5 Is Southeast Asia Falling into a Latin American–Style Middle-Income Trap?

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> Productivity isn't everything, but in the long run, it's almost everything.
> —Paul Krugman (1997)

Introduction

The first generation of East Asian newly industrializing countries and territories (NICs-1), including Hong Kong SAR (China), the Republic of Korea, Singapore and Taiwan (Province of China), like Japan in the post-war period, and China and India since 1980, have raised the bar for other developing economies. Second-tier Southeast Asian NICs (NICs-2), including Indonesia, Malaysia, Thailand and Viet Nam, have not yet been able to replicate the NICs-1 long-term growth of gross domestic product (GDP) or labour productivity, partly because – barring Viet Nam – they never properly recovered from the 1997 Asian financial crisis.[1] If Malaysia and Thailand, for example, had been able to sustain their pre-crisis growth rates into the 21st century, output per person could have reached US$18,900 and $17,000, respectively, ranking them among the most successful developing economies of the post-war period.[2] However, because of slower growth from 2000 to 2019, Malaysia's GDP per capita was 70 per cent lower and Thailand's 50 per cent lower than prospective numbers, leaving both NICs-2 well below the $20,000 per capita threshold (Figure 5.1).[3] Is it possible that Indonesia, Malaysia and Thailand are showing signs of an economic and productivity growth slowdown similar to the slowdowns in Argentina, Brazil, and Mexico?

The term 'middle-income trap' was coined by Gill et al. (2007), who predicted that growth in Asia would inevitably taper off as capital–labour ratios rose as economies approached the global technological frontier, which they define as the most advanced technology currently in use (Kharas and Gill, 2015). In countries with few or no natural resources, the trap manifests when middle-income countries

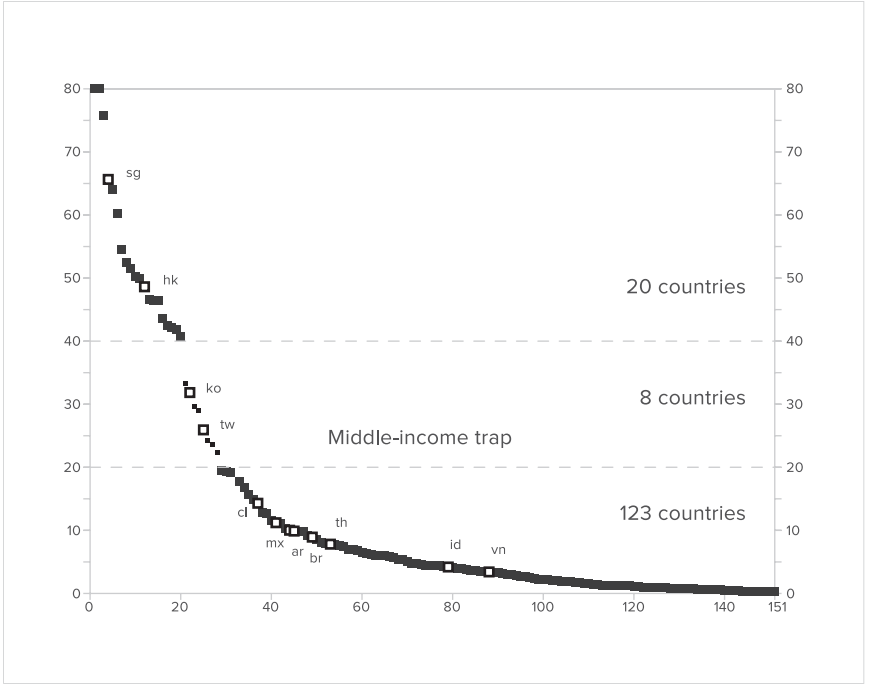

Figure 5.1 The middle-income trap in terms of GDP per capita, 2019 (US$ '000)
Source: International Monetary Fund (2021).
Note: Throughout this chapter, abbreviations for countries are identical to their internet domains. The top two countries in the ranking are Switzerland and Ireland, which have a GDP per capita above the range of the Y axis ($85,686 and $80,482, respectively).

are priced out of labour-intensive activities by cheap-labour competitors, but cannot yet challenge more technologically advanced countries because of lagging productivity levels. In countries rich in natural resources, the trap tends to manifest when they exhaust their merely extractive development model and do not move to processing their commodities.

Operating within mainstream new growth theory, Gill et al. view increasing returns to scale as a positive externality that stems from research and development activities outside of the firm. Although these growth models posit that research-intensive activities generate increasing returns, as single sector models they do not associate increasing returns with the level of output or investment in manufacturing. Furthermore, the models do not allow for manufacturing to have specific effects on research and development (R&D) activities, except for allowing that investment in *any* sector could complement R&D by affecting research profitability. Therefore,

these growth models have no room for the idea that manufacturing is special because of unique growth-inducing properties that set manufacturing apart from any other productive activity (Kaldor, 1966; 1978), nor for Kaldorian-style effects concerning investment embedding or embodying technical change (Palma, 2005).[4]

Instead, Gill et al. theorize that middle-income countries can escape the trap by adopting orthodox economic policies, such as the liberalization of trade and finance, the retreat of the state to a subsidiary role relative to the market, the enforcement of intellectual property rights, and higher levels of investment in education and skills. Using these strategies, middle-income countries should, in theory, be able to specialize in niche industries and products that benefit from knowledge spillovers, and thereby realize increasing returns (Gill et al., 2007).

At first glance, the empirical evidence from Latin America and Southeast Asia appears to give some support to this mainstream view (Paus, 2014; Tran Van Tho, 2013). However, in contrast to the Gil et al. hypothesis, we show that in Argentina, Brazil, Chile, Mexico and the NICs-2, a growth slowdown set in at labour productivity levels far removed from the technological frontier (considered to be the productivity level of the United States [US], the global benchmark). Labour productivity in Latin American and Southeast Asian middle-income countries, such as Chile[5] and Malaysia, hit a glass ceiling at 50 per cent or less of average US labour productivity levels; this contrasts with a first-generation NIC, such as the Republic of Korea, which has already achieved 65 per cent of US labour productivity, as seen in Figure 5.2.

The appearance of symptoms of the middle-income trap at relatively low levels of labour productivity casts doubt on the original formulation of the theory, which hypothesizes that growth would slow down *only* as countries neared the technological frontier. However, as seen in Figure 5.1, the data highlights the fact that only 10 out of 151 countries have broken through the $20,000 per capita GDP threshold since 1950, which makes them statistical outliers. These 10 countries (four NICs-1 and six from the European periphery) have managed to progress further towards higher per-capita-GDP status, which brings them closer to the technological frontier.[6]

As indicated in Figure 5.2 with Chile, labour productivity growth in Argentina, Brazil and Mexico has also failed to catch up with the technological frontier, and, like Malaysia, the other Asian NICs-2 have not be able to sustain their pre-1997 growth trajectories. Lagging productivity in both regions, but especially in Latin America, suggests that rapid growth is more difficult to sustain at higher and more complex stages of the catching-up process.

This chapter explores the middle-income trap thesis from the perspective of major Latin American and Southeast Asian middle-income countries. We argue that the productivity slowdown in these countries was not an inevitable result of rising capital-labour ratios as these countries neared the technological frontier, since productivity slowed at the half-way mark at best. Matching the performance

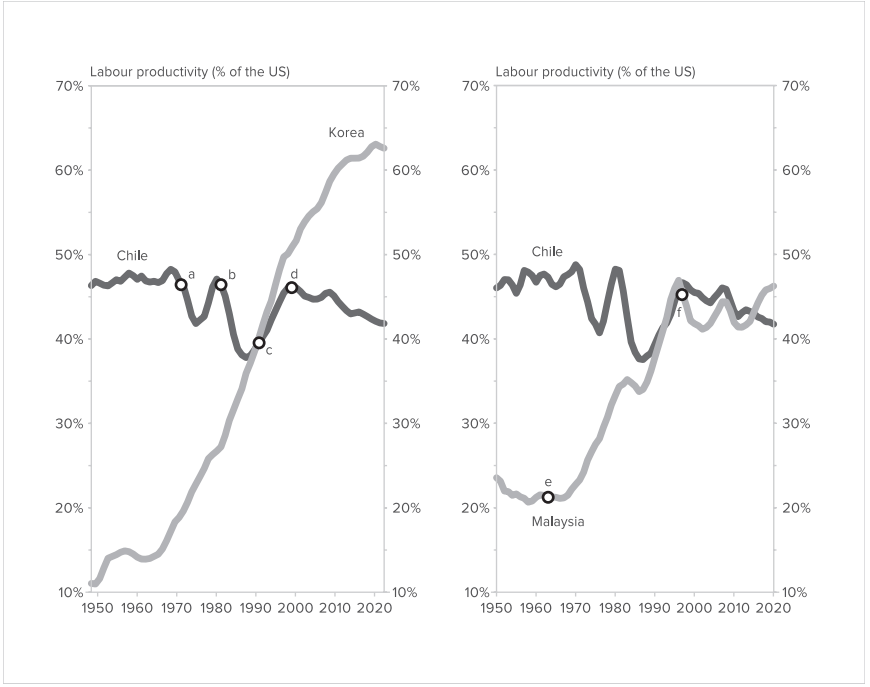

Figure 5.2 NIC-1 Korea, NIC-2 Malaysia and Latin America's Chile relative to catching up with the United States, 1950–2020 (% of US labour productivity)
Source: The Conference Board (2021).
Note: a = 1970 election of President Salvador Allende in Chile; b = 1982 financial crisis; c = 1990 Chile's return to democracy after 17 years of dictatorship; d = 1998 end of Chile's rapid period of recovery and catching up; e = 1963 Malaysian independence; f = 1997 Asian financial crisis. The original data is expressed in 2019 US$ purchasing power parity (PPP).

of the NICs-1 requires more than progress along a production function; instead, a conscious, national-level strategy is necessary to promote investment in activities with higher long-term potential for productivity growth, especially manufactured exports, to realize economies of scale across a wide range of industries. In both Latin America and Southeast Asia, governments have doubled down on their prevailing development strategies long after they exhaust their potential to drive a sustained increase in productivity growth. The growth collapse is deeper and has persisted for far longer in Latin America than in Southeast Asia, contributing to the former's notoriously high levels of inequality, caused by high labour concentrations in low productivity-growth activities.[7] When Chile's neo-liberal reforms began in 1973, the share of employment in low productivity-growth services and construction was 55 per cent; by 2019, it reached 86 per cent (Palma, 2019a). Furthermore, there are

signs that the growth strategies in NICs-2, based on a combination of commodity exports and foreign direct investment in assembly operations, are also nearing their limits. Breaking free from the middle-income country pack in both regions will require departing from orthodox laissez faire economic policies and static comparative advantage to promote manufactured exports (including commodities with manufacturing value added) and invest in related industries.

