in each country, according to income level. First, a country becomes a net exporter of consumption goods while importing capital goods and parts. Then, a country becomes a net exporter of capital goods and parts while reducing net exports in consumption goods and, subsequently, becomes a net importer of consumption goods. Finally, a country's net factor income, mainly the income from accumulated FDI overseas, becomes positive, rather than exporting goods. This process of industrial upgrading, which is very much compatible with the four stages of FGP proposed by Akamatsu (1935, 1962), is a logical consequence of the process.

Kojima (2000) posits that FDI distributed in East Asia is mainly so-called pro-trade-oriented FDI (PROT-FDI), which is behind the FGP of economic development in East Asia. PROT-FDI is the FDI distributed by an industry of a country that has a relatively low comparative advantage in that industry, to a country with a greater comparative advantage in areas that are relevant to that industry. The host country can

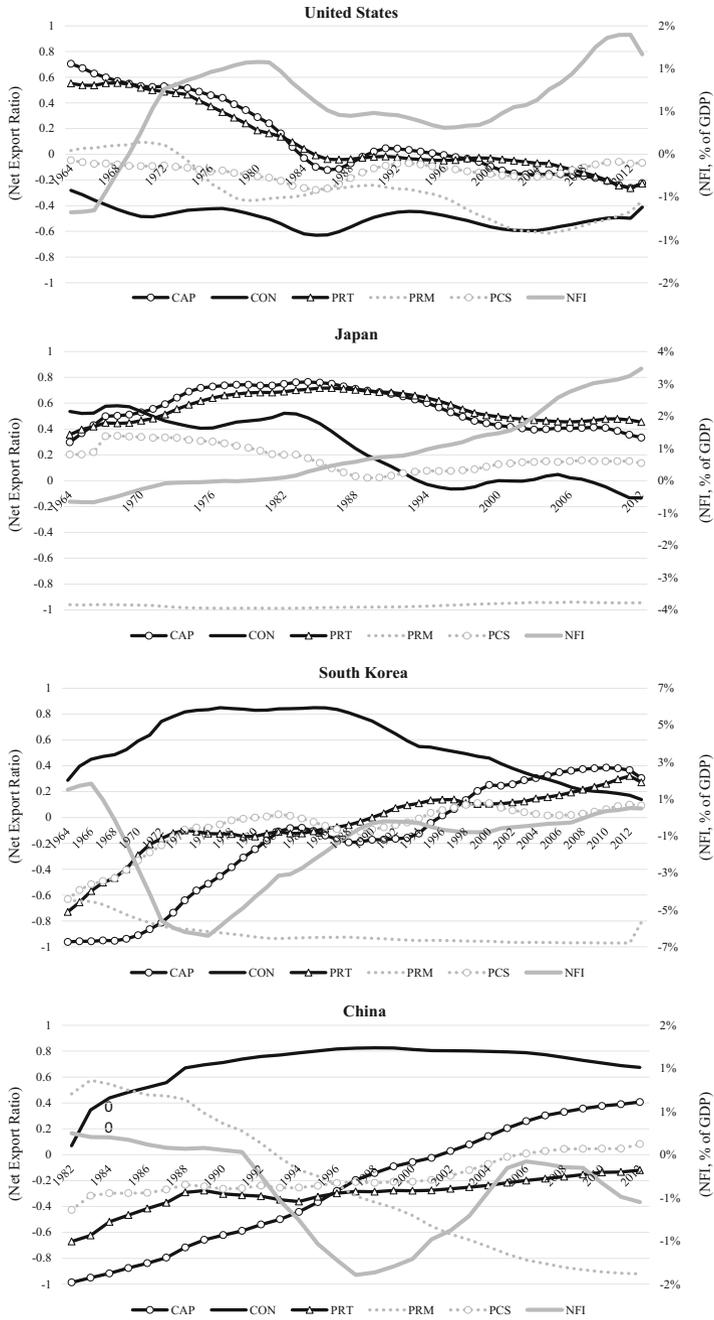


Fig. 3.5 Net export ratio by type of goods, 1964–2012 (5-year average). Source Calculated by the author based on UN COMTRADE database

enhance the productivity of the FDI industry and increase its exports while the home country can enhance the productivity of industries therein that exhibit comparative advantages through the FDI.

3.3 Export Structure of the ASEAN-4

In this section, we investigate the NXR_s of five types of goods for the ASEAN-4 countries, namely Malaysia, Thailand, Indonesia, and the Philippines. If the historical pattern of changing NXR_s is very similar to that of Japan and South Korea, then the country is regarded as being on track for the FGP, successfully upgrading its export structure. Otherwise, if it does not follow the pattern, it may be that the country is failing in industrial upgrading and is on the verge of the MIT.

3.3.1 *Malaysia*

Figure 3.6 shows the historical changes in the NXR_s for the four Southeast Asian countries. In the 1960s, Malaysia was a net exporter of PRM and PCS, while a net importer of CAP and PRT, and its NFI is negative. Thus, the export structure of Malaysia in the 1960s is typical for exporters of primary commodities. During the 1970s, the structure of the NXR_s demonstrated little change except for increasing NXR for PRT. This observation corresponds with the early success of the free trade zones (FTZs) in Penang, where mainly U.S. semiconductor manufacturers started to export assembled semiconductors back to America.

During the 1980s, the structure of NXR_s completely changed in a single decade. The NXR for CON became positive and the NXR for CAP also began to increase. On the other hand, NFI decreased, reflecting that the MNCs were the major players in exporting consumption goods and they repatriated their profit from the exports. Thus, Malaysia became a net exporter of consumption goods, aided by the MNCs attracted to the FTZs in Malaysia.

In the 1990s, Malaysia appeared to successfully upgrade its export structure, maintaining the momentum of the early success of the export-oriented industrialization since the mid-1980s. However, in the 2000s, there seemed to have been an anxious move in the NXR_s. While the NXR for CON peaked, the NXR_s for CAP and PRT did not increase. We cannot yet say whether Malaysia has failed in industrial upgrading, but it appears to have been stagnant since the 2000s.

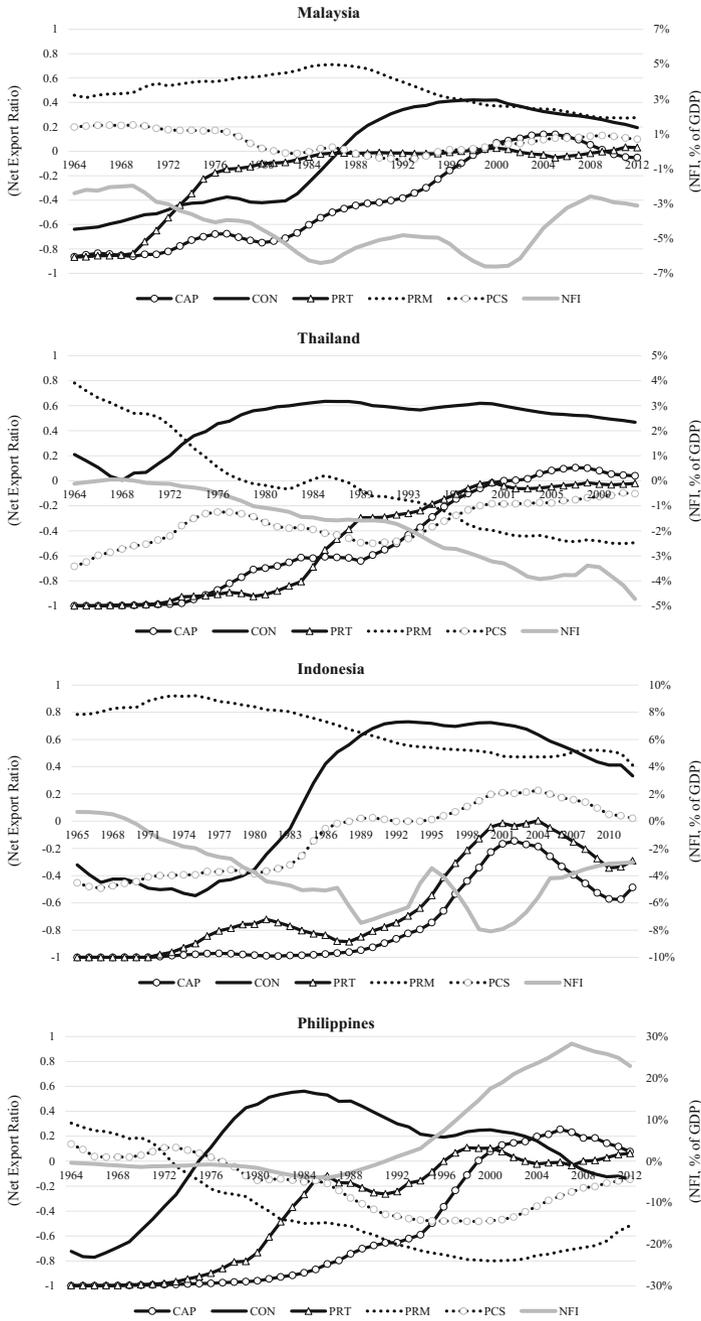


Fig. 3.6 Net export ratio by type of goods, 1964–2012 (5-year average). Source Calculated by the author based on UN COMTRADE database

3.3.2 Thailand

According to the panel of Thailand of Fig. 3.6, Thailand was a net exporter of PRM while a net importer of CAP, PRT, and PCS in the 1960s. In the 1970s, the NXR for CON increased while the NXR for PRM became negative during the 1980s. Thus, Thailand transformed itself from an agricultural economy to an industrialized economy in the latter half of the 1970s and the 1980s, from the viewpoint of export structure.

In the latter half of the 1980s and the 1990s, the NXRs for PRT and CAP have started increasing and switched from neutral to positive in the 2000s and after. It seems that Thailand upgraded its industrial structure to that of a middle-level industrial economy. However, the pace of increase in the NXRs for CAP and PRT is not as fast as expected from the pace in the 1990s.

Another thing that shows Thailand's struggle to upgrade its industrial structure is a steadily decreasing NFI. This is caused by the remittance of MNCs and foreign labor in Thailand to their home countries. Thus, it will take quite some time for Thailand to be a service-oriented economy.

3.3.3 Indonesia

The panel of Indonesia of Fig. 3.6 shows that Indonesia has long been a net exporter of PRM. Until the mid-1980s, Indonesia was a net importer of all other goods except for PRM. Thus, Indonesia was a typical commodity-exporting economy before the mid-1980s.

In the mid-1980s, Indonesia became a net exporter of CON. The NXRs for CAP and PRT increased through the 1990s to almost a neutral area. Thus, in the late 1990s, Indonesia seems to be successfully upgrading to a middle-level industrial country.

However, the NXR for CON started to decrease in the 2000s. The NXRs for CAP and PRT also began to decrease in the mid-2000s. Indonesia seemed to be commencing the deindustrialization process in the 2000s from the trade structure viewpoint. The NXRs for PRM slightly increased in the latter 2000s because of increasing prices in various primary commodities.

3.3.4 The Philippines

The panel of the Philippines of Fig. 3.6 shows the historical changes in the NXRs for the Philippines. In the 1960s, the Philippines was a net exporter of PRM and PCS and a net importer of CON, CAP, and PRT. However, the NXR for CON started to increase in the late 1960s and became positive in the latter half of the 1970s. Throughout the 1970s, the GDP per capita in the Philippines was almost the same level as that of

Thailand. The NXR for PRT increased to a neutral area in the mid-1980s. Thus, industrialization seems to be successful in the Philippines until the mid-1980s.

The NXR for CON started to decrease since the mid-1980s and became negative in 2008 and after. The NXR for PRT became positive in the latter half of the 1990s, but did not increase since then. The NXR for capital goods started to increase in the mid-1990s and became positive in the 1990s, but decreased since the mid-2000s. Thus, the Philippines seemed to be starting deindustrialization, although the per capita income is still in the lower middle-income stage.

One notable characteristic of the Philippines is a hugely positive NFI, almost 30% of GDP at its peak. The Philippines is one of the highest earners of net factor income as a percentage of GDP in the world. This is apparently caused by the remittance of overseas Philippines workers, not by the remittance of Philippines MNCs operating overseas.

3.4 Why Has Industrial Upgrading in the ASEAN-4 Stalled?

In this section, we discuss why the industrial upgrading in the ASEAN-4 countries has seemingly stalled after the year 2000, while the industrial upgrading in South Korea and China appeared smoother. There are several possible factors behind the seemingly stalled industrial upgrading in the ASEAN-4 and here we investigate two factors: (1) the “resource curse” hypothesis and (2) the lack of homegrown MNCs in the manufacturing sector.

3.4.1 Resource Curse Hypothesis

The first possible factor behind the stalled industrial upgrading in the ASEAN-4 countries is the booming primary commodities during the 2000s. The Brent crude oil price was around \$13/barrel in 1998, but it rose to \$50/barrel in 2005 and \$100/barrel in 2008. This commodity boom transfers investment away from the manufacturing sector to the commodity sector, especially in Malaysia and Indonesia, the net exporters of primary commodities.

In Malaysia, five major export commodities (e.g., crude oil, natural gas, palm oil, rubber, and log/timber) have less than 10% share of total export in 1998, but recovered to almost one fourth of the total exports in 2013. This composition affects the business portfolio of domestic companies in Malaysia. For instance, Sapura Group, one of the limited numbers of Bumiputera companies that has competitiveness in the manufacturing sector, was a supplier of telecommunication equipment in the 1980s and expanded to the IT sector in the 1990s. However, after the 2000s, Sapura Group invested heavily in the oil and gas sector. Now its main business portfolio is Sapura

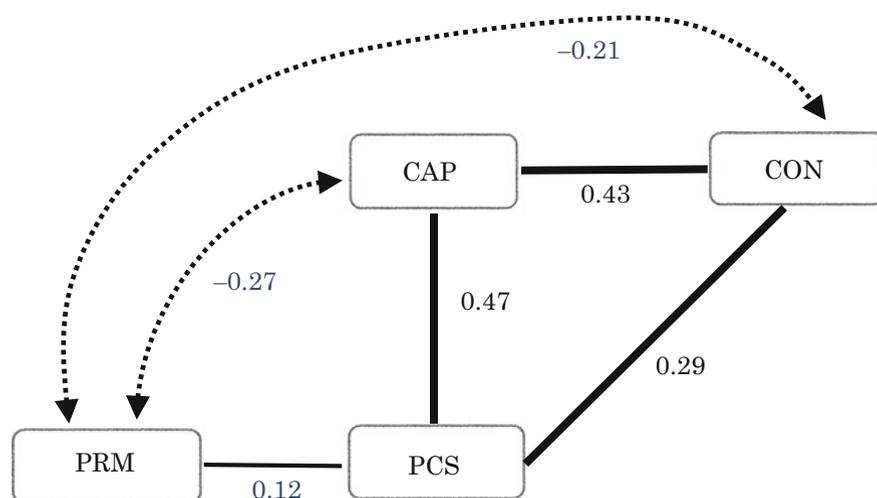


Fig. 3.7 Correlations among NXRs for four types of goods (annual average for 1960–2015). *Source* Calculated by the author based on UN COMTRADE database

Energy Bhd., a multinational oil and gas service provider operating in more than 20 countries.

However, serving as a net exporter of primary commodities is not necessarily a good way for a country to upgrade its industry. Figure 3.7 shows the correlations between the NXRs of four types of goods.² The NXRs of CAP, CON, and PCS have positive correlations with each other. Since CAP is more sophisticated than CON, industrial upgrading through the backward linkage from CON to CAP is a likely path. In contrast, the relationships between PRM and CON and between PRM and CAP are both negative. This indicates that it is difficult for a country to be a net exporter of both PRM and CON or both PRM and CAP. Thus, a net exporter of primary commodities is less likely to be a net exporter of consumption goods and will not experience an industrial upgrading through a backward linkage from consumption goods to capital goods.

Indeed, there is an augment to the so-called “resource curse” that insists the abundance of natural resources paradoxically hinders the economic development of a country. Factors behind this curse include the volatility of prices, crowding out of the manufacturing sector, appreciation of currency leading to Dutch disease, and other factors (Frankel 2010).

Kumagai (2015) shows analyses of the export structure of “trapped” and “non-trapped” samples during 1960–2010 for 198 countries and conducted an empirical analysis of the relationship between income level and NXRs for different types of goods. The author found that industrial upgrading appears to occur exactly as depicted

²CAP and PRT have a high correlation of 0.89, and the correlations with other goods is almost similar. Thus, here we only show CAP in Fig. 3.7.

by the flying geese model for non-trapped countries, while trapped countries tend to depend on the exportation of primary commodities, regardless of income level.

For the ASEAN-4 countries, the trade pattern is different from the pattern of “trapped” countries, but it is undeniable that the trade structure was affected by the commodity boom in the 2000s, especially for Malaysia and Indonesia. Thus, these two countries are likely to be “mildly cursed” by their richness in natural resource endowment.

One thing that should be noted in relation to the resource curse is the peculiar export structure of the Philippines. The Philippines started losing competitiveness in consumption goods as early as the 1980s, and its competitiveness in parts and capital goods peaked at the end of the 1990s and the mid-2000s, respectively. This seemingly “upgraded” and now deindustrializing trade structure of the Philippines is very likely to be a consequence of the huge amounts of remittance coming into the country from overseas Philippines workers. The net factor income for the country, which mainly consists of remittance from these workers, amounts to almost 30% of the GDP at its peak. This, one of the world’s largest remittances as a percentage of GDP, makes the Philippines a quasi-exporter of labor services to the world, causing the trade structure to behave just like a deindustrializing advanced country that receives a large remittance from its overseas FDI stocks.

3.4.2 Lack of Homegrown MNCs in the Manufacturing Sector

The second possible factor that may cause the industrial upgrading in the ASEAN-4 countries to become stagnant is the lack of homegrown MNCs in the manufacturing sector. This is obvious when compared to Japan, South Korea, and China, which are countries with multiple MNCs in various manufacturing sectors, such as automotive, electrical and electronics (E&E), shipbuilding, and the chemical industry. On the 2017 *Forbes* Global 500 list by country, there are 51 companies from Japan, 15 from South Korea, and 106 from China, while only one company each from Malaysia, Thailand, and Indonesia and no companies from the Philippines. Although there are homegrown MNCs in the ASEAN-4 countries that have recently started aggressively investing overseas, these are mainly companies in the service sector or natural resources-based industries.

Why are homegrown MNCs important for industrial upgrading, especially from the viewpoint of the trade structure? The reason lies in the difference between consumption goods and parts and capital goods. The export of capital goods and parts needs production networks, while the exports of consumption goods do not necessarily require them. To be a net exporter of consumption goods, the existence of homegrown retailers in foreign markets is not necessarily needed. On the other hand, selling parts and capital goods directly to foreign markets is relatively difficult. For example, if a manufacturer in the home country that buys parts and components from

domestic suppliers wants to invest abroad and starts production in a host country, the firm will procure parts and capital goods from the home country, especially in the early stage of operation overseas. Thus, FDI of manufacturing MNCs makes it easier for a country to be a net exporter of parts and capital goods.

The comparison of South Korea, Thailand, and Malaysia in the automotive sector is illustrative. South Korea became a net exporter of passenger cars at the end of the 1970s. Its homegrown automakers, such as Hyundai Motors and Kia Motors, began overseas production during the 1990s, then the net exports of automotive parts become positive soon after. South Korea is a successful case of industrial upgrading from an exporter of passenger cars to the net exporter of both passenger cars and automotive parts.

Thailand has followed a different path of industrial development in the automotive sector. Thailand opened up its home market to foreign automotive MNCs, such as Toyota, Honda, and Nissan, in the 1990s, and started to export assembled cars largely from Thailand after the Asian financial crisis in 1997–1998. The NXR of passenger cars for Thailand was recently around 0.7–0.8. On the other hand, the NXR of automotive parts became positive since the mid-2000s, and it is still around 0.1–0.2. This result is because the automotive MNCs operating in Thailand export some parts, but at the same time, import other parts from their home country and other ASEAN countries under the ASEAN Free Trade Area (AFTA). Thailand is producing automotive parts competitively in the international production networks for MNCs, but is not a main source of parts and capital goods for automotive MNCs that have operations in their own home countries.

In the case of Malaysia, the NXR of passenger cars and automotive parts are both negative. This is an obvious weakness in Malaysia's export structure as a middle-income economy and a contributing reason why Malaysia's NXR for CAP, PRT, and CON are lower than expected after the 2000s.

Malaysia's weak competitiveness in the automotive sector is not caused by its narrow car market. With approximately 600,000 cars sold per year, Malaysia has the highest population/car sales ratio among ASEAN countries. Surprisingly, it had the largest passenger car sales among the ASEAN-4 countries until 2010. It is obvious that the early success of Proton (Perusahaan Otomobil Nasional Bhd.), a national car company, is a factor that led to the later failure of the automotive industry in Malaysia. Proton was established as a joint venture between Heavy Industries Corporation of Malaysia Bhd. (HICOM) and Mitsubishi Motors and Mitsubishi Corp. in 1983. For the first few years, Proton suffered stagnant domestic demand after the economic slowdown in 1985 and 1986, but then its production and sales steadily increased, supported by various incentives from the Malaysian government (Hasan and Sundaram 2007, pp. 170–72).

Proton is not a completely failed company. Conversely, it is very successful in the Malaysian market, having more than a 70% share of the passenger car market in the latter half of the 1990s. Although its early production was the rebranded Mitsubishi Mirage as the Proton Saga, its advancing R&D capacity allowed it to develop its first original car from scratch, the Proton Waja, in 2000. Proton bought British sports car

maker Lotus in 1996, and subsequently succeeded in developing its own 1600 cc engine, called the CamPro, with Lotus in 2000 and has deployed it since 2004.

Still, Malaysia needed to extend the start date of AFTA in the automotive sector from January 2003 to January 2005. This extension shows a lack of competitiveness of the Proton, even within the ASEAN markets. Indeed, the strength of national carmakers in the Malaysian market emanates from vehicles' approximately 30% lower price, supported mainly by the exemption from or reduction of excise taxes. After AFTA, the Proton lost its position in the Malaysian market. In 2006, Proton gave up the position of the top car seller in Malaysia to Perodua (Perusahaan Otomobil Kedua Sdn. Bhd.), the second national car company. Now, Perodua produces 200,000 units a year while Proton's production is less than 100,000.

Proton cannot be a part of the ASEAN production networks in the automotive industry, because (1) Proton is not a MNC, thus the absence of overseas production facilities make it impossible to mutually export completely-built units or automotive parts under AFTA or the preceding Brand to Brand Complementation/ASEAN Industrial Cooperation (BBC/AICO) scheme. Further, (2), there are both explicit and implicit obligations to support local vendors, mainly Bumiputera firms, making it difficult to procure cost competitive parts from other countries. On the other hand, Perodua, virtually an affiliate of Daihatsu, Japan, from the viewpoint of its production networks, can be more competitive under AFTA than Proton.

3.4.3 Two Alternative Approaches to Industrialization

The Malaysian government under the Mahathir administration chose to set up Proton, a national car maker, to develop a homegrown automotive company with self-reliant technology. Thus, Malaysia took the same strategy as South Korea in the automotive sector. Unfortunately, Malaysia was not as successful. In Thailand, the automotive industry succeeded as a regional production hub for MNCs in the early 1990s by opening up its market without a national car project. However, it is not a big net exporter of automotive parts so far because Thailand is just one of the many countries in the production networks of the world's automotive MNCs.

The policy to develop home companies with their own technology has long-lasting competitiveness in an industry, such as the Taiwanese E&E sector, or the South Korean automotive sector, but such a policy is not always successful. Once failed, the cost of being excluded from the regional production networks of MNCs is very high.

The failure of Proton was mainly caused by the lack of competitiveness in foreign markets. Proton has a "given" home market through the preferential treatment from the government that makes it possible for Proton to sell its cars 30% cheaper than non-national carmakers. The situation is different from that of the Taiwanese E&E and South Korean automotive companies, who exported their products to overseas markets in the early stage of development, and were forced to compete with MNCs from other countries.

The other strategy, inviting FDI for exports seems to be a more secure choice for a developing country. The FDI brings not only capital, but also technology and market access to the host countries, and ensures their inclusion in regional production networks. This strategy seems to be a short cut for a developing county to industrialization; however, there are costs in becoming dependent on foreign firms and foreign technology. As shown in the analysis above, industrial upgrading in manufacturing parts and capital goods is likely to be limited in FDI because the host county is just one of the many countries that MNCs include in their production networks.

Thus, the choice between “deep” industrialization consisting of homegrown companies with their own technology and “shallow” industrialization by inviting FDI is critical to determining the path for a developing country to industrialize and upgrade its economy. There is no single right choice between the two strategies to fit every country, but governments must be aware and consider the advantages and disadvantages of each strategy.

3.5 Conclusion

This paper investigated the “fear” of the MIT for the ASEAN-4 countries, from the viewpoint of trade structure using NXRs. The historical changes in the NXRs for different type of goods revealed that the ASEAN-4 countries had long been following the FGP after Japan and Asia NIEs, but diverged from similar paths of industrial upgrading after year 2000.

There are two possible factors that have caused the stagnant industrial upgrading in the ASEAN-4 countries. One possible factor is known as the “resource curse.” After recovering from the recession caused by the Asian financial crisis in 1997–1998, resource-based industries in the ASEAN-4 countries, especially in Indonesia and Malaysia, enjoyed booming prices of primary commodities during the 2000s. This boom in primary commodities may have diverged investments from manufacturing to primary industries.

The second possible factor is the lack of homegrown MNCs in the manufacturing sector. In the manufacturing sector, the ASEAN-4 countries have fewer developed MNCs and are much more dependent on foreign direct investment than Japan, South Korea, and China, who all have homegrown competitive MNCs in the manufacturing sector. This lack of homegrown MNCs makes it difficult for the ASEAN-4 countries to export parts and components to overseas MNCs and take advantage of lower wage rates for the assembly process in other countries.

The policy to foster home companies with their own technology will bring long-lasting competitiveness in an industry, but such a policy is not always successful. Once failed, the cost to be excluded from the regional production networks is very high. Therefore, there is a choice between “shallow” industrialization, depending on FDI and MNCs, and “deep” industrialization by home companies with their own technology. The former policy may help a country to industrialize quickly, but

cannot help it be a leading goose. The latter policy has a higher return but high risks. Therefore, governments must carefully consider the potential and hazards of each strategy.

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Chapter 4

Emerging States in Latin America: How and Why They Differ from Their Asian Counterparts



Keiichi Tsunekawa

Many works have been written on the middle-income trap as one of the biggest challenges for emerging states, most of which are middle-income countries (refer to Chap. 1). In the Asian Development Bank's (ADB's) *Asia 2050* report, the authors warn that even the Asian emerging states that have had the strongest economic performances may be in danger of falling into the trap. They believe that outside of Asia, some countries have already fallen into the trap; they cite Brazil and South Africa as the typically trapped countries (Kohli et al. 2011, p. 54). As many other emerging states in Latin America have development patterns similar to that of Brazil, they may also have fallen into economic difficulty. The purpose of this chapter is to analyze the pattern of the economic development of the emerging states in Latin America in comparison with their counterparts in Asia and to elucidate why the economic performance of the emerging states in Latin America has differed from that of Asia.

In the first section, I use the long-term data on the size of each country's gross domestic product (GDP) per capita relative to that of the United States to examine each country's catchup speed with the advanced industrial countries. The data reveal that the performance of Latin American countries in terms of catchup speed has been by far slower than that of their Asian counterparts. In Sect. 4.2, I then examine immediately observable (first-order), mostly economic causes of Latin America's poor economic performance by focusing on each country's changing sectoral competitiveness. I illustrate that Latin American countries increasingly depend on natural resource and resource-processing sectors, whereas Asian countries have seen the expansion of machinery industries with higher value added. In Sect. 4.3, I deepen the analysis by looking into the second-order (political economy) causes of the difference in their performance. I examine why Latin America has been deepening its dependence on natural resources, and I point out low research and development

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K. Tsunekawa and Y. Todo (eds.), *Emerging States at Crossroads*,
Emerging-Economy State and International Policy Studies,
https://doi.org/10.1007/978-981-13-2859-6_4

(R&D) expenditure, excessive consumption, weak intrafirm connections, low trust among people, and the middling effectiveness of public administration. In Sect. 4.4, I touch on the root (historical) causes of the contemporary Latin American difficulties, looking at several historical legacies from the colonial period, the postindependence period, the late nineteenth and early twentieth centuries, and the World War II and post–World War II periods.

4.1 Different Economic Performance

This chapter measures the “emerging” phenomenon by economic catchup speed. In the top panel of Fig. 4.1, which reveals the GDPs per capita of some Latin American countries (and South Africa) as a percentage of the United States’ GDP, three catchup periods can be discerned. During the late nineteenth century and the early twentieth century, Argentina, Mexico, Chile (to a lesser degree), and Peru (during the slightly later period) experienced relative improvements in their GDPs per capita. This was the period in which Latin America witnessed the expansion of the export of mineral and agricultural products to then-industrializing Europe and the United States. The second “emerging” phenomenon occurred between the 1950s and 1970s in Mexico and Brazil, the countries that pursued import substitution industrialization most vigorously. The third catchup was observed during the 2000s, mostly thanks to the commodity boom that benefited the resource-rich countries in Latin America. However, each period of upsurge was followed by a period of decline, and despite the recent improvement, the relative GDPs per capita of Latin American countries have never regained their historical peaks.

In contrast, the emerging states in Asia began their catchup endeavor only after World War II but have improved their relative GDPs per capita constantly for the past half a century (as seen in the lower panel of Fig. 4.1).¹ It is undebatable that the emerging states in Latin America have had much poorer performance compared with their Asian counterparts for the past thirty to forty years.

4.2 First-Order Causes: Competitiveness of Manufacturing Industries

Latin American countries’ weak economic performance can be explained by weak productivity improvement in the national economies stemming from their manufacturing industries’ inadequate competitiveness. Within the manufacturing industries, the degrees of value-addedness are expected to rise as the leading sectors shift from light manufacturing (such as apparel and footwear) to heavy and chemical indus-

¹Consequently, Singapore, Taiwan, and South Korea surpassed Latin American countries during the 1980s, whereas Malaysia, Thailand, and China caught up with them by 2010.

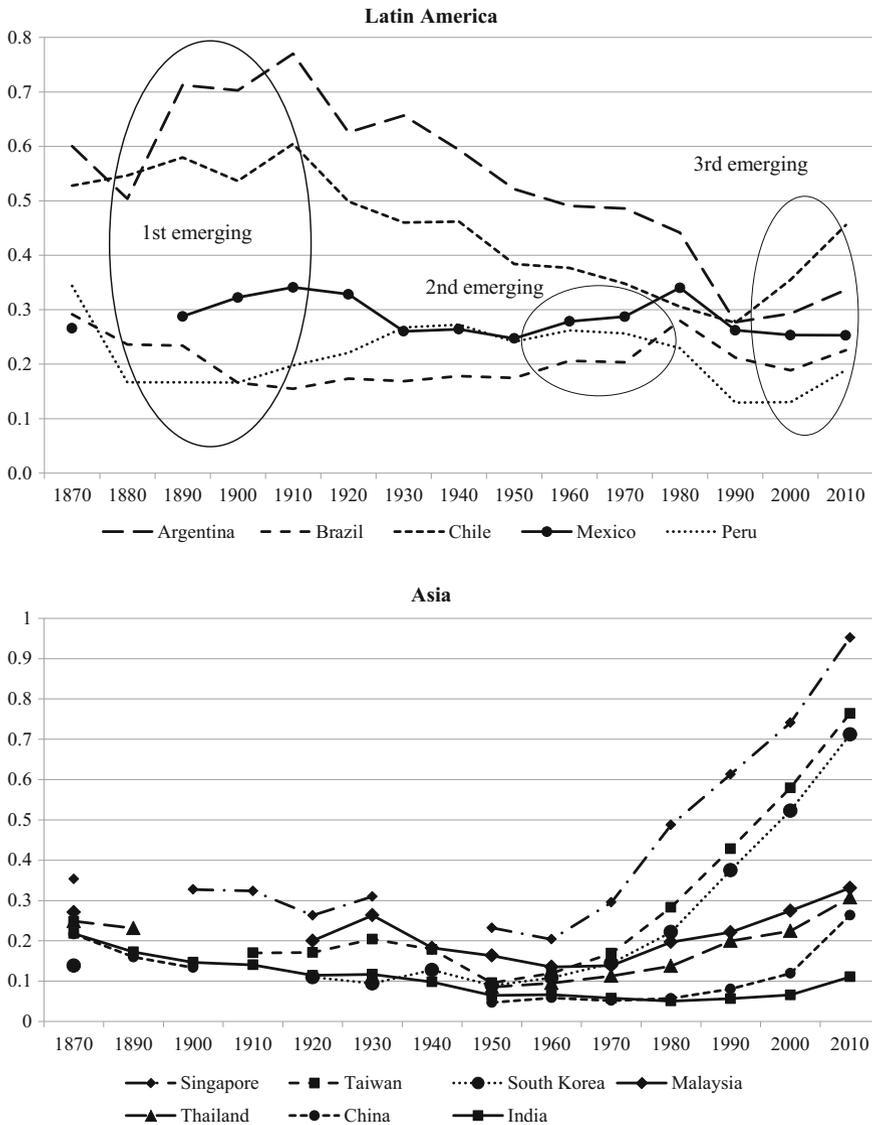


Fig. 4.1 Relative size of GDP per capita (United States = 1.0). *Source* Constructed by the author on the basis of data retrieved from the Maddison project database. <http://www.ggdc.net/maddison/maddison-project/data.htm>. Accessed 20 November 2016

tries, and to information and communication technology (ICT)-integrated machinery industries. This is because the value chain generally becomes more complex and extensive and provides greater value-addedness as a country’s industrial structure steps up from the former to the latter industrial sectors.

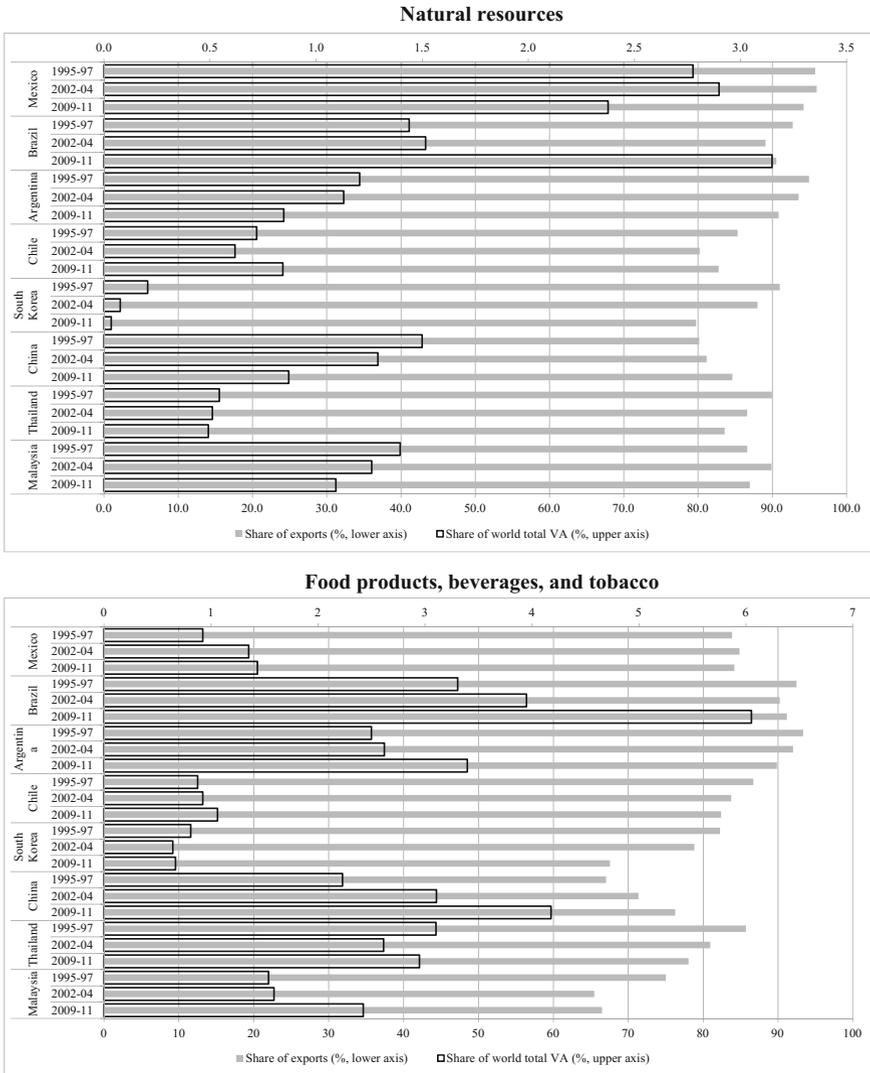


Fig. 4.2 Value added as shares of exports and of the world total value added in selected sectors (%). *Source* Constructed by the author on the basis of data retrieved from OECD’s TiVA database. <https://stats.oecd.org/index.aspx?queryid=75537>. Accessed 20 September 2017

Figure 4.2 displays each country’s value added in the export of natural resources, food products, and machinery as the share of the country’s sectoral export (local content) and as the share of the entire world value added in the given sector. The food product sector represents the light industries; it can also be regarded as a resource-processing industry, as it uses domestic raw materials in many countries.

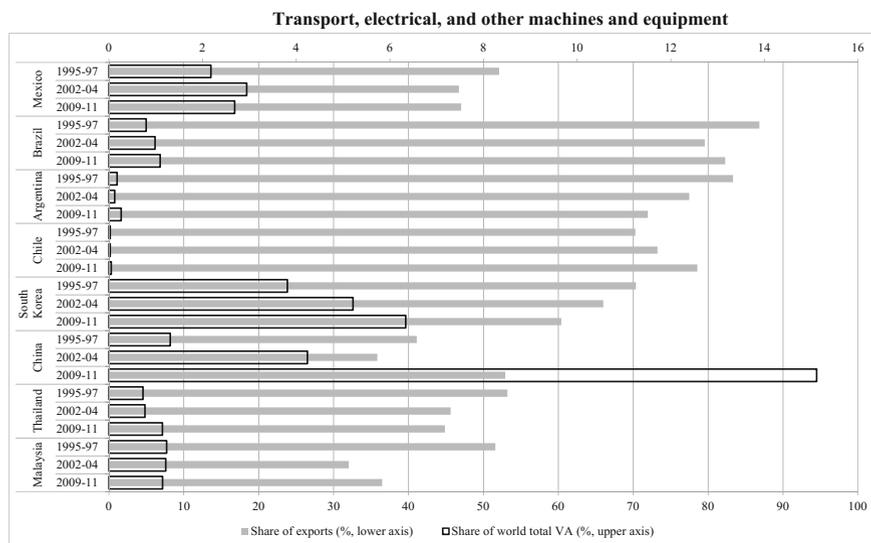


Fig. 4.2 (continued)

This figure indicates that the local content is high (around 90%) in the natural resource sector in all of the countries, but the share of the world total is especially high in Mexico and Brazil because the absolute amount of the export of natural resources from these countries is large. The food product sector reveals a slightly different pattern. The local content is low in South Korea, China, and Malaysia, but their share of the world value added is high except for in South Korea. The share of the world value added is also high in Brazil, Argentina, and Thailand. These countries (except for South Korea) are those endowed with rich agricultural resources. It can be concluded from these data that resource-rich countries have relatively high competitiveness in the natural resource sector and/or the resource-processing sector.

The machinery sector presents a different picture. Asian countries have local content that is lower than that of Latin American countries (except for Mexico), but South Korea and China have high and increasing shares of value added in the world. However, Malaysia's and Thailand's shares are smaller than Mexico's share and are similar to Brazil's. This is one of the reasons why a fear of the middle-income trap is in the air in Malaysia and Thailand. However, the fact that the Malaysian and Thai shares of value added in the world are similar to Brazil's share but their local contents are lower than Brazil's simply indicates that the absolute amount of machinery export is greater in the Southeast Asian countries. It can be concluded that, generally speaking, Asia has more robust machinery industries than Latin America does.

Figure 4.2, however, reveals a limitation in measuring various countries' competitiveness because a large world share of value added in a certain sector could simply mean that a country exports low-value-added products in a huge quantity. In

contrast, a small world share of value added (such as the one for the natural resource sector in South Korea) does not necessarily indicate a lack of competitiveness but simply the scarcity of exportable resources. To examine the sectoral competitiveness in each country, I present here another measure called the comparative advantage measured by sectoral value added in export (CASVA). As its name indicates, the CASVA is calculated on the basis of value added in a country's exports. First, the ratio of each country's value added in a specific economic sector to the total value added in the country's overall exports is calculated. Then, the result is divided by the ratio of the world value added in this sector to the total value added in export.² If the consequent CASVA figure is greater than 1.0, this indicates that the sector records a rate of value added higher than the world average, and therefore, it is relatively competitive in the world. The CASVA indicates *sectoral* competitiveness only and cannot serve as an indicator that directly compares the competitiveness of *national* economies. However, it can reveal which country is competitive in each sector and which sector has higher competitiveness in each national economy. Figure 4.3 thus complements the information presented in Fig. 4.2.

Figure 4.3 reveals the CASVA in several Latin American and Asian countries. It clearly indicates that the natural resource sector and/or resource-processing sector (food products, wood products, and metal products) are competitive in Latin American economies. Chile and Brazil have diversified processing sectors, whereas Argentina concentrates on food products. Chile is especially prominent in its diversified and competitive processing sectors. Chile's CASVA in the metal processing sector is five times greater than the world average. The food processing and wood processing sectors are 2.5 times more competitive than the world average is. It is evident that Chile today is the best-performing catchup country in the region (see Fig. 4.1).

In contrast, the machinery industries ("Transport, electrical, and other machineries") are weak except for in Mexico, which benefits from the opportunities that the North American Free Trade Agreement (NAFTA) provides. Asian countries are generally strong in the machinery industries, although the advantage of Malaysia and Thailand is not noticeably big. It should also be noted that the textile industry is still quite competitive in Asian countries (except in Malaysia), although its relative importance is declining, which reflects the transformation of these countries' industrial structures from lower-valued-added sectors to higher-value-added ones. This phenomenon is especially conspicuous in South Korea and China. In contrast, Malaysia (and Thailand to a lesser extent) seems to increasingly resemble Latin American countries with respect to enhancing dependence on resource-processing industries, such as food products, wood products, and chemicals.

²Here, the value-addedness in exports is used instead of value-addedness in domestic production because information on export to the world market reflects each country's international competitiveness better than information on domestic production does. The CASVA is shown by the following specification: $CASVA = V_{ij} / \sum_i V_{ij} \div \sum_j V_{ij} / \sum_{ij} V_{ij}$, where V_{ij} indicates the value added (in exports) in the i sector of j country; $\sum_i V_{ij}$ and $\sum_j V_{ij}$ mean, respectively, the value added in all sectors of j country and the value added in i sector of all of the countries in the world; and $\sum_{ij} V_{ij}$ is the value added in all sectors of all of the countries in the world.

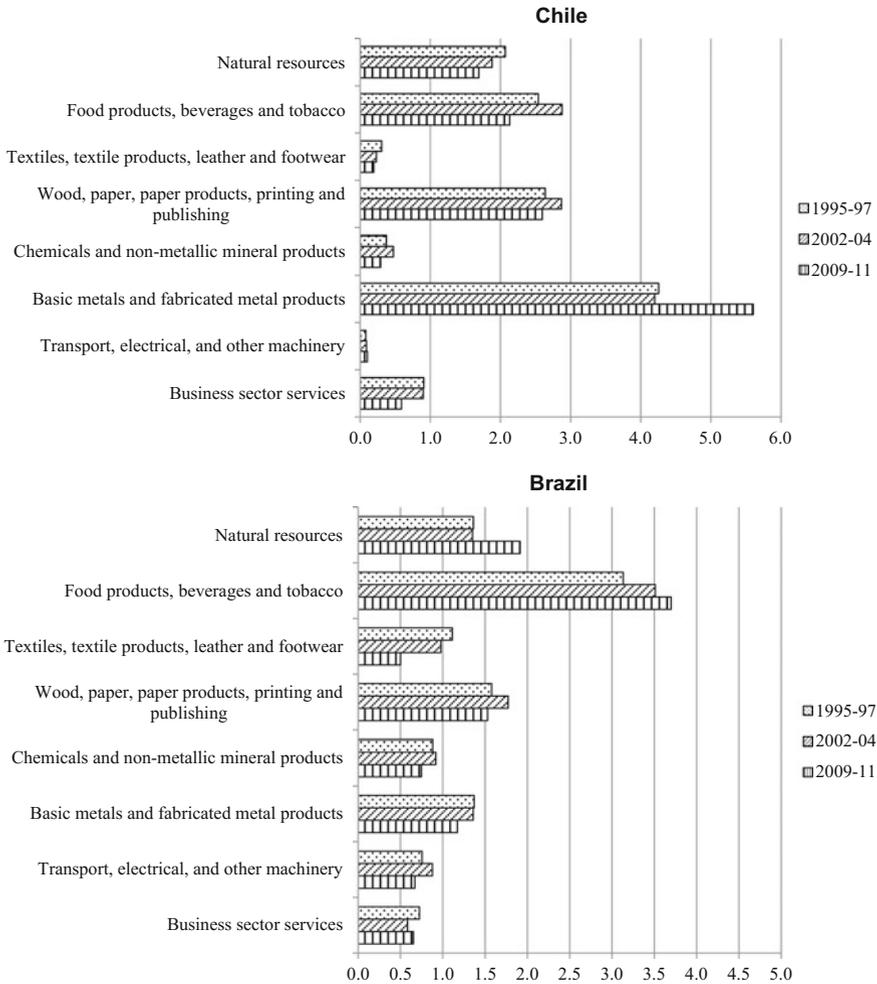


Fig. 4.3 CASVA. *Source* Constructed by the author on the basis of data retrieved from OECD’s TiVA database. <https://stats.oecd.org/index.aspx?queryid=75537>. Accessed 20 September 2017

In summary, Latin American countries have deepened their dependence on the natural resource sector and on the resource-processing sector, whereas Asian countries have upgraded their industrial structures by shifting to the machinery industries. One of the exceptional cases in Latin America is Mexico, which has improved its competitiveness in the machinery industries. It should also be noted that the machinery industries’ competitiveness is still limited in Southeast Asian countries. In general, however, it can be concluded that the slow and unstable catchup by Latin American countries stems from their failure to upgrade their industrial structures. In contrast,

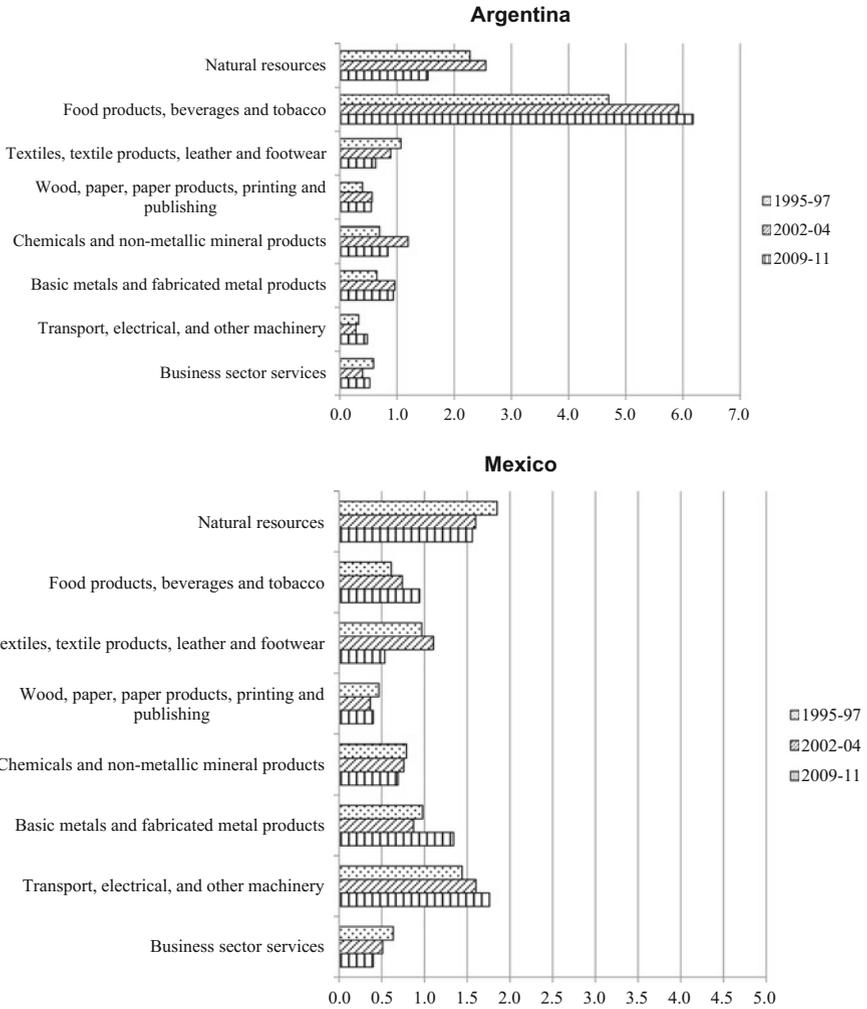


Fig. 4.3 (continued)

Asian countries have demonstrated a marked catchup speed thanks to the structural transformation of their economies from lower-value-added sectors to higher-value-added sectors.

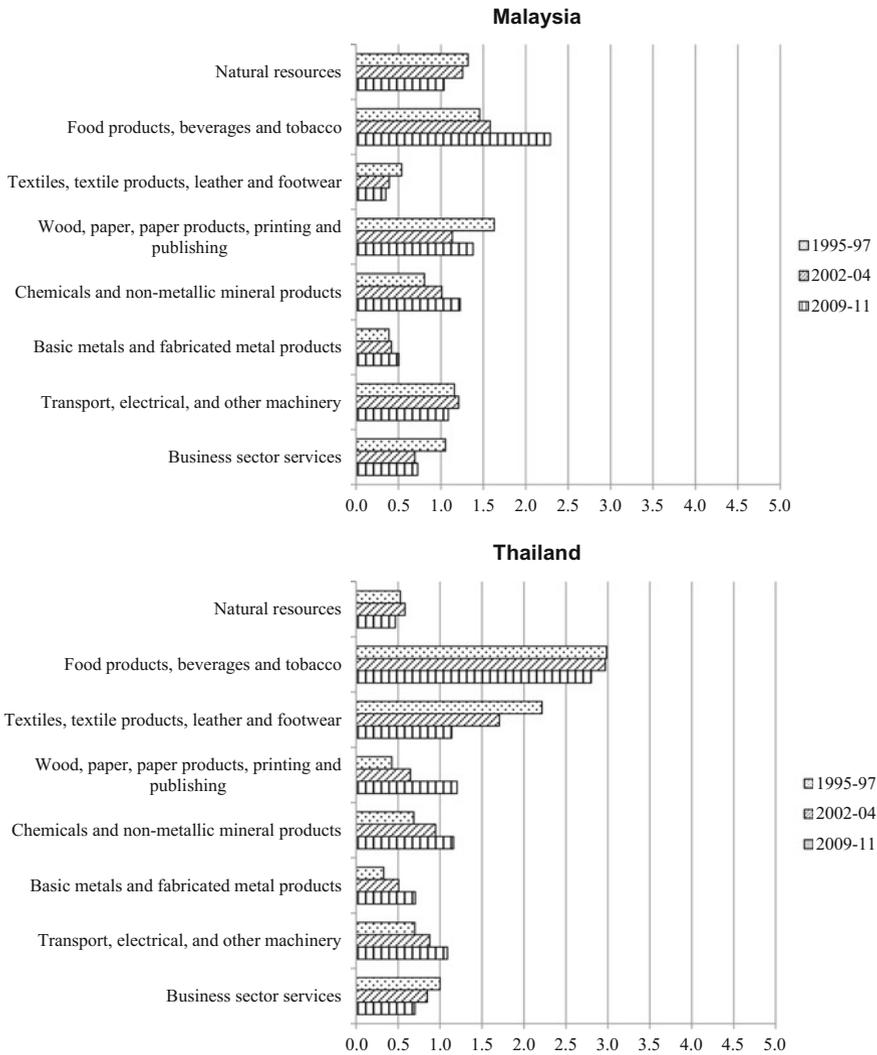


Fig. 4.3 (continued)

4.3 Second-Order Causes: Political Economy

The various patterns of industrial development in Latin America and Asia stem from several factors: R&D expenditure, fixed capital formation, societal trust, the effectiveness of public administration, and intraregional trade. Higher performance in these factors helps to develop complex manufacturing industries with long value chains by fostering production networks within and beyond national borders.

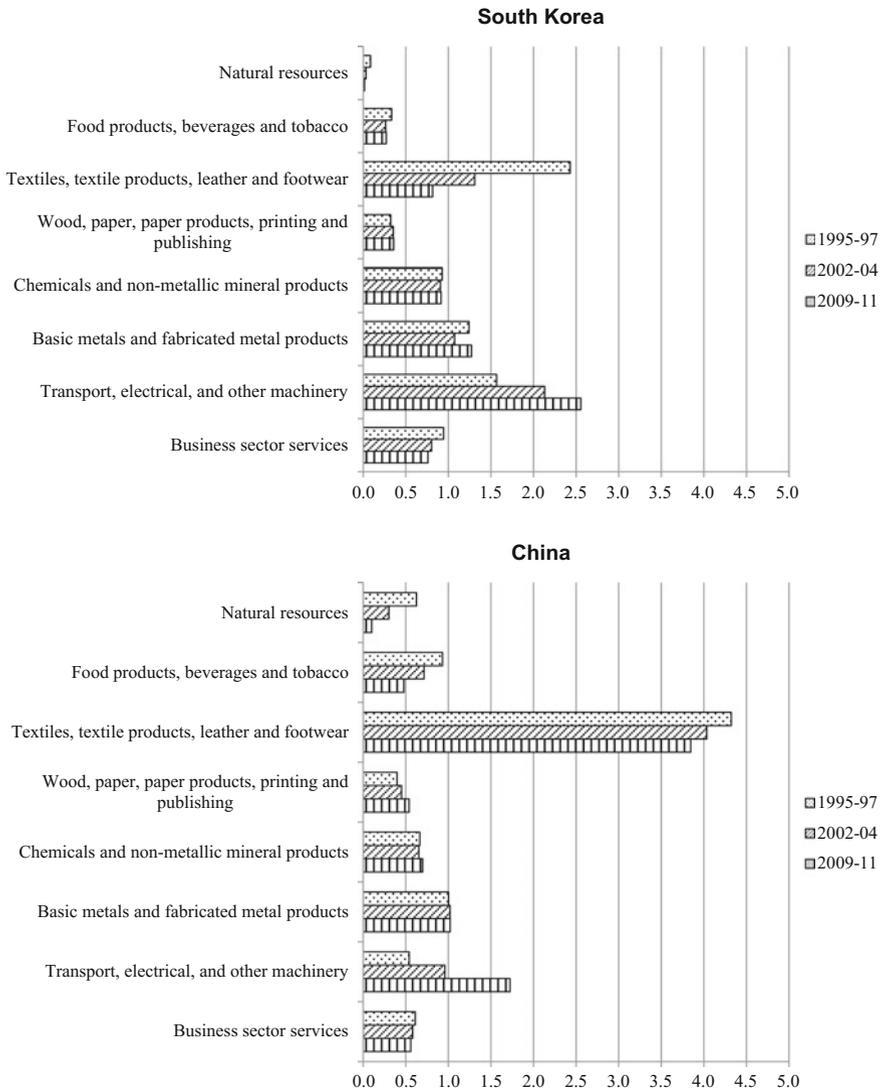


Fig. 4.3 (continued)

4.3.1 R&D and Education

First, technological adaptation and innovation are crucial for the development of high-value-added manufacturing industries. To measure a country’s technological capability, this chapter uses the R&D expenditure/personnel and the records of the Organisation for Economic Co-operation and Development’s (OECD’s) Programme

Table 4.1 R&D expenditure/personnel and PISA scores

	R&D expenditure per GDP (%)		R&D personnel per million population		PISA-Math		PISA-Science	
	2000–01	2010–11	2000–01	2010–11	2006	2012	2006	2012
Argentina	0.42	0.54	999	1,670	381	388	391	406
Brazil	1.03	1.14	760	1,343	370	391	390	405
Chile		0.35		759	411	423	438	445
Colombia	0.11	0.21			370	376	388	399
Mexico	0.34	0.43	417		406	413	410	415
Peru	0.11					368		373
South Korea	2.34	3.74	3,564	7,322	547	554	522	538
Taiwan					549	560	532	523
Singapore	2.02	2.15	4,835	7,513		573		551
China (Shanghai)	0.95	1.79	749	2,138		613		580
Malaysia	0.47	1.03	430	2,009		421		420
Thailand	0.25	0.36	505	794	417	427	421	444
Indonesia	0.05		240		391	375	393	382

Sources R&D expenditure and personnel: UNESCO Institute for Statistics database. <http://data.uis.unesco.org>. Accessed 15 December 2016; PISA: OECD PISA database. <http://www.oecd.org/pisa/data/>. Accessed 15 December 2016

for International Student Assessment (PISA). The latter is the result of the examination of mathematics and science conducted among fifteen-year-old students. Table 4.1 clearly demonstrates that Latin American countries are far behind East Asian newly industrializing economies (NIEs) and China in terms of PISA scores and R&D activities, but they are more or less on equal terms with Southeast Asian countries. As far as these data are concerned, it is natural to expect that the development of complex manufacturing industries is much slower in Latin American countries than in Asian NIEs.

