

COVID-19 Recovery Strategy: Malaysia as a Regional Manufacturing Hub

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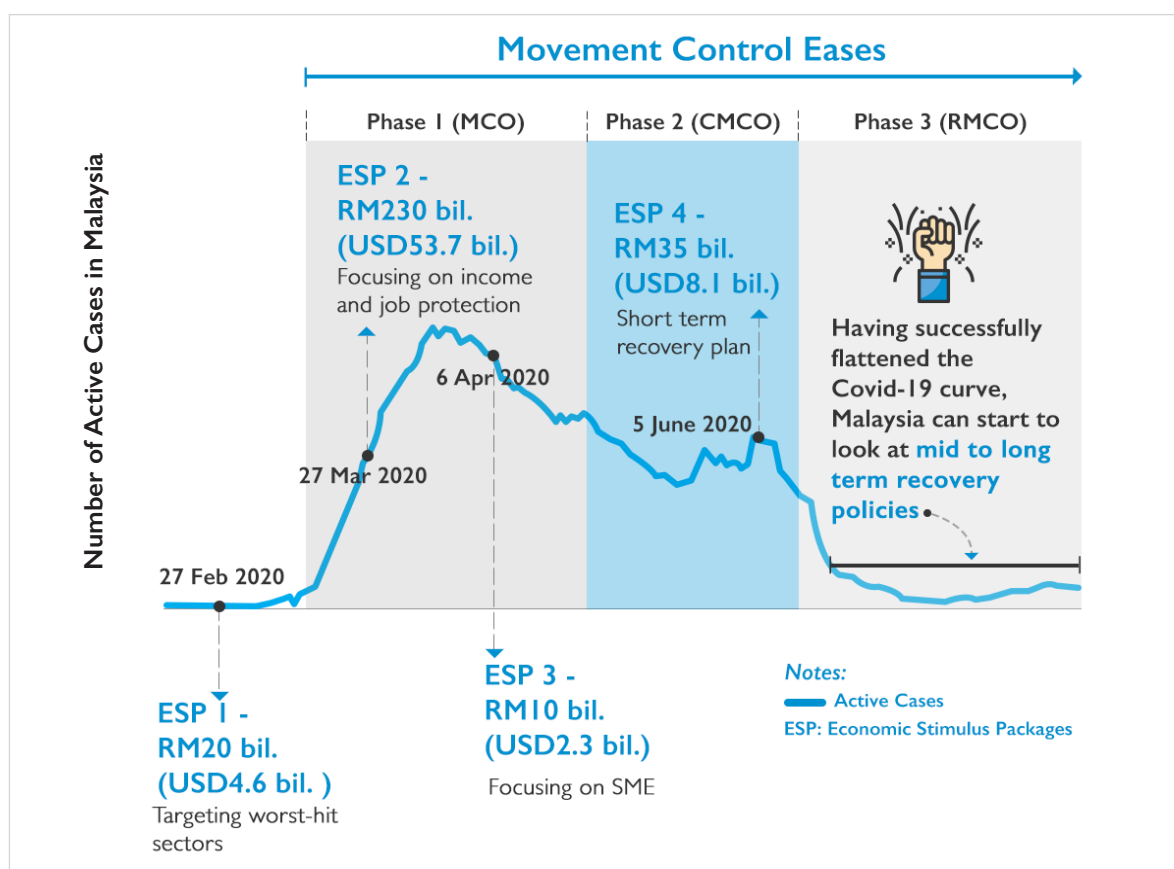
Introduction

Due to the large decline in global trade and investment flows, the COVID-19 pandemic has hit open economies such as Malaysia particularly hard. To cushion the initial shock, the Malaysian government had implemented multiple economic stimulus packages (ESPs) totalling RM 295 billion (USD 68.7 billion), while focusing on measures to mitigate the public health crisis (see Figure 1). Although these packages helped prevent a far more severe economic collapse, they were ultimately stop-gap measures—insufficient to support long run growth. Yet having successfully flattened the COVID-19 curve ahead of many other countries, Malaysia is ready to consider its long run economic recovery strategy.

Meanwhile, the pandemic has exposed a systemic risk within the complex web of global value chains (GVCs), with many firms considering diversifying and relocating their production hubs. The ASEAN region seems to be a major beneficiary of these supply chain reconfigurations, providing an opportunity for member states to capture these much-needed investments. Malaysia should take advantage of its relative success in mitigating the public health threat, positioning the economy in a way that enables these relocations to fuel long term domestic growth.