We begin by explaining that the 'more-of-the-same-but-better' supply-side-strategy that many current policies focus on is the wrong solution; instead, Latin American and Asian NICs-2 economies require the reengineering of existing development strategies. The second section explains issues such as how Latin America and Southeast Asia should leverage natural resource-based industrialization in order to increase their productivity growth. The third section describes how Latin American countries and Asian NICs-2 persist with their prevailing growth model despite having exhausted their potential to drive productivity growth. In the fourth section, we describe how Latin America's growth model is 'dual-extractive' in that commodities are the main driver of productivity growth while all job creation is confined to less dynamic activities in services and construction; therefore, no single sector in Latin America has managed to generate both productivity growth and jobs. Section five explains how Southeast Asian economies are still capable of generating both employment and productivity growth; however, their manufacturing labour productivity growth has slowed following the 1997 Asian financial crisis. The chapter concludes with policy recommendations on how Southeast Asian and Latin American countries can revisit their dominant growth strategies to reignite labour productivity growth.

The Problem with More-of-the-Same-but-Hopefully-Better

Conventional policy recommendations favour what we might call a 'more-of-the-same-but-hopefully-better' supply-side strategy of trying to cultivate competitive advantage in more technologically sophisticated subsectors through financial liberalization, training, education, and investment protections, such as strict intellectual property rights regulation. Drawing on endogenous growth theory, conventional policies assume that international trade and investment flows will spontaneously generate rapid labour productivity growth as domestic producers benefit from technological spillover effects (Roemer, 1990; Lucas, 1988). Therefore, slow productivity growth must either be an indication of supply constraints (human capital or finance), or domestic market distortions created by government intervention or corruption that can only be overcome through more market liberalization.

Current trade agreements, such as the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (commonly known as the TPP-11), clearly point in this more-of-the-same-but-hopefully-better direction – provided

that any change is achieved by incentives that create private sector investment opportunities and not by changes in policy or regulation that would create different forms of compulsions for firms to take up opportunities. In other words, the goal is for countries to become more attractive for foreign direct investment (FDI) in a highly competitive international environment. In our view, this is a misdiagnosis of the problem and the wrong solution: what Latin American and Asian NICs-2 economies actually require is a reengineering of existing development strategies. Expecting these countries to leap from a mid-table ranking to world leader through policies that are based on the same strategies that landed them mid-table is not a realistic solution.

The supply-side orientation of mainstream economists obscures the ways that market power blocks an upgrading of development strategies. Contrary to the beliefs of endogenous growth theorists, technology is not an external benefit that flows costlessly between firms. Rather, technology is increasingly dominated by massive global companies that use their market power to create and acquire new technologies and to apply pressure on suppliers to cut costs and accelerate the pace of innovation. Financialization (the steady increase in the size and dominance of the financial sector relative to the non-financial sector, as well as the diversification towards financial activities in non-financial corporations since the 1980s) has fuelled concentration of ownership, inequality, rising household and corporate debt, and the formation of asset bubbles in financial, land and currency markets. In the developing world, financialization has redirected investment from production to speculation; in Latin America and Southeast Asia, investment rates have fallen over the past decade as the private debt burden has increased (Palma, 2009).[8]

These are not problems that will be easily fixed by supply-side remedies like training more computer scientists or easing the regulatory burden on venture capitalists. Policymakers must also look to the demand side: to upstream and downstream linkages and to the competitiveness of domestic firms in international markets. Export demand is essential to enable domestic firms to acquire technology and realize economies of scale, the two processes that generate demand for domestically produced and more technologically sophisticated goods.

Manufacturing as the Engine of Productivity Growth

Decades before endogenous growth theory rediscovered increasing returns to scale for a neoclassical economics audience, Nicholas Kaldor (1966; 1978) fashioned an alternative theory of economic growth grounded on the capacity of manufacturing operations to generate increasing returns. He expressed his theory in the form of three empirical regularities, or laws. The first states that the rate of output growth in the non-manufacturing sector is related to the rate of growth in manufacturing because of the movement of labour from low to higher productivity activities, such as

from agriculture to manufacturing, and because of within-sector productivity gains in manufacturing associated with increasing returns. The relationship is robust for the NICs-1 and middle-income countries in Latin America and Southeast Asia from 1980 to 2018 (Figure 5.3). Countries that achieved rapid growth of manufacturing also recorded high rates of growth in other sectors, as predicted by Kaldor, thus raising their economies' overall GDP.

Kaldor's second law posits that the rate of within-sector productivity growth in manufacturing is related to the rate of growth of manufacturing output.[9] The acceleration of output growth generates static returns to scale, or declining fixed costs, while dynamic returns are derived from learning by doing and technological innovation. The data show that productivity growth is most rapid in countries in which manufacturing value added has increased fastest, especially in the NICs-1, and slower in Latin America, where output growth lags (Figure 5.4). The usual objection

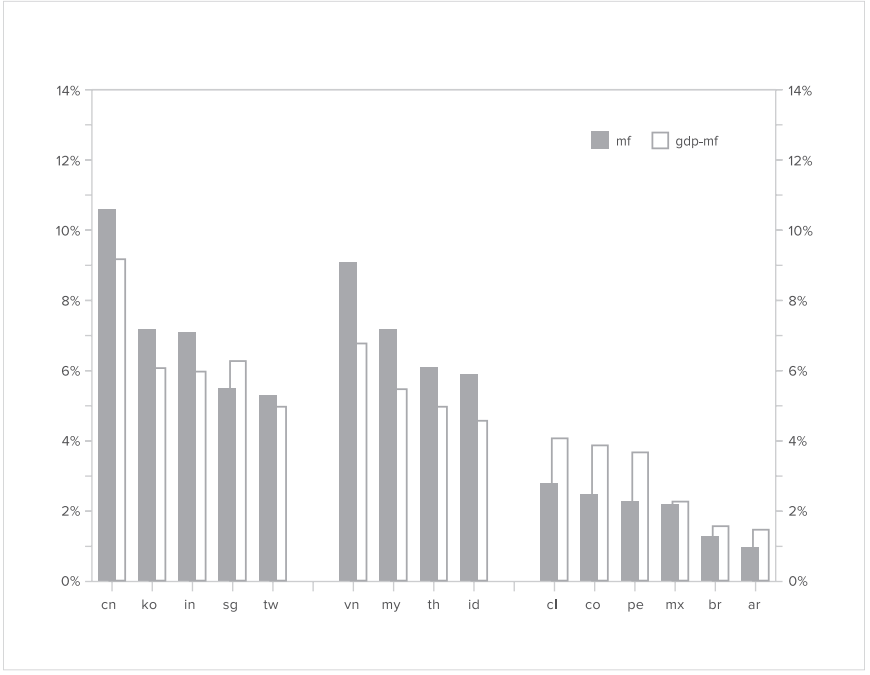

Figure 5.3 The relationship between the growth rates of manufacturing value added and non-manufacturing value added in NICs-1, NICs-2 and Latin America, 1980–2018
Source: de Vries et al. (2021).
Note: The dataset, at 2015 prices, only spans from 1990 to 2018. This was brought back to 1980 with the rate of growth from a previous version of this dataset, at 2005 prices. mf = manufacturing GDP; gdp-mf = non-manufacturing GDP.

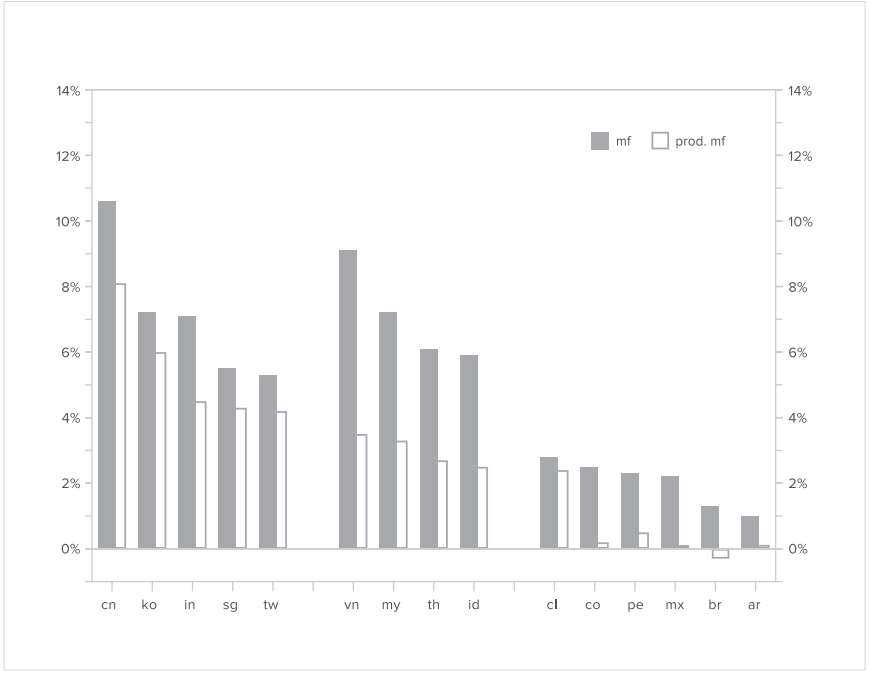

Figure 5.4 The relationship between the growth rates of manufacturing output and manufacturing labour productivity, 1980–2018
Source: de Vries et al. (2021).
Note: The dataset, at 2015 prices, only spans from 1990 to 2018. This was brought back to 1980 with the rate of growth from a previous version of this dataset, at 2005 prices. mf = manufacturing GDP; prod. mf = manufacturing labour productivity.

to Kaldor's second law is that correlation is not causation: It could be that productivity growth is driving output growth, not the other way around, and as overall productivity accelerates, demand for manufactured goods also rises. This would suggest, however, that productivity growth is autonomous, or unrelated, to the rate of investment and effective demand. This is clearly not the case. For example, productivity has increased faster in the automobile industry in China than in India, partly due to the rate of growth of output and exports (Lopez Acevedo et al., 2017: 119).