4.3.2 Fixed Capital Formation

The development of machinery industries requires not only large R&D expenditure but also major investment in production facilities to translate new knowledge into actual production. To direct a larger share of a country's national income toward investment, the national saving rate must be raised while consumption is restrained. Figure 4.4 reveals gross fixed capital formation and public/private consumption as shares of GDP in several Latin American and Asian countries. It is clear that the investment is much lower in Latin American countries. Only in 2011–13 was Chile's

level of investment comparable with Malaysia's. In contrast, consumption, as indicated in the lower panel of Fig. 4.4, is higher in Latin America than in Asia. What characterizes Latin American consumption is that the share of household consumption is quite high.

Figure 4.5, comparing government social expenditures, also strongly suggests that a greater share of national economies has been directed toward consumption in Latin America than in Asia. The expansion of social expenditure can worsen the government's financial status to the extent that it hurts the entire national economy by crowding out the expenditure of public infrastructure investment, as has been observed in Brazil (Alston et al. 2010, p. 16, p. 39).

As for the delay of technological upgrading and the high level of consumption (and low level of investment) in Latin American countries, it could be argued that they have fallen into a vicious circle that serves to prolong their dependence on the natural resource sector and on the resource-processing sector, which are generally lower in technological sophistication. The vicious circle works in this way (Fig. 4.6): low investment in R&D and facilities/equipment delays industrial upgrading; manufacturing industries' weakness, in turn, strengthens dependence on easy growth based on the export and processing of natural resources; the easily obtained (short-term) growth weakens incentives for restraining the current consumption and investing in industrial upgrading for the long run.

4.3.3 *Capacity to Coordinate*

To break the vicious circle just mentioned, the better coordination of stakeholders' interests is crucially important. Close cooperation between workers and employers helps to improve product and production technologies at the firm level, while inter-firm coordination is crucial for broadening the value chain and/or fostering cluster development. Long value chains and robust clusters expectedly contribute to technological upgrading both in individual sectors and in the national economy as a whole.

For a look at the effectiveness of firm-level coordination, Table 4.2 presents the results of the World Economic Forum's executive survey on labor-employer cooperation. A smaller figure in the table signifies better performance (more cordial labor-employer relations). The table reveals that labor-employer relations have been generally more cooperative in Asia than in Latin America in both 2006–7 and 2016–17 except for in South Korea, which has especially poor labor-employer relations.

To measure interfirm relations, the four right-side columns of Table 4.2 indicate the ranks in cluster development and value chain breadth provided by the same executive survey. Again, the performance of Latin American countries is generally worse than that of their Asian counterparts.³

³Within Asia, Southeast Asian countries are lower than Asian NIEs, China, and India but are higher than Latin American countries in terms of performance.

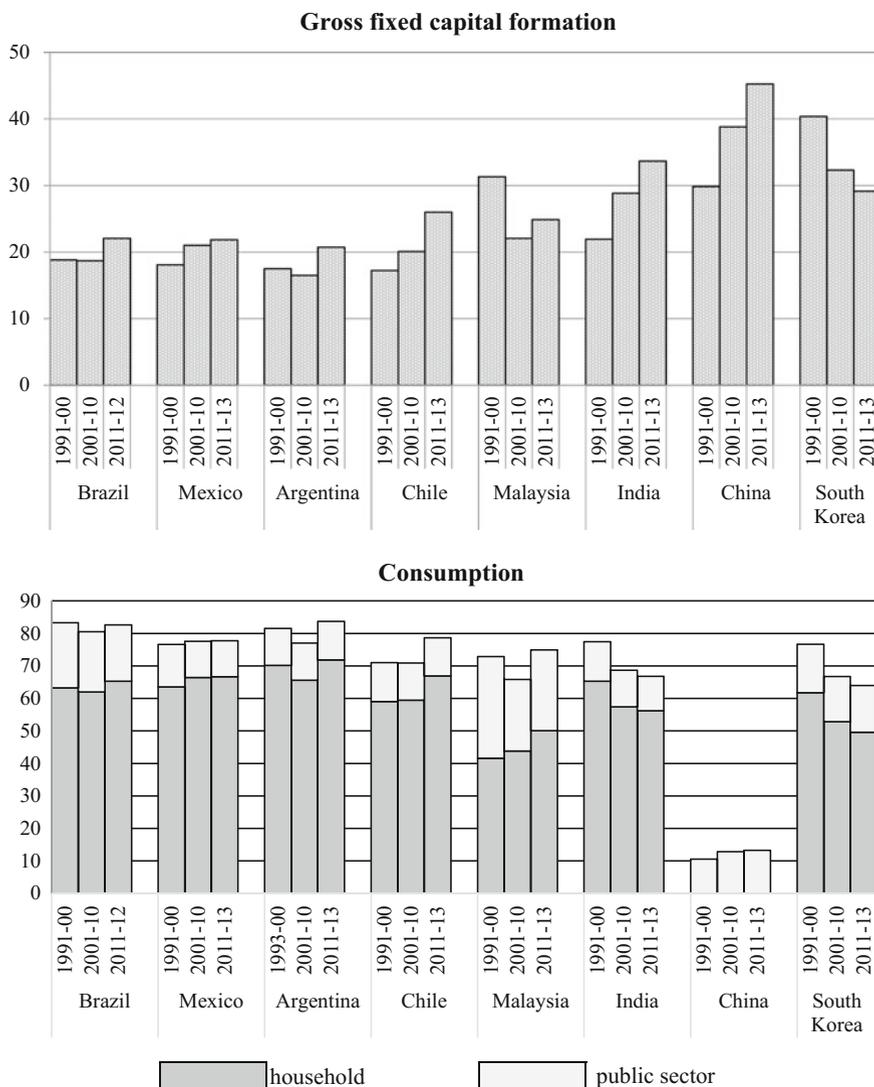


Fig. 4.4 Gross fixed capital formation and consumption as percentage of GDP. *Note* The dark gray columns in the consumption panel indicate household consumption whereas the light gray columns indicate public sector consumption. *Source* Constructed by the author on the basis of the national account data in constant local currency retrieved from the World Development Indicators database. <http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators>. Accessed 5 August 2017

To complement the executive survey, Table 4.3 reveals the results of public opinion surveys concerning general interpersonal trust in the Latin American and Asian

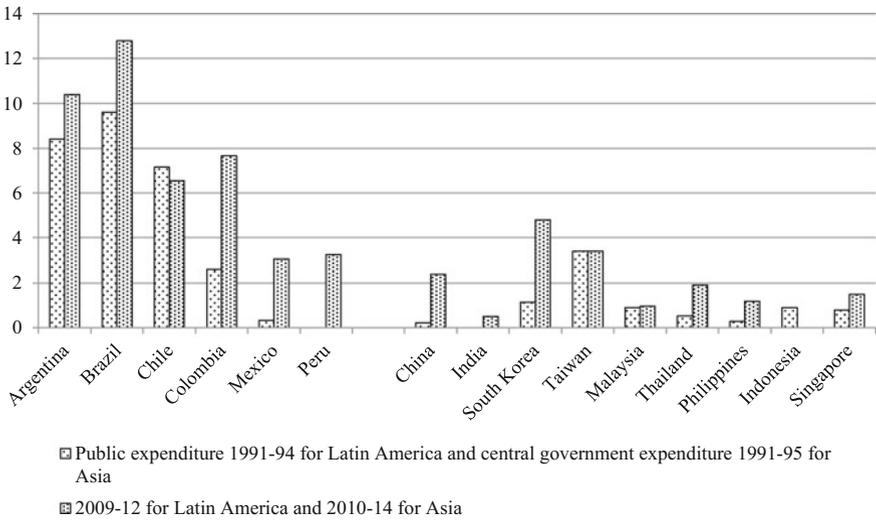


Fig. 4.5 Government expenditure for social insurance and welfare (share of GDP, annual average). *Note* GDP of all of the countries except for India is for calendar year. Government expenditure is also for calendar year for all of the countries except for Taiwan (up to 2000), Thailand, and Singapore. Government expenditure of these countries and India is for fiscal year. Definition of “social insurance and welfare” differs from one country to another. *Sources* CEPAL (2016) and ADB (2010, 2016)

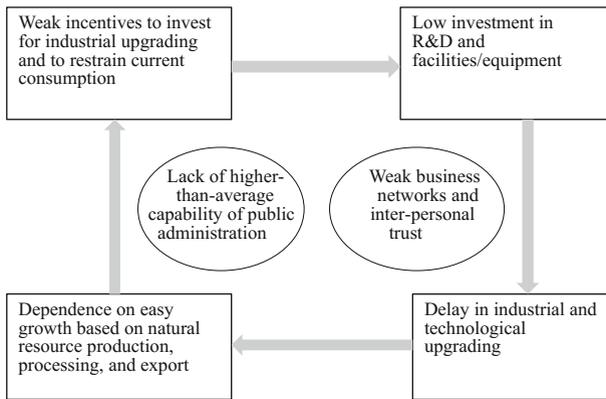


Fig. 4.6 Vicious circle in the economic development in Latin America. *Source* Constructed by the author

societies. Any societal coordination is expected to go more smoothly in a society in which interpersonal trust is higher. Table 4.3 clearly shows that interpersonal trust is much higher in Asian NIEs, China, and India than in Latin America, whereas the record of Southeast Asian countries is as poor as Latin American ones.

Table 4.2 Rankings concerning labor-employer relations and business networks¹

	Cooperation in labor-employer relations ²		Cluster development ³		Value chain breadth ⁴	
	2006–07	2016–17	2006–07	2016–17	2006–07	2016–17
Argentina	113	121	65	103	96	83
Brazil	84	118	43	44	57	61
Chile	29	57	34	94	62	60
Mexico	45	52	41	35	46	34
Peru	89	75	50	102	72	105
South Korea	104	135	31	28	18	23
Taiwan	14	16	5	3	19	21
Singapore	1	3	7	12	17	10
China	79	47	33	21	54	29
India	53	67	14	27	22	26
Malaysia	8	17	1	13	25	18
Thailand	16	36	11	62	45	40
Indonesia	40	45	40	29	68	36
Philippines	86	27	47	66	36	49
South Africa	112	138	39	30	76	52

Source World Economic Forum, Global Competitiveness Index. <https://www.weforum.org/reports>. Accessed 27 September 2017

¹The number of countries covered by the survey was 122 in 2006–7 and 138 in 2016–17

²Dependent on the answer to the survey question, “in your country, how would you characterize labor-employer relations?”

³Dependent on the answer to the survey question, “in your country, how widespread are well-developed and deep clusters?”

⁴Dependent on the answer to the survey question, “in your country, do companies have a broad or narrow presence in the value chain?”

As a whole, Latin American countries lag behind their Asian counterparts’ (especially Asian NIEs, China, and India) with respect to the capacity of coordination among firms and people. Latin America’s difficulty partially explains the nature of the Latin American economy, which Schneider (2013, Chap. 2) characterizes as “hierarchical capitalism.” Extending the “varieties of capitalism” framework (Hall and Soskice 2001), Schneider insists that Latin American capitalism differs from the liberal market economy (the Anglo-Saxon countries), the coordinated market economy (Germany), and network capitalism (Japan). It is hierarchical in many senses. Family business owners or the headquarters of multinational corporations (MNCs) control business activities. In addition, the external (horizontal) influence of banks and shareholders is weak. Furthermore, many workers are informal or are of short tenure and subordinate to the management. Business groups do exist but consist of

Table 4.3 Trust in people

	2002–04 (annual average)	2009
Argentina	18	19
Brazil	4	7
Chile	14	15
Colombia	18	19
Mexico	19	24
Peru	15	17
	2003 or 2004	2006, 07, or 08
South Korea	55	67
Taiwan	n.a.	40
Singapore	34	30
China	46	64
India	28	40
Malaysia	9	13
Thailand	31	19
Indonesia	21	26
Philippines	10	13
Vietnam	36	19

Note Share of people who answered “most people can be trusted” to the following question: “generally, do you think people can be trusted or do you think that you can’t be too careful in dealing with people?”

Sources Latinobarómetro 2002, 2003, 2004, 2009; Asia Barometer 2003, 2004, 2006–07, 2008

firms covering diverse, mutually unrelated sectors. All in all, these characters impede fine and close coordination among market players.

4.3.4 Intra-regional Transaction

The weakness of intrafirm connections is not confined to the domestic sphere but is also observed in the broader Latin American region. Latin America is conspicuously weak in intraregional business networks. In Asia, starting in the precolonial era, Chinese, Indian, and Arabian merchants developed regional trade networks (see relevant chapters in Volume I and Volume II). After World War II (especially after the 1980s), frequently relying on the existing business networks, Japanese manufacturers expanded their investment in the region and helped to develop production networks beyond national borders. East Asian NIEs, such as South Korea, Taiwan, Hong Kong, and Singapore, followed suit, further aiding the expansion of regional production networks and the concomitant enlargement of intraregional trade. Such expansion of regional investment, production, and trade has been crucial for each country’s structural transformation. Each country has stepped up its industrial structure by

transferring lower-value-added sectors to lower-income neighbors, specializing in higher-value-added sectors, and trading goods with regional partners.

Latin America has not benefited from such extensive production/trade networks and the concomitant structural transformation of individual economies. Figure 4.7 illustrates the difference clearly. The intraregional trade of the countries affiliated with the Organization of American States (OAS) is higher than the trade among the ASEAN plus Three (APT) countries.⁴ However, a close look reveals that NAFTA trade accounts for 73% of OAS trade. If NAFTA trade is excluded, intraregional trade is less than 15% of all trade of the OAS countries. In contrast, intra-ASEAN trade constitutes 25% of all trade of the ASEAN countries. Trade among APT countries amounts to 35% of their total trade. Even trade in Asia excluding intra-APT trade is greater than intraregional trade in the Western Hemisphere. The fact that non-APT trade in Asia is increasing indicates that the intraregional networks extend to outside of East Asia (into South Asia).

4.3.5 *Effectiveness of Public Administration*

Even if the societal capacity for coordination is low, the government may help. In fact, many governments have attempted to serve as intermediaries that coordinate economic and social interests. The literature on the developmental state or embedded autonomy (Johnson 1982; Wade 1990; Evans 1995; Weiss 1998) points out that the effectiveness of public administration is the main source of successful coordination. It is also important to notice that interest coordination is indispensable not only for technological upgrading but also for the mitigation of social disparity. The economic purpose of higher growth must be harmonized with the social purpose of the redistribution of the fruits of the growth. Such harmonization is impossible without serious government involvement. Specifically in Latin America, the governments must persuade various actors to restrain current consumption and to increase investment in technological education, R&D, and production facilities while simultaneously reducing social disparity. They need to elaborate and implement the best policy mix for these purposes.

Figure 4.8 reveals the nature of public administration in the emerging states by plotting them according to two dimensions⁵: regulatory quality and corruption control. Data come from the executive and specialist survey that the World Bank conducted. This figure indicates that Chile is as effective as Singapore and Taiwan are. Most other Latin American countries—Brazil, Mexico, Peru, Argentina, and Colombia—are less effective than South Korea and Malaysia are, but they are as effective as the Philippines, China, and India are. The effectiveness of public administration in Latin America does not seem to be noticeably inferior to that in Asia.

⁴All countries in the Western Hemisphere except for Cuba belong to the OAS.

⁵As for the definition and identification of the emerging states, refer to Tsunekawa's chapter in Volume I.

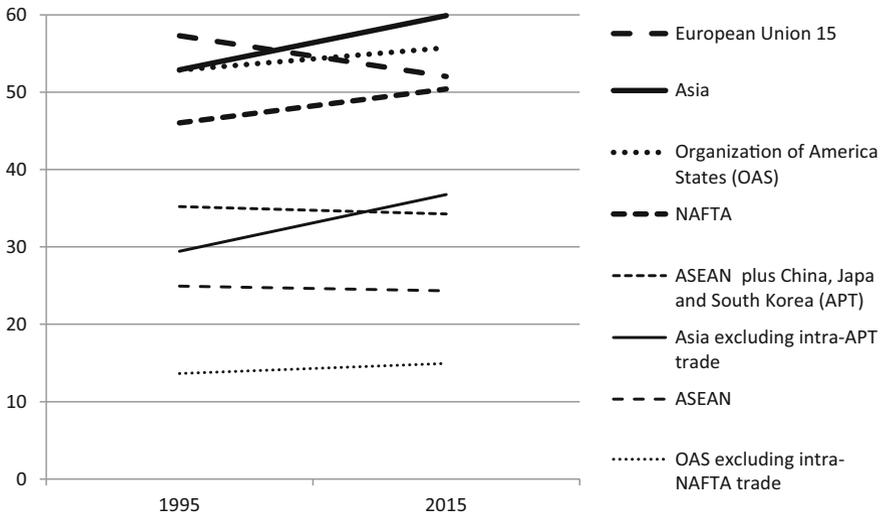


Fig. 4.7 Intraregional trade of goods (share of total exports of regional countries). *Source* Constructed by the author on the basis of the data retrieved from the UNCTAD database. http://unctadstat.unctad.org/wds/ReportFolders/reportFolders.aspx?sCS_ChosenLang=en. Accessed 20 September 2017

To examine a political environment for public administration, Fig. 4.9 plots the countries by their degrees of democracy and party fractionalization. When a country is more democratic and its party system is more fractionalized, the number of veto players is greater and makes the government subject to greater pressures for rent distribution, which makes effective interest coordination more complex and difficult. All Latin American countries are located in the upper right corner of Fig. 4.9, which means they are highly democratic and their party systems are fractionalized. In Asia, China, Singapore, and Malaysia are much less democratic and less fractionalized. However, India, Taiwan, South Korea, Thailand, and the Philippines share the same space as Latin American countries in Fig. 4.9. Again, the latter are not necessarily more disadvantageous than the former with respect to the political environment for effective public administration.

These results of my analysis indicate that Latin American countries' public administration is of average quality and capability, neither superior nor significantly inferior to that in Asian countries. However, in the face of weak societal trust and coordination

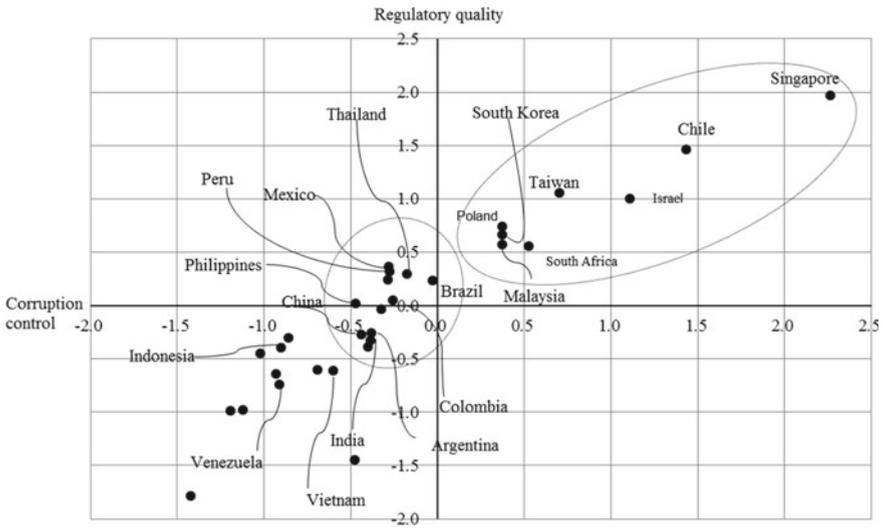


Fig. 4.8 Effectiveness of public administration, 1996–2006 (annual average scores). *Source* Constructed by the author based on data retrieved from World Bank’s Worldwide Governance Indicators database, 2016 update. <http://info.worldbank.org/governance/wgi/wgidataset.xlsx>. Accessed 6 July 2017

capability, such ordinary administration is not adequate for breaking the strenuous vicious circle of resource dependence and low technological investment. As Latin American countries face greater challenges with the interest coordination needed to achieve technological upgrading and social equity simultaneously, their public administration must be much better than average.

4.4 Root Causes: Historical Legacies

All of the second-order causes of the low performance of Latin American economies—an economic vicious circle, weak societal trust and business networks, and public administration of average quality—have strong historical roots.

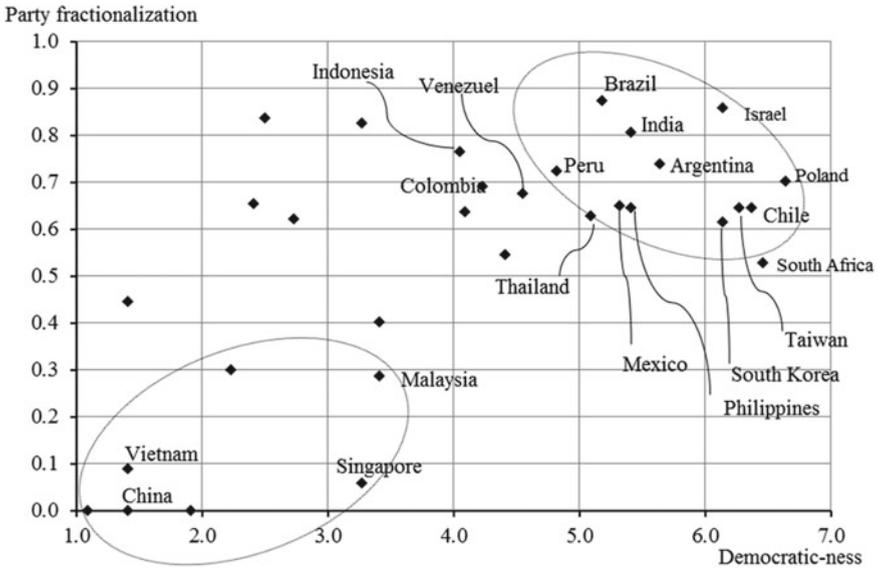


Fig. 4.9 Democratic-ness and party-system fractionalization, 1996–2006 (annual average scores). *Sources* Constructed by the author based on data retrieved from Freedom House, “Individual Country Ratings and Status, 1973–2015 (FINAL)” and Cross-National Time-Series Data Archive, 2017 edition

4.4.1 High Inequality and Weak Trust

Latin America has been notorious for social disparity. The GINI index exceeded 0.5 in many countries as late as the 1990s.⁶ Such enormous region-wide inequality cannot be understood unless the extremely unequal society inherited from the colonial era is taken into consideration.

During this period, the owners of large estates and mines exploited native and African workers for agricultural and mining production. Although the population of mixed-bloods increased throughout the colonial period,⁷ the society continued to be highly unequal, with the minority urban white population surrounded by huge masses of natives, Africans, and mixed-bloods. This situation was in sharp contrast with most of the Asian region, where the small-farmer economy and native societal networks survived mostly intact under the indirect rule of Western colonial rulers.

Although many Latin American countries gained independence during the first twenty-five years of the nineteenth century, domination by the white minority persisted well into the twentieth century. Native villages lost more lands due to the

⁶Based on the PovcalNet data available at <http://iresearch.worldbank.org/PovcalNet/povOnDemand.aspx>, accessed December 20, 2016.

⁷By the end of the eighteenth century, 18% of the Mexican population were of mixed blood (Brading 1985, p. 241).

liberal reforms introduced during the nineteenth century, and a greater number of villagers took outside jobs as laborers. As the rural areas had come to feature surplus population by the eighteenth century due to population growth (Gibson 1984, p. 405), taking jobs at large estates or urban centers did not necessarily mean the deterioration of laborers' living conditions (Bauer 1985, pp. 276–277). However, the people left behind in the villages continued to live harsh, impoverished lives. Land reform in Mexico and Peru did not help to improve the situation because it only contributed to creating a large number of poor unproductive peasants.

On the other hand, elites frequently mobilized poor and uneducated people, especially those in urban areas, as militias or as supporters of populist politics. The result was an extremely divisive society in which the elites and the masses had different outlooks on their economic and social lives and distrusted each other. At the same time, elites fought among themselves for political hegemony on the basis of their personalist power bases in the population.

In this kind of society, it is hard to expect the development of strong social bonds. Neither is it easy to expect the expansion of long-term relations among business firms beyond close family confines. Schneider observes that families owned and managed 90% of the thirty-three largest business groups in Latin America as late as the 2000s (Schneider 2013, p. 10, 44). Additional evidence of family dominance is the lack of market capitalization in Latin America. According to Barbara Stallings (2006, p. 124), the average market capitalization in the seven largest economies of Latin America was a mere 34% of GDP in 2003 in contrast with 80% in seven developing countries in East Asia.⁸ The average turnover ratios in the two regions were 20 and 152% respectively. Between 1990 and 2003, the number of listed firms in the seven Latin American countries declined from 1,624 to 1,238, but it expanded from 1,792 to 4,576 in East Asia.

4.4.2 *Weak Intra-regional Business Networks*

The weak intra-regional connections also originate from the colonial era. The Spanish monarchy prohibited direct commerce among various parts of the empire. Commercial activities were restricted to the Spanish merchants who operated with a royal charter and under home-country control. In practice, the large contraband transactions of local and foreign traders undermined the Spanish monopoly, and intra-regional trade flourished (Macleod 1984; Clayton 1985). The situation was more or less similar in Brazil (Marquez 2006, pp. 404–405). Nevertheless, Spain and Portugal attempted to re-impose trade restrictions on their colonies from time to time and jeopardized regular and profitable intra-regional transactions (Marquez 2006, p. 420).

⁸The seven Latin American countries are Argentina, Brazil, Chile, Colombia, Mexico, Peru, and Venezuela. The Asian counterparts are Indonesia, South Korea, Malaysia, the Philippines, Singapore, Taiwan, and Thailand.

This constraint was removed after the independence of Latin American countries. However, toward the end of the nineteenth century, the economic development of Latin American countries increasingly depended on the export of agricultural and mining resources to Europe and the United States, which were experiencing rapid industrialization (Bulmer-Thomas 2003, Chap. 3). No economic incentive to build close business ties within the continent existed.

The lack of intraregional business networks persisted and was even strengthened when Latin American countries entered the period of industrialization. The import substitution industrialization (ISI) that began around World War II did not lead to the development of the regional production networks seen in Asia, as each Latin American country attempted to promote similar manufacturing industries. Rather than cooperating, they competed and built separate autarchic economies. After the 1960s, some Latin American countries agreed on industrial complementarity arrangements (IADB 1984, pp. 156–157), ones similar to ASEAN’s Brand-to-Brand Complementarity and ASEAN Industrial Cooperation. The Latin American arrangements, however, did not contribute to increasing intraregional trade to any significant degree.

When ISI faced limitations and the debt crisis struck Latin American countries, they dissolved a large part of the protection regime and adopted highly market-oriented policies (IADB 1997). However, such policies only brought them back to the nineteenth century status of resource-dependent countries with weak intraregional ties.

4.4.3 Public Administration of Average Quality

The colonial legacy can also be observed in the nature of public administration in Latin America. During the colonial period, Spanish or Portuguese monarchs appointed high-ranking public officials and sent them from the Iberian Peninsula. In practice, an increasing number of public posts were sold to native white people (creoles) who had accumulated wealth. By the latter half of the eighteenth century, creoles even occupied the majority of the membership of the *audiencia* (the highest public institution in Spanish America) in major cities (Brading 1984, p. 404; 1985, p. 250). The situation was similar in Brazil. The tradition of extensive political appointment has persisted in Latin America since then.

For instance, 20,000 public posts were traditionally at the president’s discretion in Brazil. Then, the government of the leftist Lula da Silva, which ruled the country between 2003 and 2010, added 2,700 to them (Reid 2014, p. 148). Public posts in local governments inflate the total number of political appointees. Schneider estimates that political appointees total 50,000 each in Brazil and Mexico. This kind of practice has obstructed the development of professional bureaucracy (Schneider 1999, p. 291).

Political instability and the frequent changes in government after independence also dampened efforts to build a professional bureaucracy. This instability partially stemmed from the introduction (in the Spanish America) of the constitutional model of people’s sovereignty and the separation of powers at the moment of independence

(Lockhart and Schwartz 1983, p. 425; Safford 1985, p. 358). Because the Spanish monarchy had ruled its colonies with no tradition of such power separation, the sudden introduction of the power separation system only led to further political strife and resultant instability.

Moreover, the war of independence in Latin America was fought against remote external forces in many separate parts of the vast continent and consequently did not work as an integrative influence in the way that Tilly (1975, 1990) attributed the formation of strong national states in Europe to the war with neighboring states. Nor did interstate wars after independence help to strengthen the governing machine, as they were generally small in scale and intensity (Centeno 2002, Chap. 2). Without sufficient incentives for the formation of a well-organized and financed bureaucracy with strong authority, Latin American countries have not been able to build a bureaucracy with more than average quality.

4.4.4 High Consumption, Low Investment

It should be noted that before the 1960s Latin American countries enjoyed GDPs per capita that were much higher than Asian countries'. The high performance of Latin American economies had been brought about by the first phase of "emerging" (or speedy catchup) based on the commodity boom in the late nineteenth century and the early twentieth century, and then by the second phase of the catchup that the ISI stimulated in the 1940s–60s. The resultant economic prosperity and the expansion of manufacturing industries contributed to increasing the working population and raising labor wages.

On the other hand, the gradual enhancement of democratic practices since around World War I enhanced opportunities for the labor movement. After the 1930s, an increasing number of middle-class or even upper-class politicians began to employ populist policies to mobilize organized labor's support (Conniff 1982, 2012; De la Torre and Arnson 2013; Haber 2006). As a result, social security schemes for pensions and health care were expanded, at least for formal-sector employees, and government subsidies for energy and food benefited the general public.⁹ As displayed in Fig. 4.5, government expenditures for social insurance and welfare were much higher in Latin American countries than in Asian ones even in the 2010s, even though many Latin American countries had introduced highly market-oriented reforms by then.

High wages and high social security benefits led to prematurely high consumption, which ate up the national wealth that should have been used for investment. However, as the rich resource endowment facilitated easy economic growth, the structure of high consumption and low investment was left untouched, thus deepening the vicious circle of resource dependence and the delay in technological upgrading.

⁹Although the social security system improved for labor union members under both democratic and semidemocratic regimes, the pressure to expand social programs beyond the formal sector was very weak (Haggard and Kaufman 2008, pp. 111–113).

4.5 Conclusion

Although many Latin American countries have achieved the economic growth rates that are higher than that of the United States in the past quarter century, their catchup speed has had a much poorer record than their Asian counterparts'. To elucidate the causes of the different performance levels between Latin America and Asia, I explored three levels of causes in this chapter.

The first-order, mostly economic cause is the degree of industrial and technological upgrading. Latin American countries are increasingly dependent on the production, processing, and export of natural resources, whereas Asian economies, especially East Asian NIEs and China, have upgraded their industrial structures by shifting to machinery industries, which are technologically more sophisticated and economically more value added.

To explore deeper causes of the difference in performance between Latin America and Asia, I examined mostly political economy-focused second-order factors. Latin America has fallen into the vicious circle of high resource dependence and low investment in industrial and technological upgrading because they lack the sufficient societal trust, dense business networks within and beyond national borders, and effective public administration that could help to foster interest coordination for industrial and technological upgrading.

Further exploration revealed that the political economy-related causes of Latin American countries' poor economic performance have deeper roots in their histories. Their political economies, characterized by weak societal and business connections, public administration of average quality, and relatively high consumption levels, were all formed and reinforced by historical experiences during the colonial period, the immediately postindependence period, the late nineteenth and early twentieth centuries, and the ISI period. Latin American countries struggle to break heavy weights of its historical legacies.

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Chapter 5

Economic and Political Networks and Firm Openness: Evidence from Indonesia



Yasuyuki Todo and Daichi Shimamoto

Economic growth of emerging economies often relies on learning of the knowledge and technology of developed countries and their diffusion within the economy. In both cases, social and economic networks play an important role, and the structure of such networks substantially influences their effects on growth.

On the one hand, learning of foreign knowledge and technology can be promoted by ties with foreign partners through international trade and investment (Keller 2004). In emerging economies such as China and Indonesia, a number of firm-level studies have empirically found evidence of learning by exporting and knowledge spillovers from foreign direct investment (Arnold and Javorcik 2005; Blalock and Gertler 2004, 2008; Todo and Miyamoto 2006; Todo et al. 2011). In social network studies, researchers often argue that ties with outsiders facilitate the diffusion of useful knowledge (Granovetter 1973, 2005; Burt 1992, 2004).

On the other hand, knowledge diffusion within an economy can be promoted by dense social networks, particularly, social capital, or social networks in which actors are strongly and densely connected through trust, because trust is required in

This research was conducted as part of a project entitled ‘Empirical Analysis on Determinants and Impacts of Formation of Firm Networks,’ undertaken at the Research Institute of Economy, Trade, and Industry (RIETI). The authors would like to thank JSPS Kakenhi Grant (No. 25101003 and 26245037) for financial supports and Kanchan Chandra, Masahisa Fujita, Patarapong Intarakumnerd, Masayuki Morikawa, Tetsuji Okazaki, Osamu Saito, Ryuhei Wakasugi, Roy Bin Wong, Chikako Yamauchi, and seminar participants at RIETI and the Graduate Institute for Policy Studies for their helpful comments. The opinions expressed and arguments employed in this paper are the sole responsibility of the authors and do not necessarily reflect those of RIETI, Waseda University, or any institution with which the authors are affiliated. JEL classifications of this work are D22, F14, F23.

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K. Tsunekawa and Y. Todo (eds.), *Emerging States at Crossroads*,
Emerging-Economy State and International Policy Studies,
https://doi.org/10.1007/978-981-13-2859-6_5

transactions of knowledge due to information asymmetry (Durlauf and Fafchamps 2005). Empirical studies have found that social capital is positively correlated with income and productivity at the country level (Knack and Keefer 1997), the sub-national region level (Gennaioli et al. 2013), the firm level (Phelps 2010), and the individual level (Rost 2011).

However, strong ties with trust may not always be effective in knowledge diffusion or productivity enhancement. Granovetter (1973) and Burt (1992, 2004) show that weak ties with outsiders are more effective because the knowledge of actors who are densely connected largely overlaps. Todo et al. (2016) reveal that the performance of a firm is lower when its network partners are densely connected.

Moreover, some studies emphasize the dark side of social capital. Olson (1984) argues that social capital in lobbying groups is often intensified in order to receive rents from the government, leading to protectionist policies and, thus, to economic stagnation. Some empirical studies indeed show negative effects of strong ties on economic and social development (Satyanath et al. 2013; Beugelsdijk and Smulders 2004).

However, empirical studies have not fully investigated the detailed mechanism of the argument by Olson (1984) from the political economy perspective. To fill the gap, this paper examines how social capital generated from economic rents is intensified and leads to the protectionism of economic actors, taking firm managers' views of globalization in Indonesia as an example. We hypothesize that firms' political networks created to receive rents strengthen trust toward domestic citizens and business networks with domestic firms, in turn weakening trust toward foreign citizens and networks with foreign firms. Trust and networks within the country reinforce each other through dense communication but deteriorate trust and networks across countries because trust toward insiders and trust toward outsiders often substitute, rather than complement, each other (Ermisch and Gambetta 2010). Then, trust and networks within the country, combined with the lack of trust and networks across countries, enhance protectionism. This can be a source of middle-income traps for emerging economies. Figure 5.1 summarizes this mechanism.

We test these hypotheses using firm-level data collected by the authors in the manufacturing sector in a major emerging economy, Indonesia. Indonesia is a suitable target for this research because the political ties of firms play an important role in business. According to the OECD (2012), 26% of firms in Indonesia expect to give gifts to obtain an operating license from the government. This figure is substantially higher than those for the Philippines (6.6%) and Vietnam (6.7%), indicating the particular significance of political ties in economic activities in Indonesia. Our data are unique in that they include information on each firm's business and political networks, firm managers' views of globalization, such as the foreign ownership of private firms and free trade agreements (FTAs), and the level of these managers' trust toward domestic and foreign citizens.

Our empirical results support most of our hypotheses. Managers of firms that possess networks with the government to earn rents are more likely to oppose the foreign ownership of firms and FTAs through enhancing trust and networks within the country and deteriorating those across countries. Assuming

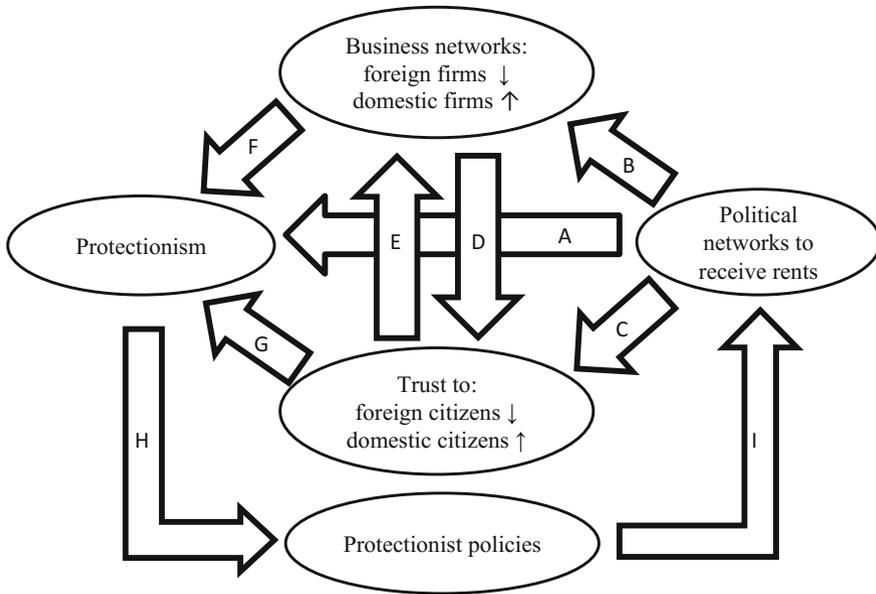


Fig. 5.1 Linkages between protectionism, business and political networks, and trust. *Source* Constructed by the author

that protectionism of the public leads to the actual implementation of protectionist policies (although this paper did not examine this assumption), our results suggest a vicious cycle between political networks associated with rents and the protectionism of economic actors. Once the vicious cycle is initiated, it may be difficult to escape because political ties and protectionism intensify each other. Because many studies empirically show the benefits of globalization (see Sect. 2.1 for details), this vicious cycle results in economic stagnation. This mechanism may be able to explain middle-income traps in which the income of middle-income countries stagnates for a long time and cannot reach the level of current developed countries.

Some studies, including Tomiura et al. (2013) and Naoi and Kume (2011), have used individual-level data to examine how protectionist views of globalization are determined. For example, Naoi and Kume (2011) find that Japanese are more likely to support agricultural protectionism if they feel that their jobs are insecure or they have family members or relatives who engage in farming. Tomiura et al. (2013) show evidence that wealthy citizens or those in managerial positions are more supportive of trade liberalization, whereas citizens engaging in agriculture support liberalization less. However, they did not incorporate into their analysis the effects of business or political networks or the level of trust toward domestic and foreign citizens. Incorporating these issues is the contribution of this paper.

5.1 Hypotheses and Estimation Methods

5.1.1 *Benefits of Globalization*

Economic integration and globalization provide many benefits to the local economy. For example, many studies have found evidence of learning by exporting, i.e., productivity growth from exporting. Blalock and Gertler (2004) find that when Indonesian firms began to export, their productivity increased by 2–5%. A meta-analysis by Martins and Yang (2009) confirms the positive learning-by-exporting effect, revealing a larger effect for less developed countries, including emerging countries. In addition to its effect on productivity in production activities, exporting is shown to raise productivity in innovative activities in Spain, a developed country that is not in the technology frontier (Salomon and Shaver 2005). The import of intermediate and final goods is also beneficial to local firms, as Amiti and Konings (2007) find using firm-level data from Indonesia.

Inflows of foreign direct investment (FDI) are also found to promote productivity growth in the host country. Using establishment-level data from Indonesia, Arnold and Javorcik (2005) find that domestic firms improve their productivity when they are acquired by foreign firms. FDI can even benefit other domestically owned firms in the host country through knowledge spillovers. For Indonesia, Takii (2005) finds positive spillovers from FDI. Spillovers are more significant when FDI is associated with local research and development (R&D) activities in the host country (Todo and Miyamoto 2006) and when foreign-owned firms are vertically integrated with, i.e., procure supplies from, local firms (Javorcik 2004). Using cross-country panel data for less developed countries, Borensztein et al. (1998) find that FDI has a positive effect on growth in GDP per capita when the education level is sufficiently high.

5.1.2 *Linkages Between Protectionism, Business and Political Networks, and Trust*

Although these benefits of globalization for the local economy have been found in academic research, some people, including firm managers, have a negative view of globalization. Such protectionism may be generated by a lack of overseas business networks and by distrust toward foreign citizens; these two factors are interlinked with each other and affected by political ties, as explained in detail below and summarized in Fig. 5.1.

We hypothesize that an important source of protectionist views of globalization is firms' ties with politicians and the government to receive economic rents. Firms with strong political networks are more likely to perceive foreign-owned firms as threats and oppose the penetration of FDI that may deteriorate their rents (arrow A in Fig. 5.1). In addition, politically connected firms are more willing to expand transactions in the domestic market regulated by the government—because their

rents are earned domestically—and are less willing to create business networks with foreign firms (arrow B). For the same reason, managers of firms with close political ties tend to distrust foreigners because foreigners are often eager to destroy their rents (arrow C).

Trust and business networks within a country reinforce each other, and those across countries intensify each other. Managers with fewer business ties with foreign firms are less likely to trust foreign citizens simply due to a lack of direct communication (arrow D). In turn, distrust toward foreigners discourages firms' overseas activities (arrow E).

Finally, when firm managers have little interaction with foreign firms, they cannot realize the benefits of globalization and thus may not support globalization (arrow F of Fig. 5.1). Furthermore, managers who distrust foreign citizens are more likely to perceive foreign-owned firms and foreign citizens as threats rather than as collaborative partners that bring new knowledge (arrow G), as Fafchamps (2006) suggests. Accordingly, political networks affect protectionist views of globalization directly and indirectly through trust and business networks.

5.1.3 Estimation Method

To test these hypotheses, we estimate the following equations for firm i and its owner or highly ranked manager:

$$VIEW_i = \beta_0^G + \beta_1^G NETWORK_i + \beta_2^G TRUST_i + \beta_3^G POL_i + \beta_4^G X_i + \beta_5^G D_i + \varepsilon_i^G, \quad (5.1)$$

$$NETWORK_i = \beta_0^N + \beta_1^N TRUST_i + \beta_2^N POL_i + \beta_3^N X_i + \beta_4^N D_i + \varepsilon_i^N, \quad (5.2)$$

$$TRUST_i = \beta_0^T + \beta_1^T NETWORK_i + \beta_2^T POL_i + \beta_3^T X_i + \beta_4^T D_i + \varepsilon_i^T. \quad (5.3)$$

$VIEW$ is a measure of the manager's positive views of globalization. $NETWORK$ is a vector of measures of the firm's ties with domestic firms and those with foreign firms. Similarly, $TRUST$ is a vector of measures of the manager's trust toward domestic and foreign citizens. POL is a measure of the firm's ties with politicians and the government. X is a vector of control variables at the firm and manager levels, D is a vector of industry dummies, and ε is the error term. The next section will explain in detail how we construct these variables.

Based on the argument in the previous subsection, we hypothesize that networks with foreign firms and trust toward foreign citizens have a positive effect on the pro-globalization views of managers, whereas networks with domestic firms, trust toward domestic citizens, and networks with politicians have a negative effect. Business networks with foreign firms and trust toward foreign citizens have a positive effect on each other, whereas they are negatively affected by political ties. Conversely, networks with domestic firms and trust toward domestic citizens have a positive effect on each other, whereas they are positively affected by political ties.

Equations (5.1)–(5.3) should be estimated jointly, for example, using two-stage least squares estimations, to identify interlinked causal relations between views of

globalization, business and political networks, and trust. However, because we do not have a good instrument for such joint estimation, we estimate each equation separately using an ordered logit estimation when the dependent variable is a categorical variable and a Tobit estimation when it is continuous with a lower limit of zero. Because this study examines the correlation between the variables of interest, rather than their causal relations, the results should be viewed with caution.

5.2 Data

5.2.1 Survey

The analysis in this study is based on data from an establishment-level survey conducted by the authors in cooperation with the Institute for Economic and Social Research (LPEM), Faculty of Economics, University of Indonesia. The survey was conducted in seventeen cities in six provinces¹ in Indonesia from September 21, 2014 to December 7, 2014 and covered five manufacturing industries, i.e., the textile, chemical, metal and machinery, electrical and electric machinery, and transportation equipment industries. The five industries were selected because these are the major manufacturing industries in Indonesia. The seventeen cities were chosen because the number of establishments in the five industries in each city exceeded a threshold level, according to the Manufacturing Industry Directory of the Central Bureau of Statistics (BPS) for 2012 (hereafter, the 2012 Directory).

Among the establishments, 40% are in the textile industry, 32% are in the chemical industry, 18% are in the metal and machinery industry, 5% are in the electricity and electric machinery industry, and 5% are in the transport equipment industry. The size of the surveyed firms varies: 11% are small firms with fewer than thirty workers, 30% are medium-sized firms with fewer than one hundred workers, and 58% are large firms with one hundred or more workers.

In the survey, we randomly selected establishments from the 2012 Directory and conducted a face-to-face interview with each establishment. The 2012 Directory covers all establishments with thirty workers or more and randomly selected establishments with fewer workers. When any selected firm refused to respond or no longer existed, we replaced it with a randomly selected firm. In three cities, Pekalongan, Medan, and Semarang, after some refusals, no more establishments were available in the 2012 Directory because there were few establishments in these cities. Therefore, we randomly selected establishments for replacement from the Directory for 2011. Although our initial target was 400 establishments, we collected data from only 332 firms due to time constraints.

¹These are Cilegon and Tangerang in Banten Province, Jakarta Barat, Jakarta Pusat, Jakarta Selatan, Jakarta Timur, and Jakarta Utara in DKI Jakarta, Semarang and Pekalongan in Central Java Province, Surabaya in East Java Province, Medan in North Sumatera Province, and Bandung, Bekasi, Bogor, Cimahi, Depok, and Taskmalaya in West Java Province.

Table 5.1 Types of respondents

Types of respondents	Number of firms	Percentage
Director	47	14.2
Owner	52	15.7
Managers	110	33.1
Others	115	34.6
Missing	8	2.4
Total	332	100.0

Note Directors include vice presidents, accounting directors, finance directors, managing directors, legal directors, and other positions titled as directors

The questions in the survey consist primarily of two parts. The first part contains questions about standard characteristics of establishments, such as sales, the value of capital stocks, the number of full-time workers, ownership, and board members. This part also includes questions about the firm's business networks, including the number of buyers and suppliers of each establishment by location and ownership.

The second contains questions directed toward establishments' highly ranked managers. Our target was the top manager, such as the president or CEO, but when he/she was not available, we asked a procurement or accounting manager or any highly ranked manager. Table 5.1 shows the composition of respondents by position. Company executives accounted for 14.2%, owners 15.7%, highly ranked managers 31.1%, and other positions 34.6%. Questions to managers were related to their ethnicity, religion, education background, participation in associations, and personal ties with politicians. We also asked the managers to what degree they trusted particular types of people, such as politicians, Indonesians, and foreigners. In addition, we surveyed managers' views of globalization, asking them whether they thought that the foreign ownership of private firms should be limited in Indonesia and that free trade agreements are beneficial to small and medium-sized enterprises in Indonesia.

Some firms did not answer all questions. Therefore, our estimation utilizes a sub-sample of 276 firms for which all necessary variables are available.

5.2.2 Variables

From the data collected through the survey, we construct key variables in this paper related to business and political ties and managers' views of globalization. First, to measure the business networks of establishments, we create two variables: the number of domestically located buyers and suppliers and the number of overseas buyers and suppliers. The number of domestic transaction partners represents the strength of domestic business ties, whereas the number of overseas partners represents the strength of ties across countries. To incorporate a nonlinear relationship between

these business network variables and others, we take a log of the two after adding one. Therefore, the lower limit of the two variables is zero.

Second, we construct a dummy variable to indicate whether firms have a connection with any politician or the government that provides economic rents to firms based on the following question to managers: "Do you feel that you are able to obtain government approvals more easily than other companies?" We define the dummy variable for political ties as one if the response of managers is yes. Alternatively, for political ties in a broader context, we construct a dummy variable that takes a value of one if firms can receive valuable information from the government, receive any subsidy from the government, or have politicians on their boards of directors or if their managers have any personal relationships with politicians.

Third, to measure the respondent manager's views of globalization, we construct two measures from the survey questions. In the survey, we asked respondent managers whether they agreed with the statement, "In general, the government should limit the foreign ownership of domestic companies." We define a categorical variable for supporting the foreign ownership of private firms as four if the respondent's reply to the question was "completely disagree," three if it was "somewhat disagree," two if it was "somewhat agree," and one if it was "completely agree."

Another measure of managers' view of globalization is based on their responses to the statement, "FTAs are beneficial to small and medium-sized enterprises (SMEs) in Indonesia." We define a categorical variable for positive views of globalization from one to four, for which four indicates strong agreement with the statement.

Fourth, we measure the degree of trust toward domestic and foreign citizens based on survey questions to managers. We define a categorical variable for trusting foreign citizens as one if managers responded, "I do not trust foreigners at all," two, "I do not trust foreigners very much," three, "I trust foreigners to some extent," and four, "I trust foreigners completely." Similarly, we define a categorical variable for trusting domestic citizens. In this study, we assume that the degree of managers' trust toward domestic citizens indicates the strength of domestic personal ties, whereas the degree of managers' trust toward foreign citizens indicates the strength of foreign personal ties.

We utilize a set of control variables at the firm and managerial levels. Firm-level variables include the log of the number of permanent workers, firm age and firm age squared, and the foreign ownership ratio. As Melitz (2003) argues, business networks, particularly overseas business networks, are determined by the productivity of firms. However, if we included productivity measures, such as sales per worker, we would lose many firms from the sample because many firms did not report sales. Therefore, we did not include any direct productivity measure, assuming that firm size is correlated with the productivity level. In empirical studies on the determinants of exports and firm size is found to be a better predictor than productivity (Todo 2011).

Manager-level variables are age and age squared, the log of years of education, a male dummy, the degree of trust toward politicians, a dummy variable that indicates whether the manager belongs to any association, such as alumni, business, or recreational associations, and religion and ethnicity dummies. These individual characteristics are found to determine the level of trust toward people in general in

Table 5.2 Managers' views of globalization

Variables	Description	1	2	3	4	Mean
		Strongly disagree (%)	Disagree (%)	Agree (%)	Strongly agree (%)	
VIEW_FDI	Foreign ownership should be liberalized	27.0	60.7	11.2	1.1	1.87
VIEW_FTA	FTAs are beneficial to SMEs	4.5	29.2	53.6	12.7	2.75

Table 5.3 Levels of trust toward Indonesians and foreigners

Variables	Description	1	2	3	4	Mean
		Do not trust at all (%)	Do not trust (%)	Trust (%)	Trust very much (%)	
TRUST_IND	Trust toward Indonesians	0.4	7.1	79.8	12.7	3.05
TRUST_FOR	Trust toward foreigners	2.6	21.4	70.0	6.0	2.79

existing studies, such as those by Alesina and La Ferrara (2002), Algan and Cahuc (2014), and Nunn and Wantchekon (2011).

5.2.3 Summary Statistics

Table 5.2 shows the distribution of the two measures of managers' view of globalization: 27% strongly oppose foreign ownership liberalization, 61% oppose it to some extent, 11% support it to some extent, and only 1% support it strongly. To the statement that FTAs are beneficial to SMEs, 29% disagree to some extent, and 54% agree to some extent.

As shown in Table 5.3, the level of managers' trust toward Indonesians is high: only 7.5% do not trust Indonesians to any extent, whereas 80 and 13% trust them to some extent and completely, respectively. However, the level of trust toward foreigners is lower: 24% of managers do not trust foreigners to some extent or completely.

The number of transaction partners, i.e., buyers and suppliers, reported by firms is not large for many firms (Table 5.4). The median number of transaction partners in Indonesia is 5, whereas the number of overseas partners is zero for 19% of firms.

Table 5.4 Number of transaction partners in Indonesia and foreign countries

Variables	Description	Min.	10%	50%	90%	Max	Mean
NET_IND	Number of transaction partners in Indonesia	0	0	5	17	598	11.6
NET_FOR	Number of overseas transaction partners	0	0	0	2	54	0.87

Summary statistics for other firm- and manager-level variables are provided in Table 5.5. Of the firms, 5.6% recognize that they can receive business approvals from the government more easily than other firms ($POL = 1$). The dummy variable for political ties in a broader context (POL_BROAD) is one for 13.5% of firms. The average and median numbers of permanent workers are 257 and 100, respectively. On average, the managers are 45.2 years old, with 14.7 years of education; 76% of managers are male; and 47% of managers belong to an association.

5.3 Estimation Results

5.3.1 Benchmark Results

The results from the estimation of Eq. (5.1), using an ordered logit model, are shown in columns (1) and (2) of Table 5.6. The results in column (1) indicate that a firm manager is more likely to support the limitations of foreign ownership of private firms in Indonesia when the firm transacts with more local buyers and suppliers. In column (2), we find that higher trust toward foreign citizens is correlated with a higher propensity for managers to recognize the benefits of FTAs to Indonesia. These findings imply that strong ties with domestic firms are associated with negative views of globalization, whereas trust toward foreign citizens is associated with positive views. Contrary to this theoretical prediction, political ties are not directly correlated with protectionist views.

Next, columns (3) and (4) of Table 5.6 present the results from an ordered logit estimation of Eq. (5.2). We find that strong ties between politicians and the government are correlated negatively with the level of managers' trust toward foreigners and positively with the level of their trust toward Indonesians. Trust toward Indonesians is also negatively correlated with the number of overseas business partners.

Finally, we present results from the Tobit estimation of Eq. (5.3) in columns (5) and (6) of Table 5.6, finding that Indonesian firms are more likely to transact with

Table 5.5 Summary statistics of key variables

Variables	Description	Mean	S.D.	Min	Median	Max
<i>Firm level</i>						
POL	Dummy for political ties	0.056	0.231	0	0	1
POL_BROAD	Dummy for broader political ties	0.135	0.342	0	0	1
L	Number of permanent workers	256.640	532.648	0	100	6570
F_AGE	Firm age	26.865	13.637	1	25	98
FShare	Foreign ownership ratio	12.833	29.194	0	0	100
<i>Manager level</i>						
AGE	Age	45.176	11.302	20	45	84
EDUC	Years of education	14.659	3.229	1	16	26
lnEDUC	Log of EDUC	2.650	0.304	0	2.773	3.258
MALE	Male dummy	0.757	0.430	0	1	1
ASSOC	Dummy for participation in associations	0.446	0.498	0	0	1
TRUST_POL	Level of trust toward politicians	2.464	0.727	1	3	4

overseas firms when managers of firms trust foreigners more and Indonesians less. Moreover, firms with strong political ties transact with more local firms.

The results from columns (3)–(6) suggest that managers of firms with strong political ties that generate economic rents to their firms trust Indonesians more and foreigners less to avoid competition with foreigners and to maintain their rents, expanding transactions with local firms. In addition, it is suggested that trust toward foreigners promotes transactions with foreign firms and that in turn, transactions with foreign firms promote trust toward foreigners through face-to-face communication with foreigners in these transactions. Conversely, a high level of trust toward Indonesians seems to discourage transactions with foreign firms, likely because it promotes closed networks within the country.

Table 5.6 Estimation results

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable	VIEW_FDI	VIEW_FTA	TRUST_FOR	TRUST_IND	lnNET_FOR	lnNET_IND
Short description of dependent variable	Supporting foreign ownership	Supporting free trade agreement	Trust toward foreigners	Trust toward Indonesians	# of overseas partners	# of local partners
Estimation method	Ordered logit	Ordered logit	Ordered logit	Ordered logit	Tobit	Tobit
Independent variables						
TRUST_FOR	-0.323 (0.351)	0.529* (0.314)			0.920* (0.492)	0.0581 (0.158)
TRUST_IND	-0.130 (0.561)	-0.759 (0.471)			-1.218* (0.637)	-0.258 (0.228)
POL	-0.157 (0.799)	-0.489 (0.708)	-1.161* (0.665)	2.170** (1.051)	0.159 (0.934)	0.609** (0.301)
lnNET_FOR	0.154 (0.149)	-0.206 (0.169)	0.345 (0.227)	-0.552* (0.313)		
lnNET_IND	-0.278** (0.119)	0.0277 (0.129)	-0.0486 (0.133)	-0.152 (0.207)		

(continued)

Table 5.6 (continued)

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable	VIEW_FDI	VIEW_FTA	TRUST_FOR	TRUST_IND	InNET_FOR	InNET_IND
AGE	0.0652 (0.0659)	0.0465 (0.0808)	-0.0621 (0.0896)	0.133 (0.136)	0.0619 (0.0914)	-0.0480 (0.0363)
AGE ²	-0.0715 (0.0723)	-0.0715 (0.0892)	0.0885 (0.0969)	-0.0936 (0.140)	-0.0244 (0.0962)	0.0452 (0.0400)
InEDUC	-0.175 (0.433)	-0.920* (0.508)	0.926 (0.630)	-0.0797 (0.753)	0.963 (1.024)	-0.620* (0.320)
MALE	-0.172 (0.363)	0.101 (0.313)	-0.373 (0.336)	0.529 (0.557)	0.745 (0.537)	-0.0150 (0.176)
ASSOC	-0.350 (0.306)	0.169 (0.284)	0.520 (0.338)	0.0831 (0.587)	0.583 (0.413)	0.285* (0.169)
TRUST_POL	-0.149 (0.218)	0.687*** (0.206)	1.330*** (0.208)	4.132*** (0.576)	0.0323 (0.295)	0.161 (0.103)
InL	0.0445 (0.112)	-0.000503 (0.120)	0.0558 (0.129)	-0.448* (0.231)	0.157 (0.151)	-0.0658 (0.0661)
F_AGE	0.00471 (0.0270)	-0.0443* (0.0244)	0.0276 (0.0280)	0.0146 (0.0478)	0.00699 (0.0414)	0.0208 (0.0172)

(continued)

Table 5.6 (continued)

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable	VIEW_FDI	VIEW_FTA	TRUST_FOR	TRUST_IND	lnNET_FOR	lnNET_IND
F_AGE ²	0.000176 (0.000287)	0.000363 (0.000234)	-0.000590* (0.000305)	-0.000397 (0.000534)	0.000130 (0.000510)	-0.000113 (0.000204)
FShare	0.00777	-0.000983	-0.0104**	0.000419	0.0129**	-0.00396
Foreign ownership ratio	(0.00499)	(0.00485)	(0.00454)	(0.00907)	(0.00649)	(0.00275)
Observations	267	267	267	267	267	267
Pseudo R ²	0.0664	0.113	0.233	0.633	0.114	0.0575

Notes Robust standard errors are in parentheses. *, **, and *** signify statistical significance at the 10-, 5-, and 1-percent levels, respectively. Dummies for industries and managers' ethnicity and religion are included as control variables, but for brevity, the results are not shown

5.3.2 *Alternative Measure of Political Ties*

To check the robustness of the results, we repeat the same regressions using an alternative measure of political ties. As explained in detail in Sect. 5.3, this alternative measure of political ties includes broader aspects of political ties, e.g., having politicians on the board of directors and managers' personal relations with politicians, than the measure based on receiving government approvals more easily that was used in the benchmark results.