This briefing paper aims to initiate a conversation on revisiting Malaysia's macroeconomic policy for post-COVID growth and development. Given the recent relocations, Malaysia should pursue policies to attract multinational corporations (MNCs) in regionally competitive industries through developing a strong domestic industrial ecosystem in these sub-sectors, rather than through direct investment incentives. Adopting a 'race to the top' approach will better ensure that this outward-oriented strategy benefits a broad segment of the population—promoting a more inclusive recovery.

Figure 1: Timeline of COVID-19 Economic Policies



Source: Ministry of Finance Malaysia, Worldometer

China Plus One strategy as a recovery source

Factory closures and logistics activities suspensions due to COVID-19 lockdowns have disrupted many supply chains, particularly those concentrated in highly affected regions. This has prompted many MNCs to relocate from China to ASEAN in an attempt to diversify their supply chains and build resilience—adopting the *China Plus One* strategy. While Thailand and Viet Nam have been the primary recipients of these relocations thus far, **Malaysia stands to benefit due to its large access to the global production system, especially in terms of its regional value chain (RVC) participation, thus able to attract MNCs seeking to establish a manufacturing hub in ASEAN** (see Box 1).

However, **a country’s productivity in relevant sub-sectors is also an important consideration for relocating firms.** As such, Malaysia should consider nurturing industries with the potential to attract FDI—creating a sophisticated ecosystem of supplier-firms—and leveraging this opportunity to create a new impetus for broad-based growth.

Box 1: Malaysia appears to be an attractive destination as a regional manufacturing hub base, due to high GVC and RVC participation.

As one of the world’s most open economies, Malaysia’s economic recovery is highly dependent on the global environment—with exports and foreign direct investments (FDI) directly generating domestic economic activity, as well as indirectly through knowledge spill-overs, technological upgrading and boosting domestic efficiency through competition. Yet global growth is projected to fall by 4.9% in 2020 alone, with global FDI flows to developing Asia to plunge by up to 45%.¹ This grim outlook is likely to intensify intra-ASEAN competition for scarce FDI.

However, in the wake of the COVID-driven collapse in manufacturing, many MNCs are attempting to diversify their supply chains, relocating away from China and adopting the *China Plus One* strategy. ASEAN appears to be an attractive relocation destination for many reasons, but **the relocation objective of the firm largely determines the specific ASEAN nation benefitting from the FDI.**

Those departing due to rising Chinese manufacturing wages and costs, predominantly in labour-intensive industries, are seeking to relocate to countries with lower wage levels. On the other hand, firms seeking to establish an alternative manufacturing hub, driven by the US-China trade war and COVID-19 disruptions, will likely take a country’s existing global and regional value chain participation into account—preserving links with China while integrating into the ASEAN supply chain network.²

Although Thailand and Viet Nam have been the main recipients of FDI so far, **Malaysia stands to benefit as a regional manufacturing hub due to its high degree of GVC and RVC participation.** According to the OECD TiVA database, Malaysia’s RVC participation was 10.5% in 2015, compared to 7.1% and 6.8% in Thailand and Viet Nam respectively.³ As such, Malaysia’s existing integration into the regional network, as evidenced by comparatively high RVC participation, makes the country an attractive relocation destination. Yet there is still the need improve the competitiveness of certain industries in order to fully capitalise on Malaysia’s existing advantages.

¹ See IMF World Economic Outlook Update, June 2020 and UNCTAD World Investment Report 2020: International Production Beyond the Pandemic.

² See IDEAS API 2020 Briefing Paper No. 1: Post-COVID Supply Chain Reconfigurations: Convergence and Divergence in ASEAN Economic Integration?

