SOUTHEAST ASIA BEYOND CRISES AND TRAPS

Economic Growth and Upgrading

Edited by

Khoo Boo Teik, Keiichi Tsunekawa and Motoko Kawano

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Preface

In different ways, the five countries of Southeast Asia that form the subject of this study are middling entities. By most measures of global ranking, their socioeconomic development lies between the lower and higher ends. They are no longer predominantly commodity producers but they are not world-leading manufacturers. They have become largely industrial in socio-economic character but not post-industrial in the best implications of that notion. Judged against the record of the world's advanced economies, the Southeast Asian ones became newly industrialized economies at a 'miraculous' pace only to emerge as followers of the late followers of Northeast Asia. Within the typologies, indices, and rankings repeatedly devised and revised by international agencies, think-tanks, and academic institutes, their position does not vary much: it is probably not enviable but it is definitely not pitiable. To put it tersely, these Southeast Asian countries are mediocre when their records are set against the endlessly profitable performances demanded by global investors, the ambitiously nationalist aspirations enunciated by leaders or the anxiously competitive expectations expressed by academics.

As such, there appear to be mixed feelings about their prospects of economic advance, specifically their chances of escaping what is now commonly called the 'middle-income trap'. This arises when a country (or economy), having had years of high growth, slips into long-term stagnation or decline. In other words, middle-income countries face the

threat of being 'squeezed between the low-wage poor-country competitors that dominate in mature industries and the rich-country innovators that dominate in industries undergoing rapid technological change' (Gill and Kharas 2007: 5). The Asian Development Bank's *Asia 2050* bears this kind of warning for Asian economies that might otherwise realize an 'Asian Century' by 2050. Similar notes of caution abound. To take a notable example, the World Bank had glowingly praised 'high performing Asian economies' in *The East Asian Miracle* (World Bank 1993) but raised the specter of the middle-income trap in *An East Asian Renaissance* (Gill and Kharas 2007). By now, academic literature also features numerous studies on the likelihood that some East Asian economies have fallen or may be falling into the middle-income trap. Perhaps ominously, China, which rose dramatically to global prominence, has become the focus of intensive studies assessing its chances of being 'trapped' (ADB 2012; World Bank and DRC 2013; OECD 2013). Among recent substantive works on Southeast Asia are Yusuf and Nabeshima (2009), Ohno (2009), and Doner (2009) which evaluate the specific and vulnerable situations of Malaysia, Vietnam, and Thailand, respectively.

This volume of studies, which broadly engage with the issue of the middle-income trap for five Southeast Asian countries – Indonesia, Malaysia, the Philippines, Thailand, and Vietnam – is the product of a research project on the emerging states of the region. These countries cannot be said to be fully representative of a region that has impoverished economies as well as very affluent ones. Yet, they share certain characteristics that made them plausible and instructive case studies of how Southeast Asia has had to negotiate pathways of development 'beyond crises and traps'. There is no intention here, of course, to rehearse at length the well-known account of the dramatic growth of the region, especially when compared to other developing regions. More to the point, these countries have had to weather the tremendous shocks of an 'East Asian' financial crisis and the 2008 'global financial crisis'. Some economies might have buckled completely under those shocks and might now be condemned to long-term stagnation. The selected Southeast Asian economies, together with the larger and apparently more resilient Asian region, emerged from both financial crises with

continued economic growth, albeit at a slower pace. Indeed, *Asia 2050*, which cautioned against the middle-income trap, was really meant by the ADB to celebrate the undimmed vitality of Asian economies.

An important theme of this volume is that a part of the vitality in the selected countries has been derived from the pursuit of economic growth and competitiveness along less known or recommended pathways. Studies of the middle-income trap, or rather how to avoid it, have typically privileged the development of leading edge manufacturing and knowledge-based services. From that perspective, middle-income countries have to nurture and deepen their capabilities in research and development (R&D) activities to generate technological and other innovations. Only thus, to encapsulate this argument, can middle-income countries become competitive in the world market and eventually join the ranks of the developed nations. This desirable outcome requires several enabling factors. These include improved education and training, adequate physical and social infrastructure, more liberal investment and trade policies, stricter protection of intellectual property rights, better governance regimes, and so on. This basically economistic discourse not infrequently ends with a litany of 'do-it-yourself' prescriptions on how to rise above middle-income status.

The authors of this introductory chapter and subsequent country-specific chapters have opted for a different approach to the Southeast Asian countries' search for growth and improvement. The authors are mainly area studies specialists whose assessment of the development trajectories and dilemmas of Southeast Asian countries is informed by their grasp of complex economic, social, and political conditions and historical realities. As such, they have not begun with a teleological perspective that evaluates macro-level performances by how far they would take a country toward high-income status. Rather, for the country they have selected, they have looked for intermediate ways of achieving growth, upgrading, and improving income in non-privileged sectors. No claim is made here that the collective output of the research project thereby provides ready answers to the predicaments of middle Southeast Asian political economies. However, the volume offers some original, if modest, insights into the outcomes of overlooked or undervalued projects in overcoming the dilemmas of being mediocre.

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Contents

Abbreviations

ACFS	National Bureau of Agricultural Commodity and Food Standards (Thailand)
ADB	Asian Development Bank
AEC	ASEAN Economic Community
AHRDP	Automotive Human Resource Development Project (Thailand)
AIT	Asian Institute of Technology
APO	Asian Productivity Organization
ASEAN	Association of Southeast Asian Nations
Bappenas	Badan Perencanaan Pembangunan Nasional (National Development Planning Agency) (Indonesia)
BCIC	Bumiputera Commercial and Industrial Community (Malaysia)
BOI	Board of Investment (Thailand)
BOT	Bank of Thailand
BPO	business process outsourcing
BSP	Bangko Sentral ng Pilipinas (Central Bank of the Philippines)
CBU	completely built unit
CKD	completely knocked down
CLM	Cambodia, Laos, and Myanmar
CLMV	Cambodia, Laos, Myanmar and Vietnam
DPE	domestic private enterprise
DTI	Department of Trade and Industry (Philippines)
EEI	Electrical and Electronics Institute (Thailand)
EVN	Electricity of Vietnam
FDA	Food and Drug Administration (USA)

FDI	foreign direct investment
FIE	foreign-invested enterprise
GC	general corporation (Vietnam)
GDP	gross domestic product
GLC	government-linked company
GNI	gross national income
GSO	General Statistics Office (Vietnam)
HACCP	Hazard Analysis and Critical Control Point
HDDI	Hard Disc Drive Institute (Thailand)
HIV/AIDS	human immunodeficiency virus infection and acquired immune deficiency syndrome
IBRA	Indonesian Bank Restructuring Agency
IC	integrated circuits
ICT	information and communication technology
IDEMA	International Disk Drive Equipment and Materials Association
IMF	International Monetary Fund
IMP1	First Industrial Master Plan (Malaysia)
IMP2	Second Industrial Master Plan (Malaysia)
IMP3	Third Industrial Master Plan (Malaysia)
IPO	initial public offering
ISI	import-substituting industrialisation
IT	information technology
JCC	Japanese Chamber of Commerce
JETRO	Japan External Trade Organization
JICA	Japan International Cooperation Agency
KKN	Korupsi, kolusi nepotisme (corruption, collusion, and nepotism) (Indonesia)
KPK	Komisi Pemberantasan Korupsi (Corruption Eradication Commission) (Indonesia)
MARDEC	Malaysian Rubber Development Corporation
MARGMA	Malaysian Rubber Glove Manufacturers' Association
MEMR	Ministry of Energy and Mineral Resources (Indonesia)
MNC	multinational corporation
MP3EI	Masterplan Percepatan dan Perluasan Pembangunan Ekonomi Indonesia (Masterplan for the Acceleration and Expansion of Indonesian Economic Development)
MRB	Malaysian Rubber Board

MRPMA	Malaysian Rubber Products Manufacturing Companies Association
MRRDB	Malaysian Rubber Research and Development Board
NEM	New Economic Model (Malaysia)
NEP	New Economic Policy (Malaysia)
NESDB	National Economic Social and Development Board (Thailand)
NFI	National Food Institute (Thailand)
NIE	newly industrializing economy
NNT	Newmont Nusa Tenggara (Indonesia)
NR	natural rubber
NSO	National Statistical Office (Thailand)
NSTDA	National Science and Technology Development Agency (Thailand)
OBM	original brand manufacturer
ODM	original design manufacturer
OEM	original equipment manufacturer
OFW	overseas Filipino worker
OPEC	Organization of the Petroleum Exporting Countries
PAP	People's Action Party (Singapore)
PEZA	Philippine Economic Zone Authority
PIM	Panyapiwat Institute of Management (Thailand)
PISA	Program for International Student Assessment
PLN	Perusahaan Listrik Negara (National Electricity Company) (Indonesia)
POEA	Philippine Overseas Employment Authority
PRIM	Plastics and Rubber Institute Malaysia
PTT	Petroleum Authority of Thailand
R&D	research and development
RRIM	Rubber Research Institute of Malaysia
S&T	science and technology
SARS	severe acute respiratory syndrome
SCB	Siam Commercial Bank
SCG	Siam Cement Group
SEG	state economic group
SET	Stock Exchange of Thailand
SME	small and medium enterprise
SOE	state-owned enterprise
SR	synthetic rubber

STI	skill, technology and innovation
T&G	textiles and garments
TAI	Thailand Automotive Institute
TARRC	Tun Abdul Razak Research Centre (UK)
TFFA	Thai Frozen Foods Association
TFP	total factor productivity
TIMSS	Trends in Mathematics and Science Study
TRP	technical rubber product
UMNO	United Malays National Organization (Malaysia)
UNESCO	United Nations Educational, Scientific and Cultural Organization
VAMI	Vietnam Association of Mechanical Industry
VEAM	Vietnam Engine and Agricultural Machinery Corporation
Vinalines	Vietnam National Shipping Lines
Vinashin	Vietnam Shipbuilding Industry Group
Vinatex	Vietnam National Textile and Garment Group
WTO	World Trade Organization

List of Figures

List of Tables

1

Southeast Asia: Beyond Crises and Traps

Khoo Boo Teik and Keiichi Tsunekawa

If a country stays within an intermediate range of per capita income for a certain, say prolonged, period of time, it is usually judged to have fallen into the middle-income trap. This raises two questions. How should the income range used to distinguish a middle-income country from a high- or low-income one be determined? How long should a country remain middle-income before it is assessed to be trapped as such? A sophisticated analysis of 124 countries (Felipe, Abdon, and Kumar 2012) categorised middle-income countries as those with Gross Domestic Product (GDP) per capita of between $2,000 and $11,759 (in 1990 purchasing power parity dollars). These countries were further divided into lower middle-income countries (with less than $7,250) and upper middle-income countries (with more than $7,250). The study calculated the average duration of stagnation based on experiences of transitions from lower middle-income to upper middle-income and then to high

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income. The transition from a lower middle to an upper middle level took an average 28 years. The transition from an upper middle to a high-income level, however, took an average 14 years. As of 2010, 30 out of 38 lower middle-income countries remained as such for more than 28 years. Five out of 14 upper middle-income countries stayed in the same income range for more than 14 years. In Southeast Asia, only the Philippines has passed the 28-year threshold, while Indonesia is in danger of following suit. Malaysia is one of the five that may have fallen into the upper middle-income trap.

However, it may be necessary to be flexible when using the income range and the duration spent in that range to assess the economic health of a country. When the per capita income of the 'entrapped' country rises much more rapidly than that of high-income countries, it may be more appropriate to use the relative speed of income improvement. Hence, for the Southeast Asian cases studied in this book, a country should not be immediately regarded as 'trapped' if it continues to catch up with the leading economies of the world.

1 The Intermediate Quality of Economic Development in Southeast Asia

If the United States of America (USA) is considered the world economic leader, then the speed at which the five Southeast Asian countries have been catching up with it is quite impressive, although short of the performances of South Korea and China. Between 1985 and 2014, the five Southeast Asian countries improved their GDP per capita (relative to that of the USA) by 15.9–154.9 per cent.[1] These figures are lower than those for South Korea (175.1 per cent) or China (614.1 per cent) but much better than Brazil (–5.4 per cent), Mexico (–19.4 per cent), and South Africa (–26.6 per cent).

[1] The improvement rates are 78.6 per cent for Malaysia, 82.0 per cent for Indonesia, and 114.5 per cent for Thailand.

One reason for wondering if the Southeast Asian countries have fallen or are falling into the middle-income trap is their inadequate technological capability. For instance, it was suggested that up to 2007, middle-income countries that formed part of the Association of Southeast Asian Nations (ASEAN) suffered from mediocre higher education systems, a lack of domestic patents, low levels of innovation and technological diffusion, and an abundance of assembly-type firms unable to move up the value chain. Hence, it was premature to expect that they were ready to become 'knowledge economies' (Gill and Kharas 2015: 2).

Certain statistics substantiate these assertions. The average annual total factor productivity (TFP) growth rate for 2001–14 was between –1.10 per cent for Vietnam and 1.25 per cent for the Philippines, much lower than for China (3.20 per cent), South Korea (1.64 per cent), and Taiwan (1.58 per cent).[2] Of the five Southeast Asian countries, Vietnam was the only one that recorded a negative growth rate. (Even then, Vietnam was catching up with the USA more rapidly than the other Southeast Asian countries. This suggests that Vietnam's development level is still so low that its economy has ample scope to grow merely on increased factor inputs.)

The poor TFP performance is partially explained by research and development (R&D) activity in Malaysia, Thailand, Philippines, and Indonesia being far lower than in South Korea, Taiwan, Singapore, and China when measured by R&D expenditure as a share of nominal GDP and the number of staff per one-million population (Table 2.2, Chapter 2, this volume). The five Southeast Asian countries certainly lag behind the Northeast Asian newly industrialising economies (NIEs) in technological development. However, they have performed much better than many non-Asian middle-income countries. For instance, the average annual TFP growth rates from 2001 to 2014 were –0.64 per cent, –1.35 per cent, –1.04 per cent, and – 1.08 per cent for Brazil, Mexico, South Africa, and Turkey, respectively.

[2] The corresponding figures for Malaysia, Thailand, and Indonesia are 0.94 per cent, 1.04 per cent, and 1.04 per cent, respectively (calculated from Conference Board Total Economy Database retrieved on 11 August 2016). The Conference Board started providing new figures for China in 2015 on the renewed estimation method of China's GDP. As per the new dataset, the annual TFP growth rate of China for 2001–14 is no more than 0.40 per cent. See Wu (2014) on the revision.

In short, while they have not replicated the full extent of Northeast Asian industrial success, the Southeast Asian NIEs have had considerably more impressive economic performances than their non-Asian middle-income counterparts. Even so, as the cases in this book suggest, the fear persists that Southeast Asian economies may eventually fall into the 'middle-income trap' due to the slow upgrading of their technological capabilities. What historical conditions, specific to Southeast Asia, have helped in realising, and limiting, this regional attainment?

2 Changing Conditions of Possibility

It has been suggested that it would be more difficult to advance towards the status and condition of a developed economy from an intermediate point than it would be to emerge from a low-income phase. It is debatable if the latter shift is 'easier'. Relatively successful development in capitalist Southeast Asia followed a common process of overcoming postcolonial weaknesses that included a dependence on the production and export of primary commodities, a vulnerability to declining terms of trade, the vicissitudes of non-autonomous export-reliant growth, and a persistent foreign domination of key economic sectors.

As Southeast Asian NIEs (barring Singapore) traversed a path of commodity diversification, openness to foreign direct investment (FDI), and incorporation into the 'new international division of labour', their pro-US Cold War alignments spared them potentially horrific destruction, of the type and scale visited upon Vietnam, Laos, and Cambodia. If anything, being firmly placed in the American orbit permitted the anti-communist countries of Southeast Asia to profit economically from the hot wars in Indochina.

These countries and their societies had to shed the typical colonial economy's 'imperial structure' (Williamson 2002) that was ill-suited to adapting economic performances to national priorities covering the socially and politically volatile problems of widespread poverty and diverse inequalities. By a lengthy and politically repressive process, capitalist Southeast Asia refashioned its inherited structures of colonial capitalism (generally applicable even to non-colonised Thailand) to

reach what was effectively a level of intermediate success, albeit marked with national variations. In bad times, the Southeast Asian NIEs did not sink to the truly wretched level of disastrous postcolonial experiences. In the best of times, however, the same NIEs could not scale the heights of late industrialisation in Northeast Asia.

Offering a contemporaneous commentary on the crisis of 1997–98 in Indonesia, Malaysia, the Philippines, and Thailand, Benedict Anderson traced their pre-crisis economic success (except that of the Philippines) to four 'conditions of possibility'. First was the 'peculiar arc of the Cold War in the region' because of which 'Washington made every effort to create loyal, capitalistically prosperous, authoritarian, and anti-communist regimes' (Anderson 1998b: 300). Second was the 'accident of the region's geographical propinquity to Japan', which led to Japan's becoming Southeast Asia's 'single most important external investor . . . both as extractor of natural resources . . . and in industrial and infrastructural development'. A third condition of possibility was, 'ironically enough . . . [the] Maoist project of building a mighty autarchic, socialist economy outside the global capitalist order [that] kept China from playing a significant economic role in, or in competition with Southeast Asia until the middle 1980s' (Anderson 1998b: 301–2). Finally, the opening of post-WWII economic opportunities and practices of postcolonial discrimination against their 'overseas Chinese' (in various ways and to different extents) served to 'encourage people of Chinese ancestry to concentrate their energies and ambitions in the private commercial sector', effectively making the Chinese minority the real domestic motor of the 'miracle' (Anderson 1998b: 304–5).

Anderson's review is quoted at length here because he was in fact conceptualising Southeast Asia's turn 'from miracle to crash' at a new historical juncture. The Soviet Union had imploded, the communist threat had vanished, and the communist alternative in development was discredited. Consequently, capitalist Southeast Asia no longer retained its previous favoured status in the USA's strategic calculations. Japan's regional economic preeminence was no longer assured because of its internal decline and external challenges. China, however, had 'emerged' or 'opened up' or 'returned', reversing the 'extraordinary sequestration from the global market of the greatest power in Asia' (Anderson 1998b:

302), with a vengeance, it might be said. In other words, the historical conditions that favoured Southeast Asian growth had begun to recede before global financial pressures combined with domestic mismanagement to terminate what some observers had imagined would be inexorable economic advance (Anderson 1998b: 304).

In the event, the stricken economies did not collapse irretrievably. They recovered and even acquired a measure of resilience to weather the global financial crisis of 2007–08. Two decades after the 1997 crisis, however, none of them has attained the developed status their leaders had craved and which would be akin to a 'second Asian miracle' (Pempel and Tsunekawa 2015: 3). On the contrary, standard indicators seem to suggest that these economies are mired in middle-income mediocrity or at risk of losing their competitiveness. Unlike Northeast Asia (except China, then, and North Korea still), which had acquired its advanced status in the era of favourable regional conditions, Southeast Asia (except Singapore) had been 'developing' somewhat impressively but stopped short of becoming 'developed'. Has the historic moment for Southeast Asia to replicate Northeast Asia's success in late industrialisation passed? The answer is partly positive and partly negative.

The USA is now less tolerant of restrictive measures against trade, investment, and financial activities. The USA-backed international trade regime under the World Trade Organization (WTO) reduced exceptional treatment for developing countries on import restriction, export promotion, quota allocation, and property rights. These countries now find it more difficult to privilege firms located within their borders to foster national economic development. However, a more competitive global economy does not make the failure of developing economies inevitable. For instance, Aseema Sinha (2016) vividly analyses how the pressure of trade liberalisation under the WTO served to revitalise Indian pharmaceutical and textile industries. In both cases, the private sector in India was highly resistant to liberalisation, but WTO obligations strengthened the influence of reformers in the state and forced the private sector to change its preference. Entering the twenty-first century, the Indian pharmaceutical industry strategically turned to specialising in the production and marketing of generic medicines and boosted its

investment in product development. Likewise, to prepare for the abolition of the multi-fibre agreement expected in 2005, India's textile industry changed its strategy drastically from sheltering under state protection to seeking export promotion and international competitiveness. To this end, firms in the industry increased R&D expenditure and extended backward and forward linkages. The two industries are now highly successful. (Sinha's analysis interestingly shows that these changes were led by reformers in the state who built coalitions of new winners and overcame the resistance of losers.)

The decline in the availability of Japanese resources, Anderson's second point, is not insurmountable either. Reduced Japanese contributions can now be offset by resources from Northeast Asian NIEs, China (including Hong Kong), and Singapore. In fact, Japanese firms have expanded their overseas production since the mid-1980s. If Southeast Asia's share of Japanese foreign investment has declined, it is not due to shrinkage of Japanese resources but the emergence of China and other countries as more attractive locations of investment.

The loss of Anderson's third condition caused by China's rise as a formidable competitor in trade and investment is a more serious problem for Southeast Asian countries. They have, except for Vietnam (and, less so, Indonesia), mostly lost their low-wage competitiveness and need to expand sectors in which competitiveness stems from elements other than factor inputs. In fact, the state and the private sector of the five Southeast Asian countries have attempted various strategies to circumvent the decline of competitiveness and sustain the catching-up speed.

3 Trapped by Politics?

The analysis of the middle-income trap from a political perspective owes much to the work of Richard Doner. As early as 2009, he contended that Thailand's economy faced slowing growth. He did not use the term, 'middle-income trap', but 'uneven development' to characterise Thailand's success in transitioning to a non-traditional multi-sector economy without industrial upgrading. In principle, industrial upgrading must

involve gains in productivity and productive innovation that allow an economy to shift from lower value-added to higher value-added sectors. For successful industrial upgrading, technological capacities of local firms must be enhanced and linkages among them established. This is achieved by solving collective action problems, such as free-riding, high transaction costs, and distributive conflicts. Doner cautioned, however, that only systemic pressures from external and internal crises can compel top state leaders to build institutions that overcome collective action problems and coordinate interests among domestic stakeholders (especially private firms). It was precisely the lack of persistent systemic pressures that caused Thailand's failure to respond effectively to its problem of uneven development (Doner 2009).

Recently, Doner and his Latin Americanist co-author reaffirmed the importance of this theme (Doner and Schneider 2016). They argue that a country must build an 'upgrading coalition' to escape the middle-income trap because improved technological education, enhanced R&D investment, and adequate infrastructure will require institutional reforms that ensure appropriate and trustworthy distribution or redistribution of costs and benefits. Without such a coalition and institutions, private firms would be reluctant to bear financial burdens for common goals while households hesitate to invest in children's education. However, Doner and Schneider observe that coalition-building faces many path-dependent obstacles. For instance, past cheap labour-based development, predicated on politically and socially weak labour, weakens current labour pressure for upgrading. Moreover, as the economy develops, the disparity between formal and informal sectors has expanded, while employee–employer divisions have intensified to such an extent that the political process, now marked by populism and clientelism, lowers collective pressures for industrial upgrading.

The authors of this chapter share Doner and Schneider's view that socio-political factors profoundly shape the economic development of middle-income countries. Politics has been deeply embedded in the trajectories of growth, the moments of crisis, and the negotiation of different 'traps' in the development of Southeast Asia (as elsewhere in the world).

A 'triple crisis' – severe currency devaluation, financial meltdown, and economic contraction – spread from Thailand in July 1997 to its neighbouring countries, notably, Indonesia and Malaysia (but also to South Korea). The political repercussions continue to be felt in Southeast Asia. Indonesia's presidential election of 2014 suggested that its post-crisis politics has settled into a stable democratic mode after the overthrow of Soeharto and his New Order regime. The same cannot be said for Thailand and Malaysia. Thailand has witnessed several coups, two military and others judicial, that overthrew not just the Thaksin Shinawatra government in 2006 but every subsequent elected government for being allied to the deposed prime minister. In Malaysia, two consecutive general elections (in 2008 and 2013) inflicted heavy losses on the ruling coalition that lost the popular vote for the first time in 2013.

From a medium-term perspective, each of these political developments in Indonesia, Thailand, and Malaysia was traceable to a kind of 'political contagion', the destabilisation that issued from the 1997 crisis. A fourth Southeast Asian country, the Philippines, has had its political crises, too (although those were not attributable to repercussions of the 1997 crisis). Joseph Estrada, elected President in 1998, was forced out of office by a combination of an inconclusive impeachment, hostile mass demonstrations, and the withdrawal of military support. His successor, Gloria Macapagal Arroyo, was beset by mass protests, a small army mutiny, and plots by other military groups to overthrow her. Like current Indonesian politics, Filipino politics appeared to have stabilised with the election of Benigno Aquino III as president in 2010. However, with the advent of Rodrigo Duterte's presidency in 2016, Filipino democracy may be undermined by the executive's illiberal and authoritarian measures.

Looking at these political developments, with their national variations in severity and ramification, can one discern some useful thematic parallels that can shed some light, albeit speculatively, on socio-political factors that might affect these countries' prospects for economic advance to 'developed economy' status? This question is addressed here in relation to three themes salient within a medium-term frame of reference: the role of the state, oligarchic interests, and the emergence of populism as a direct or implicit challenge to oligarchic power.

3.1 The State and a Globalised Economy

Voluminous literature on Southeast Asian political economy over the past three decades has shown the importance of explaining and evaluating the capacities, roles, and interventions of states in producing, at different times, a regional 'miracle', a 'meltdown', and a 'middle-income trap' – in short, determining the resilience, vulnerability, or future of Southeast Asian economies. The scope to manoeuvre for an individual state is generally said to have narrowed in the current, highly globalised and competitive economy. Democratisation is widely assumed to increase the capacity for resistance to state initiatives. Thus, state elites who pursue long-term policies for industrial upgrading would have to engage in tough and time-consuming efforts to accommodate conflicting interests and build a national consensus for a satisfactory distribution of costs and benefits. How do Southeast Asian states fare on these two issues?

Interestingly, the success of Singapore, the only Southeast Asian country that has entered the high-income group (aside from Brunei Darussalam whose high per capita income derives largely from its oil wealth and small population), indicates that the state can still play an important and successful role in any upgrading project. The state continues to exercise considerable intervention to guide its preferred outcomes in major industrial sectors, capital markets, labour markets, and urban planning. In more recent times, the state's strong presence is felt through unconventional fiscal policies and state-owned enterprises that command enormous resources and power (Chapter 10, this volume). It bears noting that Singapore has not been democratic.

Vietnam's state-owned sector likewise illustrates the role that an authoritarian state can play in economic development. Given the weakness of small private businesses, Vietnam could never have achieved its current level of development if economic activities had been left to market forces. Yet, as Fujita (Chapter 4, this volume) points out, the more dependent on state favouritism a state-owned enterprise (SOE) is, the less efficient it is. In other words, the authoritarian character of a

political regime alone cannot guarantee its economic success. The determining factor is the way the state uses its relatively autonomous power to manage the economy.

In comparison with Singapore and Vietnam, Malaysia is less authoritarian. A good part of its economic orientation is state-directed, but the state is subject to greater social pressures from vested oligarchic interests and the electorate. Hence, although the Malaysian state can formulate well-designed development plans with identified targets, it struggles to implement them with economic efficiency, social equity, and political balance.

Thailand has a history of alternating between democracy and authoritarianism, between civilian governments and military juntas. For the most part, however, the basic policy orientation of the Thai state elite has been market-oriented regardless of the nature of the political regime. As such, the Thai state may simply not be ideologically and institutionally ready to be interventionist for the sake of industrial upgrading.

The Philippines and Indonesia are the most democratic of the five Southeast Asian countries. Economically, the state elite of the Philippines has been market-oriented. Their Indonesian counterparts were equally so for at least ten years following the overthrow of Soeharto. Under President Susilo Bambang Yudhoyono, the Indonesian state attempted to resume its interventionist ways (Chapter 3, this volume). However, after a ten-year laissez-faire interval, accompanied by democratisation and decentralisation, the attempted interventionism turned out to be ineffective pseudo-developmentalism as evident in the inconsistent implementation of the new mining law (Chapter 9, this volume).

3.2 Oligarchic Obstacles

The oligarchies of Indonesia, Malaysia, the Philippines, and Thailand have socially evolved from specific historical and national origins. The Filipino oligarchy was rooted in vast landholdings during late colonial times. The oligarchs became adept at controlling a system of electoral representation which, 'adapted to the ambitions and social geography of

the mestizo nouveaux riches' (Anderson 1998a: 201), allowed them to move 'from private wealth to state power, from provincial bossism to national hegemony' (Anderson 1998a: 213). The oligarchy of Thailand was formed from the elite power centers located within the military, the bureaucracy, and big businesses but were socially and ideologically placed under a constitutional, yet independently wealthy monarchy. Oligarchy came later in Indonesia where 'a system of power relations that enable[d] the concentration of wealth and authority and its collective defense' was constituted 'at a time of growth and market capitalism during the New Order' (Hadiz and Robison 2014: 37). Here, oligarchic composition underwent a politically significant ethnic change with the emergence of a *pribumi*, an 'indigenous' but, for all purposes and intents, non-Chinese, component. The promotion of an ethnically comparable *Bumiputera* dimension to oligarchy in Malaysia was made part of state policy. Through state regulation, investment, and sponsorship that systematically began from 1970, the oligarchy was reconstituted from its earlier postcolonial form of an ethnic division of power between the Malay political elite and the (largely) Chinese economic elite.

These oligarchies have also moved along different paths to economic and political dominance. However, it seems to be generally accepted that oligarchy as an embodiment of a 'fusion of political authority and economic power' (Hadiz and Robison 2014: 37) has been the source of political tensions in recent Southeast Asian politics. A common problem arising from the exercise of 'the power and politics of extreme wealth concentration' (Winters 2014: 12) has been the entrenchment of 'political capitalism', 'booty capitalism', 'crony capitalism', and so on – so to speak, 'bastardised' deviations from the ideal form of regulated but free market capitalism. Hence, oligarchy in Southeast Asia (except Singapore) has been intimately associated with many kinds of 'predatory' and 'rent-seeking' activities.

A second, much debated issue in academic literature focuses on the connections between oligarchy and post-authoritarian 'transitions to democracy' in Indonesia (Fukuoka 2013; Ford and Pepinsky 2014); the arguments can generally be extended to cover Thailand and the Philippines. When Soeharto's dictatorship ended, a competitive electoral

system was installed but expectations of liberal democracy were not realised. Instead, an 'expansion of costly electoral politics [had] facilitated the ascendance of business elites who [could] use their capital to pursue legislative positions and Cabinet posts that were previously limited' (Fukuoka 2013: 59). Effectively, therefore, democratisation, including vigorous electoral exercises, did not eliminate a corrupt and unfair fusion of wealth and power but changed 'the old form of accommodation between the ruling politico-bureaucrats and the business elites' (Fukuoka 2012: 87). The transition from dictatorship to democracy, moreover, produced a 'more chaotic electoral ruling oligarchy' that exercised power with fewer constraints (Winters 2014: 17).

Comparable patterns of such an oligarchic 'capture of democracy' (Winters 2014: 17) were largely the results of a 'politics of privilege' (Hutchcroft 1997) prevalent in the region. This permitted the Filipino oligarchy to retain its post-Marcos control of a 'weak state with bureaucratic incoherence' (Hutchcroft 1998). In Thailand, big business joined politics 'like Siamese twins . . . at the hip' (Pasuk 2004: 8), preserving the power of the Thai oligarchy in between bouts of military force. In Malaysia, the politics of privilege found its expression in the 'money politics' of the ruling coalition and its tycoon allies that let the Malaysian oligarchy retain power.

Bluntly put, oligarchy walked many a crooked mile. And yet, some might object, along that distance Southeast Asia had a minor miracle. How, then, could oligarchic domination be said to undermine prospects for economic advance beyond what has been attained?

First, many economic entities of the Thai and Indonesian oligarchies, especially family businesses, survived the 1997 financial crisis and found new directions to prosper (Chapter 2 and Chapter 3, respectively, this volume). In Indonesia, where post-Soeharto governments, until recently, took a laissez-faire stance towards industrial promotion, business groups did not pursue the technological upgrading strategy. Instead, they sought the production of niche products and services and the exploitation and processing of natural resources. In Thaksin's Thailand, the government actively targeted specific sectors for national development, but this intention was not matched by the installation of stern mechanisms to enforce, monitor, and evaluate the outcomes of those policies

(Chapter 10, this volume). Consequently, Thai family businesses mostly expanded and consolidated in sectors favoured by their Indonesian counterparts, leaving more high-tech machinery industries to multinational corporations (MNCs).

Even in sectors over which the state holds regulatory authority (such as mining in Indonesia), private firms could influence policy to obtain individual benefits thanks to the proliferation of channels of clientelist connections with the central and local governments created, ironically, by democratisation and decentralisation. For instance, the local governments of Indonesia collectively indulged in the economically ineffective practice of issuing more than 10,000 mining licenses (Chapter 9, this volume). Indonesia's pattern of rent management appears to have changed from monopolistic control under Soeharto to 'competitive clientelism'. In contrast, Thailand's once well-known competitive clientelism (Doner and Ramsay 2000) was reshaped into centralised clientelism under Thaksin. However, Thaksin's centralising tendencies and monopolistic politics drove his opponents and disadvantaged forces into forming an alliance that brought his rule to an abrupt and early end (Veerayooth and Hewison 2016). There was little time for Thaksin to use his influence to lead private firms and part of the populace to strengthen joint efforts for industrial upgrading.

The Malaysian state has been politically less democratic and economically more interventionist. Still, its political leaders have failed to use their power to foster a more systematic industrial upgrading of domestic firms. If the New Economic Model (NEM) announced in 2010 was anything to go by, they appeared to have been aware of the need for industrial upgrading. However, when it faced an increasingly competitive electoral environment, the state dominated by the United Malays National Organisation (UMNO) was unable to dismantle the economically ineffective regime protecting the ethnic Malay population in general and Malay firms in particular (Chapter 5, this volume). Thus, an officially sanctioned form of 'ethnic clientelism' persists and protects vested oligarchic interests.

It may be too early to speak of an oligarchy in Vietnam. However, the leaders of this party-state and those who control state owned enterprises (SOEs) may be likened to the UMNO politicians and powerful ethnic

Malay businesses. The Vietnamese state continues to protect its SOEs that, consequently, have few incentives to improve their productivity.

In other words, all five Southeast Asian countries covered here seem to have a common difficulty – the staying power of oligarchic vested interests poses a major obstacle to building a new national consensus for upgrading industries. So far, the catching-up development of these economies has been largely dependent on niche-oriented activities, natural resource processing, cheap labour-based production, limited technological upgrading of a few industrial sub-sectors, or a combination of these.

3.3 Abortive Challenges of Populism

An ideological gap was created towards the end of the twentieth century as nationalism and developmentalism, the principal ideological currents of the non-communist Southeast Asian nations, were undermined by globalisation in general and the 1997 crisis in particular. Nationalism had raised mass expectations of what decolonisation should mean, while developmentalism met mass demands for socio-economic improvement. Thus, nationalism and developmentalism became state projects connected by fundamental communitarian concerns, as was implicit in the elite proffering of 'Asian values' in the heyday of East Asian triumphalism (Khoo 1999). Much of that was wrecked by 'globalisation' in the guise of the 'Washington consensus' and the power of financial markets.

Populism, populist movements, and populists are notoriously difficult to define precisely because of the many variations in their meanings and characteristics in different national and local settings. Still, populism emerged as an alternative ideological current in the gap left by the 1997 crisis. As Southeast Asian political figures challenged discredited regimes or leaders, those figures and the movements they led refurbished nationalism, invoked communitarianism, and appealed to 'localism'. Thus, 'Gus Dur' (Abdurrahman Wahid) in Indonesia, Thaksin Shinawatra in Thailand, 'Erap' (Joseph Estrada) in the Philippines, and even Anwar Ibrahim in Malaysia espoused populist notions suited to their own political environments, in a paradoxical manner familiar to populism.

On the one hand, they issued appeals to 'the nation', 'the people', 'grassroots', and 'communities'. Being non-class-based by referring to Islam or 'Thai Rak Thai', for example, those appeals could have had an ideologically unifying ring to them. Populists could also programmatically offer direct and small-scale forms of redistributive assistance to the poor, the disadvantaged, and the marginalised. On the other hand, populist rhetoric could be politically quite divisive in two senses. First, although they did not intend to overturn existing structures of wealth and power, populists could target such 'enemies' as corrupt governments, class privileges, and oligarchic manipulation, as well as foreign machination (Khoo 2009: 128). Consequently, they could provoke severe reactions from the oligarchy, including firms whose participation is necessary for the implementation of a successful upgrading strategy. Second, populism often fosters direct links between leaders and their supporters, thereby impeding the viability or establishment of intermediate institutions crucially required for long-term projects of industrial upgrading.

The divisive character of populism was most clearly observed in Thailand. It has been said that Thaksin, who was deposed by a military coup in 2006, had 'connected with the "informal masses" of Thailand's electoral heartlands in the north and northeast' and 'also mobilised an inchoate "new capitalist" sentiment that was oppositional to the established order and its attendant politics of prostration before the semi-divinity of the monarchy and representatives' (Connors 2008: 481). Yet perhaps Thaksin's threat was 'not so much ideological as it was a visceral assault on the longstanding and compromised relationship between authoritarian privilege in the palace and military and emergent liberal forms of politics' (Connors 2008: 481). To that extent, 'the unconscious logic of that [populist] challenge was overwhelming: the combination of a uniquely brazen, self-manifesting political leader, a hungry electorate, long denied economic and social benefits, and a class of political and business entrepreneurs, emerged to erode the hierarchic conventions of Thai politics' (Connors 2008: 481).

These populists were far from being exemplars of virtuous administration. Across the region, they, 'who appealed to the lower classes', came to grief when their mobilisation encroached on the terrain of the

power elite or oligarchy in alliance with reformist movements that 'in the name of good governance ... turned against democratically elected presidents or prime ministers in the Philippines (Joseph E Estrada), Indonesia (Abdurrahman Wahid), and Thailand (Thaksin Shinawatra)' (Thompson 2004: 1089). It may not be a historical accident, therefore, that Thailand, where Southeast Asia's developmental projects unravelled first, has been the site of the most protracted and deadly political battles between unforeseen alignments of oligarchic insecurities, middle-class conservatism, and populist grievances, virtually all of which were let loose by the 1997 crisis. The military coup mounted against Thaksin after he had been prime minister for only five and a half years signalled the ebb of the populism which rose with him. Yet, until a second military coup in 2014 crushed it, populism remained a powerful force that repeatedly brought Thaksin's allies to power. Whatever else came out of the decade-long battle between the 'red shirts' and the 'yellow shirts', perhaps Thailand lost an opportunity to implement and benefit from at least some of Thaksin's planned upgrading projects.

Labour in the formal sector, were it strong enough, could have replaced an amorphous populism as an organised counterforce against the oligarchy and assumed a leading role in pressing the oligarchy to transform the wage and welfare system as an accompaniment to industrial upgrading. The incorporation of labour, either as a 'growth partner' as in Northeast Asian corporatism or as Western European 'cross-class collaboration' is key to long-term inclusive development (Doner 2015; Katzenstein 1985; Chapter 10, this volume).

During the past half century, by contrast, Southeast Asia was severely burdened by the legacies of Cold War suppression of independent civil society and once vibrant labour organisations, on the one hand, and subsequently intensifying economic globalisation, on the other. The initiatives in labour reform which have been carried out did not emerge from organised labour but from some state elite who recognised the limitations of a cheap labour-based development pattern and were also exposed to strong populist pressures.

For instance, the Najib Tun Razak administration announced the NEM in March 2010 with the intention of realising former Prime

Minister Mahathir Mohamad's vision of advancing Malaysia to the status of a high-income country by 2020. Among other things, the NEM proposed to quicken economic transformation from low value-added sectors supported by unskilled cheap labour to high value-added sectors with innovative productivity-enhancement capabilities. The NEM even considered introducing unemployment insurance and a minimum wage system. Fierce opposition to these proposals was quickly raised by private sector organisations such as Malaysian Employers' Federation, Small and Medium Industry Associations of Malaysia, Malaysian Agricultural Producers Association, and the Malaysian International Chambers of Commerce and Industry. In response, the government shelved the idea of unemployment insurance. Only because the ruling coalition faced a serious electoral challenge from the opposition (the original source of the minimum wage proposal), Najib announced in April 2012 that private sector firms must guarantee a minimum wage (determined by the government) for their employees, including foreign migrant workers. Pressed by the private sector once more, the government again retreated, permitting a non-implementation 'grace period' (of up to one year) and allowing firms employing foreign workers to be exempted from certain levies. In other words, the NEM's aim to discourage the use of cheap foreign workers was largely undone (Suzuki 2014: 152–61).

In Thailand, the introduction of a national minimum wage of 300 baht by the government of Yingluck Shinawatra (Thaksin's sister, whose party won the 2011 election) had a similar double purpose of consolidating electoral support among low-income families and reducing the reliance on cheap labour by incentivising national firms to shift to high value-added, skill-based production. However, the continuous inflow of migrant labour and its broad employment in various industries (including food processing) has not receded. The military junta that toppled the Yingluck government in 2015 abolished the national minimum wage and reintroduced the old system of regionally differentiated minimum wages.

Thus, the absence of strong organised labour could not prevent an influx of migrant labour into Thailand or Malaysia, which supported

employers' preference for cheap-labour-based growth over industrial upgrading, a subject to which we will return in Section 5.

4 In Search of Continuous Development

Many policy elites in the Southeast Asian countries are aware that technological upgrading is crucial to continue their catching-up endeavour. However, what remains uncertain is whether governments can overcome oligarchic and populist pressures for individualistic and fragmented interest and design appropriate upgrading plans and manage the implementation process properly for long-term national development. The absence of any grand strategy of technological upgrading does not, however, preclude successful innovation initiatives at the level of the entrepreneur and firm.

4.1 Technological Upgrading

Technological upgrading of export-oriented manufacturing sectors is typically recommended to avoid the middle-income trap. Thailand and Malaysia have shown a strong preference for this strategy. However, the time when an industry could replace another by the logic of product cycles (Vernon 1966) has long gone. Owing to the rapid development of communication and transportation technologies as well as the spread of modular product architecture, the production process in an industry can now be fragmented into many segments and located in different parts of the world (Yeung 2016: 1, 5). Logistics and marketing can also be distributed to different parts of the world. Locational decisions of foreign lead firms largely depend on the availability of local human, technological, and institutional resources. For Coe and Yeung (2015: 173), however, technological downgrading (not upgrading) may sometimes bring comparative advantage to certain localities because it matches production for lower-income markets. However, to sustain economic growth, a middle-income country must obtain higher technology portions of global production networks located in its territory. This will require the technological

upgrading of local suppliers and labour force, a task that has not been easy for Thailand and Malaysia.

Upgrading in Thailand has been undertaken in many sectors, including the hard disc drive (HDD) sub-sector of the electronics industry, the automobile industry, and the food processing industry (Chapter 6, this volume). However, since the electronics and automobile sectors are dominated by MNCs (Chapter 2, this volume), the successful transplantation of high value-added processes to Thailand has required special efforts by the state and the private sector. Intarakumnerd (Chapter 6, this volume) describes in detail how sector-specific intermediaries have striven to link firms to each other and to related agencies to improve productivity and competitiveness. The Hard Disc Drive Institute (HDDI) is a good example of how such collaboration was accomplished. The HDDI, consisting of government agencies, MNCs, and local research institutes (universities), set up university–industry linkages, testing laboratories, joint training programs, and collaborative R&D projects. This contributed to upgrading the technological capability of the whole HDD cluster. The Thailand Automotive Institute (TAI) is HDDI's counterpart in the automobile industry although its function is general rather than to serve specific sub-sectors and its impacts are yet to be seen.

The once-thriving Malaysian electronics industry seems not to have advanced beyond its established levels. Neither has its automobile industry been very successful. In contrast, technological upgrading has had notable success in rubber-based manufacturing, especially of high-quality medical gloves and technical rubber products such as cutless bearings and bridge bearing pads (Chapter 7, this volume). Unlike Thai automotive and electronic products, moreover, Malaysia's manufactured rubber products have been developed with minimum direct participation by foreign corporations although they are important buyers of products from Malaysia's original equipment manufacturers (OEMs). The pioneers of technological upgrading in rubber manufacture were technician-entrepreneurs of ethnic Chinese origin who own, operate, and manage global firms such as Top Glove and the Kossan Group. Significantly, the resilience and dynamism of ethnic Chinese entrepreneurs, Anderson's fourth condition of possibility, still applies with remarkable results in rubber-based

manufacturing in Malaysia. Private sector initiatives also benefitted from a long history of substantial public sector support in many areas of the rubber industry, including R&D. Such support was originally provided by the Rubber Research Institute Malaysia (RRIM), founded in 1925 to develop the rubber industry. Presently, the state's principal agency for supporting the rubber industry is the Malaysian Rubber Board (MRB), which, in 1998, took over the responsibilities of RRIM. Drawing on RRIM's vast research experience and accumulated knowledge of rubber and its production, the MRB laboratory helped develop high-quality medical gloves that met new and stringent standards of the USA and Europe. Top Glove and the Kossan Group, in particular, benefitted from MRB support during the early and intermediate stages of their development.

In the absence of a strong, coordinated and sustained drive towards technological upgrading in Southeast Asia, the Thai HDD and the Malaysian rubber-manufacturing sub-sectors are very important for two basic reasons. First, they provide evidence of local potential in capturing larger shares of higher value-added activities in manufacturing. Second, they are proof that the state has not been absent, even if particularly dynamic domestic firms have been the major sources of successful technological upgrading. Therefore, the question may not be whether Southeast Asian economies can generate more advanced economic activity but rather how best the project of advancing beyond the middle-income threshold can be organised economically, politically, and institutionally.

4.2 Natural Resource Processing

A second strategy of continuous catch-up which has been attempted in the Southeast Asian countries is based on raising and expanding value added within their natural resource sectors. This strategy is often combined with the technological upgrading path, discussed above, and a path of creating niche products or services, taking advantage of local resources and knowledge, that will be considered in the next subsection.

For instance, Malaysia's rubber manufacturing was originally dependent on domestically produced natural rubber. However, palm oil plantations spread and overtook rubber production in the 1980s. Now, Malaysia imports a considerable amount of low-processed rubber from Thailand (Chapter 7, this volume). Despite its increasing dependence on rubber imports, Malaysian rubber manufacturing also represented an important advance in securing higher value added while procuring natural resources from neighbouring producers.

Malaysia offers another notable example of inventive improvements within the natural resource sector. Its palm oil industry is widely acknowledged as a successful implementation of natural resource processing strategy (Rasiah 2006; Oikawa 2015). Beginning as the world's largest exporter of crude palm oil, the industry progressed to exporting refined palm oil in the mid-1970s. By the 1990s, it had advanced further downstream to produce intermediate goods such as vegetable oils and fats and oleo-chemical products. As with rubber, the state played a key role in the palm oil industry's early and intermediate stages of development. Through consciously designed policies and huge investments, the state facilitated land clearance for new plantations, the cultivation of new and higher-yielding oil palm varieties, the provision of physical infrastructure, and the construction of oil-extraction plants. The extent of the state's involvement may be gauged from its provision of social infrastructure to raise the living standards of settler communities of state-managed oil palm plantations, on the one hand, and the use of differential export taxes to assist the producers of palm oil products, on the other. Thus, the palm oil industry presently covers the whole value chain, including its higher value-added segments. For a long time, the palm oil firms were largely dependent on imported foreign technology but they have since adapted the technology to suit domestic conditions better. The industry faces two major problems today. One is its heavy reliance on a low-paid migrant labour force in the upstream activities of cultivation and care of oil palms and harvesting of fruits. A second problem is the emergence of Indonesia as a serious competitor, often with the aid of expatriate Malaysian expertise. Addressing both problems satisfactorily will require the Malaysian palm oil industry to extend and strengthen technological upgrading to obtain higher productivity gains.

The Indonesian government, too, has recently shown a strong interest in extracting a greater share of the value added from the production of its natural resources. In the post-Soeharto era, business groups reduced their manufacturing activities to ease their problem of bad loans and to operate in a somewhat laissez-faire policy environment (Chapter 3, this volume). These business groups have turned to the natural resource sectors of plantation agriculture and mining to take advantage of a commodity boom to regain their economic strength. (They have also moved into new domestic services, such as telecommunications, hospitals, education, media, and logistics.) The government of President Yudhoyono, however, considered a national development strategy essential for raising Indonesia to developed status and in May 2011 launched its Masterplan for the Acceleration and Expansion of Indonesian Economic Development 2011–25. A key strategy of this masterplan was greater extraction of value from natural resources. Even before it announced the masterplan, the government had promulgated a new law on mineral and coal mining that prohibited the export of raw mineral resources. Implemented in 2014, the new law stipulated that taxes on raw mineral exports would only be reduced when the degree of mineral processing increased. Prasetyawan (Chapter 9, this volume) gives a detailed account of the implementation of the law that sought to redress an unplanned outcome of post-Soeharto decentralisation, namely, the excessive issuance of mining licenses by local governments that had been newly granted broad authority and increased fiscal resources. This conduct of local governments, which usually wanted to obtain political contributions in money, neglected economic and environmental feasibility. The state had to contend with resource-extracting MNCs that fiercely opposed the law. In the copper mining sector, the government was forced to make many concessions (including the postponement of the export ban) to the two MNCs that controlled close to 100 per cent of Indonesia's copper exports.

Regardless of obstacles, a turn to natural resource processing has long been a logical direction to take in a region richly endowed with various resources. Yet, such a strategy cannot be strenuously implemented

without a judicious regard for the well-known problem of fluctuating international prices of primary commodities. The commodity boom, fuelled by an extraordinary expansion of consumer demand in the emerging economies of China and India, has ended and will not return soon. Thus, primary commodity exporters, if they are to take advantage of their natural resource endowment as part of their catch-up strategy, will need to deepen and broaden their resource-processing efforts by upgrading technologies and strengthening domestic downstream activities.

4.3 Niche Products and Services

Yet another growth strategy undertaken by the state and the private sector in the Southeast Asian countries is to specialise in developing niche products and provide services for the global market. Malaysia's medical glove industry is an excellent example of niche product development. The now globally competitive Top Glove and the Kossan Group seized the opportunities created by an unanticipated surge in the global demand for high-quality, thin but strong, disposable examination and surgical gloves. The demand for the specialised glove began suddenly with the worldwide concern over health and safety standards that arose in the wake of epidemics such as Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome (HIV/AIDS), Severe Acute Respiratory Syndrome (SARS), and avian flu. Of course, new market opportunities do not guarantee success for new ventures. The Malaysian companies which became globally competitive blended earnest efforts to upgrade their technological capability with the ready availability of natural rubber as raw material, a tremendously valuable experience of rubber production and research, and unfailing state support in many areas.

A niche product-oriented strategy has also been successfully pursued in Thailand's increasingly innovative food processing industry. The detailed analysis by Suehiro (Chapter 2, this volume) of the post-crisis reorganisation of family businesses shows that many sold their manufacturing firms to foreign corporations but increasingly specialised in agro-industries and service sectors such as tourism, modern retail,

housing, hospital and medical services, and entertainment. The development of such sectors is crucially dependent on a deep knowledge of natural resources, domestic markets, business networks, and local cultures. Thus, these may be considered niche sectors in which domestic firms enjoy competitive advantages over foreign ones. As with Malaysia's rubber manufacturing, Thailand's food processing industry made good use of its easy access to local raw materials. Successful family business firms, such as the Charoen Pokphand (CP) Group and Thai Union Frozen, continually undertook product and process innovation in their factories to produce internationally competitive processed foods (Chapter 6, this volume). As a measure of their innovative capability, those groups have gone beyond OEM production to market some of their products with their own brand names. In some cases, they developed a global reach by buying firms in neighbouring countries and even in some high-income countries and becoming MNCs themselves (Chapter 2, this volume). Even so, Thai-owned brands remain far fewer than foreign-owned brands and many Thai firms function only as OEMs. With special reference to the processed seafood industry, Intarakumnerd (Chapter 6, this volume) warns that the Thai seafood industry would have to offer more sophisticated and branded products in the face of growing competition from lower-cost producers such as Vietnam and Indonesia.

A rather different niche industry has emerged in the business process outsourcing (BPO) sector of the Philippines. This sector derives strength from a segment of domestic human resources, namely, an English-speaking but relatively cheap labour force that allows the sector to secure many external service contracts. Together with the enormous amount of remittances made by Filipinos working overseas, the BPO sector has contributed to the Philippines' relatively high growth in the past decade. Not unlike Malaysia's rubber manufacturing and palm oil processing industry, and Thailand's food processing industry, which directly or indirectly benefit from low-cost labour, the BPO sector relies excessively on its domestic cheap labour. Raquiza (Chapter 8, this volume) has warned that if opportunities to work overseas grow, the domestic BPO sector may be deprived of its essential English-speaking human resource. To address this potential threat, the Philippines

should raise workers' skills and continually improve the social infrastructure that maintains the BPO sector.

One difficulty faced in developing niche products and services is the lack of durability. Domestic advantages are readily lost as rivals and imitators emerge. As in other economic sectors, niche-oriented firms must sooner or later engage in systematic upgrading of their technological and other capabilities if they are to prosper and contribute to the national catching-up effort.

5 Cheap Labour, Low Value

The state and the private sector in Southeast Asian countries also use the common but economically and socially unfortunate development strategy of relying on cheap labour-based production and export. Even in upper middle-income countries such as Malaysia and Thailand, many firms have made no effort to wean themselves off the dependence on cheap labour. Although some of that labour is domestic in origin, Malaysia (Chapter 5, this volume) and Thailand (Chapter 2, this volume) have seen an influx of unskilled and often undocumented migrant workers from neighbouring low-income countries such as Cambodia, Indonesia, Laos, and Myanmar.

For Malaysia, a chronic and massive dependence on low-skilled, low-wage foreign labour only pushes the economy towards premature deindustrialisation and obstructs more innovative and higher value-added economic activities (Chapter 5, this volume). Likewise, in Thailand almost two million migrants from neighbouring low-income countries were mostly unskilled workers employed in sectors such as construction, low-skill services, agriculture, fishery, food processing, and garments (Chapter 2, this volume; Yamada 2014: 142–3). In a different form, labour is also a critical issue for the Philippines. It ranks among the world's top remittance-recipient countries and more than one in four households benefit from remittances. This bestows ambiguous reward, however, since state institutions become less motivated to promote productive activities while a sizeable part of the domestic workforce leaves the country (Chapter 8, this volume).

For lower middle-income Vietnam, the scope for economic growth may presently be based not so much on technological upgrading as on the intensive utilisation of cheap labour. That does not imply that deep reforms of management and technical improvement are not important. Nor does it mean that the cheap labour advantage will last long. Fujita (Chapter 4, this volume) analyses the results of reforms implemented in two major Vietnamese state-managed enterprise groups (Vinatex and VEAM). In Vietnam, where the private sector is still small and weak, the state must lead in implementing different reforms to take advantage of opportunities in the global market. The Vietnamese government had conducted reforms, including equitising and streamlining its SOEs. Certain SOE-affiliated firms are allowed considerable autonomy, including taking decisions to enter joint-venture partnerships with foreign companies. Thus, firms producing garments and motorcycle parts and components have succeeded in expanding their businesses through deeper integration with the global value chain. Their success was not solely based on cheap labour but came from earnest efforts to raise management and technical capabilities to levels that met the requirements of foreign partners. However, Vietnam remains weaker in technology-intensive and skill-based sectors as is evident from the great difficulties faced by Vinatex in the upstream segment (spinning, weaving, and dying) and VEAM in the production of trucks and agricultural machinery (Chapter 4, this volume).

For Southeast Asia, the prospects of industrial development based on cheap unskilled labour cannot be bright as the income levels of the low-income and lower middle-income countries rise. An addiction to low-skilled, low-wage migrant labour will impede innovation and a turn to high value-added activities, and eventually jeopardise long-term advance (Chapter 5, this volume). It could also create many serious social and political problems that may even undermine the stability required for steady growth.

6 A Brief Note on Prospects

Southeast Asian countries' records of development and the realities they face are complex and subject to swift changes. For example, many regional 'conditions of possibility' that framed their historical

achievements are lost and cannot be replicated. Given their present capabilities, the fluid conditions of global competition, and the uncertain state of global markets, it would be futile for those countries to long for the return of an earlier era of very high growth rates. It is not unrealistic, though, for them to aim for moderate growth rates and better quality development that do not jeopardise their common goal of becoming 'developed' in the medium term.

In their efforts to catch up with advanced economies and to stay competitive vis-à-vis emerging rivals, Southeast Asian countries have not been powerless. They have negotiated two huge financial crises and follow-on recessions, all in a decade, with difficulty but without being devastated beyond recovery. Some of their domestic businesses, private and/or state-owned, strategically adapted to post-crisis and other unanticipated conditions that allowed them to chart new paths of growth. Some of those paths ran through learning processes of technological upgrading in resource-based manufacturing, niche product development in natural resource sectors, and the provision of services by leveraging on the advantages of special segments of human resources. Part of the support for those new business ventures came from state and private sector collaboration in domestic R&D or market promotion. It was far less impressive for the overall economy to persist with production based on low-cost and low-skilled labour.

Owing to these mixed strategies and performances, Southeast Asian countries have largely had much better income improvement than most non-Asian middle-income countries. The former may not be 'trapped' in their middle-income range for long if their growth rates are high enough for them to continue catching up with the most advanced economies. The deeper problem is whether the present modes of development can reliably sustain current rates of income improvement. For all their initial dynamism niche-oriented production and natural resource processing are bound to face competition from other countries and firms that adopt similar strategies. Besides, the sources of cheap labour will be exhausted in middle-income Southeast Asia as domestic wages rise and the influx of migrant labour runs into different problems.

In the final analysis, the technological upgrading of industries, including resource-based and niche-oriented ones, will remain the most plausible way out of an eventual decline in income improvement. If an acknowledgement of the inherent limitations in current development strategies can be translated into firm policy, it could form the basis for institutionalising sorely needed reform. That may, in turn, produce a more equitable and less divisive distribution of the socioeconomic costs and benefits of upgrading. If not, reform will only be offered piecemeal out of self-interest by ruling elites when they have no choice but to appease populist pressures. It is here that Southeast Asian countries run into non-economic and non-technological dimensions of the middle-income trap. It is where the wise calculations of entrepreneurial initiatives and economic policies end and the unplanned interventions of deep socio-political factors begin.

