THE RISE OF SOUTHEAST ASIA: CAN IT BECOME THE NEW MANUFACTURING HUB OF CHOICE?

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Abstract

These days, everyone is talking about Southeast Asia. But for a long time, the region was out of the limelight – now, it's on everyone's lips. Impressive growth figures have earned it a notable place among the fastest growing regions in the world. More importantly still, ASEAN has also become a focus in the geopolitical debate. Observers believe that Southeast Asian countries could not only benefit from multinationals hedging against escalating geopolitical frictions but also that the region will increasingly become the new manufacturing hub of choice.

It is true, some anecdotal evidence underscores this: more and more companies, especially from China, are scouting ASEAN countries for investment opportunities. Some firms that already have a strong footprint in the region are ramping up their capabilities. However, at the same time, a considerable number of business leaders and analysts are keen to point out that all major players in the global economy – Europe, China, the US – are so closely intertwined that cutting ties and shifting production to other parts of the world is illusory and not desirable. In their view, Southeast Asian countries will attract new investment as their economies grow, but the impact on global value chains will remain limited.

Both positions deserve a reality check. Thus, our new RBI Quarterly asks: Can Southeast Asia evolve into the new production powerhouse of the world? Can it help to diversify companies' supply chains? If yes, which sectors would benefit the most from it and to what extent? And most importantly, can such a shift in supply chains really be a safeguard against geopolitical turbulence?

To answer these very questions, we will first look at underlying fundamentals and factors for doing business in Southeast Asia – ranging from GDP growth to foreign

direct investment, export data, manufacturing labor costs, intermediate goods imports, and ESG regulation, but also the quality of infrastructure, demographics, and other crucial indicators. Thereafter, we will analyze early indicators of supply chain re-routing, followed by two case studies – one on the electronics value chain, the other regarding the electric vehicle industry.

If not specified otherwise, we will refer to ASEAN countries when speaking about Southeast Asia. Although the 10-member association only accounts for 3.4 per cent of global GDP and 7.7 percent of global exports, they currently constitute the most dynamic economies. While the same is true for India, the country decided – at least for the moment – to opt out of a closer regional integration with its neighbors. That is why we will only touch upon it here and there.

ASEAN countries

Source ASEAN Investment Report 2020-2022

Roland Berger

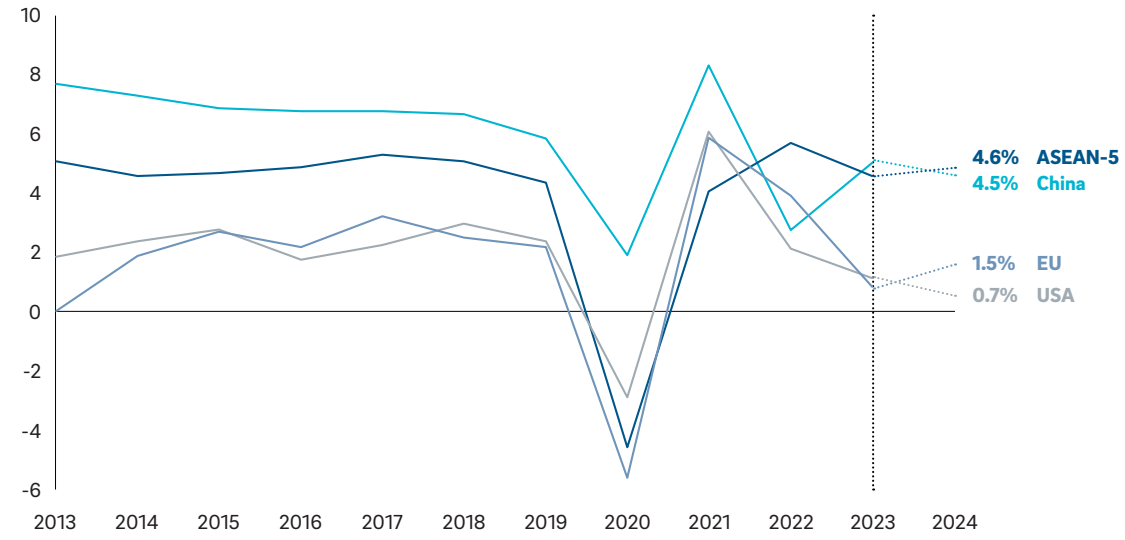
More resilient than the rest of the world: The current state of the ASEAN economy