³ RVC participation is calculated as the total value of forward and backward linkages to other ASEAN countries as a percentage of total value of exports

Targeting opportunities within the manufacturing industry

The manufacturing industry dominates Malaysian exports, accounting for 87.5% of total exports in July 2020.⁴ Given that the Malaysian economy is largely reliant on trade, policies which support manufacturing sectors will likely drive nation-wide export-led growth. At the same time, attracting MNCs in the manufacturing industry has the potential to create large spill-over effects on the rest of the economy, through job creation, technology transfer, value chain upgrading and creating opportunities for small and medium-sized enterprises (SMEs)—offering promising prospects in stimulating long run recovery. **This section will focus on identifying opportunities within the manufacturing industry which will best facilitate the creation of a regional manufacturing hub.**

Box 2: Explaining the value-added productivity measure

Acknowledging the importance of productivity in attracting MNCs in the manufacturing industry, **this paper utilizes the ratio of value added over output as a proxy for productivity levels.** The ratio is obtained through dividing the value created within Malaysia by the total value of Malaysian output in each sub-sector, using data obtained from the OECD Input-Output Tables.

A higher ratio indicates a higher productivity level, with Malaysian industry adding more value to the output. This ratio is useful in directing the economy towards high value-added activities within the sector—low value-added work (such as assembly) lowers the ratio, while engaging in high value-added activities (such as research and development) leads to a higher ratio.

When identifying industries that are likely to stimulate economic recovery and development, current productivity should be considered alongside potential productivity levels. High-technology sub-sectors are typically associated with greater levels of potential productivity growth, implying that while the ratio might not currently be the highest, the prospect of these sub-sectors eventually engaging in higher value-added activities are much more promising.

A country's competitiveness is predominantly determined by its productivity in comparison to other countries, a major consideration for firms when seeking to relocate their production bases. As such, the same methodology was used to obtain corresponding ratios for the other ASEAN 5 + Viet Nam countries, then averaged across the countries to obtain an ASEAN 5 + Viet Nam average ratio for each sub-sector.⁵ The Malaysian ratio is compared against these average values for each sub-sector, with a value above the average indicating that Malaysia is more productive in that sub-sector relative to other regional nations. This allows us to **consider Malaysia's productivity in relation to other ASEAN member states—likely the main competitors for the increasingly scarce FDI—providing an indication as to which sub-sectors will likely benefit as a regional manufacturing hub.**

While this value-added measure of productivity has considerable advantages, its limitations should be noted. **The data used does not capture shifts in macroeconomic trends,** particularly in the wake of COVID-19 where the supply chain reconfigurations are likely to affect both value-added and total

⁴ See *Malaysian External Trade Statistics Bulletin July 2020*, Department of Statistics Malaysia.

⁵ The value added over output ratios are compared against the ASEAN 5 + Viet Nam average, rather than an ASEAN-wide average, to give a better representation of Malaysia's primary regional competitors (in terms of historical FDI trends and industrial development stages).

output figures. In terms of the accuracy of the value-added ratio as a proxy for productivity, **the ratio assumes the optimal use of labour and capital, and is unable to factor in productivity improvements arising from technological advancements and innovation.**⁶ However, this measure is still useful in comparing productivity levels across sub-sectors and against regional competitors.

Table 1: Value Added over Output Ratio for ‘High-Tech’ Manufacturing Sub-Sectors, 2015⁷

	Chemicals and pharmaceutical products	Computer, electronic and optical products	Electrical equipment	Machinery and equipment, nec	Motor vehicles, trailers and semi-trailers	Other transport equipment
Indonesia	0.40	0.28	0.42	0.16	0.46	0.07
Malaysia	0.24	0.20	0.26	0.36	0.12	0.23
Singapore	0.21	0.23	0.27	0.28	0.38	0.27
Thailand	0.31	0.29	0.24	0.23	0.21	0.29
Viet Nam	0.22	0.23	0.21	0.17	0.21	0.20
ASEAN 5 + Viet Nam Average	0.29	0.28	0.29	0.28	0.29	0.23

Source: IDEAS calculations using data from OECD Input-Output Tables.

Table 2: Value Added over Output Ratio for ‘Mid-Tech’ Manufacturing Sub-Sectors, 2015

	Rubber and plastic products	Other non-metallic mineral products	Basic metals	Other manufacturing; repair and installation of machinery and equipment
Indonesia	0.20	0.46	0.33	0.36
Malaysia	0.17	0.23	0.16	0.36
Singapore	0.36	0.20	0.12	0.26
Thailand	0.20	0.30	0.25	0.27
Viet Nam	0.20	0.30	0.22	0.24
ASEAN 5 + Viet Nam Average	0.25	0.31	0.23	0.33

Source: IDEAS calculations using data from OECD Input-Output Tables (2015).