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Part I

Surveys of Political Economy

2

New Growth Strategies of Thailand's Big Firms in the ASEAN Economic Community Era

Akira Suehiro

1 Introduction: What Are the Issues?

In 2010, both Thailand and the People's Republic of China (PRC) upgraded their economic status from 'lower middle-income' countries to 'upper middle-income' countries in line with the World Bank definition.[1] This implies that these two countries now belong to a promised reserve group for new members of high-income countries (advanced countries).

In the same period, as the Preface to this volume points out, international financial institutions started a discussion on the 'middle-income

[1] In 2010, an upper middle-income country was defined as one located in the range of per capita GNI between $3,976 and $12,276. Felipe, Abdon, and Kumar (2012) defined the middle-income trap by employing an income range and duration based on empirical studies of 124 countries (Chapter 1, this volume).

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trap' regarding the rise of emerging Asian economies. Conventional arguments suggest that the middle-income trap is the decline of economic growth in developing countries due to the limitations of their traditional development pattern which depends mainly on a cheap labour force and low-cost capital including foreign direct investment (FDI). In other words, the middle-income trap may be defined as a 'trap' into which a country may be caught as long as its development pattern depends exclusively on low-cost advantages with no effort or success at innovation (Suehiro 2014: 125–9).

In this regard, Asian Development Bank (ADB) cautioned in its 2012 report that if a middle-income country fails to boost output that centres on high-value market segments and growth that increasingly relies on productivity improvement through innovation, such a country will fall into the middle-income trap: 'on one hand it cannot compete against low-income countries at low wages; while on the other it cannot compete with high-income countries on innovation and higher-value production. It is trapped between the two' (ADB 2012: 11).

Examples of this are observed in Malaysia, Thailand, Vietnam, and China. Arguments focusing on this topic are included in Yusuf and Nabeshima (2009) for Malaysia, ADB (2012) for China, Ohno (2009) for Vietnam, and Tran Van Tho (2013) and Veerayooth and Patarapong (2014) for ASEAN countries. The Bank of Thailand (BOT), too, began to refer to the middle-income trap from early 2010 (Prasarn 2012; Suehiro and Natenapha 2014). It pointed out that Thailand was in danger of being caught in the middle-income trap as a result of a serious shortage of labour force, a rapid increase in minimum wage, and a slow pace of innovation that could raise labour productivity.[2] The BOT also predicted that Thailand would face a decline in economic growth (Fig. 2.1).

To deal with this problem, new policies were formulated: the 'Creative Economy' and 'Khrongkan Thai Khemkheng' (enhancing the Strength of Thailand) by the Abhisit government (December 2008 to July 2011),

[2] In October 2012, the NESDB estimated that actual demand for labour would reach 43.26 million persons. As a result, it predicted that the Thai labour market would face a shortage of 3.90 million persons (for which it could turn to foreign workers) in 2015 when the ASEAN Economic Community or the AEC would start (Shukan Thai Keizai, 8 October 2012: 2).

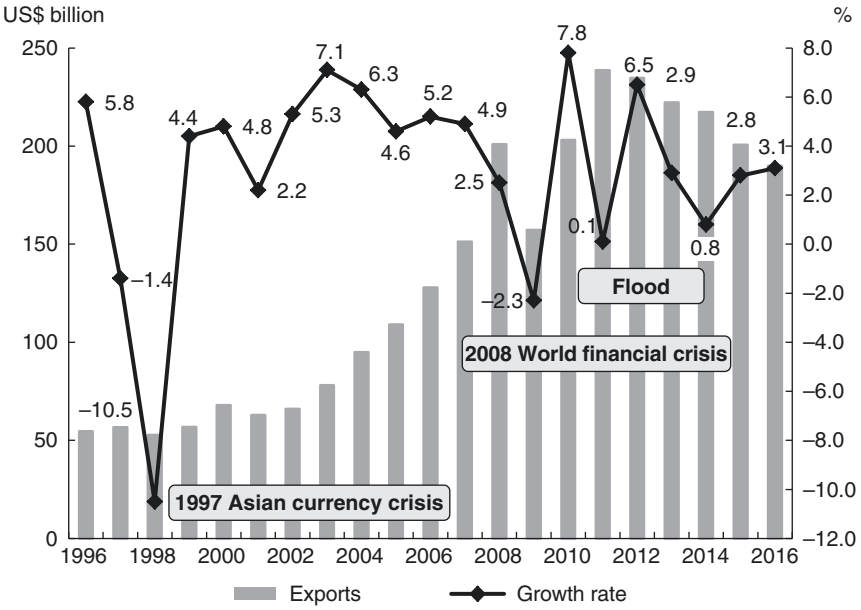

Fig. 2.1 Overview of Thailand's economy, 1996–2016

Note: The scale of exports is shown on the left, while growth rate is shown on the right. Growth rates for 2015 and 2016 are as reported by NESDB in April 2016.

Source: Compiled by the author from information found on the Bank of Thailand website.

the 'Knowledge-Based Economy' by the Yingluck government (August 2011 to May 2014), and the 'Digital Economy' and 'Thailand 4.0' by the Prayudh government (May 2014 to the present time). However, these policies have not produced remarkable outcomes. Thailand continues to have very low R&D expenditure against nominal GDP.

Notably, Thai big firms, particularly leading family businesses, seem to have looked for another way of avoiding the middle-income trap, veering away from the traditional approach of central government promoted innovation or the conventional approach of a national system of innovation.[3]

[3] For representative arguments on the national system of innovation, see Nelson ed. (1993) and Freeman (1995). For a case study of Thailand, see Intarakumnerd et al. (2002) and Intarakumnerd (2010).

Indeed, Thai big firms have turned their attention not to manufacturing industries such as automobiles and information technology (IT) but to the agro-industry and service industries such as tourism, modern retail, housing, hospital and medical services, and entertainment.

When discussing the middle-income trap, international financial institutions like ADB have frequently focused on the manufacturing sector in general, and automobiles and IT industries in particular. However, ownership/management controls of these two industries in Thailand have already shifted from local firms or joint ventures with foreign firms to firms fully owned by foreigners (mostly MNCs) after the East Asian crisis in 1997 (Suehiro 2006). This means that new investments with innovative objectives or new investments in the fields of R&D are principally determined by the region-wide corporate strategy of foreign parent companies rather than by local firms or policies of the government of a host country.

As Intarakumnerd points out (Chapter 6, this volume), institutions such as Hard Disk Drive Institute in the hard disk drive industry and Thailand Automotive Institute in the automobile industry have efficiently served as intermediary organisations to promote R&D activities and build cooperation among multinational corporations (MNCs), government agencies, and universities. However, no local firm is equipped with the capabilities for developing new products as well as new technology.

There are three major reasons for my examination of the new strategy of local big firms in relation to the discussion on the middle-income trap in Thailand. First, the growth of Thailand's economy in the past decade has been supported by both export-oriented industries (EOIs) (automobiles, electronics, petrochemicals, and agriculture) and domestic-market-based industries and services. Local big firms are important players in the agro-industry and service industries.

Second, the growth of local firms is closely connected not only with the growth of the domestic market but also the regional market, including Cambodia, Laos, Myanmar, and Vietnam (CLMV) and the rise of the ASEAN Economic Community (AEC). This second element seems to be essential to the future course of Thailand's economy.

Third, joint ventures with influential Chinese firms seem to highlight new business expansion for Thai local firms in the fields of core manufacturing industries (automobiles, tyres, IT products, among others)

or service industries. Thus, Thai local firms do not always seem to depend on Japanese or Western firms to advance into growing industries. The increasing presence of China in the region provides a new opportunity for Thai big firms.

2 Economic Performance and Trade Structure

First, let me present an overview of the economic performance of Thailand for the past two decades. Figure 2.1 shows changes in economic growth rates and export value between 1996 and 2016 (projected). Average annual growth rates between 2000 and 2015 were 3.84 per cent, which is far lower than average annual growth rates of 9.52 per cent (1988 constant price) during the economic boom between 1987 and 1996. This number is also less than the annual growth rate in other East Asian countries during the same period; it is less than half that of China.

Between 2000 and 2015, Thailand witnessed considerable political turmoil, with two military coups d'état (September 2006 and May 2014) and four violent political conflicts. However, these political incidents barely affected economic performance, except in 2013 and 2014. Two external shocks, the 1997 Asian currency crisis and the 2008 worldwide financial crisis, and the natural disaster (flood) that hit Thailand in 2011 seem to have more seriously damaged the national economy.

Thailand's economic growth has been supported by two fundamental elements, the rapid increase in exports and the expansion of domestic consumption. As Fig. 2.1 clearly shows, Thailand's exports constantly increased until 2011, except in 2009. At the same time, sales of automobiles and housing for the urban middle class increased rapidly owing to the expansion of consumer credit (mini bubbling economy).[4] However, since 2012, Thailand's export value began to show a sharp decline in growth, while domestic private consumption slowed down due to increasing household debts and a tight money policy by the

[4] The outstanding of consumers' credit in Thailand increased from 94 billion baht at the end of 2003 to 230 billion baht by early 2012 (Bank of Thailand website).

government. It is apparent that Thailand will experience the limitations of traditional economic development.

Between 1995 and 2014, trade partners and the export structure in commodity groups in Thailand changed dramatically. G3 markets – Japan, the USA, and the European Union (EU, 27 countries) – have reduced their share between 1995 and 2014. For instance, Japan decreased its share from 16.8 per cent to 9.6 per cent, while the USA decreased its share from 17.8 per cent to 10.0 per cent and EU decreased its share from 16.5 per cent to 10.3 per cent. In contrast, ASEAN countries and China impressively increased their shares in the same period. ASEAN countries increased from 21.7 per cent to 26.1 percent and now provide the largest market for Thailand. Meanwhile, trade with China demonstrated the highest annual growth rate, of around 20 percent between 1995 and 2012. China exceeded Japan in export value in 2009, and then exceeded the USA in 2010. Consequently, China, as a single country, has become the largest trade partner for Thailand since 2010.

Another important change can be observed in export structure classified by major commodity groups (Table 2.1). Agricultural products have decreased from 40.7 per cent in 1985 to merely 7.9 per cent in 2014, but their export value increased tremendously, from 78.5 billion baht (193 billion baht × 40.7 per cent) to 578 billion baht (7300 billion baht × 7.9 per cent), a 7.7-times increase over the past three decades. Export expansion of agro-industries is more impressive. Agro-industrial products including sugar, canned tuna, and canned fruits increased from 24 billion baht in 1985 to 872 billion baht in 2014, a 36-times increase. These primary goods, relying mainly on domestic natural resources, have contributed to market diversification and served as a buffer to alleviate the impact of worldwide recession on the export of manufactured goods like IT products.

Textiles and garments, which are labour-intensive products, recorded their peak as early as 1990 and have since declined from a share of 13.3 per cent in 1990 to merely 3.3 per cent in 2014. Similarly, sports shoes and wooden furniture (including wooden toys) have also lost their competitiveness in the world market due to the decline of the low-cost advantage.

Table 2.1 Changes in export structure by major commodity groups, 1985–2014

Year	Total export (millions of baht)	Composition of major commodity groups, 1985–2014 (%)				
		Agricultural products*	Agro-industries**	Textiles & garments***	Electronics, IT products+	Automobiles and automobile parts
1985	193, 366	40.7	12.6	11.0	4.7	0.2
1990	589,813	22.2	12.0	13.3	14.2	0.7
1996	1,378,902	12.5	12.2	10.0	22.4	1.9
2000	2,730,943	7.4	10.8	8.2	26.1	4.6
2005	4,406,673	7.4	10.2	6.1	22.4	8.7
2010	6,060,184	9.1	11.3	4.1	17.5	11.7
2012	7,016,521	8.0	12.6	3.2	14.5	12.9
2014	7,300,438	7.9	11.9	3.3	14.7	13.9

Notes: * Include rice, tapioca, natural rubber, frozen chickens, and frozen shrimp. ** Include sugar, canned tuna, and canned fruits. *** Include yarns and fabrics. + Include computer parts, integrated circuits, and telecommunication equipment.
Sources: 1981–1990: Ministry of Commerce, 'Trade Statistics and Economic Indicators of Thailand'; 1996–2014: 'Total Value and Quantity of Exports Classified by Product Group' from the Bank of Thailand website.

By contrast, electronic products have quickly increased their exports since the 1990s, followed by automobiles and automobile parts from the 2010s. Indeed, exports of electronic products jumped from merely 84 billion baht in 1990 to around 1,000 billion baht in 2005, while automobiles and automobile parts exceeded 1,000 billion baht in their export value in 2014. Notably, the rapid growth of two major commodity groups (industries) has been driven not by Thai local firms but by foreign-owned firms. This growth reflects the prominent development of industrial clusters on the outskirts of the Bangkok Metropolitan Area, to which MNCs from Japan, the USA, Europe, and Asian newly industrialising economies (NIEs) have contributed by organising production networks in collaboration with several local parts suppliers (Table 6.2, Chapter 6, this volume).

3 The Middle-Income Trap in Thailand

The middle-income trap is usually interpreted as the slowdown of economic growth due mainly to the rise in wage level and the decline in investment efficiency. Accordingly, wage level and labour productivity are good indicators of a middle-income trap in a country.

First, let us look at changes in the minimum wage level (baht per day) in the Bangkok Metropolitan Area and Chiang Mai in the North between 1989 and 2014. The minimum wage level in Bangkok increased from 76 baht (69 baht in Chiang Mai) in 1989 to 132 baht (116 baht) in 1994 and further to 157 baht (137 baht) in 1996 as consumer prices rose. Between 1997 and 2002, the demand for increasing minimum wages was suppressed by the government and business associations to overcome the economic recession fuelled by the 1997 Asian crisis. Indeed, in 2002, the minimum wage in Bangkok remained at 165 baht (143 baht in Chiang Mai), merely 8 baht (6 baht) higher than in 1997.[5]

After Thaksin Shinawatra came to power in February 2002, his administration decided to increase the minimum wage level every

[5] For changes in the official minimum wage level in each province, see the Ministry of Labour and Social Welfare (Ministry of Labour) various years.

2 years to obtain political support from production workers in urban areas. Even after a military coup d'état ousted Thaksin, new governments followed the same policy. In January 2011, the minimum wage in Bangkok, set at 165 baht in 2002, was raised to 215 baht while the minimum wage in Chiang Mai was raised from 143 baht to 180 baht.

Between 1989 and 2010, the increase in minimum wage was not a crucial matter. It became so after 2012, when the Yingluck (youngest sister of Thaksin Shinawatra) government decided to increase the minimum wage in Bangkok from 215 baht to 300 baht. Neglecting strong opposition from business associations like the Federation of Thai Industries (FTI), the prime minister extended the minimum wage of 300 baht per day to the whole country from April 2013. So, in Chiang Mai, the minimum wage increased from 180 baht in 2011 to 251 baht in April 2012 and further to 300 baht in April 2013, regardless of the difference in cost of living between Bangkok and the North. In Khon Kaen, in the Northeast, too, the minimum wage was increased from 167 baht to 233 baht and further to 300 baht in the corresponding period.

The increase in wage level served two main purposes. One was the realisation of Pheu Thai Party's political campaign, which promoted the Yingluck government after its general election victory in July 2012. The other is the result of policies by the National Economic and Social Development Board (NESDB) to switch the target of foreign and domestic investment from labour-intensive to technology-based industries. Thailand also began to face difficulties in finding cheap labour due to the decline of the young Thai working age population.

The 2010 Population and Housing Census revealed that 1,796,633 people from Cambodia, Laos, and Myanmar (CLM), mostly unskilled workers, were employed in various industries in Thailand (NSO 2012). These CLM workers and their families accounted for 66 per cent of the total foreign nationalities in Thailand, and around 5 per cent of the total employed persons in Thailand in 2010.[6]

A rise in wage level does not always result in a slowdown in economic growth if labour productivity improves to offset the increase in nominal

[6] Computed from the Labour Force Survey by the National Statistical Office in 2010.

wage cost. In this case, the increase in nominal wage does not affect international competitiveness but will contribute to increased domestic consumption. However, a survey by Asian Productivity Organization (APO) suggests that annual growth rates in labour productivity in Thailand have rapidly decreased from 8.2 per cent in 1990–95 to merely 2.4 per cent in 2000–10 (APO 2012: 63).

Figure 2.2 illustrates the stagnation in labour productivity in the manufacturing sector after 2010. Since 2012, even the actual wage level has increased rapidly because of the political decision to set minimum wage

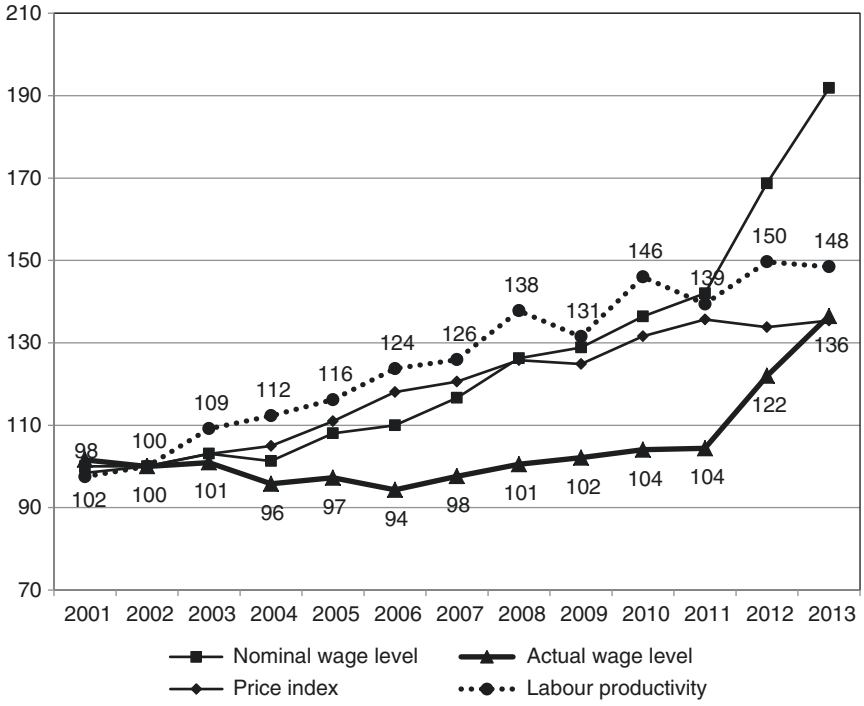

Fig. 2.2 Nominal and actual wage levels and labour productivity in the manufacturing sector in Thailand, 2001–2013 (2002 = 100)

Source: Constructed by the author based on data from NESDB and the Bank of Thailand website.

at 300 baht. If we employ quarterly figures, instead of yearly figures, it is apparent that labour productivity has been stagnant since 2010.[7]

Another significant indicator of labour productivity is an international comparison of the value added per worker, where the figures for the USA are put at 100. In APO's survey on labour productivity in major Asian countries in the three benchmark years (1990, 2000, and 2010), Thailand showed very poor performance, namely, 12 per cent of the US level in 1990 and 16 per cent in 2010. Although this is slightly higher than the figure for China (13 per cent), it is far lower than Singapore (96 per cent), Korea (62 per cent), and even Malaysia (38 per cent) (APO 2012: 63, 66; Suehiro 2014: 136).

This low labour productivity in Thailand is closely connected to poor innovation or low R&D expenditure in both the public and private sectors. As the ADB report suggested, the middle-income trap can be avoided by promoting innovation in boosting output, quality, and value of production. If a middle-income country fails to promote innovation, it could land on the threshold of slowing growth rate.

To clarify this, I compare the R&D expenditure (percentages against nominal GDP) and R&D staff per 1 million persons in major countries in two benchmark years, 1999 and 2010 (Table 2.2). Scholars believe that R&D expenditure exceeding or failing to exceed 2 per cent of nominal GDP is an important criterion in judging how actively innovation is promoted in a certain country.

As evident from Table 2.2, Thailand's figures are desperate ones: 0.12 per cent in 1999 and 0.24 per cent in 2010. By contrast, figures in Asian NIEs (Korea, Taiwan, and Singapore) unexceptionally exceeded 2 per cent of nominal GDP in 2010. Interestingly, Table 2.2 suggests that there is a considerable gap in the level of R&D expenditure between Asian NIEs and ASEAN countries including Malaysia. To upgrade the economic status of Asian NIEs to high-income countries, it was important to have good performance in R&D expenditure; this should be higher than those of advanced countries in Organisation for

[7] According to an NESDB survey (quarterly) on labour productivity in all sectors, including manufacturing, its slowdown started from 2007. See Figure 4 in NESDB (2015: 3).

Table 2.2 R&D expenditure and R&D personnel in NIEs, ASEAN, and OECD, 1999 and 2010

Country	R&D expenditure against nominal GDP (%)		R&D expenditure per capita ($)		R&D staff in private sector (per million persons)	
	1999	2010	1999	2010	1999	2010
Japan	3.15	3.36	1,120	1,326	4,851	4,840
Korea	2.47	3.74	214	768	1,677	4,660
Taiwan	2.05	2.90	267	539	3,146	6,390
Singapore	1.87	2.09	397	937	2,447	3,780
China	0.83	1.77	7	78	277	1,400
Malaysia	0.40	0.79	13	66	160	190
Thailand	**0.12**	**0.24**	**2**	**9**	**40**	**130**
Philippines	0.08	0.10	1	2	23	70
Indonesia	0.09	0.03	1	1	n.a.	n.a.
Sweden	3.67	3.40	992	1,675	4,958	5,840
USA	2.62	2.88	892	1,307	n.a.	n.a.
Germany	2.38	2.82	620	1,132	3,512	4,160
France	2.19	2.26	538	920	2,799	3,620
United Kingdom	1.83	1.76	435	642	2,528	2,290

Sources: IMD 2001: 494, 496, 497; IMD 2013: 445, 446, 449; Suehiro 2014: 140.

Economic Co-operation and Development (OECD). An exceptional case is China which became a middle-income country in the same year as Thailand. China's figure was 1.77 per cent, approaching the target level of 2 per cent of GDP. The difference in these figures between the two countries seems to reflect the difference in the attitude of governments in promoting science and technology.[8]

Thailand's backwardness in R&D activities is easily observed in other indicators too. For instance, the country's per capita R&D expenditure was merely $9 in 2010 as against $937 in Singapore and $78 in China. Likewise, the number of R&D personnel in Thailand's private sector is

[8] In 2006, the Beijing government adopted a long-term plan of promoting science and technology between 2006 and 2020 and addressed the national target of raising R&D expenditure to the level of 2 per cent of nominal GDP as well as promoting self-reliance innovation (自主創新)(Suehiro 2014: 141–42).

also poor. Thailand's figure of 130 persons per 1 million population is only one-fiftieth of Taiwan's (6,390 persons), and less than one-tenth that of China (1,400). Table 2.2 also highlights the lack of marked improvement in R&D activities in Thailand between 1999 and 2010. These figures suggest the slow response of Thai governments to poor R&D activities or innovation.[9] However, since the end of the 2000s, government agencies such as the NESDB have begun to recognise the structural weakness of the Thai economy and the economic risk of falling into the middle-income trap due to poor innovation.

For instance, the Abhisit government (from December 2008 to July 2011) introduced the Programme of the Creative Economy of Thailand (*setthakit sarngsan*) to activate the national economy. A proposal by Arkhom Termpittayapaisith, the secretary-general of NESDB, noted that Thailand has experienced three stages of economic development: the *first stage* driven by input/resources, the *second stage* by efficiency/productivity, and the *third stage* by innovation (Arkhom 2011). Avoiding the middle-income trap overlaps completely with the request to shift to the third stage of innovation-driven development in Fig. 2.3.

Arkhom also pointed out major industries to be targeted in the Programme of the Creative Economy. They include: (1) industries based on cultural heritage and natural resources (tourism, Thai food, spa, etc.); (2) entertainment (traditional dancing); (3) media industries (cinematographs, music, animation); and (4) functional creative industries (fashion industry, city planning, and advertising) (Arkhom 2011). Interestingly, two major industries – electronics and automobiles – are not included because the space for local Thai firms was limited.

Ideas like those in the Programme of the Creative Economy have also been identified in the new investment promotion policies addressed by the Board of Investment (BOI) in January 2013 (this draft was revised and then published in January 2015, BOI 2015). The BOI categorised major industries to be promoted into four groups: (1) basic industries; (2) core industries in terms of technology; (3) industries based on Thailand's advantages such as

[9] For government policies on promoting science and technology in Thailand (BOI's policy of promoting 'Skill, Technology and Innovation or STI' since 2004), see Chapter 6, this volume.

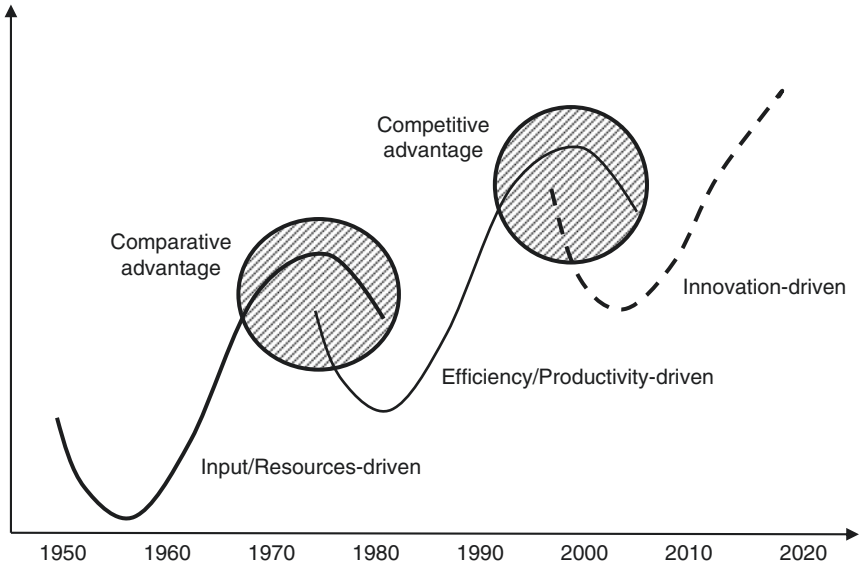

Fig. 2.3 Stages of economic development in Thailand (idea of the NESDB)
Source: Constructed by the author based on a slide in Arkhom Termpittayapaisith (2011).

natural resources (agro-industry, rubber industry, renewable energy, etc.) and hospitality and wellness (tourism, medical and health services, movie-making, long-stay services for retired people); and (4) industries where Thailand will serve as a core centre in the regional supply chain (automobiles and electronics).

Ironically, it was the military government led by Prime Minister Prayudh Chan-ocha (the former Commander-in-Chief of the Army) that started policies to promote investments in innovation. After seizing power in May 2014, General Prayudh ordered the BOI to provide tax incentives for R&D investment, and the BOI introduced a new guidance from January 2015. In June 2015, Deputy Prime Minister Yongyuth Yuthavong, who was the Minister of Science and Technology during the Surayuth government (from October 2006 to January 2008), announced a new policy to increase R&D expenditure against nominal GDP from 0.37 per cent in 2014 to 1.00 per cent in 2016 by constructing special zones for innovation inside industrial estates and university campuses.

The figure for 2014 (0.37 per cent against nominal GDP) suggests that Thailand has barely improved labour productivity through R&D even after 2011 when actual wage levels began to increase substantially (see Fig. 2.2). More seriously, there is no move toward constructing special zones for innovation although the cabinet has already approved such a proposal. It is apparent that Thailand cannot achieve the target of 1 per cent of nominal GDP by 2016. In contrast, private firms seem to have been more active in restructuring their business base under the pressure of increasing wage levels. In the next section, therefore, I would like to discuss the development of local big firms (family businesses) in the agro-industry and in service industries.

4 Revival of Family Businesses and Their Advantage

Table 2.3 summarises the distribution of the 100 largest firms by ownership pattern in terms of revenue, from 1989 to 2013. The top 100 firms in Table 2.3 are divided into five major groups: (1) Government-linked companies (GLCs) which mostly consist of former state enterprises such as the Petroleum Authority of Thailand (PTT)[10]; (2) a group of companies owned by the Crown Property Bureau (the Siam Cement Group, or SCG, and the Siam Commercial Bank Group, or SCB); (3) family-owned *zaibatsu*-type groups; (4) widely held Thai firms without any ultimate owner; and (5) foreign firms, mostly MNCs (Japanese and non-Japanese firms).

After the 1997 Asian crisis, groups (1) and (5) have impressively expanded their proportions in terms of number of firms and total combined revenues. The GLCs increased their percentage of total combined revenue from 15.7 per cent in 1997 to 32.7 per cent in 2004, while the foreign firms more dramatically increased their share of total combined revenue from 29.2 to 48.1 per cent. The notable expansion of GLCs is closely related to the

[10] GLCs are listed on the stock market, but government organisations such as the Ministry of Finance remain majority shareholders.

Table 2.3 The 100 largest companies in Thailand by ownership pattern, 1989–2013

Ownership pattern	Number of firms by ownership (%)				
	1989	1997	2004	2010	2013
Number of firms (total=100)	*100*	*100*	*100*	*100*	*100*
(1) Government-linked companies	5.0	9.0	14.0	14.0	14.0
(2) The Crown Property Bureau*	7.0	5.0	7.0	8.0	7.0
(3) Family-owned firms	50.0	46.0	19.0	24.0	29.0
(4) Widely held firms	3.0	5.0	5.0	3.0	4.0
(5) Foreign firms (MNC)	33.0	30.0	55.0	51.0	46.0
–Japanese firms	17.0	18.0	28.0	24.0	20.0
Ownership pattern	Distribution of Revenue by Ownership (%)				
	1989	1997	2004	2010	2013
Combined revenues (millions of baht)	*719,145*	*2,439,113*	*4,979,761*	*11,650,651*	*15,709,617*
(1) Government-linked companies	14.9	15.7	32.7	31.6	33.7
(2) The Crown Property Bureau*	7.5	4.7	4.8	6.4	6.2
(3) Family-owned firms	42.6	48.3	11.6	18.3	20.3
(4) Widely held firms	3.0	2.1	2.8	2.0	2.3
(5) Foreign firms (MNC)	32.0	29.2	48.1	41.8	37.5
–Japanese firms	14.8	18.4	24.1	19.8	19.9

Note: *Includes the Siam Cement Group (SCG) and the Siam Commercial Bank Group (SCB).
Source: Compiled by the author based on a personal database of companies in Thailand covering 1979–2014.

growth of the PTT Group, consisting of six giant public limited companies in oil refining, exploration of natural gas, the development of renewable energy, and the petrochemical industry.[11]

In contrast, family-owned groups in the 100 largest firms fell from 46 in 1997 to 19 in 2004 and their share of total combined revenue also fell from 48.3 to 11.6 per cent in the same period. The rapid decline of the family-owned firms may be attributed to the collapse of leading family businesses after the Asian crisis in 1997. In automobiles, steel, and petrochemicals, family-owned big companies were forced to close their business or transfer their shareholdings to foreign partners.

Interestingly, the family-owned firms have restored their stake to some extent, increasing their share of total revenue from 11.6 per cent in 2004 to 18.3 per cent in 2010 and further to 20.3 per cent in 2013. If a revival of family-owned firms is taking place, we need to ascertain who can expand their business (old groups or emerging groups) and which types of industries are dominant among growing groups (See also Chapter 3 on Indonesia, this volume).

To answer these questions, company data on the Stock Exchange of Thailand (SET) are useful because the market value of shareholdings in individual listed firms seem to substantially reflect the distribution of leading owner families and the type of dominant industries/businesses in recent years.[12] Table 2.4 illustrates the profile of the top 20 groups (owner families) in terms of the market value of their stockholdings and to identify the type of their business activities.

My independent survey reveals that 12 out of the top 20 groups belong to established families, influential even before the 1997 Asian crisis, while 8 groups belong to newly emerging families. Interestingly, only three families are engaged in manufacturing industries: the Chansiri family in canned tuna (No.12 in the 2013 ranking), the Julangkul

[11] The six companies of the PTT group include PTT (a holding company; petrochemicals), PTT Global Chemical, Thai Oil (oil refining), IRPC (petrochemicals), PTT Exploration & Production, and Bangchak Petroleum (oil refining).

[12] These company data include 'Special Issue on the Name List of Families and Individuals According to the Market Value of Stockholdings' in the December volume of Kan Ngoen Thanakharn (Money and Banking) in each year, and company information uploaded on the website of the SET.

Table 2.4 The 20 largest owner families in the stock market, September 2013

Ranking	Owner family name	Name of the group	Category	Type of business	Market value (million baht)
1	Chirathivat	Central Group	Service	Modern retail, hotel	66,787
2	Maleenont	BEC World	Service	Entertainment, TVs	49,122
3	Prasartthong-Osoth*	Bangkok Dusit Medical	Service	Hospital, healthcare services	42,067
4	Kanchanapas	Bangkok Land/BTS	Service	Property, transport	41,267
5	Thongdaeng*	Bangkok Dusit Medical	Service	Hospital, healthcare services	30,593
6	Vijitraphongphant*	Pruksa Real Estate	Service	Housing	30,425
7	Assavabhokhin	Land & Houses	Service	Property, housing	30,034
8	Bhodharamik	Jasmine Group	Service	Telecommunications	26,481
9	Osathanukhro	Osothsapha	Service	Consumer goods	19,419
10	Sophonpanich	Bangkok Bank	Finance	Banking, life insurance	16,938
11	Suriyawanakul*	Global Group	Service	Housing materials	16,756
12	Chansiri	Thai Union Frozen	Agro	Agro-industry, Canned tuna	12,807
13	Harnpanich	Land & Houses	Service	Property, housing	12,526
14	Julangkul	Summit Autoseats	Industry	Auto parts	12,438
15	Chan*	Big C Supercenter	Service	Supermarket	11,241
16	Heinek*	Minor Group	Service	Pizza, fast foods	11,200
17	Afunai*	Energy Absolute	Service	Renewable energy	10,963
18	Charnvirakun	Sino-Thai	Construction	Construction contracting	10,090
19	Saengsatara*	Dynasty Ceramic	Industry	Tiles manufacturing	9,642
20	Tangmatitham	M.K./Supalai	Service	Property, housing	9,321

Note: Families marked with asterisk belong to newly emerging groups after the 1997 Asian crisis.
Sources: Kan Ngoen Thanakharn No.380 (December 2013): 272–76. Identification of the name of group and the type of business is made by the author.

family in auto seats (No.14), and the Saengsatara family in the making of tiles for housing (No.19). The remaining 16 families are engaged exclusively in service sectors or construction.

As Table 2.4 illustrates, service sectors are widely diversified. They include: modern retail and supermarkets for the Chirathivat family (No.1) and the Chan family (No.15); commercial and residential real estate business and housing industry for the Kanchanapas family (No.4), the Vijitraphongphant family (No.6), the Assavabhokhin family (No.7), the Suriyawanakul family (No.11), the Harnpanich family (No.13), and the Tangmatitham family (No.20); renewable energy for the Afunai family (No.17); entertainment for the Maleenont family (No.2); and hospital and healthcare services for the Prasartthong-Osoth family (No.3) and the Thongdaeng family (No.5).

The distribution of major business activities within the top 20 groups may be taken as a proxy indicator of the confidence of domestic and foreign investors in the growth potential of different types of businesses in Thailand. In this regard, the actual distribution suggests that investors view non-manufacturing businesses rather more favourably than manufacturing ones. However, Table 2.4 has two major problems.

First, the list in Table 2.4 includes only families who hold shares in listed companies as individual shareholders. If families control a listed company through family-owned holding or investment companies, they are automatically omitted from the list. For instance, the Chearavanont family in the CP Group (food, convenience stores, and telecommunications), the second largest family business in Thailand, is not included in Table 2.4. This is because family members do not directly own stocks of their three major listed companies (CP Foods, CP All, and True Corporation), but they indirectly own these companies through the family-owned holding company (Charoen Pokphand Group Company Limited). Likewise, the Sirivadhanabhakdi family in the Thai Beverage or TCC Group also control listed companies (Berli-Jucker, Oishi Group, Golden Land Property Development, and Univentures) by using their own investment company (Siriwana Company Limited).

Second, the list in Table 2.4 is based on the market value of stock holdings, not the total revenue or total assets of each family. If the total revenue of each family or each group is computed, then Thai big groups,

as of 2010, would be: (ranked in order) (1) SCG of the Crown Property Bureau, (2) the CP Group, (3) the Indorama Group (petrochemicals), (4) the TCC Group (beer, spirits, soft drinks, property business), (5) Hua Seng Heng (gold trade), (6) the Bangkok Bank Group of the Sophonpanich family, (7) the Boon Rawd Brewery Group (beer, soft drinks), (8) the Banpu/Mitr-Phol Group (mining, sugar), (9) the Central Group (modern retail, hotel, property) of the Chirathivat family, and (10) SCB of the Crown Property Bureau. Of these, only two families (the Chirathivat family and the Sophonpanich family) are included in the top 20 group ranked in terms of market value of stockholdings.[13]

Table 2.5 attempts to map the type of core businesses and identify major players (owner families) in each industry. Dominant industry sectors are shifting from traditional ones such as export of agricultural products, textiles, electrical appliances, automobiles, steel, and construction before the 1997 Asian crisis to new ones such as agro-industries, housing, shopping malls, convenience stores, fast food chains, restaurants, hotel services, healthcare services, and entertainment. Core manufacturing industries such as automobiles and electronics do not contribute at all to these groups.

A careful examination of the interrelationships between ownership pattern and industrial sectors reveals some *segmentation* among the three major groups. Three major groups here include (A) GLCs, (B) family businesses, and (C) MNCs (Suehiro 2014: 110–113).

The GLCs are dominant in oil refining, petrochemicals, renewable energy, and airline services, all of which require considerable investment and are strictly regulated by the government. On the other hand, the MNCs dominate technology-intensive industries such as automobiles and electronics. These industries need high production technology, strict control of product quality, considerable investment in fixed capital and R&D, and accumulated knowhow on global markets.

[13] For an analytical study of the development of Thai family businesses, see Suehiro (2006), Suehiro (2008: Chapter 9) and Natenapha and Suehiro (2010).

Table 2.5 Major family businesses in agro-industry and service sector, 2014

Category	Type of business	Name of group/family (specific company)
Agro industries	Beer, soft drinks	TCC (Thai Beverage, Oishi), Boon Rawd Brewery (Singha)
	Rice, silo, warehousing	CP (CP Intertrade), Capital Rice, Asian Golden Rice
	Sugar + Ethanol	Mitr-Phol, Thai Roon Ruang, Kwang Soon Lee
	Natural rubber	CP (CP Foods), Thai Hua Rubber, Sri Trang Agriculture
	Broiler chickens	CP (CP Foods), Betagro
	Canned tuna, shrimp	Thai Union Frozen Products (TUF), CP (CP Foods)
Property, housing and industrial estates	Construction	Italian-Thai Development, Ch. Karnchang
	Property business	L&H, CP (CP Land), TCC (Univentures, TCC Land)
	Housing industry	Pruksa Real Estate, Supalai, Quality Houses
	Industrial estate	Saha Group, Amata Corp., Hemaraj
Shopping mall and other service industries	Convenience store	CP (CP All: 7-Eleven), Central (Familymart), Saha
	Supermarket, C&C	CP (Siam Makro), Central (CPN), Siam Future
	Department store	Central (Central, Robinson), The Mall, TCC
	Restaurant	Central (CRC), MK Restaurant, Saha Group
	Chain of fast food	Mahakijsiri (Nestlé coffee), Minor Group (Piza Hut)
	Hotel services	Central (CENTEL), CP (CP Land), Dusit Thani
	Hospital, healthcare services	BDMS (Bangkok Dusit Medical Service), Thonburi Hospital
Entertainment	Cinema	Major Cineplex
	TV programs	BEC World, Grammy, Kantana

Source: Compiled by the author based on a field survey.

Local family businesses seem to have discovered their competitive advantage in two major industries. The first is an industry where local firms can take advantage of domestic natural resources or mobilise their accumulated knowhow on domestic markets. Local firms also demonstrate their competitive advantage in niche products and niche markets.[14] Typical industries include agro-industry, construction materials (cement and tiles), shopping malls, convenience stores, and healthcare services. The second type refers to industries where government regulations are still effective. Typical industries include construction contracting, property business, housing industry, and telecommunications. The steel industry, banking and finance, and insurance business are where MNCs and domestic groups compete with each other.

Ownership patterns in industries and the growth of local big firms in the non-manufacturing sector suggest the need to examine alternative methods to avoid the middle-income trap in Thailand. Conventional arguments frequently focus on upgrading production technology in core manufacturing industries and on the national system of innovation including the government's industrial policy. However, recent experiences in Thailand seem to suggest that local big firms have found another way to avoid the middle-income trap. What is this new strategy which has been adopted following the establishment of the AEC and in the wake of the growth of the Chinese economy?

5 New Strategies of Thai Big Firms

When the Thai economy was being restructured, local big firms and family businesses were required to reorganise their business activities. *Zaibatsu*-type groups were forced to switch from 'diversification' to 'selection and concentration' strategies. This refers to strategically concentrating available resources on particular fields by employing their own advantages. Local big firms selected the agro-industry and the

[14] These products include canned cat food, canned shrimp for cocktails, grilled frozen chicken, and surgical gloves. Also see Chapter 7, this volume.

service sector as new business bases where their own advantage could be employed in competing with foreign firms.

At the same time, they were also expected to flexibly respond to new developments inside and outside Thailand. These included the rapid diffusion of a new style of consumption owing to the rapid growth of the urban middle class (shopping malls, supermarkets, convenience stores, fast food chains, and restaurant chains), a housing boom focused on interior design rather than area (land is now too expensive), increasing demand for healthcare services, and the development of telecommunication services. These new services overlap with the business fields depicted in Table 2.5.

In addition, local big firms had opportunities to expand their business outside Thailand. These included economic development in neighbouring countries (CLMV), the start of the AEC in 2015, and the rise of Chinese firms as new business partners instead of Western and Japanese firms. Four movements are important:

(1) Adopting the strategy of selection and concentration and shifting core businesses to two major fields – agro-industry and service sector;
(2) Promoting the strategy of expanding core business and/or diversifying business to non-manufacturing sectors through mergers and acquisitions (M&As);
(3) Promoting overseas investments in ASEAN countries in general, and CLMV countries in particular, with the expectation of expanding regional markets after the emergence of the AEC; and
(4) Building a strategic alliance with Chinese firms and establishing joint ventures with them to promote new businesses in Thailand and in mainland China.

As part of (1), some attempts were made to develop innovation in the agro-industry and service industries. I examine these through the example of the CP Group.

The CP Group is a leading family business focusing on the agro-industry (CP Foods PCL), convenience stores (CP All PCL is responsible for the management of CP 7-Eleven), and telecommunications (True Corporation PCL). CP Foods PCL is one of the largest companies

in the agro-industry and a leading exporter of frozen chicken and shrimp. In addition to these traditional businesses (since the 1970s), CP Foods and CP Intertrade (a trading company of the group) launched new businesses or niche-type businesses, developing new varieties of natural rubber and exporting packaged rice. CP Group reportedly plans to develop a new type of industrial estate, where all firms and offices will belong exclusively to those in the rice business. The selection of two major products (natural rubber for the tyre industry and packaged rice) suggests a strategy of targeting big markets in China.[15]

The CP 7-Eleven operated by the CP All PCL opened its first branch in 1989; as of 2014, it had 7,651 branches. In January 2015, CP 7-Eleven of Thailand (8,127 shops) overtook the one in the USA (7,800 shops) in the number of branches and is now second only to Japan (17,206 shops).[16] Noteworthy is not only the speed of its business expansion but also the high quality of service at the CP 7-Eleven in the region. Interestingly, CP Group set up its own university (Panyapiwat Institute of Management, or PIM) in 2007 to train staff for convenience stores and agro-industry. PIM has 4,000 students, who serve as a resource pool to support high-quality service.[17]

These cases are different from R&D activities in core manufacturing industries or from the national system of innovation formulated by the government. However, we should not overlook various efforts by local private firms to develop new niche-type products, improved marketing systems, and training for personnel (Suehiro 2008: 64–71). In fact, it is not difficult to discover such innovative works in the agro-industry, renewable energy, modern retail business, and healthcare services.

The second aspect that characterises the new stage of local firms' development is the increasing importance of M&A to expand and diversify business. Tracing the past three decades, we find that

[15] For information on the development of new varieties of natural rubber, see articles in Shukan Thai Keizai, February 2009 (55–6) and October 2009 (25). For details on the plan to develop an industrial estate for the rice industry, see articles in Shukan Thai Keizai, December 2012 (59–60).

[16] For the development of convenience stores in Thailand, see Suehiro (2009: 102–108) and Endo (2013).

[17] PIM started teaching both bachelor's and master's courses from 2007 and began offering a doctoral course from 2012. See the official website of PIM (http://www.pim.ac.th).

Thailand has experienced *three booms* in M&A: the first one took place during the economic boom of the early 1990s; the second one between the 1997 Asian crisis and 2004; and the latest one started in 2010. The major characteristics distinguishing the latest boom from the previous ones are: the tremendous increase in M&A costs, utilisation of 'property fund', and increase in M&A outside Thailand.

The increase of M&A costs is closely connected with the continuous rise in land price in Bangkok Metropolitan Area. Under an unprecedented economic boom between 1985 and 1996, land price jumped nearly 33 times (from 100 in 1985 to 3,320 in 1996). After the economic bubble burst in 1996, the land price index dropped from 3,320 in 1996 to 2,590 in 2000. However, land price has begun improving from 2001, continuously increasing to 4,450 in 2013 (Sopon 2014).

The rising land price provided a good opportunity for family business groups who had taken over numerous land parcels from other failed groups after the 1997 Asian crisis. Before the land boom, land assets were not so important, and commercial banks were unwilling to accept land as collateral for loans. After the crisis, land has become the most important collateral for bank loans. In other words, land asset accumulation became a guaranteed method for obtaining bank loans. Land and buildings themselves became securitisation assets to set up funds on the stock market.[18]

This system of property fund can be explained using the CP Group as an example again. CP Land Company Limited, an arm of the property business of the CP Group, owned three buildings (CP Tower I on Silom Road and CP Tower II [Fortune Town] on Rachadaphisek Road). When it launched its business of developing condominiums, it securitised three buildings to set up a property fund. The 10 billion baht obtained from this property fund were immediately mobilised as investment for the construction of the new condominium. The CP Group also began to employ a property fund system

[18] For instance, in 2013, 23 firms were newly listed on the stock market (excluding the Mai market). Of these, only 13 were for ordinary operation; of the remaining ten firms, seven were for 'property fund' and three were for 'infrastructure fund' (Shukan Thai Keizai, October 2014: 24).

to recruit fresh money for M&A. Increasing land prices have thus made it possible for local big firms to expand and diversify their businesses.

Looking at the list of M&A in recent years (Suehiro 2014: 116–17), it is evident that most of these took place outside Thailand.[19] For instance, Thai Union Frozen Products, the largest manufacturer of canned tuna in Thailand, acquired MWBrands SAS, the largest producer of canned tuna in France. The TCC Group, the largest in the beverage industry in Thailand, took over Fraser & Neave Ltd, the largest industrial group in the same field in Singapore.

How can the M&A activities of Thai big firms, supported by the rising value of land, become an important form of R&D investment? In principle, M&A activities can have positive and negative effects on R&D investment. The positive aspect is that Thai big firms can economise R&D expenditure by utilising the results of R&D investment undertaken by the firms it acquires. In this sense, M&A is the easiest way for Thai firms to import the outcome of innovation accumulated in other (foreign) firms. However, M&A may discourage Thai firms from promoting self-reliant R&D investment. This movement, in the long run, will result in the loss of international competitiveness.

The third movement observed in Thai big firms is increasing overseas investments. It is surprising that outward FDI from Thailand in 2011 and 2012 exceeded inward FDI in investment value.[20] This is partly due to the increase of M&A conducted outside Thailand and partly to the active strategy of promoting overseas investment in ASEAN countries.

The Big Four in Thailand – the PTT Group, the SCG Group, the CP Group, and the TCC Group – have accelerated overseas investments in ASEAN countries from the mid-2000s in expectation of the realisation of the AEC. Moreover, major Thai groups have strategically targeted neighbouring countries or CLMV as Table 2.6 shows.

[19] Information related to the M&A was obtained from UNCTAD, World Investment Report, Appendix Thailand, various years.

[20] Bank of Thailand (website) statistics show that outward FDI from Thailand amounted to $6,638 million in 2011, exceeding the total value of $3,861 million in inward FDI the same year. In 2012, outward FDI ($12,898 million) again exceeded inward FDI ($10,699 million). However, in 2013, outward FDI ($6,729 million) dropped to half that of inward FDI ($12,807 million).

Table 2.6 Overseas investments of family businesses in Asia, 2013

Country/ region	Siam cement	CP/CPF	Betagro	Mitr-Phol	TCC/BJC	Italian-Thai Development
	Construction materials	Agro-industry	Agro-industry	Sugar biomass	Glass bottles	Construction contract
China	○2F	◎58 feed milling/ broiler factories	◎	deinvestment	△	
Hong Kong		○9F			○3F	
Taiwan		○5F				○2F
Vietnam	◎13F	○1F	○	△	◎3F	○1F
Myanmar	○3F	△	○	△	■1F	◎ Dawei
Cambodia	○5F	○1F	◎	○	■1F	■
Laos	○3F	○1F	○	○	△	○
Malaysia	○2F	◎6F			◎2F	○2F
Singapore	◎10F					
Indonesia	◎16F					○1F
Philippines	◎8F	○2F				○2F
India		○1F				◎4F

Note: CP/CPF: Charoen Pokphand Foods PCL; TCC/BJC: Berli-Jucker PCL; ◎ Core business site; ○ Production/sales; ■Liaison office; △Plan to invest; F = number of firms.
Source: Annual reports of each company.

Thai big firms prefer CLMV as investment partners to other Asian countries for two major reasons. One is geographical (transport connectivity and long-time accumulation of economic exchanges) and the other is the optimistic projection of future growth in CLMV markets.

Compared to other ASEAN countries, Thai firms and the Thai government seem most active in responding to the start of the AEC in 2015. The military government, set up after a coup d'état in May 2014, prioritised border economies (Special Economic Zones or SEZs).[21] The idea of these border economies is closely associated with plans for creating borderless markets in the Greater Mekong Subregion (GMS) by constructing West-East, North-South, and Southern economic corridors.[22] In other words, Thai big firms and the government are seeking alternative means to avoid the middle-income trap, by focusing on the growth of regional markets instead of domestic markets.

The fourth and the last movement is the acceleration of strategic alliances with Chinese giant firms, both state enterprises and private firms. Entering the 2010s, joint ventures are increasing in number and diversifying in terms of fields of business (see Table 2.7). 'Strategic alliance' here means that Thai companies not only have the short-term goal of making profits but also a longer-term goal of technological upgrading in collaboration with Chinese groups instead of traditional partners such as Japanese and Western firms.

Japanese and Western firms have, in the past, provided investment funds, knowhow on markets, and production technology through joint ventures with Thai firms. However, they have not actively transferred their advanced technology to local partners. In addition, they have been inactive in innovation in joint ventures because they are afraid of local partners catching-up. By contrast, Chinese firms adopt different strategies in the transfer of technology. They are willing to provide new

[21] SEZs include five provinces: Trat and Sakaeo in the east, Songkhla in the south, Tak in the north, and Mukdaharn in the northeast.

[22] Similar ideas are manifested in the new investment promotion strategy (2015–21) announced in January 2015. The fifth pillar of the new strategy is to 'promote special economic zones, especially in border areas, both inside and outside industrial estates, to create economic connectivity with neighbouring countries and to prepare for entry into the AEC' (BOI 2015).

Table 2.7 Strategic alliances between Thai and Chinese firms, 2007–2015

Type of business	Year/ Month	Forms	Thailand	China
Undersea oil	Feb 2008	Alliance	PTT Group	CNOOC*
Atomic power plant	Oct 2007	Alliance	EGCO	CLP Power, Canton
Biomass	May 2010	Joint venture	Mitr-Phol Sugar	Funan Sugar
Tyre making	Aug 2015	Joint venture	Thai Hua Rubber	Qindao Sentury Tire
Automobile	Dec 2012	Joint venture	CP Group	Shanghai Motor
ICT business	Dec 2013	Alliance		Baidu
ICT business	July 2014	Alliance	CP Group	China Mobile
Industrial estate	Mar 2011	Joint venture	Amata Corporation	Holley Group
Property business	April 2013	Joint venture	CP Group	Greenland (Shanghai)
Property business	Jan 2015	Joint venture	CP Group	CITIC
Banking	Jan 2010	Alliance	Kasikorn Bank	China Minsheng Banking Corp.
Banking	Mar 2011	Alliance	Bangkok Bank	ICBC: Industrial and Commercial Bank of China
Life insurance	Dec 2012	Investment	CP Group	Ping An Insurance

Note: *CNOOC (China National Offshore Oil Corporation) is a state enterprise.
Source: Compiled by the author based on data from Thai newspapers.

production technology to local partners in emerging countries like Thailand. This is because Chinese firms are latecomers in the technological field and they are, therefore, seeking win-win alliances with local business partners to compete with Japanese and Western firms. This has given Thai local firms the opportunity to advance into new businesses and new stages of the manufacturing sector.

Examples include the joint venture between the CP Group and Shanghai Motor in passenger car assembly and the joint venture between Thai Hua Rubber Company (the second largest exporter of natural rubber in Thailand) and Chinese tyre manufacturer Qindao Sentury tyres Co. Ltd in manufacturing vehicle tyres. If these ventures are successful, Thai firms (family businesses) can, for the first time, build a production base in the automobile industry. This is another method for innovation in core manufacturing industries, distinguished from the more traditional approach by the government which involved inviting the R&D divisions of Japanese and Western MNCs into Thailand.

Another interesting point addressed in Table 2.7 is the remarkable role of the CP Group in promoting strategic alliances with Chinese firms. Their business involvement now extends from the agro-industry to the automobile industry, telecommunication services, property business, and life insurance business. In March 2015, CP Group also announced an ambitious plan of investing in the construction of a new railway between Bangkok and Pattaya in Rayong in collaboration with Chinese firms (Shukan Thai Keizai, March 2015: 69–70). Taking these facts into consideration, it is apparent that CP Group will continue to play an important role in building strong economic cooperation with China.

6 Concluding Remarks

Before the 1997 Asian crisis, both Thai and foreign scholars discussed the relationship between the government's role and the pattern of economic development in Thailand. They agreed on two points. First, Thailand's economic development was characterised as 'input/resource-driven',

dependent on the low-cost advantage until the mid-1990s (Fig. 2.3). Second, governments had been successful in managing a sound economy at the macro level, but unsuccessful in developing strategic industries at the micro level (Christensen et al. 1992; Intarakumnerd et al. 2002).

The gap between the sound management of the macro economy and poor industrial policies at the micro level suggests that the private sector, including family businesses, plays an important role in cultivating strategic industries. Before the Asian crisis, representative cases included the development of labour-intensive industries such as garments, electronic parts, and footwear, or the development of industries based on domestically available resources like sugar, broiler chickens, and natural gas. The situation remains largely unchanged because a similar gap is evident between the macro and micro levels.

At the macro level, the government should introduce innovation to overcome the limitation of input/resource-driven development. However, as far as the need for R&D activities and innovation is concerned, the government seems to have been inactive. Instead, they seem to yield the effort of R&D activities to foreign firms who are dominant in core manufacturing industries. Under such circumstances, the private sector is inevitably expected to play an important role.

It should be noted that the activities of Thai big firms, in terms of industry and markets, now differs from what it was before the Asian crisis. Namely, they are now targeting non-manufacturing sectors and resource-based industries rather than manufacturing ones and focusing on regional markets in addition to the domestic market. For investment funds, they now utilise bank loans and money from the stock market, owing to the increased value of land assets, instead of borrowing money from abroad, in dollars. They are also changing business partners, from Japanese and American firms, to Chinese ones in mainland China. Tactics and methodology in business expansion are also quite different from those employed during the economic boom of the 1990s.

More importantly, Thai local firms have also contributed to innovation not in core manufacturing industries, but in niche-type business areas (products, production management, and markets): the development of new varieties in rice and natural rubber, improvement of production efficiency in renewable energy like ethanol, the introduction

of unit system in construction of houses for middle-income and lower-income households, the planning of large shopping malls to meet the demands of a younger generation, and the development of new businesses in healthcare for increasing foreign medical tourists.

These activities should be understood as a kind of innovation initiated by private firms. The movement is distinguished from traditional means, whereby the government attempted to upgrade industrial structure from labour-intensive to technology-intensive or from low-cost to high value-addition to overcome the limitation of input-driven economic growth. Therefore, the private sector, including family businesses, becomes a more important player in determining the direction of Thailand's national economy. In brief, local firms have opted for the diversification of main business areas by appealing to their own advantage (or Thai-ness) instead of technological upgrading in manufacturing industries.

However, it is evident that Thai local firms alone cannot halt the slowdown of the country's economic growth. The government is still expected to provide direct and indirect support for private firms to promote their R&D activities. In this sense, it is now more essential for the government to determine how to combine the movements of the private sector with public needs in Thailand.

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The National Economic and Social Development Board (NESDB): http://nesdb.go.th/
The National Statistical Office (NSO): http://web.nso.go.th/
The Stock Exchange of Thailand (SET): http://www.set.or.th/

3

State, Industry, and Business in Indonesia's Transformation

Yuri Sato

1 Introduction

As elaborated in Chapter 1, this volume explores if and how emerging countries have been and will be able to open pathways to dynamic development beyond crises and traps by reshaping their development strategies. In this chapter, I discuss institutional arrangements for designing and implementing such strategies by examining the interrelation between the state, industry, and business. I seek to elicit a better understanding of the opportunities and challenges facing emerging countries in relation to their institutional settings.