Like the rest of the world, Southeast Asian economies took a huge hit during the pandemic. Economic output contracted sharply, with countries such as Thailand or Cambodia being especially hard hit due to their strong dependence on tourism. Last year's high inflation and rising interest rates further exacerbated pandemic-inflicted woes. Luckily, core inflation remains low in most Southeast Asian countries and some governments were able to soften the blow through fuel or fertilizer subsidies (Indonesia, Malaysia, Philippines, Thailand), price caps (Malaysia, Thailand), and cash handouts to the poor (Singapore, Malaysia, Indonesia).

Although most countries still have not reached their pre-pandemic output levels, ASEAN has strongly rebounded since then. While these economies could slow to a 4.5 percent pace of growth in 2023 (from 5.6 percent last year), they will still outperform most other regions in the world. Therefore, one can expect a continuation of underlying trends of which shifting Asian supply chains has been the most prominent one.

China and ASEAN in the lead

Real GDP growth [%]



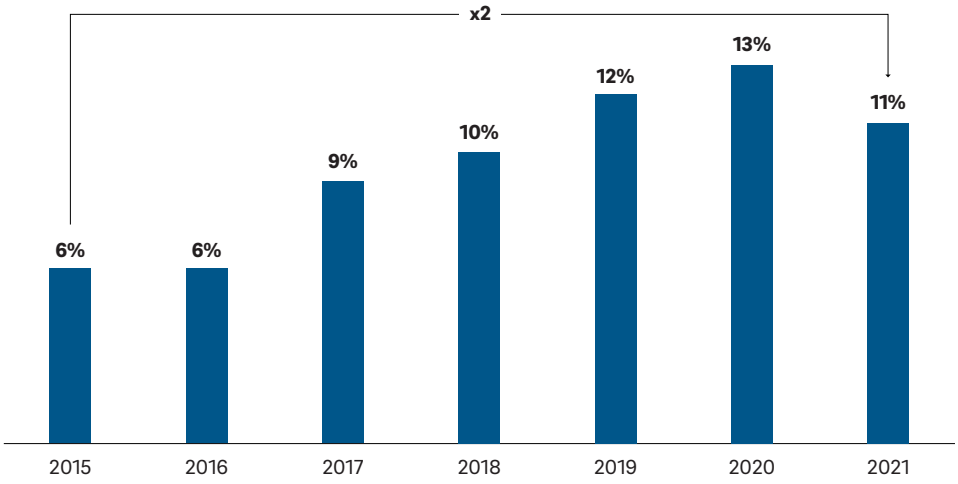
Source Consensus Forecast, IMF

Roland Berger

Southeast Asia has already become an attractive destination for export-oriented foreign direct investment (FDI) long before the COVID-19 crisis. The region moved up the ranks as companies were adjusting for higher costs of doing business in China. The increase of US tariffs on Chinese imports from 2018 onward and further signs of a decoupling of trade played a crucial role. Since then, the share of ASEAN-6 countries (Indonesia, Malaysia, the Philippines, Thailand, Singapore, and Vietnam) in global inward FDI has been on the rise. China in particular stepped up its investment in the region in the wake of the Belt and Road Initiative (BRI), doubling investment in the period from 2016 to 2020. Notably, a growing share of FDIs is directed towards the manufacturing sector.