The results shown in Table 5.7 are not very different from the benchmark results in Table 5.6. However, the coefficients of the measure of political ties are often smaller and less significant here than in the benchmark results. This implies that the narrower definition of political ties explains the empirical model better, likely because firms' ability to obtain business approvals from the government, which is directly related to rents, is the most important aspect of political ties.

5.3.3 *Discussion*

The results above mostly support the hypotheses explained in Sect. 5.2 and summarized in Fig. 5.1, although some of the predicted links are found in the estimations to be insignificant. In summary, firms' strong ties with politicians that enable firms to receive rents from the government lead to more transactions with domestic firms and higher trust toward domestic people but fewer transactions with foreign firms and lower trust toward foreigners. Trust toward domestic (foreign) citizens and transactions with domestic (foreign) firms reinforce each other and promote negative (positive) views of globalization.

These results suggest that when firms' political ties are strengthened, firms are less likely to be interested in foreign economies and engage in cross-border economic activities, such as international trade and cross-border inward mergers and acquisitions (M&As). As a result, domestic actors, including firm managers, perceive foreign firms and foreigners as threats.

Then, a democratic government, such as that of Indonesia and many other emerging countries, is likely to implement protectionist policies against globalization, such as limiting the foreign ownership of firms in the country and protecting domestic industries by restricting international trade. Because these regulations consequently provide more rents to domestic firms, political ties between firms and the government are strengthened to receive benefits from rents. This paper did not examine the link between domestic citizens' protectionist views of globalization and the implementation of protectionist policies of the government or between protective policies and political ties. However, if these links exist in practice, there will be a vicious cycle between political ties, protectionist views and policies against globalization.

As shown by many studies, including some for Indonesia, international trade and FDI inflows are sources of growth of domestic productivity through

Table 5.7 Alternative specifications

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable	VIEW_FDI	VIEW_FTA	TRUST_FOR	TRUST_IND	InNET_FOR	InNET_IND
Short description of dependent variable	Supporting foreign ownership	Supporting free trade agreement	Trust toward foreigners	Trust toward Indonesians	# of overseas partners	# of local partners
Estimation method	Ordered logit	Ordered logit	Ordered logit	Ordered logit	Tobit	Tobit
Independent variables						
TRUST_FOR	-0.337 (0.349)	0.534* (0.316)			0.897* (0.497)	0.0637 (0.158)
TRUST_IND	-0.148 (0.551)	-0.786* (0.469)			-1.235** (0.625)	-0.199 (0.231)
POL	-0.372 (0.455)	-0.120 (0.436)	-1.048* (0.568)	-0.659 (0.789)	-0.222 (0.578)	0.390* (0.207)
InNET_FOR	0.148 (0.150)	-0.208 (0.170)	0.327 (0.223)	-0.520* (0.304)		

(continued)

Table 5.7 (continued)

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable	VIEW_FDI	VIEW_FTA	TRUST_FOR	TRUST_IND	InNET_FOR	InNET_IND
# of local partners	-0.268** (0.119)	0.0166 (0.125)	-0.0361 (0.134)	-0.146 (0.221)		
Observations	267	267	267	267	267	267
Pseudo R ²	0.0678	0.112	0.237	0.626	0.114	0.0569

Notes Robust standard errors are in parentheses. *, **, and *** signify statistical significance at the 10-, 5-, and 1-percent levels, respectively. Independent variables are shown in Table 5.6, and dummies for industries and managers' ethnicity and religion are included as control variables, but for brevity, the results are not shown

knowledge spillovers (Sect. 2.1). Therefore, this vicious cycle deteriorates openness to the world economy and leads to the stagnation of the domestic economy. In emerging economies such as that of Indonesia, this mechanism may cause middle-income traps. In fact, in many Latin American countries, the income level stagnated for several decades after protectionist policies were implemented in the 1950s. These prolonged middle-income traps may be explained by the vicious cycle between political ties, protectionist views and policies against globalization.

5.4 Conclusion

Using a firm-level dataset from the manufacturing sector in Indonesia collected by the authors, we examine the relations between firm managers' protectionist views of globalization and trust toward domestic and foreign citizens and firms' domestic and overseas business networks and ties with the government.

Our data are unique in that they include comprehensive information on various types of political and business economic ties. First, we identify the political ties of each firm based on whether the firm can obtain business approvals from the government more easily than other firms. Second, our data include information about buyers and suppliers of each firm and their location and ownership so that we can identify its business networks with domestic and foreign firms. Finally, our data measure managers' views of globalization, such as the foreign ownership of firms and FTAs.

We find that strong political ties of firms are associated positively with managers' level of trust toward Indonesians and the number of buyers and suppliers in Indonesia and negatively with their level of trust toward foreign citizens. Managers' trust toward foreign citizens and firms' transactions with foreign firms are positively correlated with each other. Trust and business networks within Indonesia are also correlated. Then, when managers trust Indonesians more or firms transact with more domestic firms, managers are more likely to have a protectionist view of globalization.

The results suggest a vicious cycle between the political ties between local firms and the government and views and policies against globalization, which leads to economic stagnation due to a lack of knowledge diffusion from abroad. This mechanism may explain why emerging countries are often caught in a middle-income trap and cannot escape it despite prolonged economic stagnation.

An obvious caveat in this paper is that we did not correct for possible biases due to endogeneity. Many of the relations between protectionism, business and political ties, and trust shown in Fig. 5.1 are contaminated by reverse causality. For example, we claimed that business networks with domestic firms lead to the protectionism of firm managers and found some evidence to support this claim. However, when their managers are protectionists, firms are more willing to transact with domestic firms and hesitate to go abroad. Therefore, the results of this paper should be viewed as showing correlation rather than causality. Future work should correct for these endogeneity biases using, for example, instrumental variable estimations. Possible

instruments include regional and industry variables that affect the level of trust and political ties and are not impossible to obtain.

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Chapter 6

Industrial Technology Upgrading and Innovation Policies: A Comparison of Taiwan and Thailand



Patarapong Intarakumnerd and Meng-Chun Liu

The question of why some developing countries succeed in catching up technologically with developed countries while others fail to do so has attracted considerable interest among academics and policy makers. Since the notion of ‘middle-income trap’ emerged in the mid-2000s, the question has grown even more popular. This paper aims to contribute to knowledge of this issue by examining the cases of two East Asian countries, Taiwan and Thailand. Taiwan is now a high-income economy with GDP per capita of \$22,000 in 2015, while Thailand has been trapped at middle-income country status, with GDP per capita of \$5,400 in the same year. The two countries are selected here because although they differ in economic performance, their economic and political backgrounds are rather similar. Both started serious industrialization in the 1950s, and both faced serious security threats from communist regimes during the Cold War. Taiwan had major conflicts with Mainland China and Thailand was a front-line country in the fight against communism in Southeast Asia. Both countries are mid-sized in terms of population (sixty-five million and twenty-three million in Thailand and Taiwan, respectively). Both have sizable, quite successful agriculture sectors. Importantly, both countries joined global production networks of transnational corporations (TNCs), especially Japanese firms, after the Plaza Accord in 1980s.

While recognizing the significance of other economic, political and social factors of catching-up, such as human resources, macro-economic management, and various types of policy, this paper focuses primarily on the comparison of policy on technology, innovation, and industrial upgrading. Another main focus is the manufacturing sector, where technological upgrading and innovation are critical. The structure of the paper is as follows. We will provide an overview of the evolution

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K. Tsunekawa and Y. Todo (eds.), *Emerging States at Crossroads*,
Emerging-Economy State and International Policy Studies,
https://doi.org/10.1007/978-981-13-2859-6_6

of manufacturing industries and general industrial policy in Sect. 6.2. In Sect. 6.3 we will specifically examine the content and implementation of key policy instruments. Institutions underlying effective policy design and implementation will be investigated in Sect. 6.4. In the final section, conclusions will be drawn and policy implications will be provided.

6.1 Evolution of Manufacturing Industries in Taiwan and Thailand

This section provides an overview of the evolution of industrial development in Thailand and Taiwan.

6.1.1 Taiwan

Taiwan's technological catching-up record is quite impressive. In order to investigate the evolution of Taiwan's policies, we break its economic development history into four stages: (1) the "Import-substitution of labor intensive industry" period of 1950–62; (2) the "Export-orientation with import-substitution of intermediate-goods" period of 1962–1980, (3) the "Liberalization and technological orientation" period of 1980–2000, and (4) the "Economic globalization period" of 2000 onward (Li 1988; CEPD 2008). Prior to 1980, Taiwan's industrial development policies were designed to promote exports in order to develop downstream industries, in which many small and medium-sized enterprises (SMEs) were agglomerated. An import substitution policy was adopted at the same time to incubate the capital-intensive upstream industries dominated by large-sized firms. With respect to technology policies, the Taiwan government promulgated "Guidelines for the Long-range Development of Science" in 1959 and implemented the "National Science Development Plan (1969–1980)" in 1968. In order to commercialize technologies more effectively, the government launched implementation of the "Science and Technology Development Program" in 1979. The "Long-term National Science Development Program" passed by the Legislative Yuan (Taiwan's parliament) in 1959, was the first technological policy program initiated by the government since 1949. This program was aimed at the creation of a foundation for scientific development. The measures within such programs included personnel recruitment, encouragement of research, research facilities development, and the provision of dedicated funding for scientific purposes. At the same time, in order to promote the development of science related approaches, the cabinet (the Executive Yuan) created the "Long-term National Science Development Council," which was the predecessor of the National Science Council, which later expanded further into the "National Science Council, Executive Yuan" in 1969. More importantly, 1968, when the "National Science Development Plan" was established,

the country's science and technology (S&T) policy was already shifted from a focus on pure science and basic research to an emphasis on technological research to meet the needs of national development.

Furthermore, since the 1980s, Taiwan has undergone significant trade liberalization. In the early stages, under pressure from the United States, the country was forced to lower its tariffs and reduce its import restrictions. In the years following the announcement of the Section 301 of the US 1974 Trade Act, Taiwan hastened the implementation of import liberalization. The threat of retaliatory action spelled out in the 301 Bill provided the prime motivation for Taiwan's accelerated trade reforms from 1986 onward (Liu 2002).

Taiwan's industrial and technology policies are intended to cope with changes in the industrial environment, characterized by an ongoing increase in labor and land costs, and by intensive competition in the international market. In an effort to enhance the country's industrial technology capacities, the government adjusted its industrial and technology development strategies. In particular, the Ministry of Economic Affairs (MOEA) decided to let the private sector serve as the main actor in the conduct of R&D investment by providing enterprises with mutual funds for the execution of designated R&D projects. The private sector is expected to play the leading role in both developing and acquiring industrial technologies with the government's support and consultation.

In addition, in order to effectively support R&D by domestic industries, the Taiwanese government relies heavily on government-sponsored research institutes (GSRI) to execute contracted research projects and subsequently transfer and diffuse the outcomes of those projects to the industry for commercialization. To that end, the government founded the Industrial Technology Research Institute (ITRI) in 1973. (In recent years ITRI has devoted the bulk of its research to electronics, computers and communications, opto-electronics, micro-electro-mechanical systems, mechanical systems, chemicals, biotechnology and medicine, materials, aviation and space, measurement standards, energy and resources, environmental protection, and industrial safety and health.) Drawing on the successful experience of ITRI, in 1979 the Taiwan government promoted the development of software-related technology industry by establishing another GSRI, the Institute for Information Industry (III), which differs from ITRI in that it focuses on hardware technologies.

The establishment of the Hsinchu Science-based Industrial Park in 1980 and the implementation of the "Program for Strengthening the Education, Training, and Recruitment of High-level Science and Technology Personnel" in 1983 were milestones in Taiwan's technological orientation period. A high proportion of Taiwan's university graduates, approximately 15%, went overseas for graduate degrees over the period of 1980s–2000s. A large number of experienced scientists and engineers have now returned to Taiwan to contribute to the development of domestic S&T. These returns were largely due to more favorable government policy, the improvement of the research environment, the increased number of university graduate departments, and the establishment of ITRI and the Hsinchu Science-Based Industrial Park (HSP).

Importantly, it has been estimated that more than half of the 203 firms in the Hsinchu Science-Based Industrial Park were founded by returnees, or relied on their investment and skills.

Trade liberalization took place in Taiwan in the 1990s. In order to avoid trade discrimination, diplomatic isolation, and a disadvantageous position in bilateral trade talks with its trade partners, Taiwan energetically pursued membership in the World Trade Organization (WTO). The motivation behind Taiwan's bid to join the WTO was its desire to have an international forum through which it could resolve trade conflicts while at the same time escaping from trade protectionism and diplomatic isolation (Liu 2002).

In that environment of trade liberalization, improvements in the scientific and technological environment drove swift growth of high-tech industries from 1986 onward. The vigorous expansion of Taiwan's high-tech industries transformed the nation's industrial structure. In 1986 the output of technology-intensive industries constituted just 24% of all manufacturing output; this rose to 37.5% by 1996. The growth of the HSP is a good illustration of this trend. In 1986 the HSP housed fifty-eight companies with a combined turnover of \$0.45 billion (\$17 billion TWD); by 1996, there were 203 companies in the park, with an annual turnover of \$11.59 billion (\$318.2 billion TWD)—18-fold growth. The HSP's success in attracting high-tech firms is certainly an achievement worthy of emulation. The output of Taiwan's information industry accounted for a volume of \$16.4 billion in 1996, making Taiwan the world's third largest manufacturer of ICT products, behind only America and Japan. Taiwan was one of the market leaders in eleven information product categories during that year.

In order to overcome space limitations in Hsinchu, the HSP has been creating new science park bases since 1990, at five locations at the time of writing: Jhunan Science base in Miaoli in 1999; Longtan Science base in Taoyuan in 1990; Tongluo Science base in Miaoli in 2007; Yilan Science base in Yilan in 2005; and Biomedical Science Park in Zhubei in 2003.

Although Taiwan has already become a leading center for the development and manufacture of personal computers, it still relies heavily on imports of many key components for its ICT products. For example, in 1996 CRT and LCD imports were valued at \$1.26 billion (\$34.57 billion TWD) and \$1.0 billion (\$27.57 billion TWD) respectively. Clearly there is an urgent need to establish domestic key component industries to serve the country's IC sector. Moreover, in 1996 Taiwan was the world's fourth largest IC producer, but its IC output accounted for just \$4.5 billion, only 3% of the world market. This shows that Taiwan's local IC industry still has much room for growth. Taiwan's communications products were worth \$3.2 billion during 1996, making it the world's eleventh largest producer at that time. Since most of those products were mid- or low-grade items, it was necessary for Taiwan to strengthen R&D and introduce more value-added products.

From the 2000s onward, Taiwan has aimed at becoming a location for offshore R&D by multinational corporations (MNCs). In terms of R&D, local firms generally appear to lack systems integration capabilities and the ability to take the initiative in product and technology development; however, some of the current industrial players may be positioned to become first-tier suppliers possessing innovation capabilities

in certain areas and industrial segments. This could be considered as Taiwan's main geographic advantage in offshore R&D (Liu and Chen 2005). A notable example is Intel's creation of an R&D and innovation center in Taiwan dedicated to product innovation in wireless local area networks (WLANs), motivated partly by Taiwan's position as a major global supplier of WLAN sets. Sony and Hewlett Packard (HP) have also set up R&D centers in Taiwan, largely because Taiwanese IT firms have evolved from pure manufacturing toward integrated service provision, giving rise to intensified interdependence between the network flagships and their Taiwanese subcontractors.

More specifically, the MOEA initiated the "Multinational Innovative R&D Centers in Taiwan (DoIT Taiwan)" program in 2002. Taiwan, taking advantage of its outstanding production capacity (achieved thanks to its accumulated OEM/ODM experience, cheaper and superior manpower, governmental R&D sponsorship of technology acquisition, and flexible business cooperation sustained by entrepreneurship), aimed to establish itself as a global center for industrial innovation by cooperating with MNCs to set up their regional R&D centers in Taiwan. There were four incentives for the MNCs to establish the centers: human resource support, funding, tax exemption and a one-stop service window. The DoIT Taiwan program has received a very strong positive response: over the period from 2002 to January 2017, forty-seven MNCs, including several leading ones, (e.g., HP, Sony, Dell, IBM, and Intel) have established sixty-five R&D centers in Taiwan.

To cope with the new economic environment that arose after the 2008 global financial crisis, the new innovation financing policies promise to relieve income inequality and enhance job creation. Specifically, to provide the traditional sectors with some relief from the difficulties that they face from import competition; and to further reinforce local industrial clusters, in 2008 the DoIT, under Taiwan's MOEA, launched a scheme, the "Local Industry Innovation Engine Program" (LIIEP) to increase industrial value-added and achieve regional prosperity by reinforcing industrial clusters. The LIIEP is aimed at enhancing the capacity of research institutes so as to assist partner firms by means of various R&D grants and by organizing local R&D alliances in designated regions. Under this program, research institutes are assigned the task of organizing R&D alliances with local firms, especially in regions with less cutting-edge technology, in order to support them in accessing the government's various R&D resources embedded in various R&D grant programs. Those R&D programs are created under Taiwan's national innovation system, which can be described as an SME-public research institute innovation network model (Wong 1995). The GSRI support firms by facilitating technology assimilation and/or transfer and cooperative R&D promotion. Taiwan's successful use of GSRI to promote the diffusion of industrially-relevant technologies is widely recognized.

In addition to job-creation in the post-global financial crisis era, Taiwan's innovation financing policies have been swinging toward "manufacturing servitization"¹

¹As argued by Baines et al. (2009), from the output side of perspective, manufacturing servitization can be regarded as the innovation of an organization's capabilities and processes so as to shift from selling products to selling integrated products and services that deliver value in use.

as a means of improving industrial value-added (Liu 2015). Taiwan's manufacturing has been lost to the emerging economies, especially those of China and Southeast Asia. It is advocated by theorists and policy makers that manufacturing firms should move up the value chain by innovating and creating more sophisticated products and services and thus avoiding competition on the basis of cost alone (Porter and Ketels 2003). In response to manufacturing servitization in the advanced world, Taiwan has been moving forward to manufacturing servitization by reframing its industrial innovation policy. The interaction between manufacturing and services has increased rapidly (Vandermerwe and Rada 1989; Pilat and Woelfl 2005; Francois and Woerz 2008). Following that trend, Taiwan has adjusted the implementation of its industrial technology policy to encompass more manufacturing servitization. More specifically, Taiwan has adjusted its industrial innovation policy in pursuit of manufacturing servitization in order to change the mind-set of manufacturing firms, towards: rapid provision of customized services; transformation of sales from products to service; seizing the initiative to provide value-added services; and encouragement of firms to organize demand-oriented alliances so as to move toward synergy-creation.

6.1.2 Thailand

In the past 50 years, Thailand has achieved both consistently high GDP growth rates (approximately 7% per annum) and significant diversification of its economy. The contribution of the aquaculture sector to GDP has fallen, while the share of manufacturing and services has increased markedly. Similar to Taiwan, Thailand embarked on industrialization with import-substitution in the 1950s, and shifted to export promotion in 1980s. However, different from the case of Taiwan, Thailand's industrialization depended much more on foreign direct investment, which has been promoted since the 1960s. Also different from Taiwan, where local firms demonstrated the ability to catch up technologically, Thai firms have grown without long-term deepening of their technological capabilities, and their technological learning has been very slow and passive (Bell and Scott-Kemmis 1985; Chantramonklasri 1985; Thailand Development Research Institute 1989; Tiralap 1990; Mukdapitak 1994; Lall 1998). A recent World Bank study (Arnold et al. 2000) confirms this long-standing feature of Thai firms. Only a small minority of large subsidiaries of transnational corporations (TNCs), large domestic firms and SMEs have R&D capability, while the majority are still struggling to increase their design and engineering capability.

Until the administration of Prime Minister Thaksin Shinawatra (January 2001–September 2006), the scope of S&T policy in Thailand was rather narrow, covering only four conventional functions: research and development; human resource development; technology transfer; and S&T infrastructure development. This narrow scope of S&T was very much based on the perception of policy makers that private firms were “users” of S&T knowledge produced mainly by government agencies and universities (see Arnold et al. 2000). There was no articulated national innovation policy. Though the word “innovation” was mentioned in several national plans, the

concept was not whole-heartedly incorporated into the scope of Thai S&T policies (see Lauridsen 2002). Unlike Taiwan, in Thailand S&T elements were not part of broader economic policy governing areas such as industrial policy, investment policy and trade policy and, to some extent, education policy.

Thai industrial policy did not pay enough attention to the development of indigenous technological capability as an integral factor of the process of industrialisation (Sripaipan et al. 1999, p. 37). Thai investment policy, especially the promotion of foreign direct investment (FDI), was aimed primarily at generating inward capital flow and employment. There was no explicit or pro-active link between promoting FDI and the upgrading of local technological capability in Thailand.

Moreover, industrial policy in Thailand was limited to the so-called 'functional' interventions such as the promotion of infrastructure building, general education, and export push in general. There were virtually no selective policy measures such as special credit allocation and special tariff protection targeting particular industries or clusters. The exception was the local content requirement in the automobile industry, which was rather successful in raising the local content of passenger vehicles to 54% in 1986 (see Doner 1992). Interestingly, with the exception of the automotive industry, there were no reciprocal performance-based criteria (such as export and local value added and technological upgrading targets) set for providing state incentives as was the case in Korea and Japan (Johnson 1982; Amsden 1989; Evans 1989, 1998; Chang 1994; Lall 1996). In Thailand, investment promotion privileges, for example, were given away once approved. The desire to attract foreign direct investment and promote exports overshadowed the need to develop local initiatives and indigenous technological capabilities. As a result, linkages between multinational corporations and local firms were weak. Unlike the case of Taiwan, Thai governmental protection and promotion failed to strengthen the absorptive capabilities of Thai suppliers and had a profound harmful impact on the already weak technology and suppliers' network of industries (Vongpivat 2003).

The major change in Thai government policy came under the Thaksin government (2001–2006), whose new policy made dual track policy the main thrust. The government tried to enhance the nation's international competitiveness by strengthening the 'external' side of the Thai economy, i.e., export, foreign direct investment and tourism. At the same time, it attempted to increase the capability of domestic and grass-roots economies by implementing projects like the Village Fund (one million baht to increase the local management capabilities of each village), a three-year debt moratorium on farmers' debt, the One Tambon One Product Project (supporting each tambon (local administrative unit) in the promotion of one champion local product), and the People Bank, giving underprivileged people loans with no collateral requirement. Some academics and politicians from opposition parties branded these new grass-roots support policies as 'populist policies' aimed at winning votes from among the rural poor.

The Thaksin government, unlike its predecessors, whose main focus was macro-economic stability, focused more on enhancing meso- and micro-level foundations for international competitiveness. The high priority on the 'competitiveness' issue in the government's agenda was illustrated by the establishment of the National Com-

petitiveness Committee chaired by the Prime Minister. That was the first time that the Thai government had serious “selective” policies addressing specific sectors and clusters. The government identified five strategic sectors that Thailand should pursue: automotive, food, tourism, fashion, and software, and conceived clear visions for them: Detroit of Asia; Kitchen of the World; Asia Tourism Capital; Asia Tropical Fashion; and World Graphic Design and Animation Centre, respectively. Building the nation’s innovative capabilities was widely regarded as a very important action towards increasing and sustaining Thailand’s international competitiveness. “Innovative nation with wisdom and learning base” was one of the seven “Thailand’s Dreams” promoted by the government. To make that innovation-related dream come true, several strategies were devised. The National Economic and Social Development Board (NESDB) was made implicitly responsible for the overall cluster policy of the country. It made substantial efforts to disseminate the concept to various government and private-sector agencies by organizing cluster seminars and workshops in the main regions of Thailand. It also commissioned a study to create a ‘cluster mapping’ of Thailand, which identified significant agglomerations of firms that function or have the potential to function as clusters in various geographical locations throughout the country. Under the 2006 Intellectual Property Institute, several implementing government agencies, including (1) the Department of Industrial Promotion; (2) a number of sectoral-specific institutes under the Ministry of Industry (including the Thai Automotive Institute, the Thailand Textile Institute, the National Food Institute, and the Electrical and Electronics Institute); (3) the National Science and Technology Development Agency under the Ministry of Science and Technology; and (4) the Office of SME Promotion worked to develop their own cluster projects in the areas under their direction. Nonetheless, the implementation and coordination of those policies during the Thaksin era was far from successful in the long-range industrial upgrading of the country. The Thaksin government largely failed to create policy consistency and continuity, and did not set up mechanisms to enforce, monitor and evaluate the outcomes of those policies. On the one hand, strong centralized power and a CEO style of management enabled the Thaksin government to push harder for implementation of policies for industrial upgrading. On the other hand, the discretionary power of the government, and especially of Thaksin himself, led to policies being controlled by particularistic interests; policy unpredictability; ad hoc decision making that favored politicians’ pet projects; and policy rhetoric rather than real actions (Lauridsen 2008). An additional policy focus emerging when the Abhisit government came to power in 2009 emphasized means of making Thailand a ‘creative economy,’ i.e., an economy based on creativity, talent and the unique culture of the Thai people (the so-called ‘Thainess’). As a result, policy makers paid strong attention to ‘creative industries’ such as Thai food, Thai craft, Thai massage and spas, Thai films, and Thai multimedia software. The major question remaining was how to link science, technology and technological innovation on one hand, and those creative industries on the other. So far, this has not been so successful. The current government at the time of writing, in the wake of the military coup in 2014, reintroduced the cluster policy. Then in 2015, Board of Investment (BOI)’s ‘Super Cluster’ incentive scheme was introduced. The government currently aims to pro-

mote the Eastern Economic Corridor (EEC), consisting of the three eastern provinces, Rayong, Chonburi, and Chachoengsao. The EEC is intended to accommodate investment in ten targeted industries that have significant promise for Thailand's future: next-generation cars; smart electronics; affluent medical and wellness tourism; agriculture and biotechnology; food; robotics for industry; logistics; aviation; biofuels and biochemical; and digital and medical services. However, at present it is too soon to evaluate the results of this new initiative.

6.2 A Comparison of Taiwanese and Thai Policy Instruments Supporting Technology Upgrading and Innovation

After presenting an overview of industrial development of the two countries, we will examine in detail five specific policy instruments (tax incentives, grants, loans, government equity participation, and capital markets for innovation) aimed at promoting technology upgrading and innovation in the two countries.

6.2.1 Tax Incentives

R&D tax incentives, a rather common policy instrument, have been adopted in many countries since that type of incentives is generic in nature and can be applied equally to all R&D-performing firms in all sectors, allowing governments to avoid criticism for picking winners. Nonetheless, those incentives tend to be seen as less effective than direct subsidies from the government, which can *target* particular activities, clusters, or sectors. The effectiveness of tax incentives also depends largely on the definition of R&D, the administration of incentives, the eligibility of firms, and the form of incentives (OECD 2002) (Table 6.1).

Thailand gives R&D tax incentives based on R&D expenditure (double deduction), while Taiwan has adopted R&D tax credits. The definition of R&D is very rigid, so many firms engaged in technological upgrading activities such as design, engineering, and product development do not qualify. Apart from double deduction of R&D expenditure, in 2003 the Thailand BOI initiated a scheme to promote 'Skill, Technology and Innovation' (STI) by offering an additional 1–3 years' tax exemptions to companies already receiving tax privileges for investment in production, assuming that those companies met the requirements for in-house R&D, in-house training, and R&D collaboration with local universities. Changes have been made as recently as 2017, when the BOI's new 'merit-based' investment promotion scheme started to cover non-R&D technological upgrading activities such as product design, packaging design, advance technology training, licensing fees of intellectual property rights, collaboration with universities, and development of local suppliers.

Table 6.1 Comparison of tax incentives in Thailand and Taiwan

	Thailand	Taiwan
Year of operation	1996	1991
Type	Tax incentives on expenditures	Tax credits
Coverage	R&D (strict definition), training, and collaboration with universities. Coverage of other innovation activities and merit-based approach began as late as 2015 and 2017, respectively	R&D, training, implementation of specific technologies (R&D, training, establishment of R&D centres, encouragement of collaboration between industry and research institutions, and promotion of local industries' innovation)
Focus (sector, cluster, technology, type of firms)	General	General and specific technological fields, such as automation, energy saving, and pollution control, and digital technologies
Project-by-project approval	Yes	No
Effectiveness	Increased number of approved projects, but number of firms still limited	Number of approved tax deductions in TWD has increased but no significant change in number of firms applying. Increase in employment, GDP and net tax revenues

Note Taiwan adjusted the scope of its tax incentive in 2010

Source Constructed by authors

Taiwan's tax credit program covers not only direct R&D activities, but also expenditures on activities *critical* to the upgrading of firms' activities, specifically automation of production, reclamation of resources, pollution control, use of clean and energy-saving technologies, and the enhancement of efficiency of use of digital information technologies. The experiences of Taiwan illustrate the country's ability to implement government incentives to effectively tackle the technological upgrading problems faced by Taiwanese companies.

Regarding the efficiency of tax incentives, Thailand scrutinizes companies wanting to apply for R&D tax incentives *project by project*, though since 2015 approved firms with reliable track records have been exempted from scrutiny, which makes the application process very cumbersome. The level of trust in Thai society is very low, as the Thai government has been strongly concerned about false claims. As a result, the Thai Revenue Department (the agency responsible for the scheme of double deduction of R&D expenses) authorized another government agency, the National Science and Development Agency (the country's largest public research institute) to judge whether submitted projects were really R&D projects and whether proposed R&D expenses were appropriate. A large number of projects were submitted, so on average

the approval process could take as long as 5–6 months. Similarly, project-to-project approval is required for firms wishing to take advantage of the BOI's STI program. Nevertheless, the number of approved projects has increased in recent years. In the case of Taiwan, since 2000, the number of approved tax deductions (in TWD) has increased year by year, but the number of companies applying for such incentives has not changed significantly.

Of the two countries, only Taiwan conducted a formal study on the impact of its tax incentives. Tax credits for encouraging R&D, training, and green energy induced further R&D investment, with significant *positive* net effects on tax revenue (Liu and Wen 2011). In the case of Thailand, though one cannot claim direct causation, the results of community innovation surveys illustrate that innovating firms take advantage of R&D tax incentives more frequently than non-innovating firms.

A major industrial development policy reform that took place in Taiwan during the period of this review was seen when the Statute for Upgrading Industries (SUI) expired in 2009, and its successor, the Statute for Industrial Innovation (SII), was introduced in 2010. SII provisions include the following six targets: the encouragement of innovation efforts; the distribution and utilization of intangible assets; human resource development for industry; funding assistance; investment in the sustainable development of industry; and land supply. In comparison with the now abolished SUI, one critical change in the SII was the amendment of the tax incentive scheme. Different from the SUI, which covered a wide range of tax incentive schemes, under the SII the only remaining tax incentive to encourage innovation is the 15% tax credit against payable business income tax for R&D expenditures (provided that the tax credit does not exceed 30% of business income tax payable in the relevant year). The tax incentive is also time-limited, with a sunset clause set for December 31, 2019.

6.2.2 Grants

Compared to tax incentives, grants can be used more effectively as instruments targeting the encouragement of specific activities, sectors, clusters or firms. However, those incentives require greater government capability in the selection and implementation of those targets. Also, the selection and management processes are complicated and can be subject to political intervention and allegations of corruption, cronyism and nepotism (Table 6.2).

Taiwan has for many years been using grants in various programs as financial instruments to encourage firms to enhance their technological and innovative capabilities. Programs did co-evolve with the development of the capabilities of firms. Several programs are sector- or even product-specific. For example, in 1991 when Taiwanese firms had already gained production capabilities as subcontractors of TNCs and wanted to move up global value chains by acquiring product development capability, the Program for Leading Product Development (LPD) was implemented to subsidize costs of R&D for high-tech products and technologies such as those for ICT, aerospace, pharmaceuticals, and semiconductors. Approximately 800 out

Table 6.2 Comparison of grants schemes in Thailand and Taiwan

	Thailand	Taiwan
Year of operation	1990s	Since 1980s
Level of significance compared to other mechanisms	Not significant	Very significant
Coverage	R&D, prototyping, pilot scale	Wide-ranging and evolving, according to the needs and capabilities of firms
Focus (sector, cluster, technology, type of firm)	General, more sector-specific as late as 2016	Both general and specific (sectors, technologies, products)
Effectiveness	Too small to have critical success	Inducing substantial R&D investment by recipient firms, supporting creation of new industries/products. SMEs benefited significantly

Source Constructed by authors

of 1,600 submissions were approved. The share of approved projects between SMEs and large firms was roughly fifty-fifty. Results of the LPD program were quite impressive: \$1 TWD of grant induced an additional investment of approximately \$10 TWD for R&D, \$21 TWD investment for production, and \$42 TWD for sales. On average, one project generated 3.7 patents and 2.9 derivative products (Liu and Wen 2011).

Similarly, in 1998 when the government desired to promote the emergence of local startups, it adopted the US Small Business Innovation Research (SBIR) model which provided grants to firms in three phases: feasibility studies, R&D, and commercialization. A more generic grant scheme, the Industrial Technology Development Program (ITDP), was initiated in 1999 to fund both the preliminary study and R&D phases of firms aiming to develop forward-looking industrial technologies. \$1 of grant induced \$2.46 and \$4.89 of R&D and capital investment respectively (Liu and Wen 2011). In the 2000s, grants were given specifically to strategic technologies and industries such as conventional technology development, commercialization of biotechnology, and the knowledge-based service industry.

In Thailand, grant schemes are limited, both in terms of variety and grant size. The country relies more on indirect support to private firms through such means as tax incentives. However, there are serious problems with giving ‘public money’ to private firms, as it often gives rise to allegations of cronyism and corruption. In addition, the neoclassical economists who have authority in the national economic policy agencies (and in academia) do not like the idea of selective government intervention in specific industrial sectors, activities, clusters and firms, as such interventions appear to work against the market mechanism. The prospect of loss of public money resulting from grant project failure is also not acceptable to government authorities, especially those in charge of government budgets. As a result, grants have mostly been

awarded to public research institutes and universities. Recently R&D grants like those awarded by the National Science & Technology Development Agency (NSTDA) to private firms have been significantly reduced in number or almost stopped. The most successful granting program has been the Industrial Technology Assistant Program (ITAP), started in 1992, which provides up to 50% financial support for the hiring of external experts (freelance or university faculty) to provide small and medium enterprises with consultation on technological problems. More than 1,000 firms have received financial support from ITAP, with mixed results. The factors most strongly correlated with success appear to be active involvement of firm executives, clarity of project goals, finding 'right' and dedicated experts, and, importantly, the involvement of NSTDA employees (Industrial Technology Assistants [ITAs]) who act as intermediaries between firms and experts.

Another noteworthy grant scheme, offered by the National Innovation Agency (NIA), supports firms with up to 75% of expenses for prototyping and pilot-scale activities. Nonetheless, compared to grants in other countries, NIA grants are rather small (around \$160,000 for 3 years), and only fifty-six projects were granted during 2003–2007. Since 2009, NIA support has become more focused on the strategic sectors of bio business, design and solutions, and energy and environment. In 2011, the idea of an 'innovation coupon' was adopted. The NIA gives grants of up to 90% of the cost of projects to private firms for the hiring of listed innovation service providers for either feasibility studies or pilot project implementation. The Federation of Thai Industries (FTI), the largest manufacturers association, is a partner in the scheme, assisting the NIA to select the most appropriate projects. In 2016, the Fund for Enhancement of Competitiveness for Targeted Industries was established with \$285 million in government seed money for investment projects targeting research and development or human resource development in specific areas. The results are yet to be seen.

6.2.3 Loans

Loan programs are more popular among countries having problems giving direct grants to the private sector for innovative projects, simply because loans have to be returned and collateral guarantees are required. Not surprisingly the use of loans is a relatively prominent financing innovation mechanism for countries like Thailand. The NSTDA's Company Directed Technology Development Program has been providing soft loans of up to 75% of total project cost and less than \$1 million per project for R&D, product and process upgrading, and building or refurbishing laboratories. Nonetheless, the number of projects approved each year has been quite small (fewer than twenty) and has fallen recently, largely because selection criteria have become more stringent. Firm activities must be R&D related and must employ technologies new to the industry. Acquisitions of machinery not related to R&D are unlikely to be awarded loans. Therefore, most Thai SMEs do not qualify, since they do not have R&D capability and the problems that they are facing are more production related.

Table 6.3 Comparison of loan schemes in Thailand and Taiwan

	Thailand	Taiwan
Year of operation	1990s	Since 1980s
Level of significance compared to other mechanisms	Significant	Significant
Coverage	Increasingly focused on R&D	Wide-ranging and evolving according to needs and capabilities of firms
Focus (sector, cluster, technology, type of firms)	Rather general	Both general and specific (sectors, technologies, activities)
Facilities supporting access to loans	SME credit guarantee	SME credit guarantee
Effectiveness	Number of applications in some programs has dropped significantly	Number of approved projects has increased

Source Constructed by authors

On the other hand, the NIA has provided a zero-interest loan of up to 5 million baht for the first three years of an innovation project. Nevertheless, the setting up of the scheme is problematic, as loans have to be channelled through commercial banks, whose usual selection requirements do not favor the financing of risky innovative projects. As a result, only thirty-eight projects were approved during 2003–2007 (Table 6.3).

Taiwan has several loan schemes for purposes including the purchase of automated machinery for manufacturing and agriculture enterprises, the revitalization of traditional industries, the purchase of energy-saving equipment, the promotion of industrial R&D, and the purchase of computer hardware and software. Firms in service industries, such as Internet and technical service providers, are also eligible. The amount of loan per company is some \$2–3 million. More than 50,000 cases have been approved. Both loan size and number of approved projects are on a much greater scale than those of Thailand. The SME Credit Guarantee Fund (SMEG) is also available to help SMEs secure loans from government programs.

6.2.4 Equity Financing

The aim of venture capital is to finance firms at the early stages of starting up or during early growth. During those phases, financing the companies is too risky and uncertain for ordinary commercial banks (Table 6.4).

In Thailand, the genesis of the venture capital (VC) industry was initiated by some foreign VC funds in 1987. Those VC investments are generally targeted at

Table 6.4 Comparison of equity financing schemes in Thailand and Taiwan

	Thailand	Taiwan
Year of equity financing operation	1987	1983
Stages of VC investment	Expansion and mezzanine stages	Established, mass production and expansion stages
Specialized funds to support innovative firms through VCs	SME VC Fund, MAI Matching Fund, Startup Fund	Development Fund and SME Development Fund
Sectors of VC investment	Food and drinks, machinery and equipment, household furnishings, wood products, costumes	Optoelectronics, semiconductor, biotechnology, information services, electrical machinery, electronic components
Formal VC association	Thai Venture Capital Association (TVCA) established in 1994	Taiwan Private Equity and Venture Capital Association (TVCA) established in 1999
Business angel financing	Not active	Has formal business angel network (TWBAN)
Government's direct equity financing	None	Very large government funds (Development Fund and SME Development Fund)
Effectiveness	Low uptake in government VCs; private VCs are risk averse; fund of funds initiative failed because of insufficient demand. Lack of mentoring services	Helped to increase high-tech start-ups but not so significantly, as only 11.34% of VC funds went to early stages, according to a TVCA statistical summary for 2010

Source Constructed by authors

the growth and expansion stages of the venture life cycle. In Thailand the major organizations providing VC funds to support entrepreneurial development are the Office of Small and Medium Enterprises Promotion (OSMEP), the National Innovation Agency (NIA), One Asset Management Ltd., Stang Holding Co., Ltd., and MAI Matching Fund. The MAI Matching Fund, a fund of funds with assets of 2,000 million baht, was set up to increase the number of newly-listed companies (including VC-backed companies) on the MAI. However, the fund has recently ceased operation. The Revenue Department also provides taxation schemes to support VC fund investments. These schemes assist both VC funds and investors through corporate and personal tax exemption policies. VC funding in Thailand totals 720 million baht on average with a duration of approximately ten years. Most VC funds invest 30% in the early stage and 70% in the growth and mature stages. The leading business angel in Thailand is the Thai-Chinese Business Association. The fund size of business angel investing is approximately 90 million baht. The average deal ranges between 4 and 50 million baht with no exit strategies (Scheela and Jittrapanun 2012). In 2016, the Ministry of Science and Technology tried to launch a 500 million baht (\$14.2 mil-

lion) fund of funds for Thai startups in ten targeted industries under the umbrella of 'Startup Thailand,' but that has not yet materialised. Providing funds to the private sector through VCs, let alone direct financing, is very problematic in Thailand.

In Taiwan, on the other hand, venture capital financing began in 1983 with the launch of the Regulation Governing Venture Capital Business Management to stimulate the development of the venture capital industry. VC investing is mostly done at the established mass production and expansion stages with the government playing a major role in financing firms at those stages. The Taiwan Private Equity and Venture Capital Association (TVCA) was established in 1999 to create an environment conducive to the development of Taiwan's economy. At present, the management of VC funds is under the supervision of the Ministry of Economic Affairs (MOEA). The success of VC development in Taiwan can be tied to its active network linkages with Silicon Valley in the US (the success of VC development there is the result of a social and economic bridge linking the US Silicon Valley and Taiwan's high-tech industry). In addition to venture capital enterprises, Taiwan also has government 'direct' financing schemes. In 1973, the Development Fund was set up to invest directly in innovative companies and indirectly through VC firms. Priority was given to strategic sectors such as biotechnology, aerospace and optoelectronics. Also, to stimulate the technological development of SMEs, the SMEs Development Fund was established in 1994 to invest directly and indirectly through government and private VCs. These two large government funds are the government's main investment arms for promotion of innovative firms and stimulation of the growth of Taiwan's VC industry.

With regard to the efficiency and effectiveness of the implementation of VC financing policy, the number of VC funds in Thailand remains small despite government policy of promoting the VC industry. In 2010, only two VC funds applied for VC licenses. The total funds raised in the Thai VC industry accounted for 0.15% of GDP. In the case of Taiwan, the number of new VC investments grew as a result of government tax credit policies aimed at supporting VC companies (the number of new investments grew from 1,155 cases to 1,850 cases between 1998 and 2000). However, the number of investments decreased after the cessation of tax credit. In comparison, as a result of more effective government intervention in Taiwan, firms at the start-up phase or early-growth phase received more financing in Taiwan than was the case in Thailand, where firm financing is more at the later phases, when firms can also get financial support from ordinary financial institutions such as commercial banks.

6.2.5 Capital Market Funding

Establishment of a capital market provides an investment exit through initial public offering (IPO) listings, including IPO exits for VC-backed firms. In Taiwan, there are two stock markets: the Taiwan Stock Exchange (TWSE) and the Over-the Counter Securities Exchange (OTC, also called Gre Tai Securities Market or GTSM). The

Table 6.5 Comparison of capital market funding in Thailand and Taiwan

	Thailand	Taiwan
Main stock markets	SET, MAI	TWSE and GTSM
Stock market for technology-based firms	No	Yes (TWSE and OTC)
Major sector of listing securities	Production, consulting, trading, services	Electronic parts and components, semiconductors, optoelectronics, computer and peripheral equipment
Listing platform to support technology-based firms	No particular rules for technology-based firms	Flexible listing rules for technology-based firms
Effectiveness	No significant impact in terms of increasing number of 'innovative' SMEs	Number of listed companies has increased rather significantly in recent years

Source Constructed by authors

listing rules of the TWSE market are more restrictive than those of GTSM. However, both markets provide flexible market-entry regulations for high-tech industries (assisting high-tech companies to receive sufficient funds for development). TWSE listing rules require that companies receive an appraisal opinion from the central authority, i.e., the Industrial Development Bureau of Ministry of Economic Affairs (MOEA), to demonstrate their capacity to deal with developing technologies. The OTC market, the equivalent of the US NASDAQ, supports high-tech start-ups in particular. It has a flexible listing process for high-tech companies. However, the listing rules of the OTC also require that MOEA provide its professional opinion regarding the ability of the issuing company to innovate. As of 2017, there were 894 companies listed on TWSE and 732 companies listed on the OTC market, which illustrates the policy coordination between listing regulations and overall industrial technology development policy under the supervision of a single agency, the powerful MOEA. It is interesting to see that the creation of a vibrant stock market in the case of Taiwan has led to improved VC performance as the equity capital markets provide jump-start financing for SMEs and new technology-based firms. It is noteworthy that the high-tech industry reaps the largest net profits among all industries (Table 6.5).

In Thailand, the main capital markets are the Stock Exchange of Thailand (SET) and the Market for Alternative Investment (MAI). There is no special capital market set up to finance technology-based firms as is the case in the OTC market in Taiwan. However, it is interesting to see that the MAI attempts to support innovative businesses, including firms with high growth potential in the technology industry. The capital market in Thailand seems to be focused on promoting SMEs rather than driving technology- and innovation-based firms. At present, the MAI market has 64 listed companies with a market capitalization of 12,025 billion baht. Data from interviews of listed firms illustrates that the MAI does not encourage or support listed firms to become more innovative or to conduct sophisticated technological activities. By listing in the MAI, firms gain prestige, which is quite helpful in terms of mar-

Table 6.6 Innovation performance of Taiwan and Thailand

	Thailand	Taiwan
Innovating firms (% of total number of firms) in 2011	20.7	50.2
Number of patents granted by US Patent Office (USPTO) in 2014	125	12,254

Note The data on Thailand's R&D performing and innovating firms is for 2011. The data on Taiwan's R&D performing and innovating firms is for 2000

Sources National Science and Technology Development Agency (NSTDA), Thailand; National Science Council, Taiwan; United States Patent Office (<http://www.uspto.gov>)

keting, raising more capital, and dealing with government authorities, but there are no tangible gains in terms of either product or process development or management practice enhancement.

Differences between Taiwan and Thailand in terms of government policies for the support of innovation have led to different results. In Taiwan there are significantly more innovating firms and more patents registered in the US by Taiwanese firms and entities than is the case in Thailand (see Table 6.6). Interestingly, in 2014 the number of Taiwanese patents granted by the US Patent Office was almost a hundred times that of Thai patents.

6.3 Institutions Affecting Policy Formulation and Implementation

Different institutions in the two countries shape both policy content and policy processes, and, thereby, the policy results of each country. Both countries have managed to use policy instruments to mitigate institutional shortcomings (Table 6.7).

6.3.1 *Unity and Capability of Government Bureaucracy*

There are also bureaucratic differences between Taiwan and Thailand. In Taiwan, most incentives, regardless of types, have been awarded by a single agency, the Ministry of Economic Affairs (MOEA). As a result, there have been no significant problems with policy coordination or turf wars between different agencies. Moreover, MOEA has established and reformed sixteen GSRI that cover most fields of industrial technology, including agricultural technology. The most famous GSRI is ITRI, that serves as MOEA's 'industrial technology development arm' and as an 'intermediary' for resolving conflicts between concerned actors and leading various types of vertical, horizontal and industry-academia cooperation (e.g., R&D consor-

Table 6.7 Comparison of institutions in Thailand and Taiwan

	Thailand	Taiwan
Unity and capability of government bureaucracy	Fragmented: MOST is not an economic ministry, MOI has little role in technology development	Under one strong agency (MOEA)
Perception of roles of government in strengthening private firms	Limited to HR and infrastructure (neoclassical economics and linear model of innovation)	To solve both market and systemic failures; strong ‘selective’ intervention
Corruption and attitudes on corruption	Strong concerns preventing grants/public equity participation, and ‘selective’ policies	Not a significant factor as grants/public equity participation, and ‘selective’ policies are normal practices
Laws, regulations and norms	‘Public money must be recovered’ attitude preventing grants/public equity participation in risky ‘innovation’	No similar concept of public money
Entrepreneurship	Many ‘necessity-based’ entrepreneurs but few ‘opportunity-based’ or Schumpeterian ones. Positive changes in the younger generation	Large number of high-tech startups, especially in ICT, enhanced by attracting Taiwanese entrepreneurs, engineers and managers who used to work in advanced countries
Trust	Limited inter-firm collaboration and university-industry links	Strengthened by intermediaries such as public research institutes (e.g., ITRI)

Source Constructed by authors

tiums). However, the status of MOEA has been weaker since the abolition of martial law in the late 1980s and as a result of recently rising public financial deficit problems (Liu and Wen 2011).

The situation is very different in Thailand, where the Ministry of Science and Technology had not been considered as an ‘economic’ ministry until the present government took power in 2014. The Ministry of Industry, on the other hand, pays little attention to the development of indigenous capability of firms. Innovation financing schemes executed by the ministry are very limited. Also different from the case of Taiwan, in Thailand there are Research and Technology Organizations (RTOs) under the ministry which can function as industrial technology development arms and as intermediaries in sectoral and regional innovation systems.

6.3.2 Perception of the Role of Government in Strengthening Private Firms

Government officials in Taiwan are keenly aware that both market failures and systemic failures prevent firms from developing technological and innovative capabilities and innovation systems from functioning successfully. There are many schemes for overcoming such failures, including direct grants and public equity participation. These schemes are almost non-existent in Thailand, in terms of both variety and amount of support, largely because there is a long-standing reliance on neoclassical economic thinking among Thai bureaucrats, who believe that the market mechanism is the best for allocation of resources. For that reason, it is widely held that government intervention should be limited; firms should be able to help themselves, and government roles should be limited to providing adequate infrastructure and a favorable business environment with transparent and stable rules. Selective financing innovation policies aimed at supporting particular sectors, cluster, types of firms, or activities are viewed as market distortions. Given that atmosphere, there are few grant and public equity participation schemes, and even fewer selective ones, in Thailand. On the other hand, S&T policy making has largely been in the hands of scientists who believe in a 'linear model of innovation.' As a result most schemes focus on R&D and neglect other aspects of capability development including production, engineering, design, problem solving, and utilization of other firms' knowledge and intellectual property rights. Since innovation is often narrowly viewed as 'commercialization of R&D,' other types of innovation which are not R&D-led, such as new services, new business models, new applications and solutions are widely ignored, unlike the situation in Taiwan.

6.3.3 Corruption and Attitudes Toward Corruption

Corruption brings extra costs to doing business. It is a greater concern in Thailand than in Taiwan. In societies where corruption is rampant and people are afraid of corruption, new policy initiatives are often viewed with skepticism, reflecting concerns that these policies will favour particular parties. This is one of the main reasons why grants and, to a lesser extent, direct equity participation from government, are very few, and why R&D tax incentives require project by project scrutiny in Thailand, where there are serious concerns about nepotism and cronyism. Similarly, selective policies targeting particular industrial sectors, types of companies, products, and activities are also subject to this negative view. As a result, selective policies are very difficult to realize in Thailand.

6.3.4 *Laws, Regulations and Norms*

Laws, regulation and norms can limit the policy makers' choices of incentive schemes. They also can reduce the effectiveness of those schemes. In Thailand, there is a widely accepted notion of how 'public money' should be used: public money must be recoverable; it should not be spent in ways that do not generate returns, even if such spending is done with good intentions; and the government officials who authorize such spending should be individually accountable for mistakes that arise. Therefore, grants, and even direct equity participation by government in risky corporate activities or in particularly risky types of firms such as startups, are quite rare in Thailand.

6.3.5 *Entrepreneurship*

The effectiveness of public innovation schemes is heavily contingent on the firms' contribution to innovation processes through their culture and management practices. Government support will only have a positive influence on firms' innovation performance if those firms have good entrepreneurial management practices. More and more entrepreneurs are able to see business opportunities in high-tech industries in Taiwan. Also, Taiwan has been successful in bringing entrepreneurs and professionals back to Taiwan to work in TNCs, Taiwanese firms, and government agencies, and to start new businesses, especially in the electronics industry. Though foreign direct investment and the global production networks of transnational corporations have played important roles in providing business opportunities to local Taiwanese companies, technology transfer and technological upgrading of local Taiwanese firms in the electronics, machinery, automotive parts and components sectors did not occur automatically. Taiwanese firms attained 'second mover advantage' by entering markets faster than other latecomer firms, ramping-up their production, achieving economies of scale, and continuously upgrading their technological and managerial capabilities (Amsden and Chu 2003). In Thailand, however, Thai firms were much slower to enter markets and develop their own capabilities. Attempts to encourage innovative startups have not been very successful either, as there is a lack of 'opportunity-based' entrepreneurship (where entrepreneurs seize and execute risky opportunities through innovation). On the other hand, there is plenty of 'necessity-based' entrepreneurship (i.e., people become entrepreneurs because they need to do so to survive economically) as in the case of street vendors.

6.3.6 Trust

The effectiveness of the financing of innovation schemes depends on societal trust. In Thailand, inter-firm collaborations are relatively few because of a lack of trust among firms. Policy instruments might help to overcome that obstacle, but they pose a considerable challenge. In Taiwan, GSRI such as ITRI acted as intermediaries linking competing firms through mechanisms such as R&D consortia, where participating firms and GSRI cooperate in costly and risky 'pre-competitive' stage R&D before the individual participating companies set out to develop their own branded versions of products based on the outputs (such as prototypes) of the R&D consortia. This practice is not seen in Thailand.

6.4 Conclusion

The results of this comparative study of Taiwan and Thailand are summarized below in terms of lessons learned and policy implications for technological upgrading and innovation in the manufacturing sector.

Firstly, in Taiwan the more successful of the two countries, there is co-evolution of policy instruments and levels of technological and innovative capability of firms. The enhancement of various technological and innovative capabilities does require different policy instruments. The ability to initiate and implement new policy instruments to suit the changing needs of firms at different levels of capability over time is critical. Policy makers in both countries must understand the current needs of firms and the technological barriers they face. 'Me-too' strategies based on copying other countries (countries which no doubt have different needs and face different challenges) are extremely unlikely to be effective.

Secondly, more successful countries such as Taiwan have a greater flexibility and stronger policy coordination and learning capacity. Their governments offer a much greater variety of policy instruments and cater to them 'selectively' to meet the particular needs of industrial sectors, clusters, technologies, types of firms and even individual firm demands. Incentives should be formulated and executed so that they are mutually complementary and should contribute to overall industrial technology development strategy, as was the case in the mandate of MOEA to evaluate the prospects of newly listed firms in Taiwan's stock markets. In addition, when incentives do not work for some particular types of firms, it should be possible to adjust them to meet the demands of those firms.

Thirdly, developing the technological and innovative capabilities of firms takes considerable time. The size, duration and continuity of government support schemes are crucial. Those schemes should reflect policy priorities and government commitment. The policies and practices of Taiwanese government illustrate its commitment to offering such schemes.

Fourthly, policy makers must have a deep understanding of the nature of innovations and innovation systems, and how they evolve over time. This is an important prerequisite for formulating effective policies. There is a sharp contrast between Thailand and Taiwan regarding the formulation of policy measures. While Thailand has focused narrowly on R&D-led innovation, Taiwan broadened its incentives to other types of activities important to innovation processes, both in-house and beyond the boundaries of the individual firm. Incentives can also be provided to cover innovation types including services, business models and solutions.

Fifthly, technology upgrading and innovation policy formulation require corresponding policy initiatives if they are to work successfully. Also very necessary are government initiatives that produce qualified human resources, attract foreign talent, and help organizations to work together. An example of the needed synergy is Taiwanese government's success in educating technicians, engineers and researchers. The density of researchers in Taiwan has increased from 311 per one million population in 2009 to 5,200 in 2014. Also, Taiwan, unlike Thailand, has succeeded in bringing back talented Taiwanese who had been studying and working in advanced countries.

Last but not least, the choices related to and the effectiveness of implementation of these policies are shaped by institutional factors including laws and regulations, unity and capability of government bureaucracy, trust, entrepreneurship, attitudes toward corruption and the role of government in supporting private firms. It is important to bear in mind that to some extent institutional shortcomings can be corrected. Successful countries can use incentives and other government mechanisms (e.g., GSRI as intermediaries in innovation systems in Taiwan) and initiatives to overcome these shortcomings or at least mitigate their impact.

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Chapter 7

Changing Resource-Based Manufacturing Industry: The Case of the Rubber Industry in Malaysia and Thailand



Motoko Kawano

Over more than fifty years, the economies of Malaysia and Thailand had relatively high average growth rates that allowed them to move from low-income to upper middle-income status. They were dealt a big blow, however, by the 1997/98 financial crisis. Although their gains from the previous growth were not completely erased by the crisis, neither country ever fully recovered from the adverse impacts. They have since been thought to have fallen into the “middle-income trap,” given their extended period of “dangling in middle status” and a decline in productivity growth (Agenor et al. 2012; Felipe et al. 2012; Aiyar et al. 2012).