I use Indonesia as a case study because it provides a good example of institutional transformation involving the state, industry, and business.

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The collapse of the long-standing authoritarian developmental regime led by President Soeharto in 1998, during the Asian currency crisis, was epoch-making and the beginning of a fundamental transformation of institutions. State governance, including policy-making and the formulation of development strategies, moved towards deconcentration of power and absence of state intervention. This affected state–business relations and the behaviour of business agents and consequently, transformed the structure of trade and industry.

Indonesia's post-authoritarian transformation has attracted an increasing amount of research, especially from the political perspective.[1] A generally accepted view in the literature is that, by 2004, Indonesia had successfully established an institutional foundation of democracy, and thereby enabled free and fair political participation, through consecutive amendments of the Constitution during a transition that lasted six and a half years. This achievement is noteworthy, considering the turmoil in many newly democratised developing countries, although Indonesia's democracy is marked by a race for power and money. In the social sphere, 'ungoverned spaces' appeared during the transition, allowing separatist movements to emerge and local conflicts and terrorist incidents to take place. Over the next decade, however, these spaces gradually fell under the governance of Susilo Bambang Yudhoyono (2004–14), the first president in Indonesia to be directly elected by the people. Under the stabilising public order, wide-ranging social movements emerged, including those related to civil society (for example, watchdogs to check for abuse of power, corruption, and monitor government policy), labour, land, religion, ethnicity, and various local interests.

In the economic sphere, Indonesia experienced an unprecedented depression during the 1997–98 Asian currency crisis; annual growth fell to a negative 13 per cent in 1998 and stagnation, with less than 5 per cent growth, lingered until 2003. For Indonesia, this was not merely a currency crisis as in other Asian countries, but a more fundamental one, exacerbated by regime change. Therefore, it needed to simultaneously

[1] See, for example, Matsui and Kawamura, eds. (2005); Mietzner (2009); Crouch (2010); Honna (2013); Kawamura, ed. (2015); Aspinall, Mietzner, and Tomsa, eds. (2015).

address common post-crisis issues (such as macroeconomic stabilisation, banking and corporate debt restructuring, and poverty reduction) and undertake post-authoritarian institutional reforms. The latter is the focus of this chapter, given the paucity of literature on the transformation of economic institutions following changes in state governance. In addition, the responses of business agents to the institutional transformation were difficult to observe at the time; the long-drawn restructuring of business assets meant that little ownership data was available until years later.[2] Using current data on business groups, I look at what changed and what did not in business and industry during the post-authoritarian institutional transformation.[3]

While the post-authoritarian era – that is, from 1998 onward – is the focus of my analysis, I cover the authoritarian era for a before-and-after comparison and set two sub-periods in both eras:

(i) 1966–85 Authoritarian developmentalism (formation of institutions)
(ii) 1985–98 Authoritarian developmentalism (degeneration)
(iii) 1998–2011 Democracy (reformation of institutions)
(iv) 2011– Democracy (quasi-developmentalism)

The first half of the Soeharto era was when institutions were formed for authoritarian developmentalism and the second half was when the management of these institutions changed. After 1998, the institutions

[2] The rise of major business agents, or business groups, in Indonesia was first discussed academically by Robison (1986), followed by Shin (1989) and Sato (1994). Subsequently, a variety of literature appeared on business groups under the Soeharto regime, including Claessens et al. (1999), Khanna and Yafeh (2007), and Matsumoto (2007), which look back critically at these groups. However, little of the literature deals with business groups in the post-Soeharto era. Their restructuring process was examined by Sato (2003, 2004a, 2004b) and Hanani (2006), but their responses after restructuring were, other than group-wise case studies, covered only in Chua (2008), which used little quantitative data. The exception is a recent work of Carney and Hamilton-Hart (2015).

[3] In this chapter, I use the following sources of data on business groups in Indonesia: a database that I compiled from articles of association of limited liability companies (perseroan terbatas, PT) that were publicly announced in the supplements of official gazettes (Tambahan Berita Negara); a database on listed companies that I compiled from ECFIN (various years); a database on the 100 largest business groups that I compiled from CrishanteNova (2012, 2013); and articles in various local media.

began to be reformed towards democracy (radically, in the political sphere,[4] and progressively, in the economic sphere). In the 2010s, the government changed gear from a sort of laissez-faireism to active intervention in accelerating economic development under these democratic, decentralised institutions. I call it developmentalism under democracy, or 'quasi-developmentalism'.

The rest of this chapter follows this periodisation and discusses the transformation of state governance, industrial structure, and business groups, respectively. Findings are summarised in the concluding section.

2 Transformation of State Governance

A central characteristic of the authoritarian period was the concentration of power, with President Soeharto himself as a source of power (Thee 2002: 241). Authoritarianism in Soeharto's Indonesia was inherited from the regime of the first president, Soekarno. More precisely, it had its roots in the rationale behind Indonesia's 1945 Constitution that a young nation-state of great diversity should be guided by a leader of great wisdom (Kawamura 2003). In Indonesia's history, the periods led by these two presidents based on the 1945 Constitution, are positioned on the left in Fig. 3.1, an area of highly concentrated power.

Soeharto's authoritarianism was, in many ways, more developmental than Soekarno's. First, it set *pembangunan* or 'development' as a national ideology and a source of legitimacy. To achieve *pembangunan* and, as a prerequisite, ensure stability, the regime restricted people's freedom and political participation. Second, it opened the economy and welcomed foreign direct investment (FDI) and official development assistance from Western countries. Third, it used industrialisation as a central tool for promoting development. Fourth, the state – that is, Soeharto – functioned as a guarantor to tacitly ensure the existence of stakeholders in development, protect their assets,

[4] These intensive reforms of political institutions took place from 1998 to 2004, which is consistent with the generally accepted view that democracy in Indonesia was established by 2004.

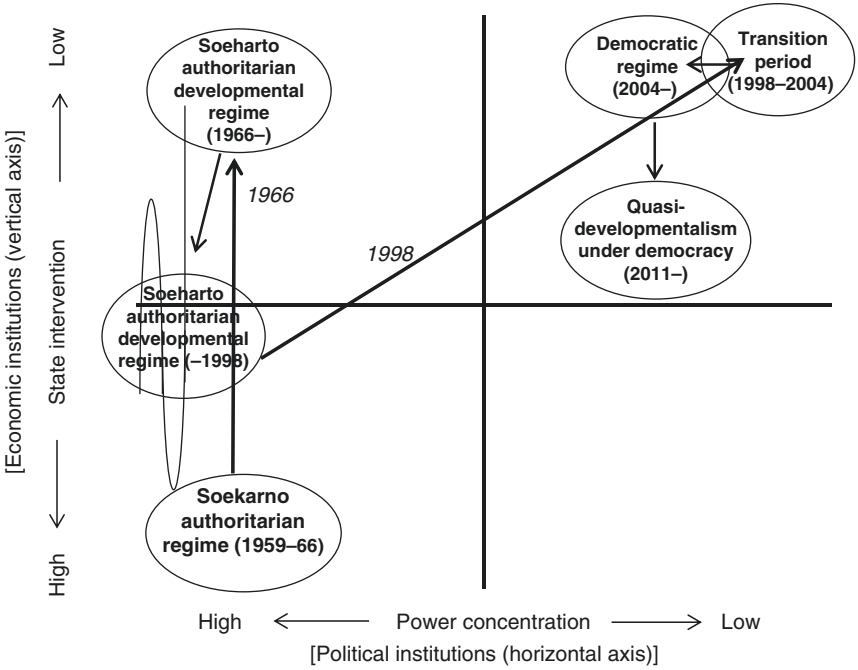

Fig. 3.1 Diachronic transition of Indonesia's state governance in terms of political and economic institutions

Source: Constructed by the author.

and bear the risks associated with development, as long as these stakeholders obeyed the state.

Soeharto promptly set about creating institutions for development. After he took over in March 1966, the first few years were crucial. A Decree on the Renewal of the Basic Policy on Economy, Finance, and Development (Provisional People's Consultative Assembly Decree No. 23/1966) was issued as the first legal foundation of developmentalism (Mihira 1995: 203–11). In 1967, the liberalistic Law No. 1/1967 on Foreign Investment was enacted; a donors' association, the Inter-Governmental Group on Indonesia, was formed; Bappenas (the National Development Planning Agency) was mandated as headquarters to design, budget for, and implement national development strategies, including Repelita

(the Five-Year National Development Plan), the first of which began in 1969; and the Basic Policy for Solving the Chinese Problem (Instruction of the Cabinet Presidium No. 37/1967) was formulated for mobilising capital of the Chinese living in Indonesia as domestic capital, regardless of their nationality (Umezawa 1992; Aizawa 2010).

At the apex of these legal and organisational institutions, Soeharto handled three kinds of agents in implementing his developmentalism. The first were liberalist technocrats, who played a vital role in designing the initial institutions for development, formulating and implementing national development plans at Bappenas and the economic ministries, guarding macroeconomic stability, and maintaining international ties with the Western donor community (Bresnan 1993; Shiraishi 2014: 257–64). The second were technologists (or technologues in ordinary Indonesian usage) at technical ministries and state-owned enterprises (SOEs), who drove a 'full-set industrialisation strategy' (Mihira and Sato 1992) to promote capital-intensive industries in parallel with labour-intensive and resource-based ones. The third were private trader-entrepreneurs, to whom Soeharto gave instructions directly, or via his proxies, to invest for development (Sato 2003).

Unlike the institutions for economic development, those in the political sphere took Soeharto a long time to form. It was not until 1985, when the five political laws[5] for controlling the legislative body, political parties, and religious and social organisations were enacted, that the institutions of Soeharto's authoritarian developmental state were completed. The grip of the state now extended to every field of activity and every village in Indonesia. After 1985, no major institutional advancement was made, but the nature of the developmental state gradually changed. Soeharto, with no more major rivals or critics, loosened the reins on those in his small inner circle, especially his

[5] The five political laws are Law No. 1/1985 on the Change of Law No. 15/1969 on the General Elections; Law No. 2/1985 on the Structure and Status of the MPR (the People's Consultative Assembly), DPR (the People's Representative Council) and DPRD (the Regional People's Representative Councils); Law No. 3/1985 on Political Parties and Golkar; Law No. 5/1985 on the Referendum, which required a national referendum for amending the 1945 Constitution; and Law No. 8/1985 on Social Organizations, which required all domestic organisations to accept Pancasila, Indonesia's five founding principles, as their only organisational principle.

children, and allowed them preferential entry into liberalised business sectors that had, until then, been managed by SOEs. Soeharto's developmentalism was degenerating, primarily because the 'Father of Development' was narrowing his fatherliness (Shiraishi 1997). The degeneration of state governance in the latter half of his regime rendered economic liberalisation counterfeit.

Indonesia's economic institutions had their origins in liberalism with little state intervention at the beginning of the Soeharto era (the upper left position in Fig. 3.1). As Indonesia's industrialisation policy deepened, these institutions moved towards statism (the downward movement in Fig. 3.1). State intervention reached its peak during the oil boom of 1974–82, when the Soeharto government organised institutions to direct the oil bonanza into developmental investment. The end of the boom, however, forced the government to liberalise economic institutions during 1983–89. To diversify exports, the government deregulated trade and investment. Needing to mobilise domestic funds to replace the oil bonanza, the government made 'structural adjustments' to the tax and banking systems (the upward movement in Fig. 3.1). In the 1990s, as post-Cold War globalisation pushed Indonesia further towards economic liberalisation and internationalisation (Pangestu, Rahardja, and Ing 2015), the effects were countered by the degeneration of state governance. Soeharto increasingly intensified his intervention, favouring his inner circle. It was criticism of KKN (corruption, collusion, and nepotism) that sparked the democratisation movement.

President Soeharto's resignation in May 1998 precipitated Indonesia into extreme power deconcentration and little to no state intervention. State governance jumped to the upper-right corner in Fig. 3.1. Through four consecutive amendments to the 1945 Constitution, during 1999–2002, the foundation of political institutions was transformed by 2004 from unipolarity to multipolarity of power and from repression to guarantee of human rights and freedom, enabling political participation and competition. Thoroughgoing centralisation became radical decentralisation by Law No. 22/1999 on Local Government and Law No. 25/1999 on Central and Local Fiscal Balance, which together granted almost full autonomy to districts

and cities, passing over provinces. This idealistic model created confusion in local governance, so institutional arrangements were rewound slightly by strengthening the supervisory function of central and provincial governments through 2004 and 2014 laws (the leftward movement in Fig. 3.1). Prasetyawan (Chapter 9, this volume) provides an example of radical decentralisation and subsequent coordination led by the central government in the mining sector.

The post-authoritarian sentiment against state intervention and power concentration, together with the conditions set by the International Monetary Fund (IMF) as an emergency loan provider, promoted institutional reforms in the economic sphere as well. First, KKN was quickly eliminated, and contracts of Soeharto family with Pertamina (the state oil company) and other SOEs were annulled.

Second, controlling agencies for developmentalism had their clout reduced, while agencies that had been crippled gained power. Bappenas, for example, was restricted only to planning; its budgeting function was unified in the Ministry of Finance, and policy coordination moved to the coordinating ministerial offices (Shiraishi 2014: 278). Bank Indonesia, the central bank, positioned under the Monetary Board headed by the Minister of Finance, was made 'an independent state agency free from any political intervention' by Law No. 23/1999. Bulog, a national logistics agency that had controlled the procurement of staple foods and had off-budget accounts, was reorganised into a public corporation.

Third, the developmental state's tacit role as guarantor for stakeholders was ceded to overt institutions so that stakeholders should bear their own risks. For example, state and private banks built internal systems for credit screening and risk management, given that banks could now fail. A system of deposit pay-off was introduced so individual depositors would share the risk of bank failure. For corporate failure, bankruptcy courts and out-of-court debt settlements were set up. Regulations on corporate governance were introduced for listed companies and SOEs, while corporate rating and other information disclosure systems for investors began to be developed. In corporate financing, companies began to prioritise owned capital, internal reserves, and

mercantile credit rather than bank loans (Sato 2008; Mieno 2015). These new institutional arrangements, though far from complete, moved closer to making every stakeholder bear some risk.

And, fourth, laws on public works were renewed individually during the first decade of the 2000s to enable private participation and public–private partnerships; these included laws on electric power, geothermal power, water supply, expressways, railways, energy, waste management, ports, and airports.

The post-authoritarian reform of economic institutions continued progressively and broadly for over a decade, longer than political reform. Throughout the reform process, policymakers and business agents maintained a negative view of state intervention. Consequently, no national development strategy was devised to channel investment in certain directions, which left business agents in a state of laissez-faireism.

In its second term, the Yudhoyono government (2009–14) increased state intervention, having recognised the need for a development strategy that would drive the nation towards common goals, even under a decentralised democracy. A landmark was the formulation of the Masterplan for the Acceleration and Expansion of Indonesian Economic Development 2011–25 (MP3EI), announced in May 2011. Although some criticised the plan as mere rhetoric and lacking concrete details, its historical significance should be noted. In this official document, Indonesia, for the first time, proclaimed that it would be able to 'transform into a developed nation in the 21st century', and 'place itself in the top ten advanced economies in the world by 2025 and the top six by 2050'. It saw Indonesia becoming 'a basis for global food security, a centre of processing products of agriculture, plantation, fishery, mineral and energy resources, as well as a centre of global logistics' (Republic of Indonesia 2011: 8–9, 47). President Yudhoyono, in launching MP3EI, stated that 'for an efficient economy, the invisible hand is important, but the visible hand is also necessary for a fairer and more balanced economy' (Presidential Secretariat 2011).

The government's 'visible hand' revealed itself in the policies pushing domestic industries towards the realisation of these goals. These policies focused, first, on establishing natural-resource processing

industries and restricting the export of raw natural resources. The Law on Mineral Mining and Coal (Law No.4/2009) stipulated that minerals were to be refined domestically before they could be exported (see Chapter 9 for details on the implementation). A progressive export-tax exemption system imposed higher tax rates on crude palm oil and lower tax rates on processed oil and oleo-chemicals. FDI was invited for processing specific commodities outside Java (from Unilever for oleo-chemicals in North Sumatra and from Barry Callebaut for cacao processing in South Sulawesi, among others). The scope of investment promotion with tax-exemption incentives was then expanded to other capital-intensive industries – such as steel, oil refining, petrochemicals, machinery, low-cost green cars (small, affordable, fuel-efficient passenger cars with a certain proportion of local components), electronics, and alternative energy – and labour-intensive industries, export-oriented industries (EOIs), and R&D. The broad scope of industrial promotion suggests the return of a 'full-set strategy'. Indonesia has shifted to 'quasi-developmentalism' (the downward direction in Fig. 3.1), in which the state takes the lead in formulating and implementing development strategies that rely on power-deconcentrated, decentralised, democratic institutions. This state of 'quasi-developmentalism' has been maintained by the government of Joko Widodo (Jokowi) (2014–).

3 Transformation of Industrial Structure

This section examines how Indonesia's industrial and trade structure has changed in the four periods of institutional transformation.

Long-term changes have taken place in Indonesia's industrial structure in terms of the nominal GDP share of agriculture, mining, manufacturing, and service sectors (Fig. 3.2). In the era of authoritarian developmentalism – the first and second transformation periods – the share of manufacturing constantly increased, while that of agriculture constantly decreased as developmentalism centred on industrialisation. The consistency throughout the periods is more conspicuous than the difference between the first and second periods. While the first period was characterised by an increased mining share (owing to oil booms in 1974

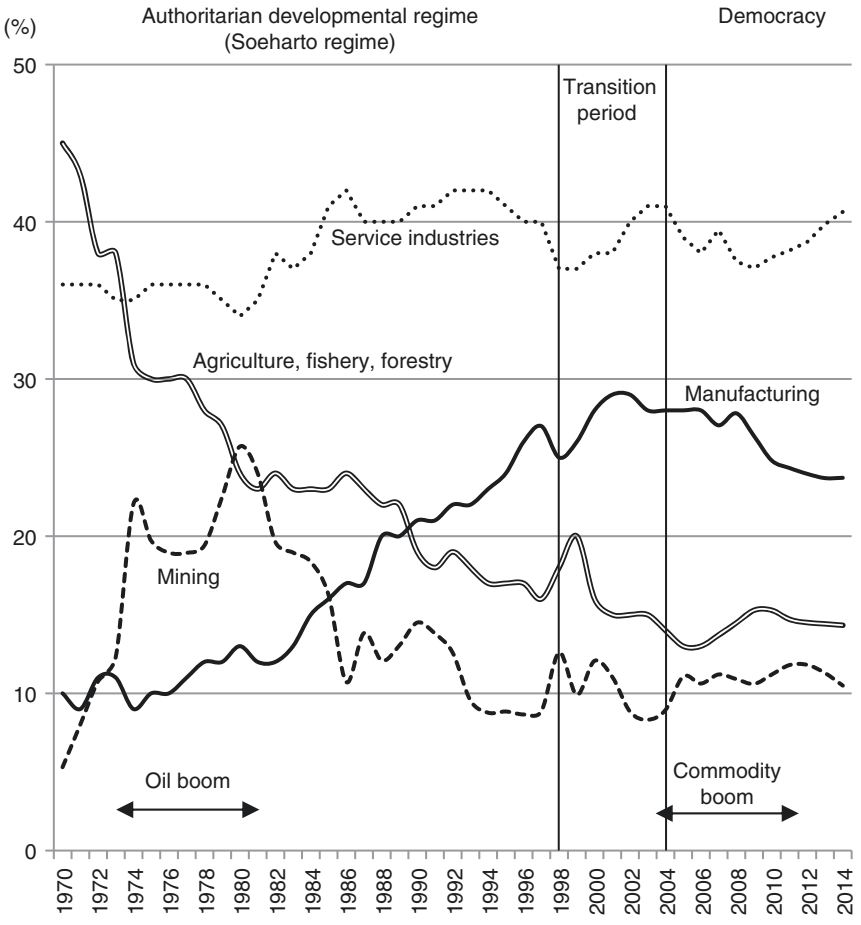

Fig. 3.2 Shares of GDP by sector, Indonesia, 1970–2014

Sources: Constructed by the author based on data from World Development Indicators and BPS Indonesia.

and 1979–82), the rise was short-lived; more importantly, manufacturing share maintained an increasing trend, even during the oil booms.

Indonesia's export structure best showcases the difference between the oil-boom and post-oil-boom periods (Fig. 3.3). During the boom, crude petroleum oil composed around 80 per cent of total exports. After the

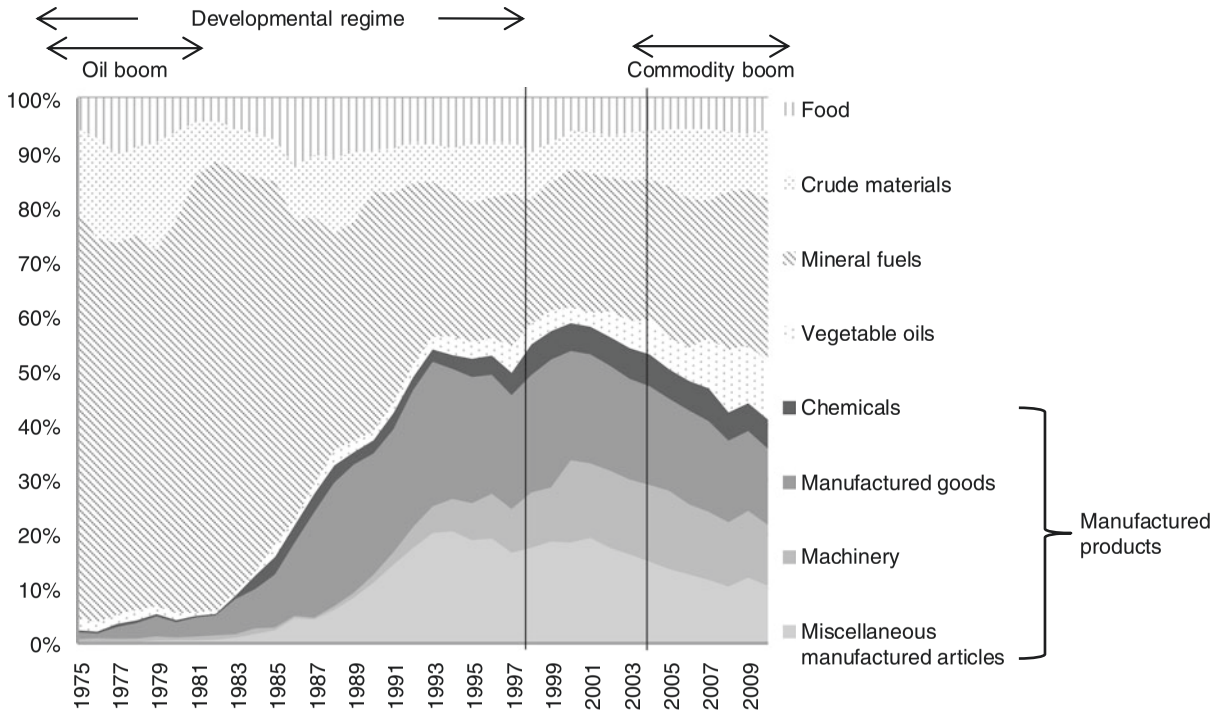

Fig. 3.3 Trends in Indonesia's exports, 1975–2010

Note: Classification is by SITC. Manufactured products here are defined as SITC 5 to 8.

Source: Constructed by the author based on data from UN Comtrade Database.

boom, manufactured exports[6] dramatically expanded their share, from 5 per cent in 1982 to 59 per cent in 2000. Indonesia became the most successful OPEC country to avoid the so-called Dutch disease and become an exporter of manufactured products. This outcome may have been the result of developmentalism's constant push for industrialisation, from the early years of institutional formation, to the oil-boom diversion of the oil bonanza into industrial investment, and the post-oil-boom institutional reforms. The positive performance in industrialisation and manufactured exports, from the perspective of Indonesia's industrial structure, concealed the increasing degeneration of the Soeharto regime during the second transformation period.

The industrial and trade structure changed in the third transformation period. Manufacturing's share in GDP began to decline, while that of agriculture and mining bottomed out, before registering a slightly upward trend in the first decade of the 2000s (Fig. 3.2). The share of manufactured exports fell from 59 per cent in 2000 to 41 per cent in 2010 (Fig. 3.3). This return to natural resources occurred as the government adopted a laissez-faire approach to industrialisation. In addition to this supply-side factor, a demand-side pull came from China and India vigorously importing coal (24 per cent and 18 per cent, respectively, of Indonesia's total coal exports in 2011), crude palm oil (12 per cent and 30 per cent, respectively), and other lightly processed natural resources from Indonesia. The two commodities are symbolic of Indonesia's 'return to nature': Indonesia became the world's largest exporter of coal in 2012, overtaking Australia, and of crude palm oil in 2006, overtaking Malaysia. In the commodity boom driven by Asia's emerging countries, Indonesia showed symptoms of Dutch disease, that is, the regression of industrialisation (in terms of share of manufacturing in GDP and manufactured exports in this case) under an appreciating real exchange rate.

[6] Manufactured exports here are defined as items in Standard International Trade Classification (SITC) 5–8, that is, chemicals and related products, manufactured goods classified chiefly by materials, machinery and transport equipment, and miscellaneous manufactured articles.

Indonesia's shift to quasi-developmentalism in the fourth transformation period has the potential to reverse the regressing trend of industrialisation (Sato and Damayanti 2015). In terms of its export structure, Indonesia reached the peak of its 'return to nature' in 2011, the last year of the commodity boom. Total exports swelled to $203 billion, and the top ten export items (using categories with four-digit Harmonised System codes) were dominated by natural resources, including two processed goods (tin and refined copper). In 2012, however, motor cars and footwear ranked in the top ten; plywood joined in 2013, and fatty acids and alcohols (oleo-chemical products processed from palm oil) were added in 2014, although the total export value fell to $176 billion. A revival in processed or manufactured exports appeared after the government invited oleo-chemical investments from foreign and local big businesses and promoted automobile exports of Japanese manufacturers in Indonesia.

The implications that can be drawn from the above analysis on the transformations in Indonesia's industrial and trade structures are as follows. Countries endowed with abundant natural resources, like Indonesia, tend to focus on producing and exporting unprocessed forms of these resources, when international prices surge. Under these conditions, institutional arrangements are key to whether countries divert revenues from these exports into higher value-added activities or whether they follow the logic of Dutch disease by spending the increased revenues on importing tradable goods and purchasing non-tradable services, inviting the resulting deindustrialisation (Cordon and Neary 1982; Cordon 2011). In Indonesia, authoritarian developmentalism strengthened its grip on natural-resource export revenues to maintain a certain level of industrialisation; the government absorbed export revenues from the state-owned oil company, Pertamina, into the national treasury and diverted them into industrial investment through fiscal and banking channels and capital injections to SOEs. During the commodity boom of the 2000s, which saw little government intervention, symptoms of Dutch disease appeared. Commodity-export revenues flowed not through a single SOE but into private companies of all sizes and no institutional arrangements were in place to divert their revenues into investment in processing and other higher value-added industries. It was natural for

private investors to invest in quick-earning, low-risk businesses, particularly in the exploitation and export of booming commodities in lightly processed forms. This indicates that institutions play a role in determining whether natural-resource endowment is a curse or an opportunity for the country's industrial development (Sato 2016). Yet, designing institutions is not an easy task, as Chapter 9 describes.

4 Transformation of Business Groups

Indonesian business groups have followed a course of birth, expansion, restructuring, and revival, almost in line with the four transformation periods. This section looks at changes and continuities in these groups in relation to state governance and industrial performance. A business group is defined here as 'a set of legally separate firms bound together in persistent formal and/or informal ways', as Granovetter (2005) defined; I add, 'under common ownership'.

The start of the Soeharto era was the dawn of business-group formation. The turn towards an open capitalist economy presented, on the one hand, a broad spectrum of business opportunities for private petty traders. On the other hand, however, every activity required government licenses, including import, export, and sales; investment approvals; land-use rights; forest concessions; mining concessions; supplier rights to the government; and state bank loan permissions. President Soeharto and his proxies allocated these licenses for key commodity trading, pioneer-industry investment, and foreign joint-venture partnerships. Thus, in the early years of the authoritarian era they transformed local business agents from traders into industrialists. Those who simultaneously acquired these licenses in multiple business lines automatically formed a group of companies. These newly emerging businesspeople came to be called Cukong (主公), which literally means 'a master' but connotes businesspeople associated with political figures, and signified that many of them were Chinese Indonesians.

A certain amount of competition existed among business agents, even in the authoritarian state–business relationship. First, Soeharto granted at least two licenses for a line of business. For instance,

exclusive import licenses for cloves were given to Liem Sioe Liong (a founder of the Salim group) and Soeharto's maternal half-brother Probosutedjo (a founder of Mercu Buana group); exclusive investment licenses for wheat-flour milling were given to Liem and a Singapore company; and cement investment licenses were given to, among others, Liem and Soeharto's brother-in-law Bernard Ibnu Hardjojo. In every case, it was Liem who made the most of the opportunities. Second, many businesspeople, if they made a fortune in one business, preferred to invest in low-risk real estate rather than in the next business opportunity. Thus, only a few of the many who obtained privileged licenses continued to expand the scope and scale of their businesses until they formed business groups.

In the second transformation period (the latter half of the Soeharto era), the development of business groups reflected the mixed nature of institutional settings: degeneration under liberalisation. On the one hand, liberalisation allowed business groups to make a discontinuous leap, one aspect of which was domestic diversification. In addition to diversifying into export-oriented manufacturing industries promoted by the government, business groups responded quickly to the financial big bangs in 1988 and 1989. They set up banks and non-banking financial companies and listed group companies on the Jakarta stock market. Another aspect of the leap was across-the-border expansion. A growing number of business groups started not only to invest overseas but also to use lower-cost external borrowings for domestic businesses. Business groups were no longer within the grip of the developmental state. They expanded their discretion accordingly, assuming risk and developing corporate strategies.

The degeneration of the developmental state, on the other hand, affected the nature of state–business relationship. Business groups were positioned in a vertical hierarchy led by the state, and their relationship with the state was give-and-take, as described in Fig. 3.4. In the first transformation period, the state gave business licenses, preferential treatment, and strategic information to individual businesspeople, in addition to providing institutional guarantees on risks for all business agents and protecting the status of Chinese Indonesians. Business groups, in return, shared their profits from privileged projects with their political allies, in the form of dividends, remuneration for commissioners, commission charges, or a certain percentage of sales revenue.

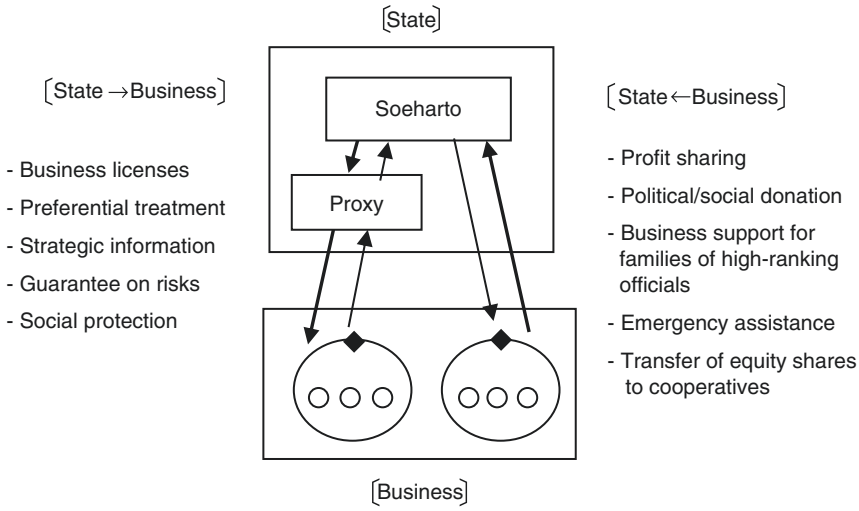

Fig. 3.4 State–business relations in Indonesia during authoritarian developmentalism

Sources: Constructed by the author.

In the second transformation period, the state sought more in return from established Chinese Indonesian business groups and at the same time allocated generous facilities to latecomer and mostly *pribumi* (native Malay Indonesians) business groups. Other than regular political and social donations, the government sought support for businesses established by family members of high-ranking officials, emergency assistance for banks and companies in danger of bankruptcy, and mandatory transfers of established group owners' equity shares to cooperatives. In contrast, preferential treatment for *pribumi* business groups – ultimately, those owned by Soeharto's eldest daughter, second son, or third son – was reinforced. The government waived off the tender process and allowed them to enter state-managed sectors, such as television broadcasting, transportation of liquefied natural gas and oil products, oil and gas exploration, expressways, airports, and water supply, and some strategic sectors, such as clove distribution and the national car project. For most established business groups, this period was

characterised by greater discretion outside state control and by greater burdens from the degeneration of developmentalism.

In 1997–98, Indonesian business groups were struck by an unprecedented crisis, which caused multiple damages. First, corporate failure was common, owing to heavy debts because of a sharp drop in currency, as much as 80 per cent. Second, bank failure prevailed, owing to non-performing loans. Most business groups were forced to relinquish their indebted assets and failed banks. The share of banks affiliated with business groups, in terms of assets of all commercial banks, declined from 38 per cent in 1997 to just 2 per cent in 1999 (Sato 2005).

The post-Soeharto political transformation also affected business groups. The third major source of damage was a political decision. Shareholders of banks that had suffered a run amid the crisis and obtained emergency loans from the central bank had to repay the loans, with shareholders' unlimited liability, by selling assets of group-affiliated companies. The Salim group, founded by Soeharto's close friend, Liem Sioe Liong, was affected the most by this decision, while some business groups avoided the obligation altogether. The Salim group was forced to sell most of its prime assets, and slimmed down (Sato 2004c; Borsuk and Chng 2014). The fourth was the annulment of KKN contracts. Business groups related to the Soeharto family faded out.

What changed and what remained unchanged for Indonesian business groups following the drastic restructuring of the post-authoritarian transformation? Table 3.1 compares the sales and assets of the top business groups before and after the crisis. It shows that the

Table 3.1 Changes in the size of Indonesian business groups (%)

Indicator	Group	1988	1996	2011	2012
Annual sales (% of nominal GDP)	Top 20	20.4	30.4	10.4	11.4
	Top 100	–	44.7	13.3	18.4
Total assets (% of nominal GDP)	Top 20	10.1	56.0	18.6	17.9
	Top 100	–	87.9	26.9	27.2
Employees (% of workforce)	Top 20	–	0.5	0.8	0.8
	Top 100	–	1.3	1.6	1.5

Sources: Calculated from *Warta Ekonomi* (31 July 1989 and 24 November 1997) and CrishanteNova (2012, 2013); BPS Indonesia for GDP and workforce.

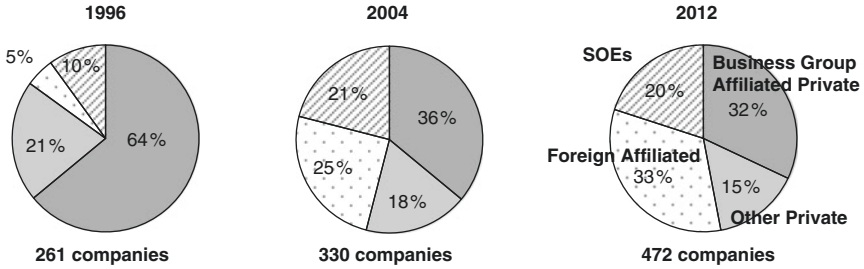

Fig. 3.5 Declining position of business groups in the corporate sector: Composition of Indonesian listed companies by ownership (based on sales)

Note: 'Business Group Affiliated Private' refers to private companies affiliated to the top 50 business groups by sales. Top 50 groups are based on the ranking as of 1996 for 1996 and 2004, and the ranking as of 2012 for 2012. 'Foreign Affiliated' includes foreign joint ventures, and companies invested by foreign investment companies and foreign financial institutions, but excludes companies invested by domestic investors through foreign investment companies.

Source: Constructed by the author from a database compiled from ECFIN (various years).

size of business groups shrank notably compared with nominal GDP. In 2012, sales and assets were still far smaller than in 1996, although sales had picked up. This suggests that the position of business groups in the corporate sector weakened after the crisis. Figure 3.5 compares the position of the top 50 business groups in listed companies in terms of sales before and after the crisis.[7] The shares of group-affiliated companies, while remaining dominant among domestic private companies, dropped from 64 per cent in 1996 to 32 per cent in 2012 in sales of all listed companies. In contrast, the shares

[7] It is desirable, but difficult owing to lack of data, to examine the position of business groups in the corporate sector. Their position among listed companies is examined briefly here. The data of listed companies, however, may underestimate the positions of SOEs and foreign-affiliated companies throughout the period, because only limited SOEs are listed – including the giants (the oil company Pertamina and the electric power company PLN) – and because subsidiaries of leading foreign companies, especially Japanese ones, have less incentive to go public to procure capital in Indonesia. Figure 3.5 thus shows the changing trend in ownership shares rather than absolute figures.

of SOEs expanded from 10 per cent to 20 per cent in the same period; more remarkably, those of foreign affiliated companies rose from 5 per cent to 33 per cent, exceeding the share of group-affiliated companies in 2012.

This transformation indicates that authoritarian developmentalism provided a fertile breeding ground for business groups rather than for SOEs and foreign companies, and that the post-authoritarian restructuring of business assets had an adverse impact. In the banking sector, for example, state banks survived only through mergers. They increased their shares in the country's commercial banks from 36 per cent in 1996 to 50 per cent in 2000. By 2002, 77 per cent of the assets of former business group-affiliated banks (21 per cent of all commercial banks' assets) were sold to foreign investors through the Indonesian Bank Restructuring Agency (IBRA) under government–IMF supervision (Sato 2005). The second-largest business group in the Soeharto era, Astra, shifted to foreign ownership in 2000, after Jardine Matheson, a Hong Kong-based business group, acquired the Astra group's holding company through IBRA.

Under such a drastic restructuring, to what extent did the lineup of business groups change? As seen in Fig. 3.6, 46 business groups that had made it to the top 100 in 1996 remained in the list in 2012, 27 survived but dropped out of the top 100, and another 27 did not survive as business groups. Of the top 100 in 2012, only 15 were new entrants. The other 85 were old faces, including 39 that had not made it to the top 100 in 1996.[8] This comparison demonstrates that most business groups survived the crisis and the regime change.

A more detailed investigation revealed that as many as 16 of the top 20 groups in 2012 were among the 46 that retained their top 100 status. In other words, 35 per cent of the 46 groups were concentrated

[8] These old faces include seemingly new business groups with new group names: those founded by former owner-managers of other groups, such as Triputra, Saratoga Capital, Trinugraha Tohir, and Persada Capital, all of which grew out of the Astra group; those founded by family members of former groups, such as Indika Energy by Subentra's second generation, and Mitra Adi Perkasa (MAP) by the family of the wife of the founder of Gajah Tunggal; and those that started their business in the Soeharto era but were not recognised as one of the 220 business groups in 1996, such as Bosowa (cement), Sritex (synthetic textiles), Ramayana (retailing), and Musim Mas (palm oil).

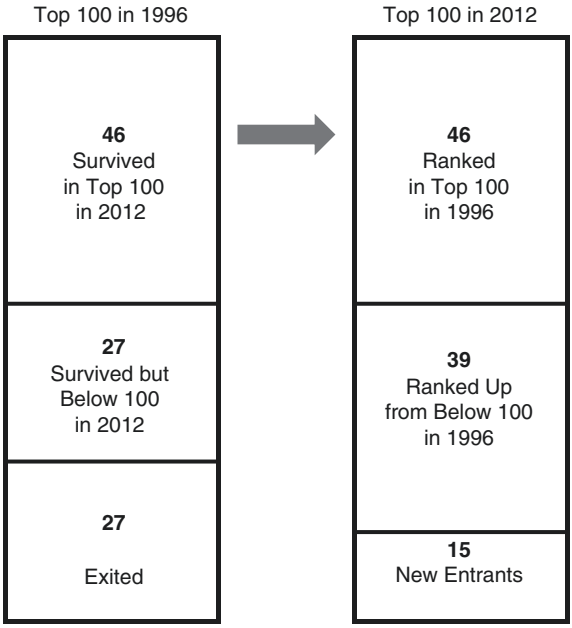

Fig. 3.6 Changes to the list of top 100 business groups in Indonesia

Sources: Calculated from *Warta Ekonomi* (24 November 1997) and CrishanteNova (2013).

in the top 20. Table 3.2 lists the 16 groups. Their salient features are discussed. First, half of the largest groups remained the largest. The 16 groups included six of the top ten, and ten of the top 20 in 1996. Second, most were affected by the severe crisis. With the Salim group as the most prominent example, 10 out of the 16 groups suffered a debt crisis, a bank failure, and lost their assets, but they regained their top status. Third, the 16 groups expanded into three main sectors: plantations, mining, and emerging services (such as telecommunication, hospitals, education, media, and logistics). This is consistent with the trend of post-authoritarian industrial transformation of the 2000s, towards a regression of industrialisation. Overall, old faces returned with new businesses. New entries and exits were observed, less often in the line-up of business groups and more so in the lines of business.

Table 3.2 The top business groups that survived the crisis: changing lines of business

Ranking 2012	Ranking 1996	Name of group	Main business*	Sold/closed business
1	1	Salim	Food, *agribusiness*, consumer goods, telecom, *mining*	Cement, banking, agribusiness, chemical, automobile, broadcasting
2	3	Sinar Mas	Agribusiness, pulp and paper, finance, property, *mining, telecom*	Banking
3	9	Djarum	Cigarette, *property, banking, plantation*, electronics	
4	5	Lippo	Property, retail, *hospital, education, media, mining*	Banking
5	4	Gudang Garam	Cigarette, *plantation*, property, mineral water, *food*	
6	25	Royal Golden Eagle	Pulp and paper, rayon, *agribusiness, oil and gas*	Banking
7	17	Bakrie	*Mining, telecom, agribusiness*, property, steel pipe, *infrastructure*	Petrochemical, banking
10	94	Wings	Consumer goods, food, finance, *chemical, plantation*, building materials	
11	79	Aneka Kimia Raya	Chemical trading, *infrastructure, coal*	Food additive (Sorbitol)
12	7	Gajah Tunggal	Tyre, chemical, *coal, trade and distribution*	Shrimp farming, banking, finance

14	15	Barito Pacific	Petrochemical, plywood, *plantation*	Pulp, banking
15	29	JAPFA (Ometraco)	Animal feed, chicken/shrimp farming, property	Banking
16	12	Kalbe Farma	Pharmaceutical, healthcare, *hospital*	Banking, property, cosmetics
17	32	Gobel	Electronics, *coal*	
18	21	Panin	Banking, financial services	
20	14	Argo Manunggal	Textile, property	Banking

Note: *Terms in italics refer to newly expanding businesses.
Sources: Constructed by the author based on data from *Warta Ekonomi* (24 November 1997) and CrishanteNova (2013).

Another major change that took place in the third transformation period was in the state–business relationship, which shifted from a vertical hierarchy of state control over businesses to a horizontal interrelationship (Fig. 3.7). During democratisation, business agents changed their behaviour to try and influence laws, regulations, and policies, for example, through lobbying, appealing, negotiating, and conducting policy dialogues and recommendations. To access the state domain, in which decision-making became more complex, even large business groups (including those owned by Chinese Indonesians) began to use formal channels of economic organisations and industry associations.

The course of development of Indonesian business groups over the first three transformation periods demonstrates their flexibility in responding to changing environmental conditions. Those who responded best to the conditions could continue growing and survived. Under authoritarian developmentalism, business groups first responded to the industrialisation strategy by entering the unfamiliar manufacturing sector and then responded to liberalisation by diversifying their

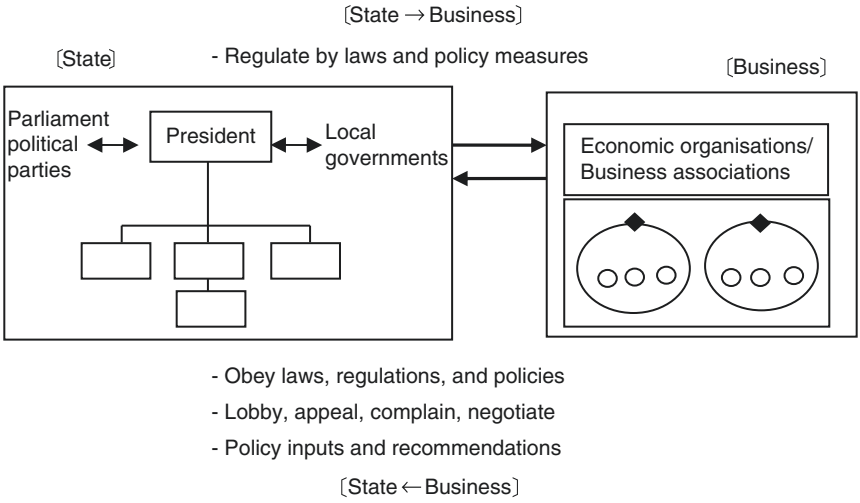

Fig. 3.7 State–business relations in Indonesia in the period of democracy

Source: Constructed by the author.

scope of business. In the post-authoritarian period, most large business groups weathered the crisis and sought new lines of business with least state intervention. They consequently became drivers of Indonesia's 'return to nature' under the commodity boom, although their relative position declined owing to asset disposal. In the current fourth transformation period, this logic could be extended to argue that business groups will flexibly respond to quasi-developmentalism by re-diversifying and upgrading their business activities. The overall impact of quasi-developmentalism on the behaviour of business groups remains to be elucidated with the accumulation of data. Yet there are some signs. Under government policies to promote palm-oil processing, some groups with competence in this sector, like Musim Mas and Sinar Mas, invested in expanding their oleo-chemical production in North Sumatra. Under policies to promote infrastructure, some business groups entered the public-works sector, traditionally dominated by SOEs. A port development in Surabaya, in East Java, is the largest project to have involved private participation. The Aneka Kimia Raya (AKR) group, after selling its blue-chip sorbitol business to a foreign investor for $300 million, invested in an integrated port and industrial estate in partnership with the state-owned port company.[9]

5 Conclusion

This chapter examined how the state, industry, and business performed during four periods of institutional transformation in Indonesia.

In the firm grip of authoritarian developmentalism, Indonesia consistently pursued a strategy of industrialisation, achieved a certain level of manufactured production and exports, and accumulated local private capital in the form of business groups. The institutional setting enabled it to divert revenue from the oil booms into industrial investment and to drive post-boom structural reforms, although a lack of internal monitoring allowed KKN to develop.

[9] Author's interview with the CEO of PT AKR Corporindo, Jakarta, 17 March 2014.

In the first phase of democracy, characterised by little to no state intervention in the economy, Indonesia avoided formulating development strategies and instead relied on exporting lightly-processed natural resources. Its move away from investing in industrialisation was due partly to the flexible responses of local capitalists to the commodity boom. Now, in the 2010s, Indonesia is returning to state intervention, but as a democracy. It is looking to implement a comprehensive development strategy, which includes upgrading its natural-resource processing industries, import-substitution industries, and export industries, and investing in infrastructure. Responses in the country's industrial structure and business activities have already been observed.

Indonesia's experience demonstrates that developing countries, regardless of whether they are under authoritarianism or a democracy, with abundant natural resources but without institutional arrangements for designing and implementing development strategies, can easily 'return to nature' as producer-exporters of primary commodities. Opportunities and challenges may be two sides of the same coin. Natural-resource industries can be knowledge-intensive if they are accompanied by innovation in the upstream production process and connected to processing, manufacturing, designing, branding, and marketing activities along value chains. The state must also be effective in arranging institutions to formulate and consistently implement development strategies and in pushing business agents to invest in higher-value-generating activities. Indonesia's experience of industrial development under institutional transformation will have implications for other emerging countries endowed with natural resources.

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4

Vietnam's Post-WTO Industrial Development: Strategies and Realities

Mai Fujita

1 Introduction

In 1986, the apparent failure of the centrally planned economic system in Vietnam prompted the launch of economic reforms, called *doi moi* (renovation). This marked a significant turning point in modern Vietnamese history. Although initial reform attempts resulted in severe macroeconomic imbalances, Vietnam overcame difficulties to set off on a path of rapid economic growth by the mid-1990s. Despite a temporary slowdown in the late 1990s, as an indirect effect of the Asian financial crisis that hit its major trading and investment partners, Vietnam's growth accelerated in the early 2000s, spurred by further economic reforms and the opening up of the economy. Owing to the rapid economic growth, culminating in

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the economic boom preceding the accession to the World Trade Organization (WTO) in 2007, the country became a lower middle-income country, as per the World Bank's criteria, in 2008.

Around this time, increasing attention was directed to worrying signs about the sources and prospects of Vietnam's economic growth. As discussed in Chapter 1, Vietnam's total factor productivity (TFP) growth after 2001 lagged that of other countries in the region. Moreover, TFP's contribution to growth, which had exceeded that of labour and capital in 1990–2000, declined substantially in 2000–08, when growth came to be derived primarily from capital investment (Ketels et al. 2010: 32). In fact, growth slowed in the aftermath of WTO accession – from 8.46 per cent in 2007 to 6.31 per cent in 2008. Although the direct trigger was the global economic crisis of 2008, the slow pace of recovery and macroeconomic instability in the following years suggested that the downturn was due more to structural factors inherent in the economy than to external shock. In this context, the ten-year development strategy in 2011 set the country's key priority for the following decade as renovation of the model of economic growth – from one based on low-cost labour and capital investment to one that emphasises quality, productivity, efficiency, and competitiveness.

This chapter explores the sustainability of Vietnam's economic growth with a focus on the manufacturing industry. As the driving force of the country's economic growth over the past two decades, manufacturing plays a vital role in Vietnam's endeavour to renovate its growth model. This chapter will assess Vietnam's industrial development over the past two decades, covering the changes in key industries and their main players, and examine how firms have developed and transformed their activities and the factors that have shaped such processes. The focus will be on state-owned enterprises (SOEs), which have long been at the centre of Vietnam's industrialisation strategy. Previous discussions on SOEs, focusing on the state sector as a whole or some of the largest state-owned conglomerates, have argued that SOEs performed poorly despite heavy protection and preferential access to resources.[1] This chapter conducts an in-depth analysis of two major state-owned corporations

[1] See, for example, Perkins and Vu Thanh Tu Anh (2010) and Vu Thanh Tu Anh (2014).

to shed light on an important yet relatively overlooked dimension of SOEs – market-driven transformation – and discusses its implications for the country's industrial development.

The remainder of the chapter is structured as follows. Section 2 discusses the evolution of Vietnam's industrial development strategy. Section 3 examines the transformation of the industrial sector and shows that the growth of the manufacturing sector is now driven increasingly by foreign-invested enterprises (FIEs) and domestic private enterprises (DPEs). Section 4 turns the focus to SOEs, whose role has diminished despite the emphasis and assistance they received. Focusing on two major SOE groups, the section shows how their transformation has been shaped by a combination of market forces and emerging business interests. The concluding section summarises findings and discusses their implications.

2 The Evolution of Vietnam's Industrial Development Strategy

Vietnam set to promote industrialisation and modernisation in 1994, after early economic reforms yielded macroeconomic stabilisation and rapid economic growth. The Eighth Communist Party Congress in 1996 set forth a more specific target of 'endeavouring to basically become an industrialised country by the year 2020'. While the five-year development plan (1996–2000) called for the development of both labour-intensive export-oriented industries (EOIs) and heavy industries for import substitution, the party-state prioritised the latter. It aimed to selectively develop industries such as energy, machinery, basic metal and chemicals, with SOEs playing lead roles. The government established enterprise groups called General Corporations (GCs) in these key sectors.

SOEs are repeatedly assigned a key role in Vietnam's industrialisation strategy for numerous reasons. The most fundamental one concerns the socialist ideology that considers SOEs the commanding heights of the economy, especially heavy industry, the main pillar of the socialist economy. Reform attempts in the early 1990s

concentrated on closing and merging small SOEs, especially local ones. This was followed by 'equitisation' or conversion of SOEs into joint stock companies. The aim was to diversify enterprise ownership by mobilising capital from the society, improving managerial efficiency, and encouraging workers to buy shares and become real owners of the enterprises; it was, therefore, distinct from privatisation. It started on a pilot basis in 1992, but implementation remained slow and only covered non-strategic sectors throughout the 1990s. Unclear administrative procedures and workers' opposition are commonly cited as key obstacles. However, the slow progress was chiefly because of the belief that the state sector afforded enterprises the best chance of receiving budgetary support or other forms of protection or avoiding discrimination in obtaining bank credit, land-use rights, licenses, or contracts (Gainsborough 2010: 73).

The early 2000s marked a turning point, giving Vietnam's development strategy a more market and outward orientation. First, to promote the development of private enterprises, a new Enterprise Law came into effect in the beginning of 2000. It significantly reduced administrative barriers for establishing private enterprises. Second, the bilateral trade agreement with the USA came into effect in December 2001, providing Vietnam with improved access to the American market in return for a wide range of market liberalisation commitments. This led to a remarkable increase in Vietnam's exports and inflows of foreign direct investment (FDI) aimed at making Vietnam an export base. The repeated appearance of the slogan 'international economic integration' in official party documents since the early 2000s[2] suggests that these developments convinced party leaders of the significant benefits of accelerating exports and FDI. Thus, WTO accession emerged as the next important target for the country to gain stable access to export markets and attract even larger FDI.

The effect of WTO accession on Vietnam's development strategy is not as straightforward as one might assume. On the one hand, the

[2] A typical example is Resolution 34/NQ-TW of the Ninth Plenum of the Ninth Party Central Committee on 3 February 2004.

accession process acted as a catalyst, speeding up liberalisation and reforms. Not only was Vietnam compelled to liberalise its market for a wide range of goods and services, it had to implement most of the WTO rules without transition periods. Vietnam also had to institute a WTO-consistent legal framework *as a precondition for* accession (Fujita 2006). Vietnam's National Assembly (NA) passed several laws between 2004 and 2006, with the law-making process closely monitored by major negotiation partners.[3] A key milestone was the promulgation of the Unified Enterprise Law and Common Investment Law in 2005, wherein, for the first time in Vietnam, a common legal framework was provided for all types of enterprises regardless of ownership. Vietnam also abolished tax incentives to export-oriented investment, which had been used to attract FDI. Instead, it started introducing WTO-consistent policies to promote industrial development, such as ones designed to encourage the development of high-tech or supporting industries (Fujita 2011).

SOE reform also entered a new stage, as stock market growth and the entry of foreign investors on the eve of WTO accession made equitisation and listing on the stock market increasingly attractive for SOE managers. Unlike the 1990s, the government encouraged sale of shares to external 'strategic investors' who made long-term investments in and assisted the development of equitised SOEs with financial and managerial capacity. The number of equitised SOEs increased, leading to a growing number of joint stock companies owned by the state and by external investors, including strategic ones.

On the other hand, the post-WTO accession phase witnessed a partial reversal of reforms – the establishment of State Economic Groups (SEGs), which were much larger and more diversified than GCs and were under

[3] The number of laws (including revisions) adopted by NA increased as negotiation accelerated: 13 in 2004, 29 in 2005, and 22 in 2006. Monitoring of the law-making process by negotiation partners is illustrated by an incident during the fall NA session in 2005. American, Australian, and European Chambers of Commerce sent letters to the NA requesting it not to pass the draft Investment Law under discussion because its content would have a negative effect on the investment and economic environment (*tuoi tre*, 29 November, 2005, http://tuoitre.vn/tin/kinh-te/20051027/de-nghi-khong-thong-qua-luat-dau-tu-tai-ky-hop-qh-lan-nay/105058.html, accessed 1 May 2015).

the direct management of the prime minister.[4] Nguyen Tan Dung, who emerged as an increasingly powerful leader after becoming prime minister in 2006, is widely regarded as the key figure leading the development of SEGs (Vu Quang Viet 2009: 411–12; Vu Thanh Tu Anh 2014). Approximately, 11 SEGs were established after 2005[5], mostly by transforming existing GCs. They primarily covered strategic sectors such as energy and mining and key service sectors as well as shipbuilding, chemicals, and textiles and garments (T&G) within manufacturing. It was argued that large size, financial capacity, various privileges, and centralisation of authority enabled these SEGs to dominate the market, effectively undermining reformist policies aimed at creating a level playing field for all enterprises (Vu Thanh Tu Anh 2014).

It was hoped that SEGs would play a leading role in the country's economic development. However, these expectations were belied when financial failure and the mismanagement of some of the largest SEGs and GCs came to light. The most symbolic case is Vietnam Shipbuilding Industry Group (Vinashin), which despite generous government support, including $750 million mobilised by the country's first sovereign bond issue in 2005, defaulted on internationally syndicated loans in 2010. Subsequent government investigations unveiled extensive misconduct including massive investments in unrelated areas, many of which were unviable and against state regulations. This and other incidents involving major SEGs and GCs[6] prompted the government to launch a scheme to restructure large SEGs and GCs.[7] The scheme sought to classify SOEs by required levels of state ownership according to the sectors in which they operate, promote equitisation of SEGs and GCs that do not require 100 per cent state ownership, and divest state capital from their non-core businesses. However, its implementation has remained slow.

[4] Vu Thanh Tu Anh (2014) argues that fears of the impact of WTO on domestic industries became the basis for building consensus on the establishment of SEGs.

[5] By 2014, three of them were converted back to GCs, including Vinashin.

[6] Serious financial problems and mismanagement were also revealed for Vietnam National Shipping Lines (Vinalines) and Electricity of Vietnam (EVN).

[7] Prime Minister's Decision 929/QD-TTg dated 17 July 2012 approves the scheme on restructuring SOEs with a focus on SEGs and GCs for 2011–15.

3 Transformation of the Manufacturing Sector: An Overview

Table 4.1 shows the industry's share of GDP and growth rates since 1995. Growth in manufacturing has been particularly rapid since the early 2000s and has come to account for about 20 per cent of GDP. However, growth slowed down after 2005, because the sector was hit particularly hard by the economic slowdown after the global financial crisis in 2008.