Growing popularity among investors

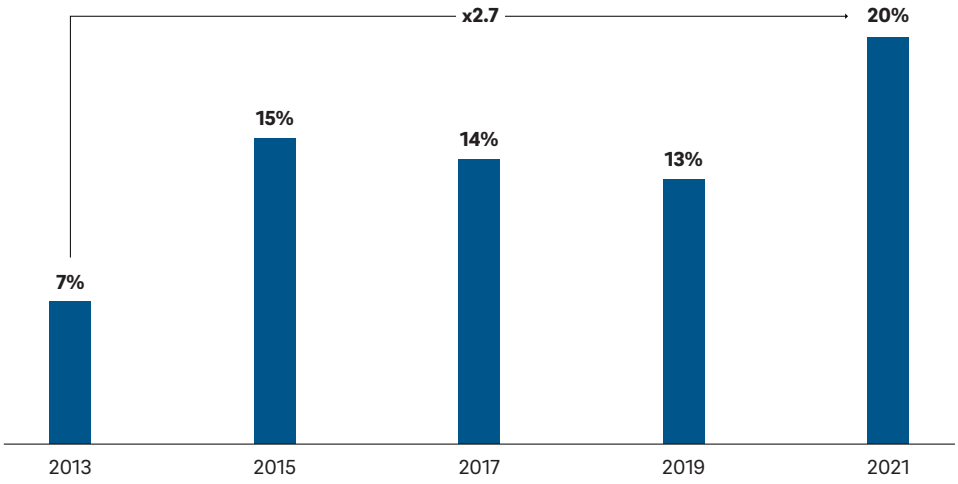
Share of Global FDI flows to ASEAN [% share]



Source ASEAN Investment Report 2020-2022, World Investment Report 2022

Strong push from the BRI

Share of Chinese FDI flows to ASEAN [% share]



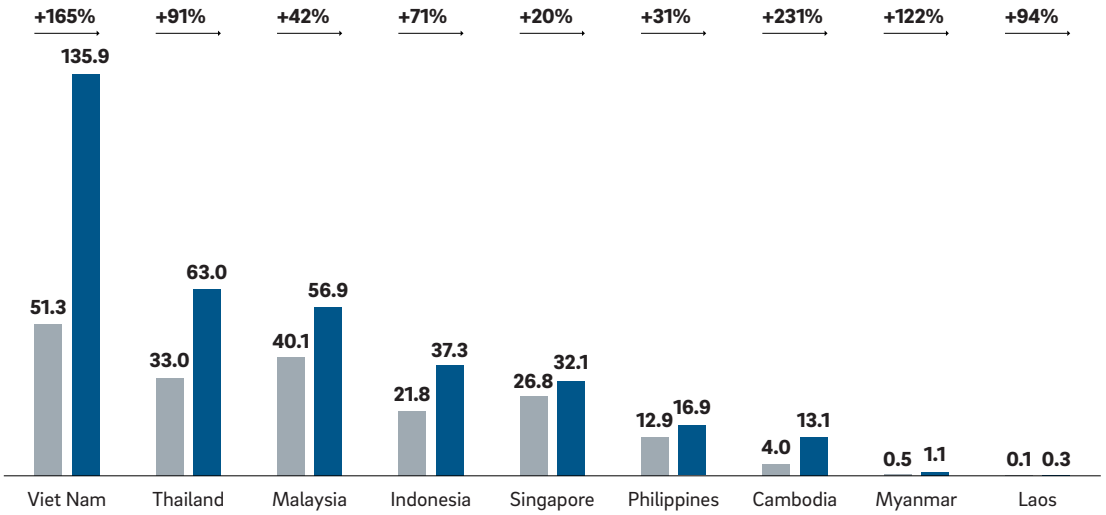
Source General Administration of Customs of the People's Republic of China; Chinese Ministry of Commerce

ASEAN exports on the rise

While US imports from China or the EU largely stagnated, those from Southeast Asian countries skyrocketed. To highlight just a few examples: exports from Vietnam to the US are up by 165 percent, those from Cambodia jumped by 231 percent. Of course, ASEAN's share of total US imports remains rather low (10.6% in 2022), but this fact should not distract from the overall dynamic. Countries such as Vietnam or Cambodia are indeed gaining relevance as production hubs. And it's not just the US that is increasing imports from the region. China, too, is buying more goods from ASEAN while its imports from the US are stagnating.