⁶ See Cobbold, T. (2003), *A Comparison of Gross Output and Value-Added Methods of Productivity Estimation*.

⁷ Sector classifications into ‘low-’, ‘mid-’ and ‘high-tech’ industries in Tables 1, 2 and 3 are based R&D intensity of the sector, adapted from OECD Taxonomy of Economic Activities.

Table 3: Value Added over Output Ratio for ‘Low-Tech’ Manufacturing Sub-Sectors, 2015

	Food products, beverages and tobacco	Textiles, wearing apparel, leather and related products	Wood and products of wood and cork	Paper products and printing	Coke and refined petroleum products	Fabricated metal products
Indonesia	0.36	0.24	0.41	0.30	0.32	0.26
Malaysia	0.14	0.30	0.23	0.29	0.20	0.26
Singapore	0.32	0.36	0.30	0.39	0.03	0.29
Thailand	0.28	0.30	0.32	0.36	0.20	0.26
Viet Nam	0.13	0.29	0.11	0.20	0.12	0.20
ASEAN 5 + Viet Nam Average	0.26	0.32	0.30	0.31	0.19	0.27

Source: IDEAS calculations using data from OECD Input-Output Tables (2015).

Note:

- Value above ASEAN 5 + Viet Nam average
- Value below ASEAN 5 + Viet Nam average
- Lowest value

Building a regional manufacturing hub

As seen in Tables 1 and 2, Malaysia is more productive than regional peers in the ‘Machinery and equipment, nec’ sub-sector, alongside the ‘Other manufacturing; repair and installation of machinery and equipment’ sub-sector in the ‘mid-tech’ manufacturing industry. Having already been identified by the Malaysian Investment Development Authority (MIDA) as a catalyst for Industry 4.0, developing the Machinery and Equipment (M&E) sub-sector will enable Malaysia to incur strategic developmental domestic benefits through facilitating the nation’s transition towards Industry 4.0. Supported by Malaysia’s strength in machinery installation and repair, investment in the M&E sub-sector will facilitate the industry’s movement up the value-chain and the transition towards a high-technology nation.

Furthermore, M&E had the fifth largest sub-sectoral export value (as a proportion of total exports) in the first half of 2020, at 4.8%.⁸ **The evidently large demand for Malaysian M&E exports reaffirms our relative competitiveness in the sub-sector, hence the development and upgrading of this sub-sector has the potential to further boost overall exports—inducing long run export-led growth.**

The ‘Other transport equipment’ sub-sector does not have the highest value added over output ratio, when comparing both within the sub-sector and across other domestic sub-sectors. However, there is a high growth potential due to rising demand, with the Asian Development Bank (ADB) estimating USD8.4 trillion

⁸ See *Malaysian External Trade Statistics Bulletin July 2020*, Department of Statistics Malaysia.

in transport investment needs over 2016–30 in developing Asia.⁹ Productivity improvements in this sector, with the intention of **creating a regional transport manufacturing hub in Malaysia, will generate a sustainable growth opportunity due to rising demand for transport equipment, stemming from the past underinvestment in transport infrastructure.**

In addition, a more productive, competitive transport equipment manufacturing sub-sector will in turn increase the financial viability of investments in transportation links across the region. Over time, this will help expand domestic and regional connectivity, an important factor in attracting firms looking to establish regional supply networks. The Malaysian tourism industry will also likely enjoy spill-over benefits from greater transportation networks and regional connectivity, aiding the recovery of an industry hit hard by the COVID-19 lockdown measures.

Interestingly, the **‘Rubber and plastic products’ sub-sector has the lowest productivity among regional counterparts**, despite Malaysia being the largest rubber glove manufacturer in the world. However, gloves are classified as disposables and have a lower value-added when compared to the manufacturing of other medical devices, such as surgical instruments, therapeutics and diagnostic equipment. As such, despite Malaysia’s success in the rubber glove sub-sector, the industry should not remain complacent and should continue to strive towards moving up the value chain, developing the nation’s competitiveness in manufacturing high-technology medical equipment and devices. Furthermore, with rising low-skilled wages and the recent hiring freeze on foreign workers, Malaysia’s current cost competitiveness in the ‘Rubber and plastic products’ sub-sector is unlikely to be sustainable in the long-run, highlighting the need to transition towards higher-skilled, capital-intensive sectors.