Figure 4.1 compares the structure of manufacturing production in 1996 and 2013. In 1996, food and beverage and light manufacturing such as textiles, garments, and leather products comprised more than half of manufacturing production. The subsequent years witnessed increasing diversification in the manufacturing industry with the growth of more capital- and technology-intensive industries such as metal products, transport equipment, and chemical products. The most notable development, however, was the rapid growth of the computer and electronics industry, which is primarily export-oriented.

Table 4.2 shows how Vietnam's export structure changed over two decades. Vietnam's main export items in 1990 consisted of primary commodities such as crude oil, seafood, and rice. Since then, its export structure has witnessed remarkable diversification and upgrade. Exports of labour-intensive manufactures increased steadily, initially starting with garments, footwear, and furniture. Garments (the total of HS 61 and 62) exceeded crude oil (HS27) in 2010 to become Vietnam's top export item. Since the early 2000s, exports of machinery and components (HS84) and electronic products (HS85) also increased remarkably, as Vietnam joined regional production networks developed by multinational corporations (MNCs) for labour-intensive processing and assembly. In 2013, electrical/electronic equipment (HS85) overtook garments to become the top export commodity.

The growth of manufacturing industries was accompanied by changes in ownership structure (Fig. 4.2). Strikingly, the share of the state sector in industrial production declined from 50 per cent in 1995 to 19 per cent in 2010. In the meantime, the share of domestic non-state and foreign-invested sectors expanded rapidly. The latter grew dramatically

Table 4.1 Shares of GDP and production growth by industry

	Share of GDP (%)				Annual average production growth (%)		
	1995	2000	2005	2010	1995–2000	2000–2005	2005–2010
Mining and quarrying	4.8	9.7	10.6	10.9	19.3	8.1	0.6
Manufacturing	15.0	18.6	20.6	19.6	18.0	24.5	21.2
Electricity and gas	2.1	3.2	3.5	3.4	23.5	20.3	15.9
Water supply					8.4	18.3	27.4

Note: The table shows total share of GDP for "Elecriticy and gas" and "Water supply".
Source: Constructed by the author from GSO (various years).

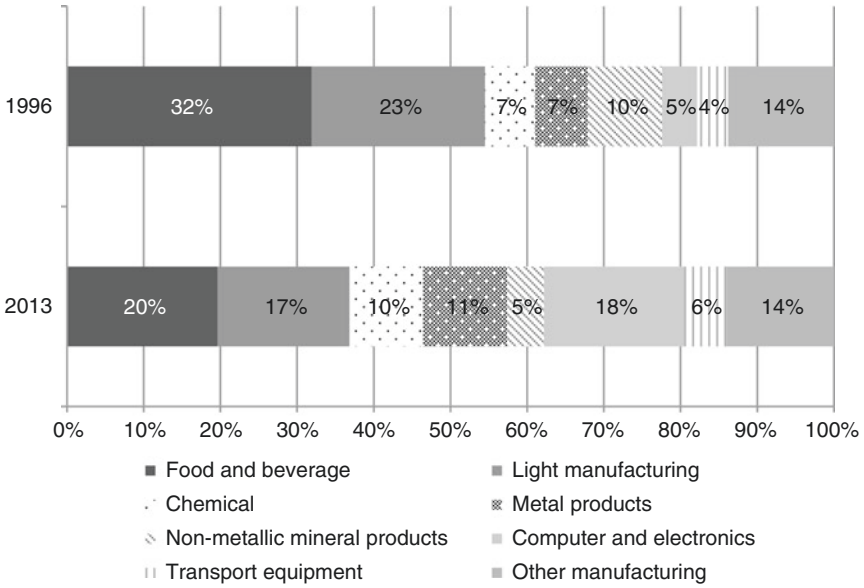

Fig. 4.1 Structure of Vietnam's manufacturing production (current prices)

Note: Light manufacturing includes textiles, footwear, leather products, wooden products, and furniture. Chemical includes coke and petroleum, chemical products, pharmaceuticals, and medical products.

Source: Constructed by the author from GSO (1999, 2014).

to become the largest sector, accounting for 43 per cent of the total industrial production in 2010. The growth was remarkable during 1995–2000 and 2005–10, which coincides with the periods following 'FDI booms' triggered by the initial opening up of the economy after *doi moi* and the WTO accession, respectively. By contrast, the growth of the domestic private sector was remarkable in 2000–05, the period following the promulgation of the 2000 Enterprise Law that significantly reduced the obstacles for establishing private enterprises.

Ownership structure varies considerably across industries (Fig. 4.3). In 1995, SOEs dominated various industries, from textiles to chemicals and computer and electrical equipment. By 2010, this dominance had shrunk to tobacco, petroleum products, and printing and publishing, which are still subject to state ownership requirements. The

Table 4.2 Vietnam's top ten export items (HS 2-digit level)

Rank	1990			2000			2010			2013		
	HS	Commodity description	Share	HS	Commodity description	Share	HS	Commodity description	Share	HS	Commodity description	Share
1	27	Crude oil	41%	27	Crude oil	26%	27	Crude oil	11%	85	Electrical/ electronic equipment	24%
2	3	Fish	16%	62	Apparel (not knit)	11%	85	Electrical/ electronic equipment	10%	27	Crude oil	7%
3	44	Wood	8%	64	Footwear	10%	64	Footwear	7%	62	Apparel (not knit)	7%
4	72	Iron and steel	7%	3	Fish	10%	62	Apparel (not knit)	7%	64	Footwear	7%
5	10	Rice	6%	9	Coffee	5%	61	Apparel (knit)	7%	84	Machinery	6%
6	12	Oil seed	4%	10	Rice	5%	3	Fish	6%	61	Apparel (knit)	6%
7	62	Apparel (not knit)	4%	84	Machinery	4%	10	Rice	5%	3	Fish	4%
8	8	Fruits	3%	85	Electrical/ electronic equipment	4%	84	Machinery	4%	94	Furniture	3%
9	40	Rubber & rubber products	2%	99	Other products	3%	94	Furniture	4%	9	Coffee	3%
10	41	Leather products	2%	8	Fruits	2%	40	Rubber & rubber products	4%	40	Rubber & rubber products	2%

Source: Constructed by the author based on data from UN Comtrade Database.

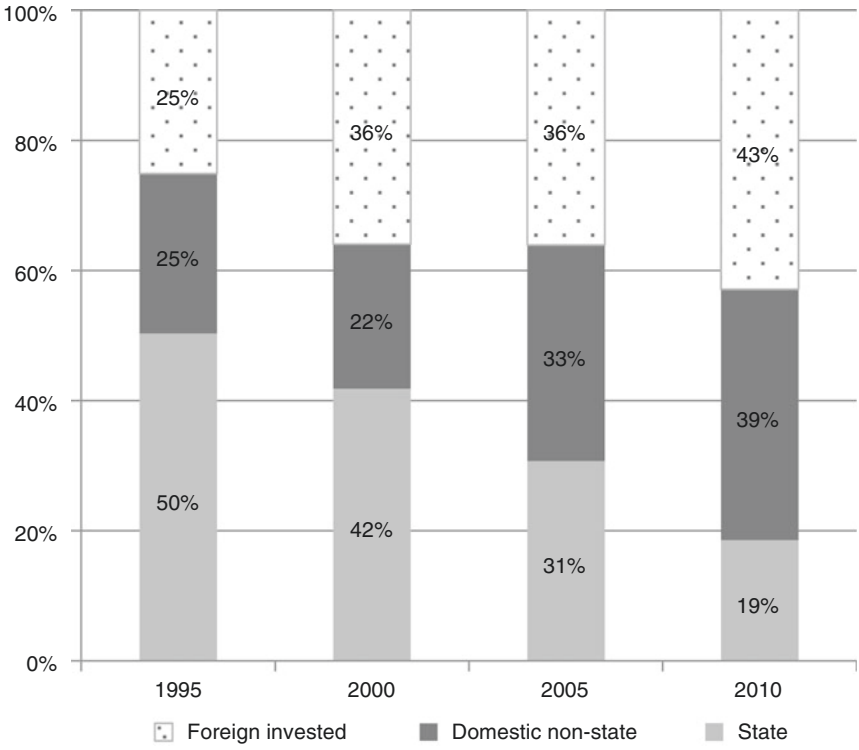

Fig. 4.2 Industrial production by ownership (constant 1994 prices)
Source: Constructed by the author from GSO (various years).

foreign-invested sector dominated a wide range of industries including computer and electronic equipment, motor vehicles, chemicals, and even garments, which had traditionally been dominated by domestic enterprises. The domestic private sector claims a relatively large share in food and beverage and wood products, industries typically dominated by small-scale enterprises.

The prominence of FDI is even more pronounced in export figures. The share of the foreign-invested sector in Vietnam's exports rose dramatically from 27 per cent in 1995 to 68 per cent in 2014 (GSO, various years). The growth of some EOIs, particularly footwear and electronics and more recently garments as well, has been driven primarily

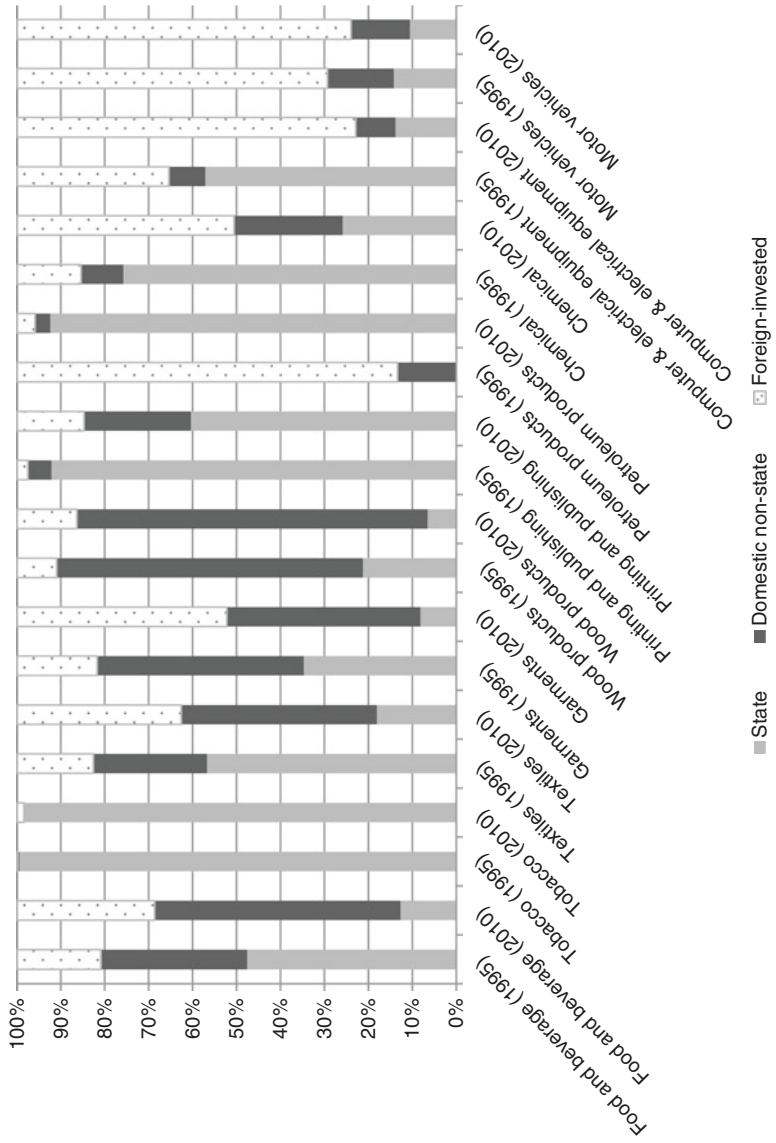

Fig. 4.3 Ownership structure of key manufacturing industries

Source: Constructed by the author from GSO (various years).

by FDI. The dramatic increase in electronics exports after 2010 is due primarily to huge investments by Samsung Electronics. Vietnam came to account for about half of Samsung Group's global production, and Samsung Vietnam's total export value in 2013 reached $23.9 billion, equivalent to 16 per cent of the country's total exports (Le Son 2015).

Now that FIEs are dominant players in the Vietnamese manufacturing industry, will they move beyond labour-intensive industries or activities? Several FIEs have made moves to extend their electronics operations in Vietnam. Samsung Electronics employed 70,000 workers in two Vietnamese factories in 2014 (Le Son 2015). Although its local content was estimated to be only 20 per cent (Tien Minh 2014: 28), the company is currently attempting to expand local sourcing. Given the underdeveloped status of local companies, the domestic supporting industry is likely to consist mainly of foreign-invested suppliers. Most of the company's 67 suppliers in Vietnam are foreign-owned; four Vietnamese suppliers only provided packaging (*Viet Nam News*, 18 December 2014). Notably, R&D facilities are being developed by major electronics MNCs including Samsung for producing high-end electronics products, apparently spurred by the Vietnamese government's generous incentive for high-tech investment projects.[8] It remains to be seen whether these electronics FIEs will eventually move beyond what Vind (2008) referred to as 'reproduction factories'.

The motorcycle industry is considered the most successful among import-substituting ones, having raised local content and developed the domestic supporting industry (The Motorbike Joint Working Group 2007: 19). By the early 2000s, large Japanese motorcycle manufacturers had achieved localisation ratios of 70–90 per cent. Again, foreign-invested suppliers played a key role. Japanese and Taiwanese suppliers together accounted for 57 per cent of the total number of components purchased, while Vietnamese suppliers accounted for 10.6 per cent (The Motorbike Joint Working Group 2007: 21).

[8] Generous tax incentives were granted for Samsung's first plant in Bac Ninh and to Nokia and Bosch (Ngoc Linh 2013) and to Samsung's second plant in Thai Nguyen (*Viet Nam News*, 12 December 2014, http://vietnamnews.vn/economy/263948/thai-nguyen-approves-incentives-for-samsung.html, accessed 28 April 2015).

To sum up, Vietnam's industrial production and exports have achieved both growth and structural transformation, driven increasingly by FIEs and DPEs. Recent signs suggest that FIEs have started to go beyond labour-intensive assembly and manufacture to R&D and local sourcing, although results are not yet evident.

4 The Rise of Reformed SOEs: The Cases of Vinatex and VEAM

The domination of the manufacturing industry by FIEs and DPEs, as discussed in the previous section, raises questions about SOEs, which have been given a policy mandate to play a leading role in the economy. Previous research emphasised that SOEs performed poorly despite generous protection and privileged access to resources (Perkins and Vu Thanh Tu Anh 2010; Vu Thanh Tu Anh 2014). While stagnant and inefficient SOEs are indeed commonplace, the reality is more diverse. Within manufacturing, many SOEs have responded positively to the opening up of the market, dismantling of protection, and organisational reforms. This section sheds light on such 'reformed SOEs' and quasi-private companies that have played crucial roles in some industries.

The focus is on two SOE groups central to Vietnam's industrialisation objectives[9] yet different in legal forms, size, market orientation, and progress of reforms (Table 4.3). The first is Vietnam National Textile and Garment Group (Vinatex). As the biggest player in Vietnam's T&G industry, it has led the development of export-oriented garment production, but its focus is increasingly on the upstream textile segment. The second is Vietnam Engine and Agricultural Machinery Corporation (VEAM), a GC specialising in the production of agricultural machinery, diesel engines, and machinery components primarily for the domestic market.

[9] Prime Minister's Decision 879/QD-TTg dated 9 June 2014 included T&G and mechanical industries among priority industries.

Table 4.3 Basic profiles of Vinatex and VEAM

	Vietnam National Textile and Garment Group (Vinatex)	Vietnam Engine and Agricultural Machinery Corporation (VEAM)
Legal form	SEG	GC
Charter capital	5,000 billion VND (after equitisation)	n.a.
Turnover	10,954 billion VND (in 2013)	n.a.
Number of employees	4,766 (in 2013)	More than 7,000
Equitisation	Completed in 2014 (51 per cent owned by the state)	Not implemented as of 2015 (100 per cent owned by the state)
Number of subsidiaries	Three dependent accounting units; 18 tier-one subsidiaries; 28 tier-two subsidiaries; 34 associated companies; seven non-business entities such as research institutes (before equitisation in 2014)	Four dependent accounting units; 10 subsidiaries; five associated companies; five joint ventures; one research institute (as of 2015)
Main products	Garments and textiles	Agricultural machinery, diesel engines and machinery components including motorcycle components
Market orientation	Export (garments), domestic market and export (textiles)	Domestic market

Note: VEAM website does not provide data on charter capital or turnover.
Sources: Constructed by the author based on Tap doan det may Viet Nam (2014) and VEAM website (http://veam.com.vn/, accessed 30 April 2015).

4.1 Vinatex

Vinatex was established in 1995 as a large-scale GC satisfying the requirement of Prime Minister's Decision 91-TTg dated 7 March 1994.[10] Initially, Vinatex consisted of 53 members including 44

[10] Such GCs required at least seven members and a legal capital of at least 1,000 billion VND.

independent accounting units, which were mostly T&G companies; four dependent accounting units, comprising service and trading companies and branches; and seven non-production units including research institutes and universities.[11] Incorporating numerous major T&G companies, Vinatex was the key player in the industry. In the early 2000s, Vinatex claimed to have 80 per cent of Vietnam's capacity in spinning; 50 per cent in weaving, knitting, dyeing, and finishing; and 45 per cent in garment manufacture (Nadvi et al. 2004: 114). By 2014, the number of T&G companies under Vinatex had increased to 80, including tier-one and tier-two subsidiaries and associated companies (Table 4.3).

Two main forces have driven Vinatex's transformation since the late 1990s. One is business growth, primarily in garments. Although the textile industry is one of the oldest in Vietnam, its growth has consistently lagged that of garment production, oriented toward exports to EU and Japan in the 1990s and the USA since the early 2000s. By the early 2000s, several Vinatex members emerged as the country's leading garment exporters. Eventually, challenges posed by rising costs and labour shortages due to high inflation after 2008 resulted in consolidation of garment exporters, with some lagging others (Goto et al. 2011). Some Vinatex members still managed to expand exports by successfully improving productivity and cementing relationships with leading overseas buyers.

Another important change is organisational restructuring mandated by government policies. Attempts to equitise Vinatex members started in the early 2000s. By the end of 2007, 90 per cent of the member enterprises had been equitised (Tran 2012: 132). For large member enterprises, many of which are enterprise groups themselves, reorganisation also involved transformation into a holding company (parent-subsidiary) model. Unlike the GC, which is an administratively managed unit, this structure has a profit-oriented holding company that invests capital in subsidiaries and collects a portion of their profits as dividends.

Vinatex itself has been restructured. In 2005, it became an SEG, adopting the holding company model. Under the government-led initiative to

[11] Government Decree 55-CP dated 6 September 1995.

Table 4.4 Highlights of Vinatex's restructuring programme for 2013–15

1	Equitisation of parent company, Vinatex	
2	Classification of subsidiaries	
	Enterprises for which the parent company owns 100 per cent of charter capital	Three textile companies; one marketing company
	Enterprises for which the parent company owns 50–65 per cent of charter capital	Four garment and textile companies; one fibre company; one trading company
	Enterprises for which the parent company owns less than 50 per cent of charter capital	20 companies including large garment exporters such as Viet Tien, May 10, and Nha Be.
3	Streamlining seven research institutes and universities in accordance with Vinatex's development orientation	
4	Divesting 100 per cent capital from 37 enterprises in T&G and unrelated areas such as real estate, beer manufacture, and labour export.	

Source: Constructed by the author based on Prime Minister's Decision 320/QD-TTg dated 8 February 2013.

restructure large SEGs and GCs, discussed in Section 2, a comprehensive restructuring plan for Vinatex was issued in 2013 (Table 4.4). Accordingly, Vinatex was transformed into a joint stock company with 51 per cent state ownership in 2014.[12] As a result of an initial public offering (IPO) in 2014, two privately owned real estate and infrastructure developers became strategic investors: Vietnam Investment and Development Group (VID; with a shareholding ratio of 14 per cent) and Vingroup (10 per cent).[13] The restructuring plan envisaged Vinatex's subsidiaries (wholly- or majority-owned) focusing on fibre and textile production, while many major garment companies would be 'associated companies', less than 50 per cent owned by Vinatex. Since Vinatex itself is now 51 per cent owned by the state, many of its major garment exporters are no longer SOEs but private companies. The plan also requires Vinatex to divest numerous subsidiaries in unrelated businesses as well as smaller subsidiaries in the T&G industry.

[12] Equitisation of Vinatex had been planned since 2006 but was substantially delayed.

[13] Itochu Corporation, a Japanese trading company and Vinatex's long-term business partner, also acquired 5 per cent shares but not as a strategic investor.

The two changes discussed above have transformed the way in which some Vinatex subsidiaries operate and the nature of their relationships with the parent company. First, equitisation made subsidiaries more autonomous. Penrose's (2013: 201) study of financial developments in SOEs including Vinatex showed that subsidiaries were neither obliged to follow Vinatex's industry plan nor use the internal distribution system managed by its trading subsidiaries. In addition, the strong financial capacity of some subsidiaries enabled them to pursue their own development orientation. The same study noted that three of Vinatex's largest subsidiaries[14] recognised it as their responsibility to achieve the growth targets imposed by the parent but did not consider themselves constrained in terms of types of activities to achieve these targets. Apart from T&G, their investments expanded to unrelated areas such as real estate and trading.

The change within members and its consequences can be best illustrated with the example of Viet Tien Garment Joint Stock Company, Vietnam's largest garment exporter (VP Bank Securities 2014). Although it is under the Vinatex umbrella, Viet Tien is an enterprise group consisting of 31 production units, including joint ventures with Taiwanese and Hong Kong companies, and employing 13,000 workers in 2002 (Ishida 2004: 65). Active investments in production facilities, new technology, and human resource training, combined with managerial and technological capability accumulated through the experience of serving buyers in Hungary, enabled the company to launch new products and develop linkages with new buyers in Europe, Taiwan, and Japan (Ishida 2004: 66). The accumulation of own capital via rapid business growth enabled it to pursue its own development orientation. For instance, it refused to use materials and other inputs designated by Vinatex as it would negatively affect product quality (Ishida 2004: 67).

Meanwhile, Vinatex itself has come to focus increasingly on upstream activities in line with government policy. The government's attempts to increase the localisation of textiles started in the early 2000s. Vinatex was

[14] The three companies are Viet Tien Garment Company, Nha Be Garment Company, and Phong Phu Textile Company.

granted access to preferential capital and other privileges to invest in spinning, weaving, and dyeing activities.[15] While this policy had to be abandoned as a condition for Vietnam's WTO accession (Martin 2007), Vinatex continued to play a leading role in promoting vertical integration in the T&G industry. In fact, Vinatex's investment plan after equitisation concentrates overwhelmingly on the spinning and weaving-dyeing segments (Tap doan det may Viet Nam 2014). However, Vinatex's endeavours to attain competitiveness in textile and raw material production under the current international environment face formidable challenges. After Vietnam's WTO accession, government subsidies are limited to R&D, human resource training, and environmental protection.[16] Vinatex's recent financial records (Table 4.5) suggest that it is still financially dependent on some profitable members such as Viet Tien to finance losses incurred by four wholly-owned and other subsidiaries, mainly in the fibre and textile segment.

To summarise, Vinatex's development since the late 1990s has been driven by the growth of garment exports, policy-mandated restructuring (that is, equitisation and adoption of the holding company model), and growing business interests within the group. The consequences are twofold: the emergence of large and increasingly autonomous garment exporters, most of which are now private, and Vinatex's narrower focus on the fibre and textile segment, which is in line with the government policy but is struggling to become internationally competitive.

4.2 VEAM

VEAM was established in 1990 with the aim of promoting the industrialisation and modernisation of agriculture and rural areas by bringing together SOEs engaged in producing agricultural machinery and diesel

[15] Prime Minister's Decision 55/2001/QD-TTg dated 23 April 2001 approving the development strategy for the T&G industry toward the year 2010.

[16] Prime Minister's Decision 36/2008/QD-TTg dated 14 March 2008 approving the development strategy for the T&G industry toward the year 2015 and Decision of the Minister of Trade and Industry 3218/QD-BCT dated 11 April 2014 approving masterplan for the development of the T&G industry toward 2020.

Table 4.5 Contribution to Vinatex's net profit in 2013 (billion VND)

Parent – Vinatex	234
Viet Tien Garment Joint Stock Company	116
Phong Phu Joint Stock Company	111
Hoa Tho Textile and Garment Joint Stock Company	46
Four wholly-owned subsidiaries	–36
Others	–273
Total	198

Source: Compiled by the author based on VP Bank Securities (2014: 20–21).

engines. It eventually became a GC satisfying the requirement of Prime Minister's Decision 90-TTg dated 7 March 1994.[17] As of 2015, VEAM consisted of four dependent accounting units, including an automobile factory, ten subsidiaries and five associated companies, including manufacturers of diesel engines, agricultural machinery and their components, five joint ventures with foreign companies, and a research institute (Table 4.3).

VEAM's situation in the early 2000s broadly supported the view of SOEs as stagnant players mentioned at the beginning of this section.[18] It faced major difficulties in its main product, agricultural machinery, due to competition from low-priced Chinese imports. With prices 15–40 per cent cheaper than the products offered by VEAM members, Chinese products accounted for 70–80 per cent of the Vietnamese market while domestic products claimed only 10–15 per cent. VEAM failed to present specific plans for recovering its market share, beyond general attempts at improving product quality. Moreover, although VEAM claimed to play the role of organiser, the group consisted of numerous small members producing similar products for different regional market segments in Vietnam, suggesting few substantive attempts had been made to streamline the organisation. VEAM established joint ventures with leading global automotive manufacturers such as Toyota, Honda, and Ford,[19] but its role was limited to contributing 30 per cent of the charter capital in the form of land.

[17] Such GCs required at least five members and legal capital of at least 100 billion VND.

[18] The discussion in this paragraph is based on Interview 1.

[19] Suzuki also established a joint venture with a VEAM member, Southern Agricultural Machinery Company (Vikyno).

The biggest change in VEAM's operations since the early 2000s has come in business linkages, with some members tying up with Vietnam-based affiliates of foreign motorcycle manufacturers. Company A was a member company specialising in the manufacture of machinery components for other member companies. In the early 2000s, Vietnam-based affiliates of Suzuki and Honda and Vietnam Manufacturing and Export Processing Company (VMEP), a Taiwanese motorcycle manufacturer, were competing with massive imports of low-priced motorcycles from China. Local sourcing of components offered a cost advantage, so Company A became a component supplier to these companies. By 2013, two more members (Companies B and C) had made inroads into the sourcing networks of Japanese-invested motorcycle manufacturers.

The three member companies of VEAM achieved remarkable increase in the volume of transaction and sophistication of component types produced. Their financial contribution to VEAM was enormous. In 2012, the production of motorcycle components generated VND 1.2 trillion, accounting for 30 per cent of the total industrial production revenue of VEAM (Hoang Nam 2013), which consisted of more than 20 member companies. At the same time, Companies A, B, and C came to be highly dependent on the sales of motorcycle components to foreign-invested manufacturers, which accounted for 70 per cent, 80 per cent, and 30 per cent of their respective turnover by 2008–09 (Interviews 3, 4, 5). Technologically, Companies A and C launched initial processing of core engine components for a Japanese motorcycle manufacturer by 2010 (Interview 2). This is exceptional among the 15 first- and second-tier Vietnamese component suppliers to Japanese motorcycle manufacturers surveyed by the author in 2008–09, most of which produced relatively simple components (Fujita 2013).

The progress of organisational restructuring, however, lagged Vinatex. VEAM was transformed into a holding company structure in 2010 but is yet to be equitised, although it has long been on the list of SOEs to be equitised as of April 2016. Table 4.6 shows VEAM's structure after conversion into a holding company structure. Companies A and B were transformed into joint stock companies with VEAM holding the majority shares, while Company C remained 100 per cent owned by VEAM,

Table 4.6 VEAM's structure after transformation into holding company

Dependent accounting units	Three regional branches, one casting company, and VEAM automobile factory
Units for which the parent company holds 100 per cent legal capital	Five diesel engine/agricultural machinery manufacturing companies and two research institutes (including Company C)
Subsidiaries for which the parent company owns more than 50 per cent legal capital	Five mechanical/component/equipment companies and one transport/trading company (including Companies A and B)
Associated companies for which the parent company owns less than 50 per cent legal capital	Three mechanical companies, five joint ventures with foreign companies, and three others

Source: Constructed by the author based on Decision of the Minister of Trade and Industry 3367/QD-BCT dated 25 June 2010.

which was 100 per cent owned by the state. In VEAM's case, quite unlike that of Vinatex, both parent and subsidiaries have engaged in limited diversification beyond core business activities. As will be discussed below, this factor might have limited their financial autonomy.

These changes had repercussions on the entire GC. As in the case of Vinatex, members were more autonomous than a decade ago. While the parent prepared the business and investment plans for member companies in 2002, by 2010 the parent company's approval was required only for large investment projects (Interviews 1, 2). However, VEAM seemed to play a more substantive role in coordinating the members' activities than Vinatex. The most illustrative case is found in VEAM's role in encouraging the formation of linkages between its members and Japanese-invested motorcycle manufacturers. After the success of Company A, VEAM transferred Company A's general director, who had worked with Japanese-invested motorcycle manufacturers since the early 2000s, to Company B. The new general director then took the lead in improving Company B's management to meet the requirements of Japanese customers. Since the early 2000s, Company A also subcontracted to Company C the initial processing of components to be supplied to Japanese customers, which provided the latter with the experience of working to the

standards set by Japanese customers (Interview 6). By 2010, some of the managers who had represented VEAM in foreign joint ventures in the early 2000s had taken up top management positions in VEAM and were eager to further expand business with foreign automotive manufacturers (Interview 2).

These dynamic changes notwithstanding, stagnant, passive dimensions continued for a decade in VEAM's traditional product, agricultural machinery, and a new product, trucks. By 2010, the market share of domestic producers of agricultural machinery had increased to 30 per cent, while that of Chinese ones had gone down to 60 per cent. However, this cannot be attributed entirely to the improved competitiveness of Vietnamese products, as VEAM itself admitted that financial assistance to farmers who purchased domestic products,[20] a policy introduced to stimulate domestic demand after the global financial crisis in 2008, played a role (Interview 2). As a new line of business, VEAM launched the production of trucks in 2009 with a capacity of 50,000 units per year. It claimed that the only form of assistance it received was protection from imports (Interview 2), as direct subsidies and credits could no longer be provided; its prospects for raising competitiveness seems weak. As of 2010, technology, machinery and equipment, and components were all imported, and the company conducted limited processing of some components. In 2014, VEAM's management took the lead in organising domestic manufacturers of trucks and buses to petition the government to maintain protection from imports,[21] suggesting the persistence of 'dependence mentality' among domestic producers in this industry.

[20] Prime Minister's Decision 10/2009/QD-TTg dated 16 January 2009 regarding the mechanisms to assist the development of production of key mechanical products from 2009 to 2015.

[21] Vietnam Association of Mechanical Industry (VAMI) established the Automobile Board, consisting of eight state-owned and private manufacturers of buses and trucks and headed by the general director of VEAM (http://www.vami.com.vn/vi/vami-thanh-lap-ban-o-to-vami-828.html, accessed 1 May 2015). Upon its establishment in November 2014, the board submitted a series of petitions to the government including a request to maintain the ceiling of import tariffs on assembled vehicles (Le Hoang 2014).

4.3 Discussion

The above analysis sheds light on dynamic developments in SOEs, which have not received due attention in earlier literature. Both Vinatex and VEAM have stagnant members with limited prospects in an increasingly competitive environment, as emphasised in much of the literature. However, other, more dynamic members continued to grow. Vinatex's major garment exporters managed to expand exports despite rising wages by improving productivity, while Viet Tien successfully upgraded its products. Some VEAM members successfully managed entry into the Japanese motorcycle value chain and subsequently upgraded their products and processes.

Some of these dynamic players are no longer SOEs. Vinatex's major garment exporters are now less than 50 per cent owned by the state and are, by definition, 'private'. However, in practice, they do not operate entirely as private entities either, as the state is often the largest owner and can intervene in management if necessary. They also continue to enjoy various state-related privileges. The fact that these quasi-private companies are officially counted as private suggests that the role of purely private companies may be much smaller than suggested by the data in Section 3.

What is notable is that the development of these reformed SOEs has been driven by market forces, particularly via linkages with global buyers or manufacturers. Moreover, changes started within individual member enterprises, not the SEG or GC. Products or processes were upgraded largely as individual member enterprises tried to expand business with global buyers or manufacturers, which provided enterprises with both access to markets and discipline. Government policy or the strategy of the SEG/GC played a limited role. Viet Tien offered an extreme case of having to go against Vinatex's designation to fulfil customer requirements. Although VEAM established several joint ventures with major automobile and motorcycle manufacturers from the mid-1990s, its role in these joint ventures was initially limited to the contribution of land.

The SEG/GC did react, only after it became apparent that expanding business with global buyers and manufacturers generated significant

benefits for the group as a whole; however, responses varied. VEAM was more proactive in that it actively engaged in efforts to expand such linkages, while Vinatex's role in expanding garment exports remained limited. In any case, the growing business did transform the relationship between the members and the SEG/GC: stronger financial capacity made member enterprises increasingly independent and autonomous in their pursuit of individual business orientation, while SEG/GC exploited revenues generated by these profitable companies to finance inefficient businesses mandated by the government.

The government's response, by contrast, has been strikingly rigid. Policies failed because they channelled resources into segments with limited prospects for development under international economic integration. In T&G, government policy overwhelmingly emphasised the domestic production of materials. In practice, utilisation of domestically produced materials for export production has turned out to be extremely challenging, given the tendency for major global buyers to designate the sources of materials and the low levels of competitiveness of Vietnamese firms. Similarly, government policy in the mechanical industry has focused on agricultural machinery and trucks, two segments that have failed to improve their competitiveness despite protection and assistance they have received.

One implication of this discussion is that, in the absence of a robust domestic private sector, reformed SOEs may play a crucial role in industrial development. While the above analysis focused specifically on Vinatex and VEAM, local firms that have played leading roles in the T&G and motorcycle component industries at least up to the early 2000s were mostly state-owned (Goto et al. 2011; Fujita 2013). In Vietnam, the emerging domestic private sector consists primarily of small-scale companies, which have limited capacity to play a leading role in industrial upgrading.

Our analysis suggests that the combination of diminishing government assistance and the power of global manufacturers to impose stringent requirements may impose discipline on SOEs. However, we do need to be cautious in interpreting their success, as it is likely to have been facilitated by state-related privileges such as access to capital and land. Seemingly remarkable product upgrading – such as observed among

VEAM members – might be achieved at the expense of low productivity. It remains to be seen whether they would improve their competitive performance over time without these explicit or implicit privileges or be overtaken by purely private enterprises as they fully develop.

5 Conclusion

This chapter aimed to assess the progress of Vietnam's industrial development, which is vital for sustained economic growth, and to clarify the underlying mechanisms of the transformation of the industrial sector. The key findings can be summarised as follows. First, Vietnam has successfully managed growth and diversification of labour-intensive industries. Second, industrial development has come to be driven increasingly by FIEs and DPEs, which responded to the dismantling of entry regulations and the market opportunities that accompanied the opening up of the economy. FIEs have become key players in export-oriented industries such as electronics. Third, some signs suggest that FIEs have started to move beyond labour-intensive assembly toward R&D and local sourcing, but its impact on industrial upgrading is not yet evident. Fourth, while the role of the state sector as a whole has declined over time, the reality of the SOEs is quite diverse. What we refer to as 'reformed SOEs', which includes dynamic SOEs and quasi-private companies, grew rapidly as they responded to market forces and businesses with global buyers or manufacturers.

Overall, there is a stark gap between strategies and realities. Despite various policy interventions, actual transformation of the industrial sector has been driven largely by market forces. Many successful cases were found largely among firms and segments within industries characterised by ample market opportunities and relatively limited policy interventions. Those that were assigned strategic roles and were subject to the most generous support – be it Vinashin, Vinatex members in the upstream textile segment, or VEAM members producing automobiles – often failed or continued to stagnate.

The current mechanism, broadly characterised as market-led, has worked well in developing labour-intensive industries. However, this may no longer be the case as Vietnam moves to the next stage of industrial development. Launching new, more capital- or technology-intensive industries in competition with other countries and inducing existing industries to shift toward more technology- and skill-intensive activities is likely to call for a more targeted approach to channel available resources and coordinate incentives and activities of different players. The key obstacle is likely to be the relationship between SOEs, GC/SEG, and the government, which has undermined the government's capacity to choose the right target for its policies and enforce performance targets on them for the assistance and privileges they receive. Along with addressing this structure, which is deeply rooted in the country's political economy, attempts need to be made to do away with existing privileges, spur competition, and ensure a level playing field for all types of enterprises.

In this regard, Vietnam should make effective use of international economic integration, which can be a powerful force in driving industrial transformation. Our analysis has shown that WTO accession was a key impetus for Vietnam to implement policy and institutional reforms despite reversals in some areas, and that the entry of foreign firms – as buyers, customers, or partners – was vital in inducing firm-level changes. Vietnam is attempting to further advance international economic integration. Indeed, the country's capacity to make strategic use of economic integration arrangements to buttress domestic reforms may critically affect the structure of its economy in the future: could the economy's dependence on FDI, which has increased after WTO accession, be even higher, or could SOEs and DPEs improve their competitiveness and continue to account for sizeable shares in the economy?

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5

Malaysia's Transformation: High Income, Middle Capability

Hwok-Aun Lee

1 Introduction

Malaysia has consistently pursued economic and social transformation, featuring high income, equitable distribution, and notions of an advanced society. The national economic agenda has emphasised income growth, industrialisation, and technological advancement, while poverty and inequality – especially among ethnic groups – have predominated redistribution objectives. In recent years, a three-cornered framework of high income, equity, and sustainability became established in national policy. Malaysia's graduation to high-income status is a matter of time; the economy continues to grow faster than the high-income threshold and will surely pass it. However, deficiencies in education, skill acquisition, and knowledge generation and regressive labour market structures

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confound its potential to fully achieve transformation goals of becoming an innovation-driven, high-productivity, and high-wage economy.

Malaysia distinctly lags behinds advanced economies in capability development. Its efforts are undermined by deteriorating education quality and lack of clarity and courage in reforming the affirmative action regime of ethnic preferences. The problem is compounded by an entrenched dependence on low-skill migrant workers and inadequate attention to raising hourly productivity and wages. Policy rhetoric recently emphasised broader need-based redistributive policies. However, systematic reformulation is severely lacking as is a coherent and robust response to entrenched ethnic preferences, policy inefficacies, and the vested interests and misguided perspectives that perpetuate them. While articulating aspirations to nurture a critically minded and creatively oriented workforce and society, Malaysia's government persistently restricts freedom of thought and expression. Resolving these economic, social, and political dilemmas and contradictions will decisively impact Malaysia's capacity to achieve its transformation goals.

2 Transformation Rhetoric and Reality

Malaysia's development vision has consistently set ambitious goals of sustained rapid economic growth, industrialisation, and fully developed status, as well as equitable distribution, national unity, and socio-political progressiveness. The nation's vision statements, particularly the New Economic Policy (NEP) (officially spanning 1971–90) and Vision 2020 (declared in 1992), have projected successes on the far horizon and captured the public imagination. In recent years, the rhetoric and policy focus has shifted, under the aegis of the New Economic Model (NEM), released in 2010, toward achieving high income status, while fostering inclusiveness and sustainability, as well as a host of transformation agendas broadly resembling the lofty aspirations of Vision 2020 (NEAC 2009).

Malaysia's pursuit of economic progress encompasses both the simple notion of higher output and income, as well as structural change and technological advancement. Vision 2020 expressed 'fully developed status' as the ultimate objective, setting an ambitious though amorphous

target. In recent years, the concept has become simpler and the target more distinct: graduating to high income status by surpassing a globally benchmarked Gross National Income (GNI) per capita threshold. Thus, progress can now be technically assessed, but with a narrower concept of success. Importantly, Malaysia's deindustrialisation portends challenges for the future in view of its weak domestic technology, innovation, and R&D base.

Capability development is intertwined with education and employment policies, which help hone skills, knowledge, and experience, and which, in turn, are considerably shaped by affirmative action. Malaysia implements arguably the world's most extensive range of ethnic preferences to promote representation of a beneficiary group – the *Bumiputera*, or 'sons of the soil', comprising Malays and other indigenous groups – in higher education, high-level occupations, enterprise development, and ownership and control of capital and property. These interventions are authorised by the Constitution, and were expanded and intensified under the NEP, primarily in the form of quotas. The motivations, modalities, and outcomes of ethnic preferential policies, and the myriad systemic factors responsible for the decline in educational quality, are too vast to be covered in detail. Nonetheless, these matters are pivotal to Malaysia's lagging capability development and will be duly addressed within our space constraints.

Malaysia's current transformation initiatives emphasise implementation of programmes and projects rather than systemic reform, with target-setting and performance monitoring entrusted to deliver quantifiable results and cumulatively sustain economic and employment growth. This concentration on achieving tangible outcomes is understandable and, to a large extent, necessary, given Malaysia's record of falling short on its transformation targets. An example is its failure to achieve a high-skilled, high value-added, knowledge-driven economy, an objective articulated since the 1990s, and in fostering an informed, democratic, and progressive society and polity. However, the pressure to deliver results in short-term assessments, and to achieve ultimate success by 2020, have arguably deflected attention from structural and institutional deficiencies, particularly in the education system and labour markets. Whether Malaysia's economic transformation becomes deeply rooted and sustained, therefore, remains to be seen.

Dynamic development and equitable distribution of capabilities will be pivotal to Malaysia's transformation. Transmission and inculcation of knowledge and skills are vital, as well as channels to deploy and express those abilities. Serious doubts have been raised about the ability of Malaysia's education system to play its crucial role in this process. Malaysia's workforce has considerable work to do in raising its educational profile, especially given the persistent presence of low-skilled migrant labour. In addition to the shortcomings in numerical gains in higher-level certification, searching questions are also raised on the quality of education and training. Affirmative action interventions, which grant *Bumiputeras* preferential access to tertiary education, are intertwined with the challenges of expanding education while preserving standards. The fundamental national project of reducing inter-ethnic disparities hinges on narrowing achievement gaps, and the prospects for meaningful and effective reforms are dim.

The NEM articulated a shift to 'transparent and market-friendly' affirmative action that would clarify processes and prioritise the bottom 40 per cent, giving the impression of redistribution shifting to a welfare-based system, with a decommissioning of ethnicity-based programmes. This highly pitched rhetoric of transformation, however, has not translated into coherent plans and substantive action. Political vested interests and social inertia remain unchallenged. Of course, in some sense, we are witnessing history being replayed. Official policy reform discourses have recurred over the past decades, but have amounted primarily to changing configurations of economic power, rebalancing public and private sector roles, shifting assertions of the *Bumiputera* capitalist agenda, and other developments, short of systemic transformation.

The scope for change is limited by economic resources and structures, administrative capacity, global trends and crisis episodes, and domestic political dynamics (Khoo 2012). Nonetheless, some features of the contemporary context are noteworthy, including the explicit declaration to replace race-based affirmative action with putative need-based, market-friendly variants. Discourses surrounding affirmative action, while cloaked in the language of change and alternatives, lack coherence and vigour to truly confront the policy's shortcomings and execute systemic reforms.

3 Nearly High Income, Uncertainly Advanced

Malaysia, already knocking on the upper middle income ceiling, will surely graduate into the World Bank defined high income status. The numbers suggest the economy will escape the middle-income trap, but technically speaking, it is a question of time. In 2014, Malaysia registered GNI per capita of $10,760, in current prices, under the Atlas method. The high-income threshold stands at $12,746. Projections of the point of convergence will depend on relative growth rates. However, if the high-income mark of GNI per capita grows by 2 per cent per year and Malaysia sustains 5 per cent annual growth in nominal GNI per capita, it will join the high-income club by 2020. Since the high-income threshold hinges on growth in high-income countries, the above scenario is distinctly possible, give or take a few years, around 2020.

Malaysia's GDP per capita growth has held steady since the 1997–98 Asian financial crisis, riding through recessionary dips in the wake of the 2001 dotcom bubble crash and even the 2008–09 global financial crisis (Table 5.1). Its performance has been eclipsed by neighbouring Indonesia, Philippines, and Vietnam, and the already high-income South Korea. Nonetheless, the Malaysian economy is growing at adequate pace and momentum to reach the high-income threshold.

This milestone will crown decades of sustained economic growth and bolster Malaysia's international reputation. However, Malaysia is still far behind advanced economies on various internal characteristics. Merely passing the high-income threshold places countries at the entry

Table 5.1 Annual growth rate (%) in real GDP per capita (constant 2005 US$)

	1990–1997	1997–2000	2000–2008	2008–2014
Malaysia	6.5	–0.1	3.1	3.2
Indonesia	5.7	–4.2	3.7	4.2
Philippines	0.8	0.1	2.9	3.8
Thailand	5.8	–1.8	4.0	2.2
Vietnam	6.5	4.2	5.6	4.7
Korea	6.2	2.6	3.8	3.9

Note: 1997, 2000, and 2008 are years preceding recession in Malaysia.
Source: Calculated by the author based on data from the World Development Indicators database.

level; they will not be expected to match the technological and institutional advancement of their new peers. Nevertheless, the pattern of Malaysia's industrialisation (and deindustrialisation) indicates the distance to cover in acquiring the hallmarks of an advanced economy; whether Malaysia catches up in these areas is far from certain.

Developing economies invariably pass through stages of industrialisation, as the manufacturing sector's importance grows in relation to agriculture, and then deindustrialisation, as the contribution of manufacturing output and employment shrink in the total economy and workforce. Malaysia has passed through these processes, but arguably, at a time and in a manner that could be considered premature or negative. Although Malaysia came to be defined as a service-based economy when this sector passed the 50 per cent mark in 2010, deindustrialisation can be traced back to around 2000, when the manufacturing share of GDP began a downtrend (Fig. 5.1). Mature, or positive, deindustrialisation occurs when an economy's shift to high levels of productivity, capital intensity, and wages spur the movement of labour away from manufacturing into services or the relocation of production facilities to lower cost sites.

The case for premature or negative deindustrialisation proceeds from two angles. First, as observed by Rasiah (2011), trade performance and productivity growth in Malaysia's manufacturing have slowed down, post-2000, from an average annual rate of 8.4 per cent (1990–95) and 11.1 per cent (1995–2000) to –1.4 per cent (2000–05) and 2.7 per cent (2005–08), respectively. More recently, manufacturing registered annual productivity growth of 1.5 per cent (2008–12) and 3.9 per cent (2012–14) (Malaysia Productivity Corporation 2013; 2015). Declining momentum in productivity growth – including the flagship electrical and electronics subsector – is symptomatic of the lack of technological upgrading and of higher value-added production. Rasiah (2011) argues that Malaysia has negatively deindustrialised, based on the declining productivity growth and trade performance of the manufacturing sector. He attributes slow technological upgrading to the reliance on low-skilled foreign labour; lack of monitoring performance standards; talent dissipation, partly because of ethnic preferential policies; shallow university-industry linkages and resulting inadequacies in R&D.

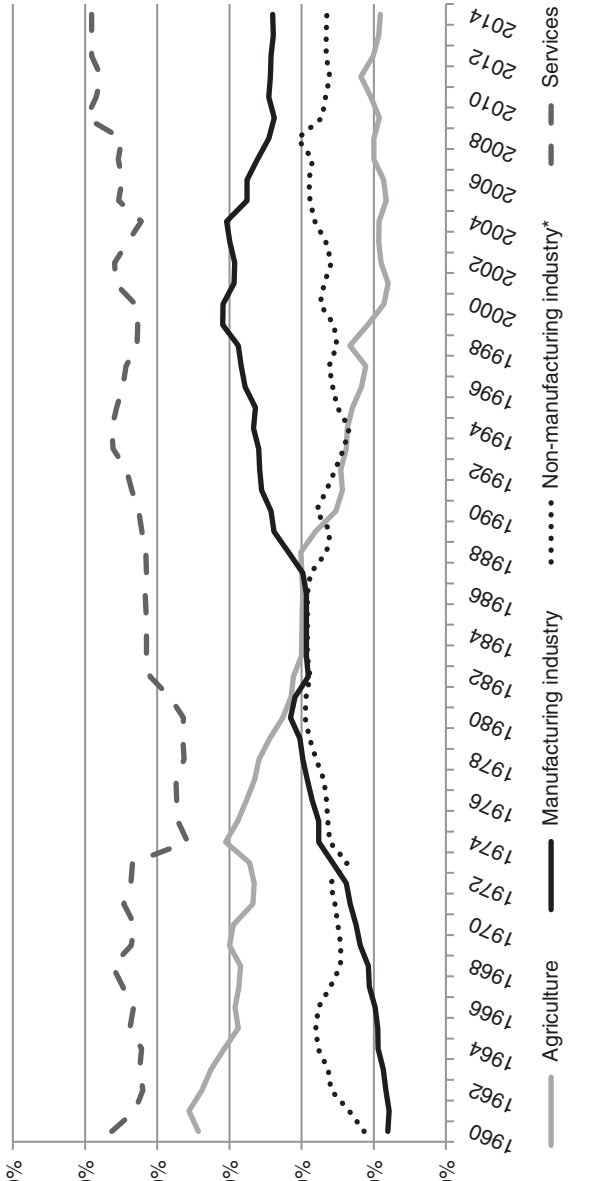

Fig. 5.1 Share of sectors in GDP, Malaysia 1960–2014

Note: Non-manufacturing industry includes mining, construction and utilities.

Source: Constructed by the author based on the World Development Indicators database.

Concerns over skill inadequacies are substantiated by various empirical sources, notably the World Bank Productivity and Investment Climate Survey (PICS) of 2002 and 2007. Both surveys reported, from a large sample of companies, that skill shortage was the most widely cited constraint in doing business (World Bank 2005; 2009).[1] About 40 per cent of companies specifically considered skill shortages one of the top three constraints. PICS 2002 also noted that 70 per cent of managers marked the shortage of capable university graduates as the biggest constraint on high technology investment (World Bank 2005: 94–96).

A second perspective on premature industrialisation hinges on the turning point of deindustrialisation. Tan (2013) suggests that by a varying definition of negative deindustrialisation, in which rising unemployment features saliently, Malaysia would not be considered eligible; he maintains that Malaysia has prematurely deindustrialised. Although the turning point of mature deindustrialisation is at about $10,000, the shift occurred at $4,000 in Malaysia, which concurs with a general assessment that its manufacturing sector may not be adequately established as a springboard for continued economic advancement. Tan (2013) emphasises the impact of the reliance of Malaysia's industrialisation on MNCs, which situate Malaysia in dependent relationships within global production networks and global value chains and consequently limit technological upgrading. Industrial policy formulation has also been compromised by redistributive demands of Malay elite and middle classes, while policy execution has been undermined by poor selection and weak monitoring of rent recipients.

Malaysia's manufacturing sector is not short of development plans, investment incentives, and achievement targets, under the five-year Malaysia Plans and ten-year Industrial Master Plans. Implementing agencies are also well established, notably the Ministry of International Trade and Industry (MITI), the Malaysian Industrial Development

[1] The Malaysia PICS of manufacturing and service firms obtained samples of 1,151 firms in 2002 and 1,418 firms in 2007, with almost national coverage.

Authority (MIDA), and Small and Medium Enterprises Corporation (SME Corp). These public provisions and institutional setups have contributed to Malaysia's robust record of investment and manufacturing exports, but are inadequate in facilitating the economy's advance to high value-added production and innovation-driven growth. R&D spending has increased over time, but, at about 1 per cent of GDP in 2010, remains low compared to dynamic advanced economies (Fig. 5.2).

Achievements in raising value-added and innovation in electronics, Malaysia's preeminent manufacturing sector, and in fostering linkages and spillovers, signal some prospects for the economy. Yusuf and Nabeshima (2009) examined the economy of Penang, Malaysia's primary electronics hub, focusing on the record of technological progress and the outlook for future gains. They argue that industrial development is not constrained by lack of incentives, but by other factors, including deficiencies in promoting upstream and downstream industries and

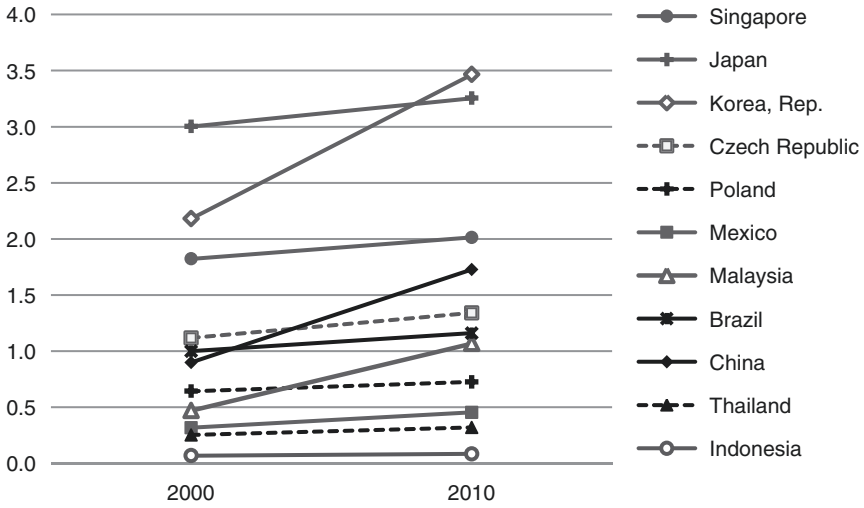

Fig. 5.2 R&D as percentage of GDP, selected countries

Note: For 2010, the reported figure for Thailand is from 2009, and for Indonesia, it is the average of 2009 and 2011.

Source: Constructed by the author based on the World Development Indicators database.

technological diffusion and in conducting R&D, by MNCs, local universities, and research institutions. A paucity of innovation, skilled workers, and linkages between research and industry circumscribes the capacity for sustaining manufacturing competitiveness. Without a robust, dynamic, innovative, and knowledge-driven industrial base, it is uncertain how far Malaysia can rise beyond the high-income entry mark. Deficiencies in the education and training system will be discussed in greater detail in the next section.

Malaysia's low-skill, low-wage regime is sustained by less spotlighted labour market institutions and structures that gravitate toward production based on overwork and on utilising indirect, outsourced, transient, and insecure employment, which can undermine skill development and high productivity. The Malaysian government has committed itself to phasing out foreign labour outsourcing companies and labour supply intermediaries. However, the Employment Act amendments of 2012 consolidate the status of labour contractors, diminishing the responsibility of business operators over (outsourced) workers and attenuating skill development. Institutionalised labour insecurity and indirect employment will continually hinder the advancement to high productivity and high wage levels. Beneath the widely critiqued and readily observed dependency on foreign migrant labour lie some systemic traits that extract productivity out of long hours in low-skill work, rather than more productive hours. Figures for GDP per hour worked shed light on Malaysia's lagging performance in raising productivity (Fig. 5.3). Interestingly, South Korea in 1980 registered roughly the same level as Malaysia did in 2000. But while the former vigorously raised its GDP per hour worked, the latter has only slowly inched upward.

Another structural feature intertwined with Malaysia's low skill and low hourly productivity regime is the chronically low unionisation rate and widespread use of workers employed under labour contractors (Fig. 5.4). This corresponds with a transient workforce, insecure and indirect employment, and high turnover, conditions inimical to skill and technology upgrading. Verité's (2014) large survey of the electronics industry found that 37 per cent of workers are paid by an employment agent instead of the operator of the facility. Additionally, 35 per cent of workers under outsourcing agents,

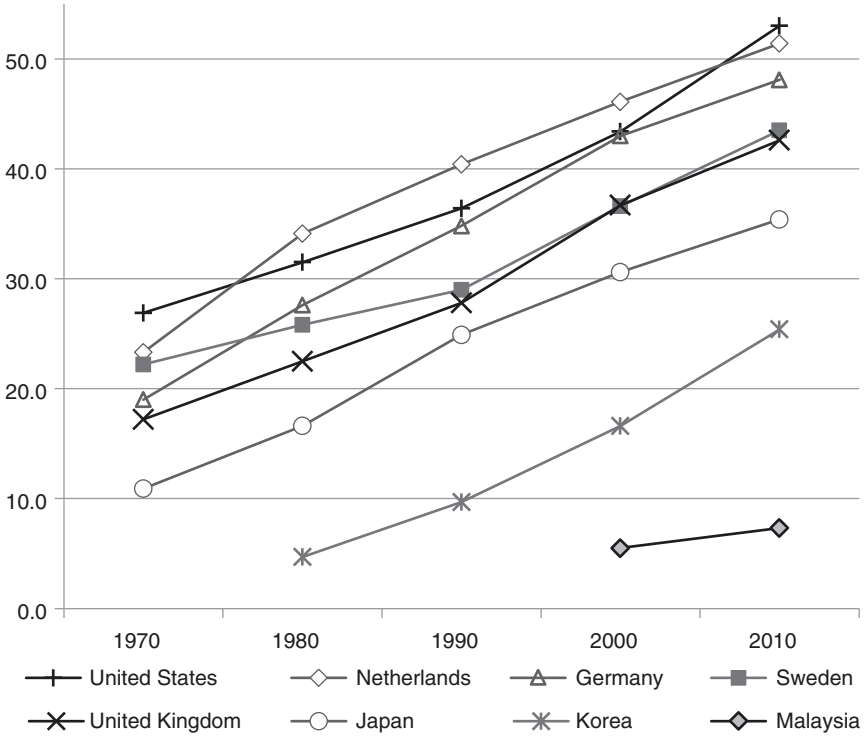

Fig. 5.3 GDP per hour worked, selected OECD countries and Malaysia, 1970–2010 (constant 2005 $, PPP)

Sources: Calculated by the author based on data from OECD.Stat (stats.oecd.org), World Development Indicators, ILO Stat (ilo.org/ilostat), and Malaysian Productivity Corporation (2015).

compared to 25 per cent of directly employed workers, are in forced labour, that is, subjected, inter alia, to having passports withheld, bearing high debt, and lacking freedom to change employers. Unsurprisingly, only foreign workers were subjected to such conditions.