New trade momentum

US imports from ASEAN countries [USD bn]



Source ITC

Roland Berger

The impressive increase in Southeast Asian exports could theoretically provide an early indication of shifting supply chains. But sourcing new goods and components takes time. That is why the latest available trade data can only reflect decisions taken long before the Sino-American trade relations deteriorated. Hence, it will be necessary to take a closer look at what is happening on the ground, which we will investigate further on with our deep dive regarding the electronics and the automotive industry.

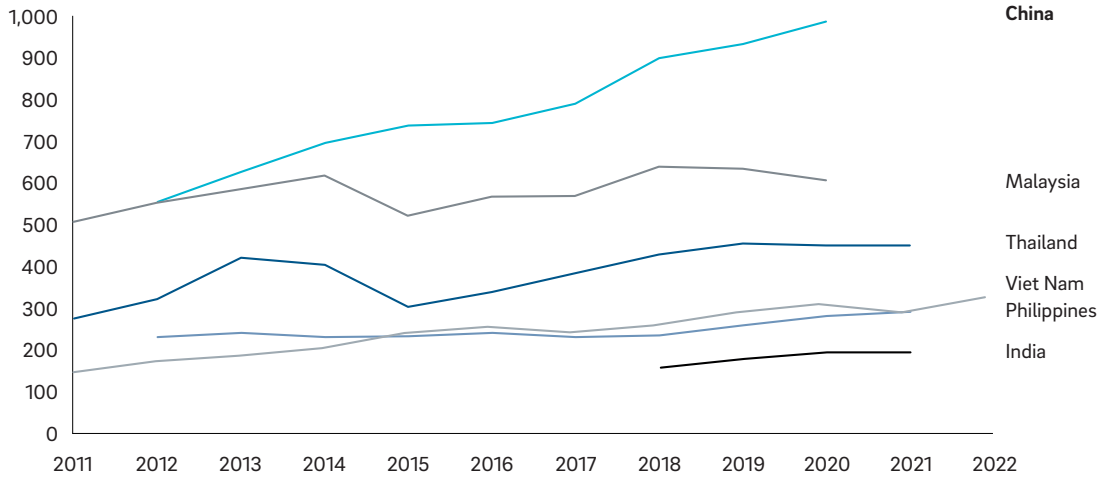
On the other hand, current trade statistics could paint too rosy a picture. The US, for instance, is currently investigating whether imports of certain goods such as solar panels are simply rerouted imports from China to avoid higher duties. If this turns out to be a general trend, import statistics could be misleading.

Will current cost advantages last?

A number of structural changes favor a shift to ASEAN supply chains. As China is moving up the value chain, cost advantages are disappearing. Labor is no longer as cheap as it was in the past. Since 2013, Chinese manufacturing wages have doubled to an average of USD 8.27 per hour. This rise stands in stark contrast to hourly manufacturing wages in Vietnam, Thailand or Malaysia which remain below USD 3 – and lower wages are not the only advantage the region can claim. Singapore is gaining ground in financial services and high tech. At the same time, the Southeast Asia can draw on 155 million people aged between 25 and 54 with a tertiary education – an impressive number and higher than China's 145 million equivalent.