Kaldor's third and final law posits a positive relationship between the rates of output growth of the manufacturing sector and that of labour productivity in the non-manufacturing sector, including labour-sending sectors, including agriculture and traditional services, such as petty trade and domestic labour. There is nothing automatic about this relationship; it depends on enlightened government policy to provide and maintain productive physical infrastructure, such as irrigation works, drainage,

roads and electricity, and to promote technological change through nonphysical infrastructure, such as support for research and financing for capital equipment.

The movement of labour from agriculture to industry, if sufficiently rapid, has the potential to raise rural wages and stimulate investment in labour-saving technologies if the necessary infrastructure is in place. This third law also applies to the capacity of manufacturing to drive productivity growth in services and construction, which, as non-tradables, depend crucially on domestic demand factors. Figure 5.5 confirms that countries with rapidly growing manufacturing also record higher rates of productivity growth in agriculture, mining, and services than countries like Argentina, Brazil, Chile and Mexico, where the performance of manufacturing has been poor.

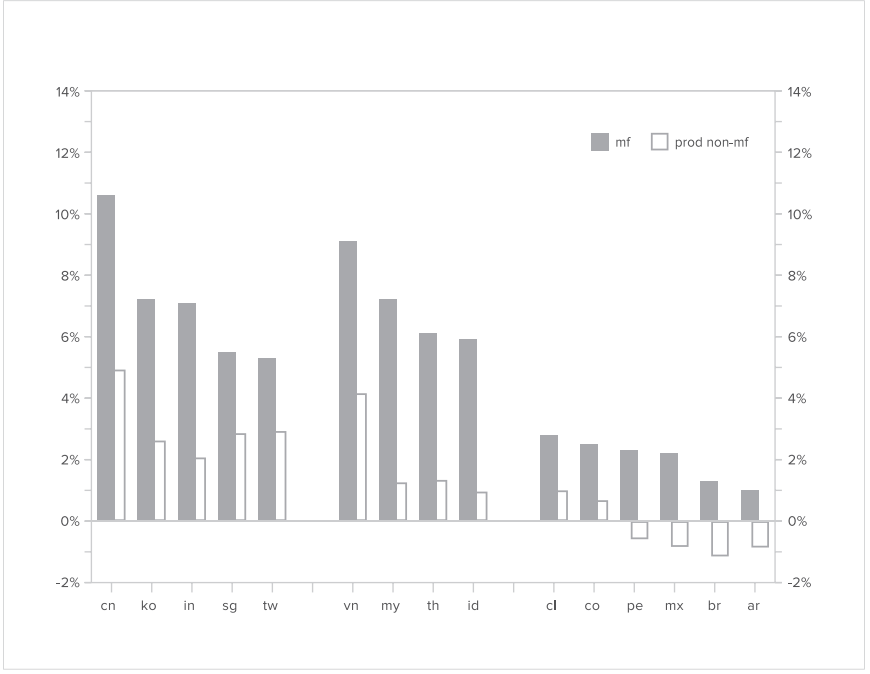

Figure 5.5 The relationship between the growth rates of manufacturing output and non-manufacturing labour productivity, 1980–2018
Source: de Vries et al. (2021).
Note: The dataset, at 2015 prices, only spans from 1990 to 2018. This was brought back to 1980 with the rate of growth from a previous version of this dataset, at 2005 prices. mf = manufacturing GDP; prod non-mf = non-manufacturing labour productivity.

Kaldor strongly emphasizes the role of demand in economic growth. Countries that are not rich in natural resources must quickly learn to export consumer goods because, in most cases, the domestic market is too small to accommodate a rapid expansion of industrial output, even under an import-substitution regime. Competing internationally also forces domestic manufacturers to improve quality and reduce costs, driving further productivity gains. Countries that are rich in resources should upgrade their merely extractive activities. Domestic investment is another source of demand, but backward linkages will not automatically arise if production is limited to the domestic market or to the extractive stage of commodities. In this sense, industrial output growth is ultimately determined by export growth and the domestic capacity to adopt investment opportunities created by export markets. In turn, the sustainability of GDP growth is determined by the differential between the income elasticities of import and export demand (Thirlwall, 2015: 337). These elasticities will largely depend on the composition of a country's imports and exports.

Growth in the Latin American commodity sector (agriculture, crude oil, gas and mining) has not induced (or is not associated with) productivity growth in the rest of the economy. In contrast to emerging Asia, Argentina, Brazil, Chile and Mexico have not invested in the processing of commodities or in industries producing technologically sophisticated inputs for extractive industries, thereby failing to create forward linkages between commodity production and manufacturing. In fact, Chile is actually going in reverse: The percentage of its refined copper or partially refined blister copper exports in terms of all copper exports have declined from close to 100 per cent in 1973 to 44 per cent in 2018 (United Nations, 2017). Similarly, Brazil has not capitalized on its iron ore or soybean production.[10]

The NICs-2 should take note to avoid similar failures: Indonesia and Malaysia process palm oil and natural gas, although these commodities are less amenable to forward linkages. The commodity sectors in Thailand and Viet Nam are diverse and dynamic, offering numerous opportunities for natural resource-based industrialization. China provides an example of creating forward linkages by imposing an export quota on rare earth elements (REE). China is a major exporter of REE ores and concentrates, but, since 2012, the country has also become the largest manufacturer of high-tech magnets, which is one of the main uses of REE (Medeiros and Trebat, 2017: 504). China's move to restrict exports of commodities with a potential for high-tech manufacturing, and processing them domestically in order to export high-value products, is a transferable lesson, and one that will find applications in both Latin America and in Southeast Asia.

Neophobia and the Productivity Glass Ceiling

The NICs-1 were unusual in their capacity to close the productivity gap with the world's leading economies. As seen earlier, with Chile and Malaysia (Figure 5.2), it appears there is a threshold at which output per person stalls, a 'productivity

glass ceiling' that manifests at about 50 per cent of the United States' levels, and which is quite a distance from the technological frontier. Figure 5.6 shows that the labour productivity levels of Brazil, Mexico, Indonesia and Viet Nam, like those of Chile and Malaysia, lag well below the glass ceiling. Argentina and Thailand labour productivity levels reflect similar lags (The Conference Board, 2021). Indeed, since ending their import-substitution strategies, the Latin American countries have been falling behind rather than catching up with the technological frontier.

In Latin America, neophobia, or the fear of the new, has led Argentina, Brazil, Chile and Mexico to persist with the prevailing growth model – whether import-substituting industrialization before 1980, or reliance on extractive industries since then – long after the potential to drive productivity growth was exhausted (Palma, 2019a). The countries did not lack options: backward and forward linkages from extractive activities, including the processing of primary exports from agriculture,

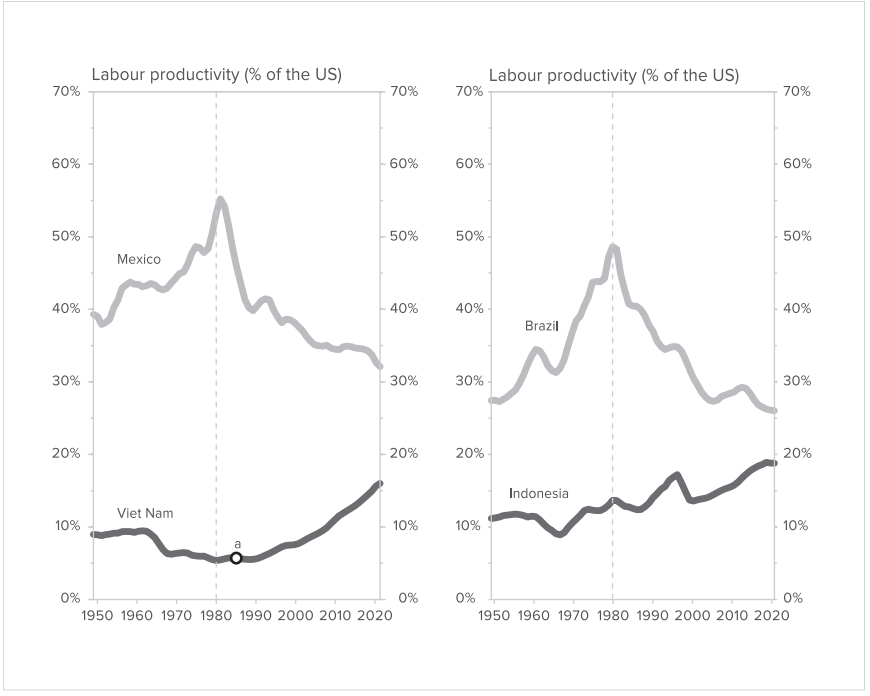

Figure 5.6 Mexico versus Viet Nam and Brazil versus Indonesia catching up with the United States, 1950–2020 (% of US labour productivity)
Source: The Conference Board (2021).
Note: a = 1986 economic reforms begin in Viet Nam. Mexico's employment data before 1993 underestimates informal employment; therefore, instead of showing productivity relative to the US, Mexico shows relative income per capita.

oil and mining; investment in renewables, clean energy and production systems; and digitalization of the non-tradeable sector were all realistic possibilities. Instead, these Latin American countries continued to export unprocessed commodities despite a clear loss of productivity-growth momentum, reaching the productivity glass ceiling and then moving into a reverse, catching-up mode.