Investment in training and equipment depends on some degree of security that trained workers will stay to apply newly acquired skills and will have a stake in remaining with the employer. Previous research on Malaysia shows that companies with unionised workers are more likely to upgrade technology, an unsurprising result given

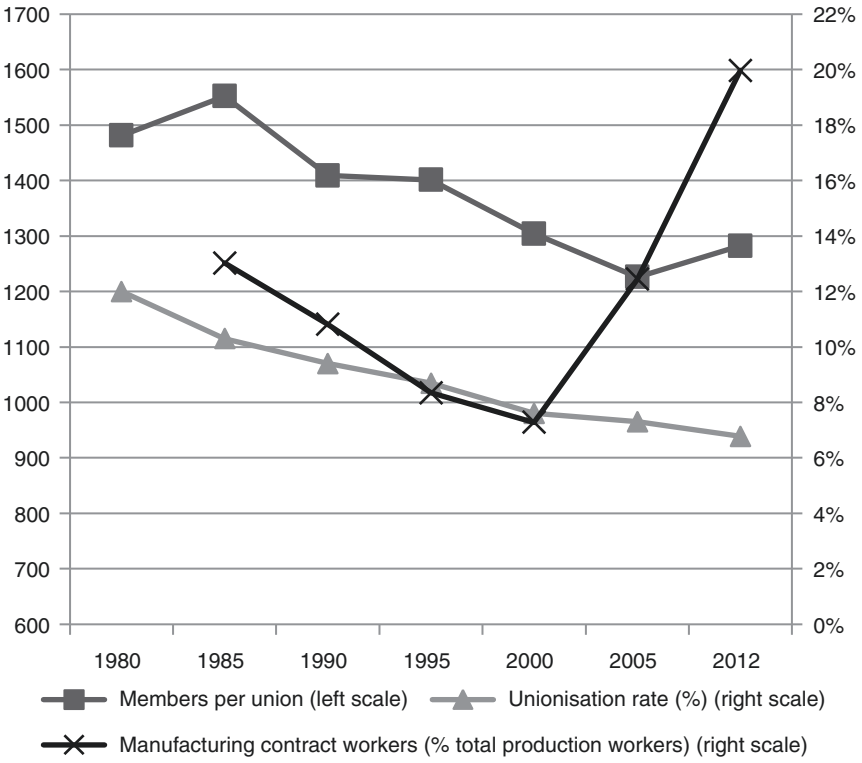

Fig. 5.4 Unions and contract labour in Malaysia, 1980–2012

Sources: Calculated by the author from Malaysian Trades Union Congress (www.mtuc.org.my), *Labour and Human Resource Statistics*; Yearbook of Statistics; *Annual Survey of Manufacturing Establishments.*

the importance of work security and employee stake-holding (Standing 1992). The continuous decline in unionisation, and in the size of unions, are other significant labour market traits that arguably impede technological upgrade and perpetuate overwork-based production. The steep rise in contract in the 2000s, even in manufacturing production (compared to ancillary services such as cleaning and food catering, which are increasingly outsourced), undermines compliance with labour and safety standards, since the labour contractor does not own the workplace.

Malaysia's transformation, by most estimations, should include the ideals of political freedom, democratic maturity, good governance, and civic empowerment – as development objectives with intrinsic value and as pillars of economic progress (Kanapathy and Herizal 2013). Of course, official rhetoric has pronounced commitments to democracy, knowledge-based society, and transparent, responsive and accountable government, but progress on these fronts lags behind economic attainments. Political change in the form of expanding democratic space expectedly encounters resistance from regimes that preserve power through constricting such spaces. At the same time, the prospects of democratisation and transparent, accountable governance have consistently contended against policy ambivalence and outright resistance.

The Malaysian state has propagated economic development as the higher priority with socio-political maturity being given lesser importance. Vision 2020 articulates aspirations for democratic maturity and a liberal and progressive society, albeit with various qualifications and limits (Mahathir 1991). Then Prime Minister Dr Mahathir Mohamad, the progenitor of the Vision, undermined the judiciary, muzzled the media, and evinced contempt for civil liberties and human rights. He was candid about corruption being a trade-off for economic growth and rising incomes: 'There has undoubtedly been an increase in embezzlement, bribery, breaches of trust, money politics and greed. But this must not result in faint hearts, or any attempt to return to the old ways and a culture of poverty' (Mahathir 1998: 123).

The post-Mahathir period saw an ebb and flow of both authoritarian rule and verbal commitment to democratic reform. Under the Abdullah administration (2003–09) Malaysia experienced less repressive governance and opening of public discourse, especially in media channels and online spaces. It was less apparent, however, whether accountability and transparency improved in the conduct of parliament, the executive, bureaucracy, and judiciary. From 2009, Najib as prime minister made promises of legislative reform, ostensibly to limit arbitrariness and abuse of power. However, the ruling regime remains wedded to power preservation through patronage, populism, and corruption; pressures to protect vested interests and curb public scrutiny continue. In contrast to the push for high income by 2020, the government applies the lightest of intent and action

in democratic reform and expansion of freedom. Public administration has undergone changes: its efficiency has improved, the establishment of business and investment activities is easier, and IT broadens the scope for alternatives to the steeply partisan and biased mainstream media. Nonetheless, Malaysia's politics persist in electoral authoritarian mode, perpetuating and in some ways intensifying a system that ultimately militates against its own transformational aspirations.

4 Capability and Competitiveness: Stuck in the Middle

4.1 Education and Employment: Quantity and Quality

A hallmark of development success, and both a resource and outcome of transformation, is the mass cultivation of capability, primarily through the educational system. Malaysia is nearing the cusp of high income status, but capacity for bolstering growth through importing technology, exploiting resources, and promoting investment diminishes. Malaysia needs to build capabilities, which lag behind those of advanced countries and are harder to accumulate at accelerated pace or through importing resources and talents. Population growth imposes a natural constraint on the increase in human resources; migration can bolster the workforce but inflows cannot replicate the magnitude of mobile capital; it also introduces socio-political complexities.

Education seems to have an acknowledged sequence, with expansion in provision, particularly of primary and secondary schooling, an unquestionable priority in developing countries. Alongside quantitative gains, sustaining or even raising the quality of education presents a challenge, which is heightened in importance for upper middle income countries such as Malaysia. The country has done a commendable job in increasing school enrolment and completion rates and steadfastly allocating public expenditure for education. Among the employed, the share of those who have completed tertiary education rose from 3.6 per cent in 1980 to 24.2 per cent in 2010, while the share of those who had only primary schooling or

less fell from 62.4 per cent to 20.3 per cent and those who had secondary schooling grew from 34.0 per cent to 55.5 per cent.

The concept of capability here extends socioeconomic development beyond the more quantitative realms of educational enrolment and formal qualifications toward the permeation of skills, knowledge, and resourcefulness in the workforce and in society. Maintaining competitiveness in a high-wage setting requires harnessing and innovating technology. In a multi-disciplinary context, desired transformations are also manifested as informed and empowered citizens and a dynamic, participatory society. Among obstacles to Malaysia becoming a society characterised by high capability and competitiveness, three are spotlighted in this section. A credible transformation involves reducing the proportion of low-skilled migrant labour, reversing the decline in quality of education, and reforming affirmative action for greater efficacy and perhaps eventually phasing it out.

The expansion of education has enhanced the profile of the labour force. However, the official figures grossly undercount foreign migrant workers (of whom over 4 million are believed to be undocumented), typically involved in low-skill and low-wage activities. The undocumented, by definition, evade official notice; their inclusion in statistics, thus, can only be done by extrapolation. Figure 5.6 shows the educational attainment of the labour force in Malaysia, with Malaysian citizens and non-citizens markedly differentiated. This composition of foreign workers, numbering 1.4 million according to the government's Labour Force Survey, is then scaled up in proportion to the estimated total number of foreign workers of 6.7 million.[2] Undocumented workers are most likely to be even less educated than the officially counted foreign workers in Fig. 5.5. Nonetheless, we arrive at a picture of the formal labour force plus undocumented workers, which more accurately captures the state of workforce capability than the formal statistics (Fig. 5.6). The difference is stark. After including undocumented workers, the estimates show that

[2] In late 2014, Minister of Human Resources Richard Riot disclosed that there were 2.1 million pass holders and 4.6 million undocumented workers, for a total of 6.7 million ('Foreign workers can control Malaysian economy if given the opportunity', *Bernama*, 11 November 2014).

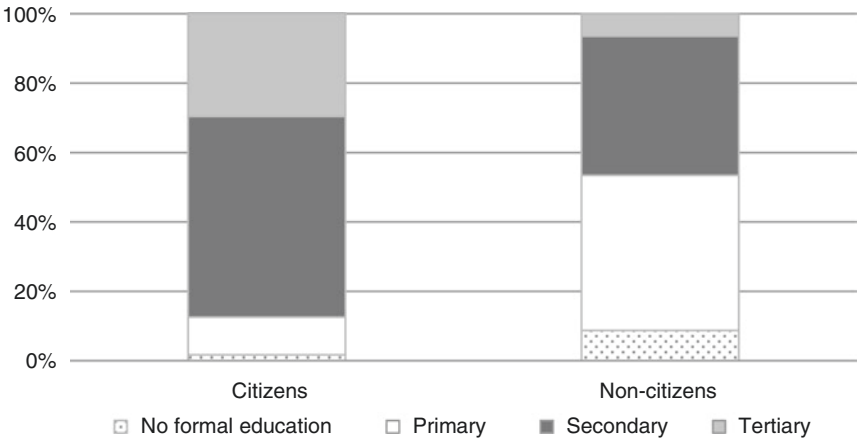

Fig. 5.5 Educational attainment of labour force: Malaysian citizens and non-citizens, 2014 (percentage of total)

Source: *Labour Force Survey Report* (2014).

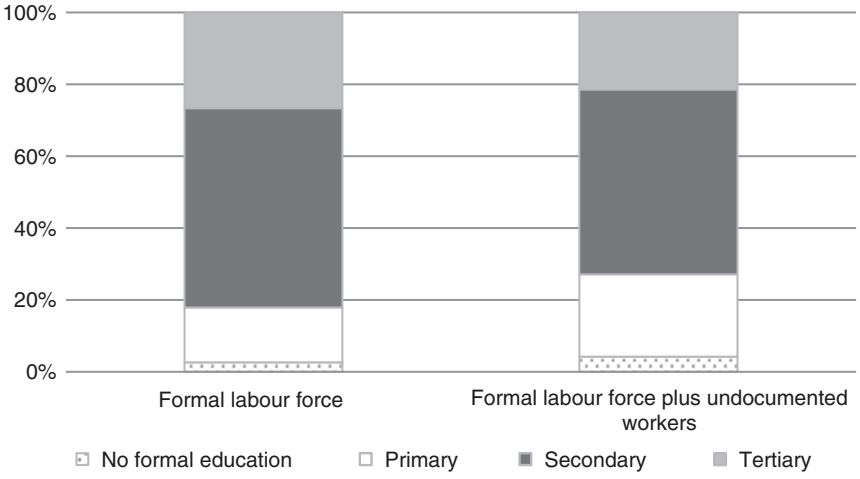

Fig. 5.6 Educational attainment of labour force: formal and estimated undocumented workers, 2014 (percentage of total)

Source: *Labour Force Survey Report* (2014).

almost 30 per cent of the workforce has only primary schooling or less. Dependence on low-skilled foreign labour is a highly complex problem, one that will need to be resolved for Malaysia to become a high capability society and a competitive, productivity-driven and high-wage economy.

One of the most formidable challenges for Malaysia is to stem the ebbing quality of schooling and learning institutions. National data on education quality are woefully lacking. Malaysia's national examinations can provide some reference points. However, objectivity in the grading process is questionable and inconsistency in content and difficulty levels detracts from the reliability of the results as indicators of student quality and the comparability of statistics across time. International standardised tests, across countries and time, fill the gap by offering a more credible basis for evaluating the state of Malaysia's schooling system. The Trends in Mathematics and Science Study (TIMSS) and Programme for International Student Assessment (PISA) can be used to gauge academic performance of schooling systems over time and for cross-country comparison (Cheong, Selvaratnam, and Goh 2011). In TIMSS mathematics, Malaysia's scores between 1999 and 2011 dropped by 79 points, the widest margin among the 21 countries that participated across that interval. Thailand and Finland followed and saw their scores fall by 40 and 38 points, respectively. In science, Malaysia fell 66 points, more than Macedonia (51 points) and Thailand (31 points). In the 2009 PISA, out of 74 countries, Malaysia ranked 55th in reading, 57th in mathematics, and 52nd in science. PISA's test of creative problem-solving, reported in April 2014, ranked Malaysian students 39th out of 44 countries (Table 5.2).

The skill shortages discussed in the previous section as a major constraint on business growth and technological upgrading, are deeply rooted in an education system that has regressed over past decades. As discussed by Kawano (Chapter 7, this volume), skill shortages pose a major constraint on the capacity of firms to acquire knowledge and innovate. The embarrassment from the international test scores and admission of Malaysian graduates' deficiencies in thinking, knowledge, and confidence have galvanised remedial responses, saliently in the Education Blueprint 2013–25 (Ministry of Education 2013). However,

Table 5.2 TIMSS, eighth grade cohort average score, selected countries, 1999–2011

	1999	2003	2007	2011
Mathematics				
Malaysia	519	508	474	440
Singapore	604	605	593	611
South Korea	587	589	597	609
Taiwan	585	585	598	609
Thailand	467	n.a.	441	427
Science				
Malaysia	492	510	471	426
Singapore	568	578	567	590
South Korea	549	558	553	560
Taiwan	569	571	561	564
Thailand	482	n.a.	471	451

Source: Mullis, Martin, Foy, and Arora (2012a, 2012b).

such a systemic and deep-seated decline will be difficult to redress, particularly with the regression of the teaching profession's esteem, morale, and ethos. Plans to uplift the profession continue to operate in a top-down, disempowering manner, with emphasis on procedural compliance and increased autonomy, largely, for administrators (Lee 2014b). Other policy priorities include the promotion of Technical and Vocational Education and Training (TVET) institutions and raising returns for investments in such fields. However, Malaysia's workforce development system, while proliferating in scale, remains highly fragmented: institutions are spread across manifold government ministries, have replicated functions and apparent political constituencies, and agencies are still weakly linked with industry (World Bank 2013).

4.2 Affirmative Action: Efficacy and Exit

Affirmative action programmes, involving preferential treatment to increase *Bumiputera* representation, span a wide range of sectors in Malaysia, from higher education to civil service, public procurement, enterprise development, and asset ownership (Lee 2005, 2014a). Our focus here is on interventions that build capability, particularly through education and enterprise development programmes. The scope and scale of

Malaysia's affirmative action regime are vast, and discourses on the subject are invariably enveloped in complexity and controversy, which we do not have the space here to delve into deeply. Preferential selection, particularly in the context of majority-favouring regimes, entails some losses in capability and competitiveness. The issue is not that many policy beneficiaries gain access with lesser formal qualifications, but how the policy is cultivating capability and competitiveness, which are pre-requisites for reforms in the direction of less direct and overt quotas. In the context of Malaysia's transformation, paramount questions concern the current efficacy of affirmative action in enhancing and sustaining capability, confidence, and self-reliance. This is vital for programmes to eventually be rolled back and for Malaysia to perhaps transition to selection processes that strike a balance of merit, socioeconomic background, and group representation, where such criteria are desirable and applicable.

Ethnic disparities have narrowed; this is undeniably one of Malaysia's notable successes. On the educational front, the *Bumiputera*, especially Malay, populations have progressed at a greater pace than other groups, in attaining educational certification (Lee 2014a). *Bumiputera* representation in occupational groups has broadly met the demographic proportionate target (Jomo 2004). *Bumiputera* equity ownership is more contested, with official accounts maintaining that less than the targeted 30 per cent has been achieved while other sources argue that the threshold has been surpassed[3] (CPPS 2006; M. Fazilah 2002). Notwithstanding the continuing debates, these quantitative gains by affirmative action's beneficiary group raise questions on the continuing legitimacy and necessity of the programme, as well as its supposed redundancy and outmodedness. A policy shift away from ethnicity-based affirmative action presupposes a readiness to transition away from ethnic preferential policies. Some argue that this is signalled by the establishment of a Malay middle class and an official undercounting of *Bumiputera* interest in equity ownership.

[3] The *Bumiputera* share of equity expanded from 2.4 per cent in 1971 to 19.3 per cent in 1990, then remained static at 18.9 per cent in 2000, before rising slowly to 21.9 per cent in 2008 and 23.5 per cent in 2011.

Malaysia's affirmative action programmes have fostered attainment of advanced qualifications, high-level positions, and asset ownership for *Bumiputeras*. However, shortfalls in cultivating capability, competitiveness, and confidence constrict the scope for rolling back preferential selection. While household income ratios reflect narrowing gaps in living standards at the broadest level, this far from proves that the entire community can manage without current forms of affirmative action. Political discourses across the partisan divide have advocated the need for more independent, self-reliant *Bumiputeras* and more meritocratic competition. However, such discourses mostly omit the question of preferential treatment and fail to apply qualitative analysis.

The issue suffers from a lack of direct confrontation and a dearth of information. Various data sources that could be qualitatively insightful are not tapped to anticipate policy outcomes. For instance, Household Income Surveys, which can be used to compute the earnings of professionals and managers, have only yielded general household income statistics. Nonetheless, we can glean information from numerous disclosures. Figure 5.7 reports *Bumiputera* representation in management, professional, and technical positions, as well as among registered professionals, showing a slowdown in gains in recent years. The slope of these benchmarks was steeper from the 1970s to about 1990. At this highly aggregated level, *Bumiputera* entry into these targeted occupations has tapered, reflecting a decline in the momentum of affirmative action (Lee 2012). *Bumiputera* entry to these upper rungs, and the broader formation of a middle class, remains dependent on the public sector (Torii 2003). In 2005, 52.5 per cent of *Bumiputera* professionals, compared to 22.4 per cent of Chinese professionals and 30.8 per cent of Indian professionals, worked as teachers and lecturers, predominantly in government (Malaysia 2006). Intensive affirmative action implementation in the public sector and among GLCs has sharpened Malay dominance in the bureaucracy and big business in various industries (Khoo 2005).

Unfortunately, discourses surrounding affirmative action are mostly mired in a polarised stalemate – defenders of Malay privilege ranged against contenders of minority interest – with misplaced faith in illusory, incoherent conceptions of 'need-based affirmative action' as a systemic

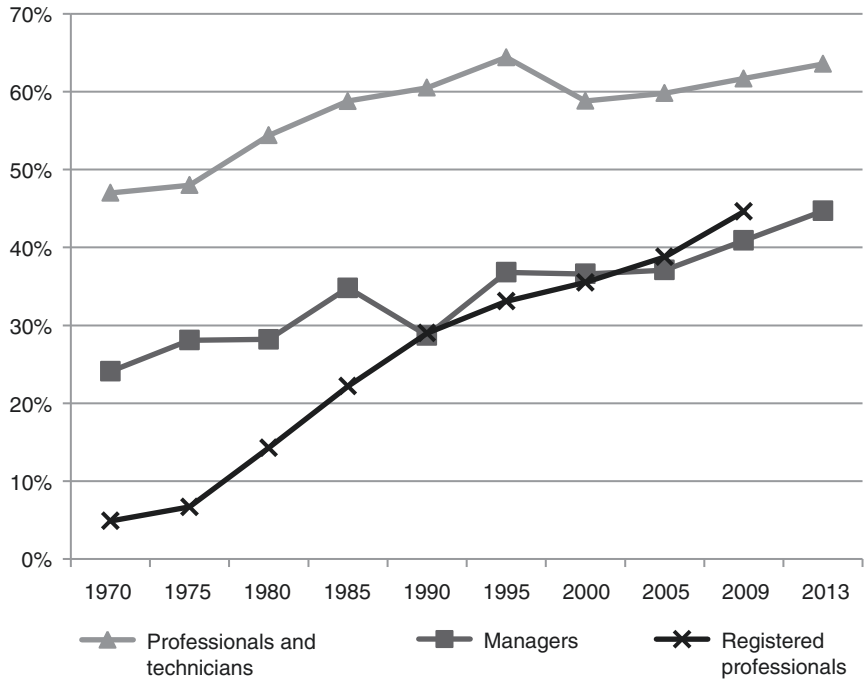

Fig. 5.7 Share of *Bumiputera* in high-level occupations, 1970–2013

Notes: 1970 and 1975 for peninsula only; occupational classifications changed in 1980 and 2000.

Sources: *Malaysia Plans*, various years (1971, 1976, 1991, 1996, 2001, 2006); *Yearbook of Statistics* (2009); *Labour Force Survey Report* (2013).

alternative for ethnicity-based affirmative action. Official and public mindsets seem to perceive, explicitly or implicitly, that perpetual execution of ethnicity-based affirmative action detracts from transformation and, except for ethno-centric exclusivist segments, support reform initiatives. Prime Minister Najib Razak's speech at the NEM launch in March 2010 pronounced a 'renewed' affirmative action policy that would be market friendly, transparent, merit-based, and need-based (Najib 2010). These claims were widely and warmly greeted; the prospect of expanded assistance to the needy and deserving brought comfort and relief, especially to non-*Bumiputeras*. However, this supposed reform agenda was also fiercely spurned by those fearful of the erosion of *Bumiputera*

privilege. Inertia and incoherence confound the necessary robust action. The thinking surrounding need-based preferential selection as a systemic replacement for *Bumiputera* privileged access is misguided and muddled (Lee 2014a). Accordingly, Najib has retained most of the affirmative action – even while propagating reform rhetoric – and reiterated commitments to *Bumiputera* empowerment (Malaysia 2010).

Scaling back preferential treatment in any form will contend against vested interests. The resistance to change is exceptionally weighty and spirited in the case of Malaysia's affirmative action, due to political solidarity defending status quo, extensive reach and social embeddedness of programmes, and dearth of proponents of genuine reform. Rent-seeking opportunities for politically linked persons, involving government contracts, licenses, and board membership, probably perpetuate affirmative action. However, *Bumiputera* preferential access to elite scholarships and boarding schools, and to tertiary education broadly, constitutes the most pervasive extension of benefit and arguably sustain broad resistance to change.

To a large extent, the removal of preferences hinges on the impetus and confidence of empowered Malay elite and middle class. However, such initiatives have never materialised, not even in education, where preferential treatment for lower income households and withdrawal of financial assistance for higher income households is both reasonable and feasible. Nor has it been seen in high-end property discounts, one of the least defensible affirmative action provisions that merely enriches *Bumiputeras* who already have substantial purchasing power.[4] The failure of real affirmative action reforms to gain traction – indeed, to even be proposed – and lack of critical mass in the Malay community

[4] Despite the scarcity of data, it is widely believed that Malay middle-class and elite progeny predominate in residential schools and receipt of MARA scholarships originally intended for the socio-economically disadvantaged *Bumiputeras*. The findings of Mehmet and Yip (1985) have been cited over the years. Drawing on a survey conducted at graduation ceremonies and capturing 45 per cent of the five domestic universities' graduating cohorts, Mehmet and Yip observed a generally skewed distribution of scholarships in favour of children of high income families, especially among Malays. In the late 1990s, a survey of *Bumiputera* scholars returning from overseas universities reported a 'slightly regressive' pattern of scholarship allocation based on family socio-economic status (Ball and Chik 2001). Students from higher income households who had more highly educated parents formed a disproportionately high share of the total scholars.

behind any call for a rollback in preferential selection, indicate that the ground has not been prepared for effective, transformative, systemic change. This is not merely a function of political expediency or resistance among the UMNO elite, as is often presumed. It is also due to less overtly political factors: lack of confidence, general perception among Malays that the policy remains necessary, and sentiments of indebtedness toward the state, especially UMNO.

Opinion poll findings are instructive. The Merdeka Centre's Malaysian Political Values Survey (2010), conducted in January–March 2010, found remarkably high levels of support among Malays and *Bumiputeras* for policies targeting the group and deriving from the group's special position. Presented with two positions and asked which one more closely represented their view, 21 per cent selected 'Assistance such as the NEP doesn't help Malays in the long run as it makes them dependent' (with 11 per cent strongly siding with this statement), while 72 per cent agreed (46 per cent strongly) that 'Malays/*Bumiputera* need all the help they can get to move ahead so programmes like the NEP should be welcomed'. Notably, the respondents were evenly split on their perception of the distribution of benefits, with 48 per cent agreeing that 'government programmes typically benefit ordinary people', and 45 per cent leaning to the view that 'government programmes generally benefit the rich and politically connected'. Affirmative action's durability evidently stems from both conviction of policy permanence and necessity and substantial appraisal that policies benefit regular people and not just elite and politically connected persons.[5]

While omitting reforms to vast swathes of ethnicity-based affirmative action, Malaysia has embraced 'need-based affirmative action'. This agenda discernibly derives from strong push factors, tapping into

[5] This survey was conducted in January–March 2010, on a randomly selected and nationally representative sample of phone respondents. The total sample numbered 3,141, with 1,602 Malays. In another pertinent finding, a considerable majority of Malay/*Bumiputera* respondents defended special position and privileged access. In a closer representation of their position, 59 per cent felt that 'as the original inhabitants of the country, Malays/*Bumiputera* should continue to be accorded with special rights and privileges'. This was in contrast with 40 per cent who were more inclined to the statement that 'people should be treated and accorded the same rights as Malaysians regardless of race or religion'.

popular sentiments akin to the abovementioned survey findings, and acquiring a veneer of validity in the form of bipartisan consensus. Disaffection toward concentration of wealth and access to state-sponsored largesse among UMNO-linked persons heightened the popular reception of 'need-based' affirmative action. An appealing tagline was worded: those who need help – that is, the poor, instead of ruling party cronies – will get help. This argument is fundamentally flawed. Three analytical missteps are worth pointing out.

The first springs from the absence of a clear concept of affirmative action, of the specific problem, and specific policy instruments being addressed by affirmative action (ILO 2007). The NEP's first and second prongs distinguished between poverty alleviation and affirmative action. It thus clarified that the former employed need-based selection and was anchored on basic provisions, while the latter was ethnicity-based and centred on upward mobility. The principal policy objectives and instruments of pro-*Bumiputera* affirmative action were to increase the group's representation in tertiary education, high-level employment, management, and ownership. These are distinct from pro-poor programmes that give preference to low-income populations in providing primary and secondary schooling, universal health services, infrastructure, and utilities. While the poor obviously have greater need for help, pro-poor assistance is fundamentally distinct from affirmative action intervention.

One cannot coherently and effectively shift from a system of pro-*Bumiputera* preferences to one of pro-poor preferences. Replacing ethnicity-based with need-based selection entails conferring preference on the poor in areas where preference was previously given to *Bumiputeras*: university admissions, public sector employment, government contracting and licensing, enterprise development schemes, and asset ownership (Lee 2014a). There is narrow and sector-specific scope for pro-poor preference replacing pro-*Bumiputera* preference. A weak socioeconomic background is a legitimate consideration for selection into university, within limits, since students from poor backgrounds will on average be less equipped for higher learning. However, it can scarcely be a valid and practical criterion for employment, contracting, or enterprise development schemes. 'Need-based affirmative action' would translate into

giving persons of poorer backgrounds priority in public sector recruitment and promotion and in awarding public contracts, licenses, and business opportunities. In these spheres, if *Bumiputera* representation remains a policy objective, then group identity constitutes the principal basis for granting preference. Hence, the available and practicable option is to select capable *Bumiputera* candidates, build capacity and confidence, and then find ways to scale back the preferential treatment.

Malaysia finds itself in an odd situation. It has proclaimed major reforms in this shift toward need-based affirmative action, while virtually doing nothing about ethnicity-based affirmative action. In fact, it has invigorated *Bumiputera* corporate development interventions, notably the formation of new vehicles, Ekuinas (started in 2009 as a government-linked private equity fund) and Teraju (founded in 2011 to coordinate *Bumiputera* business development), and the launch of the *Bumiputera* Economic Empowerment agenda in September 2013. When viewed with a clear concept of affirmative action, however, these contradictions are not surprising. Need-based affirmative action never offered a systemic alternative and market-friendly affirmative action merely entails selection of more capable *Bumiputeras* over less capable ones, not a dilution of *Bumiputera* privileged access. The country is evidently not ready for open competition. The Bumiputera Commercial and Industrial Community (BCIC) agenda also enjoys continuing primacy due to wealth accumulation opportunities. However, the heavy political interest behind the BCIC is often equated with its policy significance, feeding another cloud of confusion.

The second major analytical misstep in conventional affirmative action discourses stems from the equation of policy with the equity and wealth distribution arm, without recognising that it is only one of a range of interventions. This has quite weighty implications. First, alterations to equity distribution or *Bumiputera* enterprise development programmes, such as liberalisation in equity ownership regulations, have been sold as reforms to the entire system, thereby precluding scrutiny of other spheres of affirmative action, particularly in tertiary education and public sector employment. Second, affirmative action in education and employment are not only generally spared from critical evaluation but are often cursorily presumed as success stories – again, while equity

ownership is singled out as the problem child of affirmative action (Zainal 2012; Chakravarty and Roslan 2005). Notwithstanding the starker shortcomings in *Bumiputera* participation in business and asset ownership compared to university enrolment, affirmative action has also become a blunt tool in tertiary education. A coherent and credible analysis and reform perspective on affirmative action requires attention to all spheres of intervention and consideration of the persisting manifestations and implications of preferential selection, including the possibility that reforms may lead to declining *Bumiputera* participation in spaces where their presence has been promoted.

The third analytical misstep follows from a failure to grasp the disruptive effects of removing pro-*Bumiputera* preferences, especially regarding questions of meritocracy. Malaysia is trapped between a defence of *Bumiputera* privileges in their current manifestations and an advocacy of unacceptably disruptive reforms, a situation that perpetuates the status quo. The benefits of competition for fairness and quality in general, and *Bumiputera* empowerment in particular, are theoretically grounded, but the maintenance of *Bumiputera* presence is typically taken purely on faith. For instance, it is a widely expressed sentiment that policies should help truly capable Malay companies instead of UMNO-linked, corrupt rent-seekers, and hence selection for government contracts, licenses, and enterprise development opportunities should be competitive and meritocratic. However, this proposal is typically advanced without substantiation on the existence of sufficient numbers of qualified, non-UMNO linked Malay individuals and companies to step in and carry the baton. Eventually, the realisation sinks in that such proposals run the risk of precipitating a decline in *Bumiputera* participation, which is politically unpalatable and may trigger backlashes.

Similarly, criticisms of unequal access to public universities are often premised on different entry pathways. *Bumiputeras* overwhelmingly gain admission from the less demanding matriculation college system, where they benefit from 90 per cent reservation and relative ease in obtaining high scores. In comparison, non-*Bumiputeras* take the tougher Malaysian Higher Certificate Examination and may be penalised for lower grades earned. However, to propose full meritocracy, practically a single, nationwide entry examination raises the political spectre of declining

Bumiputera entry into university. In short, reform is forestalled because coherent, bold, and feasible proposals – in this case, the need to narrow the gaps in content and rigour of different university pathways as a precondition for expanding meritocracy – have not been brought to the table.

The field of government contracting, where Malaysia has various schemes for developing Malay enterprise, is also instructive. Out of 41,000 contractors licensed under the Ministry of Finance and eligible for government contracts, 94 per cent are *Bumiputera* (most of whom are Malay). Preferential access to contracts, with exclusive *Bumiputera* access to small contracts and a handicap system for larger contracts, has fallen short of its objective of grooming Malay businesses. The system in some ways stifles the process. Among the Malay contractors, 75 per cent are in class G1, the smallest on a scale of six (REFSA 2011). This underachievement triggers understandable but largely unproductive reactions, with the loudest calls for reform tending to advocate open, meritocratic, and competitive tenders without a programme and sequence of reforms. Evidently, a pro-poor, need-based preference defies logic and risks performance hazards: prioritising 'poorer' contractors biases selection toward the less competent. However, such reasoning has not entered the policy discourse. Rather, the government has equivocated by declaring need-based, market-friendly and merit-based affirmative action while executing policies that bear little resemblance to such purported reforms.

A coherent and honest conceptualisation of affirmative action in public procurement as a means for cultivating *Bumiputera* enterprise will admit that the policy can only operate on pro-*Bumiputera* preference, not pro-poor preference. In addition, the programme is more effective – and is more likely to be temporary – when *Bumiputera* contractors are selected competitively, provided dynamic incentives, and subjected to a gradual rollback of preferential selection. Merit-based affirmative action is a misnomer for merit does not supplant ethnicity as the selection criterion but reinforces the ethnicity-based preferential system. The application of sunset clauses (such as limits to the number of times a *Bumiputera* company can benefit from preferential selection) is eminently reasonable, as are incentives (such as bonus points for upgrading

technology or scale of operations). Such measures may potentially move Malaysia in the direction of enhancing capability and competitiveness. Their absence casts doubts over policy mettle and political will to confront vested interests and realise needed reforms.

5 Transformation in the Balance: Tougher Challenges Ahead

Key transformations on Malaysia's development agenda are hinged to the goals of escaping the middle-income trap and forging ahead to the ranks of high-income economies and fully developed nations. As discussed above, this economic pursuit is a mathematical waiting game, a question of maintaining trajectories. As long as Malaysia's economic growth exceeds that of high-income countries – or specifically, the threshold for qualifying as 'high income' – this status will be attained. The economy is on such a trajectory, although it is uncertain when the line will be crossed.

However, besides entering this club, national development also envisages high productivity, capability, and competitiveness. On these fronts, many challenges remain. Chronic dependence on low-skill, low-wage migrant labour undermines Malaysia's development, constitutes a major factor in the economy's premature deindustrialisation, and cannot be conducive in the long run for promoting high productivity, innovation, and value-added activities. Labour policy, however, persists along a rather 'low road' mode, and policies and legislation exhibit lack of decisive and effective attention to structural problems, especially chronic reliance on low-skill, foreign migrant labour, coupled with expansion of insecure employment through labour contracting arrangements. Minimum wages have been introduced, taking effect from 2013, but the hourly minimum wage rate remains a paltry $1.20. Accordingly, much production extracts long hours and overwork instead of high hourly productivity. Malaysia's definition of full-time employment, at 48 hours a week, entrenches production based on extracting labour through overwork and transient employment. Aligning this baseline to international norms of 40 hours per week will add impetus to productivity enhancement.

The other area of concern in Malaysia's transformation is the chronic decline in education, especially in primary and secondary schooling, and the rapid, overly diffused and parochial system of technical and vocational education, and unchecked proliferation of tertiary-level institutions. The deterioration is documented by downtrends in the country's ranking and absolute score in the TIMSS, and near bottom placing in the PISA tests. Of course, test scores offer limited insights, but Malaysia's significant drop in performance provokes doubt on the sufficiency of capability cultivated for the national aspirations for development driven by creativity, innovation, and productivity.

The increasing importance of generating economic growth through productivity gains heightens the need for innovative and creative efforts to flourish. It will be readily agreed that a dynamic economic environment and suitably skilled workforce are requisite factors. It is more open to debate whether political openness and democratic maturing stand to yield economic benefits, besides social and political freedom that confer more intrinsic value. Popular expectations of more democratic space, fair electoral processes, and public accountability have risen in Malaysia. This elicits a broader perspective than material outcomes, for good practices and institutions here are ends in themselves, regardless of economic benefits they may facilitate, although they can also act as an instrument or channel for realising economic gains.

Resistance to democratic political transformation is continually justified by an implicit belief that corruption, power abuse, and suppression of dissent may be tolerated with economic gains, efficiency and equitability in public services, and generosity in disbursement of social transfers. Malaysia's political system, aptly classified as electoral authoritarian, has resisted democratisation, and in some ways, has grown more authoritarian in recent years. The current approach of eliciting creativity, innovation, and dynamism from an authoritarian system will have to contend with strong odds, given that high income, advanced nations are overwhelmingly democratic. Therefore, from political and civic perspectives, Malaysia charts a perilous, self-conflicting course of repressing democracy while setting goals to transform into an inclusive society and fully developed country.

Ethnicity-based affirmative action policies remain extensively and intensively executed. Their relevance stems from the fact of their existence as well as the incoherence of need-based affirmative action as a systemic alternative. The motivation to transition from the current regime is understandable and widespread. Various programmes under the affirmative action /NEP banner have become deeply unpopular and widely reproached, particularly where they involve politically connected wealth accumulation and corrupt practices. However, while a window has apparently opened to openly advocate affirmative action reform, responses lack systematic analysis, opting for convenient and emotionally acceptable stances. The vocabulary of transformation further misleads; while trumpeting 'transformation', the core elements and vast resources of existing affirmative action programmes – especially in higher education – have been left untouched. Policy discourses should focus on efficacy as a precondition for reform and rollback of the current pro-*Bumiputera* preference, not on incoherent and unviable alternatives.

Malaysia's express endeavour to transform affirmative action emphatically lacks coherence, credibility, and efficacy. The prospects for policy reform are uncertain, partly because policy discourses have fixated on nebulous, muddled notions of need-based or market-based affirmative action. This avoids direct and critical engagement with challenging and contentious debates, especially over *Bumiputera* preference and actionable plans to transition away from overt, *Bumiputera* quotas. The lack of momentum behind genuine initiatives to roll back ethnicity-based affirmative action, especially in education where the potential for productive gains are arguably the greatest (as compared to acquisitive and rent-seeking tendencies of other spheres of intervention), reflects a deficit of *Bumiputera*, especially Malay, confidence to relinquish privileged access. Inter-ethnic inequality and entrenchment of *Bumiputera* preferential treatment undoubtedly pose some of the most intractable transformation challenges. These are compounded by vested interests in retaining privilege, lack of initiative and resolve among Malay elite and middle classes to reform, and confusion in policy discourses.

Instead of perpetuating contradictory claims of reforming policies while maintaining existing policies, effort will be better spent devising more effective policies, especially in tertiary education, which are focused

on capacity building and oriented toward productive, not acquisitive behaviour. It is quite commonplace to associate problems of ethnicity-based policies with ethnic politics. It is fair and adequate to posit that ethnic politics – conducted by ethnic political parties purportedly defending ethnic group interest within a framework of Malay hegemony – is a necessary but insufficient condition. Affirmative action is driven by political pressures, but its success is also meant to bring about its own redundancy and demise. The trouble in Malaysia is that, the policy's inefficacy and declining momentum are being perpetuated instead of being redressed. The result is to shrink the likelihood of such success, thereby precluding reforms that truly phase out the present regime of ethnicity-based preferences. The lack of vision casting and policy planning for making programmes effective and temporary does not bode well for the transformation in capability and competitiveness of the majority ethnic group of Malaysia.

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Part II

In Search of Continuous Improvement

6

Industrial Innovation in Thailand: The Electronics, Automotive and Seafood Sectors

Patarapong Intarakumnerd

Thailand has a mixed record in industrial development. Its average growth rate in the past 50 years has been relatively high, and it has transitioned from a low-income to a upper middle-income country. However, it has had limited success in deepening its technological and innovative capabilities. By examining three leading industries (electronics, automotive, and frozen seafood), this chapter illustrates that the situation has changed considerably since the late 1990s. Both foreign and local firms paid greater attention to strengthening their technological capabilities. Lead firms pressuring and incentivising other firms and sector-specific government policies have been important contributing factors to this trend.

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1 Introduction

Over the past 50 years, Thailand has achieved consistently high GDP growth rates, approximately 7 per cent per annum, and has significantly diversified its economy. Agriculture's contribution to GDP dropped from 44 per cent in 1951 to 11 per cent in 2014, while manufacturing's share soared from 13 per cent to 26 per cent in the same period. In terms of exports, the role of primary products has declined in relation to manufacturing, but agriculture has diversified significantly, as Thailand emerged as a leading exporter of primary products, including rice, rubber, sugar, cassava, prawns, canned pineapple, soy, and frozen sugar. The growth and diversification of manufactured exports, in sectors ranging from textiles to automobiles and parts, and electronic and electrical components has been impressive. The shares of electronic/electrical and automotive product exports increased from 0.04 per cent and 0.25 per cent in 1970 to 25.20 per cent and 6.68 per cent in 2006, respectively (Yusuf and Nabeshima 2009). Thailand's economic status changed from low-income to upper middle-income from 2003 owing to prudent macroeconomic management, early adoption of export and foreign direct investment (FDI) promotion policies, and investment in physical infrastructure and expansion of school and university enrolment (World Bank 1993).

Nonetheless, scholars such as Yoshihara Kunio (1988) strongly questioned the sustainability of Thailand's economic prosperity. Kunio described the Thai economy as 'ersatz capitalism'. Unlike Western countries, Japan, and first-tier East Asian newly industrialising economies (NIEs), the Thai economy overcame bottlenecks by employing foreign technology and capital and not by making serious efforts to increase its own savings or upgrade its technology. Kunio believed that such capitalism could not keep expanding. His prediction came true. Thailand experienced a major economic crisis in 1997. Economic growth rates have since decreased substantially to an average 3–4 per cent per year. Once rising stars, labour-intensive sectors like textiles, garments, toys, and footwear have lost their competitive edge to lower-wage countries. This fuelled growing concerns among Thai policymakers, and more recently the public, that Thailand would be caught in the

middle-income trap,[1] arising from the limited intensity of technology development in industry which has contributed to competitive weakness. This is reflected in numerous key indicators, at the macro level in trade performance and overall competitiveness rankings and at the firm level. Thailand's impressive economic growth rate in the past 50 years was achieved largely by utilising factor inputs. Strong evidence of this is the low total factor productivity (TFP) growth rate. This suggests that a country's economic growth depends on factors other than the growth of capital, labour, and land. Apart from education, and other social capital and institutional factors, progress in science, technology, and innovation is important. Even in a period of high growth, in 1987–95, when the economy grew at almost 10 per cent, the TFP growth rate was only around 1.5 per cent (NESDB 2007).

At the firm level, low technological and innovative capabilities and passive learning of Thai firms can be illustrated by the R&D and Innovation Community Surveys conducted by the National Science and Technology Development Agency (NSTDA). The R&D surveys were carried out every year but innovation surveys were conducted in 2001, 2003, 2008, and 2011. The proportions of firms undertaking R&D and innovation in the manufacturing and service sectors were quite small, around 8 per cent and 20 per cent, respectively, in 2011 (Table 6.1). This is much lower than in countries that have successfully deepened their technological capabilities, like South Korea whose share of innovating firms is more than 40 per cent. The data illustrates that firms in Thailand did not do enough to deepen their capabilities. Thus, not many firms have innovation either in terms of new or significantly changed products and processes.

Nonetheless, after the 1997 economic crisis, a few interesting positive changes took place in industrial sectors:

[1] The threshold, in terms of number of years, for a country to be in a middle-income trap is calculated by analysing historical income transitions. This cut-off is the *median number of years* that countries spend in lower middle-income and upper middle-income groups. The threshold *for moving from upper middle-income to high income* ($5,000 to $11,750) has been calculated as *14 years* (Felipe et al. 2012).

Table 6.1 Firms undertaking R&D and innovation in Thailand

	2001	2003	2008	2011
Firms undertaking R&D	1.70%	6.00%	2.43%	7.96%
Firms undertaking innovation	2.60%	5.80%	4.24%	20.73%*

Note: *As in previous years, in 2011 too, the survey followed the definitions of the Oslo Manual. However, more elaborate descriptions of different types of innovation were provided. Therefore, surveyed firms could better recognise if they had innovation. This may explain why the figure of innovating firms was higher than in previous surveys.
Sources: Reports on R&D /Innovation Surveys 1999, 2001, 2003, 2008, 2011 by NSTDA and Report on R&D /Innovation Survey by National Science, Technology, and Innovation Policy Office.

(a) Several large conglomerates such as the CP Group and Siam Cement Group increased their R&D activities. One large conglomerate invested 500 million baht on R&D in 1999, after the financial crisis convinced executives that long-term survival depended on deepening technological and innovative capabilities. Importing off-the-shelf technology and knowledge necessary for simple production would no longer suffice. This finding is in line with a study by Akira Suehiro (Chapter 2, this volume), which demonstrates that large Thai firms have become more innovative especially in resource-based and service industries.
(b) Numerous smaller companies recently increased their technological efforts by collaborating with university R&D groups, to stay ahead in the market or seize the most profitable market section.
(c) Several subcontracting suppliers in the automobile and electronics industries were forced by their foreign customers/partners to strengthen their efforts to modify product design and improve efficiency and absorb design and know-how from foreign experts.
(d) New start-up firms (less than 50 employees) rely on their own design, engineering, or development activities. These companies are managed by entrepreneurs who have acquired a strong R&D background while studying or working abroad. Many of these are 'fabless' companies (Intarakumnerd, Chairatana, and Tangjitpiboon 2002).

Similarly, the financial crisis has led to some changes in government policies. New policy initiatives pay greater attention to developing indigenous technological and innovative capabilities. The Board of Investment (BOI), for instance, has launched a special investment package promoting 'Skill, Technology, and Innovation' (STI). Firms can enjoy one to two years' extra tax incentives if they perform the following in the first three years: spend on R&D or design at least 1–2 per cent of their sales, employ scientists or engineers with at least a Bachelor's degree as at least 5 per cent of their workforce, spend at least 1 per cent of total payroll on training their employees, and spend at least 1 per cent of total payroll on training personnel of local suppliers. In addition, the National Science, Technology, and Innovation Act was enacted in 2008 to provide a framework for public and private sector institutions to strengthen the nation's STI capabilities. These include Skill and Technology (S&T) manpower, S&T infrastructure, public awareness of S&T, and S&T management and administration systems. Creating and commercialising intellectual property rights is emphasised by this new law. It facilitates a new supra-ministerial structure with the National Science, Technology and Innovation Policy Committee to be chaired by the Prime Minister. Members of the Committee include ministers from key ministries relevant to science, technology, and innovation and respected resource persons. After 2009, government policies were initiated to promote a 'creative economy' based on creativity, talent, and the unique Thai culture (called 'Thainess'). Policymakers pay a lot of attention to 'creative industries' like Thai food, crafts, massage and spa, films, multimedia software, and so on.

To understand Thailand's technological capability development and innovation better, this chapter analyses stages of development in three leading industrial sectors: electronics, automotive, and food. These were the top three export products in the country. In 2014, electronic products contributed 15 per cent of total export, automotive products 14 per cent, and agro-manufacturing products 12 per cent. Major innovation has taken place in these three sectors, especially in the past 10 years. This will be discussed extensively in the following sections.

2 Technological Capability Development and Innovation in the Electronic Industry

After the financial crisis, exports of electrical and electronic products increased sharply from $23 billion in 2000 to $45 billion in 2014. Most international trade in this sector is in intermediate goods, that is, electrical and electronic parts and components. The E&E industry workforce increased from around 300,000 in 2001 to 400,000 in 2011 with an observable representation of migrant workers from neighbouring countries. The workforce in this sector would be stable while the automotive, petrochemical, and chemical and plastic sectors would be the fastest growing (Intarakumnerd, Chairatana, and Chayanajit 2016). The MNC subsidiaries in Thailand have managed substantial technical acquisition and upgrading in the past two decades, while R&D activities for new product or process innovation are still mainly conducted outside the country (Hobday and Rush 2007). Research and innovation activities among Thai large corporations are not high but have increased, particularly in integrated circuit (IC) and appliance design (Intarakumnerd, Chairatana, and Chayanajit 2016). Most SMEs in the electronics industry are original equipment manufacturers (OEMs) for MNCs (Table 6.2). Firms with innovation are low and among such firms, process innovation is higher than production innovation. The number of innovative Thai firms roughly equals the number of innovative joint ventures (with foreign partners). These innovating firms spend much more on acquiring machinery and external knowledge than internal R&D. This is typical of latecomer firms where knowledge for innovations largely comes from outside. However, they make an internal R&D effort to generate their own innovations and increase the capacity for absorbing such external knowledge.

The manufacture of hard disk drives (HDD) is a leading subsector in Thailand's electronics industry. Thailand is one of the world's largest HDD manufacturing bases. In 2012, it held an approximately 40 per cent share of the global HDD market, accounting for 577 million units. The Thai HDD industry employs more than 200,000

Table 6.2 Structure of Thai electrical and electronic industry in 2016 (%)

	Assemblers	Parts suppliers
Local firms	43	60
Foreign/joint venture	57	40
Total	100	100

Source: E&E Intelligence Unit, Thai Electrical and Electronics Institute (http://eiu.thaieei.com/Directory.aspx).

people. The sector is dominated by two global leaders, Seagate and Western Digital, although there are more than 50 parts producers. Most of the first-tier parts-makers that supply critical parts to Seagate and Western Digital are foreign-owned firms or joint ventures dominated by foreign partners. They are located in the central and north-eastern regions of the country. Together, these firms constitute an impressive cluster and, according to an in-depth study by AIT/Asia Policy Research (2003), exhibit strength in investment, process development, and industrial engineering. Despite this growth, the industry has exhibited significant weaknesses. The study found that the firms showed weaker capabilities in product engineering and innovation (than in process engineering), although US firms seem to have gone further in building these capabilities in their Thai operations than their non-US counterparts. The industry's domestic value added remains low at 31 per cent, although value added in HDDs is relatively high compared to the average of the whole Thai electronics sector. Recently, Seagate and Western Digital expanded their activities beyond assembly in Thailand, to process engineering and process R&D.

Why was the HDD sub-sector more successful than others in the electronics industry? This was largely due to industry-wide efforts, by the private sector and a few government agencies as well, to boost technological capabilities and infrastructure and human resources over the past 15 years.

In August 2004, The International Disk Drive Equipment and Materials Association (IDEMA), an industrial association for HDD firms, worked with NSTDA, a leading local research institute, to set up a cluster management organisation. Its steering committee comprises Chief Executive Officers (CEOs) of the four MNCs, local research

institutes, and representatives of key governmental organisations like the BOI. The organisation, which was later named the Hard Disk Drive Institute (HDDI), was headed by a technopreneur-cum-university professor who used to work for the industry and understood its needs. This organisation is pushing future projects aimed at upgrading the capabilities of the entire industry, such as joint training programmes and collaborative R&D projects. The training courses focus on skills and knowledge critical for technology upgrading. Since the project started, Thai engineers and researchers, even those not employed by MNCs, have been sent for 1.5-year training at the headquarters of MNCs like Western Digital, in the US. On returning, they organised training courses for other Thai engineers and researchers and helped MNCs set up R&D laboratories in Thailand. This was the first step in changing Thailand from just a production base to an R&D base for MNCs, although the R&D was initially aimed at upgrading the production process rather than developing any new product.

With financial support and coordination by HDDI, industry/university cooperative research centres – that specialise in HDD components, HDD advanced manufacturing, and data storage technology and applications – have been set up in Konkaen University, King Mongkut's Institute of Technology Ladkrabang, and King Mongkut's University of Technology Thonburi. These centres created research networks of professors and researchers in these specific fields. The HDDI provided research funding through these centres. Industrial relevance is the prime concern of their research. Before submission, all research proposals must be certified by private companies.

Some relationships between MNCs and Thai universities have changed from short-term, technologically unsophisticated, and personal to longer-term, technologically advanced, and institutional ones. Western Digital collaborated with Suranaree University to devise a new curriculum for a special engineering Bachelor's degree programme focusing on HDD technologies. Western Digital will employ the programme's graduates. In their third year, students enrolled in the programme received 75 per cent of the salary that would be paid to a graduate (Intarakumnerd and Chaoroenporn 2013).

Several collaborative research projects have been launched under the three industry–university cooperative research centres supported by HDDI, for example: the development of an optical system for measurement laser spot size reduction of flying height tester (funded by Seagate), control and automation research unit (funded by Seagate), development of an algorithm for read/write hard disk head inspection using digital image processing phase 2 (funded by Western Digital), design and development of automation production for head stack assembly (partially funded by Western Digital), and automation (funded by Seagate).

The HDDI is trying to assist Thai suppliers (mostly SMEs) to participate in the global value chain of MNCs. It provides training courses for Thai firms who have been unable to qualify as suppliers of MNCs. The courses focus on critical skills such as automation to meet MNCs' requirements. Thus, HDDI has tried to enhance spillover impacts from MNCs and absorptive capacities of Thai firms and non-firm actors. Its role as an 'intermediary' facilitating interaction and collective learning in the HDD sector is remarkable and unique. Its most significant contribution was human resource development for the Thai HDD industry. Between 2006 and 2009, a network of 15 universities was set up; two testing laboratories were established; an HDD technology training centre was co-founded by HDDI and Western Digital (21,736 people joined); and 644 scholarships for HDD technology study were distributed to 202 Bachelor's, 412 Master's, and 30 Ph.D. students. As of September 2014, 517 students had graduated although only 144 entered the HDD industry (Sutthijakra and Intarakumnerd 2015).

The success of the HDD sub-sector is different from others in the industry. Thailand's semiconductor sub-sector, for instance, accounts for one quarter of the total electronics exports. It has been dominated by MNCs. However, collaboration and networking among semiconductor firms in Thailand has been limited. The industry is characterised by passive technological learning, although some remarkable firms have made significant attempts at upgrading. No specific government policies or effective sector-specific agencies are available to support the industry.

3 Technological Capability Development and Innovation in the Automotive Industry

The automotive industry in Thailand started in the early 1960s under an import substitution policy and a revision of the investment promotion law to encourage automotive assembly in Thailand. The industry has contributed significantly and increasingly to the Thai economy in terms of value added and employment, especially since 2001. An adequate pool of qualified engineers and technicians and an extensive supplier network that enables integrated production have made Thailand the strongest automotive production base in Southeast Asia. Car makers and first-tier and second-tier suppliers in the automotive industry employed about 350,000 persons and accounted for 7 per cent of the country's total value added in 2011. Currently, firms in the industry can be classified into three groups: 17 car assemblers, 648 first-tier suppliers, and around 1,700 second- and third-tier suppliers including supporting companies. Most of these are small- and medium-sized companies (Fig. 6.1). Most assemblers are subsidiaries of MNCs. They are dominated by Japanese MNCs and the big three American car companies, namely Daimler Chrysler, General Motors (GM), and Ford (whose prime objective is to produce and export one-ton pick-up trucks from Thailand).

Nonetheless, indigenous Thai suppliers mainly supply 'non-functional' products such as automobile body parts, accessories, and others, while foreign suppliers provide 'functional' parts, requiring higher manufacturing and design capabilities to produce, such as engines, electrical transmission, and suspension parts (Table 6.3).

Before the 2000s, these carmakers only undertook production in Thailand, while more sophisticated activities like design and R&D were conducted in their home countries. Since the 2000s, MNCs' investment strategies in the automotive industry have begun changing, as many firms designated Thailand as their regional or global export hubs. For better coordination between production and development, these companies began investing in more technologically sophisticated

Table 6.3 Automotive OEM suppliers, classified by parts supplied

Parts	Thai	Thai majority	Foreign majority	Total
Engine parts	20	8	35	63
Electrical parts	15	10	27	52
Drive/transmission	17	6	29	52
Suspension/brake	13	1	21	35
Body parts	57	17	47	119
Accessories	18	2	19	39
Others	214	24	111	349
Total	354	68	287	709

Source: Automotive Intelligence Unit, Thai Automotive Institute (TAI), 2014 (http://www.thaiauto.or.th/2012/services/Automotive-Intelligence-Unit.asp).

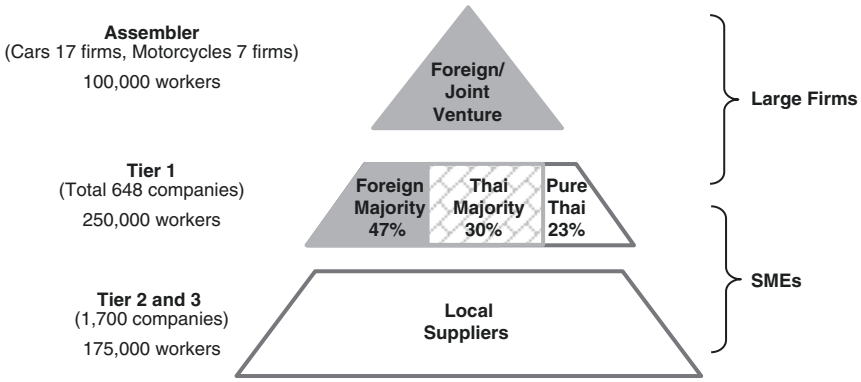

Fig. 6.1 Structure of manufacturers in Thailand's automotive industry

Source: Automotive Intelligence Unit, Thai Automotive Institute (TAI), 2014 (http://www.thaiauto.or.th/2012/services/Automotive-Intelligence-Unit.asp).

activities beyond simple assembly, such as advanced engineering, process and product design, and advanced testing and validation.

Several major automotive MNCs (mostly Japanese) set up technical centres in Thailand, apart from their normal production plants (for example, Toyota Motor Asia Pacific Engineering and Manufacturing Co. Ltd; Nissan Technical Center Southeast Asia Co. Ltd; ISUZU Technical Center Asia Co. Ltd; and Honda R&D Asia Pacific Co. Ltd).

The R&D activities of these companies initially focused on modifying existing products to fit local demand and exploit local advantages, such as appropriate local natural raw materials and parts to meet international standards or standards of importing countries such as EU regulations. More advanced product design is slowly being carried out in Thailand. Nissan, for example, used to carry out only mass production of final products in Thailand; now, sophisticated activities like clay modelling, vehicle planning, and simulation are conducted at its Thai technical centre.

The College of Management, Mahidol University (2006) conducted an extensive study based on the adoption of technological capability framework developed by Bell and Pavitt (1995). The study examines the technological capabilities of six groups of automotive component suppliers: suspension and brake, interior, exterior, engine, electronics, and drive transmission. The results suggest that, in general, component suppliers in Thailand could be classified into two categories based on level of technological capabilities. Those in suspension and brake, interior, and exterior had relatively higher capabilities and the potential to compete regionally and internationally. The other three, engine, electronics, and drive transmission components, have lower capabilities, since their underlying technologies are more sophisticated and require proprietary knowledge belonging to MNCs.