SMEs to upgrade out of low value-added sub-sectors

SMEs make up approximately 40% of Malaysia’s GDP and have a strong presence in manufacturing, contributing to 46.7% of employment in the industry in 2019.¹⁰ A number of SME manufacturers serve as supplier-firms to a dominant company, usually as its second and third tier partner along the supply chain, and the relative maturity and sophistication of these supply-firms network can be a determining factor of the overall competitiveness of Malaysia as a regional manufacturing hub.

SMEs in the manufacturing industry are largely populated within the ‘low-tech’ sub-sectors, particularly within the ‘Textiles & Wearing Apparel’ and ‘Food & Beverages’ sub-sectors (see Figure 2).¹¹ Yet as seen in Table 3, Malaysia is relatively unproductive in these sub-sectors,¹² with the ‘low-tech’ sector underperforming as a whole compared to the ‘mid-’ and ‘high-tech’ sectors.

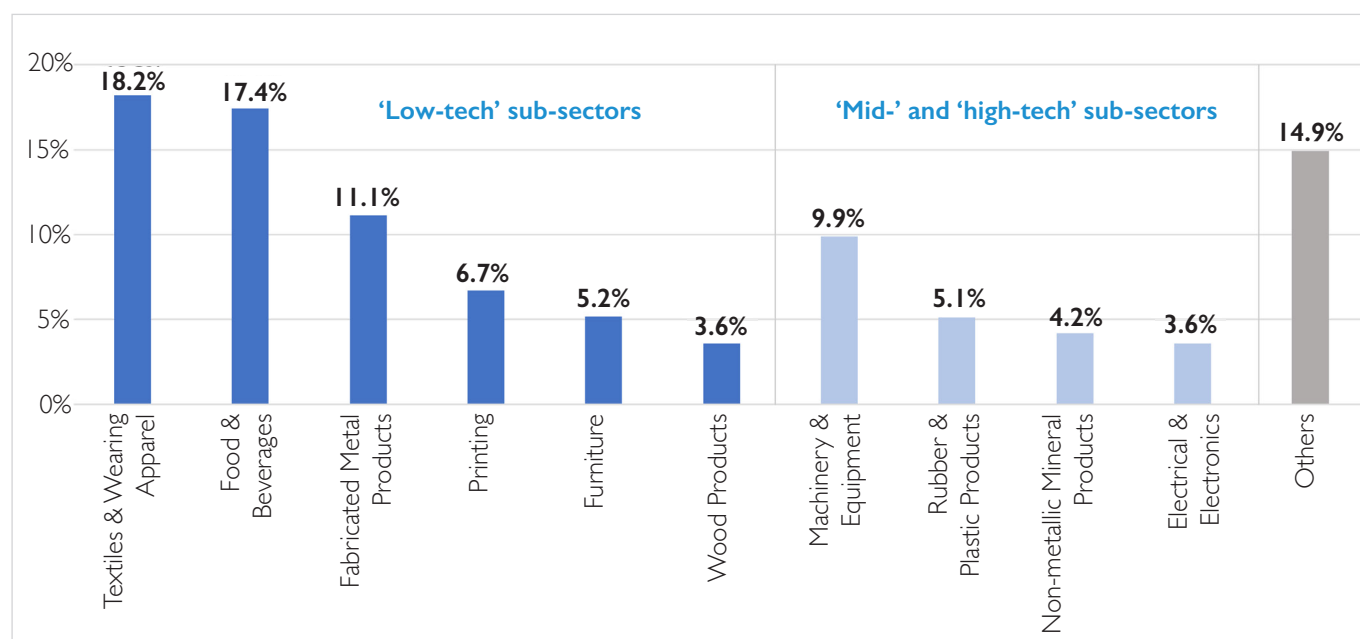
⁹ See Asian Development Bank: *Meeting Asia’s Infrastructure Needs*.

¹⁰ See *Small and Medium Enterprises (SMEs) Performance 2019*, Department of Statistics Malaysia.

¹¹ At least 62.2% of SMEs in the manufacturing sector were in ‘low-tech’ sub-sectors in 2016.

¹² The ‘Coke and refined petroleum products’ subsector remains an exception to this trend, however SME presence within this subsector is not large.