However, during the same period, NICs-2 economies, such as Viet Nam and Indonesia, showed respectable productivity gains and grew much faster (Figure 5.6). For example, despite a temporary slowdown after the 1997 Asian financial crisis, the contribution of labour productivity growth to Malaysia's and Thailand's GDP growth also increased in each successive period since 1950. Labour productivity contributed nearly 60 per cent of GDP growth in Thailand from 1950 to 1980; 70 per cent from 1980 to 1997; and 76 per cent from 1998 to 2019. In Indonesia, productivity growth contributed 44 per cent of GDP growth from 1950 to 1966; 55 per cent from 1967 to 1997; and 58 per cent from 1998 until 2019 (The Conference Board, 2021).

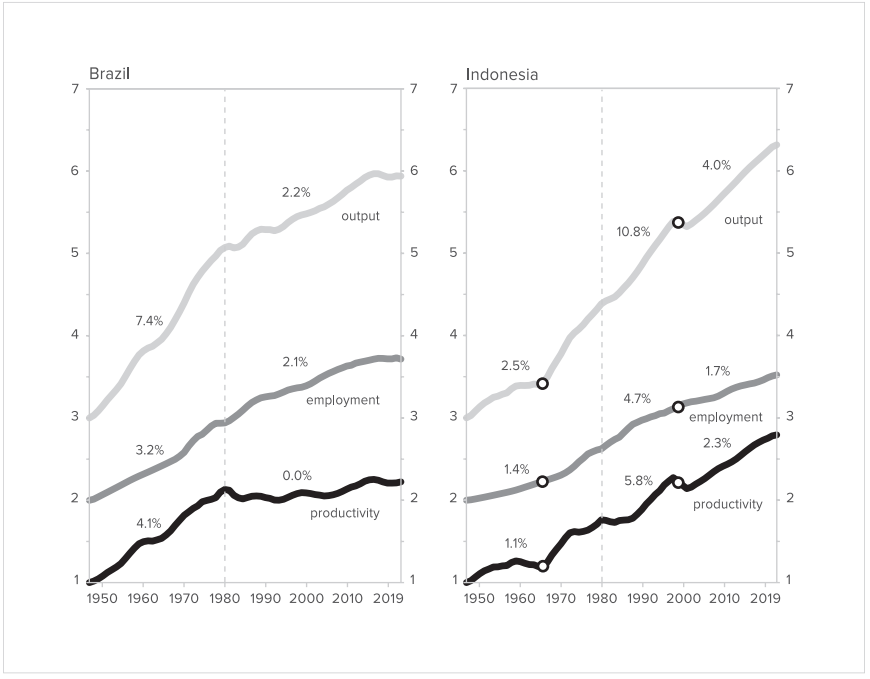

Figure 5.7 Brazil versus Indonesia output, employment and labour productivity, 1950–2019

Source: de Vries et al. (2021).

Note: Each series is an index number of a 3-year moving average (in log-scale), with base 1 in 1950 for productivity, 2 for employment, and 3 for output. Productivity = output per worker; employment = total employment; output = GDP.

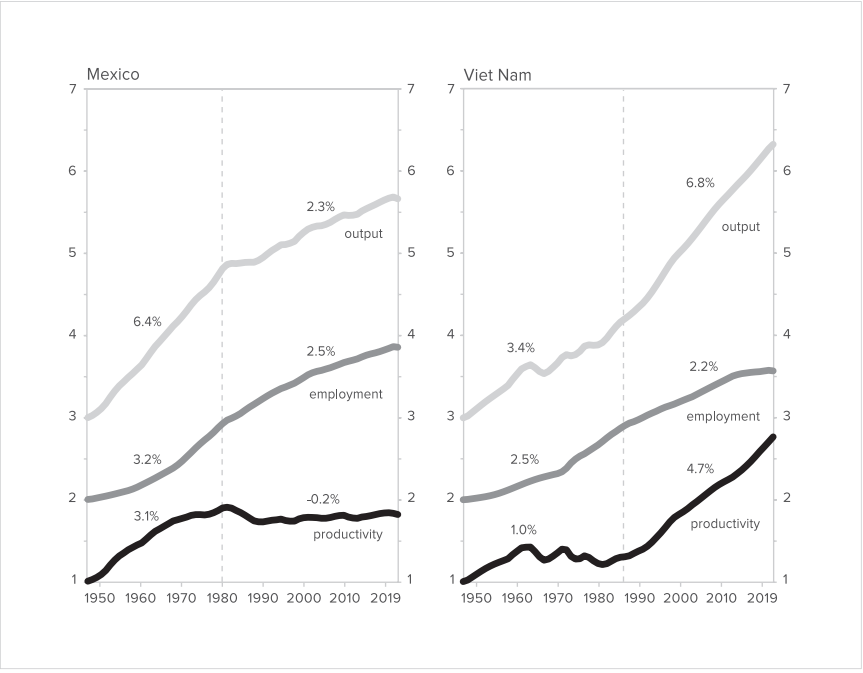

Figure 5.8 Mexico versus Viet Nam output, employment and labour productivity, 1950–2019

Source: de Vries et al. (2021).

Note: Each series is an index number of a 3-year moving average (in log-scale), with base 1 in 1950 for productivity, 2 for employment, and 3 for output. Productivity = output per worker; employment = total employment; output = GDP.

As productivity growth in Latin America faltered, output growth in Argentina, Brazil, Chile and Mexico (except in Chile on its return to democracy in 1990) has depended entirely on employment growth since the 1980s. During the same period, the NICs-2 economies combined productivity gains and output growth with steady employment increases, as seen in the comparison between Brazil and Indonesia (Figure 5.7) and Mexico and Viet Nam (Figure 5.8).

Meanwhile, the productivity of the average worker in Argentina, Brazil and Mexico, which together represent well over 80 per cent of Latin America's GDP (a share that has risen since the collapse of the Venezuelan economy), remains the same today as it was in 1980. Employment generation has been confined to sectors having little or no potential for long-term productivity growth. The extractive sector, which posted rapid productivity gains for a while, has not created jobs. Notably, overall productivity growth in Brazil came to an abrupt halt in 1982 with the end

of the import-substitution period and the Latin American debt crisis. Since then, Brazil has sustained productivity growth at the expense of the devastation of the Amazon rainforest, and GDP growth has been entirely due to employment creation in services and construction.

However, Brazil's rapid increase in demand for labour (reaching more than twice the rate of population growth) did little to increase the income share of the bottom 40 per cent of the population (Palma, 2011, 2019b, 2020). Instead, slow productivity growth in sectors that have the capacity to generate employment results in a lower wage share and higher returns to capital, which in turn results in greater wealth inequality. For example, Oxfam (n.d.) estimates that the six richest Brazilians control the same amount of wealth as the bottom 50 per cent of the population. According to *Forbes* magazine, since Latin America's neoliberal reforms, no other region of the world has created as many millionaires, centimillionaires and billionaires; even under successive Workers' Party governments, the number of Brazilian millionaires and billionaires trebled (Andrade, 2020). Today there are more billionaires in Brazil than in the Republic of Korea and more in Chile than in Saudi Arabia (Palma, 2019). We examine this progression towards wealth inequality and stagnation of overall productivity growth in more detail in the next section.

Latin America's Dual-Extractive Model

Palma (2019a) describes Latin America's growth model as 'dual-extractive': extractive because commodities are the main (often only) driver of productivity growth (at least until the extractive drive gets exhausted); and dual because while productivity growth takes place only in commodity production, all job creation is confined to activities that have no productivity-growth dynamics, such as services and construction. As the productivity growth potential of extractive industries has begun to fade in Latin America (except for Brazil) and as these economies have failed to generate new sources of productivity growth, employment creation in services and construction has become the sole driver of GDP growth. In contrast to emerging Asia, no single sector in Latin America has been able to generate both productivity growth and jobs (Figure 5.9).

The slowdown of manufacturing in Latin America since the 1980s has been a significant drag on labour productivity growth and, compounded by Venezuela's manufacturing collapse, has reduced the region's share of emerging market manufacturing output from over half of all manufacturing production in 1980 to only one-tenth in recent years (Palma 2019a). In fact, in manufacturing, China's relative rise is nearly the reverse image of Latin America's decline (Palma, 2011).

Old and new orthodox theories of international trade would predict that trade liberalization and competition from emerging Asian manufacturing

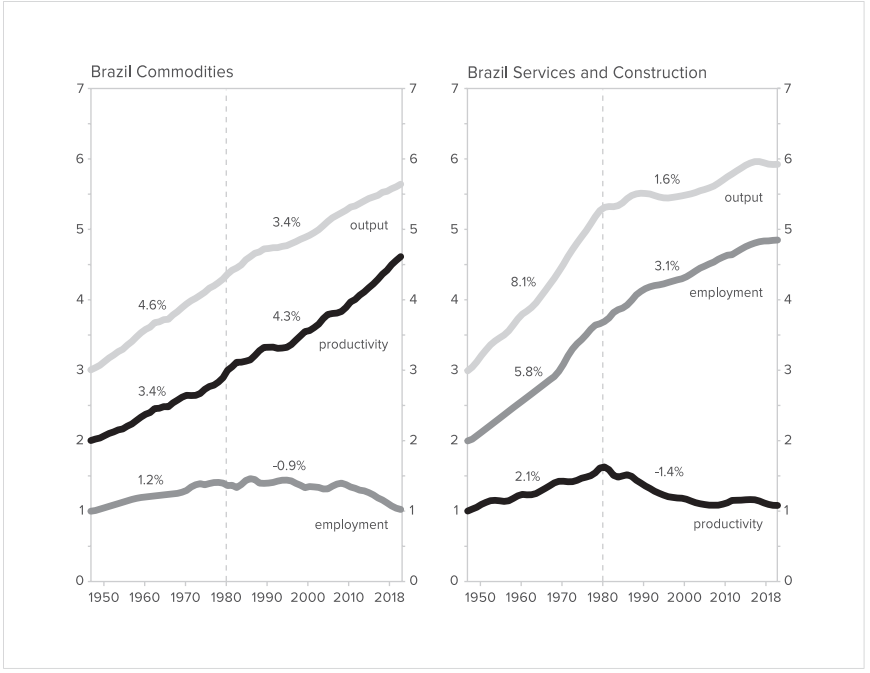

Figure 5.9 Brazil output, employment and productivity in commodities and services and construction, 1950–2018
Source: de Vries et al. (2021).
Note: Each series is an index number of a 3-year moving average (in log-scale), with base 1, 2 or 3 in 1950 for its respective variable. Productivity = output per worker; employment = total employment; output = GDP; Commodities = agriculture, oil, gas and mining.

would lead to the offshoring of Latin American labour-intensive (and frequently lower productivity) manufacturing activities (or segments of value chains) and the retention of more productive (and productivity-enhancing) activities. Concentration on higher value added and more dynamic activities in manufacturing would generate more rapid productivity growth through specialization and increasing returns. From a simple, arithmetical point of view, therefore, deindustrialization in Latin America should have resulted in an increase in average productivity growth as, in relative terms, growth in manufacturing employment would fall more rapidly than in output.