Interestingly, the study illustrates that Thai-owned firms had higher capabilities than foreign-owned firms or joint ventures in terms of making investment decisions, product development, linkages with customers and markets, and linkages with supporting institutes. Foreign-owned firms had higher capabilities in project management, quality control, and linkages with material and technology suppliers. This was because in some areas, Thai firms needed to make their own investment decisions and carried out product development activities by themselves, collaborating more with local research and supporting institutions to compete with foreign competitors. They could not rely on technology supply and technical assistance from parent companies like foreign-owned makers or joint ventures. For instance, Daisin, a majority Thai-owned supplier,

managed to stay on as a first-tier supplier for several decades. It was established in 1979 to manufacture aluminium casting parts for the automotive industry as a foreign joint venture with Nissin Koygo Co. Ltd (the Thai partner being the major shareholder with 67 per cent ownership). The company hired a retired Japanese engineer to help improve its production capability and negotiate with Nissin to significantly lower its royalty fees. Later, it hired other Japanese technical consultants to help develop its own design capability. Eventually, the company could work closely with customers (car makers) to suggest a new design for handbrakes and a new lighting system. On the other hand, foreign parts-makers' investment strategies had to be in accordance with their parents' strategies, and most product development was done in parent companies or headquarters.

The success of the Thai automotive industry in terms of production expansion, and, to a lesser extent, technological upgrading can be partly attributed to government policies. The industry started in the early 1960s under an import substitution policy and a revision of the investment promotion law to encourage automotive assembly in Thailand. During 1961–69, nine assembly plants were set up as joint ventures between Thai and foreign carmakers. To boost investments in the domestic production of automotive parts, in 1969, the Thai government imposed a minimum local content requirement of 25 per cent on automotive assembly. Before local content requirements came into being, some Japanese parts-makers had already entered Thailand to produce spare parts. New vehicles (both passenger cars and commercial vehicles) were purchased through Completely Knocked Down (CKD) imports from Japan. After the requirement was enacted, carmakers had to start purchasing locally. However, Japanese carmakers could not rely on Thai owned firms, and requested affiliated Japanese suppliers of automotive parts to build plants locally and supply to them.

In the late 1970s, with the aim of reducing the trade deficit and boosting the industry, a localisation policy was formulated. In addition to import bans and raising tariff rates on CKD and Completely Built Units (CBUs), the Thai government limited the number of automotive

models and increased the local content requirement from 25 per cent to 50 per cent for passenger cars. Faced with low demand in the Thai automotive industry in the early 1980s, carmakers preferred in-house production to subcontracting for casting machine activities and produced automobiles themselves to utilise excess production capacity. To further boost the development of the parts industry, the government raised the local content requirement to 54 per cent for passenger cars and 60–72 per cent for pick-up trucks. This gave rise to new investment in automotive parts. It facilitated the transfer of technology to the Thai automotive industry.

In the late 1980s, the appreciation of the Japanese yen pushed up the cost of major automotive parts imported from Japan. This triggered the relocation of Japanese parts producers to Thailand, to reduce production costs. As indicated by the huge increase in FDI inflows, the MNCs' involvement in the Thai automotive industry increased for both carmakers and parts-suppliers. Japanese parts-suppliers established new affiliates for manufacturing new and more sophisticated parts. In the mid-1990s, the Thai government also assigned one-ton pick-up trucks as 'product champions' for the automotive industry. Tax incentives and other forms of promotion were specially implemented, leading to remarkable investment in and subsequently exports of this product. Thailand is now the second largest production base for pick-up trucks after USA (Intarakumnerd and Charoenporn, 2013).

Thailand faced an economic crisis in 1997. To help affected companies improve their liquidity positions, the BOI removed the restrictions on foreign shareholding in November 1997. Previously, the policy required majority ownership to be held by a Thai national. Many investors, mostly Japanese, took advantage of this new policy. From November 1997 to September 2000, foreign partners in 164 automotive firms changed their shareholding status from being minority to majority shareholders (Charoenporn 2001). FDI inflows in the Thai automotive industry increased further and reached a record high by 2007. In 2004, the BOI substantially changed its policy by paying more attention to issues underlying long-term competitiveness, namely, developing indigenous technological capability and human resources. A special investment package promoting STI was initiated with extra tax incentives for

spending on R&D or design, employing skilled labour, training employees, and training suppliers' personnel (as discussed in Section 1).

In the late 2000s, economical and eco-friendly cars or 'eco-cars' became the second product champions. Incentives and significant requirements on producing four out of five engine components locally were given to interested carmakers. This new product champion is a part of the Master Plan for Automotive Industry (2012–16) which aims to establish Thailand as a global green production base. Consequently, Thailand has become the hub of eco-car production in Asia. Nissan's March and Honda's Brio, for instance, have been produced and exported to the global market from bases in Thailand.

In addition to these government policies, the Thailand Automotive Institute (TAI) was established in 1998 to strengthen cooperation between the government and private enterprises to enhance the competitiveness of the Thai automotive industry. TAI is now a sector-specific promotional and intermediary agency for the automotive industry. Administratively, it is not part of the national bureaucracy but comes under the Industry Development Foundation set up by the Ministry of Industry. Therefore, its administration is rather flexible; it is not subject to the rules and regulations of ordinary government agencies and state enterprises. Its governing committee, headed by the Permanent Secretary of Industry, comprises representatives from the government, private sector, and academics.

The institute compiles, studies, and analyses data which are used to support recommendations, guidance, and warnings to the private sector, or organisations related directly and indirectly to the automotive industry. TAI's most prominent study is the Master Plan for the Thai Automotive Industry. To date, TAI has been asked to draft two master plans for the industry by the Office of Industrial Economics under the Ministry of Industry. The first covers 2002–06, and the second covers 2007–11. TAI defines competitive capability building of parts manufacturers as one of its important tasks. It has a database of 2,000 parts manufacturers. TAI would like to upgrade technological and innovative capabilities of these companies through its consultancy and testing services. (It has a testing centre in Bang Pu, close to Bangkok.) Most of its activities in this regard involve testing components and parts

produced by these companies to ascertain if they meet international standards (and thus qualify for export or for being part of TCs' value chains). This task is critical to Thai parts manufacturers who do not have expensive and sophisticated in-house testing facilities. However, due to lack of budget and personnel, TAI cannot do much in terms of upgrading the capability of these companies to meet such international standards.

Considerable help was provided to private firms by the Automotive Human Resource Development Project (AHRDP) in 2006–11. This programme was a collaboration between Thailand and Japan. Apart from TAI, the Federation of Thai Industries joined the program. The Japanese side was led by Japan International Cooperation Agency (JICA), Japan External Trade Organisation (JETRO), and Japanese Chamber of Commerce (JCC). The programme aimed to upgrade the capability of local auto parts manufacturers. It focused on enhancing Thai automotive workforce capabilities. The goal was to equip graduates of the programme to train other people in their companies or supplier partners. Four leading Japanese companies participated in the programme by providing training experts and course materials in their specialised area – Toyota (Toyota Production System), Honda (mould and die technology), Nissan (skill improvement), and Denso (manufacturing skill and mind management). Training covered theoretical knowledge, hands-on skills, and work attitudes. Thai university professors were invited to teach theoretical courses. The auto parts manufacturers (either foreign owned, joint venture, or local firms) were invited to send qualified persons to participate. Executives of these companies were asked to show their commitment by sharing and taking turns to host other companies for factory visits. This was a remarkable programme. It created a pool of talented trainers and an enhanced awareness of the importance of human resource development in the sector. However, the results in terms of actual upgrading of Thai automotive workforce are ambiguous. Some companies, especially larger ones, set up training centres or training courses after joining AHRDP. The uptake was less enthusiastic among smaller companies.

4 Technological Capability Development and Innovation in the Frozen Seafood Industry

Thailand has become one of the world's largest and most advanced producers and exporters of processed food products. Its profound agricultural traditions and abundant natural resources, combined with significant investments in international quality standards, technology, and food safety R&D, helped Thailand attain the designation of sole net food exporter in Asia. In 2010, Thailand's export-oriented food industry generated $27 billion, a 30 per cent increase from 2007. Thailand consistently ranks as a major food producer not only regionally, but globally. It dominates numerous food export sectors, ranking first in the world for cassava and tapioca, canned pineapples, and seafood products (Board of Investment 2012).

In the global seafood industry, Thailand is a major player. In 2012, the value of its fish exports reached 264.4 billion baht ($8.8 billion). This makes Thailand the third largest fish exporter in the world, behind China and Norway. Thailand is also an important market in Asia. Its imports were valued at around 100 billion baht ($3.3 billion) in 2012. In the past decade, its frozen shrimp and cephalopod processing industries, as well as tuna canneries have witnessed considerable expansion. Thailand is now the world's largest producer and exporter of canned tuna and shrimp. Domestic raw materials, on the other hand, have been on a downward trend for the past decade due to the decline in marine-capture fisheries and aquaculture, and disease-related problems in the shrimp industry. Thailand has a huge seafood processing capacity but domestic demand is growing due to increased disposable income among local consumers. Thailand imports seafood raw materials from all over the world, and these are expected to increase further in the years to come.

The value chain of the seafood industry can be divided into three segments:

(A) Upstream: sourcing and producing raw materials, from the sea or farms;

(B) Midstream: post harvesting, sales, transportation, and early processing; and
(C) Downstream: processing, product development, freezing, and exporting.

Processed seafood has a higher value per kilogram than chilled or frozen seafood. More than 90 per cent of Thai seafood products are exported; most of these exports are chilled or frozen shrimp. More than 90 per cent of Thai exports are made-to-order products produced under OEM terms for foreign customers. Thai-owned brands, though starting to increase, are still far fewer than foreign-owned brands. Nevertheless, as Thai seafood products face competition from lower-cost countries like Vietnam and Indonesia, branded and more sophisticated products are important for the industry's survival. Thailand has been facing non-tariff barriers in the form of increased food-safety standards in developed countries. The Thai seafood industry has two major market segments: (i) chilled or frozen shrimp and (ii) chilled or frozen fish. Both are labour-intensive and low-tech industries. More than 85 per cent of raw materials in the shrimp industry come from farms, while most of the raw materials for the fish industry are caught from the waters inside and outside the country.

Unlike electronics and automobiles, the frozen seafood industry is dominated by locally owned firms. There are two kinds of seafood companies: large firms and SMEs. Large firms supply to both domestic and export markets. Most of them are still OEMs producing under the brand names of large domestic supermarkets and foreign customers. However, some of them have become Own-Brand Manufacturers (OBMs): CP Group, Thai Union Frozen, Surapon Food, Pacific Fish Processing (PFP), S&P, and Prantalay. These firms' OEM to OBM product ratio is around 1:1. Many large firms have received technologies from abroad through joint ventures. Large firms have full or partial vertical integration. They perform several activities in the value chain from farming to marketing and distribution. To ensure that they have enough high-quality raw materials, these firms either have their own farms or are engaged in contract-farming with local farmers, to whom

they provide larvae, necessary materials, and technical support. Some firms even have large fishing fleets for sea-fishing.

In the food processing stage, food technologists and engineers design new production processes and upgrade existing ones. This allows these firms to produce new products and reduce production costs. Most firms have their own R&D department for product and process innovations. Typically, R&D personnel have food science and food engineering backgrounds. Now, graduates in home economics and food chefs (domestic and international) are hired to work in these departments and develop (in collaboration with food scientists and engineers) new recipes for ready-to-eat and ready-to-cook products, ranging from Thai cuisine (green curry, red curry, yellow curry, fried basil or *kraprow*, papaya salad or *somtum*, rice porridge, and fried rice based on different tastes and ingredients), to oriental cuisine (Chinese dumplings, wonton soup, Japanese teriyaki dishes, and Korean-barbeque dishes), and Western cuisine (fish fillets, pizza, hamburgers, and sandwiches). Interestingly, fusion food based on creative mixes of different cuisines has been introduced. These new products were the results of convergences between science (new food packaging technology, new freezing and chilling technologies, and improved food logistics), art (creative and delicious recipes, artistic and attractive packaging, and interesting product storylines), and services (retailing practices in supermarkets and convenience stores as well as advertising).

Some firms have expanded their R&D activities by setting up culinary development centres to actively develop new processes and products with their customers, whom the firms view as the most important source of knowledge. Marketing departments work closely with R&D departments. Their jobs are to determine what new products customers need and to persuade customers that the firm's new products meet these needs. Several firms have had product innovations in frozen or ready-to-eat foods. Various recipes were developed to satisfy demanding customers with different tastes.

Process innovations have been undertaken to increase productivity, safety, and traceability. The CP Group owns several distribution outlets like Seven-Eleven and Lotus department stores in China. Another firm, S&P, was originally a chain-restaurant business that specialised in Thai

food. It expanded to produce packaged ready-to-eat food for the mass market under its own brand name.

Linkages with domestic and overseas customers are vital to learn about preferred technologies and styles of packaging, foreign-market regulations, and consumer tastes. This is particularly important for OEM products. Many firms export their products under their own brands. Some, like CP Group and Thai Union Frozen, became MNCs. CP Group invested in more than 20 countries. Thai Union Frozen set up its own subsidiaries in Indonesia, Papua New Guinea, and Vietnam, and took over leading food-processing manufacturers in USA, Canada, and France. Apart from access to markets, these firms invested in developing countries to exploit existing capabilities developed at home. Investing in developed countries allows them to tap into advanced knowledge, international brands, and extensive distribution networks.

Linkages between large firms and universities have become increasingly significant in recent years. These take several forms: joint or contracted research to develop new products, personnel training, and student internship. Kasetsart University's Faculty of Agro-Industry, for instance, provides courses in production processes, product development, and marketing. It contracted research with large firms on raw material analysis, production process improvement, and product development.

Like large firms, SMEs supply to both domestic and foreign markets. However, most SMEs are family businesses relying on imported technologies. Technological development is limited to minor adjustments in imported machinery and equipment. Most SMEs do not have efficient energy- and waste-management systems. Unlike large firms, which pay attention to continuous development, SMEs implement quality control systems only to pass minimum certification requirements. R&D activities are lacking. Product and process development is passive; that is, their ambitions do not extend beyond satisfying the immediate needs of customers. Many only export standardised early-stage processed seafood such as unpeeled shrimp (especially to Europe). Personnel training is limited as SMEs prefer to recruit experienced production personnel. Linkages with universities and public research institutes are limited because SMEs typically seek technical assistance from other manufacturers.

Generally, the policies of the government and of organisations supporting the industry are ineffective and coordination is rather poor. The clearest evidence of this was the threat issued by the European Commission in 2015 to impose a trade ban if Thailand did not act against illegal fishing. EU claimed that Thailand had failed to certify the origin and legality of its fish exports.

However, some agencies supporting the seafood industry have played important roles in upgrading the industry. The Fisheries Department is chiefly responsible for formulating and implementing policies to support the seafood industry, from the fishing and farming stage to the processing stage. It conducts its own R&D and transfers technologies to farmers and SMEs. It provides quality certification to aquatic farms and their products. It has played a critical role in introducing and upgrading quality-control and traceability systems for fish and shrimp farms across the country. Thus, chemical residuals in seafood products from Thailand have been reduced substantially and products now meet the standards of importers in developed countries.

The National Bureau of Agricultural Commodity and Food Standards (ACFS) is an important organisation, enforcing standards along the entire food-supply chain to control agricultural food production and processing. It is charged with accrediting certification bodies for agricultural commodities and foods, negotiating with international partners to reduce non-tariff barriers to trade, and improving the competitiveness of Thai agricultural and food products.

The National Food Institute (NFI) was established in 1996, under the Ministry of Industry, to develop the food processing industry. It is engaged in the following activities: (i) offering fee-based laboratory services (chemical, microbiological, and physical testing); (ii) offering consulting services on the adoption of Hazard Analysis and Critical Control Point (HACCP) practices; (iii) offering training seminars and workshops, particularly related to international trade; and (iv) publishing literature on food safety and quality. The NFI acts as an intermediary between firms (especially SMEs) and food industry experts who can provide research and training. It has leveraged resources from other government agencies to support capacity development of firms. The NFI conducts research on developing policy and strategic plans for the

government and on problems in the food industry. It initiated the first and second Master Plans for the Thai food industry in 2002 and 2008, respectively. It was later selected to be the focal institute for creating a strategic plan for the halal-food business.

Remarkably, some industrial and professional associations play key intermediary roles in building trust among their members and encouraging collaboration with external agencies. They produce 'club goods' such as industry-intelligence and services that are useful for their members. The Thai Frozen Foods Association (TFFA) is a private, non-profit organisation founded in 1968. It has more than 200 members, whose main business is the processing and export of frozen foods; almost all are Thai-owned companies. The TFFA has the following roles: to promote entrepreneurship in the frozen food industry, provide consulting services, encourage information exchange and harmony among its members, serve as a mediator in conflicts among its members (or between members and outsiders), establish regulations and mutual agreements for members to facilitate the smooth operation of their businesses, survey and study members' opinions concerning their businesses, and cooperate with government entities responsible for the industry. Among these roles, the consulting (on international manufacturing standards) and mediating roles are the most prominent. The TFFA has had many successes: it has mediated conflicts between large and small members, it was successful in developing 'club goods', and helping to set up an endowment fund to be used to fend off short-term common threats such as anti-dumping measures imposed by importing countries. Such cooperation is rare for Thai industrial associations. However, the TFFA has not been able to persuade its members to cooperate on longer-term issues such as general industry upgrades (Intarakumnerd and Charoenporn 2013).

Although the public and private-sector agencies do not directly contribute to innovation, which is mainly undertaken by firms themselves, they have increased the capacities and skills of the industry's manpower; built trust among actors, leading to better knowledge diffusion and cooperation; and enhanced the regulatory environment which pressures firms to innovate.

5 Conclusion

The Thai manufacturing industry, in general, is technologically weak. Atmospheric changes in government policies and the behaviour of firms could be attributed, at least partly, to the 1997 financial crisis. It was a wake-up call highlighting the unsustainability of the usual ways of functioning. Since then, several large conglomerates, such as the CP Group, increased their R&D activities. Many smaller companies increased their technological efforts by collaborating with university R&D groups to stay ahead in the market or seize the most profitable market section. Several subcontracting suppliers in the automobile and electronics industries were forced by their MNC customers/partners to strengthen their efforts to modify product design and improve efficiency and better absorb design and know-how from foreign experts. New start-up firms (less than 50 employees) relied on their own design, engineering, or development activities. New government policy initiatives paid greater attention to deepening indigenous technological and innovative capabilities.

A detailed analysis of three leading sectors indicates positive changes, although we cannot draw direct causal effects from the 1997 financial crisis. In general, large firms (both MNCs and local ones) show significantly bigger technological and innovative capability enhancement than SMEs. In the electronics industry, especially the HDD sub-sector, MNCs began to invest in process R&D and collaborate more with local suppliers, universities, and public research institutes in human resource and technological development. In the automotive industry, several Japanese auto manufacturers, such as Toyota, Honda, Nissan, and Isuzu, set up R&D/technical centres in Thailand from the 2000s. This prompted Japanese and local parts-suppliers to invest more in engineering, design, and development activities. Some local universities offer engineering programs, specifically targeting the automotive industry. In the frozen seafood industry, several Thai firms have developed new ready-to-eat products, their own brands, and international distribution networks. Some have become MNCs, investing in both developing and developed countries.

Two common factors contributed to the qualified successes in technological upgrading and innovation in these three sectors. First was the availability of lead firms that can stimulate, inspire, or even pressure other firms, especially smaller ones, in the industry to upgrade their technological capabilities. MNCs, like Seagate and Western Digital in the HDD industry; Toyota, Honda, and other carmakers in the automotive industry; and CP Group and Thai Union Frozen in the frozen seafood industry are examples. Parts-suppliers, especially local ones, that wanted to engage with or continue business with MNCs in HDD and automotive industries had to upgrade their capabilities, products, and processes in line with the MNCs. On the other hand, CP and Thai Union Frozen inspired smaller Thai firms to upgrade technologically and develop their own brands and international distribution channels.

Second was the importance of government policy that bolstered technological upgrading in specific sectors by providing finance, physical infrastructure, regulations, industry standards, scientific knowledge, and services like consultancy and testing. It was necessary to go beyond general government support to cater to specific industries. What has been highlighted here is the role of 'sector-specific' agencies which function like intermediaries, linking firms to each other, especially large MNCs and big domestic firms; and linking firms to other actors in the sectors like government authorities, universities, public research institutes, and so on. These intermediary organisations can be private-sector ones like IDEMA in the HDD industry and TFFA in the frozen seafood industry or TAI in the automotive sector. Strengthening the roles and underlying capacities of these intermediaries should be a subject for policy concern.

To summarise, the 'ersatz capitalism' traits of the Thai economy may have changed to some extent, 30 years after Yoshihara Kunio published his book in 1988. The Thai economy no longer relies solely on foreign capital and technology without increasing indigenous technological and innovative capabilities, at least in certain industrial sectors of its economy. Nonetheless, the notion of an ersatz quality to Thai industrial development cannot be dismissed, as even in these sectors, many local SMEs are still weak in terms of technological capabilities and innovation.

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7

Upgrading Malaysia's Rubber Manufacturing: Trajectories and Challenges

Motoko Kawano

1 Introduction

For over 50 years after Malaya's independence in 1957, Malaysia (which was formed in 1963) achieved impressive economic growth. This was based on natural resources including rubber, tin, oil palm, and petroleum, low-cost labour, and the support of the government and its agencies. In the 1970s, labour-intensive export-oriented industrialisation (EOI) commenced to supplement existing import-substituting industrialisation (ISI). It relied largely on foreign direct investment (FDI) in manufacturing sectors such as textiles and electronics. Within a decade or so, the EOI expanded substantially. In the mid-1980s, Mahathir Mohamad's government launched a programme of heavy industrialisation in automobile, cement, and steel manufacturing, managed by state-owned enterprises (SOEs). Academic literature has often noted that Malaysia's generally

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impressive post-colonial economic development owed much to appropriate government intervention, reform, and responsiveness to new circumstances and challenges.

One result was a remarkable reduction in poverty and considerable improvement in standards of living. Indeed, there were long periods of rapid economic growth and diversification before the 1997–98 financial crisis dealt a major blow to the economy. Even so, gains from previous growth were not erased by the financial crisis, and the economy generally recovered. Economic indicators such as GNI per capita show nearly high income status (Chapter 5, this volume). However, the post-crisis per capita growth rate declined to a little over 3 per cent, or just over half the pre-crisis average (NEAC 2010), and there is concern that Malaysia may have fallen into the 'middle-income trap'. After the 1997–98 financial crisis, Malaysia seemed to be losing its comparative advantage in manufacturing sectors and weaknesses were identified in the inability to overcome barriers to attaining higher value added.

Since the 1980s, the agricultural sector's share of GDP has declined. The biggest driver of income growth in terms of production has been the manufacturing sector, which overtook agriculture as the leading contributor to GDP among the primary and secondary sectors. On the demand front, the EOI strategy expanded manufacturing from 1971. Various incentives were offered to attract FDI under the First Industrial Master Plan (IMP1), while the focus was shifted to clustering and R&D activities under the Second Industrial Master Plan (IMP2). Subsequently, the government strove to build meso-organisations to support structural industrial change. Remarkable growth was achieved in manufacturing over 1971–94 but this slowed significantly after the 1997–98 financial crisis.

The Third Industrial Master Plan (IMP3), launched in 2006, retained the focus on clustering. Nonetheless, the annual average value added for manufacturing only grew by 0.2 per cent in 2005–08. The electronics sector, Malaysia's largest manufacturing industry, recorded an annual average growth rate of 0.5 per cent in 2000–05 but suffered a decline of 2.2 per cent in 2005–08. The rubber sector suffered a bigger contraction, recording an annual average growth reduction of 1.6 per cent in 2000–05, and 27.3 per cent in 2005–08. Some studies consider this evidence of the stalling of Malaysia's industrialisation project because the nurture of a

Malay business class by state-led enterprises and privatisation tolerated rampant rent-seeking (Rasiah 1999; Henderson and Phillips 2007; Felker with Jomo 2007; Jomo 2014).

Yet, Malaysia's venture entrepreneurs managed to advance during the critical period and contribute substantially to exports. A notable example, and the focus of this paper, is the expansion of the natural rubber (latex-based) manufacturing sector, which produces disposable examination gloves, surgical gloves, and condoms by latecomer firms. In contrast to the situation in highly industrialised economies, as previous studies mentioned (Bell and Pavitt 1995; Bell and Figueiredo 2012), latecomer firms in developing or emerging countries typically have a low level or even an absence of technological capabilities. How, then, can latecomer firms in an emerging economy like Malaysia's seek new development paths not just to survive in times of crisis but achieve upgrading to compete for global demand? How can these firms succeed as venture entrepreneurs? To what extent did the government or public institutions provide support to these firms? Based on my recent fieldwork in Malaysia, this chapter analyses technological upgrading in rubber manufacturing and the experiences of Malaysia's two largest glove firms, Top Glove and Kossan.

The remainder of this chapter is organised as follows. The next section examines the transformation of rubber manufacturing in Malaysia. Section 3 explains the role and main achievements of government research institutions in the development of the rubber industry. Section 4 highlights the major external factors influencing the rise of the rubber glove firms and shifts the focus to rubber glove manufacturing. Based on in-depth comparative analysis, this section discusses the dynamics of upgrading of the rubber manufacturing industry by focusing on Top Glove and the Kossan Group. Finally, the conclusion summarises the findings and discusses their implications.

2 Development of the Rubber Manufacturing Sector

For a long time after the first rubber plantations were established in Malaya in 1896, natural rubber (NR) formed the economic backbone of the country. During the colonial period, rubber cultivation expanded

considerably as rubber prices were high and rising steadily due to the global demand for pneumatic tyres. Even after independence, Malaysia depended heavily on rubber exports. Rubber production accounted for almost 30 per cent of total employment and 60 per cent of total export value. Later, rubber production lost its dominance for several reasons. First, Malaysia diversified into oil palm plantation to avoid 'monoculture' and to respond to competition from synthetic rubber (SR). Second, the acreage under rubber and the number of large rubber plantations declined although the number of rubber smallholders increased following the launch of the New Economic Policy (NEP). Third, oil palm overtook rubber in the 1980s by which time Malaysia had fallen behind Thailand in NR production.

Against the trend of declining NR production, the rubber manufacturing industry grew. There were three phases to the development of rubber manufacturing which roughly corresponded to industrial and technological policies. The first period lasted from 1920 to about 1970 when laissez-faire policies were dominant. In the 1920s, Chinese-owned rubber manufacturing factories were established. These produced and exported rubber-soled canvas shoes, conveyor belts, and other items for tin mining equipment (Drabble 2000; MREPC 2013). Despite this early start, rubber manufacturing developed slowly. Before independence, there were about 30 small factories manufacturing rubber products (Goldthorpe 2015).

The second phase, from 1970 to 1985, coincided with the NEP and greater government intervention in promoting industrialisation that concentrated on consumer goods, such as electronics, and resource-based manufacturing using rubber, palm oil, and tropical timber. As Table 7.1 shows, the number of firms manufacturing rubber increased from about 50 in 1970 to 168 in 1984, and their output value rose seven-fold from RM119.52 million to RM832.73 million. Despite its expansion, rubber product-manufacturing grew at a slower pace than overall manufacturing between 1971 and 1980 (Anuwar 1992).

The third phase, 1986 to 2005, was when the Mahathir government formulated IMP1 and IMP2, and launched a programme of heavy industrialisation. The IMP1 (1986–95) aimed to expand the tyre industry as a priority product area in rubber manufacturing and

Table 7.1 Malaysia's rubber product manufacturing industry, 1970–2014

Year	No. of companies	Employment	Rubber consumption (metric tons)	Output (RM million)	Export (RM million)
1970	50	8,375	22,129	119.52	16.72
1975			33,316	250.89	72.44
1980	135	18,339	50,391	650.95	215.28
1984	168	23,500	68,821	832.73	267.24
1990	255	36,920	187,592	2,108.44	1,876.67
1995	292	52,885	351,895	4,423.41	3,866.98
2000	319	63,125	402,034	7,089.53	5,512.74
2005	357	62,422	482,889	10,093.80	8,318.32
2010	354	61,278	642,996	13,565.47	12,853.63
2014	316	70,224	801,552	15,788.52	15,174.33

Sources: Compiled by the author based on Lim Sow Ching (1985) and Malaysia Rubber Board (2014).

strengthen the state-owned Rubber Research Institute of Malaysia (RRIM) as a centre of rubber-manufacturing R&D. The IMP2 (1996–2005) bolstered the role of public and private research institutes in rubber technology R&D.

Over this period, NR-based manufacturing really took off. The use of rubber as raw material in manufacturing increased five-fold from 68,821 metric tons in 1984 to 351,895 metric tons in 1995. The total value of output was RM10,093.80 million in 2005, compared to RM832.73 million in 1984. Export sales of manufactured rubber products rose from RM267 million in 1984 to roughly RM8,320 million in 2005 (Table 7.2). Both the IMP1 and IMP2 designated rubber-product manufacturing as a priority industry in the expansion of resource-based manufacturing (MRB 2005, 2009).

Between 1985 and 1995 the number of rubber-product companies rose (Table 7.1) and the structure of rubber-product manufacturing changed. Since 1980, latex products have dominated rubber-product manufacture, accounting for more than 70 per cent, and now account for nearly 80 per cent of export value (Table 7.2). These far-reaching changes could be attributed to the sudden upsurge in global demand for latex medical gloves, following the HIV/AIDS epidemic of the 1980s. The RRIM, reorganised as the Malaysian Rubber Board (MRB), launched full-scale R&D in latex products. The number of latex firms increased significantly as Malaysia became the most attractive country for foreign MNCs and local companies to invest in medical glove production (Abdul Hamid 2001). The dominance of latex products, such as gloves and condoms, however, highlighted the narrow product base of rubber-product manufacturing (Abdul Hamid 2001; Ong 2001). Under IMP2, therefore, the government recommended diversification from excessive reliance on latex-dipped goods to a wider range of products including high value-added industrial ones.

The late twentieth century did not just bring the 1997–98 crisis. A heightened awareness of the risks of HIV/AIDS, SARS, avian influenza, and so on, together with advances in medical technology and food security, raised the demand for medical examination gloves, catheters, and condoms throughout the world. As it turned out, both the crisis and the increased demand spurred some local venture firms to chart new

Table 7.2 Malaysia's exports of rubber products by sector (RM million)

	Tyre		Inner tubes		Footwear		Latex products		IRGs *		GRGs **		
Year	Value	% of total	Value	% of total	Value	% of total	Value	% of total	Value	% of total	Value	% of total	Total value
1970	4.60	27.48	0.67	4.01	4.31	25.78	1.73	10.35	0.41	2.45	5.00	29.90	16.72
1975	15.49	21.38	1.93	2.66	27.86	38.46	5.62	7.76	1.40	1.93	20.14	27.80	72.44
1980	12.78	5.94	1.89	0.88	72.93	33.88	80.78	37.52	7.74	3.60	39.16	18.19	215.28
1984	16.38	6.13	0.32	0.12	42.11	15.76	144.37	54.02	16.72	6.26	47.34	17.71	267.24
1990	210.59	11.22	22.89	1.22	111.49	5.94	1,346.48	71.75	21.72	1.16	163.50	8.71	1,876.67
1995	164.01	4.24	14.68	0.38	203.69	5.27	3,103.13	80.25	52.02	1.35	329.44	8.52	3,866.97
2000	167.93	3.05	13.57	0.25	313.47	5.69	4,458.68	80.88	57.25	1.04	501.83	9.10	5,512.73
2005	488.15	5.87	29.28	0.35	597.90	7.19	6,207.76	74.63	263.84	3.17	731.39	8.79	8,318.32
2010	542.00	4.22	24.46	0.19	649.62	5.05	10,359.76	80.60	396.14	3.08	881.66	6.86	12,853.64
2014	982.83	6.48	15.13	0.10	315.14	2.08	12,197.19	80.38	594.82	3.92	1,069.22	7.05	15,174.33

Note: *IRGs: Industrial rubber goods. **GRGs: General rubber goods.
Sources: Compiled by the author based on Malaysia Rubber Board (2014) and Lim Sow Ching (1985).

pathways of competitiveness. They quickly mastered the necessary technology, upgraded their processes and products, and rose to become world-class glove-makers. The success of the new business ventures in rubber manufacturing is due in part to rubber research conducted over 90 years.

3 Research Institutions for the Development of the Rubber Industry

Malaysia is the acknowledged world leader in rubber product manufacturing (Doner 2012). Industrial policies and strong support from key institutions have been critical in the technological development of rubber manufacture, resulting in the production of diverse goods for the world market. This section explores the roles and main achievements of government research institutions in developing the industry.

3.1 Upgrading and Technological Capability

The concept of upgrading generally refers to making better products, making them more efficiently, or moving into more skilled activities (Kapinsky 2001). The success of innovative activities is reflected in upgrading which Giuliani, Pietrobelli, and Rabellotti (2005) defined as 'innovating to increase value added'. To achieve upgrading, public or private firms are required to accumulate technological capabilities.[1] From an initial stage of acquiring basic knowledge and technology from external sources, firms move to an upgrading stage. Latecomer firms in Southeast Asia have to go through costly and complex processes to acquire additional technical skills and knowledge from different internal and external sources (Cohen and Levinthal 1990; Malerba 1992; Bell and Figueiredo 2012). Therefore, government or

[1] Production capability is to carry on producing goods and services with technology already in use. Innovation capability is to change and create new forms of production with technology not currently in use.

public–private institutions play an important role in helping such firms to make significant progress in technological development.

3.2 Research Institutions and Other Support Agencies

3.2.1 Malaysian Rubber Board

There is a long history to Malaysia's R&D in rubber production. RRIM was established in 1925 by the colonial government, against a background of rubber price decline and fluctuations. Its R&D concentrated on improving methods of cultivation, pest control, processing, and developing high-yielding clones (Fig. 7.1). After independence, RRIM continued to develop and encourage the use of high-yielding clones with considerable success. In the 1970s and 80s, high-yielding clones covered about 60 per cent of the rubber land of smallholders (Iwasa 2005).

The development in 1965 of block rubber as a processed form of natural rubber was, arguably, RRIM's greatest achievement in midstream R&D (Fig. 7.1). By the 1970s, Dunlop, Michelin, and other European tyre manufacturers had accepted Malaysian block rubber, after which its production rose (MRB 2005). This had the merit of retaining the competitiveness of NR against SR.

In RRIM, veteran researcher B. C. Sekhar was instrumental in the development of the new block rubber. Sekhar also promoted R&D in downstream activities (Fig. 7.1). In 1974, the Malaysian Rubber Research and Development Board (MRRDB) was established to advance downstream rubber R&D. Its first president, Sekhar, helped younger Malaysian scientists to study in USA and Great Britain. These scientists, of diverse ethnic backgrounds, brought cutting-edge knowledge to RRIM. Some of them later left RRIM for the private sector and contributed to the development of the rubber industry (Pong 2016; Interview 6; Interview 4). Sekhar was also active in creating a global network of rubber R&D, convinced that no single country could shoulder the entire R&D burden and that producing countries should support international rubber organisations (MRB 2009).

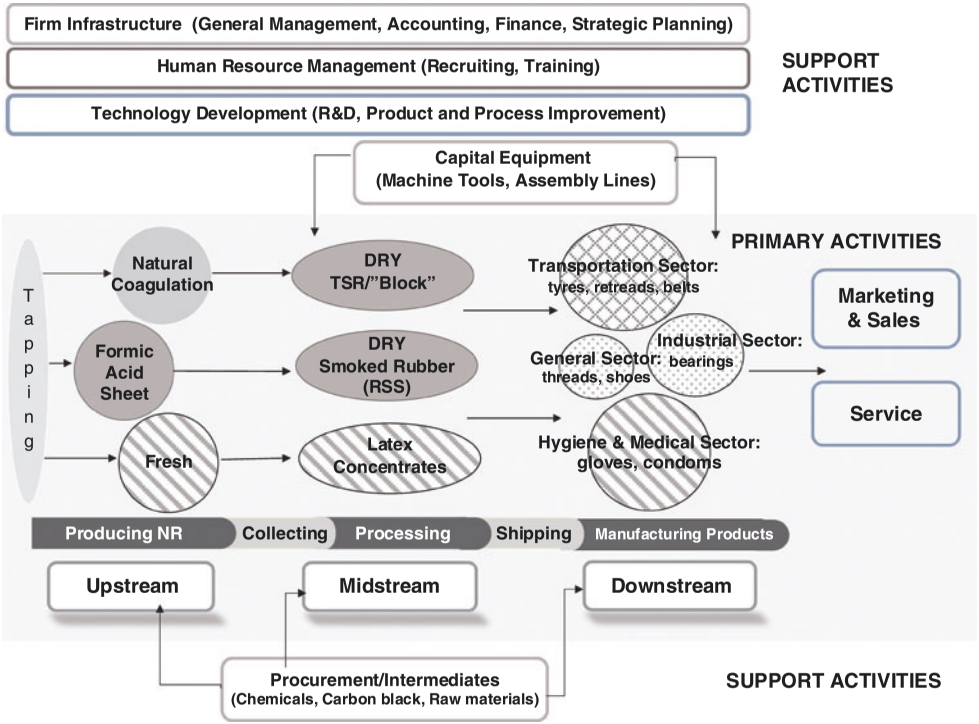

Fig. 7.1 Global value chain for natural rubber

Note: The global value chain is the full range of activities conducted during the different phases of production, delivery to final consumers, and disposal, and supportive activities. Following existing studies (Porter 1990; Gibbon 2001), this figure depicts the global rubber value chain with its activities divided into primary and support. For primary activities, the main stream flows from upstream and midstream to downstream, and each section has its own primary activities. *Sources*: Constructed by the author using Kawano (2015), Porter (1990), Gibbon (2001), Doner (2012), and the author's observations from field surveys in Malaysia and Thailand in 2014 and 2015.

New industrial policies under Mahathir sought to link rubber production to manufacturing and a high value-added economy. In upstream activities, innovations in cloning technology yielded seeds of higher productivity and kept the yield of Malaysian rubber ahead of its competitors.[2] Downstream R&D explored new production methods and tested new materials for industries that included tyres, automobile parts, construction materials, and gloves. These diverse goods were manufactured by 316 companies with a workforce of 70,000 employees in 2014 and an output value of RM15.79 billion. Their export value of RM15.17 billion accounted for 5 per cent of total export value (Tables 7.1 and 7.2). In 1998, the MRB was designated as an 'umbrella institution' that included RRIM and MRRDB.

3.2.2 Tun Abdul Razak Research Centre (TARRC)

The British Rubber Producers' Research Association (established in England in 1938), renamed the Tun Abdul Razak Research Centre (TARRC), is a partner of MRB. With the Malaysian government's budgetary support[3] TARRC came to be MRB's global Centre of Excellence for rubber-related science, technology, and applications (TAARC 2013; MRB 2007).

TARRC's principal work covered basic research to practical uses for rubber. As the HIV/AIDS epidemic spread, TARRC upgraded the technology for making disposable examination gloves and passed it to MRB (then RRIM) for final commercialisation. TARRC also found solutions to the allergic reactions to latex gloves caused by latex protein, by developing new powdered latex gloves with modified cornstarch powder and polymer-coated powder-free gloves (MRPRA 1988). Based on this technology, RRIM launched comprehensive R&D in latex

[2] By the 1990s, the RRIM 900 series of seeds had raised the average annual latex yield to 1,500 kg/ha from 1,000–1,200 kg/ha from the RRIM 600 series in the 1960s. Experiments are being conducted to push the yields of the RRIM 2000 series to 2,500–3,000 kg/ha (Ong 2001; MRB 2005).

[3] Of the current budget, 70 per cent comes from MRB and 30 per cent from consultation fees in UK and other countries (Interview 8).

products. At the same time, TARRC developed the rubber bearings used in isolation systems for buildings and bridges. Seismic isolation is used to reduce (earthquake) disaster risks in hospitals in USA and the EU. TAARC passed on this technology to Malaysian industry. TAARC also developed a new processed form of dry rubber and supported joint R&D projects between MRB and retread-tyre makers to develop the commercial application of the new rubber form, the so-called 'Ekoperena' or 'Green tyres' (Interview 1; Interview 8; TARRC 2013). MRB continues to work in tandem with TARRC which has acquired a worldwide reputation for rubber-related science and technology (TARRC 2014).

Some agencies were established to support the rubber industry in its growth and transformation. These include the Malaysian Rubber Exchange and Licensing Board (MRELB), the Malaysian Rubber Development Corporation (MARDEC, which nurtures downstream investment) and the Malaysia Exports Promotion Association. A host of private-sector associations that cooperate closely with the government are also important in supporting the rubber industry: the Malaysian Rubber Products Manufacturing Companies Association (MRPMA), Malaysian Rubber Glove Manufacturers Association (MARGMA), and the Malaysian SMR Rubber Processors' Association (MSRPA). The Plastics & Rubber Institute Malaysia (PRIM), established in 1960 as an NGO, has promoted the development of polymer science and technology, education and training (Pong 2016). These associations were founded to look after the common interests of their members and help resolve problems.

4 Upgrading Rubber Glove Firms: Top Glove and Kossan

This section discusses the ways in which local rubber firms have successfully managed technology upgrading when opportunities arose. Based on in-depth comparative analysis, it explains the dynamics of upgrading at two of Malaysia's fully-owned rubber-product manufacturing companies, Top Glove and Kossan.

4.1 The Rise of Rubber Glove Firms

Figure 7.2 depicts the phases in the development of rubber glove manufacturing, together with export value data and important events affecting the industry and firms. The black line shows the export value of all manufactured rubber products while the grey and long dashed lines indicate the export value of latex products and the turnover of Top Glove, the largest glove manufacturer, respectively. The export value of latex products accounts for more than 80 per cent of total rubber manufacturing products since 1990 (Table 7.2). Moreover, the leading sector, rubber gloves, accounts for approximately 80 per cent of the export value of latex products and more than 65 per cent of rubber manufacturing products (Fig. 7.2; MRB 2014). The bar chart shows the trend in the number of glove firms. The rise of the rubber glove sector has been deeply affected by external factors: opportunity arising out of threats of epidemics (demand side) and financial turbulence of 1997–98 and the structure of competition (supply side).

4.1.1 Demand for Rubber Gloves

The boom in latex glove usage ('Big Bang' in Fig. 7.2) followed the HIV/AIDS epidemic of the 1980s. The American government recommended that blood and bodily fluid transmissions should be monitored and medical or surgical gloves worn for barrier protection. This increased glove usage and the volume of disposable latex medical examination gloves imported by USA rose from 3.9 billion pieces in 1989 to 25.29 billion in 1998 (Ong 2004). The risks of HIV/AIDS, SARS, and avian influenza, and advances in medical technology raised the demand for rubber examination and surgical gloves, catheters, and condoms. Given the higher demand, USA and Europe raised their licensing standards for medical gloves after 1997 to provide viral barrier protection and preempt allergic reactions to latex gloves caused by latex protein.

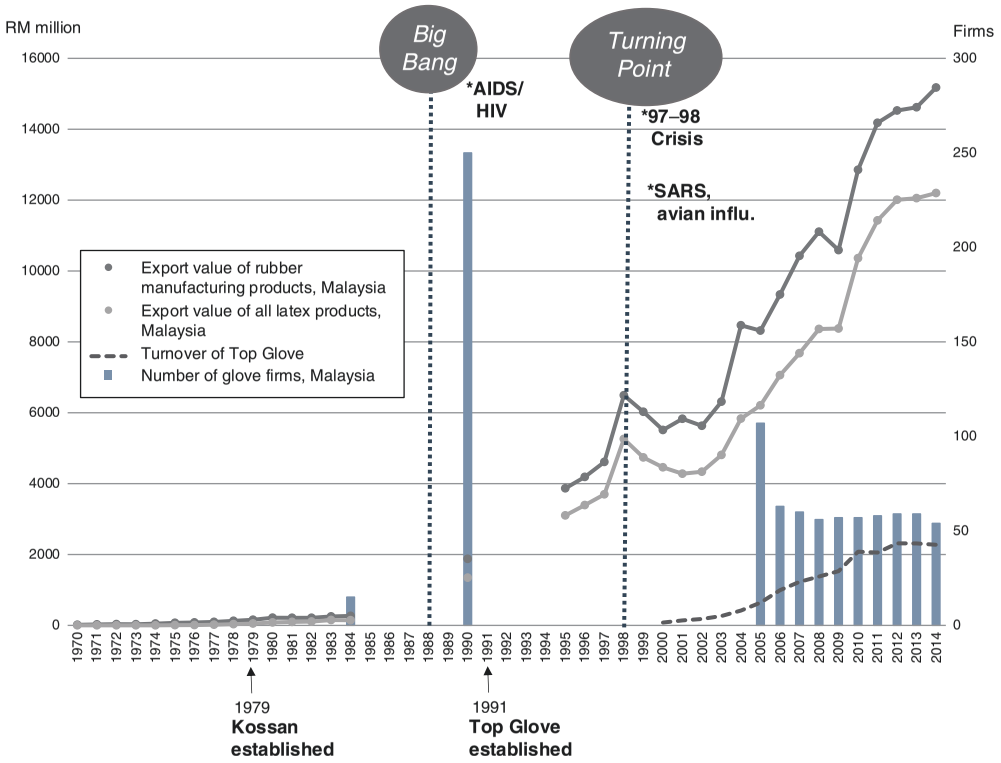

Fig. 7.2 Development of rubber glove manufacturing in Malaysia

Note: The number of firms is shown on the right and the export value (RM million) is shown on the left.
Sources: Constructed by the author based on the ideas of Bell and Pavitt (1995) and Perez (2007), and data from Ong (2004), TARRC (2013), MRB (2014), and Top Glove Annual Report (2000–14).

4.1.2 Supply of Licensed Disposable Rubber Gloves

This glove boom brought many newcomers to the global market. The Malaysian government issued more than 300 licenses to glove manufacturing firms. By 1990, approximately 250 companies had been set up (Fig. 7.2) and had acquired the basic technology and knowledge. Foreign enterprises, mainly from Taiwan and USA, which held a technological advantage, also established production plants in Malaysia. Then came the economic recession triggered by the 1997–98 financial crisis. The number of local glove manufacturers steadily fell from 250 to 107 in 2005 (Fig. 7.2). More than 20 Taiwanese factories and more than ten American ones ceased operations in Malaysia because of lower profit margins and weak linkages with local companies and suppliers (Interview 5; Interview 7).

Even so the global demand for disposable rubber gloves kept rising and made the structure of competition more favourable for domestic latecomer firms. The crisis became an unexpected opportunity for rubber glove firms, such as Top Glove and Kossan, to grow ('Turning Point', Fig. 7.2).

4.2 Profiles of Top Glove and Kossan

The above factors helped push Top Glove Corporation and Kossan Group to the top of the global glove industry after the 1997–98 financial crisis. In the process, they raised their innovation capability from basic to advanced levels.

With their different sizes, product ranges, leadership, and strategies (Table 7.3), Top Glove and Kossan Group had to adopt effective learning processes and strategies for technological capability building. They have leveraged their R&D prowess to reach the top of rubber industry.

Top Glove is an investment holding company that manufactures and trades rubber gloves and provides management services. Founded by Lim Wee Chai (current chairman) in 1991, when the glove industry was booming, it has become the world's largest rubber glove manufacturer. It has a production capacity of 44.6 billion gloves per annum and a 25 per cent share of the global market for rubber gloves produced by original equipment manufacturer (OEM) arrangements. More than

Table 7.3 Profiles of Top Glove and Kossan

Top Glove		Kossan
1991	**Year of establishment**	1979
2001	**Year of listed company**	1996
Tan Sri Lim Wee Chai (58), Chinese Malaysian Physics (B.A.); Business (M.A.)	**CEO/founder**	Dato' Lim Kuang Sia (64), Chinese Malaysian Chemical Engineering (B.A, M.A.)
RM 80 million (2000); RM 642 million (2005); RM 2.08 billion (2010); RM 2.28 billion(2014)	**Turnover**	RM 27 million (2000); RM 280 million (2005); RM 1.1 billion (2010); RM 1.3 billion (2014)
RM 216.31 million (2013)	**Profit before tax**	RM 138.45 million (2012)
100 peoples (1991); 1,000 peoples (2000); 10,000 peoples (2014)	**Number of employees**	4 general workers (1979); 210 peoples (2000); 5,000 peoples (2014)
Glove factories 25 (Malaysia22; Thailand2; China1) 484 production lines; Latex concentrate/processing plants 2 (Thailand)	**Subsidiaries**	Glove-related business companies 14 Industrial rubber manufacturing companies 3; Other companies 9, including paint, condoms etc.
Full range of glove products Healthcare 80%, non-healthcare 20% Healthcare: Examination glove 98%; Surgical 2% Non-healthcare: household, Industrial glove	**Main products**	**Glove products** (turnover: 85%) Healthcare (medical, high risk, chemotherapy, surgical procedure, dental care) Non-health (homecare, diagnosis & laboratory, industrial) **Technical rubber products** (turnover: 15%) Marine industry, Civil & Construction Industry, Railways, Automotive Industry
Glove more than 95% export more than 200 countries Over 2,000 customers North America 30%; Europe 28%; Asia 18%; Latin America 13%; Middle East 7%; Africa 4%	**Market**	**Glove more than 95% export** Large distribution: North America, Europe, Japan Surgical gloves: all over the world including Africa **Technical rubber products** domestic, and expanding to emerging countries

Note: Unless otherwise mentioned, the data here is based on updated information as of 2015.
Sources: Constructed by the author based on Top Glove Annual Report (2000–14); Kossan Annual Report (1999–2014); Kalamani (2013); information from Top Glove; Kossan websites; and interviews in September and October, 2015.

95 per cent of its products are distributed to over 2,000 customers and clients across 200 countries. Its 20-product range covers the full segments of gloves, which use four types of material (latex, nitrile, vinyl, and polyethylene), and meets demands from huge market segments in healthcare (medical and surgical) and non-healthcare (homecare, cleanroom, and heavy industry) (Table 7.3).

Lim Kuang Sia started a company in 1979 with only four general workers to manufacture rubber cutless bearings for fishing boats. Over the years, his company grew to become Kossan Rubber Industries Berhad (Kossan Group), a conglomerate manufacturing many products. Kossan began its glove production line in 1989. It has since become the world's third largest rubber-glove manufacturer, with a 10 per cent share of the global market for rubber gloves. Kossan has a production capacity of 16 billion gloves per annum and more than 95 per cent of its products are distributed to more than 100 countries. Yet, Kossan maintains a line of high-quality non-glove products. With its cutless bearings, rubber rollers, and high-end rubber products such as bridge bearing pads and bridge expansion joints, Kossan is Malaysia's largest manufacturer of technical rubber products (TRPs) (Kalamani 2013; Table 7.3).

How could two firms in an emerging economy chart new development paths, not merely surviving but upgrading to compete for the global market? The following analysis of Top Glove and Kossan explores technological upgrading at the two firms.

4.3 Top Glove: Leading Global Manufacturer of Rubber Gloves

4.3.1 Leadership

Lim Wee Chai, CEO of Top Glove, came from a family of rubber planters and dealers in Selangor, a state in Malaysia. Initially, his business had no links with the rubber processing company managed by his elder brother. With a physics degree from University of Malaya and an MBA from Sul Ross State University in Texas, USA, Lim Wee Chai started work as a salesman for air-conditioners. In 1991, he switched to

the glove business partly because he foresaw a rising demand for gloves due to the AIDS/HIV scare. He combined academic training and marketing experience with a strong drive for technological upgrading (Interview 2; Top Glove Annual Reports; Tan 2008).

4.3.2 Catching Up from Zero, 1991–97

Lim Wee Chai started the glove business without prior experience in glove production at a time when high competition had forced some firms to cease operations. From one glove firm, he acquired basic glove-making knowledge and technology. From another firm, he learnt to gauge market potential and dynamics. Later, he introduced new technologies to his firm, including those developed by the MRB. His aim was to have his firm 'learn, and learn faster than MRB' to become a 'fast follower' and not a 'late follower' (Interview 2; Lim 2013).

In 1991, with two machines bought at a discount price from a glove manufacturer who had ceased operations, Lim Wee Chai started his factory with three product lines and about 100 workers. He had limited capital of his own and met his financial needs by bringing in shareholders, including the manufacturer who had sold him the machines (Interview 2; Interview 7). By 1994, Lim Wee Chai had three factories and nine product lines. In his search for foreign customers, he was fortunate to gain access to an American pharmaceutical company looking for OEM partners (Interview 2). For Lim Wee Chai and other latecomers, OEM contracts could distinguish their businesses from domestic competitors if they could secure more customers and acquire their technology to manufacture products of good quality.

4.3.3 Development Under Licenses, 1997–2010

An advance in technological learning at Top Glove came during the 1997–98 crisis. That was coincidentally when USA and Europe stipulated conditions of licensing for medical gloves to ensure adequate viral barrier protection and pre-empt allergic reactions to latex gloves. Top Glove had to adapt to the licensing requirements. Aiming for specialisation and

differentiation, it improved its latex powdered examination gloves and powder-free gloves to suit the needs of its clients. Considerable difficulties arose in adapting production processes to the new necessities because 70 per cent of machinery and equipment, such as boiler mills, packaging machines, and dipping machines, were imported from Germany, Taiwan, and so on, and needed a lot of reworking. To raise productivity, Top Glove gradually rebuilt its product lines, introduced new machines incrementally, and adapted the original machinery and plant designs while exchanging in-house technology and knowledge with outside suppliers (Top Glove website 2016; Top Glove Annual Reports, various years).

Such technological development was facilitated by an increase in capital and changes to firm strategy. In 2000, Top Glove increased its production lines to 41 by buying 20 lines from an American multinational glove enterprise that wanted to relocate to Thailand to downsize operations, seek tax advantages, and lower its labour costs (Interview 2; Interview 7). After it became a public listed company in 2001, Top Glove kept expanding its operations; by 2014, the firm had 25 factories running 484 production lines (Top Glove Annual Report, various years). In contrast with some domestic firms that closed under the pressures of lower prices and reduced profit margins, Top Glove's growth allowed it to reorganise its management with additional professional input (Interview 2).[4] One result of the firm's combination of learning capability, adaptation to licensing requirements, and sound firm strategies in difficult times was the steady increase in turnover since 2000.

4.3.4 Largest Manufacturer and Trader, 2011–

Top Glove's third jump in technological learning came when it set up a central R&D department in 2013. The firm had commenced in-house R&D in the late 2000s to improve glove quality, achieve more efficient processes, and lower production costs. In 2013, Top Glove reorganised its R&D division to set up a central R&D Department staffed by 30 young

[4] The current managing director, Lee Kim Meow, also joined Top Glove in 1997.

researchers and engineers, some of whom had doctoral degrees. The department accumulated upgrading technology and made the company a top original brand manufacturer (OBM) (Interview 10). For instance, the R&D team managed to reduce the NR latex requirement per examination glove from 7 grams in 2000 to 5 grams in 2010 and 3 grams in 2016 (Lim Wee Chai 2016). Process upgrading, previously a major difficulty, was also improved by in-house engineers. They worked with local equipment suppliers and produced a 100 per cent Malaysian dipping machine, probably the single most important piece of equipment in glove production, and introduced semi-automation. This reduced the production workforce from 11,000 in 2013 to 10,000 in 2014 (Interview 10). Product upgrading and process automation helped reduce overall costs while maintaining quality, thus offering customers lower prices and higher quality gloves.

An important current challenge is to maintain price and quality control. To solve latex allergies and keep material costs low, a switch was made from using powdered to powder-free latex gloves with low protein content using nitrile or SR, which is cheaper than NR. The proportions of NR and SR used in medical gloves were progressively changed: 84 per cent NR and 16 per cent SR in 1999, 78 per cent NR and 22 per cent SR in 2005, 32 per cent NR and 68 per cent SR in 2011, and 19 per cent NR and 81 per cent SR in 2015 (MARGMA, various years). Following this trend, Top Glove increased its production of synthetic medical gloves. Top Glove now seeks to develop new products in collaboration with researchers in domestic universities.

An emerging challenge is to deepen business strategy to explore niche markets. Health requirements have kept the global demand for medical gloves high, especially in emerging countries in Asia and Latin America and lower income countries. Their standards, which are lower than those set by developed countries, reflect their need for lower price and moderate quality products. By supplying different grades of medical gloves to suit customer requirements (Interview 2; Interview 10), Top Glove has been able to cultivate various niche markets. The firm continues to pursue product and process upgrading. Manufacturing and business expansion led Top Glove to formulate new firm strategies, including operating latex processing factories in Thailand, which did well, and rubber plantations in

Cambodia[5] which did not. Top Glove completely withdrew from its Cambodian venture after encountering difficulties with land management and different socio-cultural expectations (Interview 10).

4.3.5 Capability Building: 'Concentrating on Core Business'

In summary, Top Glove has transformed from being a 'follower' of a standard rubber glove model to a manufacturer and trader of a full range of high-quality gloves. In the process, Top Glove's use of 'catch up and catch down' arrangements pursued what might be called a 'niche product' strategy in technology capability building that addressed the specialised requirements of customers. Top Glove seems to have 'concentrated on core business' even in times of crisis, whether externally generated or internally induced (such as the failure of plantation management), relying on a combination of leadership, firm strategies, and pressures on innovation capability building (Interview 2).

4.4 Kossan Group: A Conglomerate with Varied Business Ventures

4.4.1 Leadership

Lim Kuang Sia, founder and current CEO of the Kossan Group, came from a Teochew family of fishermen in Pulau Ketam (Crab Island), Selangor. Unlike his father and his grandfather, who had never stepped out of their village, Lim Kuang Sia studied in a secondary school in Kuala Lumpur before obtaining a degree in chemistry (Nanyang University), a diploma in engineering (University of London), and a Master's degree in chemical engineering (Imperial College) (Jetley 2015; Kossan Annual

[5] Other issues emerged with Top Glove's expansion. An important one was the lack of latex for raw material as Malaysia's production of NR declined due to falling yields and a reduction in rubber acreage. Aging of rubber cultivators was a problem, too, since ageing tended to lead to lower production of latex concentrate and higher production of dry type rubber. As a result, Malaysia has become an importer of latex concentrate (Kawano 2015).