In a review of previous studies of the middle-income trap, Doner (2016) suggested that moving beyond middle-income status, among others, requires industrial upgrading from input-based to innovation-based production (of goods and services) to raise value added and to achieve higher efficiency in exports (in terms of price, quality, and delivery). In contrast to highly industrialized economies, however, emerging countries typically have a low level or even absence of technological capabilities for this kind of transformation (Bell and Pavitt 1995; Bell and Figueiredo 2012). Latecomers in manufacturing have to learn basic knowledge and technology before moving toward technological upgrading. To avoid the middle-income trap, it has been argued, three related factors are essential: policies to improve education, infrastructure, and research and development (R&D) (Agenor et al. 2012); institutional strength to support “national innovation systems” composed of local firms, private sector associations, government agencies, and academic institutions (Harrison and Rodrigues-Clare 2010); and close business-government collaboration (Doner and Schneider 2016). However, these factors are not easily available in the middle-income countries. Not only do they require specialized information, efficient cost management, and the participation of various actors, but they may also be hampered by conflicts between old and new interest groups (Aoki 2014; Doner 2016).

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K. Tsunekawa and Y. Todo (eds.), *Emerging States at Crossroads*,
Emerging-Economy State and International Policy Studies,
https://doi.org/10.1007/978-981-13-2859-6_7

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In Southeast Asian economies, a large part of rapid growth has often been attributed to the development of the manufacturing industries, especially foreign direct investment (FDI)-led export-oriented industries. Even so, the contributions of local production of natural resources and resource-based industrial goods should not be underestimated (Khoo and Tsunekawa 2017). The economic growth of many Southeast Asian countries was historically based on natural resources including rubber, oil palm, and rice. These and other commodities still make important contributions to the national economy despite the expanded importance of the export of machinery and equipment.

The purpose of this chapter is to explore the development potential of resource production and resource-based manufacturing industries by focusing on the rubber industry in Malaysia and Thailand. These two countries have been leaders in the production of natural rubber (NR) since the 20th century. After the 1997/98 crisis, the production and export of NR-based products grew in both countries.

However, the timing and sectoral composition in the development of the rubber industry are different in the two countries. Malaysia pioneered the production of raw rubber (the upstream segment of the rubber industry) and intermediate goods (the midstream segment), but its upstream production declined after the 1970s. In contrast, raw rubber production sharply expanded in Thailand, surpassing Malaysia in both production and export by the early 1990s. The development of the downstream segment also contrasts between the two countries. In Malaysia, local manufacturing firms entered the export market of rubber products in the 1980s mainly as original equipment manufacturer (OEM) for foreign customers. In the next decades, some of the local firms achieved key technological innovations in downstream activities and became market leaders in rubber products such as disposable medical gloves. In contrast, Thailand's downstream segment was dominated by foreign tire makers. Only recently has Thailand seen the emergence of young innovative entrepreneurs who attempt to emulate the success of their Malaysian counterparts.

After looking at the outlook of the rubber industry in the two countries, Sects. 7.2 and 7.3 will trace the development of the NR production and rubber-based manufacturing industries in Malaysia and Thailand, respectively. These sections will elucidate the reasons for the different timing and sectoral composition in the development of the rubber sector of the two countries. It will become clear that in spite of such differences, the two countries share a development pattern in one important respect: The public sector played a crucial role in the development of the upstream segment, while the successful development of the downstream segment largely depends on innovative activities of private entrepreneurs to explore niche international markets for specialized rubber products.

As just a short note, the use of the term "resource processing" in this chapter slightly differs from its use in Chap. 1. Chapter 1 treats both the midstream and downstream segments as resource processing industries. This chapter distinguishes the downstream segment from the midstream segment and calls the former the "rubber-based manufacturing industry." This is to suggest that rubber-based manufacturing production can be regarded as well-established to lead technological upgrading in a middle-income country.

7.1 Outlook of the Rubber Industry in Malaysia and Thailand

The first rubber plantations were established in Malaya in 1896, and rubber cultivation expanded thereafter in Southeast Asia, especially Malaysia and Indonesia, due to the global demand for automotive tires. For some time after the Second World War, the consumption of NR declined due to its growing substitution by synthetic rubber (SR) produced from petroleum.¹ Since the 1980s, however, “oil shocks” and high crude oil prices, reassessments of the qualities of NR, and the use of the radial tire were combined to reverse the declining trend in global NR consumption.

More recent global developments altered the structure of world demand for rubber. Rapid industrialization and urbanization in Southeast Asia since the 1990s, as well as the economic growth of China and India, boosted the demand for rubber in the manufacturing of tires and other industrial goods. From the late 20th century, moreover, awareness of the risks of HIV/AIDS, SARS, and avian influenza, as well as advances in medical technologies, raised the demand for medical examination gloves and condoms (Kano 2014; Kawano 2017). The world’s NR consumption increased from 5.4 million tons in 1993, to 8.7 million tons in 2005, to 12.15 million tons in 2015 (IRSG various years).² Malaysia and Thailand’s rubber industries took advantage of the rising global demand of NR, but in different ways.

Whereas Malaysia was the world’s largest producer and exporter of natural rubber for much of the 20th century, it was only the sixth largest producer and exporter in 2015. In contrast, Thailand is now the largest producer and exporter, followed by Indonesia, Vietnam, China, and India.

In 2015, NR exports from Thailand and Malaysia were valued at \$4,977 million and \$871 million, respectively (GTA 1998–2014). Since 2011, the NR export value has actually declined significantly following the decrease in the international price. However, the export quantity increased in Thailand, which indicates that the demand for NR continues to be solid. Furthermore, Malaysia and Thailand have seen the development of rubber-based manufacturing industries. Malaysia even succeeded in manufacturing high value-added products.

Figure 7.1 shows Malaysia’s exports of NR and rubber-based manufactured products from 1998 to 2013. The left axis indicates the export value of NR (raw rubber and processed rubber products such as technically specified rubber, ribbed smoked sheets, and latex concentrate). The right axis indicates the export value of gloves and other latex products, tires, and other manufactured products. Exports of gloves and other latex products have increased to a great extent, but the tire production has been stagnant, reflecting the failure of the national car project. In contrast, local private firms responded successfully to the new market opportunity opened by the

¹NR includes raw rubber and partially processed intermediate products.

²The main uses of NR and SR are as follows: tires (76%), industrial rubber manufactured goods (12%), and latex products including surgical rubber gloves, medical catheters, and condoms (12%) (IRSG various years).

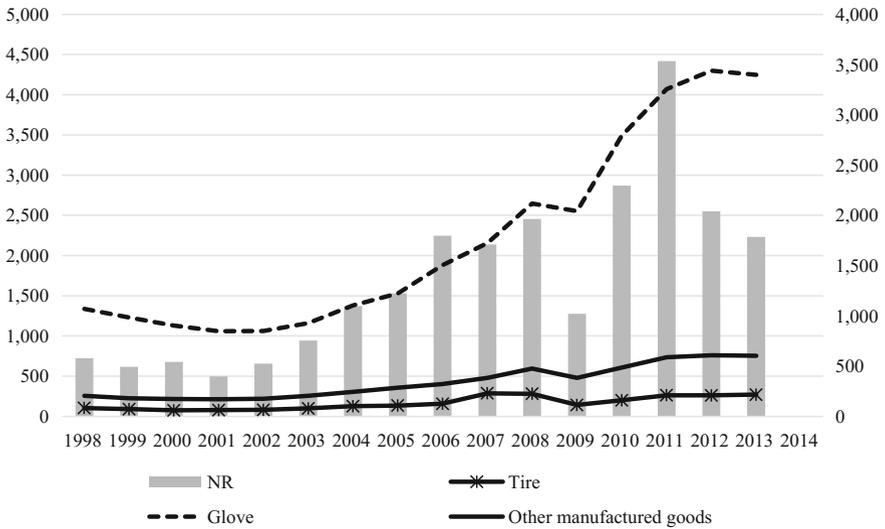


Fig. 7.1 Export of NR and rubber-based manufactured products in Malaysia, 1998–2013 (million \$). *Note* “Tire” excludes retread tire; the latter is included in “Other manufactured goods.” *Source* Constructed by the author from GTA (1998–2014)

spread of the HIV/AIDS risk. Malaysia today has a 63% share of the world market for examination gloves.

Figure 7.2 indicates that Thailand’s export value of NR exceeded Malaysia’s by the end of the 1990s. Thailand also saw the development of rubber-based manufacturing. Different from Malaysia, however, Thai rubber manufacturing has been led by the tire industry, in which large foreign firms are dominant.

7.2 Development of the Rubber Industry in Malaysia

To understand the development potential of the rubber industry in Malaysia and Thailand, we need to consider it as being composed of various activities in the rubber-related value chain. The value chain is the full range of activities conducted during different phases of production, delivery to final consumers, and various supportive activities (technology development, building of infrastructure and capital equipment, and human resource management). The rubber-related value chain has three segments. The upstream segment involves raw rubber cultivation and harvest through tapping. The midstream segment processes raw rubber into three types of intermediate products: technically specified rubber (TSR), generally called block or standard rubber; ribbed smoked sheet (RSS); and latex concentrate. The downstream segment covers the manufacturing of diverse rubber-based products for transportation

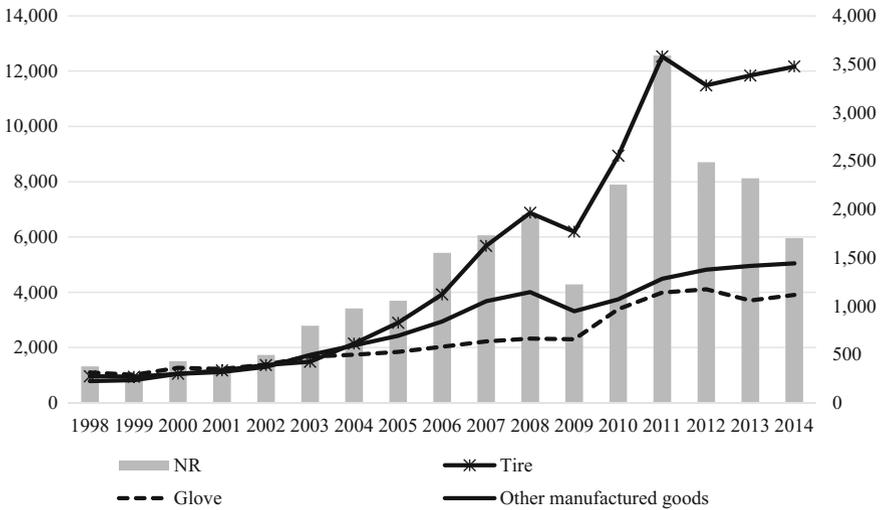


Fig. 7.2 Export of NR and rubber-based manufactured products in Thailand, 1998–2013 (million \$). *Note* “Tire” excludes retread tire; the latter is included in “Other manufactured goods.” *Source* Constructed by the author from GTA (1998–2014)

(tires, belts), industry (plates, bearings), general use (threads, shoes), and hygiene and medical application (gloves, condoms).

7.2.1 Upstream Segment

The development of the upstream segment of the Malaysian rubber sector was greatly helped by the public sector. The technological and productive foundations of the Malaysian rubber sector were shaped by a legacy of colonial R&D, government policies for socioeconomic restructuring, and demographic/geographic conditions (relatively small population and narrow land areas). The demographic conditions partially resulted from the government policy implemented after the 1970s.

Malaysia’s R&D in the rubber industry has a long history. To upgrade the upstream segment, the Rubber Research Institute of Malaysia (RRIM, now renamed the Malaysia Rubber Board, MRB) played a central role. It was established in 1925 by the colonial government against a background of declining and fluctuating rubber price during the 1920s. Not only was rubber an important export commodity for the British Empire, but the revenues it earned were crucial for the budget of British Malaya. Before independence, the RRIM’s R&D concentrated on improving methods of cultivation, pest control, processing, and developing high-yielding clones. The RRIM established a laboratory and a library for recording data, archiving research

papers, disseminating new knowledge, and providing advice to smallholders (MRB 2000).

The most crucial goal of upstream R&D was to improve the yield of raw rubber production. Malaya developed the technology for producing high-yield clones as far back as the 1920s. The first series of clones, RRIM 600, gave an average annual field latex yield of 800 kilogram per hectare (kg/ha).

Independent Malaysia inherited a vibrant rubber sector. Its economy depended heavily on rubber (and tin) exports. The NR production accounted for just under 30% of national revenue, 30% of total employment, and 60% of total exports. In an effort to avoid “mono-culture,” and in response to competition from synthetic rubber and slumping rubber prices, Malaysia gradually diversified into oil palm cultivation (MRB 2000, 2005). However, the NR production continued to be among the most important economic activities.

After independence, the RRIM continued to develop high-yield clones and encourage their use in replanting (MRB 2000). During the 1960s, high-yield clones covered 60% of the rubber land of smallholders (Doshi 1988; Iwasa 2005). In line with the Mahathir government’s Industrial Master Plan I (IMP I) and Industrial Master Plan II (IMP II), the production of the RRIM 900 series of seeds raised the average annual latex yield to 1500 kg/ha by the 1990s. With its innovations in cloning technology, rubber R&D helped to keep the rubber industry of Malaysia ahead of its competitors (Ong 2001; MRB 2009, 2013). At the same time, the RRIM improved methods of cultivation and pest control and provided advice or training courses to planters.

The Federal Land Development Authority (FELDA) is another public institution that deeply affected the transformation of the rubber sector by its land resettlement program. The FELDA resettlement scheme aimed at reducing rural poverty by helping Malay people become independent farmers. Some of the beneficiaries of the FELDA program were engaged in the NR production and received technical assistance from the RRIM, as discussed above.³

Subsequently, however, the deep economic transformation under the New Economic Policy (NEP) brought an unexpected result to the Malaysian rubber sector. The expansion of urban manufacturing industries lured rural Malay youth away from tough and low-paying jobs for the NR production. While the influx of foreign workers dampened the rural wages (Pillai 1992; Rema Devi 1996), the NEP fostered the sense among Malays that they were entitled to better paying urban jobs (Horii 1990, 1991; Iwasa 2005). Consequently, the NR production was increasingly left in the hands of the aged population, which made the maintenance of high quality and high production difficult in Malaysia. Ironically, Malaysia faced insufficient domestic supply of NR when its successful downstream firms needed a greater amount of raw materials, as we will see below.

³However, the life of many small farmers was stressful because they had to bear financial burdens not only for living expenses during the 6–7 years before the rubber trees became available for tapping, but also for replanting costs and export taxes (Doshi 1988; Iwasa 2005). The poverty reduction proceeded slowly. Between 1970 and 1984, Malaysia’s household poverty rate was reduced from 56.7% to 20.7%.

Presently, Malaysia's raw rubber yield is no longer higher than Thailand's. Malaysia's annual average yields of 837 kg/ha in 2010 and 838 kg/ha in 2015 were considerably lower than Thailand's corresponding yields of 1,319 and 1,523 kg/ha (IRSG various years). A big gap exists between the yield produced in a research laboratory and that obtained in actual production.

7.2.2 *Midstream Segment*

It was again public institutions that crucially contributed to the technological upgrading in the midstream segment of the Malaysian rubber industry. When the SR production expanded, B. C. Sekhar, an Indian Malaysian researcher at the RRIM, who had overseen various R&D achievements since the colonial era, realized that the future of NR would depend on competition with SR on the latter's terms and in its markets. He invented a new block rubber processing to produce TSR. It took several years and global promotion efforts for the TSR to be accepted by Malaysia's major customers, especially European tire makers. By the 1970s, Dunlop, Michelin, and other European tire manufacturers accepted the Malaysian block rubber (MRB 2000, 2005).

Sekhar also took initiative in sending young scientists of diverse ethnic backgrounds to study in the United States and United Kingdom. Those scientists returned to the RRIM with cutting-edge knowledge. Later, some of them joined the private sector and contributed to its growth (Pong 2016). In addition, the RRIM's research initiatives formed an important basis for cooperation between government agencies and private firms (Interview 2). One important example is the establishment of the Malaysian Rubber Research and Development Board (MRRDB) for the purpose of public-private R&D cooperation (MRB 2007).⁴

Subsequently, R&D activities in the midstream segment became ineffective because the NEP was implemented, and its "Malay quotas" caused the departure of many non-Malay researchers from the RRIM. This "brain drain" apparently brought about a serious decline of creativity and competitiveness.

Another research institute, the Tun Abdul Razak Research Centre (TARRC), also contributed to the development of the midstream segment. This research institute had been established in England in 1938 as the British Rubber Producers' Research Association but maintained close connections with the public sector. With the Malaysian government's budgetary support, the TARRC was designated to be the RRIM's (later MRB's) global center of excellence for rubber-related science, technology, and applications (TARRC 2013; MRB 2007). The TARRC's principal work covered basic

⁴Malaysian researchers also took the lead in creating a global rubber R&D network. They were convinced that no single country could bear the entire R&D burden and that producing countries should support international rubber organizations (MRB 2009). With the spirit of international cooperation, Malaysia supplied the RRIM 600 seeds to Thailand, Vietnam, Cambodia, Myanmar, and other countries. Malaysia also supplied its new TSR processing technology to the latecomers and even permitted each recipient country to give its own name to the technology.

research for practical uses of rubber. Recently, the TARRC developed a new kind of dry rubber and supported joint R&D projects between the MRB and Malaysia's local retread tire makers to develop commercial application of the new dry rubber for the production of "Ekoperena" or "green tires" (TARRC 2013).

7.2.3 *Downstream Segment*

The downstream segment of the Malaysian rubber sector started to grow under the NEP, but its growth rate was less than the average of the manufacturing industries. It was during the period of Mahathir's promotion of heavy and chemical industries (through IMP I and IMP II) that the rubber-based manufacturing industries really took off. The IMP II, for instance, aimed at, among others, developing new production methods and new materials for industries, including tires, automobile parts, construction goods, and gloves. For this purpose, public institutions were again engaged in R&D activities; in 1998, the MRB was designated an "umbrella institution" that would integrate the RRIM and the MRRDB to conduct joint efforts for rubber R&D. However, the public research institutes could not bring good results comparable to the achievements in the upstream and midstream segments. The failure in the tire industry was especially noticeable.

Nonetheless, the spread of HIV/AIDS gave a special impetus to the RRIM's renewed efforts in rubber glove production. The boom in latex glove usage followed the HIV/AIDS epidemic of the late 1980s. The United States recommended that blood and bodily fluid transmissions be monitored and medical examination gloves be worn for barrier protection. This led to a sudden upsurge in the US import of gloves (especially disposable examination gloves) from 3.9 billion pieces in 1989 to 25.29 billion in 1998 (Ong 2004). A further boost in the usage of medical examination gloves and condoms came with the outbreaks of SARS and avian influenza.

To take advantage of the unexpected opportunities, the RRIM strengthened the upgrading effort for rubber glove R&D. This time, the TARRC joined the endeavor. Its laboratory contributed to developing basic technologies to produce thin, soft, and cheap gloves and passed them to the RRIM for the development of final marketable products (MRB 2000, 2009; TARRC 2013).

Generally speaking, large foreign firms that have abundant financial resources and an assured access to the global market are more competitive than local firms in the development of final products. However, in the case of the rubber glove, it was local entrepreneurs of Chinese descent who successfully developed and marketed high-quality gloves using the basic technologies developed by the public research institutes.

By 1990, approximately 250 rubber glove companies, including foreign enterprises mainly from Taiwan and the United States, were set up. However, the economic recession triggered by the 1997/98 financial crisis caused the number to fall to less than 100 by 2005. At least twenty Taiwanese factories and more than ten American factories ceased operations in Malaysia, primarily because of lower profit

margins due to increasing competition and weak linkages with local suppliers (Interview 2). Coincidentally, several cases of latex protein allergic reaction were reported by the Food and Drug Administration (FDA) of the United States. To respond to this problem, the US and European governments raised their licensing standards for medical latex gloves in 1997 to provide viral barrier protection and pre-empt allergic reactions to latex protein (Ong 2004). The Chinese-Malaysian entrepreneurs took advantage of the new standards to capture the global market by quickly developing allergy-free gloves.

Today, Malaysia's rubber glove industry shares 63% of the world's medical examination glove market (Nopkit 2017). This success greatly owes to technological innovation realized by Chinese-Malaysian firms, notably Top Glove and Kossan. They are the world's largest and second largest glove makers. Their R&D activities have been characterized by entrepreneurial astuteness to pursue niche advantages. In advancing from the initial to higher stages of innovative activities, Top Glove and Kossan showed similar trajectories. Both firms initially acquired basic knowledge and technology from the MRB. At the intermediate stage, they gained from public assistance in the provision of technologies of practical use (Kawano 2017). However, at the highest upgrading stage, Top Glove and Kossan relied on their own efforts to develop human resources and in-house R&D and to formulate business strategies to secure niche markets in the developing countries or low-income countries not targeted by multinational pharmaceutical companies. In these markets, Top Glove and Kossan operated as original design manufacturers (ODMs) and original brand manufacturers (OBMs). However, they remained in the OEM business to keep cordial relationships with foreign pharmaceutical customers. This is because they understood that glove manufacturing is a niche industry tied to natural resources susceptible to price fluctuations on the one hand and subject to market control by foreign pharmaceutical companies on the other. Top Glove and Kossan departed from the "catching up" strategy central to the East Asian development model; their business strategies combined catching up and reaching down to create original development styles. Their development paths indicate alternative ways of acquiring and creating the technological and managerial capacity to innovate (Kawano 2017).

The founders of Top Glove and Kossan were strong leaders who charted their firms' development trajectory amidst growing complexity and turbulence in the business environment. They had exceptional foresight, determination, and a sense of independence. Without much government assistance or the legacy of big family businesses, the two Chinese Malaysians with higher education and some business experience searched for knowledge, strategies, and solutions that allowed their firms not only to survive but to expand and progress.

Because foreign firms are not reliable in the dissemination of technological knowledge to local firms (Doner 2016), the public sector needs to help them, especially in the early stages of basic technological learning and adaptation. These stages require the mastery of basic knowledge and technology over a long period of trial and error, which requires large R&D expenditures. In the commercialization phase, however, efforts by private firms themselves become crucial. Ong Eng Long, former deputy director of the MRB, and technology advisor to Kossan, said, "Malaysia already

moved to the manufacturing segment with the decline of the NR production. Its rubber industry should create other ‘niche’ manufactured goods for a better future. Therefore, we have to consider making stronger public-private linkages and sector business associations” (Interview 2).

7.3 The Development of the Rubber Industry in Thailand

7.3.1 *Upstream Segment*

The upstream segment of the Thai rubber industry has been a great success in which the public sector has played an important role. The basic knowledge and technology of NR were learned from Malaysia; the government agrarian development policy helped overcome natural environment problems such as inadequate rainfall and soil.

The upstream segment in Thailand started to expand only in the late 1980s, much later than in Malaysia. As the only country in Southeast Asia that was never colonized, Thailand barely had any big plantations, and most of its NR production was carried out by smallholders (Barlow et al. 1994). Rice being the most important commodity in the Thai economy, neither state nor society paid much attention to rubber except in the southern region. However, when Malaysia diversified into oil palm cultivation, the Thai government foresaw an eventual shortage of rubber in the market and considered the potential for rubber cultivation in North and Northeast Thailand. An experimental plantation was set up in the Chachoengsao Rubber Research Center. The success of this plantation led the government to launch its rubber promotion policy in 1989, encouraging rubber cultivation in the North and Northeast. The first phase of this policy (1989–1996) saw the expansion of rubber cultivation by approximately 280,000 rai (44,800 ha) in the Northeast. The second phase (1997–2001) targeted an additional 200,000 rai (32,000 ha) (Fujita 2016).

Policy implementation was not effective in the first phase. However, the adverse political impact of the 1997/98 crisis gave Thaksin Shinawatra a chance to alleviate the urban-rural divide by expanding rubber cultivation as part of overall agrarian development. The Thaksin government adopted a rubber promotion policy called the “one million rai project” (especially for the North and Northeast). However, the expansion of rubber-planted areas did not really take off until after 2003.⁵ The most difficult problem was the unsuitability of the natural environment. Unlike the South, the North and Northeast of Thailand have lower rainfall, generally insufficient for *Hevea brasiliensis* (*para rubber*), the species of rubber tree that requires an annual average rainfall exceeding 1,600 mm. To overcome this obstacle, the government set up four rubber research centers, including Chachoengsao Rubber Research Center and Nong Khai Rubber Research Center in the Northeast area. These centers conducted R&D activities in experimental plantations to create new clones suitable for

⁵Presentation by Fujita, Wataru “Social Adaptation to Rubber Boom” in Consortium for Southeast Asian Studies in Asia (SEASIA) 2017, Chulalongkorn University, December 16–17, 2017.

the new planting areas in the Northeast. The original prototype clone, RRIM 600, was sourced from Malaysia. Experiments with combinations of different types of seeds took a year to produce new prototype clones and seven additional years for selective planting and testing on actual production areas (Interview 5, 6; Fujita 2016).

High-yield clones were finally developed and helped to expand rubber areas, especially in the North and Northeast. In 2014, the South still had the largest raw rubber production area, totaling about 14 million rai (or 62.9% of total rubber fields in Thailand). The Northeast region had 4.4 million rai (19.8%); the Middle (East) region had 2.6 million rai (11.8%); and the Northern region had 1.2 million rai (5.5%). The yields of raw rubber were 1,738 kg/ha in the South, 1,788 kg/ha in the Central region, 1,700 kg/ha in the Northeast, and 1,569 kg/ha in the North. This means that the productivity of the Northeast caught up with the traditional South and Central areas (OAE 2014).

Three points about the strengths in the upstream segment deserve attention. First, there has been a successful transfer from Malaysia to Thailand of basic knowledge and technology (including the methods of cultivation, pest control, processing, and the development of high-yield clones), as well as new knowledge concerning smallholders' production and replanting. Thailand was fortunate to have Malaysia, the former world leader of rubber production, as its neighbor (Kawano 2015). Second, the successful development of better clones raised yields above those of its competitors: Thailand's yield in 2011 was 1,374 kg/ha, compared with 1,140 kg/ha in India, 844 kg/ha in Vietnam, 843 kg/ha in Malaysia, and 663 kg/ha in Indonesia (IRSG various years). The key contributions were made by several government agencies. The Office of Rubber Replanting Aid Fund (ORRAF) led smallholders to replant rubber trees, and the Rubber Research Institute of Thailand (RRIT various years) developed new, high-yield clones and offered agricultural extension services (Interview 5).

On the private-sector side, the Japanese tire maker, Bridgestone, encouraged rubber processing firms to improve the quality of NR, which will be described later. The rise in the yield reflected efficiency in planting and the collection of field latex. Third, Thailand differs from Malaysia in having vast areas and a large rural labor force in the North and Northeast regions. The subsequent boom in China's NR demand emboldened planters to cultivate rubber without further support from the "one million rai project."

External demand for NR was a crucial factor in changing the structure of Thailand's rubber exports. China's makers of tires and rubber industrial goods and Malaysia's producers of gloves were the main customers of Thailand's NR. Between 1996 and 2014, China's demand for NR rose about five-fold, while Malaysia's grew 3.5 times. This new direction of NR exports offset the declining or stagnating NR export to developed countries such as the United States, Japan, and the EU (IRSG various years).

7.3.2 Midstream Segment

The technology of the midstream segment is relatively undeveloped in Thailand. It was foreign firms that provided certain opportunities for its development.

In the late 1970s, raw rubber was mainly used to produce RSS and TSR. The TSR production was based on the technology transferred from Malaysia. These two types of processed rubber are used for making tires. Traditionally, NR-producing countries tend to export to selected destinations. Malaysia's largest customer was Michelin in France, while Indonesia's largest customer was Goodyear in the United States. Most companies ignored Thailand because its RSS was of low grade (Suehiro 1989).

In this situation, Bridgestone emerged as a new customer for Thailand. Until the late 1970s, Japanese tire makers lagged behind American and European tire companies. Even as they gained a larger share of the global tire market, Japanese companies were only able to make cheaper tires using low-quality raw materials and low-level technology. However, when one of the Japanese companies, Bridgestone, relocated some of its production facilities to Thailand, it eventually brought a radical change to the Thai rubber industry. The company brought profound transformation of the production and distribution systems in Thailand that was popularly dubbed the "Bridgestone Revolution." Bridgestone introduced the process management system, skill training, new and faster container-based transportation methods, and direct NR purchase from smallholders. The production of RSS in Thailand increased, with most of the output being exported to Japan until the 1990s (Suehiro 1989).

Thanks to the successful type of export, the number of local NR processing firms increased. However, the quality of the Thai products are not of the highest grade. Although Thailand was strong in RSS production, TSR would enable easier inspection and standardization. Furthermore, the latex concentrate in Thailand is often not good enough to produce surgical gloves for medical operations, which require NR of the highest grade (Doner and Abonyi 2013; Interview 2). Compared with Malaysia, Thailand has lagged behind with respect to investment in innovation of the midstream segment.

7.3.3 Downstream Segment

The Thai rubber industry has performed fairly well in its downstream segment, as shown by the large expansion in the export of automobile tires. However, quite unlike the rise of local firms in Malaysia's glove manufacturing, the emergence of tire manufacturing in Thailand has been led by foreign firms. This difference partially accounts for Thailand's lower performance in the downstream segment in comparison with Malaysia. First of all, the number of domestic rubber manufacturing firms is relatively small in Thailand. Diverse rubber products were manufactured by no more than 216 rubber manufacturers in 2014 (RRIT various years). In contrast, a small number of foreign firms (such as the large tire producers) receive roughly

80–90% of the rubber industry's revenue. In fact, Thailand is the world's second largest producer of examination gloves, having 17% of the market (Nopkit 2017). The gloves are produced by about 45 foreign and local companies, mainly those located in Southern Thailand (T.R.I. Global 2016). Even so, foreign companies from Malaysia, China, India, and Australia operate the large facilities producing higher grade products (Interview 4). Moreover, Thai public research institutes are weak in R&D for downstream activities. Facing economic uncertainty, the rising influence of China, and stronger competition from neighboring countries, the Thai rubber industry will need to shift more clearly to high value-added rubber-based manufacturing. To do so, a broader involvement of the government and public research institutes in R&D activities will be required.

However, a new trend of public sector initiatives has emerged in the downstream segment. The increasing rubber demand from China gave the current Prayuth regime the opportunity to pursue a new development of the rubber industry by using foreign investment, especially from China. One big project is to build the Rubber City at the Southern Industrial Estate located in the Songkhla province of Southern Thailand. The land size is 1,218 rai (194 ha). It is designed to be an industrial cluster in which adequate infrastructure, services, and management assistance support the whole value chain of the rubber industry. The construction of the Rubber City is expected to be completed in 2018 (T.R.I. Global 2016; Industrial Estate Authority of Thailand 2015).

In addition, in 2015, the Songkhla University signed a memorandum of understanding (MOU) with the Qindao University of Science and Technology and the Rubber Valley Group from China to introduce joint-double degree programs focusing on learning about rubber products, particularly tires. These close connections with China and the collaboration between universities and the private sector are more abundantly available for Thailand than for Malaysia and may contribute to future development of the downstream segment of Thailand (Interview 1; Prince of Songkla University 2016).

Another important development in the rubber industry was the enhancement of R&D for higher value-added products and processes, especially in the downstream segment. The Prayuth government established the Natural Rubber Innovation Research Institute at Prince of Songkhla University in Hat Yai, Songkhla province. The Songkhla province has a long history as a center of rubber planting and trading as well as a site of foreign investment precipitated by its geographical proximity to raw material production. Based on these conditions, the Prince of Songkhla University has developed rubber technology and polymer science, and the central government selected Songkhla University as the rubber innovation research institute and gave it a big grant in 2015 to support a five-year project aiming at developing new technologies and products for practical use (Interview 1).

However, as Malaysia's experiences show, the development of globally exportable goods is not easy. Thailand may be at a crucial moment in which it is seen if Thailand remains a follower or steps forward as a global leader of rubber manufacturing.

On the other hand, a new and important corporate trend has appeared in the Thai private sector. Some of the big family business companies, especially the so-called "Five Tigers," have entered the glove manufacturing sector. They learn technology

from foreign companies or improve their methods of business management. As in Malaysia, younger generation entrepreneurs, highly educated in engineering and blessed with entrepreneurship, are leaving behind the traditional family business framework to develop the glove sector in Thailand, as the case of Sri Trang Rubber, Thailand's top processing company, shows. These entrepreneurs may be emulating the example of the Chinese-Malaysian entrepreneurs in Malaysia⁶.

Another important and interesting sign of progress may be observed in the activities of small and medium-sized enterprises (SMEs) in the glove industry. For example, Prachai Kongwaree, the CEO of Rubbermate (a rubber glove company) and the president of the Thai Glove Manufacturers' Association, said (Interview 4):

For local SME glove makers in Thailand, the way to a better future is to rely on our own strengths. We can't compete against mass production companies such as Top Glove and Kossan in Malaysia. Yet, if we can provide well-conceived 'Premium' quality or services, at their special request, to our customers, our business and life will be good enough.

In principle, such an approach is not much different from that of Malaysia's large glove companies, which conceived of glove manufacturing as a "niche industry." Thailand's SMEs might find their own niche in the provision of "premium" services.

7.4 Discussion and Implications

This chapter aimed to analyze the progress of the rubber industry in Malaysia and Thailand and explore its development potential in the future. The rubber industry is a typical resource-based industry that could be a vital factor for the future economic growth of the two countries.

The rubber industry in both countries has benefited from state involvement. In Malaysia, the state fostered high-quality R&D for all segments of the industry. It pursued the NR policy as an integral part of the rural development strategy for Malay economic advancement under the NEP. This means that the ethnically oriented affirmative action was incorporated into the upgrading of the rubber industry. However, the Malay-prioritizing measures were accompanied by unfavorable incidental results such as the shortage of a young productive labor force and the "brain drain" from the public research institutions.

In the downstream segment, the private sector played a crucial role in developing globally competitive products. It was local ethnic Chinese entrepreneurs who carved out a highly profitable niche in the glove manufacturing during times of regional and global crises. Their business strategies did not merely follow the "East Asian

⁶I have conducted field research in Thailand intermittently since 2015 and heard several interviewees (including local businessman, suppliers, and researchers in Bangkok, Southern Thailand, and Malaysia) testify that young-generation entrepreneurs are engaged in promising new activities in the Thai rubber industry. I plan to deepen my research on Thai entrepreneurs from a comparative perspective in the near future.

development model.” They created an original approach to technological upgrading and management improvement and combined the catching-up strategy with the reaching-down strategy.

In contrast, the rubber industry in Thailand is unevenly developed. In the upstream segment, Thailand rose from being a latecomer to the world’s top NR producer and exporter by taking advantage of the opportunities opened by the 1997/98 financial crisis and the expansion of China’s demand for tires and industrial rubber goods. Prime Minister Thaksin changed the traditional agrarian policy and facilitated a huge expansion of rubber cultivation through the “one million rai project.” A major contribution to this development was made by the rubber research centers whose R&D activities produced suitable clones and methods for rubber cultivation in the dry northern regions. There have been less impressive advances in the midstream and downstream segments, where Thailand remains a follower, partly because of the dominant position of foreign rubber-based manufacturers. More crucially, the remarkably large demand for NR has pushed the local rubber firms to concentrate on the upstream segment. However, the downstream segment of the Thai rubber industry may be transformed by the emerging young entrepreneurs who seem to be emulating the Chinese-Malaysian glove manufacturers.

The key findings of this chapter are fourfold. First, with different land/labor force availability and environmental conditions, each country responded to the global demand of NR through different learning processes of upgrading.

Second, although the availability of raw material (NR) at a close distance was definitely a source of the competitiveness of their rubber industry, technological upgrading was crucial to produce high value-added products. Public institutions played an important role in this respect by developing the basic knowledge and technology and providing laboratories or equipment for the standardization of the intermediate goods. In the downstream segment, private sector initiatives were crucial for the commercialization of the new technologies.

Third, dynamic entrepreneurship was important for private sector development. This chapter gives the example of the exceptionally astute ethnic Chinese entrepreneurs with high education in the glove industry.

Finally, we can obtain certain insights about the economic prospects of resource-rich countries from the experiences of the Malaysian and Thai rubber industries. The existing literature on the danger of the “middle-income trap” stresses the importance of knowledge, skills, technology, and institutions, but it tends to focus on high-tech industries in which only a few emerging states can hope to be competitive. However, as the development potential of the rubber industries in Malaysia and Thailand indicates, the standard views of technological upgrading may have overlooked an option open to resource-endowed emerging states to avoid the “middle-income trap.” That option is to seek technological upgrading and management improvement in resource-based industries such as Malaysia’s glove manufacturing and Thailand’s production and processing of NR. These sectors exploited a common source of strength—rubber as raw material—that is not usually regarded as a part of the East Asian development model. However, each rubber industry succeeded on the basis of mixed state development strategies, public and private R&D, dynamic entrepreneurship, and public-

private linkages. Even though the timing of development and sectoral strength are different in the two countries, the rubber industry in both responded innovatively to changes in the structure and direction of the global demand for NR and rubber-based manufactured goods. The result shows how resource-rich emerging states can combine their resource advantages with more accessible technological upgrading and create “niches” such as new products, services, quality, and markets.

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Interview 3. Pong Kai See, president, PRIM, 7 September 2016.

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Interview 5. Rubber Research Institute Thailand, Rubber Authority of Thailand, 26 December 2017.

Interview 6. Rubber Research Institute Thailand, Chachoengsao Rubber Research Centre, 8 September 2014.

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Chapter 8

Marketing Risks and Standards

Compliance: Challenges in Accessing the Global Market for High-Value Agricultural and Aquacultural Industries



Aya Suzuki and Vu Hoang Nam

Export-oriented, high-value agricultural and aquacultural industries are among the first industries that many developing countries target to catalyze economic development (Jaffee and Morton 1995; World Bank 2008; FAO 2012; Birthal et al. 2015). Typically less capital- or skill-intensive than the manufacturing industry, these industries can also involve smallholders or small-scale farmers and help in reducing poverty. Availability of agricultural land, favorable climate, and inexpensive labor in these countries adds to their comparative advantage in production. Therefore, it is not surprising that the export of high-value crops produced in developing countries has been increasing in volume over time (Jaffee 2003; Weinberger and Lumpkin 2007; Reardon et al. 2009).

Several studies show that these export-oriented industries are increasing the income of the participants (Maertens et al. 2012; Briones 2015; Suzuki et al. 2018). Participating in export markets is also found to have positive effects on: adopting advanced technology or better practices; improving working environment and product quality; and increasing employment opportunities (Neven et al. 2009). The reduction of trade tariffs, the advancement of transportation technology, and development of online markets facilitate the growth of these sectors in the background.

While global markets offer a greater demand and higher prices to producers in developing countries, they also have several distinct features that do not hold in the domestic markets of developing countries. These include large price fluctuations, intensive competition, sudden changes in trade policies (e.g., preferential agreements) and regulations (e.g., quality standards, certifications, and labor or environmental standards), and shifts in demand trends (Maertens and Swinnen 2009; Hansen and Trifkovic 2014). These are proving to be barriers for developing country

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producers to access global markets, and it is necessary to overcome these barriers to continuously benefit from the global markets. Consequently, it is important to understand how these demanding international markets requirements are affecting producers in developing countries. What are the challenges posed by global markets and how are producers dealing with them? Are there ways to overcome the challenges?

In order to answer these questions, this chapter focuses on two challenges for producers in developing countries posed by the global markets—marketing risks and the difficulty of standard compliance. These are some of the factors that producers need to face and successfully overcome in order to participate in global markets. We illustrate the importance of these factors by using cases from two export-oriented industries—the pineapple industry and the shrimp aquaculture industry. For each industry, we describe a case where a country is unable to surmount these challenges and another case where a country has successfully overcome them. The cases are drawn from Ghana, Vietnam, and Thailand.

The rest of this chapter is structured as follows. Section 8.1 discusses the significance of marketing risks for producers in developing countries and how they are being mitigated by pineapple-exporting industries in Ghana and Thailand. Section 8.2 explores the challenge of standards compliance posed by the global markets and the different response of the shrimp aquaculture industries in Vietnam and Thailand. Section 8.3 presents the conclusion.

8.1 Marketing Risks: Pineapple Exporting Industry in Ghana and Thailand

We examine two types of marketing risks in this section—the risk of having unsold crops and that of a sudden change in demand. Export-oriented commodities typically have limited domestic demand in developing countries. Thus, when farmers who produce these crops cannot export them, they will be left with unsold stock. It represents considerable sunk cost in terms of inputs, labor, and land. The risk of unsold produce may restrain farmers from participating in the export market. Typically, the farmers who participate in the export market are relatively well-off and can absorb these risks; thus, the income gap between the poor and non-poor has been widening due to the difference in their risk-taking ability. Further, the global market demand may change suddenly as new types or varieties of crops are developed. These changes act as exogenous shocks for the producers in developing countries and unless they adopt these new varieties, they fail to continuously benefit from the global market. In the next sub-section, we examine the importance of these marketing risks in the pineapple industry in Ghana and compare it with the situation existing in the Thai pineapple industry.

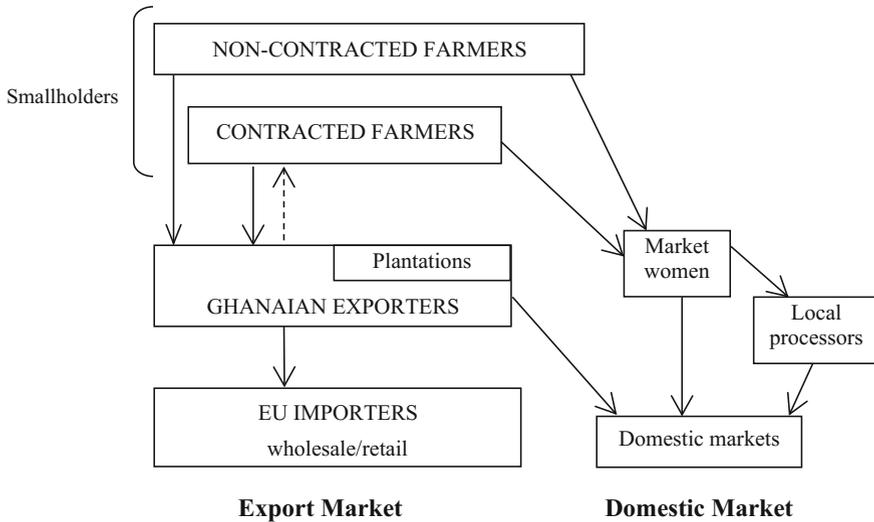


Fig. 8.1 Structure of the pineapple sector in Ghana. *Source* Illustrated by authors

8.1.1 Pineapple Industry in Ghana

8.1.1.1 Overview

The first case examined is the pineapple export industry of Ghana. Like other African countries, Ghana has been trying to diversify its economy and reduce its reliance on the traditionally important mining and cocoa industries. The pineapple export industry has been showing promise since the 1980s and its share in the export volume has increased over the years. Fresh fruit for export is mainly targeted at the EU market. The industry has also received attention for its potential to reduce poverty. This is because small-scale pineapple farmers can become involved in this supply chain by producing fruit on their farm and selling to the exporters (Danielou and Ravry 2005; Fold and Gough 2008; Barrett et al. 2010).

The structure of this industry has evolved over some years. Initially, pineapples were produced only by small-scale farmers. As the business expanded, factors such as a larger volume of production, quality of fruit, timing of the harvest, and consistency in supply became more important. This induced many exporters to establish large-scale plantation farms to produce fruit in-house. However, almost all the exporters continue to procure a part of their export volume from smallholders, and this ‘core–satellite system’ of production organization—or partial vertical integration—has become the dominant mode today (Fig. 8.1).

While this industry continues to grow, the importance of sales risks in it are also discussed (Fold and Gough 2008; Suzuki et al. 2011). One of them is the risk of unsold fruit and the other is the shift in demand, as explained below.

8.1.1.2 Risk of Unsold Fruit

In adopting pineapple production in Ghana, the largest risk for farmers is probably that of unsold fruit after harvesting. To sell for export, farmers need to sell fruit to exporters who come to their fields to purchase it. There are no middlemen between the exporters and the farmers due to the perishability of fruit and the need for extensive coordination. If farmers cannot sell to exporters, they are left with unsold fruit.¹ The planting to harvesting cycle for pineapples is fourteen months long. As the opportunity cost of land is very high, fruit remaining unsold has serious economic consequences. Two important factors contribute to the risk of unsold fruit: the perishability of horticultural crops and the limited extent of the domestic market. The shelf life of horticultural crops is generally short; thus, the produce needs to be sold immediately after harvesting. Given these conditions, farmers are left with less time to find potential buyers, which may negatively affect their bargaining power when negotiating with buyers.

While this is also a factor in developed countries, an additional factor that enhances risk in developing countries is the limited ability of the domestic market to absorb the unsold horticultural produce due to the limited domestic demand for fresh produce and an underdeveloped processing industry. Generally, food processing is capital intensive, and thus, the initial cost of starting a processing factory is high. This is particularly so in countries where the industrial sector is still largely underdeveloped due to the fact that it cannot benefit from low input costs (i.e., cost of input materials and labor) that are often made possible by the existence of industrial clusters (Sonobe and Otsuka 2011). Further, inadequate government support often compels private companies to invest in the infrastructure necessary to set up their factories—extending the existing roads and connecting to the water supply system and electricity grid—themselves. Because the demand from the processing industry and domestic market is limited, the perishability of horticultural crops translates into a large risk for farmers in developing countries.

In fact, Suzuki et al. (2011) showed that one of the reasons the smallholders are able to continuously participate in the export industry as producers of pineapples is the fluctuating demand in EU and the limited domestic outlets to sell pineapples. Because the demand from EU for pineapples fluctuates, the exporters first satisfy a certain portion of the expected demand from their internal production and use the external smallholders' produce to fill the gap between the actual and the expected demand. This mechanism is consistent with the partial vertical integration theory by Carlton (1979). Suzuki et al. (2011) used the rejection rates by exporters during purchase of the fruit grown on smallholders' plots to examine whether it is related to the degree of fluctuation in demand from the EU. The estimation results showed that when the unanticipated portion of demand from the EU for Ghanaian pineapple is positive, the exporters reject less fruit from smallholders. Although their study does

¹Domestic markets for fresh produce exist, but the variety preferred in the domestic market is different from the export variety in Ghana.

not exclude other reasons, such as the difficulty in accessing land to open large-scale farms, their result provides evidence that demand risk is one of the factors that enable smallholders to play a role in this industry.

8.1.1.3 Risk of Demand Shift: MD2

Another marketing risk for the pineapple producers in Ghana posed by the global markets was the shift in the variety of pineapples demanded in EU. The move, led by the multinationals, drastically affected the stakeholders involved in this chain. The new variety, MD2, was originally developed by the Hawaii Pineapple Research Institute and further modified by Del Monte in their plantation farms in Costa Rica (Fold and Gough 2008). MD2 is sweeter, smaller in size, more yellowish in appearance, and more consistent in flavor than the traditional variety called Smooth Cayenne. However, it requires many more chemical inputs and greater care during production than Smooth Cayenne (i.e., it is more capital- and labor-intensive).

With this change, the Ghanaian exporters suddenly lost market share in the EU market. They could not find outlets to sell their fresh Smooth Cayenne. Although many exporters wished to switch to the new variety, the transition was not smooth because of factors such as the very high initial investment costs for MD2, starkly different production practices, and the time required for the new variety to adjust to the Ghanaian climate and soil. Small-scale farmers were also hit hard (Fold 2008; Fold and Gough 2008). Those who had sold to exporters who went bankrupt could not receive payment, and even the exporters who survived the change owed a large amount to the smallholders (Fold 2008; Fold and Gough 2008; Barrett et al. 2010).

Suzuki (2016) examined whether this change in the demand affected the survival behavior of pineapple producers. Figure 8.2 shows the hazard estimates for pineapple producers, categorizing the farmers based on the period in which the production span of the crop falls. Phase 1 includes production spans that are exclusively in the pre-MD2 period; Phase 2 includes production spans that begin in the pre-MD2 period and end in the post-MD2 period, while the span in Phase 3 is entirely in the post-MD2 period. The figure shows that the hazard estimates for Phase 2 is far higher than that for the other two groups, indicating that during this period, the probability of exit was very high for farmers. The hazard for Phase 3 is also higher than that for Phase 1, suggesting that after the MD2 shock, the likelihood of exiting the pineapple production was more than that in the pre-MD2 period.

A similar analysis was conducted to separate the hazard for those with a risk aversion index value between 1 and 3 (less risk averse; RA index = 0) from those whose risk aversion value was between 4 and 6 (more risk averse; RA index = 1) (Fig. 8.3). This indicates that those with a higher risk aversion index face higher hazard estimates. That is, the probability of exiting the pineapple production is higher for more risk-averse individuals than for less risk-averse individuals.

As these figures are from non-parametric analyses, without controlling for other heterogeneities across observations, Table 8.1 shows the hazard ratios of exit that are estimated using semi-parametric model (column (1)) and parametric models

Fig. 8.2 Hazard estimates by production-span groups (nonparametric analysis). *Note* Phase 1 indicates production span that starts and ends in pre-MD2 period; Phase 2 indicates that it starts in pre-MD2 and ends in post-MD2 period; Phase 3 indicates that it starts and ends in post-MD2 period

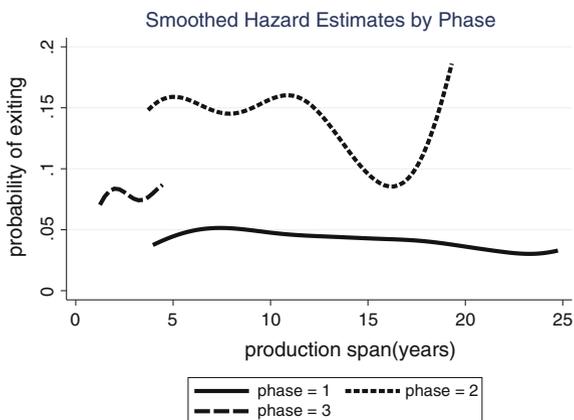
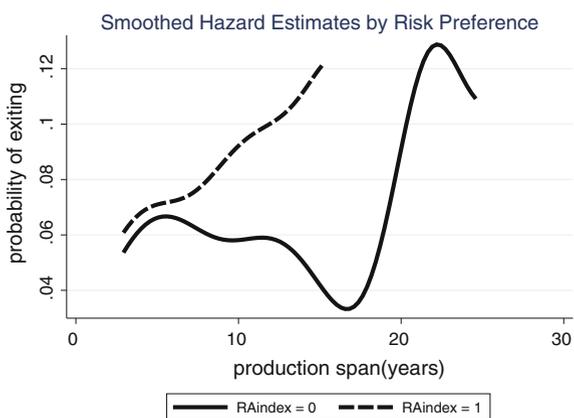


Fig. 8.3 Hazard estimates by risk-averse index (nonparametric analysis). *Note* RA index = 1 indicates that farmers are more risk-averse (RA index between 4 and 6) while RA index = 0 indicates that farmers are less risk-averse (RA index between 1 and 3)



(columns (2) and (3)).² First, the risk preferences are found to matter for the likelihood of exiting the pineapple production and the results are consistent across all these models. Second, the Phase 2 dummy (the production span begins before the MD2 event and goes beyond it) and the Phase 3 dummy (the span starts after the MD2 incident) are also statistically significant and higher than one. The coefficient on the Phase 3 dummy is also in the similar magnitude of Phase 2 but lower than that of Phase 2. This means that the likelihood of exiting pineapple production is significantly higher in the post-MD2 period than in the pre-MD2 period, confirming the serious effect that the MD2 event had on farmers’ behavior in Ghana. Models using other functional forms also provide similar results.

²Note that the numbers reported in these tables are hazard ratios. Thus, if the number is higher than one and statistically significant, then the risk of exit is higher for the corresponding independent variable.

Table 8.1 Determinants of hazard to exit from the pineapple market

	Cox proportional	Weibull	Gompertz
	(1)	(2)	(3)
<i>Individual characteristics</i>			
Risk aversion (RA)	1.17*** (2.71)	1.16*** (2.68)	1.17*** (2.74)
Phase 2 dummy	4.66*** (5.14)	4.70*** (5.18)	4.53*** (5.17)
Phase 3 dummy	4.11*** (3.91)	4.40*** (4.06)	3.78*** (3.88)
Age	0.97** (2.34)	0.97** (2.27)	0.97** (2.37)
=1 if male	0.47** (2.11)	0.48** (1.99)	0.48** (2.15)
Years of schooling	1.00 (0.11)	1.01 (0.19)	1.01 (0.18)
Size of household	1.07 (1.44)	1.07 (1.39)	1.07 (1.33)
Household asset	1.00* (1.76)	1.00* (1.80)	1.00* (1.75)
=1 if received Best Farmer Award	0.98 (0.06)	1.00 (0.01)	1.03 (0.07)
=1 if reentry	0.30** (2.45)	0.30** (2.46)	0.28*** (2.65)
<i>Village characteristics</i>			
=1 if by road	0.44*** (3.38)	0.42*** (3.51)	0.44*** (3.38)
Years of exporters' visit	1.03 (1.05)	1.03 (1.02)	1.02 (0.86)
Years of pineapple production	0.97** (2.28)	0.97** (2.21)	0.96** (2.33)
R2_P	0.09		
N	209	209	209
Chi2	90.72	84.50	92.62

Note *indicates significance at a 10% level, **at a 5% level, and ***at a 1% level. Reported numbers are hazard ratios. All include district fixed effects. Standard errors clustered at the farmer level are reported in the parentheses. Covariates are evaluated at 2007

8.1.1.4 Summary: Pineapple Industry in Ghana

The analyses above showed that marketing risks (having unsold fruit and sudden change in the demand) are significant in the pineapple exporting industry in Ghana; that risk preferences matter in the survival as pineapple producers; and the probability of farmers exiting the pineapple production became higher after the MD2 incident. These present a hurdle for the smallholders to participate in the supply chain, and consequently only the relatively better-off farmers are able to participate and benefit from the greater demand and higher prices in the global markets. This leads to an increase in the income gap among the farmers within communities. Are there ways to reduce these negative effects and involve more smallholders in this chain? We next examine the case of the pineapple industry in Thailand.

8.1.2 Pineapple Industry in Thailand

8.1.2.1 Overview

The most important difference between the pineapple industries in Ghana and in Thailand is the large share of fruit produced by small-scale farmers in the latter. In Thailand, it is reported that 95% of the pineapple production is from the smallholders (about 30% in Ghana), and the contract farming is a popular mechanism to involve smallholders in the supply chain (Hayami et al. 1990; Anupunt et al. 2000). This fact raises a question as to why smallholders in Thailand succeeded in securing a dominant role in supplying pineapples for the export market. What are the fundamental differences between the pineapple production and marketing in Thailand and those in Ghana? What have been the impacts of participating in pineapple production on these smallholders? In fact, in many pineapple producing countries, the fruit are produced on large-plantation farms, most notably in Latin America and the Philippines. However, the role of smallholders is very large in Thailand. We explore how it has come about in this section.

8.1.2.2 Role of Processing Industry in Reducing Risk

One important difference between the pineapple industries in Ghana and Thailand is that while the former focuses on fresh fruit export, the latter focuses on the processed fruit export. The market risks, which we have seen in the case of Ghana, are much reduced in Thailand because of the extent to which the processing industry has developed.

Although smallholders wish to sell their entire produce to the local fresh fruit market due to its high price, local fresh market outlets is limited both in volume and in access and requires higher quality. Figure 8.4 presents the structure of this industry in Thailand. Thus, the second option for smallholders is the processed market. They can

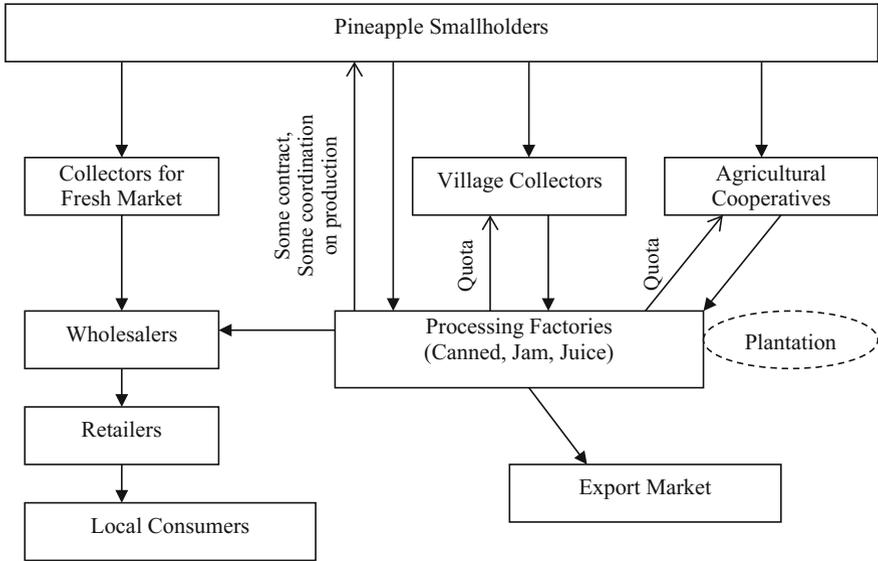


Fig. 8.4 Structure of the pineapple sector in Thailand. *Source* Illustrated by authors

either sell directly to factories, village collectors, or to agricultural cooperatives. Only the relatively large smallholders can sell directly to processors as the processors have minimum purchase volume requirement and control the supply of fruit by offering quotas to the sellers.

Those smallholders who cannot sell directly to processors sell fruit to collectors or to agricultural cooperatives in villages. The collectors have stores (usually just a space with shade) in villages. They purchase pineapples from smallholders, and sell the fruit to processing factories. They announce daily purchase price at the store, just as in gasoline stations, and the price fluctuates every day. Normally these collectors purchase all the fruit brought by smallholders, irrespective of quality and quantity. When the fruit is brought in, they grade the fruit into two separate baskets—qualified and unqualified. The qualified fruit is offered a higher price while the unqualified fruit is offered a lower price but is still purchased. As collectors do not set the minimum volume for purchase, farmers are able to bring fruit even in small quantities. For these small-scale farmers, the village collectors play a crucial role in reducing the marketing risks and in connecting them to the global pineapple supply chain. Because the farmers are guaranteed the sale of their fruit, they can safely invest their time and money in producing pineapples. The village collectors are also providing these farmers a way to obtain cash when they need.