Yet, the opposite took place: In Argentina, Brazil, and Mexico, three economies with advanced manufacturing sectors in 1980, manufacturing employment continued to grow while productivity stalled, as shown in the examples of Brazil and Mexico (Figure 5.10). In fact, in addition to some labour-intensive activities,

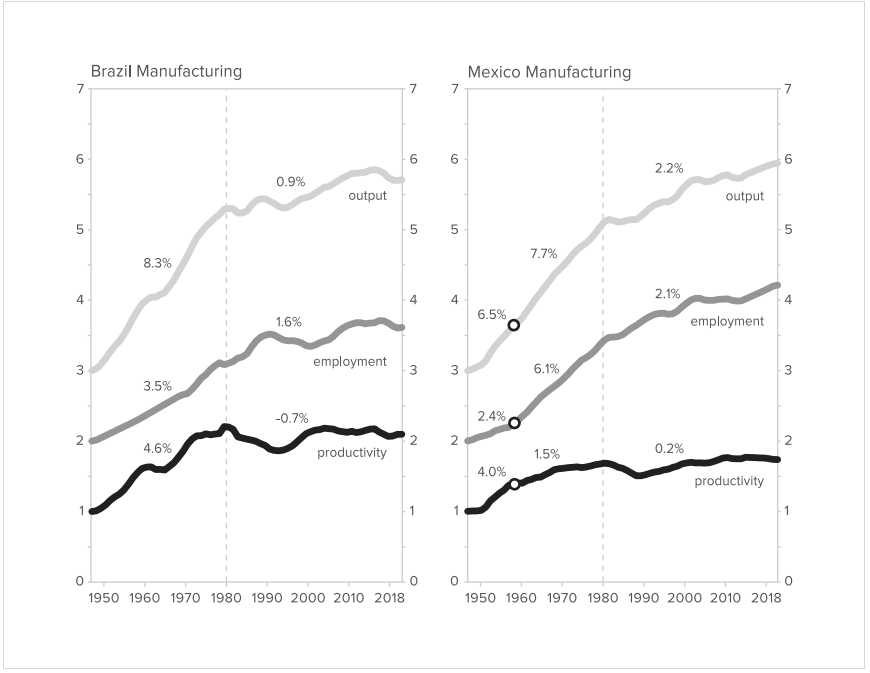

Figure 5.10 Brazil and Mexico output, employment and productivity in manufacturing, 1950–2018

Source: de Vries et al. (2021).

Note: Each series is an index number of a 3-year moving average (in log-scale), with base 1 in 1950 for productivity, 2 for employment, and 3 for output. Productivity = output per worker; employment = total employment; output = GDP.

the industries that were transferred from Latin America to Asia were more mobile, or 'footloose', but not necessarily less productive, including consumer durables, garments, footwear and other goods that diversified extensively under import substitution (Palma, 2011).

At the same time, falling transport costs allowed manufacturing activities previously tied to the geographical source of their main input to be transferred to Asia, such as the processing of bulky raw commodities. This deindustrialization process causes unnecessary pollution and significantly contributes to global warming. For example, as seen earlier, Chile exports of copper concentrates to Asia includes the transportation of copper slag, which accounts for 70 per cent of the volume of the product experted (Palma, 2019a; Sturla-Zerene et al., 2020).

Manufacturing Loses Steam in the NICs-2

As we saw earlier, unlike in Latin America, manufacturing in the large Southeast Asian economies is still capable of generating both employment and productivity growth. However, these countries, with the exception of Viet Nam, have not managed to sustain the high rates of manufacturing output and productivity growth that they recorded prior to the Asian financial crisis.

Prior to the crisis, Southeast Asia enjoyed a decade of exceptionally rapid investment, exports, and output growth as countries incorporated their manufacturing into Japanese production networks for both exports and import substitutes. Following the Plaza Accord in 1985, the value of the yen rose sharply against the dollar, prompting Japanese firms to relocate to China and Southeast Asia – a preferred destination because of the region's combination of cheap labour and currencies effectively pegged to the US dollar.

Japanese FDI in Indonesia, Thailand, the Philippines and Malaysia increased 66 per cent in real terms from 1970 to 1985 and more than nine-fold from 1985 to 1996 (UNCTAD, n.d.). Similarly, from 1985 to 1996, manufactured exports from the Association of Southeast Asian Nations (ASEAN)[11] countries rose nine-fold. Governments built export processing zones and transport and logistics infrastructure to attract investment, while also deploying local content requirements and other instruments to boost domestic value added and upgrade technological capabilities, such as in the Thai and Indonesian automobile industries. However, the boom had already begun to lose momentum by the early 1990s as Japan's prolonged recession deepened, and the 1997 Asian financial crisis brought it to an abrupt end.

Donors and international agencies offered only modest financial assistance to distressed NICs-2, and, to make matters worse, made their support conditional on the NICs-2 adopting orthodox adjustment policies, ostensibly to tackle the crony capitalism donors blamed for the severity of the crisis.[12] The result was a severe contraction in output, employment, and domestic demand and a delayed recovery. Reversing the boom seen prior to 1997, private and public investment in Indonesia, Malaysia and Thailand declined and remained subdued, not just in the years immediately after the crisis, but also for the next two decades (Figure 5.11), while Viet Nam withstood the direct effects of the Asian financial crisis, buffered by a closed capital account and limited overseas commercial borrowing.

Southeast Asia's productivity growth slowdown after the Asian financial crisis signalled the exhaustion of the post-Plaza Accord boom, which was based on Japanese inward investment in manufacturing. After the crisis, China emerged as the benchmark for low-cost production and simultaneously managed to upgrade its managerial and technological capabilities across a broad range of industries. The NICs-2, especially Malaysia and Thailand, were priced out of many labour-intensive

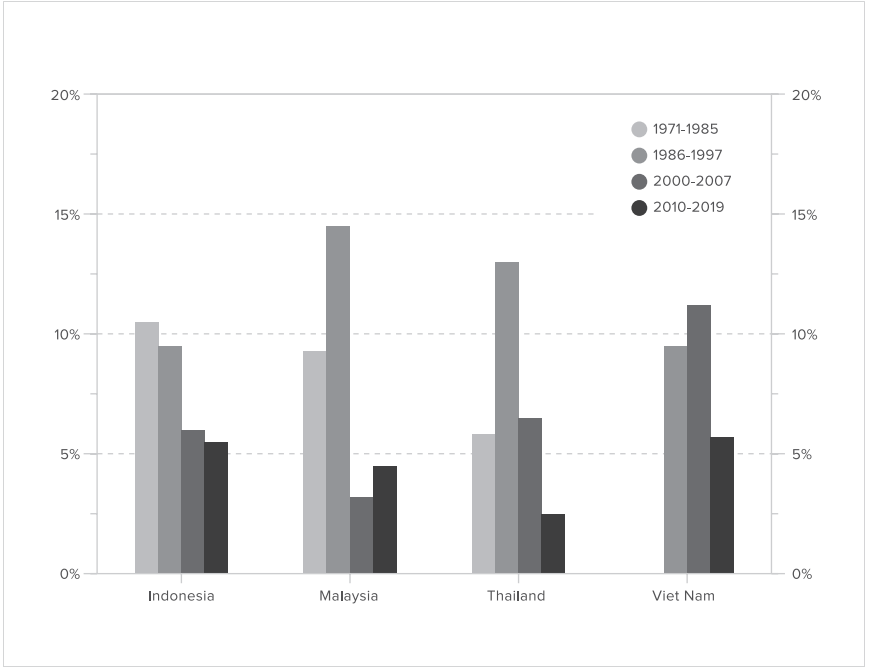

Figure 5.11 NICs-2 annual rate of growth of fixed capital formation, 1971–2019
Source: World Bank WDI (2021).
Note: The crisis years of 1998, 1999, 2008 and 2009 omitted as investment contracted in these years.

activities and were unable to keep pace with China's drive into capital- and technology-intensive operations; this remained the case despite years of incentive schemes and complementary public investments (Figure 5.12). Indonesia lost competitiveness during the 2004 to 2013 commodity boom when surging prices for coal, palm oil and metals led to exchange rate appreciation and rising real wages in manufacturing. There was even talk of 'premature' deindustrialization in Indonesia, Thailand and Malaysia (Rasiah, 2020).[13] Manufactured exports lost momentum, no longer growth engines except in Viet Nam, which assumed the role of low-cost assembler for foreign companies moving out of China. The absence of large national firms and heavy reliance on multinationals for technology and access to markets has imposed limits on the potential for Southeast Asian economies' productivity growth.