Report). In 1977, Lim Kuang Sia worked as an R&D chemist at a small company producing engineering blueprint papers. His 18 months' experience as a chemical engineer – as 'a chemist and an engineer' (Jetley 2015) – shaped his business style and strategy after he had started Kossan.

4.4.2 Pioneer of Malaysian Glove-Making, 1979–89

In February 1979, at the suggestion of a friend, Lim Kuang Sia started Kossan to produce rubber bearings for boat propellers to replace those imported from Singapore. He believed he could manufacture better and cheaper rubber bearings because of his background as a fisherman, chemist, and engineer (Kossan Annual Report, various years; Jetley 2015). Later, Kossan would grow into a globally competitive manufacturer of industrial rubber products (Goldthorpe 2015).

A different business opportunity arose with the 1980s' HIV/AIDS epidemic. Since Malaysia was the world's biggest rubber producer, Lim Kuang Sia believed that it was the perfect time for producing gloves, using the basic rubber manufacturing knowledge and technology his firm had accumulated through internal learning. Lim went to Taiwan, the Asian pioneer in the industry, and learnt the techniques of glove-making. He returned with equipment and orders from customers to produce disposable gloves. In August 1989, Kossan produced its first gloves with only one production line and shipped its first batch of gloves to California. This did not look promising since small glove factories had been sprouting after the government issued more than 250 permits for the same. Kossan closed its glove division and moved its workers back to producing rubber products for industrial use (Interview 5; Kalamani 2013; Jetley 2015).

4.4.3 Development as a Multi-Product Conglomerate, 1989–mid-2000s

Yet, Kossan returned to glove-making when cases of latex protein allergic reaction were reported by American institutions such as the Food and Drug Administration (FDA) (Interview 5). It was feared that latex protein allergy could be 'life threatening'. Specifically implicated was a USA-approved

absorbable dusting powder used in powdered glove production (Ong 2004). Amidst this crisis, Lim Kuang Sia strove to develop the technology for a new product and created a hypoallergenic latex glove in his factory. Subsequently, Kossan, building on its accumulated knowledge and technology, improved its process and product capabilities to meet licensing requirements. Unlike other firms, Kossan invested in-house R&D early in the 1990s and achieved important innovations in the production of free online and coagulating dipping technology (in 1997) and in improved material softness for nitrile (SR) gloves (in 2000). Kossan ventured into surgical glove manufacturing in 2003 (Kossan iNtouch website 2016).

Aside from Lim's professional training and Kossan's manufacturing background, their initial 'false start' in glove manufacturing led to the early adoption of in-house R&D. Closing the glove producing lines in 1989 was a serious learning experience for Lim Kuang Sia: 'It taught me to keep an ear to the ground, diversify risk and prepare for tomorrow' (Interview 5; Kalamani 2013; Jetley 2015). When he re-entered glove manufacturing, he reorganised and strove for in-house R&D innovation to create new glove products. Lim recalled 'Kossan's difference from other rubber manufacturing firms was that Kossan believed in continuous business transformation and improvement via R&D to remain competitive in the dynamic globalized environment' (Kalamani 2013).

In the early 2000s, Kossan formed two separate R&D teams for its industrial rubber products division and glove division. The 50-strong R&D teams were managed by highly qualified rubber technology researchers and engineers, some of whom had experience in the government's rubber-related agencies, such as MRB. Kossan's engineers started to design original process equipment (Interview 9). Partly because of its technological success, Kossan listed itself on the Kuala Lumpur Stock Exchange in 1996 and has since had an unbroken record of profitability (Kossan Annual Report, various years).

4.4.4 Original Designer and Innovator, 2006–

Kossan made another leap in technological learning during the mid-2000s. While it rapidly expanded by adding new factories, Kossan achieved product

innovations by developing a thin and stretchy nitrile glove. In 2007, the company designed and produced an original latex damp-donning surgical glove with special polymer coating. This product, named 'iNtouch', was very well received in USA. Since then, Kossan has released a succession of new high-quality products, such as latex surgical glove with enhanced comfort and durability (2010), polymer nitrile gloves with enhanced wet donning (2011), synthetic polyisoprene latex surgical glove (2012), and anti-microbial glove (2014) (Interview 5; Kossan iNtouch website).

Aiming for high standards of quality, innovation, product consistency and operational efficiency, Kossan adopted an international system for its processing designs, deployed automation technology, and used online data analysis (that provided immediate feedback to the production floor for line adjustment). Its R&D laboratory was equipped with advanced analytical facilities such as high-performance liquid chromatography, Fourier transform infrared spectrophotometer, and testing facilities for antigenic protein measurement (Kalamani 2013; Interview 5). As a reflection of its strength in R&D (which receives about 3–4 per cent of annual turnover) (Interview 5; Interview 9), Kossan's gloves gained different categories of quality certification, such as BS EN ISO 13485 and CMDCAS ISO 13485 (2003) and BS EN ISO 9001 (2008) (Kossan Annual Report, various years).

Among Malaysian firms, Kossan has followed a unique strategy. On the one hand, it is basically an OEM for many renowned pharmaceutical MNCs in USA, Europe, Australia, Japan, and South Korea. In this role, it exports more than 85 per cent of its products, mainly to major distributors of disposable medical gloves in these countries. On the other hand, Kossan distributes gloves of its own brands (Che-Max, Pureshield, and iNtouch) through some established distributors with wide distribution networks and by setting up marketing centres in some areas. However, the company never sells its own brands in markets where its buyers operate. In this manner, Kossan has built stable business relationships with the buyers of its products and the suppliers of its raw materials, chemicals, or machines (Kossan Annual Report, various years).

The crucial challenge for Kossan is to maintain a balance between the development of its glove division and its industrial rubber products division. The latter has been successful from its inception. In a notable achievement, a Kossan Group firm, Doshin, introduced the rubber bearing used in isolation

systems. The basic technology for the product was developed at TARRC when the latter responded to MRB's directives to focus R&D on rubber engineering applications and advanced materials. In 2013, Doshin supplied approximately 2,100 units of high damping rubber bearings for use in the construction of Penang's second bridge. Since its initial success in construction, Doshin has installed the seismic isolating bearings for the construction of hospitals in Malaysia and Indonesia (Interview 8; Interview 11). Its potential for growth has increased with the rise in the use of bearings for seismic isolation to meet global disaster-prevention demand.

4.4.5 Capability Building: 'Driving for Excellence in Technology'

The Kossan Group has transformed itself many times over. From a 'failed' pioneer in standard rubber glove production, it became an OEM of high quality gloves. It even became a designer and exporter of its own brand of gloves. From using imported Taiwanese machinery, it crafted a strategy of technological capability building, deploying in-house R&D to win global competition in its core areas of glove and industrial rubber products. The strength and uniqueness of Kossan is maintaining these two different divisions, while driving transformation and seeking opportunities. It might be said that opportunities and competition have steered Kossan in the direction of 'driving excellence in technology' within the glove manufacturing sector.

5 Discussion and Implications

Despite starting their glove manufacturing business at different times and with different strategies, Top Glove and Kossan showed similar spiralling trajectories of advance from initial to higher stages in terms of innovative activities. In the beginning, both firms had to acquire basic knowledge and technology. In this respect, they were fortunate to operate in an environment supportive of the transfer of knowledge and technology from government research institutions, especially MRB. As the firms moved to the

upgrading stage, they benefitted when MRB or TARRC made technologies available for practical use or final commercialisation. Thus, both firms gained from assistance provided by government support institutions.

At the upgrading stage, Top Glove and Kossan relied on two crucial initiatives. First, they astutely adapted to external factors such as market conditions and the availability of new technologies. Second, they undertook internal consolidation, which included collecting information on raw materials, products, and markets; technological upgrading of products and processes; developing human resources and R&D; and formulating business strategies to secure niche markets.

Thus, Top Glove and Kossan had unique paths to upgrading. Unlike most latecomer firms in emerging countries,[6] they pursued their own strategies of technological capability building. At the initial stage, their OEM-oriented development paths were similar to the imitative strategy route taken by latecomers in other Asian NIEs. Yet, their imitative routes differed in specific features. Kossan was capable of learning higher technology and creating new designs (ODM, original design manufacturer) and original brands (OBM). However, it remains in the OEM business mainly because it understands that glove manufacturing is a niche industry tied to natural resources, susceptible to fluctuations in raw material prices, and dependent on foreign pharmaceutical companies that control global market access. Further, each of the two companies started as a small business with limited capital. For them, good OEM relationships represent a 'win-win' strategy: they enjoy the benefits of lower marketing costs and the MNCs obtain low-cost products without operating their own factories. Overall, their business strategies combined catching up and reaching down to create original development styles. Their development paths suggest alternative ways of acquiring and creating the resources to innovate both technologically and strategically.

As this comparative analysis shows, moreover, leadership was crucial to the rise of Top Glove and Kossan. Each firm's founder was a strong leader

[6] Most latecomers in developing countries pursued imitative strategies in their technological development and were largely involved in producing matured consumer products and then becoming ODMs and OBMs (Fu-Lai Tony Yu 2005).

who charted his firm's development trajectory amidst growing complexity and turbulence in the business environment. The two founders had exceptional independence, foresight, and determination in business. Without direct support from government or the legacy of big family businesses, Lim Wee Chai and Lim Kuang Sia, two Chinese Malaysians with higher education and some business experience, constantly searched for knowledge, strategies, and solutions that would not only allow their firms to survive but expand and progress. In times of crises, they relied on opportunities and hard work to keep the trust of customers by supplying reliable products.

The two firms share some problems. One is the lack of skilled engineers who possess and can share their knowledge within the firm. Another is the lack of testing facilities for certification when licensing has become crucial for connecting firms to their markets. Firms that do not have testing facilities for certification can turn to an outside institution such as MRB. The third issue has to do with an imbalance in the employee age structure and unstable technology transfer for upgrading to the next generation. As Lee noted of Malaysia's current conditions (Chapter 5, this volume), a dynamic economic environment and suitably skilled workforce are required. In one way or another, these three problems point to the limitations of human resource development outside the firms and the failure of present policies to overcome them.

These findings bear some implications for growth and policy action. Malaysia's excellent public R&D institutions have made invaluable contributions to the rubber industry from upstream to downstream activities. The country's long leadership in the world's natural rubber production nurtured the strength of its R&D institutions. Such strength was built by responding to different risks and crises. In the past, highly qualified and dedicated scientific, technological, and managerial human resources were developed in these institutions, largely free of ethnic politics. The impact of NEP 'restructuring', however, may have caused a 'brain drain' of non-Malay researchers, which may lower the capabilities of the institutions that once led the development of the rubber industry.

Finally, if a critical prerequisite of economic advance is sustained growth, the government should assist firms by maintaining a variety of support and R&D activities. For example, Malaysia is committed to nurturing industrial rubber production as a 'sector of the future' that can manufacture

sophisticated products such as high-damping bearings for seismic protection of bridges and buildings and special compounds for high-tech rubber master batch, and so on. It is, thus, encouraging to note, for instance, that there are joint R&D projects between MRB and retread-tyre makers to develop the commercial application of new types of dry rubber (Interview 1; Interview 3). To sustain the development of the rubber industry, it will be crucial to create and maintain close public–private relationships.

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10: Top Glove representative, managing team and research division, 18 and 28 September 2015
11: Or Tan Teng, managing director, Doshin, Kossan Group, 18 September 2015

8

Philippine Services Sector: Domestic Policy and Global Markets

Antoinette R. Raquiza

The Philippines is having a moment. With a growth rate of 6.8 per cent in 2016, it distinguished itself as the fastest growing economy in Asia, second only to China. Equally noteworthy is the fact that the economy has been able to sustain its buoyancy, with the gross domestic product (GDP) registering an annual growth average of 6.3 per cent since 2010. Given its stellar performance, the country would seem to be on track to becoming Asia's next economic miracle.

Not too long ago, the Philippines was considered an economic basket case, unable to keep pace with a rising Asia. In fact, the World Bank (2013) noted that the country's agriculture and manufacturing suffered from low productivity while its services sector specialised in low-value, low-skilled activities. Yet, since the 2000s,

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the economy has taken off. Today, the Philippines has made the leap to emerging market status.

To what does the country owe its new-found economic dynamism? This paper examines the factors responsible for the Philippines' rapid growth and makes a two-step argument highlighting the interaction between trends in the global economy and domestic policy.

One, I will argue that the Philippines' economic turnaround owes much to the dramatic expansion of its international trade in services. The current wave of globalisation is characterised not only by greater labour mobility but also by the disaggregation of production and services into global value chains. This has created growth opportunities for developing countries previously unable to break into the elite group of industrialising countries. For the Philippines, its large English-speaking, Western-oriented, skilled workforce has positioned the country to take advantage of the new demands of the global services industries. With these new income streams, the country has rapidly expanded its middle class, which has, in turn, fuelled the growth of its services sector.

Two, this new globalisation wave could have passed the Philippines by, but for government policies that worked to aggressively link the country's labour force to global markets through services. The dramatic expansion of the country's international services trade could be traced to the latter half of the 2000s when a beleaguered Gloria Macapagal Arroyo administration, confronting economic and political challenges to its rule, undertook programmes to promote the labour export and business process outsourcing (BPO) industries. The country's international trade in services has allowed it to transcend not only the perennial boom-and-bust cycle but also the vagaries of Philippine politics. This has contributed to delinking the economy from the structural constraints that had weighed it down in the past.

This chapter is divided into three sections. The first section discusses trends in the global economy that have dramatically reconfigured the country's services sector. It examines the rapid growth of the BPO and labour export industries in the context of the changing nature of global services and domestic policy. Next is a discussion of the country's political economy, focusing on the interaction between politics and policy in the growth of the country's international trade in services

since the mid-2000s. The third and final section examines the challenges confronting the specific configuration of the Philippine services economy. It explores how the so-called middle-income trap, usually referring to developing countries specialising in low-value, mass production, might apply to relatively low-income, services-led economies. The paper concludes with the recommendation that the Philippines must deepen its human resource base and expand the services-manufacturing nexus to go up the services value chain.

1 Philippine Services and Globalisation

Since 1980, the services sector has been the main source of Philippine economic growth. In fact, it is the only sector that has consistently grown, with its contribution to GDP increasing from 36 per cent in 1980 to 59 per cent in 2015; in contrast, during this period, the contributions of agriculture and manufacturing declined dramatically, as Table 8.1 illustrates. This pattern of sectoral growth is unique among the four emerging, liberal economies in Southeast Asia. In Thailand, Malaysia, and Indonesia the decline of agriculture went hand-in-hand with growth in services and manufacturing (Usui 2011) – a pattern of development that suggested a substantial portion of labour and other production inputs lost to agriculture were absorbed by the manufacturing and services industries. The Philippines is like other countries where both agriculture and manufacturing have been declining: labour is then absorbed into low-value services (UNRISD 2010: 29).

In this light, the services sector's significant contribution to Philippine GDP growth did not always translate into rapid economic expansion. An ADB (2007) study, for instance, calculated that in 1981–90 and 1991–2000, the services sector's annual contribution to GDP growth stood at 75.3 per cent and 51.9 per cent, respectively; during the same periods, annual GDP per capita growth rate averaged –0.6 per cent and 0.9 per cent (ADB 2007: 6–7). Studies conducted as late as the 1990s cited the Philippines as an example of a human-capital rich country that fell by the wayside of industrialisation (Rodrik, Grossman, and Norman

Table 8.1 Sectoral contribution to GDP growth (%)

	1980	1985	1990	1995	2000	2005	2010	2015
Agriculture	25.1	24.6	21.9	21.6	14.0	12.7	12.3	10.3
Industry	38.8	35.1	34.5	32.0	34.5	33.8	32.6	30.8
Manufacturing*	25.7	25.1	24.8	23.0	24.5	24.0	21.4	20.1
Services	36.1	40.4	43.6	46.3	51.6	53.5	55.1	59.0

Note: *Manufacturing here is a subsector of industry (which includes construction and other such activities).
Source: Based on World Bank (2017).

1995; Booth 1999). Despite its high-skilled labour and competitive investment promotion schemes, the country was unable to attract as much FDI as its neighbours.[1] Instead, the decline in the growth contribution of the manufacturing and agricultural sectors since the 1980s (Usui 2011) left the country's skilled workforce underutilised.

Significantly, it was only in the past decade that economic growth rates began to match the dramatic expansion of the services sector, suggesting its rising productivity. For 2001–11, services' annual contribution to GDP growth averaged 59 per cent, while the annual GDP per capita growth rate averaged 3.1 per cent (up from the previous decade's 0.06 per cent). What would account for the rise in productivity in the sector and thus its greater impact on the economy? I argue that the boom in the global trade in services has been the key to unlocking the country's growth potential, despite or perhaps because of the country's limited structural transformation. The changing demands of the global labour market provided a niche – servicing foreign clientele – for the country's young college graduates who considered English as their second (if not their first) language and were culturally attuned to Western lifestyles and values, a legacy of Spanish and American colonial rule.

To better appreciate the factors behind the dramatic growth of the services sector, let us examine the two leading industries in the context of the global economy and domestic policy.

1.1 BPO Industry

Today's changing production and services patterns have ushered in a new wave of globalisation. Led by the so-called digital revolution, advances in information and communication technology (ICT) facilitated the further fragmentation and dispersal of production processes. This has given rise to global value chains in manufacturing since the late

[1] In 2010, for instance, FDI flows in the ASEAN-4 countries were estimated as: Philippines, $1.1 billion; Thailand, $9.1 billion; Malaysia, $10 billion; and Indonesia, $15.3 billion (World Bank 2015).

1980s; value chains in services followed suit and experienced rapid growth in the early 2000s (ADB 2013: 46–7). For services, previously dominated by direct exchanges in the market, cutting-edge ICT has allowed information to be stored and transported across wide distances (Hermelin and Rusten 2007; Bartels and Lederer 2009). This has meant that the service supplier and consumer no longer need to be in one territory; service delivery has evolved to allow for cross-border transactions. The fragmentation of such processes, thus, enabled corporations to outsource their front and back offices (involved in accounting, human resources, marketing, and the like) as well as customer care services to subsidiaries or third-party service providers located in places where skilled labour is cheaply available.

In fact, global trade in services has grown faster than that in merchandise, and it is from this wave that the Philippine economy, which was lagging behind its industrialising neighbours, caught its second wind. In October 2004, President Gloria Macapagal Arroyo signed Executive Order No. 372 establishing a Public-Private Task Force for the Development of Globally Competitive Philippine Service Industries, led by the Bureau of Export Trade Promotion of the Department of Trade and Industry (DTI). The task force was responsible for identifying incentives that would attract foreign investments in the following industries: health and wellness tourism, retirement and leisure, IT and IT-enabled services, and logistics (Avila 2011).

This propitious coming together of domestic and global forces and interests may be gleaned from the history of the Philippine BPO industry. Its dramatic expansion came in the wake of the 1997–98 financial crisis, with the idea of transforming many of the country's then vacant premier, high-rise residential and commercial buildings into special IT economic zones. A prime mover of this trend was real estate magnate Andrew Tan of Megaworld, who lobbied to have IT parks and buildings officially recognised as special economic zones (SEZs); due to his efforts, his Eastwood City development project in Pasig, Metro Manila, became the country's first cyberzone registered under the Philippine Economic Zone Authority or PEZA (Raquiza 2016).

Accordingly, the country's investment-promotion programmes, anchored on the provision of fiscal and non-fiscal incentives, expanded

to cover trade in services more systematically. The Board of Investments (BOI), under the DTI, and PEZA, the main incentive-granting agencies (previously concerned with the promotion of export manufacturing) expanded their programmes to include export services. The PEZA has since provided incentives to mostly foreign investors setting up IT-BPO offices in the country and Philippine property developers and operators of IT parks and centres for these businesses. In no time, the country, with its highly skilled workforce, was attracting BPO giants such as Accenture and Convergys. In 2014, its BPO industry raked in $18.4 billion and employed 1.03 million people (Remo 2015) – a far cry from the $350-million industry it was in 2001 (Satumba 2008). The industry also contributed to the expansion of support industries (such as transportation, banking, telecommunications, and energy).

The close link of the Philippine BPO industry to global markets may also be gleaned from three other distinct characteristics (Raquiza 2016). One, it is dominated by MNCs (Mitra 2013). Foreign investments grew from $329 million in 2005 to over $7.8 billion in 2013, representing an increase of foreign-to-total equity ratio from 67.9 per cent to 93 per cent during the period (BSP 2007, 2014). Two, as foreign capital participation grew, export receipts have come to represent most of the industry's earnings: from 69 per cent in 2005 to more than 90 per cent in 2012 (BSP 2007, 2014). This means that the Philippine BPO industry mainly provides services to a foreign clientele.

Finally, while efforts are being made to draw investments into high-skilled services, call centres located at the lower end of the services spectrum and catering mostly to foreign markets remain the industry's top-dollar earner. From 2005 to 2012, for instance, contact centres' share in total industry revenues went up from 49 per cent to 54.8 per cent (BSP 2014). Finance and accounting services have picked up, as evidenced by the number of multinational financial institutions (such as JP Morgan Chase and HSBC) that have set up subsidiaries in the country. Nevertheless, by 2014, only the software development and transcription services showed marked growth: from 2005 to 2013, their share in total industry revenue grew from 20 per cent to 22.4 per cent and 0.4 per cent to 2.8 per cent, respectively (Fig. 8.1).

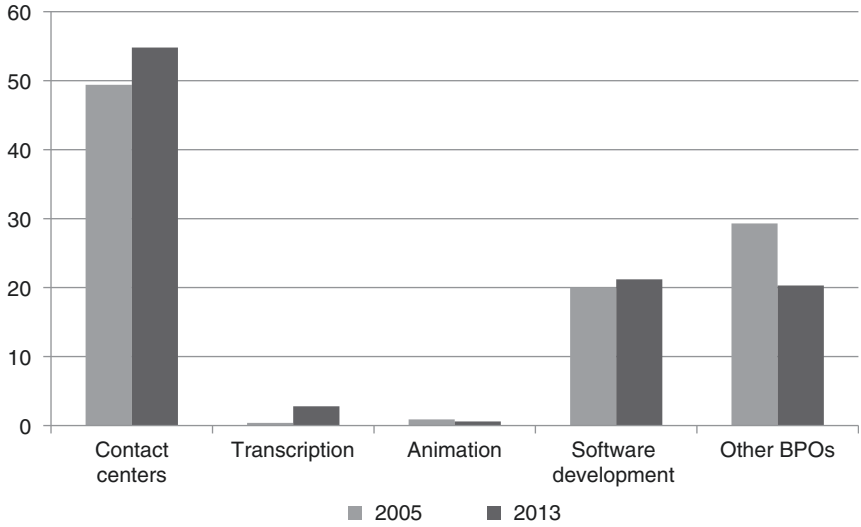

Fig. 8.1 Revenue by IT-BPO category (percentage of total)
Source: Based on Bangko Sentral ng Pilipinas (2014).

The shift in economic strategy had two causes – the close links between global markets and the domestic economy and the flexible character of the institutional arrangements in which economic activity is embedded. The historical connections between global markets and Philippine business – a colonial legacy – have made the country's private sector highly sensitive to changing and new international business opportunities. At the same time, Philippine policy tools, the most important of which have been fiscal and non-fiscal incentives, represented exceptionally flexible and efficient ways of shifting investments toward international trade in services.

1.2 Labour Export

While BPO has become the country's sunshine industry, labour export has been the country's biggest dollar earner since the Marcos government opened the programme in the 1970s. The passage of the 1974 Labor

Code or Presidential Decree (PD) No. 442 formally launched the labour export industry, designed 'to ensure the careful selection of Filipino workers for the overseas labour market to protect the good name of the Philippines abroad'. During the Marcos period, other policies were passed to promote, oversee, and regulate the deployment of Philippine labour. As such, the number of overseas Filipino workers (OFWs) increased from 36,029 in 1975 to 372,784 in 1985 (Medina 2012).

Nevertheless, the 2000s marked a qualitative change in the demographics of the OFW population, the government's approach to labour migration, and the impact of remittances on the domestic economy. Global trends and domestic policies represent the pull and push factors, respectively, that effected a dramatic change in labour migration. The past decade witnessed the rise of 'global householding', referring to the nurturing and sustenance of households through international transactions in receiving and sending countries (Douglass 2007: 158).[2] The growing needs of aging populations and changing arrangements of households in developed countries in East Asia and beyond and the crises of householding (forming and sustaining households) in developing countries have created a market for domestic help.

For the Philippines, this trend has meant that the demographics of new hires are shifting toward a younger, female population (Abinales and Amoroso 2005: 298). A government survey found that in 2013 more than one in two or 51.4 per cent of women OFWs worked as household helpers, cleaners, launderers, and other domestic workers; about 20 per cent worked in sales and other relatively low-skilled service activities (PSA 2014). It can be argued that this trend represents the third generation of OFWs, following the discernible outflow of professionals who have settled in the USA and other northern countries since the 1950s and the mass contracting of seamen, Middle East-bound construction workers, and entertainers from the 1970s. In 2014,

[2] Global householding has grown through the years due also to factors such as declining fertility, changing welfare policies, and shifting gender roles in labour-receiving, developed countries; and higher wages for labour-sending, developing countries (Douglass 2007).

Filipinos living and working abroad on a permanent or temporary basis were estimated to number more than 10 million (CFO 2016).

The changing global labour market forms only part of the explanation of the massive outflow of OFWs. Domestic policy has played a key role in the institutionalisation of labour migration. In the 2000s, under the Arroyo presidency, the government's approach to overseas labour experienced a subtle yet fundamental shift. While official policy since the 1970s consistently regarded labour export as a key source of foreign exchange, up until the past two decades, the government stressed its role as a temporary solution to unemployment and foreign currency shortfall.[3] This approach changed to one that promotes labour export as integral to the government's national development programme.

Accordingly, interagency mechanisms were set up, led by the Bangko Sentral ng Pilipinas (BSP, or Central Bank of the Philippines) (in charge of foreign currency transactions), Department of Labor and Employment (human resources), and the DTI (services export). The role of the Philippine Overseas Employment Authority (POEA), established in 1982, was expanded from largely regulating the movement of OFWs and ensuring the protection of their rights and welfare to promoting aggressively the deployment of Filipino workers abroad. Moreover, the Technical Education and Skills Development Authority (TESDA) reoriented its curricula toward training 'globally competitive' Filipino workers.

In 2005, just as the country was on the brink of a deep fiscal crisis largely due to a record national debt of PhP 3.36 trillion[4] – a staggering amount equal to 78 per cent of the country's GDP (De Dios et al. 2004) – the POEA set and achieved the goal of deploying one million contract

[3] For instance, Republic Act No. 8042 or the Migrant Workers and Overseas Filipinos Act of 1995 stipulates that the government 'does not promote overseas employment as a means to sustain economic growth and achieve national development' even as it called for the deregulation of recruitment operations.

[4] Arroyo holds the distinction of being the biggest borrower among all Philippine presidents until that time. In 14 out of his 21 years in office, Marcos incurred a debt of PhP 570 billion while Presidents Aquino, Ramos, and Estrada borrowed a total of PhP 1.51 billion – 'P2.03 trillion less than what Arroyo borrowed in her first six years in office' (Pablico 2008).

workers abroad. Measures the agency undertook that year included (POEA 2005: 4):

- Increasing the number of accredited recruitment agencies;
- Establishing government-to-government recruitment and placement programmes, such as the Philippines-Korea Employment Permit System;
- Organising international labour fairs in Manila that brought together foreign and domestic recruitment agencies;
- Sending marketing missions to Taiwan, the Middle East, and Cyprus; and,
- Decentralising its services further to secure access to provincial labour markets.[5]

This massive deployment of OFWs immediately produced a 25 per cent increase in remittances, from $8.6 billion in 2004 to $10.7 billion in 2005 (POEA 2005: 9). In 2006, OFW remittances surpassed official development aid and FDI flows combined (Jimenez 2006). In 2007, remittances jumped to $14.5 billion, contributing to a 6.3 per cent increase in private consumption for the year (Oxford Business Group 2009: 15).

In 2008, the success of the deployment drive led Arroyo to issue Administrative Order No. 247, instructing the POEA to 'execute a paradigm shift by refocusing its functions from regulation to full-blast market development efforts [and] the exploration of frontier, fertile job markets' for OFWs. Toward this end, the POEA sought to widen its global network by tapping global recruitment or placement agencies and international headhunters. Owing to such efforts, the government hit another milestone in 2012 when it facilitated the deployment of two million OFWs.

Thus, the policy environment and infrastructure for the country's full-blown services export economy was set in the mid-2000s. The Philippines has not only ranked among the world's top remittance-recipient countries, bringing in about $28.7 billion in 2014 (World Bank 2015), it also competes with India as the world's foremost BPO destination. The

[5] In 2005, the POEA operated regional offices in 14 key cities across the country.

unrelenting, massive outflow of Filipino workers and the dramatic growth of the BPO industry have created a consumer class that has fuelled the domestic services industries.

The relationship between the country's international trade in services and the domestic services sector has been the subject of studies on the OFW phenomenon. One such study notes that incomes of remittance-receiving households increased by an average six percentage points in a year (Orbeta 2008). This has meant higher incomes for those with at least one family member who works abroad and sends money home than those without. For instance, in 2006, the average yearly income of a remittance-recipient household was estimated to be 73 per cent more than that of a non-recipient household – a trend that benefitted a growing percentage of Filipino households, from 20 per cent in 2000 to 26 per cent in 2006 (Ang, Sugiyarto, and Jha 2009: 12).

The increase in the number of remittance-receiving households, suggesting that more than one in every four households receive financial support from abroad, has expanded the domestic consumer class and raised the demand for housing, education, health, transportation, communications, and durable goods (Tabuga 2007). At the meso-level, this consumption pattern has influenced the business decisions of the country's biggest conglomerates: since the mid-2000s, greater investments have flowed into banking (through which remittances are funneled), real estate, private education, healthcare, and retail (Raquiza 2014).

2 Politics and Economic Performance

In 2013, Fitch Ratings gave the Philippines its first ever investment-grade credit rating, citing the country's current account surpluses and improved fiscal management that began with reforms undertaken under the Arroyo administration (Wassener and Whaley 2013). The Aquino administration lost no time in claiming that the upgrade was due to its handling of the country's finances and its 'integrity-based leadership'. The two administrations had

undoubtedly implemented macroeconomic reforms to stabilise the economy (for example, Arroyo adopted the Reformed Value-Added Tax or R-VAT on oil and electricity in 2005 and Aquino adopted 'sin' taxes on tobacco and alcohol products in 2012). Both had also used the good housekeeping rhetoric to point to rising investor confidence. The then recently appointed BSP Governor, Amando M. Tetangco, claimed that growth under Arroyo's second term was due to 'sound macroeconomic fundamentals', which included 'low inflation, low interest rates, a broadly competitive exchange rate, adequate foreign reserves, manageable external debt levels, well-capitalised banks with stronger balance sheets and commitment to structural reforms' (Tetangco 2007: n. p.). Tetangco, who was retained by Aquino as central bank governor, would give the same explanation for the robust growth under the new dispensation.

Nevertheless, if we were to go back in time to pinpoint when a laggard Philippine economy turned a corner to become Southeast Asia's top performer, one might be surprised to find that this did not begin at a high point in the country's history. Rather, the origins may be traced to 2004–2005, an unlikely moment because this was perhaps the lowest point of the Arroyo presidency. Anticipating a fiscal debacle, Manila at that time was rife with talk that an economic crisis could be the last straw for the beleaguered president. Arroyo was struggling to move past allegations of having won the 2004 national elections through massive electoral fraud and hounded by threats of military coups[6] and impeachment proceedings. In 2006, poverty and underemployment rates stood at a staggering 32.9 per cent and 23.5 per cent, respectively (Landingin 2008). The deteriorating economy, coupled with the regime's crisis of political legitimacy, saw the administration's popularity plummeting to a negative 38 per cent, depths not seen since the last days of the Marcos regime (Pablico 2008).

[6] In 2006, for instance, rumours of an attempted coup led Arroyo to declare a short-lived emergency rule (Conde 2006).

Yet, two years later, the Philippines began an economic take-off that would rescue the regime from going under. In 2007, the government proudly announced that the country had attained a three-decade high 7.3 per cent growth rate (Tetangco 2007). The proximate factor for this stunning turnaround was the imposition of higher taxes on oil and electricity (from 10 to 12 per cent) in 2005, which immediately raised revenues for the cash-strapped government. Equally if not more important was the government decision to promote international trade in services as integral to its national development programme. As discussed earlier, the dramatic increase of OFW remittances and the rise of the BPO industry provided the Arroyo government with much-needed resources and international credibility, enabling it to get ahead of the political and economic storm that had been building since 2004.

The Philippine turnaround, in fact, puts into sharp focus the different ways in which services and the other sectors connect to the domestic economy. The Philippine experience raises questions on the relationship between politics and economic performance. The country's relatively slow development has been attributed to weak institutions and an economic oligarchy (Yap 2011). Elsewhere, I argue that state configuration, defined as the level of embeddedness of the political leadership and economic technocracy in state institutions and the pattern of interaction between these two sets of policy actors, impacts a country's structural development (Raquiza 2012). The more institutionally embedded these two sets of state elite are, the more likely it is that policies will have long time-horizons and the less economically disruptive political contestation will be. This state configuration, in turn, is more conducive to long-gestating production investments.

The present work's investigation of the country's growth trajectory bears out this finding. As pointed out earlier, the dramatic expansion of the Philippine services sector was due to the convergence of external and domestic factors: the explosion of the global services industries, on the one hand, and the then embattled Arroyo administration's aggressive push to link the country's workforce to global markets, on the other hand. On the domestic front, quick thinking and action was possible due to the Philippine government's long

engagement in the labour export industry, a history that has given rise to a 'labour brokerage state' (Magalit Rodriguez 2010). Policy innovation, therefore, did not entail a major reconfiguration of state power as the tools to facilitate labour migration were readily available for an enterprising state elite. In fact, in the last years of the Arroyo presidency, the economic management team largely comprised politicians who could deliver votes for the administration in the 2004 and 2007 mid-term national elections.[7]

The Philippine experience suggests that the services sector, which is fragmented and less capital-intensive than the manufacturing sector, can thrive alongside weak state institutions unlike economic activities that would require longer periods and huge resources to turn a profit. This seems truer in relation to long-distance services. It is beyond question that OFW remittances have been critical to the country's growth economy. They have helped solve many of the country's perennial money problems. Remittances are a major source of foreign exchange; they improve the country's foreign currency account balance and raise the level of savings and investments (Lim 2013). With the OFW population reaching millions, labour export has helped lessen unemployment and poverty in the country. Increased mobility under globalisation allows labour to 'vote with their feet' (Hirschman 1978) and literally take its business elsewhere during periods of scarcity or uncertainty in their home countries. Simply put, the Philippines' quick turnaround during the brief 2004–2007 period illustrates how foreign capital flows in the form of overseas workers' remittances could save a regime without effecting deep structural transformation or even broad-based growth.

The Philippine pattern of development, where the outflow of labour and massive inflow of remittances have become key to domestic economic performance, could present a 'labour export hazard'. I attach the term 'hazard' to this trend in a more self-conscious

[7] In 2010, the heads of the National Economic Development Authority, Finance Department, and the Department of Budget Management were, respectively, former Senator Ralph Recto and House Representatives Margarito Teves and Rolando Andaya.

evocation of the economic term 'moral hazard' (in which the provision of some sort of insurance removes the incentives for the insurance recipient to be prudent and struggle against failure). The concept of moral hazard has, in fact, been used in relation to labour migration. It has been shown to negatively impact the participation of remittance-receiving households in the domestic economy. It can also remove the incentive for the national government to work toward the growth of the domestic economy (Pernia 2011: 22-24; United Nations ESCAP 2016).

'Labour export hazard' is used in the present work as a more precisely targeted concept, referring to the specific case of overseas labour. The expanded economic capacity of a new, or perhaps proto-middle class is based less on their domestic employment, their skills, or their entrepreneurial drive, and more on remittances from relatives employed overseas. Therefore, at least initially, economic development places no pressure on weak state institutions. On the other hand, the country's economic oligarchs have diversified into commercial activities aimed at capturing the windfall gains from remittances; they have begun to shift investments to match the consumption patterns of OFW families (Raquiza 2014).

The classic back and forth between a rising middle class and a state striving to provide the economic, regulatory, and infrastructural services that support economic activity does not take place in the Philippines. Elsewhere, investments create and expand productive economic activity; in the Philippines, investments concentrate on providing more venues for consumption and recreation. Hence, if the services sector can thrive without strong state institutions, those who benefit from employment in these services and from overseas remittances, including the country's commercial elite, have little reason to push for a more responsive or responsible state.

If the labour export hazard removes the back-and-forth struggles between a rising middle class and the state, it also makes state institutions less inclined to aggressively promote productive activities. Indeed, an economy with scant opportunity for gainful employment may be precisely the condition that drives domestic labour into the profitable remittance-creating international labour market.

3 The Work Ahead

Globalisation has allowed for greater diversity in development pathways than the traditional sequence of agriculture leading to manufacturing and industrial development, with the services sector only fully coming into its own in the post-industrialisation phase. UNRISD (2010: 32–3) argues that globalisation 'weakens the organic links between agriculture and industry' since freer trade lessens the pressure on domestic markets to expand production – a situation, that in turn, means displaced rural labour cannot be absorbed in manufacturing and instead ends up in the services and informal sector. As such, in many developing countries, the services sector has always played a significant, if not leading, role in growth. Whether this development path translates into rapid growth is an empirical question, contingent on other factors such as its institutional context.

The Philippine experience adds yet another dimension to the emerging pattern of services-led growth: its dynamism derives from and ends in foreign shores. In fact, because trade in services has become the main source of profit in the sector, the most dynamic businesses are those that are fully integrated in the global economy, with very limited linkages to the domestic real economy. The country's labour export industry's main contribution to the economy is to drive domestic consumption, rather than provide investments to build productive capacities. On the other hand, a 2008 study on the BPO industry noted that it was more of a consumer of inputs from, rather than a supplier of inputs to, other sectors. It availed of services from 40 industries, including banking, telecommunications, and power but itself only provided services to three: tourism, wholesale and retail trade, and banking (Magtibay-Ramos et al. 2008: 6).

That the services export industries have had limited linkages to higher value-added sectors in the Philippines may be attributed to the labour-export hazard issue. That is, while an economic development programme could conceivably connect services industries to other sectors of the economy, the Philippine policymaking environment has insufficient incentives for such development. With so many new consumers

being created via remittances, investors have every incentive to shift to retail businesses, and consumers do not need better-paying manufacturing jobs to buy what they need. Nor, in fact, does government have the incentive to undertake long-gestating investment projects. Rather, government strategies have focused on incentivising BPO work in the country and the movement of OFWs abroad. The massive flow of OFW remittances has led to the appreciation of the peso that makes investments in other tradable goods less attractive (Sicat 2012) – a situation that Philippine economists have likened to the negative effects of the Dutch disease or resource curse on manufacturing (Medalla et al. 2014: 3).

Like any emerging economy in the region, the Philippines is confronted with the challenge of moving to the next level. The response to the so-called middle-income trap, particularly for countries specialising in low-cost mass manufacturing, is to shift to a knowledge-based economy. For most developing countries, this has meant investments in services, to improve agricultural or manufacturing efficiency and product competitiveness (ADB 2013). This option would seem like the natural progression for the Philippines, a country that has made its skilled labour force its selling point.

Unfortunately, the path for the Philippines may not be entirely straightforward. As discussed earlier, the sequence of its sectoral development, with international trade in services leading growth in the absence of vibrant agriculture and manufacturing sectors, has an adverse effect on the latter. Moreover, the labour-export hazard, created by the institutionalisation of labour migration, makes remittances (rather than other capital inflows) more important to rapid growth. As the Philippines illustrates, state officials are incentivised to create or maintain the domestic conditions that propel more Filipinos to search for greener pastures abroad. This, in turn, dampens the domestic market for skilled labour. Beyond the government's aggressive push, labour export remains viable only when incomes are lower than elsewhere and unemployment rates are high (Swan 1985: 344). The surge in remittances thus becomes a disincentive for the state to improve the economy.

The rising BPO industry – also in the international trade in services – may constrain this trend in the long run. There is one paradox: labour export and the BPO industries make competing claims on the country's workforce (Raquiza 2016) and may thus work against each other. The country is losing highly skilled labour that could otherwise be tapped by the domestic BPO and other knowledge-based industries. The Department of Science and Technology found that, from 1998 to 2009, the outflow of science and technology workers increased 148 per cent, from 9,877 to 24,502, a seemingly small number until one takes into consideration that the country's R&D population of 165 per million Filipinos is way below the UN Educational, Scientific, and Cultural Organization (UNESCO) recommendation of 380 needed for economic development (Roblas 2011). Nevertheless, outmigration also afflicts the BPO industry that can keep the wages of its workers relatively low and, therefore, attractive to MNCs. Anecdotes abound where domestic call centres lose their agents to higher paying call centres abroad (notably, Singapore). Simply put, a country in which one of the attractions for MNCs is the relatively low wages of its talent pool would find it difficult to keep this workforce in an era of greater labour mobility (Raquiza 2016).

That said, the country today has the wherewithal and is in a better position to address structural constraints that prevented it in the past from developing agriculture and manufacturing. Besides the obligatory nod to good governance reforms and infrastructure development, the work ahead needs to include going back to the basics.

First, the government needs to invest more in education at all levels. To be sure, education gets the biggest allocation in the national budget today. Nevertheless, as the Department of Education itself acknowledges, government spending on education is much smaller than the United Nation's recommendation, which is 6 per cent of GDP. The nominal increase in the education budget in 2012 represented only 2 per cent of GDP (Quismundo 2012). This limited budget impacts the quality of education, a problem manifest in the low hiring rate of the BPO industry. As an industry official noted in 2012, for every 100 applicants only five met industry standards and were hired.

The limited education budget also means fewer opportunities for youth to go to school, a situation that exacerbates inequality.[8] One study provides evidence that the surging Philippine services industries (notably, BPO and labour export) have had limited impact on households with low human capital; instead, these industries have benefited households with already high capital levels (Ducanes 2015). As private schools mushroom in Manila to meet the demand of remittance-receiving households for quality education, the government needs to step in and increase its spending for public education to better ensure inclusive development.

The country can also jumpstart its stalled agriculture and manufacturing industries. The growing trade in services has worked to increase the middle class and consequently the domestic market, making the Philippines today a much more viable manufacturing investment site. A case in point is the automobile industry where brisk car sales (registering a 30 per cent increase in 2014) have caught the eye of Japanese automakers (Cruz 2015). Small and medium-sized Filipino businesses can also benefit from this pattern. The government should assist these businesses so they can compete with the inflow of foreign brands, on the one hand, and enter global production and services networks, on the other hand, a move that in effect might help forge a broader services-manufacturing nexus.

The Philippine experience could be considered a case in which rapid growth highly dependent on global markets might lessen the urgency to effect the structural transformation necessary to push for balanced, more inclusive development. Nevertheless, the rise of the BPO industry, which has a stake in improving and maintaining human capital in the country, and the expansion of a consumer class that would attract investments in domestic manufacturing, could push for a fundamental rethinking of the country's current development strategy. The development of more accountable state institutions would also go a long way toward promoting industries with wider linkages in the domestic economy.

[8] An ADB study, for instance, noted that one in four youth (those in the 14 to 24 age group) are out of school or out of work or both (Medenilla 2015).

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9

Indonesia's Mining Industry, 1997–2014: An Institutional Assessment

Wahyu Prasetyawan

Indonesia was severely affected by the East Asian financial crisis of 1997–98 which, scholars and practitioners largely agree, was caused by weaknesses in the banking and corporate arena (Mulyani 2002; Kartasasmita and Stern 2016). The crisis developed into a 'twin crisis' when it spread to the political arena and led to the overthrow of Soeharto (Hill and Shiraishi 2007; Aswicahyono, Bird, and Hill 2009; Kartasasmita and Stern 2016). Soeharto's fall ended an era of developmental authoritarianism that staked regime stability, backed by a central role for the military (Shiraishi 1999), on national economic development and improvement in living standards. What ensued was a transition from an authoritarian to a more democratic regime. More importantly, a hitherto highly centralised political structure was transformed into a more decentralised one. Ten years later, in 2008, there was a global financial crisis that

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originated in the USA. The impact of this global crisis on Indonesia was limited (Basri 2013).

Interestingly, the two different crises had different impacts on the mining sector, the subject of this chapter. The economic crisis that hit the country in 1997–98 had dramatic consequences for the mining sector owing to the decentralisation policy which significantly altered rent distribution among different levels of government. By comparison, the 2008 crisis did not have a direct impact on the mining industry, but was apparently used by the central government to increase its revenue from the industry.

1 Introduction

Academic literature has variously discussed changes in the fiscal relationship between the central and local governments after the decentralisation policy was introduced in 1999. The arguments that applied specifically to the mining industry may be grouped by three related topics: a dampened investment climate, rising economic nationalism, and revenue sharing between the central and local governments.

First, Law 4 2009, on minerals and coal, does not support the expansion of the mining industry unlike Law 11 1967 passed by the Soeharto government. Gandataruna and Haymon (2011) argue that the former law does not advance the government intention to foster an attractive investment climate in the mining industry to spur socio-economic development. In fact, O'Callaghan (2010) suggests that the new mining law will do little to improve mining investment in Indonesia.

Second, the enactment of this law put a nationalistic gloss on the mining industry as mining licences could only be granted to Indonesian nationals (Junita 2015: 245). An assessment of Law 4 2009 and corresponding regulation concludes that four methods were chosen to achieve resource nationalism: a limitation of foreign ownership by divesture of share, a ban on the export of raw material, an increase in taxes and royalties in the Contract of Work (CoW), and an increase in the export

tariff on raw materials (Junita 2015). However, Junita argues, resource nationalism increases regulatory risks in the industry. The rise of resource nationalism is also triggered by a need to extract more gain from the mining sector because large Multionational Corporations (MNCs) dominated the sector in the past (Warburton 2014). The financial crisis of 1997–98 sparked a high degree of nationalism and the rural population demanded a share in the nation's wealth, especially in regions that hosted foreign companies extracting resources (McKay and Bhasin 2001: 342). This phenomenon is not restricted to Indonesia but is widespread (Wilson 2015; Bremmer and Johnston 2009; Mares 2010). In Brazil and Chile, for example, there have been expressions of resource nationalism against emerging patterns of post-neoliberal policies and practices (Nem Singh 2012).

Third, the Indonesian government tended to maximise its share of mining rents (van der Eng 2014). By looking at various regulations from the colonial period to 2009, van der Eng (2014) argues that the government established various institutions to increase its revenue. Hence, some scholars had anticipated that the crisis of 1997–98 would lead to an expansion of mining activities to increase foreign exchange (McMahon et al. 2000) among other reasons. Decentralisation enhanced the authority of local governments, especially in resource-rich areas, offered the prospect of higher revenue shares, and triggered a proliferation of new districts, regencies, or even provinces (Rusli and Duek 2010).

The studies cited above are right to consider the implications of the new law mainly in terms of governance, economy, and resource nationalism. Yet, they scarcely assess the impact of institutional changes and alteration in revenue sharing and fiscal management that arise out of decentralisation and the new law on mining. Although some studies note that the decentralisation policy changed the national political structure, they tend to look only at changes in fiscal relations and the increase, or lack of, in benefits for the local government. They do not devote much attention to the politico-economic implication of the enhanced authority of local governments and the political game they have adopted to obtain greater benefits from resources located in their jurisdictions. As such, those studies usually prescribe better governance as the solution to an otherwise unfriendly investment climate. They

emphasise the ability of the central government, which they assume to be free of vested interests, to impose better governance. In addition, these studies fault the resource nationalism of the new law for creating an unattractive investment climate. However, they overlook the fact that the central government had to adapt to fiscal pressures when the prices of mineral commodities fell in the international market.

This chapter offers an institutional assessment of the legal and political changes wrought by Law 4 2009 and the government's intentions. In doing so, the chapter views institutions as the rules of the game in a society, or formally, the humanly devised constraints that shape human interactions, a conceptualisation that was developed by Douglass North (1990: 3). It is principally argued here that the 1997–98 crisis and Law 4 2009 drastically transformed how revenue from the mining industry was distributed among central and local governments and MNCs. More than anything else, the crisis decentralised the political architecture and conferred more authority on local governments. The enactment of Law 4 2009 on mineral and coal and its implementing regulations specifically expanded the power of local governments as they received greater authority to issue mining and coal permits at the local level.

After enacting Law 4 2009, the central government had to confront two difficulties: the enhanced ability of local governments to secure benefits from the industry operating at the local level, and, conversely, strong opposition from foreign investors to the ruling. To appreciate the central government's problem, it is necessary to understand that the development of the mining industry was influenced considerably by the government's effort to redistribute rents to various actors, including local governments or local elite and foreign investors (mainly MNCs). A careful evaluation of how the distribution of revenue was transformed shows that local governments generally moved beyond their authority to issue mining licences. To guard against financial losses, the central government was thus compelled to intervene by terminating the local governments' authority to issue mining permits. Simultaneously, the central government had to relax the new regulation banning the export of raw material that mainly targeted the MNCs. Small contractors of domestic origin were also affected by this policy but it was foreign companies that openly opposed the government. The policy was

aimed at increasing value added by requiring mining companies to process the raw materials. However, after MNCs disputed the regulation on establishing smelters, the government was forced to negotiate a settlement with them.

The behaviour of the central government is influenced by its fiscal limitation. On the surface, this argument seems similar to that of van der Eng (2014) who holds that the central government maximises its revenue from the mining industry. However, it is contended here that the central government is mainly concerned with its fiscal health or sustainability in the long term, as the mining industry contributes a significant share of exports, particularly after oil exports declined. In other words, the central government's behaviour should be located in a wider context of the adverse impact of the financial and economic crises on the national economy over the past 15 years. Just as importantly, one should consider the cohesiveness and influence of the leading technocrats who had to maintain economic stability (Shiraishi 2006). Although Shiraishi referred to the technocrats serving Soeharto's New Order regime, their academic backgrounds, technical expertise, and basic ideas of fiscal discipline were shared by those responsible for macroeconomic management in successive post-Soeharto governments. In other words, the views and attitudes of technocracy were marked by continuity in terms of fiscal discipline and sustainability. For that matter, even when the power of the technocrats weakened, key finance ministers responsible for macroeconomic management in the period under study were not different from them, having gone through the Department of Economics of the University of Indonesia or Gadjah Mada University.

2 Macroeconomic Balance

After the 1997–98 crisis, the government adopted prudent macroeconomic management, mainly by targeting inflation and maintaining a healthy fiscal balance. Law 17 2003 was adopted to guide fiscal management. Since the 1997–98 crisis, fiscal and current accounts have moved

in opposite directions, with the fiscal balance swinging from a small positive percentage of GDP to generally modest deficits. As Hill and Shiraishi (2007: 133) pointed out, the current account shifted from a deficit of around 3 per cent of GDP in the pre-crisis 1990s to a surplus of a similar magnitude but that, too, has started to decline. Since 2006, fiscal and current accounts continued to move in opposite directions, with the fiscal balance showing a modest deficit until 2010 but deepening in subsequent years (Fig. 9.1). The current account was positive until 2011 when both the current account and fiscal balance moved in parallel. The current account was about –3 per cent of GDP in 2011 and deteriorated in the following years. Fiscal deficits began to deepen, reaching –2 per cent of GDP.

The twin deficits – fiscal and current account – were highly pertinent to the central government's concern of sustaining a healthy macroeconomic balance. In response, the central government sought to maintain a continuous flow of revenue, not least from an increasingly important mining industry, especially because of falling commodity prices in the international market. In short, the government sought to reduce the

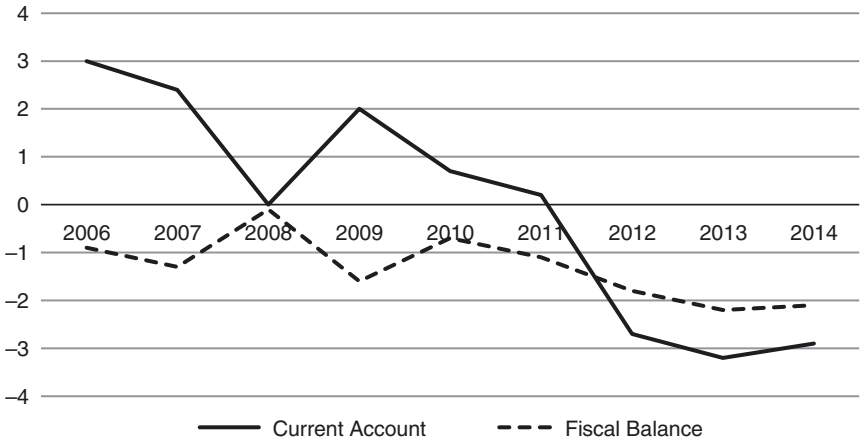

Fig. 9.1 Current account and fiscal balance as percentage of GDP

Sources: World Bank Indicators and ADB's Key Indicators for Asia and the Pacific 2016.

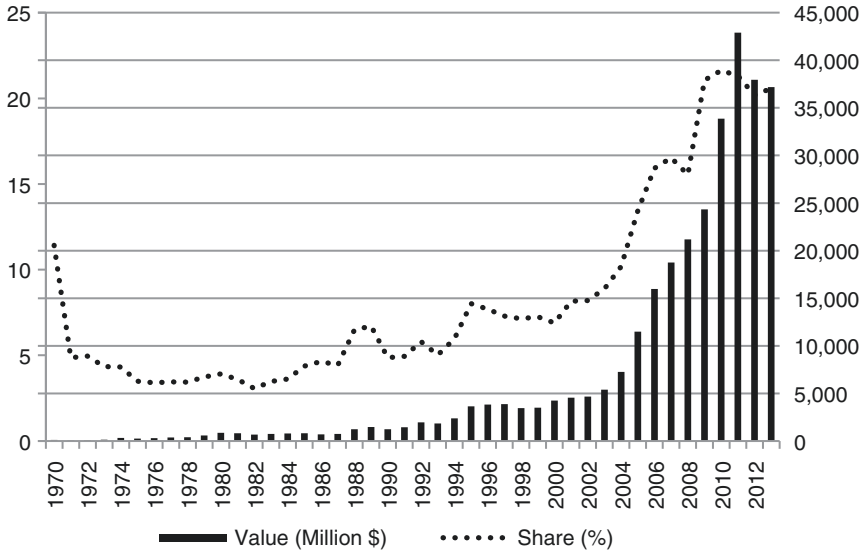

Fig. 9.2 Value and share of mining in Indonesia's total exports
Source: UN Comtrade.[1]

leakage of revenue from the mining sector and to secure a steady flow of income from existing companies.

3 Importance of Mining in the Indonesian Economy

Mining is one of the drivers of exports in mineral-rich Indonesia. As Fig. 9.2 shows, the share of mining exports has steadily risen in Indonesia's total exports since 1970. The mineral export value rose from $3 billion in 2003 to $11.2 billion in 2013 (World Bank 2014). Mineral exports accounted for 6.2 per cent of total export value in 2013, with copper, nickel, tin, iron, and bauxite being the largest contributors (World

[1] I wish to thank Arianto Patunru of Australian National University for providing this data.

Bank 2014). Following the 1997 and 2008 crises, mining exports increased partly because the central government wanted to bolster its fiscal sustainability with increased income from available resources. Another reason was the increasing international prices of some mineral commodities, which provided opportunities to tap the benefit of increased exports of the same.

When the financial crisis struck in 1997, concerns were raised that Indonesia would exploit its mineral resources to maintain its economic development. It was assumed that the crisis would trigger an extension of mining activities for various reasons, including a dire need to boost foreign exchange and tax revenue, and lower domestic production costs due to currency devaluation. To compound the problem, subsequent decentralisation policies affected revenue-sharing from mining extraction between the central and local governments.

4 Economic Crises and Institutional Changes

Under the Soeharto regime, the main legislation regulating the mining industry was Law 11 1967 (Basic Provision on Mining). Its enactment was related to the efforts of the international financial community and foreign investors to pressure Indonesia to relax its investment climate. During the Sukarno era, foreign investors experienced difficulties caused by policies, dating back to 1957, which nationalised foreign firms (Crouch 1988) and disconnected Indonesia from the international economy. Thus, trade and investments declined and by 1965, the government was unable to service its debt of about $2.5 billion and the central bank could not honour letters of credit. In 1966, debt repayments were estimated to be about $530 million, exceeding the projected official foreign exchange earnings of $430 million (Hill 1996: 65). For Soeharto, who replaced Sukarno in 1966, policy responses were constrained by who or what controlled investment resources and production units, and which instruments policymakers had at their disposal to gain access to these resources (Winters 1996: 63).

Under the circumstances, old laws considered inhospitable to foreign investors were replaced by new ones to establish a hospitable environment for foreign investment. To meet the demands of foreign investors in the mining sector, Law 11 1967, Law 1 1967, and Law 18 1967 were passed to replace Law 78 1958 on foreign investment and Regulation 37 1960 on basic mining. Law 11 1967 was clearly the product of harsh political and economic realities but it also signalled Soeharto's ability to set out basic guidelines for the mining industry. Law 11 stipulated that the authority, control, and regulation of strategic and vital mineral resources were solely vested with the Ministry of Energy and Mineral Resources (MEMR). Above all, Soeharto wanted to gain the confidence of the international financial community. To do so, he was willing to protect their investments for 30 years, the entire duration of a mining CoW signed with a foreign investor. The CoW scheme allowed a foreign investor to conduct mineral exploration as a contractor to the Indonesian government. One of the most important features of Law 11 1967 was its 'guarantee of tenure (so that the companies undertaking exploration could be sure that they would able to proceed to production) and competitive and stable royalty rates' (Gandataruna and Haymon 2011). The number of mining companies, foreign and domestic (including SOEs), grew from 321 in 1975 to 597 in 2000 (van der Eng 2014). Thirty years after these regulations were in place, there was significant investment in mining and revenue reached $648 million (PricewaterhouseCoopers 2002). To that extent, Law 11 1967 fulfilled its intention.