Once the collector’s pickup is filled with enough fruit, they bring the qualified ones to factories. The unqualified fruit is peeled and cut into slices of several sizes manually. They sell the slices to juice or jam factories, while the peeled skins are sold as cattle feed. Because there are various types of processed pineapple products

in the market, such as pineapple paste, jam, juice, and biscuits, no part of pineapple is wasted once it is brought to the collectors. The variety of products available helps in diversifying the risks of producing unqualified fruit and absorbing the fluctuation in demand of different markets. In each market, there are different actors involved, such as jam processors, juice processors, and cattle feed traders. This highly sophisticated division of labor contributes in improving the total competitiveness of this industry.

8.1.2.3 Summary: Pineapple Industry in Thailand

The pineapple industry in Thailand presents a case where the smallholders are able to play an important role as producers. The processing industry surrounding the pineapple production is well developed, and thus, the risk of having unsold fruit is minimum in Thailand. Collectors play an important role in selecting the destination of the fruit based on its quality and they have multiple outlets to sell the fruit. From the smallholders' point of view, any well-produced pineapple can be sold, and thus, they do not face barriers to participate in the supply chain for exported pineapples. As collectors purchase fruit in small quantities, farmers do not need to have large farms. The prices offered by them are lower than those obtained by selling in the fresh fruit market, but the structure of this industry has an advantage to enable involvement of a greater number of smallholders. Those who are relatively well-off are able to sell at the fresh fruit market and earn higher prices. Low market risks, which were made possible with the development of the processing industry, seem to be the key reason why the smallholders have a 95% share of the pineapple production in Thailand. It presents a model of high-value agricultural industries in developing countries that is worth emulating.

8.2 Standards Compliance: Export Shrimp Aquaculture in Vietnam and Thailand³

The second challenge facing producers in developing countries that we examine in this chapter is the difficulty in standards compliance. As mentioned in the introduction, the number of quality standards or certifications required to compete in the global market is on the rise. These requirements were initially only related to food quality, and were later made stricter due to the food scare incidents in developed countries. However, the aspects covered by these requirements soon expanded to include environment protection and social ethics (Suzuki and Nam 2013). Examples include the GLOBALGAP, ISOs, HACCAPs, BRCs, Rainforest Alliance, Marine Steward-

³This section draws largely from Suzuki and Nam (2016) and Suzuki and Nam (2018).

ship Council, and so on. While these standards and certifications are designed for the noble purpose of ensuring superior food quality, ensuring decent labor conditions, or environmental protection, they are causing a lot of challenges for the producers in developing countries. To illustrate this, we take a case of the shrimp aquaculture industry in Vietnam and Thailand in this section.

8.2.1 *Shrimp Industry in Vietnam*

8.2.1.1 Overview

Seafood export has become one of the major export products from Vietnam and the shrimp exports is one of the fastest growing segments in the seafood products industry. In Vietnam, as well as in many other Asian countries, the major shrimp producers are smallholders. Thus, the industry is seen to contribute to the reduction of poverty and boosting income of rural farmers.

However, the industry is also facing a challenge of a high port rejection rate, which is the percentage of exports rejected at the ports of developed countries. According to the UNIDO-IDE (2013), the seafood products from Vietnam are facing a high port rejection rate, and consequently, the importing countries are raising the frequency of inspection for Vietnamese products. This is not only adding the inspection costs for the processors, but also worsening the reputation of the country as a shrimp exporter, which can potentially threaten the future of this industry. In fact, using the US port rejection data, Jouanjean (2012) and Jouanjean et al. (2015) show that such incidents damage reputation and credibility of exporting countries and have negative effects on trade.

In Vietnam, the main producers of shrimp are smallholders and this makes it very difficult to control farming practices at the producers' level. Tran et al. (2013) also discusses this upstream "fragmentation," which has negative effects in complying with standards. Although some processing companies have their own ponds to produce shrimp in-house, the amount that can be cultivated within their own ponds reaches only about 20% of their maximum processing capacity. Thus, processors rely on outside purchases, and this is commonly done through collectors.⁴ Collectors reside in communes near the production area and purchase from neighboring smallholders. As each farmer's pond is too small to fill a container, they mix shrimp purchased from different farmers into a single container that is sent to the processor. According to Loc (2006), about 60% of shrimp are sold to processing companies through collectors and/or wholesale buyers. This system makes it difficult to trace the pond of origin.

⁴While there are also contracted farmers, who sell directly to processing companies, their number is limited as this direct sale typically requires a large volume of shrimp.

8.2.1.2 High Port Rejection Rates

According to the UNIDO-IDE (2013), Vietnam's rate of import rejections for fish and fishery products is high for all years between 2006 and 2010, relative to other countries. When we examine the reasons reported for these rejections, veterinary drug residues rank first, followed by bacterial contamination. The detected veterinary drug residues must originate in the production stage, as these residues are found within fish bodies and fishery products. Bacterial contamination can occur even after the production stage, during the transportation by ship from Vietnam to Japan, for example. We can infer that the major reasons behind the high rejection rate of Vietnamese exports occur at the producers' level. This is an important finding in terms of considering how to solve the problem of port rejection. In fact, from field observations, shrimp farmers in Vietnam use veterinary drugs (e.g., antibiotics) to prevent and treat shrimp diseases although some of these antibiotics are prohibited. It seems that the most effective solution is to change farming practices at the producer level.

8.2.1.3 Better Management Practice and Disease Outbreak

As the intensive shrimp aquaculture is known to cause a deterioration of the surroundings if not practiced properly, international organizations have published guidelines on shrimp farming. The FAO issued the Code of Conduct for Responsible Fisheries in 1995. Then, to provide a specific code of conduct for the shrimp industry, an international consortium was established in 1999, involving organizations such as the World Bank, the Network of Aquaculture Centres in Asia-Pacific (NACA), the World Wildlife Fund, and FAO. There were a series of discussions and meetings among stakeholders for many years, which led to the International Principles for Responsible Shrimp Farming (FAO et al. 2006) being issued in 2006. This document lists the basic principles that should be followed during shrimp farming. In Vietnam, to support these international principles and standards, the NACA and the Directorate of Fisheries, Ministry of Agriculture and Rural Development of Vietnam, in collaboration with a Danish aid organization, launched a project to promote responsible shrimp farming and developed the Better Management Practices (BMPs) (Corsin et al. 2008). These BMPs were very simple to adopt and were disseminated across the country (Corsin et al. 2007).⁵

However, the port rejection data, as well as our own fieldwork, indicate that these BMPs are not being fully implemented. Most farmers do not know about the substances that are banned in the international markets and the composition of the inputs they use. Thus, to examine the determinants of BMP adoption and whether BMPs actually lower the probability of disease outbreak, Suzuki and Nam (2018)

⁵Examples of the BMPs include: preparing a pond properly, removing waste soil from the bottom of the pond before stocking, having a reservoir pond to replace water during culture (Corsin et al. 2008).

conducted a survey of shrimp farmers in one district in Camau Province in southern Vietnam in 2015.

Table 8.2 presents the results of the determinants of BMP adoption, which is reproduced from Suzuki and Nam (2018). They find that belonging to a cooperative has a positive effect on adoption of BMPs, while having siblings who cultivate shrimp has a negative effect. The latter finding suggests that farmers who learn shrimp farming from their family or siblings are more traditional and are less likely to adopt practices recommended by the international organizations. It also shows that the types and number of information sources influence the adoption of BMPs. Furthermore, past experience of receiving technical training also positively affects BMP adoption, confirming the effectiveness of promoting the adoption of BMPs.

Table 8.3 shows the results of propensity score matching for the impact of BMP adoption on disease outbreak based on the Kernel matching which yielded the least bias among several matching methods that we have tried. Column (1) shows that if farmers adopt four or more practices out of the five, the probability of their farms having a shrimp disease outbreak is reduced by 39%. This finding is statistically significant at the 1% level. If farmers adopt three or more BMPs, then the probability of their shrimp having disease will be reduced by 21.1%. When farmers use two or more BMPs, the impact on disease outbreak is no longer statistically significant. These findings support that BMP adoption indeed results in farmers facing fewer outbreaks of shrimp disease.

8.2.1.4 Summary: Shrimp Industry in Vietnam

This section showed that the difficulty of standards compliance in the shrimp industry in Vietnam lies in the fact that the main actors are numerous smallholders. While the efforts are made by the government to disseminate technical knowledge, it seems that farmers are not yet equipped with the correct information. However, it is encouraging to find from our quantitative analyses that training experience and information sources work to enhance the adoption of BMPs and that adoption of BMPs actually lead to a lower probability of disease outbreak. These findings validate the efforts made to promote and disseminate effective technical information to local farmers. In the next section, we observe a similar case in Thailand, where the farming practices of smallholders were transformed owing to the collective action by the stakeholders in the industry.

8.2.2 Shrimp Industry in Thailand

8.2.2.1 Overview

While the structure of the shrimp industry in Thailand is similar to that in Vietnam, it presents a very different situation in terms of shrimp farming practices. According

Table 8.2 Determinants of BMP score (5 max)

	OLS	Tobit	OLS	Tobit
	(1)	(2)	(3)	(4)
<i>Socio-economic characteristics</i>				
=1 if male	-0.238 (0.88)	-0.245 (0.95)	-0.167 (0.56)	-0.178 (0.63)
Age	0.007 (1.32)	0.008 (1.43)	0.007 (1.13)	0.007 (1.26)
Years of education	0.011 (0.44)	0.012 (0.50)	0.003 (0.14)	0.004 (0.19)
Years of shrimp cultivation	0.001 (0.19)	0.002 (0.25)	-0.000 (0.02)	0.000 (0.03)
=1 if belong to a cooperative	0.401** (2.12)	0.402** (2.21)	0.431** (2.14)	0.431** (2.27)
=1 if parents cultivate shrimp	-0.026 (0.16)	-0.039 (0.24)	-0.001 (0.00)	-0.009 (0.06)
=1 if siblings cultivate shrimp	-0.505*** (3.50)	-0.509*** (3.64)	-0.414*** (2.71)	-0.419*** (2.88)
Size of shrimp ponds	-0.014 (0.26)	-0.014 (0.26)	-0.021 (0.36)	-0.020 (0.36)
<i>Information sources</i>				
# shrimp buyers I know			-0.025* (1.68)	-0.025* (1.79)
# input sellers I know			0.028 (1.58)	0.028* (1.67)
# info source on technical issues			0.007 (1.10)	0.007 (1.20)
# info source on shrimp prices			0.002 (0.14)	0.004 (0.24)
=1 have received trainings before			0.270 (1.58)	0.266* (1.66)
=1 have had shrimps tested in a lab before			0.075 (0.45)	0.067 (0.43)
Constant	3.067*** (7.45)	3.051*** (7.72)	2.844*** (5.89)	2.820*** (6.19)

(continued)

Table 8.2 (continued)

	OLS	Tobit	OLS	Tobit
	(1)	(2)	(3)	(4)
Sigma		0.857***		0.838***
		(15.71)		(15.25)
R ²	0.22		0.26	
N	173	173	171	171

Note *indicates significance at a 10% level, **at a 5% level, and ***at a 1% level. All includes commune fixed effects. Absolute values of robust t-statistics are in parentheses. Columns (1) and (2) include only the socio-economic characteristics of farmers while Columns (3) and (4) also include information sources. Columns (1) and (3) are results of OLS estimations while Columns (2) and (4) are those of Tobit estimations

Table 8.3 Effect of BMP adoption on disease outbreak (PSM, Kernel matching)

More than 4 BMPs (1)	More than 3 BMPs (2)	More than 2 BMPs (3)
-0.390*** (3.59)	-0.211** (2.22)	0.012 (0.06)

Note *indicates significance at a 10% level, **at a 5% level, and ***at a 1% level. Bootstrapped t-statistics reported in parentheses. Column (1) indicates the Average Treatment Effect on the Treated from PSM when the treatment is defined as having used more than 4 BMPs while Columns (2) and (3) indicate the same when the treatment is defined as having used more than 3 BMPs and more than 2 BMPs

to the study in UNIDO-IDE (2013), the principal reason for the import rejection is bacterial contamination, and rejection due to the detection of veterinary drug residues is very small. According to our field survey and interviews with experts, instead of using antibiotics to prevent or cure diseases, the use of probiotics has become very common among shrimp farmers in Thailand. While bacterial contamination is also an important reason for port rejection, the source of this problem cannot be narrowed down to the producers' level as shrimps may be contaminated with bacteria even during shipment. This shows that the shrimp farming practices in Thailand are different from those in Vietnam.

Moreover, our study revealed that this has not always been the case in Thailand. The industry experienced a huge drop in the export volume of black tiger shrimp because farmers were using hazardous substances. As a result, the port rejection rate for Thai products was also high. However, when they realized that this would threaten the industry's survival, various stakeholders got together and changed the shrimp farming practices among smallholders.

8.2.2.2 Successful Transformation of Farming Practices

According to Holmstrom et al. (2003), farmers in Thailand regularly used antibiotics in 2000, when they conducted a field survey in villages along the Thai Coast. They estimated that approximately 74% of all respondents used antibiotics, both for preventive and antiviral purposes. The most common antibiotics used were norfloxacin, oxytetracycline, enrofloxacin, and various sulfonamides (Holmstrom et al. 2003, p. 257). At that time, black tiger was the main shrimp species produced in Thailand. An outbreak of *white spot syndrome virus* in the early 2000s led farmers to rely on antibiotics to treat the disease, and the US and EU decided to ban the import of Thai shrimp owing to the detection of antibiotic residues. This explains the decline in export volume from Thailand in the early 2000s.

This experience was an important lesson for the Thai shrimp industry. A new species, *Litopenaeus vannamei*, was introduced in Thailand in 2003 and began to spread owing to its higher disease resistance. Because the Thai shrimp industry experienced high rates of import rejection, they were determined to change production behavior related to the use of antibiotics. As of 2016, farmers appear to have changed their production behavior dramatically. To minimize the possibility of disease outbreak, farmers implement various preventive measures, including the use of probiotics, careful water treatment by using two reservoir ponds, adopting a lower stocking density, and removing organic elements from the pond regularly. Although these production practices are labor-intensive, they are highly recommended and supported by the government and the private sector as a whole. How did Thailand achieve this transformation? We explain the important roles played by the government and private sectors below.

8.2.2.3 Role of the Government

The Thai government supports the farmers by (1) providing easy access to public laboratories; (2) requiring documents to assure traceability; (3) issuing certifications; and (4) conducting random monitoring. The Department of Fisheries (DOF) provides easy access to public laboratories to test free of charge the health and chemical residues of shrimp. Chemical residues are unobservable unless they are formally detected in scientific laboratories. It is also usually very costly for farmers to conduct these tests, both in terms of access to these facilities and the physical costs of analyses. In Thailand, as of 2016, this service is provided to farmers by the DOF, free of charge. There are three large laboratories in Bangkok, Samu Sakorn, and in southern Thailand. In addition to these large-scale laboratories, there are many regional public laboratories, and farmers can test their shrimp fry before purchasing them from input suppliers. As the quality of shrimp fry is a very important determinant of the quality of the final shrimp output, it is important to stock healthy fry.

The second important role played by the government is to ensure traceability by requiring farmers to register and use what is called the “Movement Document (MD).” To farm shrimp in Thailand, a farmer needs to register with the DOF and have an ID.

This ID is required when farmers want to use a public laboratory, receive subsidized probiotics, or even when they sell their shrimp to collectors. Good Aquacultural Practice certification is also necessary if a farmer wants to sell shrimp to a collector, both in domestic and export supply chains.

The government also requires the transfer of the MD from sellers to buyers during every stage of shrimp marketing in Thailand. Two types of MDs are issued by the DOF; one of them is the “Aquatic Animal Fry Movement Document,” while the other is the “Aquatic Animal Movement Document.” The Fry MD shows the details of the seller and buyer of the fry, their ID card numbers, the quantity and date of transaction, and the signatures of the buyer, seller, and the DOF. When farmers and fry sellers agree on a price, they need to go to the DOF and obtain this document. Although a health check of the fry is not required to obtain this document, DOF laboratories provide these tests free of charge. Thus, farmers can be assured that the fry they purchase are free of diseases. The Aquatic Animal MD shows the details of the farmer who cultured the shrimp, including his/her ID, farm certification, the Aquatic Animal Fry MD Number, the volume, size, and date of harvesting shrimp, and the pond size. The buyer details are also recorded at each stage along the supply chain when shrimp are transferred to the processor. This MD moves along with the shrimp and is finally submitted to the DOF.

The third contribution of the government is issuing certifications. When a farmer registers with the DOF, compliance with national certifications of Good Aquaculture Practice (GAP) is mandatory. In Thailand, the National Bureau of Agricultural Commodity and Food Standards (ACFS) of the Ministry of Agriculture and Cooperatives plays a key role in setting standards for agricultural commodities. Two types of shrimp-related standards exist in Thailand, which are the Code of Conduct (CoC) and GAP.

Lastly, the DOF conducts regular monitoring of shrimp ponds based on the Sanitary Checklist of Shrimp Farmers, which is in accordance with the guidelines issued by the Codex Standard Committee. It includes sanitary inspection of shrimp ponds, disease control, tests for the use of veterinary medicines and chemical substances, tests of the feed used, water quality tests, inspection of polluted sludge at the bottom of ponds, quality tests of the water supply and drainage, water quality tests of surrounding communities, chemical residues of shrimp, and so on (JETRO 2010). These tests are conducted randomly. In addition, the DOF also controls the inputs.

8.2.2.4 Role of the Private Sector

The private sector also played an important role in transforming the practices. Probably the most unique and innovative feature of the Thai shrimp industry is the very active information sharing among various stakeholders, including farmers, government officers, experts from academia, and private companies. This information sharing occurs at seminars and workshops, which are often organized in various provinces as well as virtually via online social networking services. The two important organizations in the shrimp communities are the Thailand Shrimp Association (TSA),

which is an organization of shrimp farmers, and the Thailand Frozen Foods Association (TFFA), whose members are mostly frozen food processing and exporting companies. In each province, several so-called “shrimp clubs” are established and belong to the TSA. Their main activity is to hold seminars to share information about market price, conditions, and technical solutions to problems faced by farmers. It is important that these clubs operate mainly to share information and ideas and not to market their products together, as is often done by agricultural cooperatives. The shrimp clubs are purely information-acquisition devices for farmers. In regional seminars, technical training is offered by academic experts, governmental officers, and private companies. In addition, sometimes farmers themselves develop new ideas to deal with diseases or other problems during culture and share their findings with seminar participants.

In addition to these monthly seminars, it is worth noting that virtual networks via social networking services (SNS), such as Facebook and LINE, function as very important devices for the shrimp farming community in Thailand. One Facebook group of Thailand shrimp farmers had about 18,000 members, as of March 2017. The group members constantly share their experiences related to shrimp farming. The information shared includes market prices, climatic information, preparing for different climates, preventing diseases, and dealing with shrimp diseases. As shrimp are very delicate aquatic animals whose health conditions change very quickly when a problem occurs, obtaining the appropriate information at the right timing is vital for shrimp farmers. By using SNS effectively, farmers can ask questions, upload photos of their shrimp for diagnosis, and receive immediate answers from fellow shrimp farmers or academic experts.

Lastly, large private companies also offer assistance to smallholders by offering technical or market information, particularly on diagnostics services. Goss et al. (2000) mentioned that by providing these services to independent farmers free of charge, these companies also gain; they obtain active knowledge of the farming systems in the area (e.g., the size of the potential harvest and prevalence of disease), which is important to plan processing and marketing abroad. They also obtain the trust of smallholders and are able to maintain a firm relationship for shrimp purchases.

8.2.2.5 Summary: Shrimp Industry in Thailand

To sum up, at least three factors contributed to the successful transformation of production practices in Thailand: (1) access to public laboratories for shrimp diagnosis; (2) various efforts by the government to control and regulate smallholder production; and (3) very active information-sharing among various stakeholders within the sector. Accordingly, smallholders are not only regulated through penalties imposed by the government, but are also provided with many practical tools to improve their production. Although farmers are not rewarded with prices that are higher than the ongoing market prices for adopting better practices, they have enough incentives to change their production practices.

This example of Thai shrimp industry presents a case where it was possible to change the farming practices of numerous smallholders with the collective action. Each stakeholder—the government, private sector, academia, and the farmers—took a role in changing the farming practices because they collectively faced a threat of a huge reduction in exports. In the process, the information sharing via SNS was the key. The well-functioning network was made possible by guaranteeing the authenticity of information by including professionals (academia) and holding frequent offline meetings by regional shrimp clubs to motivate farmers. This is a good example of “e-farming” and presents a good model for modern agriculture extension systems in developing countries.

8.3 Conclusion

In this chapter, we examined two important challenges faced by the developing country producers in accessing the global market—the presence of marketing risks and the difficulty in standards compliance. These are the challenges prevalent in the export-oriented, high-value agricultural and aquacultural industries, which are considered to play major roles in the early stage of economic development of emerging states. The greater demand and higher prices of these commodities in developed-country markets is expected to benefit producers of these crops in developing countries, thereby contributing to poverty reduction. Thus, it is important to understand how these challenges are faced and dealt with by the producers in developing countries.

We particularly took the cases of the pineapple industries in Ghana and Thailand to illustrate the presence of marketing risks, the ways producers have been affected by them, and the essential role played by the development of the processing industry in mitigating these risks. While the risk of having unsold fruit is large and is hindering the participation of relatively worse-off farmers in the pineapple export industry in Ghana, the same risk is very small in Thailand due to the diversity of processed items and their markets that exist to support the growers. In Ghana, the industry also experienced a sudden change in the variety of pineapples demanded in the multinationals-dominated global market, and this resulted in a huge loss of export volume and affected the ex-post surviving behavior of farmers. Development of a processing industry is also effective in reducing the effects of external demand shocks on smallholders.

Further, we explored the cases of shrimp aquaculture industries in Vietnam and Thailand to examine the difficulty of complying with international standards, particularly at the smallholder producers' level. We observed that the rate of rejection of exports at the ports of developed countries is high in the case of Vietnam—the major reason being the use of prohibited elements at the production stage. As the main producers in the industry are numerous smallholders, it is difficult to control the farming practices all over the country despite the governments' efforts to disseminate appropriate information and technology. However, the shrimp industry in Thailand presented an example of a successful transformation of farming practice

at the smallholders' level. The factors that contributed to the success include (1) the governments' efforts to provide free access to public laboratories to visualize the problem of residues and both controlling and regulating smallholder production with documents that assured traceability and (2) the private sectors' efforts to promote information sharing among various stakeholders using SNS and frequent offline regional meetings. Particularly because shrimp are very delicate and sensitive aquatic animals, the frequent exchange of information among various stakeholders, including experts from academia, seems to be very effective in maintaining effective farming practices among smallholders. The use of SNS can be a powerful tool to upgrade the agricultural extension systems in developing countries.

As observed from these examples, successfully overcoming the challenges posed by the global market to producers in developing countries seems to be the key to sustain the economic development of emerging states. Relying on inexpensive labor to attract foreign demand will not be sustainable as customers can easily switch the source of the supply when prices change. This chapter examined only two of the many challenges and it is important to document more evidence in this area to contribute to the sustainable development of developing countries.

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Part II
Social and Political Dimensions

Chapter 9

How Nations Resurge: Overcoming Historical Inequality in South Africa



Yoichi Mine

South Africa is known for its light and shadow: Nelson Mandela's moral leadership in constructing a "rainbow nation" on the one hand, and horrifying inequality as a legacy of apartheid on the other. The slogan of Mandela's African National Congress (ANC) for the first non-racial general elections in 1994 was "Better Life for All." At the time, ordinary voters expected that racial and social disparity would gradually ameliorate even though the economy could be lackluster. After the graceful retirement of Mandela, however, social and economic inequality persisted. The hideous contrast between luxury houses with swimming pools in affluent suburbs and sprawling shacks in impoverished townships remains, and has intensified in the post-apartheid era.¹ The ranks of rich white households are gradually joined by black African elites, thereby creating prominent intra-racial inequality within the black African population in addition to lingering black-white inequality.

Statistically, the level of South Africa's inequality is the worst in the world. According to the World Bank, South Africa's GINI coefficient of 0.634 (2011) is the highest worldwide, much higher than those of other unequal countries such as Zambia's 0.571 (2015), Brazil's 0.513 (2015), Colombia's 0.511 (2015), Panama's 0.510 (2015), and Rwanda's 0.502 (2013).² One consequence is a high crime rate in urban spaces. Homicide is rampant in cities like Cape Town and Johannesburg, characterized by inhumane ferocity matched only in several violent Latin American cities. The economist Branko Milanovic classifies world inequality into three

¹ These spaces are often adjoined, separated by blindfold walls, roads, and rivers. Graphic aerial pictures captured by a drone are presented here: Unequal Scenes, <http://unequalscenes.com>. Accessed October 15, 2017.

² World Bank data, <https://data.worldbank.org/indicator/SI.POV.GINI>, Accessed October 15, 2017. There are different methods to calculate GINI, and South African economists estimate that the country's GINI has been hovering as high as 0.7. See Fig. 9.5.

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K. Tsunekawa and Y. Todo (eds.), *Emerging States at Crossroads*,
Emerging-Economy State and International Policy Studies,
https://doi.org/10.1007/978-981-13-2859-6_9

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categories. The first is inequality between citizens *within* a nation, the second is international inequality *between* national averages, and the third is global inequality between citizens *across* nations. In the last category, all individuals are treated as citizens of the global community regardless of nationality. If the world is considered a single virtual nation-state, the global inequality measured by the GINI coefficient is estimated to be around 0.7 (Milanovic 2011, Chap. 3). Thus, we may justifiably regard South Africa as a microcosm of the world, given that the level of inequality within this country is the closest to the reality of global inequality.

South Africa's post-apartheid economy is not only unequal but also stagnant. Defining the middle-income trap, Kharas and Kohli (2011) highlighted Brazil and South Africa as typical cases of "trapped" countries, and proposed alternative growth strategies for their policymakers. In order to secure stable growth paths for emerging states, upgrading technological capacity and elaborating redistributive measures are of prime importance. To this end, effective coordination of conflicting interests is necessary (Chap. 1 of this volume).

Policy coordination involving vocal stakeholders might be possible in South Africa in the short term, not least because of the legacy of post-apartheid coalition making. In the longer term, however, excessive inequality combined with structural unemployment remains a major constraint on coherent policy making for efforts to catch up. Inequality tends to make "politics more discordant and fractious, thus discouraging the centripetal and consensual politics" (Doner and Schneider 2016, p. 620). In today's South Africa, a substantial part of the population is excluded from the productive sector, and this situation cannot be effectively redressed only with conventional redistributive measures. This chapter contends that, in order for South Africa to pull out of the "trap," it is critical not only to make the working population more productive and innovative, but also to create decent jobs for the chronically unemployed in both cities and the countryside, thereby reinforcing national cohesion. While part of South Africa is considered a "knowledge economy," the country also bears aspects of the least developed countries (LDCs) in Africa. For South Africa as a special type of emerging state in Africa, therefore, a strategic combination of policies for middle-income and low-income countries is desirable. And, strong commitment to a set of agreed policies is required.

Following this introduction, Sect. 9.1 of the chapter characterizes the basic structure of the South African economy and identifies its position in Africa and in the world of emerging economies. Section 9.2 traces the historical origin of inequality and argues that the land and labor policies of the colonial/apartheid regime laid the foundation of the structural unemployment that persists today. Section 9.3 portrays South Africa's party politics after apartheid and describes how major political forces attempt to gain a following among the "black middle class." Section 9.4 reviews a series of development policies of the ANC government, indicating that the lack of resoluteness hinders implementation of policies that would make the South African economy more inclusive and dynamic. In conclusion, Sect. 9.5 argues that short-term policies to upgrade technological capacity should be combined with tenacious policy efforts that give voice to the poor and address the root causes of inequality.

9.1 South Africa as an African Middle-Income State

South Africa occupies 4% of the surface land of sub-Saharan Africa, and accounts for 6% of the total population of the region in 2015. Its share in the total GDP of sub-Saharan African countries was 19% in 2016, second to Nigeria (28%).

However, the presence of South Africa in the region is much larger than the size of its GDP. South Africa is the base of the most robust manufacturing industry in Africa, and its enterprises and investors are conspicuous in the fields such as formal banking, infrastructure development, retail chains, tourism and even private military services. The exceptional position of South Africa becomes evident when comparing GDP per capita; setting aside small, high-growth countries such as the Seychelles, Mauritius and Botswana, South Africa is the only major African country that reached the level of \$4,000 as early as 1970, even though its economic power was totally controlled by the white minority at the time (Fig. 9.1).³ The huge gap in average income between South Africa and the rest of the continent is the major reason why South Africa has attracted a multitude of migrants from across the continent since the abolishment of apartheid in 1994.

Economically, South Africa was clearly an “emerging” state until the early 1970s. The manufacturing industry expanded rapidly in the boom period occasioned by the Second World War. By 1948 when the National Party (NP)—supported by Afrikaners, the descendants mainly of continental European settlers in the 17th century—seized power to consolidate the apartheid regime, the manufacturing sector was already larger than agriculture and mining. The share of manufacturing and construction in GDP reached 27% in 1970. The industrialization of South Africa was realized by the combination of cheap labor of indigenous black African workers and the import-substituting industrialization policy which was not only the default option for developing nations in the post-war period but also preferred by the Afrikaner nationalists who controlled state power against the hegemonic British Empire. The apartheid regime was, however, unsustainable; the black African consumer market was dwarfed, the labor market suffered the shortage of skilled workforce, and international isolation seriously hampered South Africa’s access to the global financial market and innovation. As such, the prolonged recession in the 1980s was structural rather than temporal (Lipton 1985; Feinstein 2005).

Although the establishment of the democratic regime in 1994 was expected to strengthen South Africa’s industrial base, the country actually witnessed rapid deindustrialization. The share of manufacturing in GDP contracted from 20% in 1995 to 12% in 2015, while that of finance, real estate and business services increased from 14 to 18% in the same two decades. South Africa is the only African country that accommodates the substantial automobile industry as part of global value chains, though the industry is exposed to harsh competition from Asian rivals (Barnes 2014). In 2015, South Africa’s total trade accounted for 63% of GDP. The export of machinery, electronics and transportation accounted for 23% of total export, and the import

³The sum of the GDP of the seven countries listed in Fig. 9.1 accounted for 68% of the total GDP of sub-Saharan Africa in 2016.

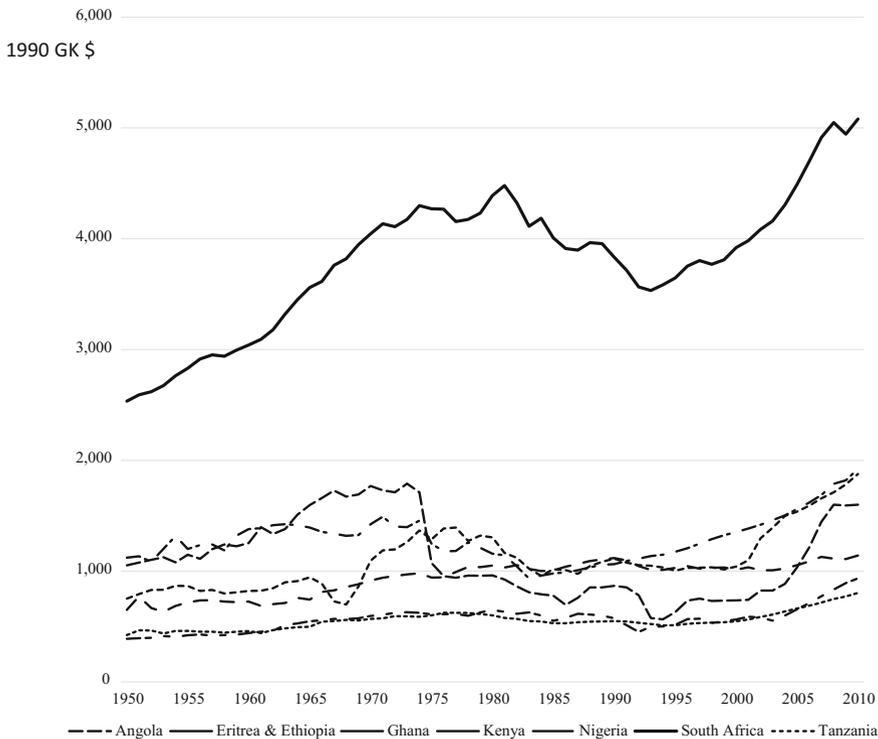


Fig. 9.1 GDP per capita change in major sub-Saharan African countries, 1950–2010. Source Based on the Maddison-Project. <https://www.rug.nl/ggdc/historicaldevelopment/maddison/releases/maddison-project-database-2013>. Accessed 15 October 2017

of the same category of goods constituted 34% of total import, while the share of the export of minerals, metals, stone and glass was 38%. South Africa’s deficit in the trade of manufacturing goods is therefore amply compensated for by the export of natural resources. In the case of Africa’s largest economy, Nigeria, the trade/GDP ratio was 22% in 2015, while 76% of export was classified as raw materials, mostly crude oil. Compared to this, the South African economy is more deeply embedded in the global trade regime, and its mineral rent plays only an auxiliary role.⁴

Despite the demise of apartheid, the lifting of sanctions and the full inclusion of South Africa into the global economy, the country’s growth performance fell short of expectations. Figure 9.2 compares the changes of GDP per capita in South Africa, Brazil, South Korea, Indonesia and Nigeria, as well as Malaysia whose Bumiputera policy was examined by South African policymakers to craft the post-apartheid

⁴These figures are taken from the database of Statistics South Africa (http://www.statssa.gov.za/?page_id=1854&PPN=P0441&SCH=6983) and the World Integrated Trade Solution (<https://wits.worldbank.org/CountryProfile/en/ZAF> and <https://wits.worldbank.org/CountryProfile/en/NGA>). Accessed October 15, 2017.

affirmative action policy. Although the upward turn of South Africa's GDP per capita after the abolishment of apartheid in 1994 is visible, the pace of advancement is frustratingly slow. South African economy still remains "trapped."

Nations generate rapid economic growth when they transform their labor force from a low-productivity to a high-productivity stage, and continuously upgrade their skills and innovativeness. However, the South African labor market excludes more than one third of human resources from the productive sector. Figure 9.3 shows the extreme level of unemployment in South Africa. The official rate of 25% is based on a narrow definition of unemployment that only covers those who are willing to work but cannot find jobs. In addition, South Africa has a great number of people who have given up paying futile effort to find jobs and therefore are excluded from this narrow category of the unemployed. If those chronically jobless people are counted, the unemployment rate (based on the expanded definition) hit 36% in 2016.⁵ In both definitions, the level of unemployment has not substantially changed in the past two decades. In the next section, the historical origin of social exclusion in South Africa is explained.

9.2 The Land Question and the History of Inequality

In *Why Nations Fail*, Daron Acemoglu and James A. Robinson contrasted inclusive and extractive institutions, citing examples of the US-Mexican border, North and South Korea and other cases in which institutional choices determined the long-term growth paths of nations. Combining normative and empirical discussions, they argued that both political and economic institutions should be inclusive, accountable and open enough to ensure sustainable prosperity. However, a country is not necessarily at liberty to choose a particular set of institutions; an extractive institution might have not been preferred by selfish and short-sighted local politicians, but historically enforced by outside powers. To illustrate this coercive path, they used the historical example of South Africa (Acemoglu and Robinson 2012, Chap. 9), which is worth revisiting here.

The principal cause of persistent inequality in South Africa lies in the history of land dispossession that started in 1652, when the Dutch East Asian Company (VOC: Vereenigde Oost-Indische Compagnie) established the Cape Colony. Joined by the British in the early 19th century, European settlers expanded their territory into today's South Africa depriving indigenous African people of land. The European conquest in this part of Africa was completed in the second half of the 19th century, stimulated by the discovery of diamonds in 1867 and gold in 1886 (Thompson 1990, Chap. 4). The emergence of mining cities like Johannesburg and port cities like Durban boosted demand for food and basic goods. Acemoglu and Robinson (2012, pp. 261–64) noted that this new demand was met by the increased supply of agricul-

⁵See "Quarterly Labour Force Surveys." Statistics South Africa Website. http://www.statssa.gov.za/?page_id=1854&PPN=P0211&SCH=6813. Accessed October 15, 2017.

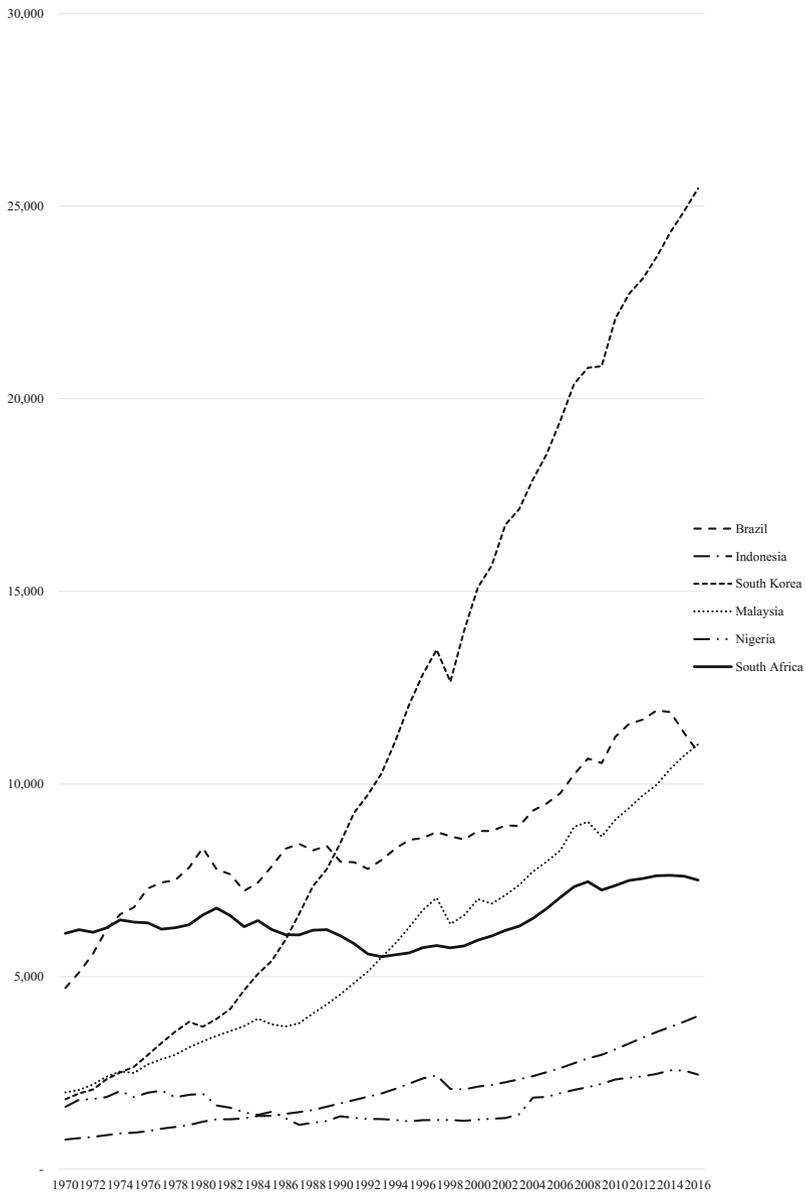


Fig. 9.2 GDP per capita change in South Korea, Malaysia, Indonesia, Brazil, South Africa, and Nigeria, 1971–2010. *Source* World Bank data. <https://data.worldbank.org/indicator/NY.GDP.PCAP.KD>. Accessed 15 October 2017

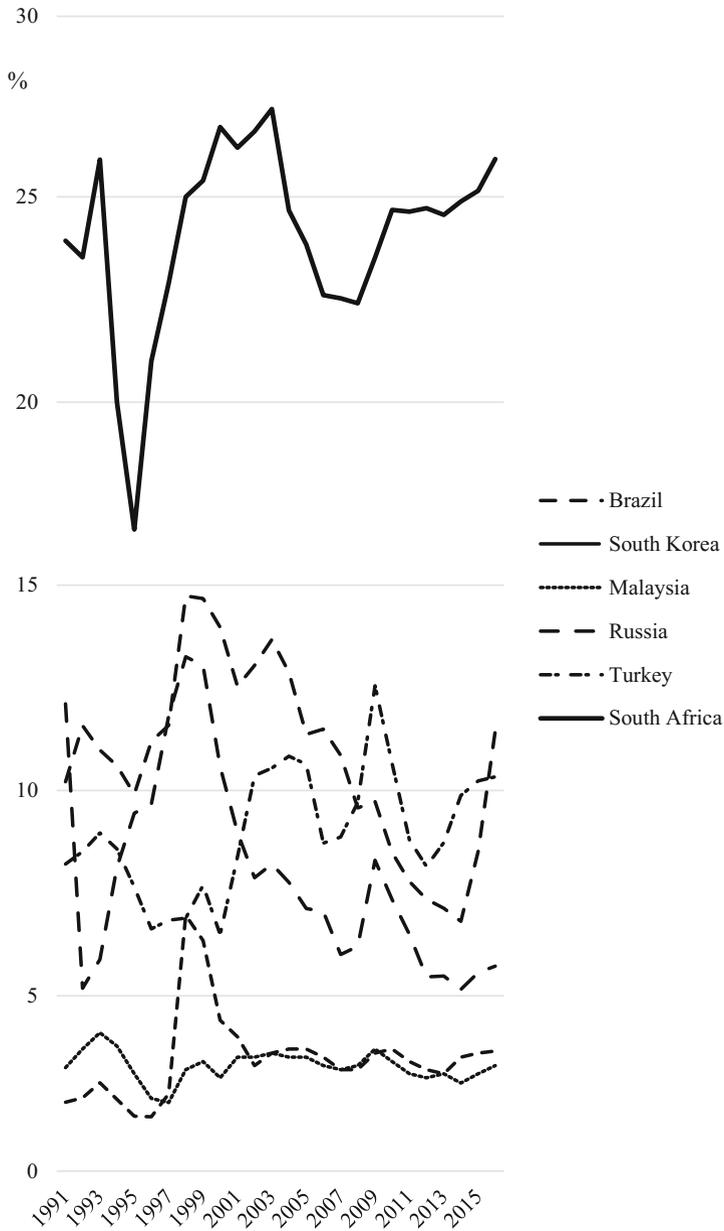


Fig. 9.3 Unemployment in South Africa and other emerging states. *Source* World Bank data. <https://data.worldbank.org/indicator/SL.UEM.TOTL.ZS>. Accessed 15 October 2017

tural products by local African farmers, mainly diligent Christians, rather than white settler farmers. They successfully produced crops such as maize, accumulated capital and even started to purchase farmlands back from white farmers (Bundy 1979).

However, after the South African War (Boer War), the racial dualism of the South African agrarian structure began to consolidate. Under the new regime of the Union of South Africa established in 1910, the authorities prohibited the land ownership of black Africans in areas designated by law as being for whites only, thereby destroying the basis of their autonomous rural livelihoods and enterprises. As vividly described by Sol Plaatje, one of the founders of the ANC, the government evicted black African farmers from white areas often with raw violence (Plaatje 1991). While white farmers began to engage in large-scale subsidized food production in the best parts of the country, black Africans were forced to make their living in so-called native reserves (homelands), which constituted only 13% of their native soil (Fig. 9.4). Given the necessity for wage income, rural Africans sought job opportunities in the white areas, giving rise to circular migration between the homelands and urban industrial spaces.⁶ The government and industry took it for granted that the homeland economy would supplement the income of migrant households. However, as more black Africans were forcibly relocated from mechanized white farms to the homelands, the latter became over-populated and productivity deteriorated.⁷ Although homeland agriculture accommodated 40–50% of local food demand in the first half of the 20th century, the rate decreased to 26% by 1967 (Simkins 1981).

Uprooted from the soil, people flocked to the white areas seeking low-wage jobs, regardless of availability, and this creation of “surplus people” gave origin to today’s structural unemployment in South Africa. On the other hand, the urban industry vied for a limited number of skilled and semi-skilled black African workers and called for a relaxation of the draconian regulation of the apartheid labor market. The manufacturing and service sectors were increasingly concerned about the short supply of a skilled workforce as well as the limitations of the consumer market, and called for the appeasement of apartheid (Lipton 1985). This reformist voice from inside the regime contributed to the collapse of apartheid.

We now consider the wider African region to compare experiences. Several African countries other than South Africa also appear extremely unequal in terms of income distribution; examining South Africa’s neighbors, GINI coefficients are 0.610 for Namibia and 0.605 for Botswana in 2009. Statistically, however, the extent of inequality tends to be exaggerated in Africa. The income of resource-exporting countries circulates in capital and commercial cities, while a majority of people continue living on a subsistence economy in the countryside where goods and services are produced and consumed without being mediated by money. In this regard, in most African countries, the welfare level of low-income households can be much

⁶The economic effect of coercive circular migration was elaborated by a group of neo-Marxist scholars such as Harold Wolpe (1972). See Friedman (2015) for an appraisal.

⁷About 3.5 million black people were forcibly relocated by the authorities from 1960 to 1983 (Platzky and Walker 1985, pp. 10–11, 17). The total South African population was estimated to be around 30 million in 1980.

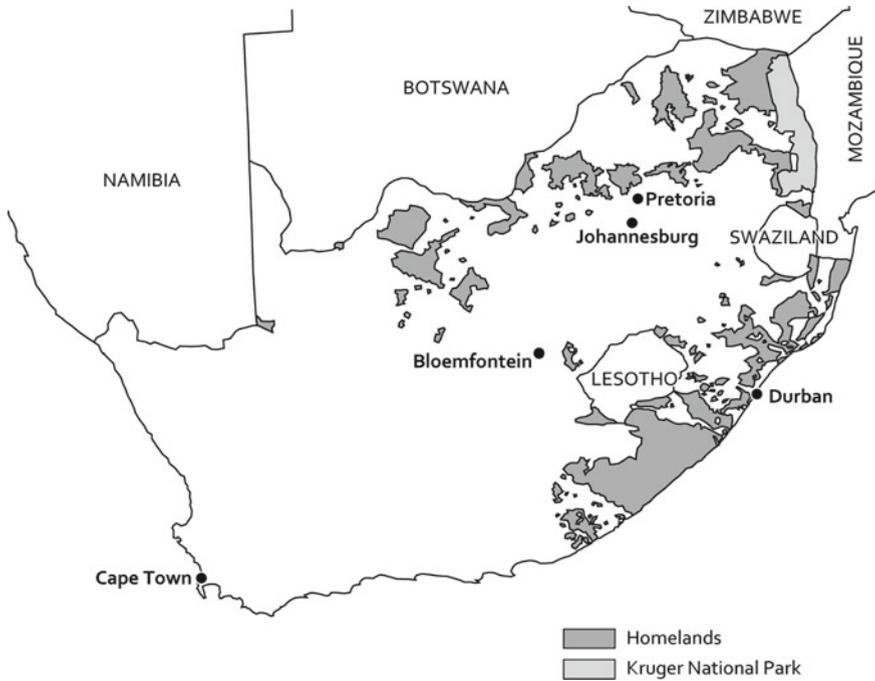


Fig. 9.4 Homelands of South Africa. *Source* Mine (2013, p. 98)

higher than it appears. In addition, the quality of statistical data on African countries is dubious. In 2010, for example, the Ghana Statistical Services revised the GDP size and increased it by 1.7 times from 22 to 37 billion cedi after improving the calculation method (Jerven 2013, p. 26).

Compared with average African countries, South Africans face inequality in a bare, purer form. As shown in Table 9.1, the ratio of agricultural employment to the total employment is extremely low in South Africa, while the urbanization rate is the highest of all listed countries. The ratio of wage and salaried workers is also very high. In South African villages where informal buffers are lacking, people ride on a minibus to buy maize and other foodstuff at a town supermarket, which becomes particularly crowded after the payment day of social security grants. After the destruction of indigenous agriculture described in this section, the South African countryside polarized into mechanized farmlands on the one hand (former white farming areas), and villages that cease to practice productive farming and instead accommodate a large number of jobless people, on the other (former black homelands). This dichotomy remains intact after the end of apartheid.⁸

⁸Only 8–9% of lands for commercial agriculture was transferred from white ownership to black ownership from 1994 to 2013 (Cousins and Walker 2015, p. 4, 22).

Table 9.1 Rural and informal buffers against inequality

	Employment in agricultural sector (2017, male–female %)	Urbanization rate (2016, %)	Wage and salaried workers rate (2017, %)	GINI coefficient
Angola	n.a.	44.8	46.5	0.427 (2008)
Cameroon	57–67	54.9	23.2	0.465 (2014)
Congo, DR	55–76	43.0	22.7	0.421 (2012)
Cote d’Ivoire	45–75	54.9	23.9	0.417 (2015)
Ethiopia	78–62	19.9	51.0	0.332 (2010)
Ghana	46–38	54.7	24.7	0.422 (2012)
Kenya	51–75	26.1	45.8	0.485 (2005)
Nigeria	38–15	48.6	65.9	0.430 (2009)
Senegal	48–57	44.1	31.9	0.403 (2011)
South Africa	8–4	65.3	85.6	0.634 (2011)
South Sudan	n.a.	19.0	n.a.	0.463 (2009)
Tanzania	64–70	32.3	17.7	0.378 (2011)
Uganda	68–76	16.4	21.2	0.410 (2012)
Zambia	44–67	41.4	22.5	0.571 (2015)
Zimbabwe	64–71	32.3	24.9	0.432 (2011)

Source World Bank data. <https://data.worldbank.org/indicator>. Accessed 15 October 2017

9.3 The Rise of the “Black Middle Class”

Despite the continued distortion of economic structure, South Africa’s political landscape has thoroughly transformed after apartheid. Celebrated by all African nations and the international community, the black African majority finally became entitled to vote in 1994. The war machines of the white government and anti-government guerrillas were integrated into a single national defense force, a shining example of post-conflict peace building. The Truth and Reconciliation Commission (TRC) managed to put a lid on the simmering discontent of black Africans over the past racial injustice through its programs such as public hearings, research, amnesty and compensation. In light of polarized group interests in racial capitalism in the last century, it is prodigious that conflicting political forces agreed to govern the country in coalition at least in the short term. What is the nature of this coalition?

First of all, it must be noted that the ANC that triumphed in the first non-racial general elections is a broad coalition itself. The liberation movement formed the Tripartite Alliance with the Congress of South African Trade Unions (COSATU) and the South African Communist Party (SACP) when they entered multi-party negotiations in 1990. Then, a group of progressive, largely neo-Keynesian economists presented a carefully crafted policy recommendation for a post-apartheid government (MERC

1993), which formed the basis of the Reconstruction and Development Programme (RDP), the ANC's policy platform for the 1994 general elections. However, given the collapse of the Soviet Union, the agenda of a pro-poor mixed economy of the RDP lost momentum, while the cadres of the ANC engaged in behind-the-door negotiations with delegates of the corporate sector on key economic issues in the early 1990s (Terreblanche 2002, pp. 95–109). Even though the agenda of the RDP was shelved, the Tripartite Alliance continued. The organizational machinery of the COSATU and the SACP remains essential for the ANC to canvass for votes in the elections, while the unionists and communists can hold cabinet positions.

Keeping the rhetoric of national liberation, the ANC has fostered, and been supported by, the new “black middle class,” which has remarkably expanded under the scheme of Black Economic Empowerment (BEE). Under this scheme, corporate shares and assets were gradually transferred to black African investors, and the principle of employment equity (affirmative action) transformed the landscape of economic decision making; in 2015, 64% of the top management positions in the national government were occupied by black Africans, though 72% of the top managers in private firms were still whites (Southall 2016, pp. 73–95; CEE 2016, p. 132, 138). The BEE policy continued under the presidencies of both Thabo Mbeki and Jacob Zuma. In the meantime, organized labor has been allowed to give voice to social and economic policy making through the National Economic Development and Labour Council (NEDLAC), even though the mandate has been short of corporatist joint decision making (Adler 2000). In the COSATU membership, the ratio of white-collar workers rose from 19% in 1994 to 42% in 2012, while that of semi-skilled and un-skilled workers declined from 60 to 38% in the same period (Satgar and Southall 2015, p. 28).⁹

Regarding the partnership between the ANC and other parties, the experience of the Government of National Unity (GNU) in which all major political parties formed a coalition government from 1994 to 1999 under the leadership of Mandela is considered a watershed event. Based on the prescription of the interim constitution, the ANC, the NP and the Inkatha Freedom Party (IFP) entered a transitional power-sharing arrangement by being allocated cabinet positions according to their shares in the national vote. The NP leader, F.W. de Klerk, served as one of two deputies of President Mandela. The scheme of this grand coalition, modeled on the consociational democracy propounded by Lijphart (1985), dramatically contributed to the reconciliation of racial groups (Mine 2013). Lijphart's original proposition consisted of four elements: grand coalition, proportional representation, federal government and mutual veto. After multi-party negotiations, all political players agreed to this set of government design except for mutual veto, which was dropped to avoid gridlock and to advance affirmative action.

The national elections became competitive rather than consensual after the dissolution of the GNU in 1999. However, South Africa's post-apartheid elections are

⁹Dani Rodrik argued that in South Africa, the shrinkage of export-oriented manufacturing was the main factor in the failure of job creation, especially for the relatively unskilled workforce, in contrast to the case of Malaysia (Rodrik 2008).

Table 9.2 Results of general elections (PR system) (%)

	1994	1999	2004	2009	2014
African National Congress (ANC)	62.65	66.35	69.69	65.90	62.15
Congress of the People (COPE)	–	–	–	7.42	0.67
Economic Freedom Fighters (EFF)	–	–	–	–	6.35
National Party (NP)/ New National Party (NNP)	20.39	6.87	1.65	–	–
Democratic Party (DP)/Democratic Alliance (DA)	1.73	9.56	12.37	16.66	22.23
Inkatha Freedom Party (IFP)	10.54	8.58	6.97	4.55	2.40
President-elect of the ANC and the Republic of South Africa	Mandela	Mbeki	Mbeki	Zuma	Zuma

Source Electoral Commission of South Africa. <http://www.elections.org.za/content/Elections/National-and-provincial-elections-results/>. Accessed 15 October 2017

still considered a sort of “race censuses.” According to the Census 2011, African people accounted for 79% of the total population, while the shares of whites and Coloureds were 9% each. A rule-of-thumb interpretation that whites and Coloureds vote the right-leaning “white parties” (NP/NNP and DP/DA), while black Africans vote the left-leaning “black parties” (ANC, COPE, EFF and IFP) may seem close to the reality (Table 9.2). A small but critical trend is that the gravity of Coloured votes has gradually shifted from the ANC to the Democratic Alliance (DA).

Nevertheless, the relations between major political parties cannot be explained only in terms of race factors. To the “left” of the ANC, the Economic Freedom Fighters (EFF) is consolidating its presence.¹⁰ The EFF is led by Julius Malema, the former leader of the ANC Youth League who was expelled from the ANC for disciplinary reasons in 2012. Resorting to radical discourse such as land redistribution without compensation, the EFF has sought support from the young African underclass and unemployed, and is often regarded as a dangerous “populist” party. Since 2015, education at South African universities has been disrupted by the popular student campaign “#Fees-Must-Fall” against the proposed increase in tuition fees (Booyesen 2017). Having engaged in the movement, the EFF is also giving voice to the educated and frustrated black African youth.

To the “right” of the ANC is the DA, which originated as a liberal anti-apartheid party supported by English-speaking whites and joined by Afrikaans-speaking constituencies after the demise of the NP/NNP. The DA largely remains a party of whites and Coloureds, and is dominant in the Western Cape, the wealthiest province. However, if a South African political party wants to break through its minority position

¹⁰Another ANC offshoot, the Congress of the People (COPE), was formed mainly by supporters of former president Thabo Mbeki, but has become almost negligible by the 2014 elections.

in national politics, it is essential to garner the votes of black Africans. In 2015, the DA elected a black moderate politician, Mmusi Maimane, as the party leader. It is evident that as the legacy of struggle wanes, all major opposition parties aim at ripping the votes of the “black middle class” from the colossus ANC, which has been supported by a medley of community activists, trade unionists, financial magnates and rural traditional leaders. The BEE policy seems to be mostly endorsed by all political parties based on dual expectations; the “black middle class” is regarded as a vanguard of the advancement of the black majority and can also be a buffer to preserve a deracialized capitalist order.¹¹

Based on the 2008 data, Jeremy Seekings and Nicoli Nattrass classified South African households into “lower” (37% of households and 10% of income), “middle” (46% of households and 35% of income) and “upper” categories (17% of households and 55% of income). The chronically unemployed and farm and domestic workers form the core of the “lower” classes. The size of the “middle,” i.e., blue-collar and white-collar workers as well as nurses and teachers, has somewhat shrunk in the context of deindustrialization, while the “upper” classes such as managers and professionals are growing and becoming increasingly multi-racial (Seekings and Nattrass 2005, Chap. 9; 2016, p. 120). Two decades after liberation, social mobility has slowed down, and the spill-over effect of skills and knowledge across strata remains limited. As an alternative measurement of inequality, the Palma ratio attracts attention of economists (Palma 2011). This is the ratio of the richest 10% of the population’s share of gross national income (GNI) divided by the poorest 40 percent’s share. Given that the income share of the in-between 50% of the population is almost constant (about half of GNI) across countries and over time, this ratio highlights the state of income inequality in a more straightforward way than GINI. The ratio is 7.1 in South Africa, 3.5 in Brazil, 2.6 in Malaysia, 2.2 in Nigeria, 2.0 in the United States, 1.8 in Indonesia, and 1.2 in Japan. The figure for South Africa is the highest in the world (the latest available data during the period of 2010–2015) (UNDP 2016, pp. 206–9).