Furthermore, like the Latin American countries, Malaysia, Thailand and Indonesia have been unable to reengineer their growth strategies so as to penetrate markets for more sophisticated manufactured goods or to increase domestic value

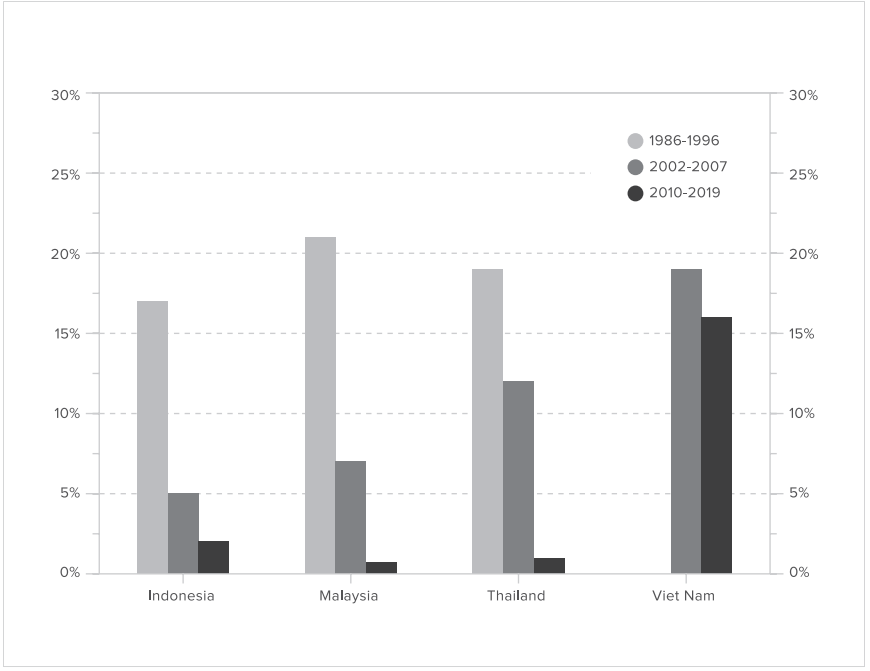

Figure 5.12 NICs-2 manufactured exports, 1986–2019
Source: World Bank WDI (2021).
Note: The crisis years of 1998, 1999, 2008 and 2009 omitted as trade contracted in these years.

added in foreign assembly operations. This leaves them increasingly reliant on legacy industries from the Plaza Accord era, such as automobile and electronics assembly (Malaysia and Thailand), or processing commodities, like palm oil, that have few upstream or downstream linkages (Indonesia and Malaysia). As seen in Figure 5.13, growth of export volumes fell sharply after the Asian financial crisis and have not recovered in Indonesia, Malaysia and Thailand, and unit export values declined in the past decade, except in Viet Nam.

Indonesia experienced two periods of rapid productivity growth in manufacturing before the Asian financial crisis. The first, from 1971 to the mid-1980s, was driven by state investment in basic industries financed by oil revenues. After oil prices declined, Indonesia devalued the rupiah and attracted investment in labour-intensive manufactures for export including garments, footwear and electronics. Import substitution was maintained in key industries like auto assembly and electrical machinery. Between 1971 and 1997, manufacturing output grew 10.9 per cent per annum, and labour productivity increased at an average

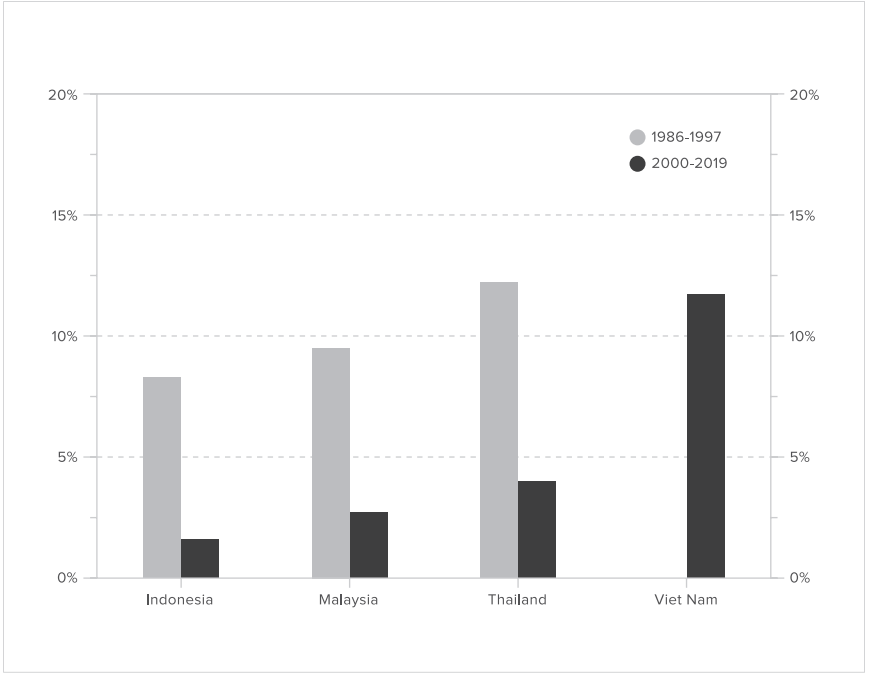

Figure 5.13 NICs-2 average annual rate of growth of trade volumes, 1986–2019
Source: UNCTAD (n.d.).
Note: The crisis years of 1998 and 1999 omitted as trade contracted in these years.

rate of 5 per cent. Industry contracted during and after the Asian financial crisis, and investment in manfacturing remain subdued during the commodity boom from the early 2000s to 2013. Productivity growth in manufacturing slowed to 2.1 per cent for the post-crisis period (Figure 5.14). The Indonesian services sector is diverse, encompassing high value added financial and business services alongside domestic services and petty trade; the latter two act as a reservoir for underemployed labour.

Malaysia pursued export-oriented industrialization from the 1970s, attracting foreign investment in electronics, which have accounted for the largest share of manufactured exports ever since. The government launched a new heavy industry strategy in the early 1980s, including a national automobile project, but had to reverse course within a few years as a fall in global commodity prices threatened a balance of payments crisis (Lall, 1996: 151). A renewed effort to attract inward investment coincided with the post-Plaza Accord surge in Japanese FDI and rapid growth of manufactured exports. After the crisis, both employment and productivity growth

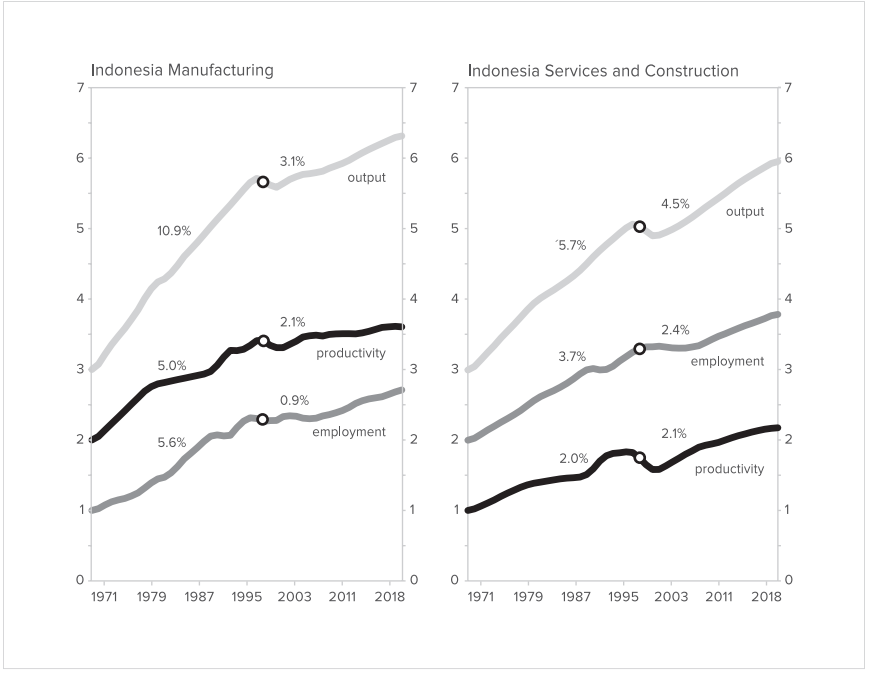

Figure 5.14 Indonesia output, employment and productivity in manufacturing and services and construction, 1971–2018
Source: de Vries et al. (2021).
Note: The circles = 1997 Asian financial crisis. Each series is an index number of a 3-year moving average (in log-scale), with base 1, 2 or 3 in 1950 for its respective variable. Productivity = output per worker; employment = total employment; output = GDP.

slowed as Malaysia lost competitiveness relative to China and Viet Nam in labour-intensive assembly operations, but did not succeed in moving into more technology-intensive phases of production (Figure 5.15).

For many years, Thailand combined development of import-substituting industries, most notably automotive assembly, with export-oriented manfacturing of electronics and other labour-intensive goods. Growth of manufacturing productivity accelerated to 4.9 per cent per annum after the Plaza Accord, but decelerated after the Asian financial crisis, and to an even greater extent after the global financial crisis of 2008 (Figure 5.16). Thailand has lost competitiveness with rising wages and a strengthening currency, and domestic political instabiltiy also deters foreign investment. Thailand's service sector, like Indonesia's, spans the full range of activities from finance and luxury tourism to low-paid jobs sought by seasonal migrants.