Figure 2: Percentage Share of SMEs in the Manufacturing Sector by Sub-Sectors, 2016



Source: Economic Census 2016, Department of Statistics, Malaysia.

Note: Sub-sectoral classification adapted from OECD Taxonomy of Economic Activities.

Considering SME dependence on dominant firms, alongside Malaysia's comparatively low value-added ratios in the 'low-tech' manufacturing industry, **attracting FDI in 'high-tech' sub-sectors can not only create demand for factory orders but to also promote knowledge and technology absorption**—enabling SME supplier firms to also move up the value chain and increase the diversity and competitiveness of their products and services.

However, the outcome of this FDI-led model of value chain upgrading is mixed. SME manufacturers continue to cite rising production cost, especially in labour costs, as their biggest source of concern. This labour-dependent, cost competitive model is unlikely to be sustainable, and the inability to address this could hamper progress in automation and other digitalization efforts. **SME manufacturers could be facing a vicious cycle of being unable to justify the huge upfront investment in digitalization and innovation and thus not scaling up, thereby rendering them continually reliant on cost competition to survive.** At the same time, the spill-over benefits from MNCs in 'high-tech' sub-sectors to SMEs are likely to remain limited due to weak MNC-SME linkages (see Box 3)—with MNCs relying on imports or supplies from large firms¹³—stemming either from the lack of SME competitiveness or their incompatibility with MNCs.

With a strong SME supplier network in the relevant industry typically considered as an attraction factor for FDI,¹⁴ **there needs to be a greater focus on assisting SMEs in transitioning out of low-productivity, labour-intensive manufacturing** to better serve MNCs in the high value-added industries. Supporting SMEs to enter nationally competitive sub-sectors, while promoting advancement up the value chain, will strengthen the domestic recovery outlook through both attracting FDI in the said industries as well as ensuring more extensive spill-over benefits to smaller firms. Given the devastating impact of the COVID-19 crisis on SMEs, domestic assistance is likely required to drive this process.

¹³ In a survey conducted by SME Corp. Malaysia in 3Q2018, only 6.7% of total respondents supplied to MNCs in Malaysia. See SME Annual Report 2018/19 (Chapter 2), SME Corp. Malaysia.

¹⁴ See *Small and Medium Enterprise (SME) Annual Report 2005*, Bank Negara Malaysia.

Box 3: The ‘missing link’ between SMEs and FDI

Industry clusters have emerged in different parts of the country, with the aim of attracting MNCs in strategic manufacturing sectors and better facilitating the spill-over of benefits from FDI—including knowledge and technology transfer, job creation and industrial upgrading—to domestic firms. However, these gains have not been maximised, with a major hindering factor being weak linkages between MNCs and SMEs.¹⁵ Box 3 highlights the unique challenges faced by SMEs in the different geographical clusters, providing insight into possible policy measures to aid in SME upgrading.

- **Penang Electrical and Electronics (E&E) Industry Cluster:** Despite a large network of MNCs engaging in high value-adding activities, SMEs within the Penang E&E industry cluster are largely involved in lower value-adding sub-sectors such as the manufacturing of integrated circuit (IC) parts, sensors and precision tools, as well as assembly and testing. Although many of these SMEs are beginning to automate certain processes, there has not been a significant transition up the value chain to more development-based processes including IC design and wafer fabrication. This is largely due to **family-owned SMEs lacking funds to incur large investment costs, as well as a shortage of expertise to engage in higher skilled production processes.**¹⁶
- **Penang Medical Devices Industry Cluster:** The medical devices industry has largely adopted an “FDI-driven export-oriented strategy”, yet the spill-over benefits to domestic firms have mainly emerged in the form of job creation, specifically within lower value-added activities. Indirect spill-over benefits—including technology and knowledge transfers—have not occurred on a large scale, due to SMEs’ limited capacity and thus inability to benefit from economies of scale. SMEs have **struggled to upgrade into high-technology sub-sectors, such as diagnostic and surgical instruments, despite efforts by investment promotion agencies to initiate development programmes.**¹⁷
- **Johor Furniture Manufacturing Industry Cluster:** Despite the success of SMEs within the furniture industry (particularly in Muar), many have failed to position themselves as global, independent brands on the international market, with most products exported being rebranded and sold under foreign brands. This issue largely stems from the **inability of domestic firms to advance their designing and branding capabilities and skills, thereby unable to differentiate from larger foreign firms.**¹⁸

¹⁵ See Shuhaimen, M. S. et al. (2017), *Rethinking Investment Incentives*.¹³ See Lee, S. M. (2020), *Industry Mapping and Value Chain Analysis of Medical Devices Companies in Penang*.