In order to expand the growth capacity of South Africa, it is required to improve productivity and innovativeness of the workforce by investing in research and human capital formation and by socially stabilizing the “black middle class.”¹² South Africa’s investment in R&D is not impressively high: in 2013, the ratio of R&D spending to GDP was 0.7% in South Africa, between Turkey’s 0.8% and Mexico’s 0.5%, and much lower than China’s 2% and South Korea’s 4%.¹³ As the BEE policy creates strong demand for young black Africans with higher degrees, the share of black students enrolled in tertiary education institutions rose from 38 to 71% between 1990 and 2015, while the share of white students decreased from 50 to 16% in the

¹¹Throughout the 20th century, it was a consistent policy objective for the white government to separate between urban workers settled in cities and migrant workers rooted in the countryside (Hindson 1987). The former is the historical origin of today’s “black middle class.”

¹²Southall (2016, p. 62) categorizes middle managers and independent professionals as “upper middle class” rather than the “upper” defined by Seekings and Nattrass.

¹³OECD database: <https://data.oecd.org/rd/gross-domestic-spending-on-r-d.htm>. Accessed October 15, 2017.

same period (SAIRR 1995, pp. 259–61; Council on Higher Education 2017, p. 3).¹⁴ However, despite efforts of expanding the educational basis, skilled black African professionals are still in short supply. Some black African university graduates do not want to be stigmatized by affirmative action, in that they may be considered less competent than their white colleagues.

Given the growing number of educated urban black Africans and their frustration, all major political parties have begun vying for their votes. As argued by Southall (2016), one of the major characteristics of the South African “black middle class” is their dependency on the party-state structure. Recognizing that state patronage has greatly contributed to the ANC rule, the opposition parties strategically expanded their sphere of influence in major metropolitan areas through local elections, bidding for greater access to state power. At the societal level, the propensity toward statism is reflected in the low level of entrepreneurship in South Africa: the ratio of those engaged in early-stage entrepreneurial activities to the working-age population was only 8% on average from 2014 to 2016, compared to 13% in China, 18% in Thailand, 19% in Brazil, 26% in Chile, 28% in Burkina Faso and 30% in Cameroon (Global Entrepreneurship Research Association 2017; OECD 2017).

9.4 Reform Deferred

In order to forge an effective coalition for technology upgrade and equitable redistribution, there should not be too many or too few effective veto players. Given diverse interests, if there are too many veto players, no policy may be agreed on, and if too few, an agreed policy may not be implemented thoroughly. The former leads to the lack of decisiveness, increasing the risk of “stalemate or gridlock”, while the latter leads to the lack of resoluteness, increasing the risk of “rapid or frequent policy change” (Doner 2009; Cox and McCubbins 2001, p. 27). The latter seems to apply in South Africa, where a set of articulated policies is adopted at the party-state level, not thoroughly implemented, eventually replaced by an ostensibly new policy framework, and the cycle repeats. Although South African political parties exchange scathing attacks in parliament and the mass media in veto-type language, the strife between them revolves around politicians’ “behaviors” and “attitudes” such as corruption and racist remarks, rather than around the appropriateness of policies. Although the EFF calls for the nationalization of mines and appropriation of white farms, the agenda largely remains rhetorical and is rarely discussed as concrete policy programs at least for the moment.

A good example of the lack of resoluteness can be found in development policy making. Thabo Mbeki, the successor of Mandela, sidelined the social democratic RDP and unveiled a new policy framework called the Growth, Employment and Redistribution (GEAR) in 1996. The GEAR gave weight to economic growth as a precondition of job creation and redistribution, and prioritized fiscal discipline,

¹⁴The figure of 1990 covers the enrolment in universities, technikons and teacher training colleges.

wage restraints, tax reduction, trade liberalization and the promotion of foreign direct investment (FDI) (Government of South Africa 1996). Although they were part of the ruling coalition, the COSATU and the SACP were skeptical of the GEAR, criticized “neo-liberal” Mbeki and helped Jacob Zuma to take the helm of the ANC in 2007 and to rise to the state president in 2009. Having gone through the left-leaning RDP and the right-leaning GEAR, the government of Zuma released the National Development Plan (NDP) in 2013 to table a middle-ground agenda. Resonating with Amartya Sen (1999), the NDP explicitly set the expansion of people’s capabilities as the ultimate goal of development, highlighted infrastructure development and aimed at job creation by making the labor market more flexible. Although the NDP called for the leadership “to convince South Africans of the need to make mutual sacrifices for longer-term benefits” (NPC 2011, p. 10), the essential part of the NDP has not been translated into concrete action since its release.

The major problem of contemporary South African politics is that few political vehicles have committed to giving voice to poor South Africans who are, as a social group, “dispersed between countless local associations, community organisations and NGOs” (Bundy 2014, p. 156). As discussed in previous sections, more than one third of the working-age population have no access to jobs, and the origin of this massive joblessness lies in the history of land dispossession. The underclass people who get by each day on the periphery of urban townships or in the countryside have ceased to pin their hopes on formal party politics. The ratio of those who casted their ballots in general elections to the eligible voters has decline from 86% in 1994 to 57% in 2014, meaning that only 35% of all potential voters voted the ruling ANC in the latter year. Those who voted other parties are fewer.

The grievances of the bottom layer of the population have been eased to some extent by thin and widespread social security benefits financed largely by the rent of natural resources. Capitalizing on the old system of welfare handouts developed in the apartheid era, the post-apartheid government expanded social security cash grants for the vulnerable population, especially the elderly, the handicapped, and the families with dependent children (Marais 2010, pp. 238–261; Seekings and Nattrass 2016, pp. 139–167). In 2017, the old-age grant and the disability grant were R1,600 (approximately US\$120) per person per month, while the child support grant was R380 per child. The number of cash grant recipients amounted to 17.2 million, nearly one third of the total population, in February 2017. This corresponds to the “lower” category of the South African population.¹⁵

As the absolute size of South African population increases, it will become imperative for the government to enlarge the budget revenue in order to expend more social security grants. While the NDP did not discuss much on taxation, the Organisation for Economic Co-operation and Development (OECD) specifically recommended that South Africa should broaden the income tax base and increase the tax rate for the wealthy population, which would not only improve fiscal sustainability but also

¹⁵The population of South Africa was 55.9 million in 2016. The number of recipients is released every month at the website of the South African Social Security Agency (Sassa). <http://www.sassa.gov.za/index.php/homepage>. Accessed October 15, 2017.

reduce inequality (OECD 2015). The ratio of tax revenue to GDP in South Africa in 2013 (27%) was not very high compared to other middle-income countries like Brazil and Argentina (around 35% for both) (Luiz 2016a, p. 213). However, the government has hardly discussed tax reforms that might deliver a blow to the multi-racial wealthy classes. Making public sector services more efficient is another crucial task. In this connection, at the end of Mbeki's presidency, keen attention was paid to the notion of a Democratic Developmental State (Edigheji 2010) in part as a response to violent protest against the delay of service delivery in the townships. Although this agenda of state capacity and efficiency was taken up in the NDP, the extent of reforms has not been closely monitored.

The historical impact of development and welfare policies is shown in Fig. 9.5. However counterintuitive it may be, the wealthiest classes became less rich during the apartheid period. This is primarily because of the affirmative action targeting Afrikaners *vis-à-vis* English-speaking whites. Looking at the post-apartheid trend, the number of people living below the poverty line has decreased since the beginning of the 2000s due to the expansion of social security grants.¹⁶ Although this cash transfer is supposed to be instrumental in alleviating not only absolute poverty but also relative inequality, the household surveys show that post-apartheid society is more unequal than apartheid society was; the GINI coefficient rose in the early 2000s on top of already high inequality for the previous three decades. This can primarily be attributed to the steep upturn of the income of the most affluent population. Although both radical deregulation of the labor market and income tax reforms to capture various forms of rent more efficiently are indispensable for job creation and inclusive development in a country like South Africa, political parties have failed to represent the critical part of the population that would benefit most from radical "painful" reforms.¹⁷ As the development economist Arthur Lewis remarked in post-independence Ghana, "In Europe, socialist parties were built by a coalition of trade unions and middle-class intellectuals. In Africa both these groups are on the wrong side. The underdog is the farmer, and both the trade unions and the educated classes live by sucking the farmer's blood" (Lewis 1969, p. 69). South Africa may not be an exception to this pattern; what is worse, the difference is that the South African underclass people are landless.

On August 16, 2012, more than thirty workers were shot to death by the security police as a consequence of violent confrontations at the Marikana platinum mine. Before the incident, groups of unskilled workers had broken away from a COSATU-affiliated trade union, formed their own, attempted to go on strike for higher wages and attacked the security police. The execution-style retaliation killings by policemen horrified the entire nation and goaded young activists to part with the ANC and organize the EFF. The political strategy of the SACP and the COSATU is called

¹⁶Statistics South Africa (2017) reports a slight increase in poverty headcount from 2011 to 2015 due to sluggish economy.

¹⁷John M. Luiz refers to the current South African political dispensation as "bounded populism," which "sacrifices innovation with an elaborate rent-granting system while retaining economic stability, be it at a low level" (Luiz 2016b, pp. 16–17).

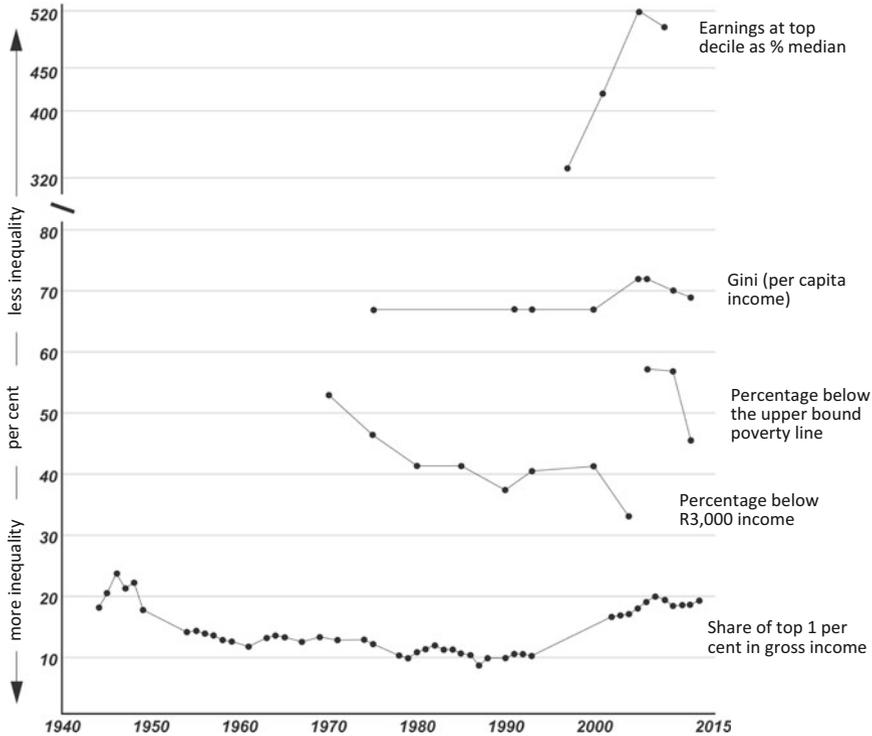


Fig. 9.5 Economic inequality in South Africa. *Source* Atkinson et al. (2017). As for the definitions of poverty lines, see Statistics South Africa (2017, pp. 114–17)

national democratic revolution (NDR): associating with patriotic bourgeoisie in the first stage and preparing for a socialist revolution in the second stage. However, their strategic alliance with business elites can be easily regarded as a betrayal of the cause of the working class. On the other hand, it is problematic to regard formal sector workers as a “labor aristocracy,” not least because “massive unemployment and poverty among the majority of the black population requires employed workers to share their wage with a large number of dependents – immediately dissolving their ‘privilege’” (Satgar and Southall 2015, p. 27).

The basic demographic fact is that the generation with no memory of the anti-apartheid struggle is becoming a majority force of society. For them, selfless ANC activists like Mandela exist only in school textbooks. It is impossible to demand the loyalty of this generation to the ruling party through skimpy side payments. However, unless they are politically organized, the deprived cannot exercise veto to state policies that count seriously against them. As the precondition for an effective interest coordination to take place, *all* major group interests should be appropriately represented in the political space.

9.5 Conclusion: Addressing Both Pressing Issues and Root Causes

Anthony Atkins noted that the goal is not to achieve total equality but “to *reduce* inequality below its current level, in the belief that the present level of inequality is excessive” (Atkinson 2015, 9). Excessive inequality is not only morally intolerable but also socio-economically unsustainable (Stiglitz 2013). Doner and Schneider (2016) referred to three major deterrents that would impede effective upgrading coalitions in middle-income countries: inequality, informality and nationalist reactions to FDI. The question of informality is irrelevant in South Africa, where the indigenous rural informal economy was wiped out in the first place by the apartheid regime. Foreign control is not a central issue either; South African-born enterprises such as Anglo American, Old Mutual, BHP Billiton and SABMiller are all global players listed in London, and the problem is rather that the operations of these large enterprises do not have significant domestic spill-over effects. Therefore, only one factor remains. The case of this chapter is that excessive inequality is the most significant factor hampering sustainable growth in South Africa.

Given that South Africa exhibits characteristics of both middle-income and low-income countries, it is essential to clearly distinguish short-term and long-term challenges and address them simultaneously. In the short term, for a middle-income country like South Africa to catch up, technological capacity must be upgraded by investing substantially in R&D and human capital. For all the constraints discussed in this chapter, the chief advantage of the abolishment of apartheid for the South African economy is that inexhaustible human resources became available without racial segregation and labor-market dirigisme. The current “trap” of South Africa can be attributable not least to the structural weakness of human capital formation and weak spill-over effects of skills and innovation capacity to lower ranks of the workforce. The government should therefore continue giving support to higher education, vocational training, and the promotion of entrepreneurship (OECD 2017). Many South African universities, which boast a long history of resisting the irrationality of apartheid, still maintain top-class research capacity in Africa. Education provides the major route of upward mobility of the historically disadvantaged majority, and the present policy direction in which the advancement of black African professionals is pursued is not wrong in itself, though the private sector may play a greater role in achieving this objective.

In the longer term, the legacy of colonialism and racism can be dissolved only with time and care. Given that the ultimate cause of the extremity of today’s inequality in South Africa lies in centuries of land dispossession, the most straightforward solution will be to bring the land back to the landless people. However, people who were uprooted from the soil decades and centuries ago do not remember how to make a living in agriculture. The politics of land is so complicated that there is no other way than to patiently repeat experiments taking into account diverse factors such as the environment, gender, class, customary laws, job creation and productivity (Cousins and Walker 2015). It is also worth revisiting the idea of the manufacturing-agricultural

complex based on forward and backward linkage effects of the agricultural sector (MERC 1993, pp. 171–175). Widespread inertia in post-apartheid land reform is due to the paucity of pressure groups representing the interests of the rural poor. As emphasized throughout this chapter, the prospect for inclusive politics will determine the long-term path of development and democracy in South Africa. The responsibility to go beyond the politics of handout distribution rests on all political parties, and under the decentralized political dispensation in the post-apartheid era, the local government will be the major terrain of power struggle and democratic transformation (Hart 2002). With a background of trade unionist-turned-financial magnate, President Cyril Ramaphosa, the successor of Zuma, faces a rocky road ahead.

Finally, is South Africa an exceptional case in Africa? Looking back at agrarian history, the process of thorough land dispossession and the emergence of capitalist, mechanized agriculture in 20th century South Africa is a clear exception in sub-Saharan Africa (Bernstein 1996). However, looking at the future, the development patterns of African countries characterized by rapid urbanization and even land grabbing may converge on the South African pattern (Ilfie 1987; Mine 2017). In this respect, for other emerging nations in Africa, learning from the policy experience of South Africa will be more realistic than emulating East Asian miracles. On the other hand, economic cooperation in a larger African region will provide great opportunities for South Africa itself as well as for the rest of the continent. The ratio of intra-regional trade to all exports in the Southern African Development Community (SADC) is only 10%, much lower than 25% in the Association of Southeast Asian Nations (ASEAN) and 40% in the European Union (EU) (OECD 2017, p. 70). There is much room for coordination of national interests at the SADC level to promote intra-trade and upgrade regional value chains.

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Chapter 10

Education, Development, and Politics in South Korea



Noriyo Isozaki

South Korea (hereafter Korea)'s rapid economic growth since the 1960s has been labeled "the Miracle on the Han River." In addition to being almost totally devoid of natural resources, Korea was ruined by the Korean War (1950–53), which was fought on its own land soon after it had obtained independence. Its gross domestic product (GDP) per capita was as low as about \$100 in the early 1960s. A state-led development drive started with the economic development plan of the Park Chung-hee administration, which seized power in a 1961 coup d'état. During the authoritarian regime under President Park and President Chun Doo-hwan, state elites imposed order from above and were successful in terms of economic development. The June 29 Declaration of 1987 triggered a shift toward democratic rule in Korea's political system, including a gradual decline in government control over the private sector. Meanwhile, the Korean economy continued to grow, and its GDP per capita exceeded \$10,000 in 1995. The Asian Financial Crisis of 1997 devastated Korea, forcing it to ask the International Monetary Fund (IMF) to provide a bailout package. After Korea made economic structural adjustments under the IMF-supported program, its economy became more integrated with the global economy. Its GDP per capita exceeded the benchmarks of \$20,000 in 2007 and \$25,000 in 2013. As the Korean economy went through this development process, its main exports (and the chief engines of its growth) were, first, textile products, then steel and automobiles, and, in recent years, electrical and electronic products such as semiconductors (Fig. 10.1).

Korea is generally acknowledged as a typical example of one of the most influential concepts in explaining the rapid economic rise of East Asian countries: the developmental state (Amsden 1989; Woo-Cumings 1999; Chu 2016). Until recently, most researchers had attributed the Korean economy's sophistication to the adaptation of government policies and corporate strategies to the nation's circumstances; the role of the labor force, which has actually shouldered production activities, had

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K. Tsunekawa and Y. Todo (eds.), *Emerging States at Crossroads*,
Emerging-Economy State and International Policy Studies,
https://doi.org/10.1007/978-981-13-2859-6_10

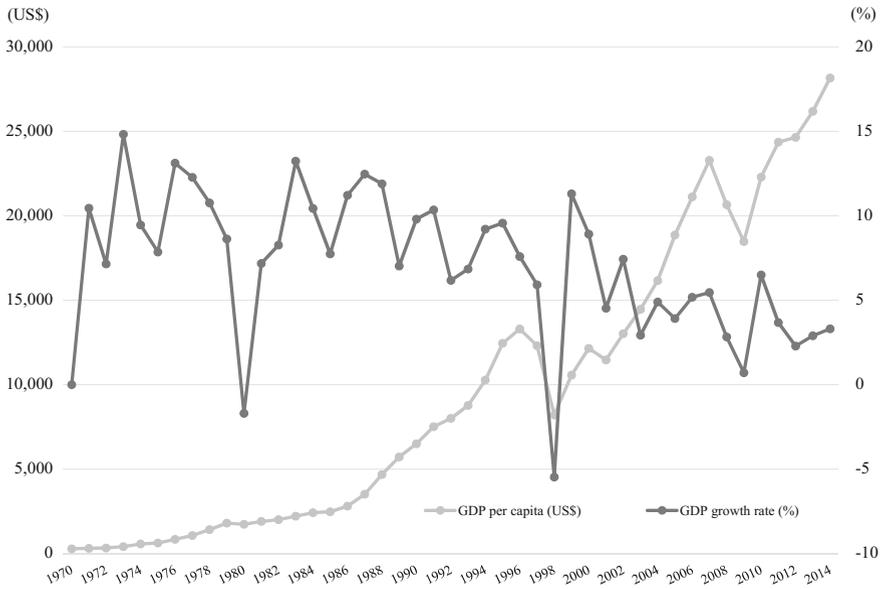


Fig. 10.1 Economic development in South Korea: GDP per capita and growth rate. *Source* World development indicators. <https://data.worldbank.org/products/wdi>. Accessed 25 June 2017

received little attention in research on the developmental process. However, production of Korea's key exports would have been unthinkable without a competent labor force with the necessary expertise, skills, and knowledge. Thus, in this chapter, I explore Korea's economic development from the viewpoint of human capital.¹

Following empirical investigations, scholars from the varieties of capitalism school have conducted comparative studies of political economy, yielding hypotheses regarding institutional complementarities between skill formation and both productive and welfare regimes (Hall and Soskice 2001; Iversen and Stephens 2008). However, these models apply to advanced, democratic, capitalist countries rather than to developing, nondemocratic countries. As Korea has drastically changed, both economically and politically, its case provides a comparative view of skill formation in the development process. To investigate this theme, in this chapter, I examine how Korea secured the necessary human capital—workers whose skills and knowledge were commensurate with the nation's level of economic development—by focusing on expanding education. As Goldin and Katz (2008) showed, the expansion of educational opportunities affects the formation of human capital and the supply of workers who are equipped with the necessary skills and knowledge.

¹Following Becker's (1964) definition, "human capital" is herein defined as the expertise, skills, and knowledge that are useful in production activities and that are acquired through education, training, and job experiences.

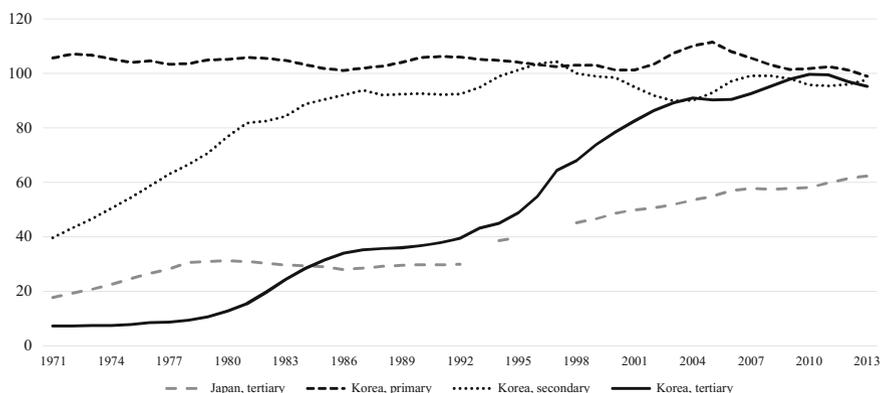


Fig. 10.2 Gross enrolment ratio in South Korea and Japan (%). *Source* World development indicators. <https://data.worldbank.org/products/wdi>. Accessed 25 June 2017

First, I provide a survey of Korea’s education expansion and list the proposed research questions. “Education fever” in Korea (Seth 2002) has been attracting attention from scholars around the world. As shown in Fig. 10.2, Korea’s gross enrollment ratio (GER)² for tertiary education reached 80% in 2000 and then nearly 100% in 2010—the highest ratio of any country. However, the GER for higher education did not begin to reach these heights until the 1990s. Moreover, as recently as the 1960s, even Korea’s GER for secondary education was very low.³

Even after primary education became universal in Korea in the late 1950s, many students chose not to enroll in middle school. Although primary education has been officially financed and compulsory since the country’s founding in 1948, middle-school education was not free until 1984.⁴ Korea’s GER for middle school remained as low as about 40% even in the early 1970s, probably because many parents and children judged that it would be more beneficial for the children to start working in agriculture immediately after finishing their primary education than to advance to middle school and impose financial burdens on their families. However, this ratio began to rise rapidly after the 1970s, and it reached nearly 100% in the mid-1980s. The first question is this: What incited parents to send their children to middle school, even when they had to pay for it, as in the early 1970s?

²GER is a statistical measure of the number of students enrolled in school at a given grade level. United Nations Educational, Scientific and Cultural Organization describes this ratio as a country’s enrollment “in a specific level of education, regardless of age, expressed as a percentage of the population in the official age group corresponding to this level of education.” <http://uis.unesco.org/en/glossary-term/gross-enrolment-ratio>. Accessed 15 October 2017.

³The source of the GER statistics in this chapter is World Development Indicators.

⁴The Constitution of South Korea stipulates that compulsory education should be provided without compensation. Middle school was not included in compulsory education until 1984 due to shortages in the educational budget.

This rapid expansion of secondary education paralleled the development of the heavy and chemical industry (HCI) in Korea even as the GER for higher education remained near 10% throughout the 1970s. However, this ratio rose sharply in the early 1980s, reaching 35% by the end of the decade before doubling in the 1990s. As Fig. 10.2 shows, Korea's expansion of higher education was rapid, even compared to that of Japan, which had become an advanced country much earlier. The second question is this: How and why did higher education expand so rapidly in Korea?

Moreover, these days, the difficulties that university graduates face in securing employment have become a major social problem even as the GER for higher education has remained high; the educational fervor and competition have become excessive. Thus, this is the third question: How should the current supply-and-demand imbalance of highly educated workers be understood?

In this chapter, to answer the above questions, I intend to review the connection between demand and supply in human capital by focusing on both demand-side factors (e.g., industrial policy and business activities) and supply-side factors (e.g., nurturing human capital through formal education and considering the preferences of both the children who enroll in education and their parents). In addition, I mean to examine how democratization and globalization have influenced the formation of human capital in Korea and to clarify the challenges that Korea faces as a country that became developed and democratized relatively recently.

10.1 The Park Chung-Hee Framework for Human-Capital Development

10.1.1 Initial Stage: Expansion of Middle-School Education

The Park Chung-hee government (1961–79) prepared the framework of Korea's educational system, including its national entrance examinations; this framework still provides the foundation for today's systems.

Upon the country's founding in 1948, Korea adopted a 6-3-3-4 formal education system (i.e., six years of primary education, six years of secondary education (three years of middle school and three years of high school), and four years of higher education). Primary education had been compulsory from the beginning of the nation, but middle-school enrollment was not compulsory until 1984. The Park Chung-hee administration instituted radical changes to the education system in 1969, forming the basic framework of Korea's education system.

Immediately after seizing power through a coup d'état in 1961, Park Chung-hee announced a five-year economic development plan that was to be launched in 1962. Park constructed a system by which state funds were allocated to the private sector via financial institutions, thus consolidating a capitalistic system that nevertheless allowed the state to control the resources that it needed to sustain its economic activities. In the 1960s, Korea was still an agrarian society, with close to 70% of its

working population engaged in agriculture. Although the GER for primary school exceeded 90% in that era, the GER for noncompulsory middle school was under 50%. On the other hand, a few elite people could afford to send their children to school (including university) and those children were encouraged to attend a few prestigious middle schools, thus causing fierce competition among applicants.

Under these circumstances, the government's mission was to correct the inequalities surrounding middle-school enrollment. This effort, in the latter half of the 1960s, coincided with a period of economic growth that was driven by exports of inexpensive, labor-intensive products such as textiles; during this period, light industry hired the bulk of the labor force. The expansion of middle-school enrollment was an important measure in developing workers with the necessary skills and knowledge to engage in manual factory work.

In 1969, the Park administration revised the nation's education law in two important ways. The first was the Middle School Equalization Policy, which contained such measures as (1) the complete abolition of middle-school entrance examinations to allow all applicants to enroll, (2) a lottery-based enrollment selection process for when applicants exceed a school's capacity, and (3) the equalization of educational levels across schools through the abolishment of the few prestige schools. These measures were applied universally to private schools as well. This policy was a declaration to parents and children that middle-school enrollment would be provided equally to all.

The second change was the introduction of a system for governing higher education. First, the government would set the enrollment limit for each university and graduate school, and second, applicants to all universities, including private institutions, were obliged to undergo a standardized preliminary entrance examination.⁵ The government applied these quantitative restrictions to maintain quality.

In response to the above educational reform, the GER for middle school in Korea rose rapidly. In previous studies on Korean educational policy, researchers have corroborated the government's claim that the main purpose of this equalization policy was to stem excessive educational competition; however, the goal of human resource development turned out to be more important.

This educational reform coincided with the spread of rapid economic growth into rural areas. In the 1970s, the government carried out *Saemaul Undong*, or the New Community Movement, a state-led agrarian modernization drive that facilitated development in rural villages, which then began to benefit from the national economic growth. Convinced that children who acquired skills and knowledge during their education would have brighter futures in the rapidly growing society, farmers chose to send their children to middle school, even at their own expense. The possibility of social mobility was a key factor in this choice. The number of children who received

⁵The enrollment limit eventually became subject to each university's discretion, but the obligation for all university applicants to take a unified test (the National College Scholastic Aptitude Test) persists today.

secondary education rapidly increased in the 1970s, and these students became the core group of blue-collar workers in labor-intensive industries.⁶

10.1.2 Heavy and Chemical Industry: Expansion of Upper Secondary Education

President Park amended the Constitution of South Korea in 1972 to launch the authoritarian Yusin System, which further strengthened his dictatorial authority. In 1973, Park announced an HCI development plan, emphasizing the promotion of industries focusing on steel, nonferrous metals, shipbuilding, machinery, electronics, and chemicals. During this process, the chaebol (large, family-controlled corporate groups) made inroads in the priority industrial sectors, allowing those groups to expand and diversify their economic activities thanks to the government's preferential treatment.

In this stage, large enterprises (LEs) needed workers who were equipped with professional knowledge. For instance, Hattori attributed Korea's rapid HCI development to the spread of numerically controlled machine tools. Korea's LEs used highly educated engineers as shop-floor managers to educate and train workers at the shop level in how to operate these numerically controlled machine tools; as a result, the LEs were able to grow into competitive exporters in a short time (Hattori 2005, pp. 212–213). These LEs then required many more workers who could acquire the necessary knowledge and skills.

In the early 1970s, the GER for upper-secondary education, which comprised high school and vocational school, was less than 30%. At that time, high school in Korea was an institution only for those elite students who were competing to attend a university. To remedy this situation, in 1973, the Park administration adopted the High School Equalization Policy, in which high-school applicants were first screened with a regional uniform examination; those who qualified on this exam were allocated to individual high schools within their school districts by lottery. This policy was an attempt to raise the nation's high-school GER by making such schools more egalitarian, following the pattern used in middle-school reform. At the same time, the government also drastically increased the number of vocational schools with the goal of producing a large number of industry-ready graduates. As a result of these policies, Korea's upper-secondary GER exceeded 60% by the late 1970s.

⁶The initial conditions, such as the prior administration's land reform and the already high level of primary-school enrollment, were important determinants of the Park administration's development path.

10.1.3 Higher-Education Zeal and the Demand for Technical Experts in the Late 1970s

Even as it equalized secondary-education institutions, the Park government also exercised direct control over the screening of university applicants and restricted the expansion of university enrollment limits. Working against these measures, there was increasing social pressure to open up the universities as the high-school enrollment increased.

The government stressed the principle of equalization of educational opportunities and the acceptance of social norms such as that opportunities for education are universally open and that hard work enables children to obtain academic qualifications that their parents have not. In addition, an increasing number of parents sought to send their children to university—even though they had to bear the high tuition costs—on the belief that academic qualifications were the key to success in life. For instance, in a 1977 survey, even among parents with only a middle-school education, 66.1% hoped that their sons would receive a university degree (Hattori 2005, p. 126).⁷

On the other hand, as Korea's HCI operations expanded, the shortage of engineers meant that their wages increased sharply in the late 1970s. In tandem with LEs' need for increasingly sophisticated technology, their demand for sophisticated engineers increased rapidly. Along with engineers, white-collar professionals who focused on business management were in high demand, particularly in chaebol enterprises. As the scale of business expanded, the demand for more university graduates grew.

In response, the Park administration changed its policy to gradually expand the university enrollment limit from 58,000 in 1975 to 76,000 in 1978 and 182,000 in 1979 (Umakoshi 1995, p. 253). These figures included enrollment in special vocational colleges, which prior to that point had not handled college-level courses. Although President Park was assassinated in October 1979, his successors maintained this shift in educational policy and continued to increase university enrollment limits in the early 1980s.

⁷Moreover, in a 1987 survey, even among parents with a primary education or less, 56.3% wanted their sons to obtain university diplomas, but their expectations for daughters were somewhat lower (Hattori 2005). When discussing human capital in Korea, the gender gap is a salient issue that awaits future exploration.

10.2 Science and Technology Development and Human Capital in Higher Education

10.2.1 *Advancement to Science and Technology Development*

In May 1980, the military intervened in Korea's politics and organized a new authoritarian regime led by President Chun Doo-hwan. Economic officials set the long-term goal of economic deregulation by restricting government interventions and adopting the principle of market mechanism. The new government also proposed, as a longer-term goal, an emphasis on scientific and technological development to shift the Korean economy away from its reliance on the export of products that required cheap labor and toward the production of high-value-added products. Thus, the government prepared a system to promote technological development centered on private enterprises.

In 1981, the Chun government announced a preferential tax scheme to assist in private enterprises' research and development (R&D) efforts, thereby promoting those businesses' investments in R&D activities. In December of the same year, the government amended the Technological Development Promotion Law and introduced a system by which the government could entrust specially designated research projects to corporate-attached laboratories by allotting them public funds. According to Lee (2013)'s computation, the government was the chief funding source for such R&D in the late 1970s, and the private sector's share of that funding was as low as 18%. That value increased, reaching 40–50% toward the end of the decade, but after 1983, it rose more rapidly, reaching 70–80%. Today, Korea is one of the few countries in the world where the private sector's share of R&D funding is extremely high. The nation's total expenditures for R&D also expanded rapidly in the 1980s and exceeding 1% of GDP—a benchmark of a country with high technological development—in 1983. Subsequently, this value exceeded 2% of GDP in 1993 (Lee 2013, p. 36).⁸

The Chun administration also established the educational institution for advanced science and technology. As a result, in 1981, two research institutions merged to become the Korean Advanced Institute of Science and Technology, the nation's premier science and engineering research institution, which established its undergraduate program in the mid-1980s and soon became one of the best public research universities in Korea.

Korea's HCI, which was in an embryonic stage in the 1970s, became the central player in the country's economy in the mid-1980s. Previously, apparel products had been the country's primary export, but in the 1980s, exports of electrical equipment surged, overtaking light-industry products by 1986. Subsequently, electronic products and automobiles became Korea's major exports. Along with this shift in export items, technological development on the corporate level advanced rapidly, as each company strove to increase its products' added value. The 1980s also coincided with

⁸Lee (2013, p. 36)'s computation based on Korea Statistical Yearbook (various years); Korea Intellectual Property Office; Yearbook of Intellectual Property (various years).

Samsung Electronics' successful launching of a new type of semiconductor memory, 64 K Dynamic Random-Access Memory in 1983. This was Samsung's first step toward its eventual global enterprise.

10.2.2 Corporations' Demands and Students' Responses in the 1980s

The presence of workers with advanced education supported the technological development of private enterprises in Korea. As discussed above, after the 1979 policy change that eased university enrollment restrictions, enrollment rapidly grew, reaching 180,000 at four-year universities and 110,000 at professional vocational universities by 1981. The university enrollment limit remained more or less unchanged for a while after that, but the total number of university students continued to increase until the mid-1980s, raising Korea's higher-education GER from 9.4% in 1978 to 31.6% in 1985. A few top universities' graduate schools continued to emphasize the training of scientists.

In the 1980s, along with professional engineers who were engaging in technological development and similar fields, white-collar professionals in such fields as management, marketing, and product design came into high demand, particularly in chaebols. Management planning divisions increased in importance, and the population of university-trained clerical employees in these enterprises underwent a remarkable expansion.

Behind this phenomenon was, at least partly, the chaebol conglomerates' adoption of a system for recruiting recent university graduates: simultaneous recruiting by a corporate group. Instead of each company individually recruiting employees, these corporate groups entrusted a collective personnel department with the recruitment of thousands of university graduates, who would be assigned to individual companies in the group only after receiving across-the-board training. Arita estimated that the top 50 chaebol enterprises recruited about half of the male four-year university graduates from in 1985 (Arita 2006, p. 169). Other white-collar jobs such as public servants, teachers, and journalists were also presented as plausible posts for university graduates, further stimulating the fervor for university enrollment. Most Korean parents and students considered higher education to be the most effective means for social advancement.

10.3 Democratization and Bloated Higher Education

10.3.1 Transition to Democracy and Economic Liberalization

The expansion of employment opportunities in chaebol groups led to incentives for university enrollment and raised expectations, and the transition to democracy that began in 1987 further invigorated private-sector activities. Under the new political regime, which became increasingly unstable, the government's power decreased, and regulations on private companies eased.

In this section, I first examine the political system under the newly enacted Constitution of South Korea—particularly its instability. The transition to democracy in 1987 transformed Korea's political system. In this system, the president was to be directly elected for a single five-year term. The term for members of the National Assembly was set at four years. Most such members were elected in single-seat constituencies. Although presidential power over the executive branch remained quite strong, the National Assembly's authority over the executive branch was expanded, and as a result, the president's performance in state affairs was dependent on his or her control over the legislative branch (enacted through the presidential party). However, the prohibition of presidential reelections and the difference in the term lengths of the presidents and the national legislators served as constraints on the president's leadership over members of the government-ruling party. Party membership linked the president and members of parliament, but the institutionalization of political parties in Korea continued to lag. Under this system, the basic direction of major policies changed drastically every five years, thus hampering the implementation of long-term policies.

Furthermore, the government promoted economic liberalization and deregulation under the banner of globalization. Economic management based on the Korean government's control of private enterprises became infeasible in the 1990s. The series of economic development five-year plans that had started in 1962 was also terminated after the seventh plan (for 1992–96), which had been announced in 1991.

10.3.2 Transformation of University Policy and Swelling Higher-Education Enrollment

In the 1990s, domestic demand for products and services increased due to wage growth, a consumption boom, and a high-rise-building construction boom, all of which helped to raise Korea's GDP per capita above \$10,000 in 1995. The desire to attend universities rose in anticipation of the Korean economy's continued growth.

The Kim Young-sam administration (1993–98), which was the first civilian government since the 1961 military coup, drastically relaxed the government's control over universities as part of its educational reform. This government formed the Presidential Commission for Education Reform, which included teachers and parents as

Table 10.1 Expansion of the tertiary education

Year	Number of students (thousands)			Number of institutions		
	Public	Private	Total	Public	Private	Total
1990	471.4	1133.1	1604.5	55	210	265
1995	723.3	1506.8	2230.1	55	272	327
2000	871.6	2262.6	3134.1	62	293	355
2005	834.3	2432.2	3266.5	60	325	385
2010	809.1	2518.5	3327.5	51	320	371

Source Department of Education and Korean Educational Development Institute (various years) *Statistical Yearbook of Education*

members and which was meant to reflect the people's desire to expand university education.

In 1994, as the Kim administration drastically relaxed the university enrollment limit, each university gained greater discretion over its own enrollment limit. In 1996, the government then issued a presidential decree regarding the rules and regulations for university establishment and management, explicitly and drastically relaxing the standards for founding a university; this further prolonged the university-establishment boom, as shown in Table 10.1.

Thus, Korea's GER in higher education rose rapidly from 39.5% in 1992 to 64.5% in 1997. As a result, the majority of higher-education institutions in Korea became private, and the majority of university students enrolled in those private institutions. This enrollment led to an oversupply of university graduates, which affected the country's labor market. The increased supply of university graduates drove down those graduates' premium value in the labor market, thereby reducing the wage gap. On the other hand, in calculating the cause of the wage gap, the determination coefficient of the corporate scale variable increased, showing an obvious trend toward company size determining wage levels. The wage gap that emerged among university-educated, white-collar workers was based on company size; this promoted wage disparity. The expansion of higher education was accompanied by expectations of occupational upgrades, but the job offers that university graduates were hoping for did not increase in the globalization era, especially after the Asian Financial Crisis.

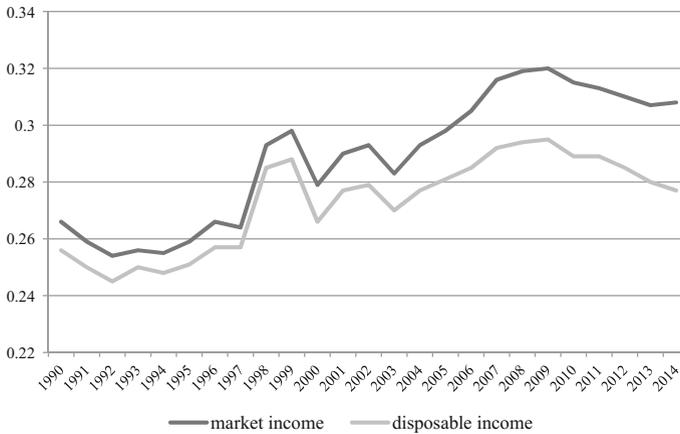


Fig. 10.3 Gini coefficient in South Korea. *Notes* The Gini coefficient can range from 0 (perfect equality) to 1 (perfect inequality). *Source* OECD (2016, p. 125). <http://dx.doi.org/10.1787/888933356408>. Accessed 18 August 2017

10.4 Enterprises and University Students in the Globalized Economy

10.4.1 Changes in the Economic Structure After the Asian Financial Crisis

South Korea's economic structure changed drastically after the Asian Financial Crisis of 1997. Due to the conditions that the International Monetary Fund required in return for its bailout package, President Kim Dae-jung, who succeeded Kim Young-sam in 1998, promoted the structural reforms, including financial and corporate sector reforms. As shown in Fig. 10.1, the GDP growth rate sharply declined in 1998, but a V-shaped recovery happened immediately afterward. Korea maintained growth throughout the 2000s as it integrated with the global economy. However, as Fig. 10.3 shows, inequality expanded in this period (Cheon et al. 2014, pp. 417–419).

Chaebol groups, which had enjoyed preferential government treatment, underwent a major corporate shakeup during this time and tried to revitalize themselves, carrying out significant personnel downsizing and rationalization, including the relinquishment of businesses. As a consequence, the LEs' recruitment systems underwent a significant change. LEs in Korea, which were revitalized as global companies due to the structural reforms, did not continue to employ massive numbers of university graduates in full-time positions, as they previously had. In 2004, the Ministry of Labor and the Korea Labor Institute published an analysis of the employment situations for Korean youth, revealing that, in LEs with 300 or more employees, the relative proportion of young workers was declining. As shown in Table 10.2, the

Table 10.2 Proportions of young employees

Year	A	B	C
1996	26.0	36.7	12.9
1997	25.2	34.8	11.8
1998	23.7	30.0	11.0
1999	23.1	28.1	9.6
2000	23.1	28.8	9.6
2001	22.3	27.8	9.6
2002	21.6	25.0	8.5
2003	20.8	25.2	9.8

Notes A: The proportion of young employees in total enterprises. B: The proportion of young employee in LEs (with 300 or more employees). C: The proportion of employees in LEs among all young employed persons

Source Ministry of Labor and Korean Labor Institute (2004, p. 4)

proportion of young employees was higher among LEs than in the national average, but it nevertheless declined after the Asian Financial Crisis and into the 2000s. This rate of decline was much greater than the national average decline. The proportion of young workers who were employed by LEs also declined.

This decrease in young workers occurred because, after the financial crisis, LEs preferred to employ industry-ready, experienced workers who did not require extensive training. The Ministry of Labor and the Korea Labor Institute (2004) also showed that experienced workers' share of all recruitment at large companies increased rapidly after the financial crisis (39.6% in 1996, 61.9% in 1998, 77.0% in 2000, and 79.0% in 2004). The nation's globalized enterprises also began to secure excellent human capital from all over the world. At the same time, LEs also started employing more part-time workers to reduce labor costs. According to the Ministry of Labor, in 2015, as many as 37.7% of the workers employed at the top 10 chaebol enterprises were nonregular (Kim and Choi 2015, p. 5). Due to these changes, it became apparent that LEs' capacity for providing employment to domestic university graduates had declined markedly.

Next, consider small and medium enterprises (SMEs), which expanded dramatically in Korea during this period. Due to corporate structural adjustments, banks' mergers and abolition, and public-sector reforms (under International Monetary Fund supervision), many workers lost their jobs. In response, the government introduced social policies to protect SMEs by providing uncompetitive companies with subsidies so that they could absorb the unemployed (Hattori 2005, p. 162; Yun 2009).

Through these measures, Korea's unemployment rate, which had shot up to 7% in 1998, went down to 4.4% in 2000; it has remained stable at 3% since 2002. In the meantime, though, too many SMEs employed the formerly excess laborers, leading to fierce competition. Companies with low productivity had to rely on subsidies and to offer low wages; SMEs with better performance were also affected by price competition, leading to a spread of nonregular workers and low wages.

Table 10.3 Korean SMEs in 2010

	LEs ^a	SMEs	Of which:		Total
			Core SMEs	Micro-firms ^b	
Number of enterprises (%)	0.2	99.8	7.7	92.1	100.0
Numbers of workers (%)	22.5	77.5	37.5	40.0	100.0
Operating profit (%)	61.5	38.5	18.5	20.1	100.0
Average wage (million KRW)	36.5	15.2	24.5	6.6	20.0

Notes ^aFirms with more than 300 employees; ^bFirms with less than five workers in services and less than ten in other sectors

Source OECD (2016, p. 80)

10.4.2 *The Dual Labor Markets and the Oversupply of University Graduates*

As shown in Table 10.3, in 2000, the gap between LEs and SMEs was wide. The Organization for Economic Co-operation and Development (OECD) reported that the wages paid by firms with 30–99 employees, as a percentage of those paid by firms with more than 300 employees, fell from nearly 100% in 1980 to only 65% in 2010, despite the considerable government assistance for small firms (OECD 2013, p. 51).

Because the disparity in wages and benefits between LEs and SMEs was so wide, university graduates did not consider SMEs to be worthy workplaces. Even when they were rejected by LEs, recent graduates tended to avoid SMEs, resulting in an increase in the unemployment rate in that group. According to the Ministry of Labor and Korea Labor Institute (2004), even though the overall unemployment rate remained at 3%, the rate among recent university graduates was more than 6.5%.

In this way, unemployment increased, not only for those with more education but also for youths who were not in education, employment, or training (NEETs for short). This group exhibited increased pessimism about the future. Korea became one of the countries with the highest rate of NEETs who had a tertiary education. This high rate, combined with the low incidence of nonregular employment among those with a tertiary education, suggests that those in this group preferred to stay out of the labor market rather than to accept nonregular jobs. As shown in Fig. 10.4, Korea is one of the few countries in which the rate of NEETs among tertiary graduates (24.8%) is higher than it is for the overall 15–29 age group (18%) (OECD 2016, p. 152).

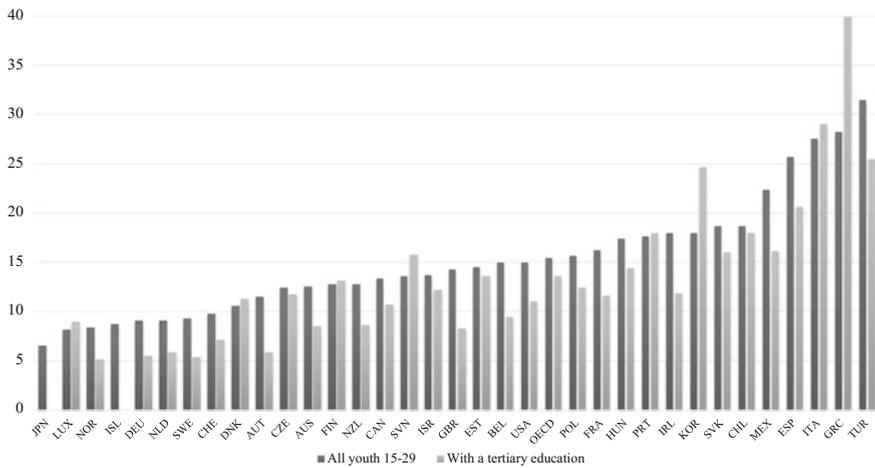


Fig. 10.4 The rate of NEETs among 15–29 years old and those with tertiary education in OECD countries (2014). *Source* OECD (2016)

Despite the oversupply of university graduates, most Koreans in this era thought that higher-education credentials were the best and only way to get good jobs and to upgrade their social status; thus, LEs only recruited the graduates of highly ranked universities (according to the National College Scholastic Aptitude Test), which further prompted parents to prepare their children for the university entrance examinations starting in early childhood.⁹ The competition to enter these highly ranked universities became even fiercer. The university enrollment did not decrease, although it temporarily stagnated due to the Asian Financial Crisis; it bounced back to 90% in the 2000s and has not significantly decreased since. Indeed, although past students could choose not to go to university, under the current system, such people would be considered failures in today’s Korean society.

⁹The other major problem is a reliance on private tutoring. To enter high-ranking universities, students rely on private tutoring, starting in childhood. This creates a financial burden for families, and this higher spending on private tutoring means that family income determines children’s access to higher education. One researcher found that 16.9% of students from upper-middle-income families attended upper-level universities, compared to only 5.8% of lower-income students; for lower-level universities, the situation was reversed (Jones 2013, p. 40).

10.5 The Government's Limited Response to Imbalanced Human Resources

10.5.1 *Successive Governments' Responses to Economic Disparity*

As noted above, the mismatch between demand and supply among higher education graduates is closely linked to the problem of dual labor markets. Successive governments have tried in vain to solve this problem. Why have they failed? Consider the measures enacted by the successive governments of the reformists Kim Dae-jung (1998–2002) and Roh Moo-hyun (2003–17), as well as the conservatives Lee Myung-bak (2008–12) and Park Geun-hye (2013–17)—particularly the causes of those governments' failures.

The main labor-market problem under the Kim Dae-jung administration was high unemployment, which was caused by the restructuring and development of the welfare system. This administration provided SMEs with a generous expansion of credit guarantees and policy loans to help them absorb the unemployed. The unemployment rate thus decreased, starting in 2000. In 1999, the government also expanded the Employment Insurance Program to cover all employees, and in 2000, it enacted the National Basic Livelihood Security System, which provided poor people with a minimal income.

The 2002 presidential campaign was affected by protests against the military-base policy of the United States, and none of the major presidential candidates presented socioeconomic problems as a main aspect of their agendas (Shin 2018, p. 165). Subsequently, the Roh administration gave priority to political reforms over the solutions to socioeconomic problems, at least until the middle of his term. In 2006, President Roh abruptly announced Vision 2030, which focused on complementary welfare policies and which were intended to raise social expenditures from 7% of GDP to the OECD average of 21% by 2030. The backlash against the resulting tax increases was so strong that, in the 2007 presidential election, the candidate for Roh's ruling party lost to the conservative Grand National Party candidate Lee Myung-bak, who promised comprehensive tax cuts and aggressive neoliberal policies (Yang 2017, pp. 163–165).

Following the 2008 crisis, Lee's administration supported SMEs by doubling government spending on them, but its market- and business-oriented policies were more favorable to LEs. As economic inequality increased, discussions about welfare policies spread gradually, and in the 2010 local elections, welfare was the main issue for the first time. Throughout the 2000s, these successive administrations did not address new graduates' difficulties in obtaining jobs. Instead, they carried out higher-education reforms such as Brain Korea 21 and the World Class University Project to foster world-class graduate schools by providing funds to elite, research-oriented higher-education institutions. This effort expanded graduate-school enrollment, and the number of highly educated youths continued to increase. Toward the end of Lee

Myung-bak's term, however, youths began to express anxiety about their futures (including their ability to get a job) in the form of discontent with the political establishment.

Conservative *Senuri* Party¹⁰ candidate Park Geun-hye was elected president in December 2012. During the election, she promised an economy that would fund the people's livelihoods and provide economic democratization. In the first part of her term, she prioritized job creation and welfare expansion, and she tried to position the youth employment problem as a part of her plan to build a creative economy. However, the Park administration retreated from these popular welfare pledges and did not implement much of an increase in social expenditures (Yun 2017, p. 483). The National Assembly impeached Park in 2016 on charges related to influence peddling by her close adviser; Kim (2017) argued that the mass protests demanding the resignation of President Park were fueled by young Koreans' discontent founded in lost opportunities for social mobility and a lack of chances for advancement.

10.5.2 Development and the Institutionalization of the Political System

In the two decades after the Asian Financial Crisis, the central socioeconomic problem shifted; it was now job polarization rather than high unemployment. The government's ability to solve this new problem has been constrained by two factors.

One is the financial constraints created by the norm of low taxation. As a developmental state, Korea has had low public social spending—among the lowest in the OECD countries.¹¹ The practice of low taxation has long functioned as a substitute for social spending, as it offers citizens more disposable income. The norm of low taxation has been so strong in Korea that it has been difficult for the government to fund improved welfare policies through tax increases. The Park administration could not carry out its policies because of these financial constraints (Yun 2017, p. 493).

The other factor is the newly democratized political system. Behind these government failures was a delay in the institutionalization of party politics, as explained in Sect. 10.3.1. Each administration's policies were pursued only during its president's tenure. Every time a new administration formed, the budget for the previous administration's policies was eliminated; instead, new policies or projects were introduced. This occurred when the new president was from the same party as the predecessor; the new administration still tried to differentiate itself by adding new policies to

¹⁰On February 2012, the Grand National Party changed its name to the *Saenuri* Party, meaning “New Frontier” Party to prepare for the forthcoming Legislative Election on April and the Presidential Election on December 2012.

¹¹When it was a developmental state, Japan also kept its tax burden relatively low compared to that of other OECD members, and many of its social security costs were covered by deficit bonds. Meanwhile, Korea has been committed to fiscal conservatism since the Chun administration of 1980 and has thus maintained fiscal balance.

the current ones.¹² This occurred because the degree of institutionalization among political parties was still low in Korea, which allowed elite politicians to dominate politics by forming new parties.¹³

Needless to say, policies that could change a country's economic system can be effective only when they are carried out sustainably and with a long-term perspective¹⁴. The accumulation of short-term policies, even if each they catch people's attention temporarily, does not lead to solutions. For example, President Park launched the "Creative Economy" initiative to strengthen the role of venture businesses and SMEs using the digital economy. However, this program provided no long-term incentives for the youth to join new businesses. An OECD survey showed that entrepreneurship was most often driven by necessity; the start-ups founded by adults under the age of 30 accounted for less than 10% of all Korean start-ups in 2014. Moreover, survey data indicated that Koreans perceived few entrepreneurial opportunities and were fearful of failure (OECD 2016, pp. 101–102).

10.6 Conclusion

As mentioned above, the formation of human capital is connected to a government's development policies and to corporate strategies. Korea's broad educational framework is meant to nurture and supply human capital, and it was created to carry out the state-led development of workers who could engage in the country's early industrialization. One could say that this education system has effectively promoted the country's development for several decades. The key to Korea's success in supplying human capital is that it offered equal opportunity in education and social advancement. Education was a tool for social advancement in Korea's developmental state.

Korea achieved rapid economic growth and eventually transitioned into a formal democracy in 1987. However, its development strategy from the globalization era now is causing social and economic problems (Cheon et al. 2014, pp. 422–427), including the mismatch between the supply and demand for human capital, particularly the oversupply of higher-education graduates. The large number of university graduates who have been unable to find jobs that match their skill levels has driven down the youth employment rate and increased the rate of NEETs. The vitality of Korean

¹²For instance, President Lee Myong-bak and his successor, President Park Geun-hye, were from the same party, but there was no policy continuity between them.

¹³After democracy was restored, Korea's liberal political parties underwent repeated alignments and realignments, leading to the emergence of countless "so-and-so Democratic Parties": the New Korean Democratic Party, Reunification Democratic Party, New United Democratic Party, and Millennium Democratic Party, to name a few.

¹⁴Recently, some researchers have examined the correlation between political institutionalization and economic development empirically. Simmons (2016) argues, based on a wealth of cross-national empirical evidence, the properly constructed political parties are essential for economic development, because in such parties are time horizon long enough for governments to encourage innovation and technology adoption in the economy.

society has thus declined, and many youths have been frustrated by Korean society because they have lost opportunities for advancement.

This failure is due to structural problems, including the fact that there are dual structures for the economic and labor markets (Kim 2018, pp. 181–189), as well as flaws in the education system. The educational framework and the applicant screening system, which were once driving forces for development, have since become social hindrances. The country's monolithic educational system, in which all students are equally provided with primary and secondary education (without choices) and in which university entrance exams more or less decide their futures, is lacking an alternative route by which students can acquire knowledge and skills according to job-market demands.¹⁵ The Korean government should formulate a plan to reform the current education system as part of a socioeconomic policy for future development. Without reforms of the antiquated system that the old, predemocratic regime create, the overseas outflow of Korean youths might gain momentum.

Korea succeeded in achieving both rapid economic growth and low social inequality as a developmental state. As studies on the Korean welfare system have shown, the Korean state kept its social expenditures low and shifted the welfare responsibility onto companies and families as part of the notion of developmental welfare. This plan, which required only low public social spending, was replaced with occupational welfare and family welfare. In the developmental state, the disposable income from low taxes served as people's educational funds; this system functioned well as long as shared growth was possible.

However, after the financial crisis of 1997, as the split in the economic- and labor-market structures deepened, occupational welfare began to be limited to regular workers in LEs. As the inequality between the rich and the poor has widened, public support has become necessary. To raise social spending to the OECD average, the government needs to increase taxes, which could provoke a political backlash, as described above. On the other hand, from an economic rationality viewpoint, it is difficult for the government to abolish its base's preferred policy. Solutions to the youth unemployment and NEETs problems are just part of a comprehensive development strategy, including the reform of social and political systems. The government has failed to produce a reform plan based on long-term prospects or to make its plans reliable. Korea's socioeconomic difficulties are related to the inability of the executive branch to solve problems characteristic of emerging democratic systems.

¹⁵One attempted alternative is the Meister High School program launched by the Lee administration. These schools are special-purpose vocational high schools that provide a technically focused education; a few pilot cases seemed to do well, but these schools' influence has been very limited because there are so few of them. At times in the 1970s, enrollment at vocational high schools increased due to government encouragement. Since the 1980s, however, society as a whole has been geared toward university enrollment, and vocational high schools have been regarded as institutions for students who are not fit for universities. The role of vocational high schools in Korea is very limited.

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Chapter 11

Politics of Inequality in Indonesia: Does Democracy Matter?