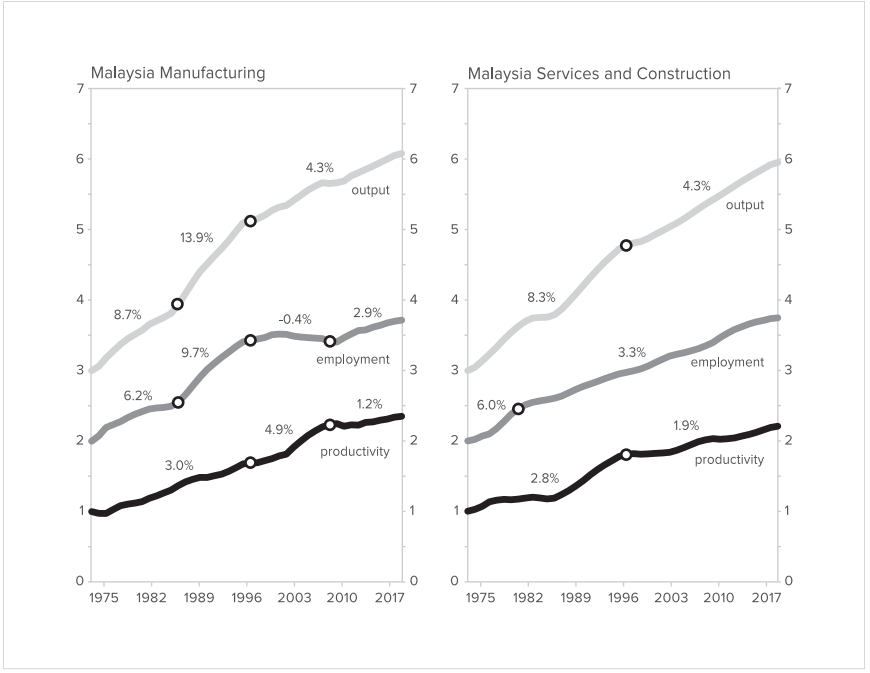

Figure 5.15 Malaysia output, employment and productivity in manufacturing and services and construction, 1975–2018
Source: de Vries et al. (2021).
Note: Each series is an index number of a 3-year moving average (in log-scale), with base 1 in 1950 for productivity, 2 for employment, and 3 for output. Productivity = output per worker; employment = total employment; output = GDP.

Viet Nam, still at a relatively early stage of industrialization, is the outlier in the region. Viet Nam's low wages and improving infrastructure have encouraged massive foreign investment in the manufacture of electronics, garments, and footwear, allowing Viet Nam to nearly recapture its pre-1997 6.2 per cent manufacturing productivity growth rate with 5.8 per cent by 2018 (Figure 5.17). Productivity growth dipped during the global financial crisis of 2007–2008 as the government subsidized employment, but, since 2015, FDI in electronics assembly, which comprises 35 per cent of exports, has driven an employment and productivity boom. Legacy products, such as garments and footwear, still make up 25 per cent of exports, but are growing more slowly. However, Viet Nam's boom in productivity growth is largely due to the movement of labour from low productivity occupations to manufacturing, with little evidence of productivity growth within assembly operations (Ohno et al., 2020).

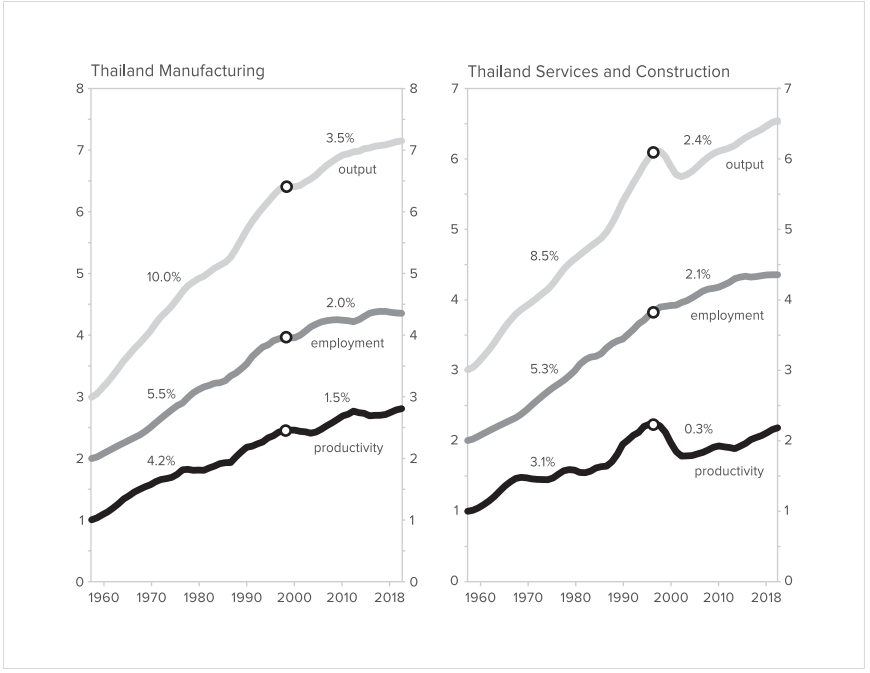

Figure 5.16 Thailand output, employment and productivity in manufacturing and services and construction, 1960–2018

Source: de Vries et al. (2021).

Note: The circles = 1997 Asian financial crisis. Each series is an index number of a 3-year moving average (in log-scale), with base 1 in 1950 for productivity, 2 for employment, and 3 for output. Productivity = output per worker; employment = total employment; output = GDP.

To revive exports, Southeast Asian countries have sought to integrate more deeply into regional production networks, entering into a vast array of overlapping regional and bilateral trade and investment agreements. In 1997, no country in the region was party to more than two or three such agreements, but, by 2020, Indonesia had signed 45 such agreements, Thailand 40, Malaysia 36, and Viet Nam 26 (ADB, 2021). These agreements promise to ease access to foreign markets, but also contain provisions on patents and trademarks, non-tariff or other trade barriers, government procurement, limits to the scope of state-owned enterprises, the opening of domestic financial markets, and compensation to multinationals in case any policy or regulatory change (for example, in industrial policies or in environmental regulation) affects their profitability – no matter how reasonable the change may be.[14]

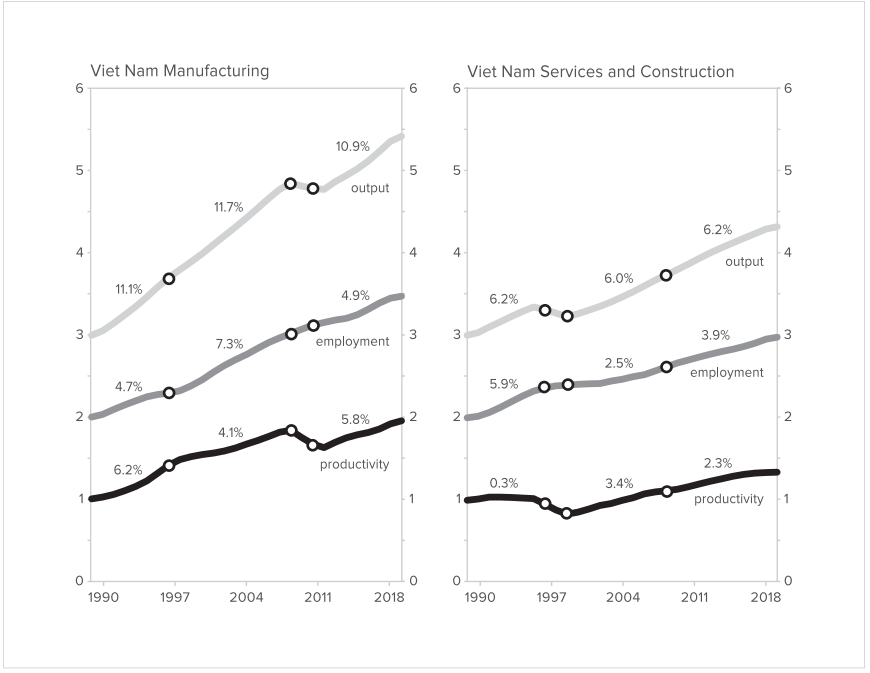

Figure 5.17 Viet Nam: output, employment and productivity in manufacturing and services and construction, 1990–2018
Source: de Vries et al. (2021).
Note: Each series is an index number of a 3-year moving average (in log-scale), with base 1 in 1950 for productivity, 2 for employment, and 3 for output. Productivity = output per worker; employment = total employment; output = GDP.

Policy Recommendations and Other Actions

The main policy implication of this analysis is that both regions – Latin America and Southeast Asia – must urgently revisit their current growth strategies to reignite labour productivity growth. The former by processing (adding value to) their commodity exports while strengthening backward linkages to their extractive activities; the latter by deepening their assembly operations in manufacturing. In the 1960s, decades before neoclassical economics rediscovered increasing returns to scale, Nicholas Kaldor provided a theoretical account of the unique role of manufacturing as the engine of economic growth. Because manufacturing has demonstrated greater scope to realise increasing returns to scale and therefore more rapid productivity growth, the overall rate of growth of output and productivity (as well as wage growth) both within and outside of manufacturing depends on the

rate of growth of output in the manufacturing sector. However, because increasing returns are the source of productivity growth, domestic demand emerges as a key driver of growth. Therefore, Kaldor emphasised the rate of growth of manufactured exports and domestic investment as essential to the achievement of rapid economic growth. We provided support for this relationship in Latin America and Southeast Asia, demonstrating the continuing relevance of Kaldor's analysis to the situation of middle-income countries in their quest to break through their productivity glass ceilings and escape the middle-income trap.

Additionally, middle-income countries need to recognise that the dominant growth strategy is the present-day cause of the middle-income trap, not the escape route: as noted earlier, mere commodity extraction and pure assembly operations in manufacturing have run their course in the more advanced Latin American countries and most of emerging Asia. Mid-table countries need to deploy every available instrument to deepen manufacturing across the full range of subsectors with backward and forward linkages. Of course, many of the traditional policies used to achieve this objective in the past are no longer available, or at least not to the degree they were available to the NICs-1; selective tariff protection, local content rules, domestic preference in government procurement, investment restrictions, and backward engineering of imported goods are explicitly ruled out under multilateral and bilateral trade and investment agreements. However, even under existing agreements there are still significant degrees of freedom, and these countries are not without choice.