While Law 11 1967 benefited foreign companies in a highly centralised political structure, provincial and regency governments received little benefit from the revenue-sharing imposed by the central government. It scarcely made any difference whether provincial and regency governments administered natural resource-rich regions, such as Riau and East Kalimantan or resource-poor regions such as Nusa Tenggara Timur. A crucial change came when the Habibie administration introduced the decentralisation policy in 1999. A corrective to Soeharto's excessive control, this policy changed the rules of resource-derived revenue-sharing. Resource-rich regions such as Riau and East Kalimantan had long been dissatisfied

with the old basis but their local political elite could not openly challenge Soeharto's central government. After Soeharto's departure, these two regions demanded a bigger revenue share. As the Habibie administration was under heavy pressure in a time of political crisis, fair 'revenue share was designed to achieve a greater political buy for keeping the country together in the post-Soeharto era' (Agustina, et al. 2012: 3), as well as to ensure more 'balanced' development. The replacement of Law 11 1967 thus became an issue if mining stipulations were to be made compatible with decentralisation (Wahju 2002). A new mining law was initially expected to be in line with Law 22 1999 but the country was struggling to achieve economic recovery.

5 Decentralisation and the Mining Industry

Under Soeharto, only the MEMR could issue mining permits for strategic minerals to domestic or foreign investors. As revenue was shared mainly between the central government and the contractors, including MNCs, resource-producing regions received almost the same revenue as non-producing regions. Decentralisation allowed local governments of cities and districts to issue mining permits. The result was an abundance of mining permits that were not in line with central government regulations.

From 1999, when fiscal decentralisation served as the main part of the decentralisation policy, several regulations governing the mining industry were changed. Law 25 1999, which regulated the fiscal relationship between central and local governments, allowed the local government to receive more revenue from mining. This relationship was changed again with the introduction of Law 33 2004 on fiscal balance. It allowed the local government to secure about 80 per cent of revenue from mining, of which 16 per cent went to the province and 64 per cent to the district. Table 9.1 shows changes in revenue-sharing after decentralisation; clearly, the resource-rich regions benefited the most. The introduction of Law 4 2009 largely completed the decentralisation policy with regard

Table 9.1 Changes in the distribution of mining resources

Revenue source	Old sharing arrangement	Major change	New sharing arrangement
Mining Land Rents	65% Centre 19% Provinces 16% Districts/ municipalities	New arrangement	20% Centre 16% Provinces 64% Districts/ municipalities
Mining Royalties	30% Centre 56% Provinces 14% Districts	New arrangement favouring districts/ municipalities in the provinces of origin	20% Centre 16% Provinces 32% Districts/municipalities of origin 32% Other districts/ municipalities in the provinces of origin

Sources: Compiled by the author based on Duek and Ridwan (2010) and Agustina et al. (2012: 5–6).

to local government regulation of the mining sector. However, the central government maintained existing contracts with investors until they expired, to maintain stability and confidence.

To accommodate changes that took place after political reform and decentralisation, a new law was passed to combine the regulation of mining (ores and minerals) and coal (previously regulated under Presidential Decree 75 1996). Under Law 4 2009, contract-based concessions for foreign investors were replaced by a new licensing system and new procedures to grant licences. Decentralisation effectively reshaped the mining governance regime (Devi and Prayogo 2013: 27), allowing both the central and local governments to determine areas for mining. As shown in Table 9.2, the IUPs (Izin Usaha Pertambangan, or mining permits) were

Table 9.2 Granting of mining licences based on Law 4 2009

Grantor	Project location
Minister	where the area covers more than one province
Governor	where the area covers more than one regency, but it is within one province
Mayor/ Regent	where the area is within one city or regency

Source: PricewaterhouseCoopers 2011.

Table 9.3 Verification of mining licences (as of 2013)

Status	Mineral		Coal		Total
	Exploration*	Operation**	Exploration*	Operation**	
C and C***	1,361	1,906	1,338	897	5,502
Non C and C	1,583	2,073	1,190	461	5,307
Total	2,944	3,979	2,528	1,358	10,809

Notes: *An exploration permit is granted for exploration and feasibility study.
**An operation permit is given for construction, mining, manufacturing, refinery, transportation, and selling activities.
***C and C = Clean and Clear.

Source: Ministry of Energy and Mineral Resources, Directorate of Mineral and Coal 2013.

mostly granted by regents, mayors, or governors. Ministers granted IUPs only when the area crossed the boundaries of provinces.

However, local governments used their discretionary power to create unreliable mining licences. While the central government used to issue only a moderate number of licences, local governments collectively gave out a far higher number. As of 2013, local governments had issued more than 10,000 licences (Table 9.3). Of these, only 50 per cent could be categorised as 'clean and clear', that is, they conformed to administrative procedures, fulfilling financial obligations, and observing environmental regulations.

It has been suggested that the issuance of numerous licences is closely related to a lack of governance among the local governments that issued the permits (Junita 2015: 260). Local executives were also under pressure to obtain funds quickly. Hence, one of the mechanisms used by a local executive (say, a regent or a mayor) was to fabricate mining permits to raise funds to meet the rising costs of contesting local elections. The cost of campaigning in a local election in 2010–13 has been estimated at IDR 2.4–16.3 billion.[2] Even this range might only have covered 10 per

[2] 'Pengaturan Biaya Kampanye (Arrangements for Campaign Fund)'. *Perludem,* 2015.

cent of the total sum a candidate spent in contesting a local election. For incumbents with the power to do so, it seemed easy to allocate mining licences. Even challengers, however, seemed able to issue licences although their permits would hold only if they won the election. The Indonesian Corruption Eradication Commission (KPK) claimed that regents or district heads issued mining licences shortly before local elections.[3] In fact, the KPK suspected that regents or district heads sold licences to raise funds for local election campaigns.[4]

In any case, it appears that decentralisation enabled local governments to use their power to serve their own interests, not least by securing more revenue from the mining sector. In Central Sulawesi, for example, the central and local governments had approved an application by PT Citra Palu Mineral to carry out mining activities within a conservation area (Seymour and Turner 2002: 47). The chief officer in charge of minerals and energy in Donggala regency, Central Sulawesi, was charged with abusing his authority by extending expired mining licences.[5] A similar case was reported in Kotabaru regency, South Kalimantan, where the regent issued mining licences to five companies in 2010, some within conservation areas.[6] In Bengkulu, the area covered by forestry permits (which allow a forest area to be used for mining activities) rose from 38,000 ha in 2008 to 63,000 ha in 2009.[7] The regent of Tanah Laut, South Kalimantan, was recently arrested

[3] 'Jelang Pilkada Penerbitan IUP Cukup Gencar' (Ahead of Local Elections, Issuance of Mining Permits Rises) *Republika,* 26 March 2014, http://www.republika.co.id/berita/nasional/hukum/14/03/26/n31lf0-jelang-pilkada-penerbitan-iup-cukup-gencar.

[4] 'Bupati Jual Izin Usaha Pertambangan untuk Danai Pilkada' (Regent Sells Mining Licences to Fund Local Election). *Liputan 6,* 23 April 2014, http://bisnis.liputan6.com/read/2040559/bupati-jual-izin-usaha-pertambangan-untuk-danai-pilkada.

[5] 'Polisi Segera Periksa Bupati Donggala Soal Pertambangan Illegal' (The Police Questions the Regent of Donggala on Illegal Mining). *Berita Satu,* 13 November 2014, http://www.beritasatu.com/nasional/224949-polisi-segera-periksa-bupati-donggala-soal-pertambangan-ilegal.html.

[6] 'Kotabaru, Tambang, Jembatan dan Pilihan Masyarakat' (Kotabaru, Mining, Bridges and People Choice). *Batulicin,* 3 March 2011, http://www.fokusbatulicin.com/2011/03/kotabaru-tambang-jembatan-dan-pilihan.html?m=0.

[7] 'Jelang Pilkada Kepala Daerah Obral Izin Pertambangan (Ahead of Local Election Local Chiefs Sell Mining Licences)'. *Halopilkada,* 19 September 2015, http://hallopilkada.com/jelang-pilkada-kepala-daerah-obral-izin-pertambangan.

by the KPK on charges of illegally receiving money for issuing mining licences.[8]

There were other serious consequences from the uncontrolled issuance of mining licences in many parts of the country. When mining permits issued by a local government cannot be categorised as clean, the central government itself can suffer a loss of revenue. The MEMR estimated that if the entire problem of 'unclean' mining licences could be solved, the central government would gain additional revenue of about IDR 39 trillion.[9] The KPK calculated that in 2012, the central government experienced a tax revenue loss of about IDR 28.5 trillion.[10] Along with the KPK, the government, represented by the MEMR, has tried to solve this problem. The central government could 'clean up' mining permits that are not 'clean and clear' by imposing further requirements on permit holders. The central government's main concern is to raise its revenue, in the form of non-tax income, from the mining sector, together with tax revenue, to preserve a flow of income that would stabilise the fiscal situation.

In short, the decentralisation that accompanied democratisation created incentives for local power holders to profit from changes in the regulation of the mining industry. The abuse of local executive authority in this matter contradicted the aims of decentralisation. The new law gave broader scope and authority to local power holders, only for them to create a new system of rents outside central government control. Such findings in various local regions are consistent with the argument that Indonesia's main coal entrepreneurs became central players in the new political economy of Indonesian democracy (Garnaut 2015: 194). In 2014, however, the central government finally enacted a new law that terminated the authority of local governments

[8] 'Ardiansyah Kembali disidik KPK soal korupsi izin tambang' (Ardiansyah Questioned by the Corruption Eradication Commission on Mining Permit). *CNNIndonesia,* 18 June 2015, http://www.cnnindonesia.com/nasional/20150618125229-12-60823/adriansyah-kembali-disidik-kpk-soal-korupsi-izin-tambang/.

[9] 'Ribuan izin tambang rugikan negara Rp 39 triliun' (Thousands of Mining Permits Cause Rp 39 Trillion Loss to Government). *Kontan,* 15 February 2016, http://nasional.kontan.co.id/news/ribuan-izin-tambang-rugikan-negara-rp-39-triliu.

[10] 'KPK evaluasi GN penyelamatan SDA di 4 propinsi' (Corruption Eradication Commission Evaluates National Movement to Save Natural Resources in 4 Provinces). *KPK,* 24 March 2015, http://kpk.go.id/id/berita/siaran-pers/2577-kpk-evaluasi-gn-penyelamatan-sda-di-4-provinsi

(cities and regencies) to issue mining permits.[11] That move signalled the end of the central government's willingness to compromise with local governments and elites to solve the problems of the mining sector.

6 Export Ban and Smelters

Apart from using Law 4 2009 to enable the national economy to derive greater benefits from mining activities, the government tried to restrict the export of unprocessed minerals. It did not justify this decision as resource policy; rather, the government rationalised the decision as industrial policy that would increase value added in mineral exports and build domestic smelting and processing capacity[12] (Baird and Wihardja 2010). This aim was stipulated in Regulation 7 2012 issued by the MEMR. Moreover, the government wanted to use the mining industry, which is subject to 'naturalisation' rules (Wilson 2015: 408), to expand and strengthen the domestic industry by ensuring the supply of raw materials at affordable prices.[13] By controlling the export of raw minerals, the government hoped to pursue its overall goals of boosting GDP, improving the trade balance, enhancing fiscal revenues, and creating employment.

Perhaps the most important reason for increasing value added in the mining sector was to lower dependence on oil and gas over the years. As Fig. 9.3 shows, the share of oil and gas exports has declined over the years, while that of mining exports has gradually risen from the end of the 1980s; by 2008, it had overtaken oil and gas exports. The decline of oil and gas exports in total exports also diminished the role of the sector as an engine of revenue collection. Concerned that it might not be able to rely on oil and gas

[11] Law 23 2014.

[12] Ministry of Energy and Resources of Republic Indonesia. 2014. 'Exporting Ore = Illegal', Press Statement, 25 February, http://www.esdm.go.id/news-archives/mineral/48-mineral-en/6730-exporting-ore-illegal.html.

[13] Ministry of Industry of Republic Indonesia. 2012. 'Analisis Biaya-Manfaat Pelarangan Ekspor Bahan Mentah Minerba dan Dampaknya Terhadap Sektor Industri' (Cost-Benefit Analysis of Raw Material Export and Its Impact on Industry).

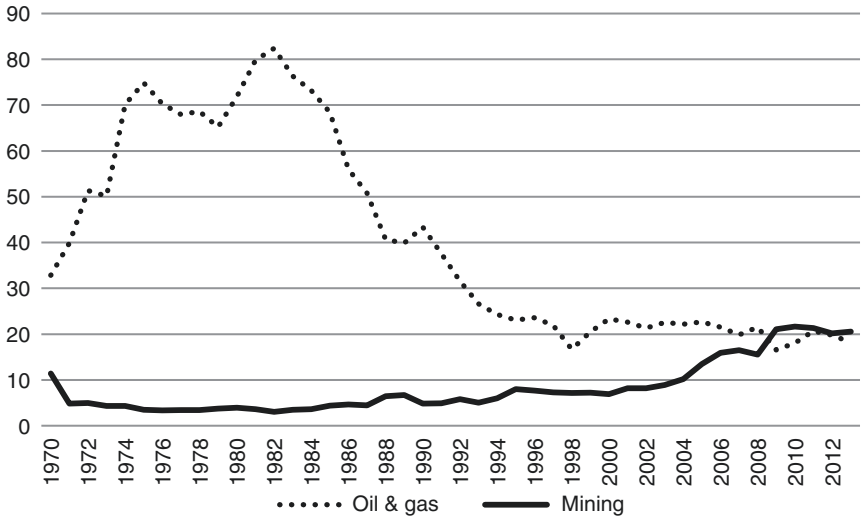

Fig. 9.3 Share of oil and gas versus mining in total Indonesian exports (%)
Source: Constructed by the author based on data from UN Comtrade.

receipts as a major source of income during the next economic crisis, the government turned to mining as a growing source of revenue and exports.

Foreign investors reacted unfavourably to the export ban on unprocessed minerals and the policy of raising value added in the domestic mining sector. When the new law on mining was passed in 2009, the value of mining investment continued to increase. In 2013, though, investment started to decline as the law would take effect in 2014. However, investors' perceptions of the mining policy began to decline earlier and more sharply (Fig. 9.4).

6.1 Resistance by MNCs

The restriction on the export of unprocessed minerals took effect in January 2014. It soon posed a serious fiscal problem since the economy depended on mineral resources as a major source of income. The value of mineral exports in 2013 was about $4.5 billion, or about 10 per cent of total export value. In March 2014, the country experienced a trade deficit because of the

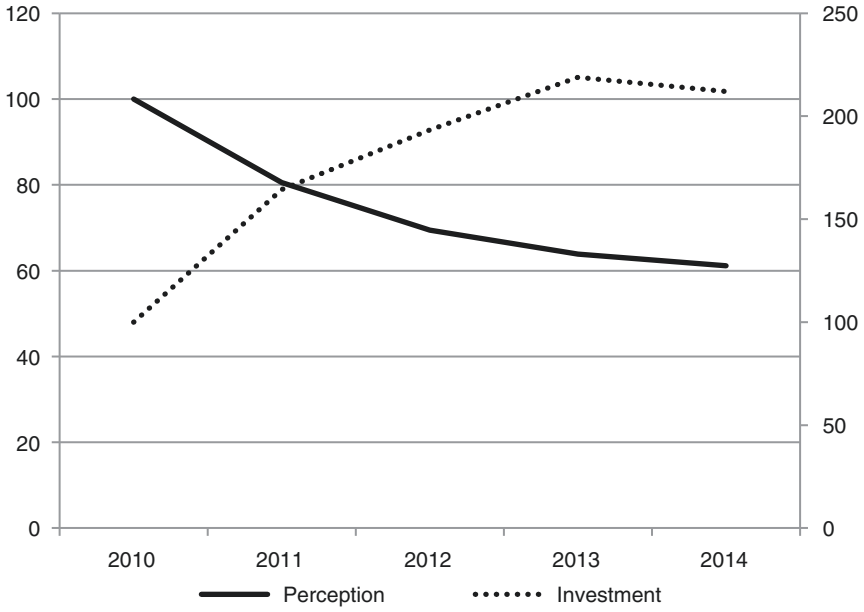

Fig. 9.4 Index values of investment and perception on mining policy in Indonesia

Source: Constructed by the author based on data from Indonesia Investment Board and Fraser Institute Survey of Mining Companies (2014).

restriction on the export of raw minerals. The World Bank predicted that the move was likely to reduce Indonesia's income by about $5.5–6 billion. It was also forecast that the trade deficit might reach 0.6 per cent of GDP.[14] In line with the export restriction policy, the government had issued the Ministry of Finance Regulation 6/PMK.011/2014 to regulate export duty, a progressive tax that was implemented gradually. The policy was intended to encourage mining operators to participate in mineral purification and build and operate smelters in the country. The tax policy was also intended as an instrument

[14] 'Larangan Ekspor Mineral Mentah Bahayakan Neraca Perdagangan (Ban on Raw Material Export Endangers Trade Balance)'. *Republika,* 11 December 2013, http://www.republika.co.id/berita/ekonomi/ritel/13/12/11/mxmzsk-larangan-ekspor-mineral-mentah-bahayakan-neraca-perdagangan, downloaded on 1 April 2015.

for periodically monitoring the development of smelters.[15] The tax was set to increase every six months starting 2014 (Table 9.4).

The MNCs considered these policies to be threats to their profits. To construct smelters and refineries they would need to expend considerable capital, but the future of the business venture would be uncertain. To export raw minerals, they would have to pay high export duties. Their only option appeared to be negotiation with the government. Both policies – restricting unprocessed mineral exports and levying a progressive tax – could not be implemented smoothly because they were challenged by the two dominant players in copper exploration, Freeport-McMoran (Freeport) Indonesia, an American corporation that mined copper and gold in Papua, and Newmont Nusa Tenggara (NNT), an American-Japanese interest that mined copper in West Nusa Tenggara. Between them, these MNCs accounted for about 97 per cent of Indonesia's copper production (with Freeport being a larger producer than NNT) and were thus in a strong position to bargain with the government. In principle, when MNCs invest capital in mining operations in a host country, their power to bargain is limited by the difficulty of shifting their operations to another country. In Indonesia, however, Freeport and NNT held strong bargaining power mostly because they had capital, technology, human resources, and access to the international market.

Freeport was one of the first foreign companies to invest in Indonesia after Soeharto took power. Although its operations were governed under Law 11 1967, it had to comply with the new provisions of Law 4 2009. Thus, a long and close relationship was tested in a new phase in which both sides tried to advance their now divergent, if not opposed, interests. Freeport rejected both the export ban and the 2014 regulation that set high export duties on unprocessed copper (Table 9.4). The company's chairman, James R. Moffet, claimed that his company's operations were based on a CoW that did not fall

[15] Ministry of Energy and Resources of Republic Indonesia. 2015. http://www.esdm.go.id/berita/mineral/43-mineral/6657-pajak-progresif-untuk-ekspor-produk-mineral.html?tmpl=component&print=1&page=, downloaded on 3 April 2015.

Table 9.4 Export duty as per Government Regulation No. 6/PMK.011/2014

Description	Export duty tariff (%)					
	2014		2015		2016	
	I	II	I	II	I	II
Copper concentrate with grade ≥ 15%	25	25	35	40	50	60
Iron concentrate with ≥ 62% Fe	20	20	30	40	50	60
Iron concentrate with ≥ 51% Fe and grade $Al_2O3+SiO_2$ ≥ 10%	20	20	30	40	50	60
Manganese concentrate with ≤ 49%	20	20	30	40	50	60
Lead concentrate with ≥ 57%	20	20	30	40	50	60
Zinc concentrate with grade ≥ 57% Mn	20	20	30	40	50	60
Ilmenite concentrate with grade Fe ≥ 58%	20	20	30	40	50	60

Source: Government regulation PMK No. 6/PMK.011/2014.

under Law 4 2009 but should last until 2021.[16] Freeport said that it would reduce exports by as much as 40 per cent and lay off a large portion of its workforce if the policies were imposed.[17] From 2013 to 2014, Freeport's copper production fell from 885 million pounds to 664 million pounds.[18]

From the beginning, Freeport was also opposed to the government policy of building smelters. The company argued that building a smelter was not economically viable.[19] Yet, in August 2013, Freeport changed its stance, signing an agreement of mutual understanding to build a smelter in Maros, South Sulawesi.[20] With this move, Freeport no longer denied its

[16] 'Freeport tolak kebijakan bea keluar ekspor mineral' (Freeport Rejects Export Duty on Minerals). *Indonesia Finance Today,* 23 January 2014.

[17] 'Will Freeport Suffer from Indonesia's Mineral Export Ban in 2014?' Nasdaq, 2015, http://www.nasdaq.com/article/will-freeport-suffer-from-indonesias-mineral-export-ban-in-2014-cm312327, downloaded on 2 April 2015.

[18] 'Financial Report'. Freeport McMoran, 2014: 12.

[19] 'Freeport tolak bangun smelter, apa alasannya' (Freeport Rejects Smelter Construction, for What Reasons). *Okezone,* 31 March 2013, as quoted from http://www.ima-api.com/index.php?option=com_content&view=article&id=823:freeport-tolak-bangun-smelter-apa-alasannya&catid=47:media-news&Itemid=98&lang=en.

[20] 'Freeport bangun smelter US$3 miliar' (Freeport Establishes US$3 Billion Smelter). *Suara Pembaruan,* 14 August 2013. This is a joint venture between Freeport and PT Indosmelt, and PT Indovasi Mineral Indonesia.

obligation in principle but the dispute had not ended since the location of the smelter had not been decided. There were two possible locations: Gresik, East Java, or Papua. In May 2015, Freeport chose Gresik as the location for its smelter due to existing support industries and infrastructure.[21] Freeport, however, had not decided on an exact date for constructing the smelter. As proof of its intention to build a smelter, Freeport had deposited $115 million in a surety bond. Freeport's apparent willingness to establish a smelter was probably part of its bargaining strategy to protect its huge investment in the country and extend its contract to mine both copper and gold in Papua beyond the 2021 expiration date.

NNT adopted similar measures to defend its business interests. In response to the raw mineral export ban, which it claimed had affected its production and threatened it with loss, NNT reduced the working hours of its employees,[22] stopped production,[23] and laid off about 4,000 employees in 2014.[24] Consequently, NNT ceased production at its Batu Hijau mining site, resulting in financial losses to employees, contractors, and other stakeholders.[25] NNT maintained that it was not under any obligation to build a smelter for processing raw material as that constituted manufacturing, which was not part of its core business. Finally, NNT claimed that it was uneconomical for it to build a smelter that it estimated

[21] 'Ini alasan Freeport pilih Gresik untuk smelter baru Rp. 30 triliun' (This is Freeport's Reason for Choosing Gresik to Establish Smelter). *Detik,* 25 May 2015, http://finance.detik.com/read/2015/05/25/201359/2924697/1034/ini-alasan-freeport-pilih-gresik-untuk-smelter-baru-rp-30-t.

[22] 'Larangan Ekspor Mineral Mentah, Newmont Mengancam. (Raw Mineral Export Ban, Newmont Threatens)'. *Tempo,* 27 December 2013, https://m.tempo.co/read/news/2013/12/27/090540336/larangan-ekspor-mineral-mentah-newmont-mengancam, downloaded on 1 January 2016.

[23] 'Masih dilarang eksport, Newmont ancam stop produksi' (Banned from Exporting, Newmont Threatens to Stop Production). *Liputan 6,* 7 May 2014, http://bisnis.liputan6.com/read/2046609/masih-dilarang-ekspor-newmont-ancam-stop-produksi, downloaded on 3 January 2016.

[24] '4000 karyawan Newmont di PHK, pemerintah diminta tegas' (Newmont Lays Off 4000 Employees, Government Urged to Remain Firm). *Terbit,* 4 June 2014, http://www.harianterbit.com/hanterekonomi/read/2014/06/04/3184/0/21/4.000-Karyawan-Newmont-Di-PHK-Pemerintah-Diminta-Harus-Tegas, downloaded on 3 January 2016.

[25] 'A Case of Dejavu: Newmont Sues Indonesia over the Mineral Export Ban'. *Hukumonline*, 1April 2015, http://en.hukumonline.com/pages/lt53ce244d801d6/a-case-of-deja-vu-newmont-sues-indonesia-over-the-mineral-export-ban, downloaded on 1 April 2015.

would cost about $2.3 billion,[26] an amount that was disproportionately high compared to its company assets of $3.7 billion.[27] After laying off part of its workforce, NNT filed for international arbitration against the Indonesian government over its restriction of ore export. In filing for arbitration with the International Center for Settlement of Investment Disputes (ICSID), NNT argued that the restriction of unprocessed mineral exports had violated the terms of the CoW signed between the company (in which the Dutch firm Nusa Tenggara Partnership BV has a major share), and the Indonesian government, as well as between Indonesia and the Netherlands.[28] Before opting for arbitration, NNT tried to persuade the Indonesian government to resolve their differences over the ban on the basis of the CoW. The government, represented by the Directorate General of Mineral Resources, terminated its negotiation with NNT over the policy and prepared a counterclaim. Coordinating Minister for Economic Affairs Chairul Tanjung demanded that NNT revoke its arbitration claim at ICSID if the company did not want to foreclose further negotiations.[29]

6.2 Settlements

The Indonesian government's insistence that the export tax scheme was necessary to support a higher value-added industry was politically relevant in May 2014 when Freeport threatened to bring the dispute before the international arbitration tribunal if the export tax issue could not be resolved. In June 2014, Freeport's CEO Richard C. Adkerson met the Coordinating Minister for Economic Affairs, Chairul Tanjung, a close confidant of President Susilo Bambang Yudhoyono. At this meeting, Freeport and the government agreed on a solution whereby the company

[26] 'Tiga alasan kenapa Newmont ogah bangun smelter' (Three Reasons Newmont Refuses to Build Smelter). *Kontan,* 19 December 2014.

[27] Bumi Resources. 2013. Financial Statement.

[28] 'Newmont Go to Arbitration over Ore Export Ban'. *Kontan,* 2015, http://english.kontan.co.id/news/newmont-go-to-arbitration-over-ore-export-ban, downloaded on 2 April 2015.

[29] 'Newmont Go to Arbitration over Ore Export Ban'. *Kontan*, 2015, http://english.kontan.co.id/news/newmont-go-to-arbitration-over-ore-export-ban, downloaded on 2 April 2015.

could resume its exports in exchange for paying a bond as a guarantee that it would build a smelter and pay the export tax.

Unlike Freeport, NNT brought its dispute before the international arbitration tribunal in July 2014. NNT claimed that the export restriction had reduced its income and profit and brought its production operations to a halt. In addition, NNT contended that the regulation was against the CoW that the company and the Indonesian government had signed. For NNT, the CoW superseded the new law that restricted raw mineral exports. The ban, NNT argued, was not in line with the bilateral trade agreement signed between the governments of Indonesia and the Netherlands. One of NTT's owners, Nusa Tenggara Partnership BV, was a Dutch company.

The MNCs had a clear motive, to make a profit. If they could attain that by building a smelter, they would. The Indonesian government's rationale was to increase value added in the mining industry. Still, the government needed the MNCs to build the smelters although the industry had some small operators. The two parties had different intentions and took vastly different positions. The government concluded that the MNCs did not intend to create value added by building smelters.

While the disputes dragged on, the government expected revenue from Freeport's copper ore exports in 2014 to amount to $3–5 billion. The first tranche of the revenue, $1.5 billion, was expected to be received in August 2014. The MNCs faced declining profits due to export restriction and lower copper prices. Hence, they could not afford to reduce, let alone stop, production without suffering huge losses.

In other words, both sides had limited choices. The government could not continue with the restriction policy that would, in the long run, reduce its income, affect the trade balance and, above all, threaten fiscal stability. It could not sustain its fiscal and trade deficits. However, it could not concede to Freeport and NNT for two reasons. First, to do so would now violate the mineral and coal law. Second, the government would be accused of placing foreign investors above national interest. Finally, the government agreed to relax the restriction policy subject to certain conditions. Freeport agreed to pay export tax from 0 to 7.5 per cent. The company also

submitted a surety bond of 5 per cent of the total cost of building a smelter. It posted an amount of $115 million[30] as an indication of its intention to establish a smelter in the country. Roughly similar terms were agreed with NNT. To export its copper ore, the company had to pay an export tax of 3.75 per cent and royalty of 4 per cent compared to its previous rate of 1 per cent. Likewise, NTT posted a smelter construction guarantee fund of $25 million. In fact, Freeport and NNT paid relatively lower export taxes because other companies, which showed no interest in establishing smelters, had to pay a tax of up to 20 per cent. Overall, the agreements probably served the best interests of the government and the MNCs. The agreements were initially effective for six months but could be extended.

7 Conclusion

The major reasons for the government's compromise with Freeport and NNT were an unfavourable fiscal position and a trade deficit that had begun several years earlier. Indonesia needed a healthy trade balance. It could increase exports or reduce imports. The latter was difficult as the country could not produce important intermediate and capital goods upon which the manufacturing sector depended. Between July and August 2014, the import value of machines and mechanical equipment rose from $1.90 billion to $2.30 billion. Other contributors to an unfavourable deficit position included the rising cost of imported fossil fuel (the August 2014 deficit in the oil and gas sector was $801.1 million[31]) and a substantial fall in the price of palm oil (from $860 per metric ton in March 2014 to below $640 in March 2015, far below

[30] 'Freeport Dapat Izin Ekspor Hasil Tambang Sudah Penuhi Syarat' (Freeport Receives Export Permit after Fulfilling Requirements). *Neraca*, 6 August 2014, http://www.neraca.co.id/article/44008/Freeport-Dapat-Izin-Ekspor-Hasil-Tambang, downloaded on 2 April 2015.

[31] 'Impor Minyak Pemicu Defisit' (Oil Import Triggers Deficits). *Media Indonesia,* 2 October 2014, http://www.mediaindonesia.com/mipagi/read/4514/Impor-Minyak-Pemicu-Defisit-Agustus/2014/10/02, downloaded on 1 April 2015.

the 2010–12 prices that exceeded $1,000).[32] The trade deficit for the first three quarters of 2013 was $9.7 billion or 1.1 per cent of GDP; it reached 4.1 per cent of GDP for the year. In the event, moderate but stagnant economic growth of about 5 per cent in 2014, lower than an earlier rate of 6 per cent, did not constitute a strong economic basis for a prolonged export restriction of unprocessed minerals. The government's plan for moving mining toward higher value-added activities, an indirect outcome of the financial crisis of 1997–98 and the decentralisation of the political structure, will have to await a more favourable moment, if it does materialise in the future.

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[32] 'GAPKI: Harga CPO Maret US$630–670'. (Business Association: March CPO Price US$630–670). 2015, http://www.beritasatu.com/industri-perdagangan/258421-gapki-harga-cpo-maret-us-630670.html. downloaded 17 January 2017.

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10

Towards a Southeast Asian Variety of Capitalism?

Veerayooth Kanchoochat

The empirical chapters in this book have demonstrated how each of the major Southeast Asian countries discussed has undergone political and economic changes and been confronted with contemporary challenges and concerns. This conclusion seeks to enrich the debate by sharpening the findings from the preceding chapters and providing further reflections on the converging and diverging facets of their trajectories. The discussion is organised into three sections. It begins with three implications of political economy regarding: (a) authoritarianism and economic transformation; (b) democratisation and rent-seeking; and (c) historical and current labour politics. The next section considers policy lessons, with a focus on the roles of industrial policy, state-owned enterprises (SOEs), and intermediary organisations. The final section locates the findings within a simplified 'varieties of capitalism' framework to analyse

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the evolving patterns of Southeast Asian development, and discusses the key features and hindrances specific to each variety.

1 Political Economy Implications

1.1 Malaysia Is Poised to Follow the Singaporean Authoritarian High-Income Model

Malaysia has emerged as the region's most promising candidate to reach high-income status. With considerable debate over national strategies for escaping the 'middle-income trap', it is interesting to draw a comparison between Singapore and Malaysia, whose economic transformations have been underpinned by authoritarian rule. That is, their rapid capitalist developments have been largely directed by politics and policies that have reinforced elite power and authoritarian control.

As seen in Lee's critical assessment of Malaysia, from a perspective that is wider than the narrow definition of economic success (Chapter 5, this volume), the process of transformation towards a high-income level is rather top-down and technocratic. Lee notes that Malaysia's current transformation initiatives emphasise the implementation of programmes and projects rather than systemic reform, with target-setting and performance-monitoring entrusted to deliver quantifiable results. In the process, the ruling party has succeeded in maintaining a repressive regime through patronage, populism and corruption.

This authoritarian feature is broadly comparable with Singapore's trajectory in sailing over the middle-income position from the late 1960s through to the early 1980s. On the one hand, the ruling People's Action Party (PAP) initiated new civil service appointments to extend its control over the state apparatus and created a strong state–party nexus. Government linked corporations (GLCs) were established and have bolstered PAP's economic and political power. The country's export-oriented industrialisation has gone hand-in-hand with the PAP's domination. On

the other hand, the PAP has undertaken a wide range of programmes to increase the dependence of most Singaporeans upon the state's economic and social resources, including housing, employment, business contracts, and access to personal savings (Rodan and Jayasuriya 2009).

Of course, significant differences exist between Malaysia and Singapore. For one thing, political competition in the former is higher. Levitsky and Way (2010: 33–34) categorised Malaysia as a 'competitive authoritarian regime' because 'opposition parties operated legally and seriously contested nearly all parliamentary seats', while Singapore was 'fully authoritarian' because 'restrictions on speech and association made it nearly impossible for opposition groups to operate publicly and because legal controls and other institutional obstacles prevented opposition parties from contesting most seats in parliament'. Moreover, despite its domination, the United Malays National Organisation (UMNO) in Malaysia has functioned as a site for struggles over state patronage that is more accessible to capitalists than the PAP in Singapore. Civil society organisations also play a more critical role in Malaysia. Nonetheless, all these differences could be counted as a matter of degree, rather than of kind or categorical division.

If Malaysia successfully follows Singapore's authoritarian, high-income model, it will pose serious analytical challenges to the political economy literature, as it will mean that Singapore and Malaysia have contradicted not only the early modernisation theory but also the recent 'inclusive institutions' argument. To begin with, the two richest Southeast Asian countries are at odds with the modernisation statement that considers democracy to be accompanied by – or a consequence of – rapid industrialisation and economic growth. While such democratic transitions took place in Western Europe as well as industrialised Taiwan and South Korea, they have not arisen in Singapore. More recently, in *Why Nations Fail*, Acemoglu and Robinson (2012: 429–30) argue that for a country to be rich, *both* inclusive economic institutions (secure property rights, free entry, and a level playing field for new businesses and equal access to education) and political institutions (broad participation, constraints and checks on politicians, and rule of law) are needed. Singapore's economic success has already debunked Acemoglu and Robinson's growth thesis, especially their

prescribed political prerequisites. Now, Malaysia seems poised to prove that nations with seemingly extractive political institutions are also capable of producing long-term economic transformation. A more nuanced political economy analysis should be able to capture this complicated political economy trajectory that does not follow conventional wisdom.

1.2 Democratic Reform has Changed Indonesian and Thai Rent-Seeking in Different Ways

For Southeast Asian countries with lower per capita income, such as Indonesia and Thailand, the Asian financial crisis of 1997–98 marked a milestone for not only economic change but also, and perhaps more profoundly, political change. Both Indonesia and Thailand experienced fundamental democratic reform following the crisis. However, the process has had different impacts upon the country's rent-seeking pattern. In Indonesia (1998–present), rent-seeking, not least in the mining sector, has shifted from 'monopolistic clientelism' under the Soeharto regime to 'competitive clientelism', while in Thailand, democratic reform (1997–2006) witnessed the reverse trajectory.

Under Soeharto (1967–98), political power was so centralised that the ruling coalition could sustain virtually monopolistic control of rent management and thus had direct economic and political interests in preventing unrestrained plundering and inefficiency (MacIntyre 2000). The collapse of the Soeharto regime and the subsequent decentralisation created a wider public expectation. A body of literature on fiscal federalism has suggested that a strongly decentralised federal system will generate policy competition among subnational units of government, thereby reducing the scope for rent-seeking activities (Montinola, Qian, and Weingast 1995; Weingast 1995). Although we cannot conclude that rents have been reduced, democratisation and decentralisation in post-Soeharto Indonesia have changed the rent-seeking pattern significantly. As elaborated by Prasetyawan (Chapter 9, this volume), the Habibie administration that replaced Soeharto accommodated the increasing demand for

revenue-sharing between central and local governments. New regulations were enacted to grant local governments the authority to issue their own mining permission. Between the time the law on mineral and coal was put in place and 2013, more than 10,000 licenses were issued by local governments. Consequently, although rent-seeking is still pervasive, the pattern of monopolistic clientelism under Soeharto has been loosened to become more competitive.

Meanwhile, democratic reform had a different bearing on Thailand. Prior to 1997, the rent-seeking pattern in Thailand was conceptualised as 'competitive clientelism' (Doner and Ramsay 2000). In the pre-crisis era, the ruling coalitions, either military or civilian, were highly factional. Thai firms could earn rents by gaining privileged, oligopolistic positions in the market, but the level of those rents was limited by a degree of competition within the system. The 1997 crisis, along with the newly promulgated 1997 Constitution, completely transformed the old pattern of rent-seeking, but not in the way that the reformists expected. The changed rules of the political game facilitated, first, the landslide victory of Thaksin's Thai Rak Thai party in 2001 and, later, the first-ever single-party elected administration in Thailand in 2005. His party, an explicit alliance of the major family corporations that had survived the crisis, was the basis of the highly centralised power seen under Thaksin (2001–06). The nature of rents changed, with increasing rents accruing to businessmen-cum-politicians through 'policy corruption' (Thanee and Pasuk 2008). Thaksin's monopolistic politics was one of the impetuses that drove opposing forces to form an alliance against his government, leading to two *coups d'état* and enduring political conflict in Thailand (see Veerayooth and Hewison 2016).

Despite the reversal of rent-seeking dynamics in Indonesia and Thailand, this meant that even a deep-rooted structure such as patron-clientelism could be restructured through calculated political moves and institutional reconfigurations. Yet, the outcome has been less straightforward than conventionally suggested. We need to consider the broader power structure and social conflicts that will have repercussions on reform outcomes.

1.3 Labour is the Regional Gordian Knot

Another key issue, usually ignored in discussions of the middle-income trap, is labour, which has been the Gordian knot of Southeast Asia in both historical and contemporary terms. To begin with, despite diversity across the region, Southeast Asian countries shared a common historical specificity in the lack of substantial independent civil societies and organised labour. In Western European democratisation, independent labour organisations were integral to movements for universal suffrage and expanded political pluralism. By contrast, struggles in Southeast Asia over political representation in the past half century have been conducted in the context of legacies from Cold War suppression of independent civil societies and rapidly mounting economic globalisation. As observed by Rodan (2012: 313–14):

> [A] uniform lack of mediating structures linking civil society groups and formal political institutions [in Southeast Asia] is striking – especially in the case of independent organised labour. Export-oriented industrialisation and relatively large white collar and informal sectors have laid quite different social foundations for political development than have those in liberal democracies established or consolidated under import-substitution and Keynesian economic policies. The consequence has been political fragmentation of social forces, regardless of the differing scales of civil societies within and across post-authoritarian and authoritarian societies in Southeast Asia. Non-governmental-organisations (NGOs) have proliferated . . . [but] . . . often working closely with authorities.

Political trajectories of Southeast Asian countries have, therefore, been determined, to a varying extent, by this common characteristic. The structural absence of organised labour has significantly impeded the process of democratisation, since the democratic agenda cannot be advanced in an institutionalised manner. Elite rule has survived, even when authoritarian regimes collapsed, and has embraced governance reform as a new institutional and ideological means of preserving its power (Rodan and Hughes 2014: 27–29).

Interestingly, the serious setback many Southeast Asian countries are facing now also concerns labour, that is, the surge of migrant labour and the resulting disincentive for economic upgrading. In the case of Malaysia, Lee (Chapter 5, this volume) argues that heavy dependence on low-skilled, low-wage migrant labour undermines Malaysia's progress, as it constitutes a major factor in the economy's premature deindustrialisation and impedes innovation and value-added activities. Likewise, Suehiro (Chapter 2, this volume) demonstrates that approximately 1.8 million people from Cambodia, Laos and Myanmar constituted the mostly unskilled labour force working in a variety of industries in Thailand in 2012. Even in the Philippines, labour is a critical issue, albeit in a different way. Raquiza (Chapter 8, this volume) observes that the Philippines is now ranked among the world's top remittance-recipient countries, with almost $27 billion transferred in 2014 and more than one in every four households receiving financial support from abroad. This is a double-edged sword, she argues, since it makes state institutions less interested in promoting productive activities.

In conclusion, labour is a knotty problem in Southeast Asia and deserves greater attention. While the historical lack of organised labour has impeded democratic consolidation, widespread migrant labour is now impeding attempts at economic upgrading. Previous studies have suggested that the incorporation of labour, in the form of either 'cross-class collaboration', as in Western Europe, or 'growth partner', as in East Asian corporatism, is key to long-term equitable development (Doner 2015; Katzenstein 1985). If a solution at national level seems inadequate, then we must think about a regional platform that can tackle the issue more effectively.

2 Policy Implications

2.1 Industrial Policy: Balancing Carrots and Sticks

In the pre-crisis debate on the East Asian growth experience, selective industrial policy was considered an essential factor separating the first-tier newly industrialising economies (NIEs) in East Asia from the

second-tier ones in Southeast Asia. In the mid-1990s, the international development community generally praised Indonesia and Thailand for their hands-off approach:

> In Indonesia and Thailand balanced budget laws and legislative procedures constrained the scope for subsidies. Indeed, when selective interventions have threatened macroeconomic stability, [these] governments have consistently come down on the side of prudent macroeconomic management. Price distortions arising from selective interventions were also less extreme than in many developing economies. (World Bank 1993: 7)

However, this policy orientation has shifted consistently in Indonesia but less so in Thailand.

As detailed by Sato (Chapter 3, this volume), immediately after the fall of Soeharto, Indonesia witnessed a demand for power decentralisation and a sentiment against state intervention. Nonetheless, economic policymaking orientation was reorganised in the second term of the Yudhoyono government (2009–14). A new economic master plan with an emphasis on natural resource sectors was launched, underpinned by the 'visible hand' sentiment. This led Sato to conclude that Indonesia's political economy has since moved into an era of 'quasi-developmentalism'. Prasetyawan (Chapter 9, this volume) digs deeper into provincial politics and identifies the tensions between central government, local governments, and MNCs. An export ban on raw material and a progressive tax have been adopted with the aim of increasing indigenous value added. The intention behind this move was ambitious, but it proved to be unrealistic. Although industrial policy began in a rigorous and rigid manner, it ended in ad hoc implementation, whereby the government needed to compromise with MNCs on a case-by-case basis. Thus far, the Indonesian-style industrial policy has been designed with too many sticks but not enough carrots and deliberative consultation in the formulation process.

By contrast, industrial policymaking in post-crisis Thailand is laden with too many carrots and almost no stick. Explicit industrial policies tailored to specific sectors were deployed for the first time in Thailand under the Thaksin government (2001–06). Nonetheless, the

government largely failed to set up mechanisms to enforce, monitor, and evaluate the outcomes of those policies (Lauridsen 2009). Since 2006, selective industrial policy has not been a top priority. Thailand has no clear strategy for dealing with MNCs to increase local value added. As Suehiro (Chapter 2, this volume) points out, the rapid growth of electronics and auto parts has been driven not by Thai local firms but by foreign corporations. A few exceptions found in sub-sectors, particularly the HDD and frozen seafood industries, have been noted by Patarapong (Chapter 6, this volume).

The East Asian experience illustrated how first-tier NIEs used export performance and the discrepancy between domestic costs and international prices to guide subsequent government policies for targeted industries. East Asia's industrial policy entails the desirable features of all incentive programmes: conditionality, sunset clauses, built-in programme reviews, monitoring, benchmarking, and periodic evaluation (Rodrik 2009). These features clearly differentiate them from unsuccessful latecomers, including Southeast Asian NIEs whose infant industry protection was open-ended and non-selective, with no performance requirements set in exchange for policy support. Patarapong (Chapter 6, this volume) further suggests that presently effective industrial policy needs to be formulated and assessed at the sub-sectoral level. In summary, by contrasting Indonesia with Thailand, one important lesson for industrial policymaking is the continuous attempt to redress the balance between carrots and sticks.

2.2 SOEs: Reform does not Mean Privatisation

SOEs have always been a major driving force for economic development, although their importance is underestimated in today's mainstream policy discussion. This volume revives the debate using a case study from Vietnam.

Fujita (Chapter 4, this volume) points out that in the absence of a robust domestic private sector, reformed SOEs may play a crucial role in industrial development. While Fujita's analysis focuses specifically on Vinatex and VEAM, local firms that have played leading roles in the

textile and garment, and motorcycle component industries were mostly state-owned at least up to the early 2000s. Fujita notes that in Vietnam, the emerging domestic private sector consists primarily of small-scale companies, equipped with limited capacity to assume a leading role in industrial upgrading. Yet, she also cautions that successful SOEs were found largely among firms and industrial segments that have received limited protection and assistance, while those that have been the target of government policies continued to stagnate.

The use of SOEs as a country's driving force is nothing new. Soon after the Second World War, several European countries took private enterprises into public ownership or set up new public enterprises in key industries, ranging from steel and railways to banking and energy. In France, Finland, Norway, and Austria, SOEs are deemed to have generated high growth during the Golden Age of capitalism (1945–73) by aggressively moving into high-technology industries that private firms considered too risky (Chang 2014: 83).

Even in Singapore, less well known is the pivotal role of SOEs, particularly Temasek Holdings. Temasek holds majority shares in a wide range of areas, including Singapore Airlines; telecommunications; financial services; energy and natural resources; transport; shipping; semiconductors; healthcare; and engineering. Thus, the public sector's share of gross fixed capital formation in Singapore was 35.6 per cent in the 1960s, 26.7 per cent in the 1970s, and 30.3 per cent in the 1980s, far higher than even in South Korea (Shin 2005: 387). Singapore is, therefore, just one overlooked example that demonstrates how well-designed SOEs can make an immense contribution to economic transformation.

To put things in perspective, there is no clear theoretical case for or against SOEs. As elaborated by Chang (2007), the famous Sappington-Stiglitz Fundamental Privatisation Theorem shows that the performance of private-sector firms is superior to that of SOEs *only* under rigid, and often unrealistic conditions. More importantly, while SOEs need to be continuously reformed to improve their efficiency, the range of potential reforms, in addition to full-scale privatisation, is extensive. For example, the government may sell a significant portion of the shares of an SOE, while retaining a majority share or a controlling stake (30–40 per cent) in it. In many cases, SOE performance can be improved without the sale

of any shares, but through organisational restructuring, increased competition, as well as political and administrative reforms.

2.3 Intermediary Organisations: Modern Visible Hands

Several chapters in this volume have indicated the influence of intermediary organisations in facilitating innovation in, and coordination among, private firms. Coordination failures are commonplace in developing countries, while general government support is no longer sufficient for today's globalised competition. Developing countries are in dire need of sector-specific intermediaries linking firms to one another and to related agencies.

Patarapong (Chapter 6, this volume) clearly highlights this point. In the case of Thailand, he argues that the HDDI is one of the main reasons why the HDD sub-sector is more successful than others within the electronics industry. The HDDI has improved productivity in the industry by setting up university–industry linkages, testing laboratories, joint training programmes, and collaborative R&D projects. The TAI and the NFI are the HDDI's counterparts in the automobile and food industries respectively, playing key intermediary roles in building trust among their members and encouraging collaboration with external agencies.

In a similar vein, Kawano (Chapter 7, this volume) underlines the importance of intermediary organisations in the success of Malaysia's rubber industry. The Malaysian government designated the Rubber Research Institute of Malaysia to be the sector's R&D centre. This institute later took the lead in full-scale R&D in latex products to boost the production of, inter alia, gloves and condoms. Today's global firms such as Top Glove and the Kossan Group have benefited enormously from the presence of the RRIM, at both the early and intermediate stages of their development.

Even in the service sector, intermediary organisations matter. Raquiza (Chapter 8, this volume) illustrates how the Board of Investments (BOI) and PEZA have fulfilled the Arroyo government's vision for enhancing the labour export and BPO industries. The BOI and PEZA expanded their programmes to cover export services by providing fiscal and non-fiscal

incentives to foreign investors setting up IT-BPO offices in the country. As for labour export, the POEA has expanded its role from regulator to facilitator by aggressively promoting the deployment of Filipino workers abroad through various schemes, leading to a sharp increase in remittances.

3 Varieties of Capitalism, Varieties of Impediment

3.1 Is there a Southeast Asian Development Model?

Putting all the findings and implications together, what lessons can we draw from the Southeast Asian development experience? Hal Hill, a veteran Southeast Asian specialist, poses the question as the title of his paper, *Is There a Southeast Asian Development Model?* (Hill 2014). Yet, after an investigation into growth patterns, institutions and governance, economic management, and social indicators, Hill (2014: 110) concludes that 'there has never been a "Southeast Asian development model", and it is unlikely that there ever will be'.

Despite such significant variation, however, Hill (2014) finds that the region is converging in terms of macroeconomic management and social policy.[1] On the one hand, macroeconomic policies of Southeast Asian countries have been converging toward inflation-aversion and conventional fiscal policy. Annual inflation has been consistently low, that is, less than 10 per cent, for over 95 per cent of the annual observations from 1970 to 2010, and always for Malaysia, Singapore and Thailand. Moreover, legislative restrictions on the size of fiscal deficits have been increasingly implemented,

[1] In addition to macroeconomic management and social policy, Hill (2014) observed convergence towards 'economic openness'. However, I disagree with him on this point, as the measures he used to evaluate a country's openness are mainly tariffs and FDI, while he ignores non-tariff barriers and sub-national measures such as those seen in Indonesia's mining industry (Chapter 9, this volume).

most notably in Indonesia and Thailand. On the other hand, social policy priorities across Southeast Asian nations have been geared towards universal education through to lower secondary level. Tax policies have, at best, been weakly progressive and often regressive. Apart from these policy trends in macroeconomic and, to a lesser extent, social management, however, Southeast Asia is a region of great variety with slight similarities beyond geographical proximity. But how many varieties there are in Southeast Asia?

3.2 Varieties of Capitalism and Variations of Challenges

One of the analytical approaches created to deal with the above question is the 'varieties of capitalism' framework proposed by Hall and Soskice (2001). The argument for capitalist varieties is not new, as it can be traced back to the work of Gerschenkron (1962) and Shonfield (1965), for example. However, Hall and Soskice (2001) have revived the debate by distinguishing capitalist economies with special reference to the micro-links between the competitiveness of firms and the institutional characteristics of national economies. Their main concept is 'institutional complementarities'. Two institutions can be said to be complementary if the presence (or efficiency) of one increases the returns from (or efficiency of) the other. Based on this framework, Hall and Soskice (2001) sum up the two ideal types of capitalism among industrialised democracies: the 'coordinated market economy' and the 'liberal market economy'. The former, characterised by non-market relations, collaboration, and credible commitments, is exemplified by Germany. The latter, characterised by arm's length, competitive relations, formal contracting, and price signalling, is exemplified by the USA. There are two key insights from the approach. First, institutional subsystems (which govern capital, labour, and product markets) shape the evolution of political economies and often mutually reinforce each other. Second, effective policies are, therefore, those that provide *compatible incentives* for the specific type of capitalism. Liberal market economies demand policies to sharpen market competition,

while coordinated market economies benefit more from policies that reinforce non-market coordination.[2]

If we adopt the varieties of capitalism approach to analyse Southeast Asian economies in a static and simplified way,[3] the five countries examined in this volume could be divided into four types of political economy (Table 10.1). Currently, political regimes in Southeast Asia are either democratic or authoritarian, while economic policy orientation ranges from state-directed to market-oriented. This distinction yields a fourfold typology. The Philippines could be considered a democratic country that pursues a rather market-oriented economic approach. Indonesia is also democratic but has forged a state-directed orientation. Thailand, Malaysia, and Vietnam are authoritarian to varying degrees and scopes, but Thailand is relatively market-oriented, whereas Malaysia and Vietnam are more interventionist.

This typology facilitates a systematic analysis of the contemporary challenges that each 'variety' of political economy must cope with, as well as a reflection on their future trajectories. My observations related to this framework are as follows. First, beyond national specificities, being democratic and market-oriented, more than any other variety, means that the country's fortune hinges upon both delicate global circumstances and quicksilver domestic voters. Policy-making under this type

Table 10.1 Varieties of capitalism in Southeast Asia (as of the mid-2010s)

		Economic policy orientation	
		Market-oriented	State-directed
Political regime	Democratic	The Philippines	Indonesia
	Authoritarian	Thailand	Malaysia Vietnam

Source: Constructed by the author.

[2] For a critique of the varieties of capitalism approach, see Hancke (2009).

[3] For instance, this typology cannot capture differences and unevenness within the country and across sectors, not to mention development over time.

of political economy tends to be flexible and adaptable. A few policy choices exercised with good timing, as the Philippines did with BPOs and contract labour in the mid-2000s, will bear rich fruit in a short time. However, the stability of policy-making is open to question. (For instance, to what extent would a newly elected President Duterte maintain previous policy schemes?) More importantly, incentives for building stronger state institutions to improve long-term productivity are less pressing than in other varieties. Accordingly, the structural challenge for a democratic, market-oriented country, such as the Philippines, is the expansion of the *time horizon for policy-making*.

A democratic regime with an interventionist orientation, such as Indonesia, is confronted by a different set of challenges. For a country with economic policies previously dominated by macroeconomic technocrats, democratisation with radical decentralisation has provided local governments and businesses with more bargaining power. This has resulted in a more dynamic and contingent struggle for policy choices. The positive aspect of such a struggle is more balanced policy that pays attention to both fiscal prudence and local value added. However, the downside is an inconsistency of policy implementation. As exemplified by Indonesia's mining sector, industrial policy began in a rigorous manner only to end in ad hoc implementation, with the government making case-by-case compromises with the MNCs. For a democratic, state-directed country, such as Indonesia, therefore, the major challenge lies in collaboration among related actors for *policy consistency*. In other words, the crucial question is how to formulate realistic policy with compatibility and uniformity that can be evenly executed once endorsed.

Varieties of authoritarian politics would face impediments different from democratic ones. State-directed authoritarian regimes, such as Malaysia and Vietnam, usually have well-designed development plans with identified targets. The formulation and continuity of policy-making is less problematic here than in a democratic regime. The thorny issue is the pervasiveness of patron-clientelism between the state and business sectors. The pursuit of industrial policy tends to provide too many carrots and too few sticks. Thus, the contentious issue for this state-directed authoritarian country is primarily *policy evaluation*. As the East Asian experience suggests, successful economic outcomes under heavy state

intervention require export performance as a key indicator for policy evaluation, as they are less open to manipulation by recipients of state support than domestic market performance indicators (Chang 2011: 98). Hence, exports should be given the key role not only in measuring performance of supported firms and industries but also in detaching local business from political networking.

An authoritarian state with a free-market orientation is prone to facilitating foreign investments and domestic conglomerates at the expense of social welfare and local value added, as exemplified in the extreme case of Chile under Augusto Pinochet (1973–90). If Thailand were to follow suit in terms of economic liberalisation, privatisation of SOEs, and stabilisation of inflation, the key challenge would be the delivery of side payments to restive popular sectors, or how to make economic growth meaningful for most people since the so-called 'trickle-down theory' has been proven wrong. Nonetheless, contemporary Thai politics seems to be plagued by frequent regime changes (see Veerayooth 2015). Accordingly, specific to Thailand, only when *regime instability* has been resolved can we begin a productive discussion on policy-making.

3.3 All Happy Families are Alike; Each Unhappy Family is Unhappy in its Own Way [4]

With different varieties inside the region, the next question is whether there is an alternative route to becoming a high-income Southeast Asian country, apart from following the Singapore model? To put it bluntly, although they are poor in different ways, is there only one way for Southeast Asian nations to become rich? It will take at least another decade before a conclusive answer is found. For the moment some observations may be offered.

Notwithstanding 'liberalised' trade and investment policies, the Singaporean government has made considerable interventions to guide market outcomes in the industrial sectors, capital markets, labour

[4] This is the famous opening sentence in Leo Tolstoy's novel, *Anna Karenina*.

markets, and urban planning in addition to the aggressive role of SOEs and unconventional fiscal policies (Huff 1995). Thus, Singapore could be categorised as an authoritarian regime with a state-directed economic orientation, in the same variety as today's Malaysia and Vietnam in the above typology. Then, if Malaysia reaches high-income status with its prevailing political underpinning, it will reinforce the so-called 'Singapore model' as a typical route to achieving a high-income level in a region that has shared a common historical paucity of civil societies and organised labour.

Yet, other candidates are somewhat diverse. They range from democratic rule with both market-oriented (the Philippines) and state-directed orientation (Indonesia) to authoritarian rule with market orientation (Thailand). If any of these three countries can overcome their specific impediments and reach high-income status with their current varieties of political economy, the implication will be that there are varying routes to becoming a rich nation among the late-latecomers. If, however, the Philippines, Indonesia, or Thailand has to convert its political economy along the way towards a state-directed, authoritarian regime to sustain their wealth accumulation, the 'Southeast Asian development model', like it or not, would emerge as a distinctive ideal type of high-income capitalist economy – apart from the coordinated and liberal prototypes of the twentieth century.

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Index

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