Koichi Kawamura

In a democracy, it is expected that not only political but also economic equality is achieved. Assuming that the median voter is the decisive voter under universal suffrage and majority rule, in a democratic polity, especially in developing countries where the poor exceed the rich in number, the income of the decisive voter is less than the mean income. Thus, the preference of the decisive voter on public policies is for higher income taxes on the rich and more fiscal redistribution (Meltzner and Richard 1981). More redistribution in turn reduces inequality. Although the relation between democracy and redistribution is not so straightforward, as argued by Meltzner and Richard (Acemoglu et al. 2013), there is at least a theoretical pathway from democracy towards redistribution.

Indonesia experienced a political transition from the thirty-two-year authoritarian regime under President Suharto to democracy in 1998. Since then, fundamental institutional reforms have been carried out, and free and fair elections for the central government have been conducted every five years since 1999, as well as for local governmental heads since 2005. In the same period, the Indonesian economy has also undergone major transformation. Although economic recovery from the Asian financial crisis was delayed for a decade, with GDP growth recovering to the pre-crisis level in 2006, Indonesia successfully managed to achieve approximately 6% growth on average between 2004 and 2014. Sustained economic growth has created a middle class that is stronger than ever before.

However, economic growth has not solved the issue of poverty. Although the national poverty rate steadily decreased during the decade of economic growth, income inequality also rose rapidly. This situation indicates that redistribution policies do not work to reduce economic inequality. Although Indonesia is recognized as a successful democratizing country, democracy does not bring about economic equality, in contrast to the abovementioned theory that democracy reduces inequality.

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K. Tsunekawa and Y. Todo (eds.), *Emerging States at Crossroads*,
Emerging-Economy State and International Policy Studies,
https://doi.org/10.1007/978-981-13-2859-6_11

The period of stable economic growth provided the government with an opportunity to reduce economic inequality. The statistics, however, show the government could not take advantage of economic growth. Was the government not serious about tackling the rising inequality issue? If it was serious, why did its policy response fail to address the issue?

The government of Indonesia, in fact, has put a high priority on the issues of poverty and inequality. However, the policy responses have been insufficient to fulfill the financial as well as practical needs. Although policy implementations are always cited as a major obstacle to solving the socio-economic issues of this country, the low level of financial allocations are crucial for this matter. This is contradictory since financial allocation for redistribution should increase under a democratic government, especially in a country such as Indonesia, where the poor is majority of the population. Why did the government of Indonesia insufficiently allocate its budgets to anti-poverty or anti-inequality policies?

The author argues that the fundamental reason lies in the system of political parties in Indonesia. Although democratic elections are regularly held and political parties play a central role in both electoral and legislative politics, the non-existence of mass-based political parties is critical to the insufficient allocation of government resources to poverty eradication policies. Since most of the voters have lost party identification, becoming swing voters, parties have tended to rely on a small group of elites; as a result, there has been a rise of clientelistic politics and widespread corruption. In contrast, the popularly elected president has an incentive to redistribute the state resources to the lower strata of the population since he/she seeks nationwide support to win the elections. The policies of poverty reduction in Indonesia are, thus, decided on a nuanced balance between narrow-interest parties and wide-interest presidents.

The argument of this article goes as follows. In the first section, the author looks at poverty and inequality in Indonesia during the democratic period. This section is followed by a review of the government's policy response to the issue. In the third section, the author seeks to understand the reason for the lack of policy efforts by analyzing budgetary politics, arguing that no political parties sincerely tackle anti-poverty issues since their constituencies are not the poor. In the final section, I conclude the argument.

11.1 Poverty and Inequality in Indonesia

This article uses official data on poverty from the Central Statistics Agency (*Badan Pusat Statistik: BPS*). It is often noted that there are deficiencies in BPS's official poverty estimates. For example, BPS publishes poverty estimates based on household consumption, which is justified by the fact that consumption data are generally more reliable than income data and are a better indicator since individuals and households derive utility from expenditures rather than incomes (Nugraha and Lewis 2013, p. 104; Deaton 1997; Akita et al. 1999). BPS has used data from the National Socio-economic Census (*Statistik Sosial Ekonomi Nasional: Susenas*) to estimate poverty

and inequality, but the sampling methodology has changed so poverty estimates are not strictly comparable in a time series (World Bank 2016, p. 41).¹ Despite the above deficiencies, BPS data are used in this article since it is not this chapter's intention to compare poverty in Indonesia with other countries by internationally used indicators.

Official BPS data show that Indonesia under Suharto's authoritarian rule succeeded in dramatically reducing the poverty population as well as the poverty rate (see Table 11.1). The number of poor individuals decreased from 70 million in 1970 to 22.5 million in 1996, just one year before the Asian financial crisis. The percentage of poor individuals in the total population also decreased from 60% in 1970 to 11.3% in 1996. The Asian financial crisis obviously reversed this trend, but data on poverty in 1997 were not available because of political and economic turmoil in this year. Furthermore, because of a change in the definition and method to measure poverty in 1996, data before and after 1996 are not comparable. Both the poverty population and poverty ratio, however, started to decline again in 1999. In particular, stable economic growth beginning in 2007 helped to reduce poverty. During the period of consecutive 6% growth between 2007 and 2012, except for the year 2009 when the world financial crisis called "the Lehman shock" hit the country, the number of poor individuals declined more than 10 million. During the same period, the poverty ratio also decreased approximately 6% points from 16.6% in 2007 to 11.96 in 2012.

Inequality also improved during Suharto's rule, although the magnitude was not as significant as the achievements in poverty reduction. However, inequality began to rise after the late 1980s, when Suharto's developmentalism was gradually overwhelmed by the rise of his family businesses and crony capitalism. During the period of economic recovery from the Asian financial crisis and political democratization, this upward trend did not reverse. In 1999, the Gini coefficient declined to the same level as in the late 1980s, but thereafter it steadily rose. Inequality rose from 31 point in 1999 to 41 point in 2011 and has maintained that figure since then. The size of the increase in the Gini coefficient during this period was second only to China. The rising inequality of Indonesia is also exceptional since inequality was stable or decreased in neighboring countries such as Malaysia, Thailand, and Vietnam during the same period (World Bank 2016, p. 38).²

Considering that poverty is persistent and inequality rises, there are many things that the government can do. The government should redistribute economic benefits created by the commodities boom into lower classes and implement pro-poor policies in sectors such as social security, health, and education. Although the Indonesian government has implemented several poverty alleviation programs, the reality of

¹A World Bank report points out that the sampling methodology changed so significantly in 2011 that the poverty and inequality series are not strictly comparable between 2010 and before 2011 and after (World Bank 2015, p. 41). See also Priebe (2016).

²The widening economic gap is economically attributed to the uneven distribution of benefits from economic growth. A World Bank report revealed incomes of richer households grow faster than those of the lower middle class (World Bank 2016). Then, it is argued that the uneven distribution of growth benefits was partly caused by the commodities boom in 2003–12. However, since rising inequality began well before the commodities boom in the 2000s, the commodities boom cannot explain the whole story of rising inequality in Indonesia.

Table 11.1 Poverty and inequality in Indonesia

	Economic growth			Poverty population			Poverty ratio					Gini coefficient			
	GDP per capita (current US\$)	GDP growth rate (%)	BPS old standard (million)	BPS new standard (million)	\$1.99/d (million)	\$3.10/d (million)	BPS old standard	BPS new standard	\$1.99/d	\$3.10/d	BPS statistical year-book	BPS susenas	Booth (2016)	Van Leeuwen and Földvári (2016)	World bank
1969	78.7	7.5											0.35		
1970	84.1	8.2	70.0				60.0								
1975	245.9	6.2												0.28	
1976	293.5	6.0	54.2				40.1			0.35					
1978	386.0	9.2	47.2				33.3			0.39					
1980	528.9	8.7	42.3				28.6			0.36			0.34	0.24	
1981	612.5	8.1	40.6				26.9			0.34					
1984	542.3	7.2	35.0		113.6	146.3	21.6		70.3	90.6		0.33			
1985	529.3	3.5												0.24	
1987	442.1	5.3	30.0		120.4	157.3	17.4		70.1	91.6		0.32			
1990	630.7	9.0	27.2		103.9	154.8	15.1		57.3	85.3		0.32		0.24	
1993	827.8	7.3	25.9		108.9	162.1	13.7		57.1	84.9		0.34		0.31	
1996	1137.3	7.6	22.5	34.0	91.7	155.0	11.3	17.5	45.9	77.6		0.36			
1997	1063.6	4.7													
1998	463.9	-13.1		49.5	134.4	182.7		24.2	65.3	88.8					
1999	671.0	0.8		48.0	83.4	161.7		23.4	40.0	77.5		0.31	0.31	0.32	
2000	780.1	4.9		38.7	84.1	166.1		19.1	39.8	78.5					

(continued)

Table 11.1 (continued)

	Economic growth			Poverty population			Poverty ratio			Gini coefficient									
	GDP per capita (current US\$)	GDP growth rate (%)		BPS old standard (million)	BPS new standard (million)		BPS old standard	BPS new standard		\$1.99/d (million)	\$3.10/d (million)	\$1.99/d	\$3.10/d	BPS statistical year-book	BPS susenas	Booth (2016)	Van Leeuwen and Földvári (2016)	World bank	
2001	748.2	3.6			37.9	77.2	163.0	18.4	36.0	76.0									
2002	900.1	4.5			38.4	50.9	137.8	18.2	23.4	63.4				0.33	0.33	0.33			0.34
2003	1065.7	4.8			37.3	51.2	134.9	17.4	23.3	61.2					0.32				
2004	1150.3	5.0			36.2	54.4	137.2	16.7	24.4	61.5					0.32				
2005	1263.5	5.7			35.1	48.9	134.6	16.0	21.6	59.5					0.36	0.36	0.34		
2006	1590.2	5.5			39.3	64.1	147.1	17.8	28.0	64.2					0.33				
2007	1860.6	6.3			37.2	52.9	131.8	16.6	22.8	56.8					0.36	0.36			
2008	2167.9	6.0			35.0	50.7	128.9	15.4	21.6	54.8					0.35	0.35	0.37		
2009	2262.7	4.6			32.5	44.0	125.8	14.2	18.4	52.7					0.37	0.37	0.37		
2010	3125.2	6.2			31.0	38.5	112.0	13.3	16.0	46.4					0.38	0.38			
2011	3647.6	6.2			30.0	33.2	106.1	12.5	13.6	43.3					0.41	0.41			
2012	3700.5	6.0			29.1	29.2	103.4	12.0	11.8	41.7					0.41	0.41			
2013	3631.7	5.6			28.1	24.7	99.0	11.4	9.8	39.4					0.41				0.39
2014	3499.6	5.0			28.3	21.0	92.7	11.3	8.3	36.4					0.41				
2015	3346.5	4.8						11.2							0.41				
2016					28.1			11.4							0.40				

Sources BPS data (<http://www.bps.go.id>, Accessed 7 May 2018), World Bank data (<http://databank.worldbank.org>, Accessed 7 May 2018), Booth (2016), and Van Leeuwen and Földvári (2016)

persistent poverty and rising inequality shows that those efforts have not met societal needs. A question arises here of what Indonesia's democratic government has done to confront economic disparities in society. In the next section, we look at what programs have been prepared by the government to alleviate poverty and what amount of growth benefits has been redistributed from the richer, who enjoy the most of them, to the poorer, who enjoy the least.

11.2 Social Policies in Indonesia

One of the policy responses to addressing the issue of inequality is fiscal policy. With competent public spending, governments can improve social welfare and reduce the number and depth of persons in poverty (van de Walle 1998). Many empirical studies also show that developing countries, such as Brazil and South Africa, have successfully used fiscal policy to reduce their level of inequality.

The government of Indonesia also has used fiscal policy in the form of poverty alleviation programs irrespective of its regime type. While the Suharto government gave priority to achieving high economic growth over the long term through agricultural development and industrialization, he realized the need to implement redistribution policies.³ Approximately a quarter of development expenditures on average were allocated to such sectors as village/regional development, education, health, social welfare, and housing through the first to fifth development plans between 1969 and 1994.

However, the Asian financial crisis starting in 1997 and the subsequent political transformation in 1998 made the existing poverty alleviation programs ineffective in implementation and impossible to continue. The existing programs could not respond to a sudden and sharp increase in the poverty. The top-down style of redistribution policy making and implementation also became impossible due to the step-down of President Suharto and fragile political environment during the democratization process.

Responding to changing political and economic environments, the Indonesian government launched a set of new social safety net programs called the JPS (*Jaring Pengaman Sosial*) in the summer of 1998. Many of these JPS programs, which were introduced with the aid of advanced donor countries, evolved into permanent programs in the government's poverty alleviation and social assistance strategy over the

³Under the Suharto government, redistribution policies were mainly implemented through the Presidential Instructions (*Instruksi Presiden: Inpres*) program with an aim to improve social infrastructure in rural areas. Programs for village/regional development and education were particularly prioritized, with an average of 10% shares in development expenditures during the same period (Sumodiningrat 2006, p. 107; Kawamura 2008, pp. 6–7). Economic technocrats, who were a major policy maker of liberalistic growth policies under the Suharto regime, took center stage in drawing up these various *Inpres* programs to improve people's social welfare (Kawamura 2008).

next decade (World Bank 2012a, p. 10).⁴ Social assistance initiatives that originated from the JPS began to be financed by the government's own budget expenditures, expanded, and institutionalized to become permanent and national programs.

Under the Susilo Bambang Yudhoyono government, elected in 2004 and reelected in 2009, achievements in poverty alleviation and social welfare were formally placed as one of the main development goals. The government made the National Strategy of Poverty Eradication (*Strategi Nasional Penanggulangan Kemiskinan: SNPK*) in October 2005, indicating a strong commitment of the administration to poverty eradication issues and an effort to achieve the Millennium Development Goals (MDGs) set by the United Nations. The intended commitment was materialized in the National Medium-term Development Plan 2004–2009 (*Rencana Pembangunan Jangka Menengah Nasional 2004–2009*).

While Yudhoyono inherited a number of poverty alleviation programs that were introduced as social safety net programs by the previous administrations, his administration also expanded them and introduced a number of new ones (Wisnu et al. 2015, p. 328). One of key programs inherited from the social safety net program was the program of Rice for the Poor (*Beras untuk Rakyat Miskin: Raskin*), which has its origin in the Special Market Operation (*Operasi Pasar Khusus: OPK*) program starting in July 1998. Through this program, poor households can buy rice with subsidized prices.

Another large program originating from the crisis era is the community development program called the PNPM (*Program Nasional Pemberdayaan Masyarakat*). It started in 1998 when the government introduced the Subdistrict Development Program (*Program Pengembangan Kecamatan: PPK*) with the support of loans from the World Bank to increase social welfare in rural areas by empowering local government and institutions with community participations. The success of PPK made the government expand the coverage sectors of the program as the PNPM Mandiri in 2007, reaching all subdistricts in the country by 2012.⁵

The original pro-poor policies under the Yudhoyono administration started responding to world oil price hikes and the accompanying fuel subsidy cuts introduced by the government facing fiscal deficits. The immediate policy response to fuel subsidy cuts was a non-conditional cash transfer program called Direct Cash Support (*Bantuan Langsung Tunai: BLT*). It was introduced in October 2005, providing the poorest 30% of households compensation cash support with no conditions

⁴The JPS programs included (1) the sale of subsidized rice to poor families, (2) scholarships for elementary and junior secondary students from poor families, (3) block grants to health centers and to schools (SBG) for operating expenses, (4) nutritional supplements for infants and children, (5) a set of labor-creation activities known collectively as *padat karya* (public works), and (6) a regional development scheme known as *Pemberdayaan Daerah Mengatasi Dampak Krisis Ekonomi* (PDM-DKE), which provided funds directly to village-level representative bodies (*Lembaga Ketahanan Masyarakat Desa: LKMD*) for use on village-level projects that would contribute to economic resiliency (World Bank 2012a, p. 10).

⁵The PNPM program has become one of the largest schemes of its kind in the world. While considered more effective than several other anti-poverty programs, it has also been the target of criticism, related especially to the capture of programs by local elites and the lack of support from local governments (Miranti et al. 2013; McCarthy et al. 2014; Manning and Miranti 2015, p. 315).

attached. The program was reintroduced in 2008 and 2013 when the government cut fuel subsidies in response to a rise in international oil prices.

The School Operational Assistance (*Bantuan Operasional Sekolah: BOS*) program was also introduced to mitigate a negative impact of fuel subsidy cuts in 2005. The rise of fuel prices was anticipated to decrease the purchasing powers of poor households, which might have forced them to decrease education expenditures, leading to school dropout or termination of continued higher education for students from poor households. Through this program, the central government gives funds to primary and junior secondary schools to cut education fees for students from poor households and to support school-based management reforms.

A conditional cash transfer (CCT) program, which is widely used to eliminate poverty and improve inequality in developing countries, was introduced under the Yudhoyono administration. The program, called the Hopeful Families Program (*Program Keluarga Harapan: PKH*), provides cash support to extremely poor families with obligations that family members are checked at local public clinics (*Pusat Kesehatan Masyarakat: Puskesmas*) or that their children attend school. After being introduced as a pilot program in 2007, it was gradually expanded in terms of coverage as well as budget allocations since it was considered effective by international standards and more efficient than other household-targeted programs (Yulaswati and Sumadi 2011; Manning and Miranti 2015, p. 314).

A move towards the establishment of universal health insurance also began under the Yudhoyono government. The existing social insurance scheme covered only civil servants, military and police officers, as well as formal sector employees, covering only 10% of the population (ILO 2008). There was only a small-scale health insurance scheme for the poor introduced as one of the social safety net programs at the time of the Asian financial crisis. The health insurance program for the informal sector and the poor was for the first time introduced in 2004,⁶ renamed the next year as Health Insurance for the Poor Households (*Asuransi Kesehatan untuk Keluarga Miskin: Askeskin*), and expanded in 2008 to become Social Health Insurance (*Jaminan Kesehatan Masyarakat: Jamkesmas*). The premiums for health insurance were fully subsidized by a government health fund. Under this program, households receive comprehensive insurance coverage for public health care (Sparrow et al. 2013).⁷ As Universal Social Insurance (*Sistem Jaminan Sosial Nasional: SJSN*) began to be introduced in 2014, the Jamkesmas program was integrated into a part of the National Health Insurance scheme (*Jaminan Kesehatan Nasional: JKN*).

President Joko Widodo (popularly called “Jokowi”), elected in the 2014 election, also inherited and expanded poverty alleviation programs implemented under the ten-year Yudhoyono presidency (Yusuf and Sumner 2015). Soon after the inaugura-

⁶At the introduction of health insurance program in 2004, the program was called the Free Poor Health Services (*Pelayanan Kesehatan Masyarakat Miskin Gratis*).

⁷Along with Jamkesmas, local governments introduced their own complementary health insurance schemes for the poor. These schemes were known as the Regional Health Insurance (*Jaminan Kesehatan Daerah: Jamkesda*). They provided some coverage to those classified as poor or near poor but who were not covered by Jamkesmas. Some local governments also provided free health services for all (World Bank 2012b, p. 48).

tion of new presidency, Jokowi declared the introduction of three new social welfare cards, the Smart Indonesia Card (*Kartu Indonesia Pintar: KIP*), the Health Indonesia Card (*Kartu Indonesia Sehat: KIS*), and the Family Welfare Card (*Kartu Keluarga Sejahtera: KKS*). This showy event saw wide media attention since it was recognized as showing Jokowi's lower-class political support base and his commitment to the election campaign promises. However, all three cards, in fact, were modified programs already implemented by the previous Yudhoyono administration with different names: KIP was inherited from scholarships for students from poor households, the Poor Students Assistance program (*Bantuan Siswa Miskin: BSM*); KIS was inherited from the JKN program; and KKS was a replacement of the Social Protection Card (*Kartu Perlindungan Sosial: PKS*), which functioned as an ID card for poor households to receive various social welfare services, such as Raskin, BSM, and BLT. The BLT program was also renamed to become the Family Welfare Savings Program (*Program Simpanan Keluarga Sejahtera: PSKS*) with changes from cash payments to transfers to savings account. Other key programs such as BOK, PKH, and PNPM were also maintained under the Jokowi administration. His original redistribution policy was the Village Fund (*Dana Desa*), in which the central government directly distributed public funds to every village with the hope that those funds were utilized to realize community-based development and increase residents' welfare, but the deliberation of the law defining the Village Fund, the Law on Villages, took place during the Yudhoyono period.

In this way, Indonesia has been building and expanding a social assistance framework since the Asian financial crisis. Additionally, social assistance programs introduced after the crisis were not limited to those mentioned above. Notwithstanding, Indonesia still faces widespread poverty and rising inequality. Poverty and inequality problems remain partly because many of the social assistance programs were neither efficient nor effective. It is often criticized benefits as being too little, not reaching the right people, or not being received at the right time (World Bank 2016, pp. 113–14). The latter two problems are an issue of Indonesia's bureaucratic capabilities and efficiencies. However, the first problem, the amount of redistribution expenditures, is political: What amount of public spending is allocated to social welfare policies depends on the will of political leadership and legislative deliberations in the parliament. Why does Indonesian democracy fail to deliver enough benefits to the poor? Before analyzing this issue, we look at budget allocations to the social sector since democratization.

11.3 Budget Allocations to Social Sectors

Since democratization, every president of Indonesia has expressed, more or less, his/her commitment to poverty alleviation and a political will to reduce economic inequality, and, in reality, numerous policies and programs have been introduced and implemented. Nonetheless, they have never received enough spending in the annual budgets to be effective.

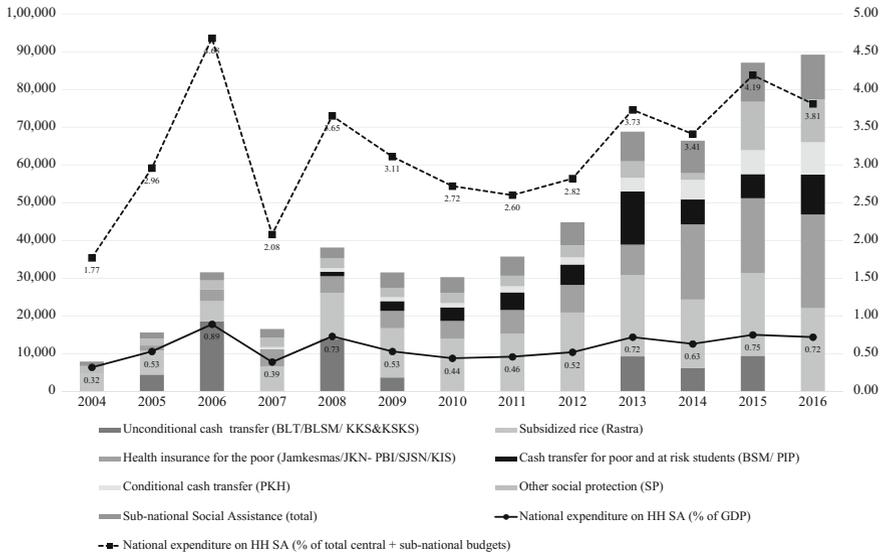


Fig. 11.1 Government expenditure on social assistance programs, 2004–16. *Source* World Bank (2017, p. 27)

In particular, social assistance programs, the most effective at reducing inequality, have received the least spending overall. Indonesia spends approximately 0.5 to 0.7% of GDP on social assistance (see Fig. 11.1). The inadequacy of this budget allocation is apparent if compared to other large middle-income countries, which spend, on average, three times as much on these programs (World Bank 2014, p. 144). Among social assistance programs, direct cash transfer programs, the most effective at reducing inequality, are allocated only less than 0.5% of GDP (World Bank 2016, pp. 135–36).

Health spending has also been among the lowest levels among developing countries until recently (see Fig. 11.2). Health expenditures have been only 2% of GDP in Indonesia, much lower than the average of lower middle-income countries as well as neighboring countries in the region, such as Thailand, the Philippines, and Vietnam. Health expenditures claimed only 3% of total public spending during the second term of the Yudhoyono administration, and less than 2% of central government spending (see Table 11.2). The administration of President Jokowi increased the health budget in 2016 to 5% of total state spending. However, much of this increase is devoted to the establishment of the national health insurance system (JKN).

Expenditure on education has had a much larger share of national budgets than any other social spending. This is because the amended constitution provides at least

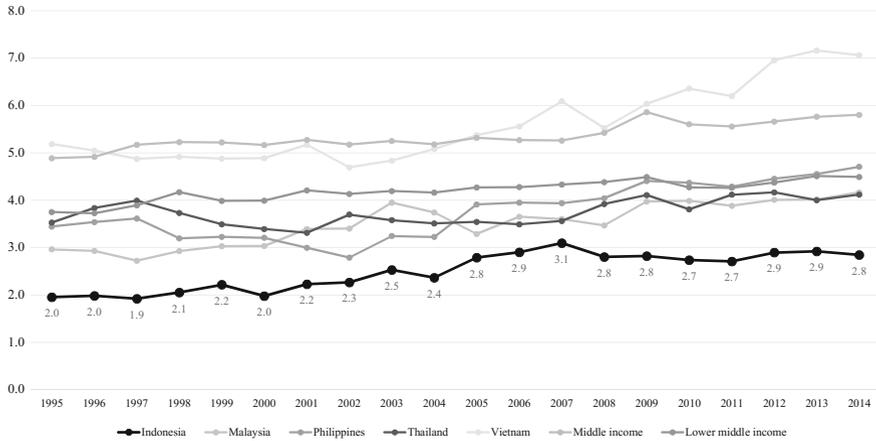


Fig. 11.2 Total health expenditure (% of GDP). *Source* World Development Indicators. <http://databank.worldbank.org>. Accessed 7 May 2018

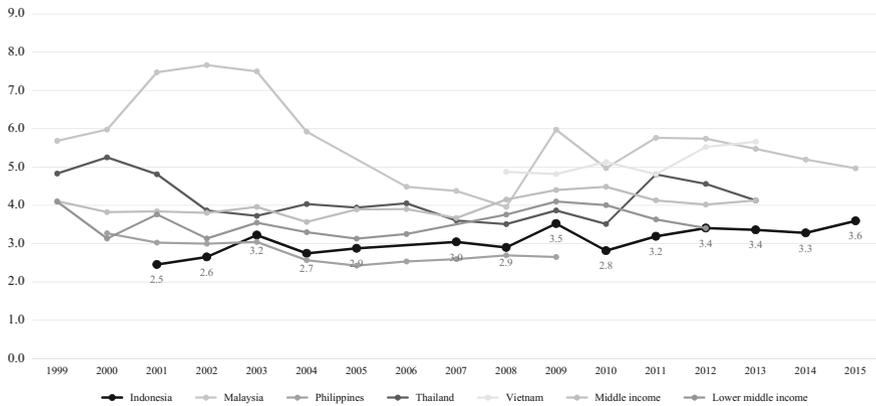


Fig. 11.3 Total education expenditure (% of GDP). *Source* World Development Indicators. <http://databank.worldbank.org>. Accessed 7 May 2018

20% of budgetary allocations to the education sector.⁸ However, education spending has still been lower than the average of lower middle-income countries as well as neighboring countries in the region (see Fig. 11.3).

As such, none of the social sectors—social assistance, health, and education—has been given priority in the national budget of democratizing Indonesia. Then, which

⁸A provision of the budgetary requirement for the education sector was provided in the fourth amendment of the 1945 Constitution in 2002. However, 20% of budgetary allocation to the education sector had not been attained until 2009. After the Constitutional Court ruled the less than 20% of allocation to the education sector was unconstitutional for four consecutive years between 2005 and 2008, the Yudhoyono administration finally fulfilled the constitutional requirement.

Table 11.2 Budget for health and education sectors (trillion rupiah)

	2009	2010	2011	2012	2013	2014	2015	2016	2017
National expenditure for health	27.8	28.8	39.4	41.5	48.2	61	74.8	104.1	104
% share of national budget (%)	3.0	2.8	3.0	2.7	2.8	3.3	3.8	5.0	5.0
Central government expenditure for health	23.2	25.2	35.4	37.3	43.8	56.4	63.5	76.1	75.2
Local transfer expenditure for health	4.6	3.7	4	4.2	4.5	4.6	7.8	21.2	25.2
Payment	0	0	0	0	0	0	3.5	6.8	3.6
National expenditure for education	208.3	225.2	266.9	310.8	345.3	375.4	408.5	416.6	416.1
% share of national budget (%)	20.8	20.0	20.2	20.1	20.0	20.0	20.6	20.0	20.0
Central government expenditure for education	90.6	96.5	105.4	117.2	126.2	128.2	154.4	145	145.4
Local transfer expenditure for education	117.7	127.7	159	186.6	214.1	238.8	254.2	266.6	268.2
Payment	0	1.2	6	7	5	8.4	0	5	2.5

Note Figure for 2009 is a realized expenditure. Figure for 2010 is an expenditure of the central budget. Figures for 2011–2017 are expenditures of the revised central budgets

Source Central annual budget for each year. <https://www.kemenkeu.go.id/informasi-publik/uu-apbn-dan-nota-keuangan>. Accessed 10 May 2018

sector has been given priority in budgetary allocation? The largest allocation of budget spending has been subsidies, most of which is fuel subsidies (see Fig. 11.4). For instance, the 2012 spending on fuel subsidies of 212 trillion rupiah was equivalent to total central government spending on capital (140 trillion rupiah) and social expenditures (75 trillion rupiah) combined. It was three times the 2012 budget allocation to central government infrastructure spending (World Bank 2014, p. 57). However, energy subsidies are enjoyed more by richer households, which are more likely to have cars and motorcycles, than by poorer households (World Bank 2015, p. 19). In this sense, the fuel subsidy program is regressive and the least effective in reducing inequality (Resosudarmo and Yusuf 2009; Dartanto 2013; Yusuf et al. 2014; Manning and Miranti 2015).

Therefore, whereas many poverty alleviation programs and social assistance policies have been introduced by post-authoritarian administrations, budget allocations for social welfare have been mostly too small despite public as well as theoretical expectations to the contrary. To analyze this puzzle, the next section will examine the budgetary political process in Indonesia.

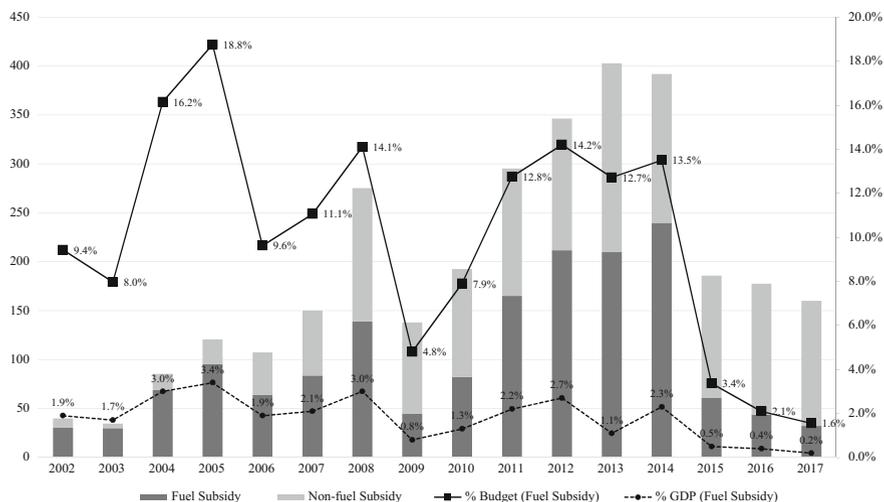


Fig. 11.4 Trends in fuel subsidy. *Source* Central annual budget for each year. <https://www.kemenkeu.go.id/informasi-publik/uu-apbn-dan-nota-keuangan>. Accessed 10 May 2018

11.4 Budgetary Politics Under Indonesia's Democracy

The deliberation on a draft of the central government budget begins in May when the government submits to the general assembly of the parliament (*Dewan Perwakilan Rakyat: DPR*) main points of a proposed budget, including predicted macro-economic indicators, basic fiscal policy, and budget priorities. After reaching a consensus between the parliament and government on these matters by the end of June, the president submits a bill of the budget, budget guidelines, and supporting documents to the general assembly of the parliament a day before the Independence Day, 17 August. The budget committee and concerned committees discuss with ministers and other representatives from the government the details of budget proposals before approving it at the general assembly in October at the latest. At the deliberation of a budget draft, the parliament can make a proposal, which may change estimated revenue and expenditures, as well as discuss the details of the budget including organizational allocations, sectoral allocations, program and project allocations, and classifications of budget utilization. Thus, the parliament is given strong and expanded authority to propose changes in a budget draft from an annual budgetary framework to details of budgetary allocation.

Indonesia's parliament is given strong power vis-à-vis the president in not only the budgetary deliberation but also any discussions of bills. Another characteristic of Indonesia's parliament is that any bills are expected to be approved in accordance to the parliamentary ruling of consensus decision making, rather than majority voting (Kawamura 2013). This means that not only ruling parties but also opposition parties

can claim changes in bills including the annual budget, and because the latter's opinions are treated equally, their demands can easily materialize in approved bills.

Considering these characteristics in Indonesia's parliament, any parties, whether ruling or opposition and whether large or small, can demand an increase in budgetary allocations to social policies and social assistance programs if they desire. Nonetheless, political parties have not endeavored to increase budgetary allocations to the social sector.

Table 11.3 compares sectoral allocations of central government expenditures between the proposed (*Rancangan Anggaran Pendapatan dan Belanja Negara: RAPBN*) and the approved budget bill (APBN). Between 2012 and 2017, social sectors such as health, education, and social security received added budget allocations after deliberation in the parliament but not at significant levels. The average added budgetary allocations received by social sectors as a result of parliamentary deliberations was 8% for the health sector, 7.1% for the education sector, and 1.3% for the social security sector (excluding 2016 as an exceptional year).⁹ The average increase in allocations between before and after the deliberations for the three sectors combined was 5.7% (excluding the social security sector in 2016). Compared with sectors such as the economy, and order and security, which were allowed more than a 20% increase on average each year during this period, the figure has not been high enough to solve the reality of severe poverty and persistent inequality.

What is striking is a consistency of sectoral shares in the central government budget, in particular for the social sectors, during this period. The share of the health sector in the central budget was only 1.8% on average, although there was a slight increase in the 2017 budget due to a change in program clarifications as well as the regulation of the Health Law. The share of the social security was less than one percent before 2016, when the introduction of the universal social insurance system began to add budget allocations to this sector. Likewise, although the education sector receives a large share of national expenditures because the constitution defines a minimum 20% allocation of national budget expenditures and the constitutional court ruling demands it be fulfilled, it has consistently received 10% of the central government expenditure.¹⁰

⁹The health and education sector in 2016 saw a sharp increase in budget allocations, but they were exceptional. The increase in health sector allocation in 2016 was due to a change in the classification of programs, which moved some programs from the other categories to the health sector. It was also due to the administration's intention to follow the regulation of the Health Law (Law No. 36 Year 2009), which regulates that budget allocation to the health sector must be above five percent of the central budget and 10% of the provincial, district, and city government budgets. The large increase in the social security sector's allocation in 2016 was due to a change in the classification of programs, which moved programs such as pensions and health insurances for civil servants, police, and military officers from other sectors.

¹⁰In Table 11.3, the average share of the education sector is only approximately 10%, far less than the 20% constitutional requirement, partly because the functional categorizations of a budget document are not equal to the "education" budget (e.g., personnel salaries are not included in the functional category of education budget) and partly because education expenditures at local-level government budgets are not included here.

Table 11.3 Comparison of social sector budgetary allocation between before and after deliberation

	Share before deliberation (%)	Share after deliberation (%)	% Increase (%)
<i>2012</i>			
Health	1.54	1.61	5.9
Education	10.02	10.74	8.4
Social security	0.55	0.58	6.0
<i>2013</i>			
Health	1.46	1.52	5.0
Education	9.54	10.26	9.0
Social security	0.65	0.64	0.7
<i>2014</i>			
Health	0.99	1.05	7.6
Education	10.79	10.51	-1.1
Social security	0.65	0.65	0.1
<i>2015</i>			
Health	1.50	1.52	2.1
Education	8.66	10.51	22.5
Social security	0.60	0.60	0.2
<i>2016</i>			
Health	0.36	0.47	27.4
Education	6.89	7.16	2.7
Social security	0.76	7.54	874.4
<i>2017</i>			
Health	4.71	4.69	0.0
Education	10.82	10.88	1.0
Social security	12.09	11.99	-0.5
Average for 2012-2017			
General services	53.88	48.90	-10.9
Defense	6.62	6.91	5.2
Order and security	3.68	4.52	27.1
Economy	12.15	13.78	20.7
Tourism	0.31	0.29	-3.6
Religion	0.53	0.64	23.1
Environmental protection	0.95	1.35	45.7
Housing and public utilities	1.97	2.00	2.0
Health	1.76	1.81	8.0
Education	9.45	10.01	7.1

(continued)

Table 11.3 (continued)

	Share before deliberation (%)	Share after deliberation (%)	% Increase (%)
Social security	2.55	3.67	146.8
(Social security excluding the 2016 budget allocation)			1.3
Social sectors (health + education + social security)	4.59	5.16	54.0
(Social sectors excluding the 2016 social security budget allocation)			5.7

Source Central annual budget for each year. <https://www.kemenkeu.go.id/informasi-publik/uu-apbn-dan-nota-keuangan>. Accessed 10 May 2018

In Indonesia's parliament, a draft budget always faces revisions proposed by political parties, and there has been no case where a submitted budget draft was approved by the parliament without any changes. As a result of deliberations, expenditure for the government apparatus tends to be cut whereas other sectors gain additional expenditures.¹¹ The parliament is likely to add budgets to political (the order and security) or economic sectors (the economy), rather than to social sectors. Why did political parties in the parliament show no concern towards budgetary allocations to the social sectors and its expected increase in social welfare?

One of the reasons is the lack of political forces that truly represent the interest of the lower class. Until 1965, there was one of the strongest communist parties, the Indonesian Communist Party (*Partai Komunis Indonesia: PKI*), in Asia, holding large support bases among laborers and rural peasants. After the failed coup attempt on 30 September 1965, however, PKI and its members were physically destroyed by the military and Islamic paramilitarists and totally banned either as a political party or as political ideology.

Furthermore, President Suharto, who acquired the ruling power from Sukarno in 1966, restricted any political parties from establishing local branches below districts with the aim of not allowing the construction of a support base for anything except for his own ruling party, the Functional Group (*Golongan Karya: Golkar*). The government broke off the relationship between political parties and the general public, making the people demobilized "floating mass".

The broken relationship between parties and the public was not restored even after democratization in 1998. That political parties' lost relationship with constituencies can be observed in opinion polls. A poll survey reveals that approximately 80% of electorates do not have any particular party IDs since the democratization period (Indikator 2016).¹² Those who lose their party IDs tend to swing their votes from one

¹¹The Law on the State Budget (Law No. 17 Year 2003) regulates that the budget deficit must be less than three percent of GDP, so the parliament cannot increase expenditures at their will.

¹²A poll survey conducted by Indikator (2016) showed those who had a particular party identification were only 10–20% of electorates during the period of 2011–2016. Surveys showed a trend

party to another as elections are held, reflecting political and economic conditions at the time of elections.¹³

Since most electorates have weak partisanship, it is costly for political parties to organize them as a party constituency. Parties would rather rely on mobilizing voters' sentiments by using mass media and, more recently, the internet. In addition, parties have chosen an easy way to build and consolidate their organizational structure by recruiting party candidates and cadres from middle to upper classes, such as entrepreneurs, business persons, and Islamic leaders, rather than by growing younger activists.¹⁴ As opposed to those from the upper and middle classes who are able to be politically better organized and easily mobilized since they have financial as well as social resources, those from the lower class remain disconnected from any political forces. Even the Indonesian Democratic Party of Struggle (*Partai Demokrasi Indonesia Perjuangan: PDIP*), the party claiming to represent the lower class, or small people (*partai wong cilik*), is not necessarily chosen by a particular social class (Kawamura and Higashikata 2009) and their legislators come from the middle class (Morishita 2010). Therefore, the interests of the lower class are under-represented in the political arena due to the lack of mass-based political parties, whereas the well-organized upper and middle classes are over-represented.

11.5 Politics of Fuel-Subsidy Cuts Under the Yudhoyono Presidency

The budgetary process begins in the government since only the president has the authority to propose a draft budget, and the government is the sole agency to administer a budget. If a president has a policy orientation towards increasing people's welfare, he/she can make pro-poor policies and propose a draft budget emphasizing more the aspect of redistribution. Considering the presidential election system, a presidential candidate should have more incentive to redistribute economic benefits to the poor and increase their welfare. Different from the parliamentary election, where a proportional representative system is adopted, a president is elected by majority vote. In a country where the medium voter belongs to the poor, a candidate should have a

of Indonesian electorates increasingly losing party IDs since democratization. The percentage of those who had a party ID in 2003–2004 was around 50% during the period of the second post-democratization legislative elections and the first direct presidential election in 2003–2004, but thereafter continued to drop to 15% in 2008 (LSI 2008). Recently, the number of people who have a party ID has not increased, even in the election campaign period.

¹³Increasing swing voters are closely related to increasing numbers of political parties in the legislature and high electoral volatility. The rate of electoral volatility, or the net electoral change in the party vote between two consecutive elections, for example, was 23.0 in the 2004 general elections, increased to 28.7 in 2009, and maintained its level in 2014 at 26.3 (Higashikata and Kawamura 2015, p. 7).

¹⁴Morishita (2010) reveals that legislators at the post-democratization period are derived from the business sector, families of political elites, and the middle class.

pro-poor policy if he/she wants to win electoral supports from the lower class. After being elected as a new president, he/she continues to have an incentive to commit to his/her electoral promise to help the poor to win reelection in the future.

In fact, Yudhoyono, the first popularly elected president in Indonesian history, followed this line of thinking. He expanded social safety net programs as well as introduced new social programs, meaning he had at least a political will to commit to pro-poor policy, although most of the programs lacked enough financial supports to be effective at reducing poverty and inequality. The insufficient budgetary allocation to the social sector was caused not by his political will but by the failure of policy change. Specifically, the least pro-poor program (or the most anti-poor program) had the largest allocation in budgets, and under the condition of limited financial resources, an increase in allocations to the social sector was impossible without the removal of fuel subsidies. Although government officials recognized that financial reallocation was necessary, it was politically difficult because many political parties oppose subsidy cuts, reflecting the fact that beneficiaries of fuel subsidies, the middle to upper classes, could voice their opinion much louder in the parliament as well as on the street than the lower class.

As discussed above, subsidies are the single largest item in the annual central budget, ranging from 15 to 25% of the total state expenditures. Among subsidies, fuel subsidies are the largest, ranging from 5 to 20% of the total expenditures, depending on the fluctuation of international oil prices. All of the post-democratization administrations recognized the need to reform the fuel subsidy system, partly because the IMF demanded the removal of fuel subsidies as a condition for loan disbursement and partly because Indonesia gradually changed from a net exporter to a net importer of oil, meaning that the oil price hike directly leads to rising fuel subsidies. B. J. Habibie, Abdurrahman Wahid, and Megawati Sukarnoputri, all of the successive presidents after democratization, gradually attempted to make domestic fuel prices close to the international market price and to reduce the fiscal burden of fuel subsidies (Beaton et al. 2017, p. 151).

President Yudhoyono also recognized fuel-subsidy spending was counterproductive, consuming state revenue that might be used for more productive purposes, such as infrastructure development and social welfare spending. In 2005, when the hike in international oil prices brought about a rise in fuel subsidy spending beyond the budget presumption, the Yudhoyono administration faced a possible fiscal crisis and a serious threat to Indonesia's macroeconomic stability. Yudhoyono hesitantly decided to raise domestic oil prices by cutting fuel subsidies in March and October 2005 after he resisted the move for several months despite a strong recommendation from his economic team (Liddle 2005, p. 335). In both cases, opposing voices also arose in the parliament before finally approving fuel subsidy cuts; in March, the nationalist opposition parties along with an Islamic partner party in the ruling coalition opposed the government and in September PDIP and small Islamic partner parties in the ruling coalition rejected a revision of the budget.

Yudhoyono was fully aware of political risks involved since the last move of this kind in May 1998 led to a massive protest on the street against the Suharto government and finally the collapse of his authoritarian regime. To ease public resentment against

fuel price hikes, the Yudhoyono administration prepared a massive non-conditional cash transfer program, BLT, as well as other small pro-poor programs, targeting poor households, to compensate for the higher costs of public transport and kerosene use for cooking and lighting.¹⁵

The Yudhoyono government decided to increase domestic fuel prices again in 2008 in response to the sharp rise in the international oil prices. At this time, Yudhoyono reluctantly responded because he was worried about the possible repercussions from the public; therefore, his administration decided to implement the BLT program again in a more efficient and transparent manner, along with other pro-poor programs, such as subsidized rice, loans for small businesses, and educational support for the lower-ranking civil servants and military families (Beaton et al. 2017, p. 158). Against the government policy to raise fuel prices, the parliament decided to exercise its right to investigate state affairs (*hak angket*), but the move was not completed after the public seemed to accept price hikes.

In 2012, the Yudhoyono administration again had to consider raising domestic fuel prices due to an increase in international oil prices. Yudhoyono again faced opposition from the parliament, including coalition partners, which ultimately rejected the government proposal of rising domestic fuel prices. Instead, the parliament approved the conditional possibility of raising fuel prices if international oil prices rose above a certain level. The government also faced a number of large public demonstrations, some of which turned violent.

In 2013, Yudhoyono once again faced a fiscal crisis brought about by rising oil prices in the international market. Combined with an unconditional cash transfer program (*Bantuan Langsung Sementara Masyarakat: BLSM*), the improved and renamed BLT program, as well as many other social compensation programs, the government proposed a revised budget proposal that incorporated fuel subsidy cuts. There were fierce oppositions from nationalistic opposition parties as well as a small Islamist partner party in the ruling coalition before the parliament approved the revised budget by majority vote (Nehru 2013, p. 151).

During the ten-year term of President Yudhoyono, the government succeeded in cutting fuel subsidies four times in response to the rise in international oil prices and possible fiscal crisis. The successes in raising fuel prices had significant meaning since fuel price hikes were considered politically dangerous before the Yudhoyono presidency. Through the course of public debates and political negotiations, the notion that fuel subsidies were regressive in nature and counterproductive for economic development was shared in society, and the general public gradually accepted the policy that expenditures for fuel subsidies should be used for pro-poor programs.

Nonetheless, each time the government announced its intention to raise fuel prices, public protests as well as strong oppositions from the parliament arose. President Yudhoyono always had to address public opinions and negotiate with political parties

¹⁵Small compensation policies introduced at this time other than BLT were Askeskin, BOS, and the Village Infrastructure program (*Infrastruktur Perdesaan: IP*), which gave low-income and remote villages direct grants to improve infrastructure and generate temporary employment (Beaton and Lontoh 2010).

not only from the opposition camp but also within the ruling coalition. Therefore, Yudhoyono could not completely remove fuel subsidies as a fundamental solution; rather, he cut subsidies at a minimum amount on an ad hoc basis in response to oil price hikes.

11.6 The Rise of Populist President and Redistribution

President Jokowi, only two months after the inauguration in October 2014, announced a sweeping reform of fuel subsidies; after deciding to raise fuels prices in November 2014, he announced at the end of the year the complete removal of gasoline subsidies in the Java, Madura, and Bali areas, the removal of all gasoline subsidies in other areas except those related to distribution costs, and the introduction of a fixed price diesel subsidy (Beaton et al. 2017, pp. 162–67). Before the announcement of fuel price hikes, he announced the introduction of three social welfare cards, KIS, KIP, and KSKS, as compensation programs. Jokowi told the public that budget expenditure saved from the abolition of fuel subsidies would be used for social welfare programs and infrastructure development. The public generally showed their acceptance to this sudden move, and the parliament did not show open objections despite there being sporadic protests on the street and some parliamentary members discussing their concerns. This is partly because fuel prices were decreased when the government announced the removal of fuel subsidies in December 2014. Thus, Jokowi seized the opportunity to announce a fundamental subsidy system reform that might cause political and public oppositions during a time of decreasing international oil prices, as observed in other fuel-subsidizing countries such as Malaysia and India (Beaton et al. 2017, p. 165).

More importantly, the reason why Jokowi took the decisive move to eliminate fuel subsidies is that his political support base is from the middle to lower classes. Jokowi is the first president who was born from the general public, not from the traditional ruling elite. He was originally a local furniture businessman, advancing his political career from the city mayor of central Java, Surakarta, and the governor of the national capital, Jakarta. His political style is different from the traditional elite in the sense that he is against the traditional interest structure, willing to reform the government to become more pro-people and pro-poor. Since the election campaign period, Jokowi made public his promise to reform fuel subsidies and reallocate expenditures to the social sectors and rural development. Thus, Jokowi is the first president who is explicitly a populist politician, having his constituencies in the middle to lower classes. Because he represents the interests of the lower classes, Jokowi could begin to reform the fuel subsidy system embedded in the existing elite interests.

11.7 Conclusion

This chapter tries to answer the question of persistent inequality under a democratic regime by looking at the Indonesian case. The author hypothesized that one of the reasons that the government has failed to allocate sufficient budgets to effective poverty eradication programs is the lack of mass-based political parties in Indonesia's party system and representation of the lower class. The author analyzed parties' indifference to poverty and inequality by looking at legislative deliberations on annual budgets in the parliament. In addition, the author noted that the popularly elected president has an incentive to reallocate state resources to the lower class because he/she seeks to acquire political support from the majority of the population to win elections. The introduction of the popularly elected presidential system has created an opportunity for Indonesia to establish a government more concerned with people's welfare, especially the social and economic conditions of the lower class. Notwithstanding, the parliament is still occupied by political parties that lack the capabilities and incentives to organize a political support base at the lower strata of society, resulting in prevalence of clientelistic politics and corruption. The politics of inequality in Indonesia, thus, will be fought between these contrasting political institutions.

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Chapter 12

Civil-Military Relations in an Emerging State: A Perspective from Indonesia's Democratic Consolidation



Jun Honna

Recent debate on the emerging states has focused largely on the challenges that confront the countries' political leaders in making policies to accelerate economic development in conjunction with efforts to improve socio-economic equality and environmental governance in the age of a global economy and regional integration. Political economists claim that a serious challenge for the emerging states involves avoiding a middle-income trap (MIT) that requires policy initiatives for structural change regarding economy and business. There appears to be little space in such a discussion for political scientists, especially the students of comparative security studies and civil-military relations, to actively participate because the debate rarely addresses issues related to national security. However, it does not mean that security sector governance has no significance in understanding the problem of emerging states. Rather, many—if not all—of these states share a common agenda of building stable civil-military relations aimed at consolidating a political regime based on democracy. If a country's civil-military relationship is evidently unstable, then democratic political leadership may hardly be consolidated. There is no doubt that such a political condition easily invites a conservative turn to authoritarianism or populism that attempts to mobilize popular support by provoking anti-globalism; a development that is unfavorable for emerging states.

To advance our understanding of the political problem embedded in these states, this chapter examines the case of Indonesia where the international community has praised the country's twin success of democratic consolidation and economic growth during the last decade, especially under the presidency of Susilo Bambang Yudhoyono (2004–14). As the only country that participates in the Group of Twenty (G20) from the Association of Southeast Asian Nations (ASEAN) and as the largest Muslim-populated country in the world, Indonesia's stable democracy after the fall

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K. Tsunekawa and Y. Todo (eds.), *Emerging States at Crossroads*,
Emerging-Economy State and International Policy Studies,
https://doi.org/10.1007/978-981-13-2859-6_12

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of Suharto in 1998 is widely regarded as the key to producing a political climate conducive to economic growth, which has heightened Indonesia's emerging state status.

It is important to ask one question here: Why has political democracy been stable during the past decade? A conventional answer points to the stability of the country's civil-military relations. Indonesia's military—in contrast to its counterparts in neighboring countries, namely Thailand and the Philippines—has never shown political adventurism to challenge democracy. Rather, it has been “loyal” to civilian governments, and such an institutional commitment to civilian supremacy has undoubtedly fostered political stability after the authoritarian breakdown in 1998. Why, then, has the military never challenged civilian governments; in other words, why are civil-military relations stable enough to avoid military adventurism?

Observers of the Indonesian military have seen the practice of civilian control of the military and the promotion of security sector reform as the major factor to minimize a military incentive to hijack the democratic polity (Alagappa 2001; Sebastian and Gindarsah 2013; Sukma 2013). I attempt to contribute to the discussion by providing an alternative argument from a different angle—that is, military non-intervention is a reflection of “failure,” rather than success, of military reform and civilian control. I contend that Indonesia's post-authoritarian civil-military stability is maintained because, in the eyes of military elites, institutional prerogatives and the vested interests of the military are well preserved under the current civil-military power balance; therefore, the military does not possess a strong incentive to leave the comfort zone. What, then, is the comfort zone and how has the military preserved its vested corporate interests?

Below, we will examine these questions and elucidate how the military has developed different logics and techniques time after time to reproduce the legitimacy of preserving these interests, depending on the political leadership of the time. Even during the democratic consolidation since the Yudhoyono presidency, as we will see below, the military maneuverings are changing from his period and the succeeding Joko Widodo presidency (2014–). Such dynamics should be understood in the context of the problem embedded in the emerging states that have enjoyed political stability.

12.1 Military Politics Under Democratic Consolidation

Indonesia experienced serious internal security disturbance immediately following the collapse of Suharto's dictatorship that had ruled the country for three decades since mid-1960s. Separatist movements were activated in places such as East Timor, Aceh, and Papua (Heiduk 2008). Ethno-religious communal conflicts erupted in West/Central Kalimantan, Central Sulawesi, and Maluku (Bertrand 2003). Frequent transnational terrorist attacks also contributed to the country's political instability in the early phase of the post-Suharto democratic transition. Between 1998 and 2004, all governments—led by presidents Habibie, Abdurrahman Wahid, and Megawati Sukarnoputri, respectively—faced serious challenges of national security disorder,

and even anticipated the possibility of Indonesia's "Balkanization" (*Washington Post*, June 4, 1998).

The large-scale violence, however, began to decline since 2004, when Yudhoyono was elected as president by popular vote. Yudhoyono's decade of political leadership provided a sense of stability, both at the national and local levels. In fact, Aceh's peace agreement was made and secessionist movements in Papua were weakened. Communal conflicts in Maluku and Sulawesi were settled. The number of suicide bombings targeting foreigners also significantly declined. These "achievements" in national security management became a foundation for the international community to evaluate the Yudhoyono era as "a decade of stability" (Aspinall et al. 2015; Williams 2015). Why, then, did domestic security recover dramatically under the Yudhoyono presidency, and what was the secret of his "success?"

12.1.1 Yudhoyono's Military Management

Traditionally, the Indonesian military (Tentara Nasional Indonesia, or TNI) has identified domestic counterinsurgencies as its major mission, rather than external defense. In the 1950s, army soldiers were busy with combat operations against the so-called Darul Islam (Abode of Islam) movements (Temby 2010). In the 1960s, the nationwide communist purging was the military's political agenda in building Suharto's anti-communist authoritarian regime. In the 1970s, Suharto's military annexed East Timor and engaged in counterinsurgencies. In the 1980s, Aceh became the site of intensive military operations against secessionist Gerakan Aceh Merdeka (GAM), or the Free Aceh Movement.

It was soon after the fall of Suharto when East Timor's 1999 referendum resulted in the separation from Indonesia. With this, the TNI lost its longtime internal security mission. Aceh's separatist rebels also found the opportunity to end their struggle in August 2005 when Yudhoyono administration agreed with GAM to have peace with the so-called Helsinki Agreement. For the TNI, peace in Aceh became a historical turning point, as it posed a question of the role of the military in a country without a battlefield for counterinsurgency (Honna 2008). In retrospect, the arrival of peace in Indonesia was a historical moment for the state-building process, and Yudhoyono got the credit for his leadership. However, at the same time, he faced the challenge of navigating the TNI into the uncharted waters of having no enemy to fight in the era of peace in Indonesia.

Yudhoyono first needed to provide a new career path model for elite officers. In the past, the TNI had a royal road to success for those officers who demonstrated talent in combat experiences—especially covert operations and urban warfare for counterinsurgencies; the experience provided by joining the army "red-beret" special force (Kopassus). Yudhoyono tried to change this tradition. Rather than having good records in covert operations led by Kopassus, the peacetime environment required TNI officers to develop talent in external defense matters, especially airborne missions led by the army "green-beret" strategic reserve command (Kostrad).

Yudhoyono himself had personal identity with Kostrad, as he commanded its elite airborne battalion in the early 1990s. Thus, under the Yudhoyono government, the TNI seemingly placed great importance in officers who had good track records in Kostrad—a new career path for the prospective elite officers.

Second, there was also a clear propensity of faster promotion for those officers who had good educational records during the military academy period. This process was understandable, as Yudhoyono himself was the best graduate of the academy's class of 1973. In fact, army generals he treated well happened to be top graduates of the academy, notably the TNI Commander Gen. Moeldoko (Class of 1981), the Head of TNI's Strategic Information Agency (BAIS) Maj-Gen. Erwin Syafitri (Class of 1982), the Secretary General of Defense Ministry (Sekjen Kemenhan) Lt-Gen. Ediwan Prabowo (Class of 1984), the Commander of the Infantry Weapon Center at Army Training and Education Command (Danpussef Kodiklat TNI AD) Maj-Gen. Hisna Sibirian (Class of 1986), and Kopassus' Commander Maj-Gen. Herindra (Class of 1987). The rise of top academy graduates strongly suggested that educational backgrounds were viewed as a key factor in determining the speed of promotion.

Third, the officers who had the experience of directly serving President Yudhoyono also earned remarkably prompt promotion. A typical example was Gen. Munir, former army chief of staff, who had served as adjutant of Yudhoyono for five years from 2004. Ediwan, mentioned above, also served as the presidential secretary for one year in 2010. Jakarta Military Commander (Pangdam Jaya) Maj-Gen. Sutomo also served as the group A commander of the presidential security force (Dangrup A Paspampres). Agus Roman, who had been Yudhoyono's adjutant from 2009 to 2013, was promoted to chief of the 1st Infantry Battalion of Kostrad (Kadivinf-1 Kostrad). In this way, Yudhoyono developed a network of officers who had experience with directly serving the president, and it was through this network that he selected prospective officers who could lead the process of TNI's generational change.