In addition to moving from exporting raw commodities to processing them into exportable products, fiscal linkages are also important in countries where natural resource rents account for a large percentage of GDP, such as Chile and Malaysia.[15] Palma (2019a) suggests applying a 'differentiated' royalty to natural resources: Chile, for example, should apply a high royalty rate on copper concentrates (one that could reach up to a one-third of export values at current prices), a much lower rate for refined cooper bars, and reduce the royalty rate further if copper is exported as wire or a similar manufactured product.

Under pressure from the COVID-19 pandemic and mounting evidence of the human and economic costs of climate change and inequality, the political consensus sustaining neoliberal policies in advanced countries has begun to waver. Whether 'levelling up' in the United Kingdom or 'building back better' in the United States, activist economic policy is back in vogue. A similar ideological shift is playing out in the developing world: Every country has its own pandemic recovery plan and a Green New Deal to accelerate the transition to renewable energy and net zero carbon emissions, promote digitalization of commerce and government services, and train the citizenry for the jobs of the future. While most of the attention has centred on these plans' financial constraints, the main obstacles are likely to be political. Plans will remain on the drawing board if governments cannot persuade or

compel domestic elites to accept a larger state role in the mobilization and allocation of capital. Governments can make greater use of fiscal and other levers to encourage productive investment and discourage speculative investment. Taxes will have to rise to finance essential public investment in physical and nonphysical infrastructure, and, in some countries, strategic use of capital controls will be necessary. Latin American, NICs-2 and foreign corporations, which for many years have been offered generous investment incentives but have never experienced compulsion, are likely to object strenuously.

Conclusion

This chapter has presented an alternative explanation to the middle-income trap experienced in both Latin American and Southeast Asia. The situation is more dire in Latin America, which has performed poorly in comparison to NICs-1 countries and relative to the second-tier NICs in Southeast Asia. Latin American countries have pursued a dual-extractive model, relying on a combination of raw commodity exports and low productivity services and construction. While the former one delivered productivity growth, it has not generated any employment gains. Conversely, services and construction have created almost all jobs but have shown limited or no scope for productivity growth. Furthermore, with productivity growth nearly grinding to a halt in commodity extraction in all countries except Brazil (at the expense of the devastation of the Amazon rainforest), and as extractive industries approach the technological frontier and face diminishing returns, output growth has become restricted to the rate of growth of low-wage employment in services and construction. Notably, further employment opportunities but little or no productivity growth derives from assembly manufacturing in Mexico under the North American Free Trade Agreement (NAFTA) or foreign-owned factories for exports in Central America.

The situation in the NICs-2 differs because (except for Malaysia) they are further from the technological frontier than their Latin American peers and still register productivity and employment growth from their manufacturing-based development strategies. However, there are early signs that their prevailing growth strategy, one based on FDI and manufactured exports, is losing steam. This is not, however, because their production processes have closed the gap with the technological frontier (as is the case with many commodities in Latin America), but because assembly-style manufacturing is not delivering opportunities to deepen productive structures in their domestic economies. Using Hirschman's terminology (1972), the backward and forward linkages that could set in motion a more self-propelling growth have not materialized.

From the Plaza Accord in 1985 until the Asian financial crisis in 1997, Southeast Asian countries were integrated into manufacturing systems organised around Japanese conglomerates, producing exports and import substitutes. But when the

Japanese economy faltered in the early 1990s, the centre of regional manufacturing shifted to China. Unlike Japan, China competed directly with Southeast Asian NICs-2 for inward investment in manufacturing, forcing the region into low-wage activities, such as garments and electronics assembly, or legacy industries, like semiconductors and automotive parts. NICs-2 newcomers, like Viet Nam and Cambodia, still enjoy rapid growth of assembly-manufacturing for exports, but this is no longer the case in the more mature economies, Thailand and Malaysia.

An argument often heard these days is that while manufacturing used to be the engine of growth, as demonstrated by countries like Japan, Republic of Korea, Taiwan (Province of China), China, India and Singapore, it no longer is. One example of this type of thinking is the famous 'smiling curve,' which is a graphical depiction of how value added varies across the different stages of bringing a manufactured product onto the market, especially in the information technology sector. First proposed in the early 1990s by Stan Shih, the founder of Acer Inc., in the personal computer industry, the two ends of the value chain, which are conception, R&D, design and branding on one end, and distribution, marketing, sales and service on the other, command higher returns than the middle component of the value chain, which is assembly manufacturing (Shih, 1996). This holds because the two ends are where all rents are generated.

Other commentators have pointed out that new technologies have blurred the distinction between manufacturing and services, and that automation will destroy some labour-intensive jobs in manufacturing. Even the World Bank, long a champion of the growth-promoting effects of labour-intensive manufactured exports, now has one foot on the 'end of manufacturing' bandwagon, even if it is not yet ready to climb on board fully (Hallward-Driemeier and Nayyar, 2018).[16]

It is true that products and services are changing, but this was always the case, and the use of machines to replace human power is not a new phenomenon. The evidence presented in this chapter shows that manufacturing is still an important contributor to labour productivity and GDP growth, at least in the two regions that we examine. Historically, low- and middle-income countries that have achieved more rapid growth of manufacturing have grown more quickly. And we believe that they will continue to do so – provided they rise to the challenge of continuously upgrading their development strategy. Moreover, since they are still far from the technological frontier, middle-income countries must seek to exploit every opportunity to accelerate labour productivity growth across the full range of sectors. While many of the traditional tools of industrial policy are no longer available, or at least not to the same extent as before the 1980s economic reforms, governments still have considerable scope to support research and development; develop strategic infrastructure; use fiscal policies, public investment, and finance to promote manufactured exports; and facilitate forward and backward linkages within industry and between sectors. Insisting on the more-of-the-same-but-hopefully-better is a tacit acceptance of permanent mid-table status.

Notes

1. Cambodia and the Philippines are often grouped with the second-tier NICs, but we do not include them in this report because the timing and duration of their growth episodes differ from that of the other large Southeast Asian countries for reasons that take us beyond the scope of this chapter. See Jomo (2001).
2. From 1989 to 1996, real growth per capita was 5.6 per cent in Malaysia and 7.3 per cent in Thailand. The corresponding figures for 2000–2019 were 2.9 per cent and 3.2 per cent. Per capita income growth in Indonesia slowed from 5.5 per cent to 3.7 per cent, starting from a lower base: Indonesia's actual GDP per capita in 2019 was only $4,200. Data from International Monetary Fund (2021).
3. Figure 5.1 excludes high-income, oil-producing countries in the Middle East (Qatar, United Arab Emirates, Kuwait, Bahrain, Saudi Arabia and Oman) because of the distorting impact of high oil price instability. GDP per capita in US$ figures is reported in 2019 current US dollars.
4. Endogenous growth models, following Romer (1990) and Lucas (1998), altered the standard assumptions of traditional neoclassical growth theory to incorporate increasing returns to scale. For an early critique from the NICs-1 perspective, see Pack (1994). On the contrasting nature of different development strategies (that is, Solow-type neo-classical models, new growth theories, and Kaldorian/structuralist theories of growth as 'sector specific'), see Palma (2005, 2008).
5. Note that the end of Chile's recovery and catching-up period in 1998 was not marked by a political or financial crisis or natural disaster. Chile's economy simply ran out of steam, which also characterizes the end of all periods of rapid growth in every Latin American country since the Second World War, thus suggesting the inability to sustain periods of 'catching up' (Palma, 2011, 2019a).
6. Of the 10, 8 are in the $20,000 to $40,000 per capita GDP group: Republic of Korea, Taiwan (Province of China), Italy, Spain, Slovenia, Estonia, Czech Republic and Portugal. Only Singapore and Hong Kong SAR (China) have broken into the over $40,000 per capita group as well (IMF, 2021).
7. For example, the headcount poverty rates in Mexico and Viet Nam, using the World Bank's $5.50 per day poverty line, are virtually identical even though income per capita is nearly three times greater in Mexico (in international dollar purchasing power parity). On Latin America's inequality, see Palma (2019b).
8. Private debt to GDP increased and gross fixed capital formation decreased in Brazil, Mexico, Malaysia, Thailand and Viet Nam from 2007 to 2019 (World Bank WDI, 2021).
9. Kaldor referred to this second growth law as Verdoorn's Law after the Dutch economist who published the first statistical tests of the relationship.
10. For example, Brazil's steel exports were equal to one-third of its unrefined iron ore exports in 1980, but the corresponding figure for 2019 was 3 per cent. In the 1980s, Brazil exported roughly the same value of soybeans and soybean oil, but, by 2019, soybean oil was 2 per cent of soybean exports by value (United Nations, 2017).
11. ASEAN member states include Thailand, Malaysia, Indonesia, Singapore, the Philippines, Brunei, Viet Nam, Cambodia, Myanmar and the Lao People's Democratic Republic.

12. The International Monetary Fund and the US government had aggressively promoted financial market and capital account liberalization in affected countries in the years prior to the crisis, trumpeting the benefits of capital inflows while downplaying the macroeconomic risks. As the Asian financial crisis unfolded, both argued that the cause of the crisis was excessive government intervention leading to overinvestment and the misallocation of capital as its main cause – in other words, too much government, not too little (Singh, 1998; Palma, 2012).
13. For the concept of 'premature' deindustrialization, see Palma (2005).
14. A key characteristic of recent trade agreements (like the so-called TPP-11) is to introduce the concept of 'indirect expropriation': any change of policy or regulation (no matter the reason) that may affect the profitability of multinationals (or large domestic conglomerates that qualify as multinationals) would be subject to compensation, and the amount of this will be determined by international courts.
15. In 2018, natural resource rents were 8 per cent and 12 per cent of GDP in Malaysia and Chile, respectively. In Chile, they exceeded 20 per cent in the previous super cycle of commodity prices (World Bank WDI, 2021) and should return to that level with the current export-price bonanza.
16. Unsurprisingly, the World Bank sees the problem only from the supply side, and thus proposes only better governance, human capital, and connectivity as solutions.

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