¹⁶ See Amarthalingham, S. (2017), *Special Report: Penang manufacturing ready for Industry 4.0?*

¹⁷ See Lee, S. M. (2020), *Industry Mapping and Value Chain Analysis of Medical Devices Companies in Penang*.

¹⁸ See Ng, B. and Thiruchelvam, K. (2011), *Technological innovations in Malaysia’s wooden furniture industry: Knowledge and linkages*.

Moving forward: nurturing a sophisticated manufacturing ecosystem

Although this paper has identified sub-sectors which have the potential to drive nation-wide recovery, there are many other domestic factors that play a role in MNCs establishing a regional manufacturing hub. **While tempting to implement ‘race to the bottom’ measures to attract these relocating MNCs, such policies alone are unlikely to be successful and will not promote a broad-based recovery.**¹⁹

As such, to fully leverage the wave of supply chain relocations, Malaysia should aim to ‘race to the top’ through promoting measures to develop a sophisticated network SMEs—**supporting domestic SMEs towards competitive sectors, while assisting in industrial upgrading to better meet the needs of relocating MNCs.** Overall, facilitating the development of SMEs will both increase domestic production capacity, as well as improve the attractiveness of Malaysia as an FDI destination. This will enable Malaysia’s outward-oriented recovery strategy to benefit a wider and more vulnerable segment of the population, while driving sustainable development and advancing regional competitiveness.

Another major challenge to Malaysia’s industrial upgrading comes in the form of the high cost of ‘high-tech’ intermediate goods. **Signing and ratifying existing multilateral trade deals will help remove artificial trade barriers—both tariff and non-tariff barriers alike—on high-tech imports.** Alongside the signing of the Regional Comprehensive Economic Partnership (RCEP) late 2020, the government should strongly consider ratifying and cementing Malaysia’s position in the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP). Malaysia imports ‘high-tech’ intermediate and capital goods from a number of current and prospective CPTPP members, hence benefitting from zero to low tariffs within the CPTPP will make Malaysia more competitive in ‘high-tech’ sub-sectors vis-à-vis other regional competitors, facilitating the establishment of a regional manufacturing hub.²⁰

Overall, creating the right ecosystem for potential MNCs should continue to remain a priority, in order to attract the much-needed FDI. Alongside the previously discussed factors, the availability of skilled labour, nation-wide digital connectivity, sound infrastructure and pro-competition policies among others are essential in nurturing an ecosystem to support these foreign firms, while ensuring a symbiotic relationship between MNCs and the domestic economy.

¹⁹ According to a survey conducted by The World Bank Facility for Investment Climate Advisory Services (2014), 81% of investors surveyed responded that they would have invested in Malaysia even without incentive instruments. Bank Negara Malaysia (2017) suggests that similar incentive packages amongst regional competitors diminishes the attractiveness of investment promotion incentives.

²⁰ See World Integrated Trade Solutions (WITS): Capital goods Exports by Malaysia 2015.

The wave of supply chain relocations provides Malaysia with a window of opportunity to benefit from adopting an outward-oriented recovery, allowing policymakers to rethink Malaysia’s macroeconomic policy and principles for inclusive growth.



Firstly, **the focus should remain on attracting FDI in high value-adding activities, creating a regional manufacturing hub in ‘high-tech’ sub-sectors** to promote long-term development and industrial upgrading.



Secondly, **Malaysia’s current model of FDI-driven growth should place greater priority on MNC-SME linkages, aligning SMEs towards the most regionally competitive sub-sectors.** Developing an advanced SME network in these sub-sectors will further benefit SMEs through facilitating direct spill-over gains from FDI.



Lastly, **the regional race for FDI should be won through ‘racing to the top’**—fostering good institutions and providing essential physical and human capital to MNCs. Policymakers should continue to support the industrial upgrading of SMEs, nurturing a sophisticated industrial ecosystem to ensure that the recovery targets a broad segment of the population.

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