It was Yudhoyono's inner circle that supported such military management. The core members included Marshal (ret) Djoko Suyanto, who was Yudhoyono's classmate during the military academy, appointed as the TNI Commander in 2006 and joined Yudhoyono's second-term administration (2009–14) as the coordinating minister for political and security affairs; Gen. Djoko Santoso, who Yudhoyono had trusted since the mid-1990s as his subordinate and replaced Suyanto as the TNI commander; Lt-Gen. Erwin Sudjono—Yudhoyono's brother-in-law—who was promoted as Kostrad commander in 2006; and Gen. Pramono Edhie Wibowo, another brother-in-law of Yudhoyono, who was entrusted to be army chief of staff in 2011. They were simply Yudhoyono's subordinates, classmates, and brothers, and it was this intimate inner circle that became the eyes and ears of Yudhoyono in managing the peacetime TNI.

12.1.2 Preservation of the TNI's Vested Interests

In this management of the TNI, the biggest challenge was to adapt the Army to a new environment. If domestic war was gone, naturally, there would be a demand to review the role of the TNI. Civil society might argue that the military budget should be reduced and the organization slimmed down. There were not a few elite officers who were anxious about such political pressures—for them, the arrival of peace was a matter of concern. Thus, it was possible that Yudhoyono could invite resistance within the military if his policy sought to undermine the TNI's vested interests.

What he did, instead, was providing a “peace dividend” to the military.¹ First, rather than eliminate the defense budget, he set the goal of organizational modernization and greatly increased the budget. The defense spending, which was about Rp. 20 trillion in 2004, rose on the right side every year and reached to Rp. 83 trillion in 2014.

Second, Yudhoyono shelved the agenda to reform the role of the TNI. In particular, he merely announced that he would investigate the details of the TNI's business profit-making activities, which were banned by the 2004 TNI Law, but he did not make any policy and even decided that the government would not take over military-owned enterprises in 2009. Thanks to Yudhoyono, the TNI could maintain unofficial business activities throughout the archipelago that had provided off-budget finance for many local commands and troops. In the eyes of the TNI, such capital accumulation is highly important for maintaining its organizational autonomy vis-à-vis civilian political leadership and it has been a core vested interest of the military since the Suharto years. Yudhoyono understood this organizational need and effectively performed the role of the guardian for the TNI rather than being a challenger against the status quo.

The TNI's economic interests are diverse and have included business dealings such as real estate, construction, transportation, tourism, and communication in various local commands (Human Rights Watch 2006). During the Suharto era, the bulk of the military budget was funded by the self-financing of the military, which was speculated to be three times the amount of the official defense budget (International Crisis Group 2001). The salary of military personnel, as they were civil servants, was not high; however, because of this unofficial business, elite officers gained the opportunity to obtain extra money and, in many cases, they even owned luxury houses and cars. The vested interest of the TNI as an organization has been the maintenance of this business function. In terms of statistics, the TNI's business activities seem to be diminishing year by year, but they are becoming more sophisticated—for example, by selling assets and indirectly managing them. The military involvement in illegal business, especially smuggling, is also evident. Such criminal business became a hotbed of off-budget fundraising in many local military commands throughout the country. Nonetheless, Yudhoyono never allowed the national Corruption Eradication Commission (KPK) to investigate issues related to military financing, in the name of respecting “national security” matters.

¹Interview with Yudhoyono, August 29, 2015.

In other words, Yudhoyono kept sending a message to the TNI that he would never touch on the vested interests of the military, nor would he press the TNI to reform itself, even in the era of “peaceful Indonesia.” The effect was tremendous and the TNI officers came without much frustration with Yudhoyono. Clearly, this was the secret of the stability of the civil-military relations seen in the decade of the Yudhoyono presidency.

In fact, the TNI has enjoyed peace in both Aceh and Papua. The post-conflict Aceh since 2005 saw the rule of former GAM combatants who, after the peace agreement, established local political parties that contested elections for local heads. Interestingly, local military commands have re-established the promising business collaboration with these newly emerging regional political elites in Aceh who now dominate concessions linked to various reconstruction projects for the rebuilding of Aceh after the war and tsunami of December 2004. Further, it is reported that Indonesia’s booming number of oil palm plantations is also assessable in Aceh and ex-GAM entrepreneurs now smuggle timber from the forest in collaboration with local military commands (Kingsbury 2006).

Similar dynamics work in Papua, where the secessionist Papua Independence Organization (OPM), which is sometimes referred to as the Free Papua Movement, has struggled for decades. During the Yudhoyono period, 13 regencies (*kabupaten*) were newly established in both Papua and West Papua Provinces, and the wave of development projects flooded into each regency. Then, the plundering battle over the business interests became the everyday politics of Papua’s tribal leaders in various places. The blatant corruption raged in Papua, but the Yudhoyono administration continued to neglect it. The reason must be the conviction that Papua’s anti-Jakarta perception would be effectively weakened, and that the OPM would lose its centripetal power if Papua’s local elites were immersed in corrupt rent-seeking activities. Under such circumstances, local military commands in Papua also have economically benefited due to the unprecedented boom of tribal leaders’ economic interests that have invited various opportunities for the military to “assist” them; for example, in transporting goods—both legal and illegal—in the business of logging and mining. It was also reported that the local military ambushed the OPM because fanning a fear of political violence among ordinary citizens is an effective way to increase the demand of the security protection business led by local security apparatus. As seen in both Papua and Aceh, the sharing of interests (and corruption) was an important factor in maintaining peace and stability in these places, and it was Yudhoyono’s decade that established such dynamics.

12.1.3 MOOTW and the War on Terrorism

Finally, under the Yudhoyono administration the TNI successfully enhanced political influence and preserved its vested interests by appealing to “military operations other than warfare” (MOOTW), exemplified by the war on terrorism. Let us examine the development. With three suicide bomb attacks in Bali in 2002, as well as on Jakarta’s

Marriott Hotel in 2003, and on the Australian Embassy in 2004, Indonesia was spotlighted as a hotbed of international terrorists linked with Al-Qaeda. During the Yudhoyono administration, a terrorist bombing occurred again in Bali in 2005, but the tactic became low profile after that. There was an incident targeting Jakarta's Marriott Hotel again in 2009, but the terrorist bombings ceased to occur during Yudhoyono's decade. The government claimed that the weakening of terrorists was the result of the work of the anti-terrorism detachment (Densus 88), which was newly established under the National Police in 2004. The Yudhoyono administration widely emphasized that Densus 88 nearly eliminated major terrorist networks in Indonesia because it had undertaken effective counterterrorism measures with the support of the United States and Australia.

Indeed, international terrorism targeting Europeans and Americans declined since 2009. Therefore, the international community highly appreciated Yudhoyono's counterterrorism measures. With this international support, Yudhoyono decided to strengthen the involvement of the TNI in combating terrorism. Until then, the TNI had insisted on more active participation in counterterrorism with the logic that MOOTW is a legitimate activity as a global standard and counterterrorism operations are part of it. However, in the process of withdrawing from politics following the post-Suharto democratization, the role of the military was limited to the national defense, while domestic security became the jurisdiction of the police. Thus, it was only when the police issued a request to the TNI that the military could support counterterrorism. Yudhoyono took a step further from that move by establishing the Preventive/De-radicalizing Department in the National Counter-Terrorism Agency (BNPT), which was newly created in 2010, and arranged a mechanism for the TNI to oversee it. This development left the old framework of "indirect" involvement (i.e., via a request from the police), and enabled the TNI to directly engage in countering terrorism. Undoubtedly, this was a big step forward for the TNI.²

As a result, the TNI became capable of actively participating in the prevention of terrorism and de-radicalization of terrorists and started to appeal to the utility of the "territorial command" system in conducting these missions. As we have seen earlier in the problem of the local military commands' involvement with business activities, the TNI's so-called territorial command system is a nation-wide spider web of local military branches established during Suharto's authoritarian era. Military commands are stationed in a pyramidal way, from the village to central levels, and, under the Suharto regime, this territorial command system became a tool to suppress anti-government movements in different places. Against this background, civil society has called for the abolition of the territorial command system in the process of democratization. Some reformist officers in the TNI also shared the view that the elimination of the local commands, especially at the village level, was a necessary military reform toward professionalization (Honna 2003). However, for the TNI's mainstream, the maintenance of the territorial command system is a vested interest. As we saw earlier, local military branches under the territorial command system are the basis of economic profiteering, and off-budget self-financing is the source of

²For the TNI's politics of counterterrorism, see Honna (2013).

various autonomous activities of the military in many places. Since it is self-raising funds, local commands gain an “independent” budget that cannot be scrutinized by civilian governments. It shows nothing but the fact that civilian control of the military has become skeletonized.³

Here, it is important to understand how the TNI has justified the preservation of this territorial command system—a legacy of Suharto’s authoritarian era—in the age of democracy. After the previously described success of engaging in counterterrorism through BNTP, the TNI started to contend that local military commands were strategically important and useful to disseminate government policies related to prevention and de-radicalization at the grassroots level. This claim effectively resisted and attempted to undermine the social pressure to seek military reform aiming to abolish the territorial command system. It now seems to be unrealistic to expect such reform because of the new logic of using the territorial commands for counterterrorism. In this sense, it can be said that, by mobilizing the narratives of the global war on terrorism, the TNI successfully redefined and re-legitimized the utility of territorial commands that, in turn, helped the military to preserve its vested interests, including illicit capital accumulation via business activities. This argument also suggests that the TNI has invented the way to mobilize the MOOTW logic as a breakthrough for strengthening the justification of not abolishing the TNI’s territorial command system, which was created for the military repression against citizens in the past. A notable case includes humanitarian assistance/disaster relief (HA/DR), which is widely regarded as a part of MOOTW (Haripin 2017). The TNI now asserts that it needs to play a more active role in HA/DR in the time of earthquakes, tsunamis, and volcanic eruptions so that territorial commands should be strengthened to effectively dispatch professional personnel to the disaster site. Again, this claim is an attempt to reproduce the legitimacy of territorial commands.

In retrospect, since 2010, or after the establishment of BNPT in the same year, what we call “international terrorism” targeting Europeans and Americans has declined in Indonesia. However, the number of cases of terrorism itself has been actually increasing. Even after the Marriott bombing in 2009, there were seventy-five terrorist plots between 2010 and 2013 (Institute for Policy Analysis of Conflict 2013, p. 17). Since they were small incidents, they gained scant attention from the international community. Moreover, many of them were acts of terrorism targeting police officers, not foreigners, and they were crimes committed by using handguns and knives, not suicide bombings. Why did policemen become the targets of terrorism? It was because of the strong resentment to Densus 88 among the country’s Muslim community (Muradi 2009). From 2010–2013, Densus 88 arrested more than 300 terrorist suspects, but at the same time 60 people were shot to death (Institute for Policy Analysis of Conflict 2013, p. 17). This number involved many killings by mistake. Nonetheless, the members of Densus 88 were not punished under the name of “war on terror.” This serious violation of human rights became a strong incentive for domestic radical groups to invoke jihad against Densus 88 and the police (Institute for Policy Analysis of Conflict 2014). After all, the war on terrorism, which

³For an off-budget financing of the military, see, for example, Mietzner and Misol (2013).

was highly appreciated internationally during Yudhoyono's decade, was ironically accompanied by the price of deepening domestic terrorism.

However, the fact that the conservative Islamic groups became hostile to police and law enforcement agencies, including Densus 88, had important implications for the TNI in a different context. In particular, the TNI could use anti-police sentiment widely shared not only by radical groups, but also among conservative political Islam, as a way to build friendly relations between the military and Islam. It was well known that the TNI had a rivalry with the police since the separation of the latter from the former following the security sector reform in 2000. The reform charged the newly independent police force with handling domestic security, while the TNI—which had been in charge of both external and internal security during the Suharto years—was set to devote its role in external defense. Since then, the TNI started to lose various opportunities associated with security-linked business, which were shifted to the police, with the serious consequence of boosting the TNI's jealousy and rivalry against the police throughout the archipelago. Against this background, elite TNI officers found that the anti-police feelings among the Muslim community was nothing but an opportunity for the military to develop a kind of alliance with this social force, which had a strong influence in politics and mass mobilization. As we will see below, such a tactical alliance became even more important under the Jokowi administration.

In sum, a decade of the Yudhoyono government navigated the country's democratic consolidation period. We learned that, for the TNI, what was important during the period was not something abstract and symbolic, such as regaining political presence and influence, but rather very substantive, namely preserving prerogatives and vested interests. Concerns such as whether or not the TNI had seats in the parliament; whether or not the TNI intervened in elections; and whether or not the TNI was allowed to use violence against citizens were all unessential for the military elite. What was essential was the economic interest through various forms of business activities and autonomy in determining defense policies without civilian intervention. If they could be maintained, there was basically no problem for the TNI—that is, democratization and civilian governments could pose no threat to the military. Unless this military thinking is disregarded, the TNI never intervenes in politics nor does it pressure political party elites. This seemed to be the TNI's code of conduct that was evident during the Yudhoyono presidency. Yudhoyono was the country's first popularly elected president, but he was also an ex-TNI elite who was well aware of the business interests that the TNI generated from the traditional territorial command system. Under his administration, there was no attempt to reform the TNI in a way to dismantle these vested interests. As it is, the decade of the Yudhoyono administration was supported by the military and, thus, civil-military relations became unprecedentedly stable.

12.2 Civil-Military Relations Under the Jokowi Presidency

What, then, could be expected in the post-Yudhoyono development? Indonesia's Constitution limits the presidential term to ten years. Thus, Yudhoyono finished his term in 2014. His successor as the country's seventh president was Joko Widodo, or popularly called "Jokowi," who won the direct presidential election in 2014 by defeating Prabowo Subianto, the ex-Kopassus commander and ex-son-in-law of Suharto. Jokowi was a newcomer in Indonesia's political community. He became a political figure in the first place when he was elected as mayor of Solo City in Central Java Province in 2005. Seven years later, he was brought to the national political arena when he was elected as Jakarta governor in 2012. Two years after that, he took the position to lead the country as the president. How has the president without political experience at the national level managed civil-military relations?

12.2.1 *Jokowi's Military*

Before taking office, Jokowi announced two important priorities as the president-elect. These were infrastructure development and social security. In fact, in the past three years, we have seen that the president has taken his initiatives in these two issues (Warburton 2016), but the task of the other sectors has largely been left to the minister in charge. The relationship with the TNI is also an extension of that, and he has relied on the advice of his right-hand man in political affairs (i.e., Luhut Panjaitan) who—under the Jokowi administration—was in charge as the chief-of-staff of the presidential office (2014–15), coordinating minister for political, legal, and security affairs (2015–16), and coordinating minister for maritime affairs (2016–). Panjaitan is a retired army lieutenant general who developed a career in intelligence at Kopassus. During the Yudhoyono era, as seen above, the president actively promoted elite officers affiliated with Kostrad, partly because Yudhoyono himself had such an identity. Under the Jokowi government, however, as reflected by the role of Panjaitan, a new trend of intra-military promotion has emerged that gives good treatment to Kopassus-affiliated officers.

Clearly there are elite officers who see the trend of the "Kopassus restoration" as unhealthy for the organization and who still adore Yudhoyono. Although Yudhoyono has retired from presidency, he has certain political influence in the parliament as the party leader of his Democrat Party (Partai Demokrat)—thus, there are several supporters in the TNI. Moreover, Gen (ret) Ryamizard Ryacudu, minister of defense, and Lt-Gen. (ret) Hendropriyono (former chief of the national intelligence agency) are both heavy-weight inner-circles of Megawati—who is a daughter of Sukarno (Indonesia's founding father), and the country's fifth president (2001–2004), as well as the chairperson of the ruling party, the Democratic Party for Struggle (PDI-P), in the parliament, and—most importantly—the patron of the Jokowi presidency. These retired generals thus enjoy direct access to the core of the political power and they

have their children and sons-in-law in the current TNI. Naturally, these active-duty officers are surrounded by friends and subordinates who have developed their own circles, respectively, within the military.

The newly appointed TNI Commander, Gen. Gatot Nurmantyo, also contributed to the eroding cohesion within the military, mainly due to his lack of credible experience in either Kopassus or Kostrad. Gatot was appointed as the army chief of staff by President Yudhoyono near the end of his term in 2014; therefore, it was believed that the post was the end of Gatot's military career under the Jokowi government. But Jokowi decided to appoint Gatot as the TNI commander in July 2015, with the aim of securing the loyalty of the Army, which is the largest branch of the armed forces. This was nothing but a political move to counterweight the police force that had shown clear disobedience to Jokowi, who tried to prevent notoriously corrupt police generals from being promoted to the highest posts in the police, including the post of the police chief. In facing the police resistance, Jokowi was motivated to strengthen the loyalty of the army and it could be the main factor of appointing the army chief of staff at that time (i.e., Gatot) as the TNI commander. For Gatot, this promotion was an absolute godsend, but he found it difficult to consolidate his power base within the TNI because he had no background in either Kopassus or Kostrad. He was a man of territorial commands who had been stationed in various different places—but most frequently in Jakarta—during his previous tours of duty.

It seemed that, for Jokowi, the internal dynamics of the TNI were indeed a concern, but they were beyond the issue he was eager to deal with. “TNI matters” were largely left to his right-hand man, Luhut Panjaitan, Defense Minister Ryamizard Rayacudu, and Gatot himself as the newly appointed TNI commander, and it was Jokowi's way of managing the TNI.

12.2.2 Politics of Gatot

Then, how to rebuild the TNI when its cohesion eroded? Gatot discovered the answer in the invention of “an enemy” whom the TNI should unite and fight. This “enemization” campaign soon became a tool for him to show his leadership beyond intra-military factions. Specifically, he emphasized the TNI's era of the “proxy war.” According to him, the proxy war is not a war in which Indonesia was being directly attacked by a foreign military, but indirectly via foreign powers that invisibly penetrate in Indonesia, encourage social cleavage, weaken national unity, undermine the national economy, and destabilize the country in order to deprive Indonesia of its rich natural resources (*Kompas*, May 19, 2016). To destroy the “value of Indonesia,” he claimed, foreign powers were trying to plant foreign values in society, most notably via groups that call for beliefs in liberalism, human rights, minority protection, LGBT rights, social equality, environmental protection, and so on. He advocated that these groups could be the agents of external powers that attempt to destroy Indonesia's traditional values. Moreover, his theory continued, many of these social groups could be the forces that planned to revive the Indonesian Communist Party (PKI), which

was crushed by Suharto's army in the 1960s, and "hidden communists" were trying to spread "the new-style communism" (komunisme gaya baru, KGB) in society—a move that should be firmly defeated (again) by the TNI. This propaganda involved a powerful message toward the military with the meaning that the soldiers must unite under the commander and fight against the threat to the nation.

Of course, such propaganda was nothing but anachronism, and it was not generally accepted. However, for some segments in society, this message was understood as a chance for political mobilization. The proxy war narrative was widely spread by these people through social media. The conservative Islamic forces in particular jumped in. By mobilizing the narrative that the threat of the KGB was real, and it sought to weaken Islam, they started to blame the country's moderate Islam for not having a sense of crisis. With this logic in its arsenal, conservative Islamic forces attempted to show their supremacy vis-à-vis the moderate, and the chance to do so suddenly arrived, thanks to the TNI.

The TNI's proxy war propaganda also started to incorporate a conspiracy theory. The infrastructure development promoted by the Jokowi administration since 2014 attracted foreign investment, and the rise of investment from China is notable.⁴ Jokowi's intensive focus on infrastructure development—and foreign investment for that purpose—is reasonable and has been welcomed by the international community as a suitable policy of the emerging state in overcoming the risk of the MIT. However, investment from China is also recognized around the world for its unique package with massive labor exports to recipient countries, and Indonesia is no exception. This propensity has provided an opportunity to develop conspiracy theory with the spread of "fake news" in social media that suggests a large number of migrant workers rushed from China and were illegally living in various places in Indonesia. It was famous conservative Islamic groups, such as the Islamic Defenders Front (FPI) and the Indonesia Mujahidin Council (MMI), that played an active role in fueling this conspiracy theory. Interestingly, they argued that China's investment around the world is dangerous, as seen in places such as Angola, Mozambique, and Tibet, where the investment became the entry point for the communist China to dominate the economy and conquer the nations (Syhab n.d.). In order to confront the threat, these conspiracists claimed, Islamic forces must unite with the TNI and defend the country from the threat of Chinese invasion. In this way, Gatot gained strong political support of Islamic conservative forces. Importantly, this support strengthened Gatot's leadership within the military and the bargaining power in civil-military relations.

The campaign to fight this invisible KGB threat formally became a major social program of the TNI in October 2015. The program was called "Defend the Nation" (Bela Negara), which imposed short-term military training on the public at each local military command. The TNI's Bela Negara program targeted students, civil servants, and various social groups, but in areas where Islamic conservatism was

⁴In fact, foreign investment dramatically increased under the Jokowi government, as it reached the annual realization of Rp. 692 trillion in 2017 from that of Rp. 398 trillion in 2013 (*Tempo*, January 30, 2018). The largest investment came from Singapore, followed by Japan. China came in third, but if we combine with Hong Kong, China-Hong Kong now exceeds the Japanese investment.

strong, hardline Muslim groups actively joined the program (e.g., in Banten Province and West Java Province, where FPI and its partners became program participants and declared that they would accompany the TNI as it fought “the threat of the KGB”). Here, importantly, the TNI started to emphasize that territorial commands had become indispensable in establishing the basis of *Bela Negara* throughout the archipelago, which was important to combat the “threat of the KGB” in the age of proxy war (*Antara*, October 15, 2015). This claim was nothing but the TNI’s new invention to re-legitimize its territorial commands under the Jokowi presidency and, of course, the motive behind this involved preservation of the TNI’s vested interests (as we have discussed above). In fact, since launching the *Bela Negara* program, the TNI increased budget for the local commands to implement the program.⁵ It is very likely that, in the near future, the number of military personnel stationed in local commands will also increase in response to the development of the program.

Interestingly, the TNI’s way of justifying the anti-reform agenda is no longer based on the logic of MOOTW, such as terrorism, but—rather—the creation of imagined “invisible enemies” based on the conspiracy theory of “demonizing” the inflow of foreign ideas and values that could be a national security threat. By agitating such right-wing anti-globalism and nationalism, Gatot’s TNI promoted both intra-military consolidation and extra-military power projection while navigating the country’s political discourse.⁶ Ironically, the increasing foreign direct investment from China that had been welcomed by the Jokowi government for infrastructure development had a role in strengthening the conspiracy theory and, in effect, giving a sort of credibility to the proxy war discourse developed by Gatot. In this sense, his proxy war demagogy that was helpful to consolidate his power and leadership within the TNI contained a logic that could be diverted to the criticism of Jokowi and his development policies. It was exactly this aspect of Gatot’s proxy war campaign that made it politically attractive for Jokowi’s opponents in party politics. Opposition leaders—including Prabowo and Yudhoyono—obviously found the reason to support (and assist) the new trend of the TNI-Islam rapprochement. For Jokowi, it could lead to a serious political risk leading to the 2019 presidential election—thus he started to find a way to break the relationship between these strange bedfellows.

⁵It was reported that the program has consumed Rp. 45 billion (about \$4.5 million) of the state budget (Reza 2016).

⁶The TNI’s internal document, allegedly made by Army Education and Training Command (Kodiklat TNI-AD), interestingly argues that the rise of China has been the factor of the development of KGB in Indonesia, and that the TNI’s role should be expanded to counter the threat. In so doing, the document continues, the 2004 TNI Law that was enacted during democratic transition—and limited the role of TNI to “national defense”—should be revised because it is not in line with the Constitution, which asks all components in society, including the TNI, to take part in the nation’s defense and security. The document is Komando Pembina Doktrin, Pendidikan, dan Latihan, Tentara Nasional Indonesia Angkatan Darat (n.d.).

12.3 Conclusion

We have discussed how the Indonesian military has adopted different strategies, even during the period of democratic consolidation, aiming to constantly reproduce legitimacy being accepted by post-authoritarian civilian governments for maintaining its territorial command system that has been a core mechanism of preserving the vested interests of the military since Suharto's Indonesia. The country's democratic transition, following the 1997–1998 Asian financial crisis and Suharto's resignation as the president, was marred by political instability and security disturbance that provided a serious concern for the international community. As seen above, it was Yudhoyono's presidency that achieved both political stability and economic growth—a twin success widely praised by the international community as Indonesia's recovery to the global stage as an “emerging state.” Politically, this recovery was understood as the country's entry to the phase of democratic consolidation, and a conventional view suggested that stability in civil-military relations was the key factor contributing to the progress in democracy.

However, as we have discussed above, the problem is the way to create and maintain such stability. It is not by consolidating civilian control over the military, but by allowing the TNI to maintain an authoritarian legacy—that is, territorial commands—that enables military elites to preserve vested politico-economic interests. During the Yudhoyono period, the TNI mobilized the logic of “internationalism” that emphasized the need for engaging more actively in the “global norm” of MOOTW, particularly counterterrorism. However, under the current Jokowi administration, the TNI developed the very contrastive logic of “anti-globalization” that mobilized right-wing nationalistic narratives agitating the conspiracy of proxy war, scapegoating particular social groups as “new-style communism” and underlining the need for effectively utilizing territorial commands in conducting the chauvinistic *Bela Negara* military program to the public. Here we see a huge shift in the strategy of military politics, even under the same period of democratic consolidation, and it strongly suggests that Indonesia's civil-military relations are stable but highly political.

Our discussion in this chapter highlighted the nature of political stability in an emerging state. It is the political stability that has provided the backbone of the country's economic success, which is now accompanied by the status of G20. Why (and how), then, is political stability maintained in the process of democratic consolidation? In examining this question, we have focused on the civil-military relations that are seemingly the key for the stability. Our argument is that it is not the progress of civilian control practice or civilian supremacy principle that has enabled the stabilization of Indonesia's civil-military relations in the era of democratic consolidation, but it is a consequence of military politics that has maneuvered to preserve vested interests. Unless they are threatened by civilian political elites, there is hardly a strong incentive for the military to initiate adventurism against political stability and democracy consolidation. If so, it is not surprising to see the similar case in other emerging states, which also enjoy democratic consolidation and economic growth. Political economists have addressed the risk of a middle-income trap in these coun-

tries, but it is also time for the students of security studies and comparative politics to join the discussion and watch for the risk of a “middle-democracy trap,” which produces the Mobius strip of stable politics and poor civil-military relations.

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Chapter 13

Democratization and the Military in Thailand



Yoshifumi Tamada

Thailand has faced political turmoil in the last two decades, characterized by political conflict between pro-democracy forces and anti-democracy forces. This conflict derived from the process of political democratization that began in the 1990s and accelerated since 2001. There are two major factors responsible for this advance in democratization. First are the rapid socio-economic changes that have occurred since the latter half of the 1980s. Enormous investment from foreign countries after the Plaza Accord in 1985 was a decisive triggering device in this process. The changes have broadened the size of the middle class occupied by the lower middle class in rural areas and increased the size of the lower class in urban areas. Lower-middle-class people, who comprise a majority of the electorate, have shifted from loyal subjects to citizens with increasing political awareness. The second factor is the 1997 constitution, which drastically changed the electoral system and had profound effects on Thailand's political system. The nation had a political leader, Thaksin Shinawatra, who utilized the new rule and changed the political consciousness and attitudes of the majority of the people. An increasing number of citizens came to think that democracy should be the only political system.

Some parts of the establishment are not happy with democratization. One is a politically influential numerical minority, upper class and urban middle class individuals. They have enjoyed privileged status under the authoritarian government, and the new electoral politics, dominated by the numerical majority, has decreased their political power and influence. Another group is the monarchy and its supporters. King Bhumibol Adulyadej (reign: June 9, 1946–October 13, 2016) spent years building his undisputed authority, which was undermined by democratization.

The disgruntled establishment embarked on a de-democratization effort in 2005. They resorted to coups to topple the elected government in 2006, 2008, and 2014. The military and the judiciary played a critical role in these coups because they

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K. Tsunekawa and Y. Todo (eds.), *Emerging States at Crossroads*,
Emerging-Economy State and International Policy Studies,
https://doi.org/10.1007/978-981-13-2859-6_13

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placed extreme loyalty to the monarchy ahead of democratic procedures. They could overthrow the democratic administration and draft a less democratic constitution; however, they could not reverse socio-economic changes and make the citizenry again become apolitical subjects. Since the social origin of democratization is irreversible, the power struggle has been prolonged and the military has been forced to maintain political intervention.

The military is a leading player in this struggle. There have been twelve successful military coups in Thailand since 1932 (1932, 1933, 1947, 1951, 1957, 1958, 1971, 1976, 1977, 1991, 2006, and 2014). The monarchy has endorsed every undemocratic coup since 1947. While royal sanction has clearly increased the confidence of the coup plotters, the military staged coups mainly for its own sake, rather than for the monarchy.

Two recent coups in, 2006 and 2014, were however staged for the sake of the monarchy upon request from royalists. These “royalist coup[s]” (Chairat 2009, p. 51) were carried out by royalist factions of the army in order to serve the ends of the monarchy. Considering them, we might say that there has been a shift from military-driven coups to monarchy-driven coups.

A specific group of army officers has dominated the military since the 2006 coup. Although the junta seemed to be a patronizing guardian for the Crown Princess, it became a junior guard of the new King after his ascension. This essay attempts to explore political turmoil since 2005, focusing on (1) the impact of democratization on the monarchy, (2) the relationship between the military and the monarchy, and (3) the successes and failures of de-democratization.

13.1 Bhumibol Regime at Bay

13.1.1 *Birth of a Regime*

A form of diarchy has characterized Thailand’s political reality since the 1970s (Tamada 2014, p. 109). A political system identified in the constitution after 1978 as a “democratic regime of government with the King as a Head of State” became increasingly unstable after 2001. This regime was established by and unique to the late King of Thailand, and is based upon the “conception of shared sovereignty between the monarch and people” (Connors 2008, p. 148). Khukrit Pramot, a royalist politician-cum-intellectual, characterized the regime as an “equal co-ownership of sovereign power by the king and the people (*racha-pracha-samasai*)” (Saichon 2007, pp. 181–82). This regime is different from an ordinary democratic regime. As the outstanding historian Nidhi Aeusrivongse noted,

In Thailand the dominant opinion has been that kingdom [*ratcha-anacak*] and nation-state cannot go together. This is because there have been persistent efforts to read ‘kingdom’ for ‘royal patrimonial state’ [*ratrachasombat*, which translates literally as ‘a state as private property of the royal family’] since the 1947 coup ... Since then every leader seizing power

via coup has depended on the monarchy for political legitimacy ... If we live in a patrimonial state, it is impossible for us to justify power by the mass votes of 14 million or 18 million we got in the general elections precisely because legitimacy derives from the endorsement and satisfaction of the father-like monarchy. (Nidhi 2006, pp. 143–44)

The regime started in 1947 and was consolidated after 1973, specifically with the incident of October 14, 1973, a critical moment for the King's hegemony. The military regime established by Field Marshal Sarit Thanarat in 1958 and succeeded by Field Marshal Thanom Kittikhachorn in 1963 was overthrown on that date. There were three key players in the incident: (1) the students who led anti-government demonstrations, (2) General Krit Siwara, who had been promoted to new army chief on October 1, 1973, and (3) the King, who had been a junior partner to the military for 15 years. It seemed that the King defended the demonstrators from bullets, ordered government leaders to leave the country, and paved the way for democratic politics, and as a result was admired as a defender of democracy. The King elevated himself above major political actors, the military, civil bureaucracy, and political parties as well.

Ginsburg notes that "The king has developed ties with all the powerful groups in society, and the monarchy has established itself as the ultimate arbiter of political conflicts, sharing power with the politicians, bureaucrats, and generals who run the country on a day-to-day basis" (Ginsburg 2009, p. 87). We may call this regime the "Bhumibol regime," according to the name of the highest authority under the regime. Under it, the King enjoyed political hegemony, commanding and exerting power and influence over the Thai political scene for decades.

13.1.2 *Decline of the Regime*

Much of the monarchy's authority and power has not been institutionalized and is, therefore, not inheritable. The monarch did not hope that his power was stipulated in the constitution, because he wanted to show his willingness to intervene in politics flexibly with little legal constraints when needed (Kasian 2011a, pp. 103–4). Three factors are significant for the monarch's hegemony: (1) his *barami* (charisma or virtue and magnetism), (2) the nature of the government (the Prime Minister's personality and ability), (3) loyalty, or respect and love from the people (Thongthong 2005, p. 128). Ultimately, the stability of the monarchy depends upon the type of Prime Minister (Kasian 2011b). It is therefore favorable for the monarchy to have a Prime Minister who relies upon the monarchy for legitimacy.

However, in the 21st century, the monarchy became insecure due to (1) the age and poor health of the monarch, (2) imminent royal succession, and (3) the rise of popularly elected national leaders that were able to relativize royal power. Supporters of the Bhumibol regime felt uneasy about the premier, who achieved satisfactory (policy) results and boasted strong leadership and high popularity. Anek wrote about their misgivings:

We should apprehend that the populist policies [of the Thaksin administration] may undermine policies under the patronage of the monarchy. If government leaders would pursue populist policies without great care, they might come into conflict with the royal patronage for preeminence. The author has heard a resident in Northeast Thailand say frankly, “His Majesty the King has been on the throne for sixty years and has always helped the poor. Regarding medical treatment, however, the royal assistance cannot match Thaksin’s ‘30-baht-a-visit health care scheme.’” (Anek 2006, pp. 100–101)

A famous journalist noted of the royalist perspective,

It is worthy of attention that the function that the monarchy had fulfilled for people in rural areas so far was affected to a considerable extent during the era of Thaksin’s populism. This is why two kinds of populists—royal populists and electoral populists—clashed with each other. As a result, the military seized power for the purpose of reinforcing and saving the royal populist. (Supalak 2007, p. 273)

The royalists thought they had to “win the grassroots back for the King” (Chambers and Napisa 2016, note 4), which attested to the unique position of the monarchy under the Bhumibol regime. The King, who was ready to intervene in politics, had to be popular or get support from the people, and a popular Prime Minister could threaten the King’s position and authority.

In striking back against the popular premier, the royalists “use[d] the judiciary as a proxy” (Dressel 2010, p. 686). The judiciary began to join the struggle for political power owing to emphatic urging from the King himself, on April 25, 2006. The royal speeches on that day were propagandized with exceptional energy, probably as an effort to justify unprecedented judicial activism. Meanwhile, the military was given an order to start a battle against the Thaksin supporters by the president of the Privy Council, General Prem Tinsulanonda, on July 14, 2006.

13.2 The 2006 Coup and the Rise of the “Tigers of the East”

13.2.1 *Thai Military in Politics*

All successful coups in Thailand’s history have been staged by the army. There are six army area commanders or equivalent posts in the army (See Fig. 13.1). Of the six, the Commander of the First Army Area, stationed in Bangkok, is the most important. There are three divisions under the command of the First army area, the First Division stationed in Bangkok, the Second Infantry Division stationed in Prachinburi, and the Ninth Infantry Division stationed in Kanchanaburi. There are two other divisions in Bangkok, the Second Cavalry Division and the Anti-Aircraft Artillery Division. In addition to these units, the Special Warfare (SW, hereafter) Unit with the First SW division, stationed in Lopburi, about 140 km north of Bangkok, often joined in staging or suppressing a coup. Commanders of the First Army, these divisions, and regiments and battalions belonging to these divisions are strategically significant because all are likely to join in staging or suppressing a coup attempt.

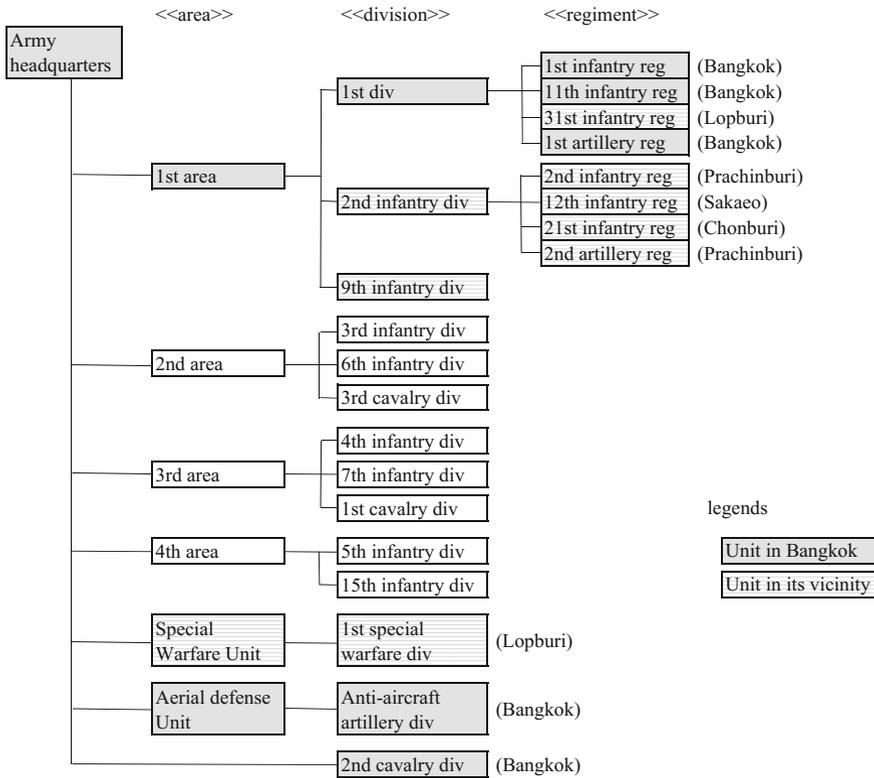


Fig. 13.1 Major units of the army. Source Constructed by the author

Each army chief attempts to build his own faction within the army. There are various ways to foster personal connections in the military, one of the most important of which is the horizontal relationships established among classmates at military academy. Each of the three divisions of the military forces has its own academy, and so most commissioned officers in each force are the graduates of the same military academy. What differentiates graduates then, is not alma mater but rather graduating class. Another important means of fostering strong personal connections is through the vertical relationship between commanding and subordinate officers at every level of the hierarchy. Such relationships are often nurtured while a commanding and subordinate officer serve together in the same unit.

Although the history of the Thai military’s political intervention dates back to 1932, it remained out of politics for fifteen years—from 1992 to 2006— before again intervening in 2006. The fifteen-year dormant period was mainly due to there being few political leaders who utilized the military as their power base. They could not hope to gain power even if they put the military under their firm control unless they held a majority in the Parliament. The military lost political significance, and “any

military adventurism not endorsed by the palace” became impossible (Chambers and Napisa 2016).

Thaksin was often criticized for unduly interfering with military personnel changes (Ukrist 2008, p. 127), particularly by appointing relatives and many classmates to important posts. He was a graduate of the Armed Forces Academies Preparatory School, in Class 10 of the preparatory school and also went to the Police Academy. Many of his classmates went to military academies as well, particularly Class 21 at Chulachomklao Royal Military Academy (CRMA). Thaksin became Prime Minister at age 51 in 2001, which is quite young, as most army officers who have become Prime Minister since the 1970s have been around the compulsory retirement age of 60. Generally speaking, the younger the Prime Minister is, the more easily he can construct a support base among the active military officers.

However, the speed of promotion and the number of important posts held by Class 21 were not especially high when compared with other classes (Tamada 2010: 159–60). A major general of Class 21 said in July 2006, “Thaksin has been the Prime Minister for five years. If he had favored classmates in personnel changes of the military, the number of our classmates promoted to better posts should have been larger” (*Matichon*, July 19, 2006).

Thaksin did promote his classmates to strategically important posts, such as commanders of divisions stationed in Bangkok, but his intention was not to stage a coup, because he already had the ability to win elections. Thaksin did however want to be able to deter a coup, even though it was supposed to be impossible to stage a successful coup against an administration that firmly controlled the three divisions stationed in the capital. Therefore, a high-handed approach was necessary for the 2006 coup that eventually rose up against Thaksin.

13.3 A Coup on September 19, 2006

A critical figure in bringing the military back into politics was General Prem. On July 14, 2006, speaking at CRMA, Prem compared the military to a racehorse: “its owner is the country and the King. The government is just a jockey” (*ASTV Phucatkan Online*, July 14, 2006). His message was crystal-clear: The military had to be loyal to the King rather than to the government.

A few days later, in an unconventional move, the army’s Commander-in-Chief, General Sonthi Bunyaratklin, and 1st Army Area commander, Lt. General Anupong Paochinda, reshuffled battalion commanders without consulting with respective division commanders. They intended to deprive combatting forces of the faction supporting Prime Minister Thaksin and neutralize that faction. The battalions with new commanders were the main forces in the coup on September 19, 2006 (Wassana 2008, p. 145).

Among the military officers, loyalty to the monarchy was repeatedly emphasized in 2006. Army chief General Sonthi said in May 2006 “The situation in the country is a cause of great suffering for His Majesty ... If there is anything I and the army can do

for the country, I am ready to do it because I am a soldier under the King” (*Bangkok Post*, May 18, 2006). Just after the coup, the 4th Cavalry battalion commander, who deployed about 20 tanks in the coup said, “We are ready to do what the King asks. We are soldiers who belong to His Majesty” (*Bangkok Post*, September 24, 2006). These claims make it apparent that the military staged the coup for the monarchy.

After the coup, General Surayud Chulanont, who had been a close aide to General Prem since the early 1980s, was appointed Prime Minister. He had been a commander of the 1st SW Division in 1989, and of SW Unit in 1992 before being appointed the Army Commander-in-Chief (1998–2002), and was then appointed Privy Councillor just after his retirement from the army in 2003. He was the most influential of the officers of the SW Unit and Class 12 of CRMA. Since General Sonthi, the leader of the 2006 coup, is five years junior to General Surayud at the SW Unit, the latter had a degree of leverage over the former.

13.4 Rise of the 2nd Infantry Division and the 2014 Coup

13.4.1 Rise of the 2nd Infantry Division

The ostensible leader of the 2006 coup was General Sonthi, the Army Commander-in-Chief. However, a major role was also played by Lt. General Anupong, Commander of the First Army Area. Since General Sonthi had worked at the SW Unit in Lopburi before moving to the army command in 2004, he was only able to command a relatively small number of soldiers in Bangkok. Anupong had a number of reliable soldiers in Bangkok and its vicinity because he had been a commander of the 2nd Infantry Division and the 1st Division before becoming the First Army Area Commander, and was therefore indispensable for Sonthi’s coup. It could therefore be said that the coup was led by a SW Unit officer but accomplished by the 2nd Infantry Division.

Due to his critical contribution to the coup, Anupong was promoted to army chief in October 2007. He fundamentally changed the style of struggle for power and preeminence among army officers. Since the 1970s, the most important factions were based on membership in the same class of CRMA. However, since 2006, the center of gravity in the army has shifted from class to unit. Lt. General Anupong, a Class-21 officer, toppled the elected government guarded by officers of Class 21. The victorious side was supported by its leader’s original unit, the 2nd Infantry Division in the eastern region, rather than by his classmates. Officers from the division, called *burapha phayak* (“Tigers of the East”), have predominated in the army since then. The same group of officers staged a coup in 2014.

The division was composed of the 2nd, 12th, and 21st Infantry Regiments (See Fig. 13.1). Among the three regiments, the last is the most conspicuous because it is the Queen’s Guard and has a special relationship with the Queen. The 21st Infantry Regiment began to rise in prominence in the 1990s, under Col. Niphon Pharannit,

who was the first commander of the regiment (1985–1989) to become commander of the 2nd Infantry Division in 1992. In 1997, Niphon became the first officer from the regiment and division to become the First Army Area Commander. After him, almost every commander of the regiment after 1985 (nine out of ten) became a commander of some division.

The second officer from the 2nd Infantry Division to become the 1st Army Area Commander in 2002 was General Prawit Wongsuwan. There have been twelve 1st Army Area commanders between 2002 and 2017. While only four were from the 1st Division, eight were from the 2nd Infantry Division, and four of those eight were from the 21st Infantry Regiment.

This change in the army's promotion pattern was reflected in the appointment of the Army Commander-in-Chief. Among the eight army chiefs during the period, only General Somthat was from the 1st Division. In contrast, two officers were from SW unit, and as many as five were from the 2nd Infantry Division. In 2004, General Prawit became the first Army Commander-in-Chief to come from the 2nd Infantry Division; Anupong became the second in 2007. However, after Anupong, three consecutive army chiefs—General Prayut Chan-ocha, General Udomdet Sitabut, and General Teerachai Nakwanich—all came from the division, so it seems that the 2nd Infantry Division outstripped the 1st Division (See Table 13.1).

It is neither the classmates of CRMA nor the 1st Division but the 2nd Infantry Division that has dominated the army after the 2006 coup.

There are a number of factors involved in the rise of the 2nd Infantry Division. First, Anupong succeeded in a coup in 2006 and became the army chief the following year. Second, General Prawit, the boss of the “Tigers of the East,” was Defense Minister from December 2008 to August 2011, and again from August 2014 on. Third, a new Defense Ministry law came into effect on February 2, 2008. The law was drafted under the military government headed by General Surayud following the 2006 coup. Faced with an impending transition to elected government in early 2008, the law was expected to strip the Prime Minister and the Defense Minister of their power to make unilateral decisions in military reshuffles. According to the new law, the annual shake-up of generals is subject to a review by a committee comprised of the Minister and Deputy Minister of Defense, and the other five active officers: the supreme commander, the chiefs of the three armed forces, and the Permanent Secretary of Defense. Since the five active officers maintain a respectful relationship with each other, each can put favored individuals in strategic posts.

Under the new law, if a dispute occurs, the committee has to vote to settle the matter. If the list is tampered with after a resolution is made, it will be against the law, and the case can be brought before the Administrative Court (*Bangkok Post*, February 2, 2008). The military, like the judiciary, is thus able to enjoy relative independence from politics, i.e., from the Cabinet and the Parliament. The new law has been exceedingly effective in shielding the power of the “Tigers of the East.”

Table 13.1 Some aspects of prominence of the 2nd Infantry Division, 1996–2016

	Army chief	1 st Area	1 st division	9 th division	2 nd division	21 st regiment
2017		Kukiat (31)		Sanitchanok (35)	Suksan (34)	
2016	<u>Chaloemchai</u> (27)	<i>Aphirat</i> (31)		Wutthichai (34)	Caroenchai (34) Santiphong (33)	Amarit(36)
2015	Thirachai (25)	Thepphong (29)	<i>Narongphan</i> (33)	Thammanun (33)	Sisak (32)	
2014	Udomdet (25)	<i>Kampanat</i> (27)	<i>Phongsawat</i> (31) <i>Aphirat</i> (31)	Nat (31)		Worayut (35)
2013		Thirachai (25)			Kukiat (31)	
2012		<i>Phaibun</i> (26)	<i>Wara</i> (29)	Phairot (28)		Caroenchai (34)
2011			<i>Phisit</i> (28)	Phanuwat (28)	Thepphong (29) <i>Phisit</i> (28)	
2010	Prayut (23)	Udomdet (25)		Thawan (26)		
2009			<i>Kampanat</i> (27)	Uthit (25)		Santiphong (33)
2008		Khanit (24)		Udomdet (25)		
2007	<u>Anupong</u> (21)		<i>Phaibun</i> (26)	Denchai (23)	Walit (26)	
2006		Prayut (23)	<i>Daphong</i> (23)			Thepphong (29)
2005	<u>Sonthi</u> (17)	Anupong (21)		Adun (22)	Khanit (24)	
2004	Prawit (17)		<i>Phrin</i> (21)	Somkiat (20)		Phanuwat (28)
2003		<i>Phaisan</i> (18)	<u>Anupong</u> (21)		Prayut (23)	
2002	<i>Somthat</i> (14)	Prawit (17)	<i>Cirasit</i> (21)		<u>Anupong</u> (21)	Udomdet (25)
2001		Phonchai (14)				
2000		<i>Somthat</i> (14)	<i>Phaisan</i> (18)	Mana (18)		
1999			Wanchai (17)		Udom (18)	
1998	<u>Suravut</u> (12)	Thawip (14)	<i>Nopphadon</i> (17)	Sanchai (16)		Prayut (23)
1997		Niphon (14)		Phonchai (14)	Wanchai (17)	
1996	<u>Chetha</u> (9)	Winit (9)	Achawin (15)	Thawip (14)	Prawit (17)	Anupong (21)

Note The officers in the *dark-shadowed cells* come from the 21st Infantry Regiment of the 2nd Infantry Division; the officers in the *light-shadowed cells* come from the other regiments of the 2nd Infantry Division; the officers in italic fonts come from the 1st Division; the officers whose names are underlined come from the Special Warfare Unit. The figures in *parentheses* indicate the class in the military academy

Source Constructed by the author

13.4.2 The 2014 Coup and “Transition”

Despite serious efforts to weaken pro-Thaksin forces after the 2006 coup, Thaksin’s People’s Power Party (PPP, hereafter) won the December 2007 general elections, after which the People’s Alliance for Democracy (PAD, hereafter) resumed its attempts to bring down the government. Since the PPP was unlikely to be defeated in an election, the only sure way to topple the PPP administration was through a military coup. Accordingly, PAD’s activities in 2008 were tantamount to calling for another

coup. PAD occupied a government office for a few months beginning in August, and two international airports in Bangkok for a week in November in order to put pressure on the government to resign or to use violent measures to disperse the demonstrators. PAD hoped the military would stage a coup.

Well aware of this, Thailand's top brass repeatedly declared, "The military will not stage a coup." However, General Anupong cleverly toppled the government without resorting to a coup. When the Constitutional Court dissolved the PPP on December 2, 2008, army leaders pressured MPs to change sides and established a new government led by the Democrat Party (DP, hereafter). It was reported that PPP MPs were told, "Do you know whom you fight against?" and "You cannot defeat the monarchy" (*Krungthep Thurakit*, December 13, 2008; *Matichon*, December 13, 2008; *Thai Post*, December 13).

The DP administration was a government by, of, and for the military, and so the military was obliged to protect it. When the United Front for Democracy against Dictatorship (UDD, hereafter) held a large-scale political rally in Bangkok in 2009 and 2010, requesting early general elections, the military violently suppressed UDD demonstrators. These tactics stand in sharp contrast with nonfeasance against or cooperation with the PAD demonstrators. For the military leaders, especially for the Tigers of the East, the DP government was theirs, but the pro-Thaksin government was not.

The DP government changed the electoral system to its advantage in 2011. However, a pro-Thaksin party won general elections in the same year and Thaksin's younger sister Yinglak Shinawatra became prime minister.

The junta led by General Prayut staged a coup on May 22, 2014 to topple the Yinglak administration. The People's Democratic Reform Committee (PDRC—the literal translation from the Thai would be "People's Committee for Absolute Democracy with the King as Head of State"), largely comprised of PAD protesters and DP supporters, many of whom were from the upper-class and middle-class individuals, had paved the way for the coup. Retaining both the positions of junta chairman and Prime Minister, General Prayut directly ran the post-coup administration and aggressively dismantled pro-Thaksin organizations. It was the first time in 34 years that the Thai people had seen an active officer as premier.

General Prayut seems willing to stay in power for a long time. First, it will take more than four years after the coup to hold the first election due to an intentional delay in drafting the constitution and organic laws necessary for general elections. Second, the constitution will pave the way for the junta to retain power by selecting the Senate, which will be authorized to join the House of Representatives to vote for a potentially unelected Prime Minister after the next election. "The Constitution seems designed to ensure that even if an election does take place, the military will remain in control" (Streckfuss 2017).

13.5 Political Prospects

13.5.1 *Assertive Monarch*

On ascending the throne, the new monarch took several steps to usurp authority from the junta. First, he declined to assume the kingship upon his father's passing on October 13, 2016, forcing the junta to wait until December 1, 2016. Second, the National Legislative Assembly appointed by the junta amended the 1992 Sangha Act on December 29, 2016 so that the king was restored the legal authority to name the supreme patriarch, the head of the order of Buddhist monks. The king appointed this new patriarch on February 7, 2017.

Third was a rather astonishing request by the monarch to revise the draft constitution that had been approved in a national referendum on August 7, 2016. An additional question regarding a proposal for the next prime minister to be jointly elected by unelected senators and elected MPs was also approved, so the draft constitution had to be rewritten after the referendum. The final draft was finished on October 11, 2016, and Prime Minister General Prayut sent it to the king after signing the draft on November 8, 2016. The king asked the junta to revise the draft regarding the sections involving royal prerogatives on January 9, 2017. Without his sanction, it was impossible to promulgate the new constitution, and so the junta acceded to the proposal, hastily amending the 2014 interim constitution so that the draft constitution could be revised. The junta finished the revision and asked for royal sanction on February 17, 2017, and the king promulgated the constitution on April 6, 2017.

The requested changes for the most part relate to the regent. The draft requires the king to appoint the regent when he is not in the kingdom or otherwise unable to perform his duties. The new constitution dropped that requirement, so that the king now may or may not appoint the regent in such cases, as he sees fit.

More significant seems to be Section 5 of the draft constitution, the so-called crisis management clause, which stipulates that a joint meeting headed by the president of the Constitutional Court and dominated by the judiciary would step in if there should be a serious political crisis. The new charter changed it back to the section 7 of the 2007 charter.

This section has been interpreted as royal crisis power, and is very controversial because the royalists have relied on it to ask the king to dismiss an elected prime minister, although Bhumibol himself clearly negated the authority in April 2006. The drafters of the 2017 constitution might not want the new king to exert such authority,¹ and attempted to confine that power to the judiciary.² It seemed that King Vajiralongkorn was not happy with this and asked for a change, successfully claiming

¹The drafters might not have wanted to bother the king, or they might not have trusted the new king's ability.

²The first draft constitution completed on January 29, 2016 gave the authority to the Constitutional Court. The second draft, completed on March 29, 2016, relegated that authority to a joint meeting headed by the president of the Constitutional Court.

the position of final arbiter. We may say that through the revision, the king asserted his supremacy over both the junta and the Thai citizenry.

The king's actions clearly demonstrate that he will not be subservient to the junta, and that he will wield more power than his father (Sopranzetti 2017). Unity under the leadership of the Tigers of the East was instrumental for his safe accession and subsequent assertion of monarchical authority. After the succession, however, a strong faction or leader that might eclipse the royal luster is not necessary. On assuming the kingship, divide-and-rule tactics were a more effective means of controlling the military. From this perspective, military personnel reshuffles on October 1, 2016 might be understood as a measure the monarch took to counterbalance the powerful 2nd Infantry Division. The newly appointed army chief and the 1st Army Area Commander were not from the 2nd Infantry Division.

The new king also appointed 14 privy councilors in December 2016, 7 of whom were retired military officers. This ratio is quite high, given that soldiers make up just 15% of King Bhumibol's 52 privy councilors. Moreover, of the seven military officers, there are four former commanders-in-chief from the army or the air force. The other three soldiers are from the 1st division and are up-and-comers highly respected in the division. It seems that the king places more importance on the 1st division, likely in an attempt to shore up monarchical power over the formerly dominant 2nd infantry division.

13.5.2 Fighting Against Democracy for the Monarchy

Until the 1980s, elected politicians were not in a position to compete against the military or the bureaucracy. The Thai people were loyal subjects and kept out of the political arena. Elections have become significant since 2001, however, for two main reasons. One is political change—i.e., democratization—the basis of which was provided by both electoral reform due to the 1997 constitution and by the emergence of a program-based party. The other is the socio-economic changes in the last three decades, which ushered in an age of mass politics (Nidhi 2017), with the emergence of a new lower middle class that comprises about 35–40% of all households in Thailand and uses elections as an effective political tool (Apichat 2017). Even if election results were disregarded again and again, the majority of the electorate would not easily give up electoral democracy.

A popular political leader with democratic legitimacy can be a threat to the monarchy, and in this sense the monarchy feels the need to protect itself from democratization. The target of the two most recent coups was to ensure a successful monarchical succession, which means the crown prince's succession to the throne and the stability of the monarchy under the new king. A monarch under the Bhumibol regime was able to enjoy three features of power: his own charisma, a submissive prime minister, and respectful subjects (Kasian 2011a, b). Political changes in the last two decades had an impact on the second and third factors. The new king must now compete against elected politicians for popularity if he is to continue to be a major political

player like his father. There is no certainty that the new king will be able to do so, as he is currently much less popular than his father

The military has joined hands with the judiciary in its efforts to ensure a smooth royal succession. More serious guardianship would be necessary for the new monarch, who is more assertive than expected. Criticism against the monarchy has to be prevented by *lèse majesté* based on Criminal Code article 112, which says that anyone who “defames, insults or threatens the king, the queen, the heir-apparent or the regent” will be punished with a jail term between three and fifteen years. Articles 116 and 198 are also significant. Article 116, which focuses on sedition, say that there is “a penalty of up to seven years in jail for those who advocate force to change national laws or the government, instigate conflict or encourage people to violate laws.” Since the [junta] came to power in 2014, some 24 cases involving 66 people have been filed for alleged violations under the article (*The Nation*, September 3, 2017). Article 198, which says, “Whoever insults the Court or the judge in the trial or adjudication of the case, or obstructs the trial or adjudication of the Court shall be punished with imprisonment of one to seven years or fined two thousand to fourteen thousand Baht, or both” has been used to prevent criticism against dubious court verdicts.

The politically assertive monarchy and the suppressive military have become indispensable to one another. Without the military’s support, it will be difficult for the monarchy to be assertive. However, if the military’s rule depends too much on the legitimacy provided by the monarchy, the monarchy’s assertive actions supported by the military suppression may only strengthen the criticism against the monarchy and eventually weaken the military’s sociopolitical standing. The close relationship between the military and the monarchy does no good to either party.

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