Cheaper than China

Average monthly wage, manufacturing worker [USD bn]

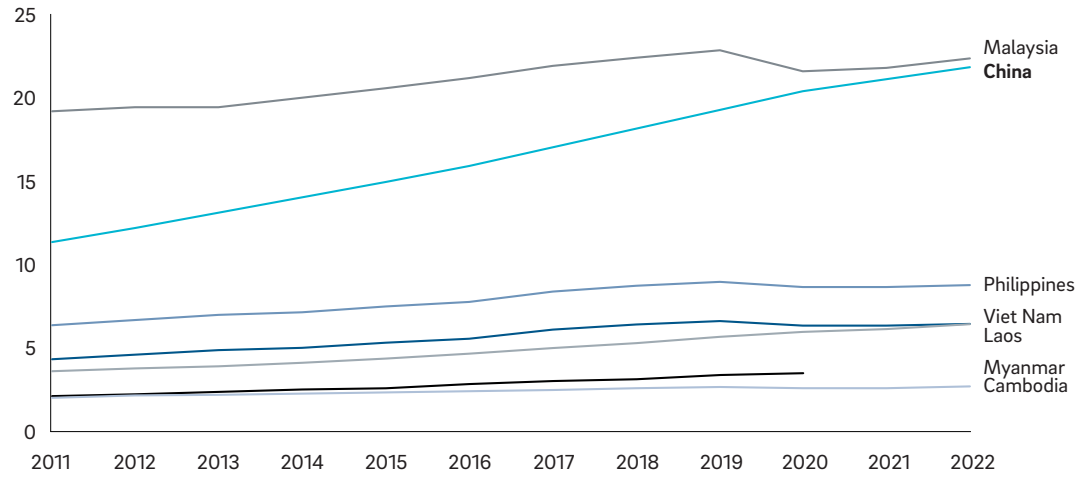


Source ILOSTAT

However, a focus purely on wage disparities distorts the picture, as the gap in productivity remains significant. The fact remains that most Southeast Asian countries cannot compete with China's output per worker. Historically, Malaysia has been an outliner, but even there, productivity growth stagnated largely during the last years. Given China's huge investments in factory automation, it remains doubtful if Southeast Asia can catch up soon on this front.

The productivity gap

Output (GDP) per worker [GDP constant 2015, in USD, '000]



Source ILO

Roland Berger

The lesson for companies in search of supply chain alternatives therefore is twofold: First, they need to analyze how lower production cost equates to a reduced productivity rate. And second, they need to assess if it is possible to address the productivity challenge over time with on-the-job training and improved infrastructure. The latter matters greatly, as other Southeast Asian cost advantages are likely to shrink over the next decade as well.

One should bear in mind that Southeast Asia is among the regions most affected by the effects of climate change. Floods, droughts, and other extreme weather events are already a regular phenomenon. Several Southeast Asian megacities are exposed to a one-meter-rise in sea levels.

Unsurprisingly, market regulators have become more and more aware of this challenge. According to a Goldman Sachs analysis of February 2022, the Asia Pacific region has seen a twofold increase in ESG policies. The introduction of the first edition of the ASEAN Taxonomy for Sustainable Finance in November 2021 is only one prominent example of this trend. Individual member states are also doubling down on their sustainability promises. In late 2022, Malaysia, for instance, launched its own National Energy Policy to underscore its ambition of becoming a low carbon nation by 2040. Its neighbors have pushed forward similar initiatives.

At least in the short term, this transition will come at a cost, although the exact impact of stricter regulation on business activity remains to be seen. It is true, ASEAN's impressive growth figures have been achieved to a significant proportion on the back of fossil fuels and brown industries. At the same time, many green business opportunities are arising, as our subsequent deep dives in the electronics and the electric vehicle industries will explain.

What makes the ASEAN supply chain so special?

Just as its Northeastern Asian neighbors, ASEAN countries choose FDI-driven industrialization and can be categorized into 3 groups. Tier-1 is Singapore acting as the technology node. Tier-2 is ASEAN-4 (Malaysia, Thailand, Indonesia and the Philippines) as newly industrializing economies with a mixture of competitiveness. And Tier-3 is CLMV (Cambodia, Laos, Myanmar and Vietnam), which is attractive for companies looking mainly for cost reduction.

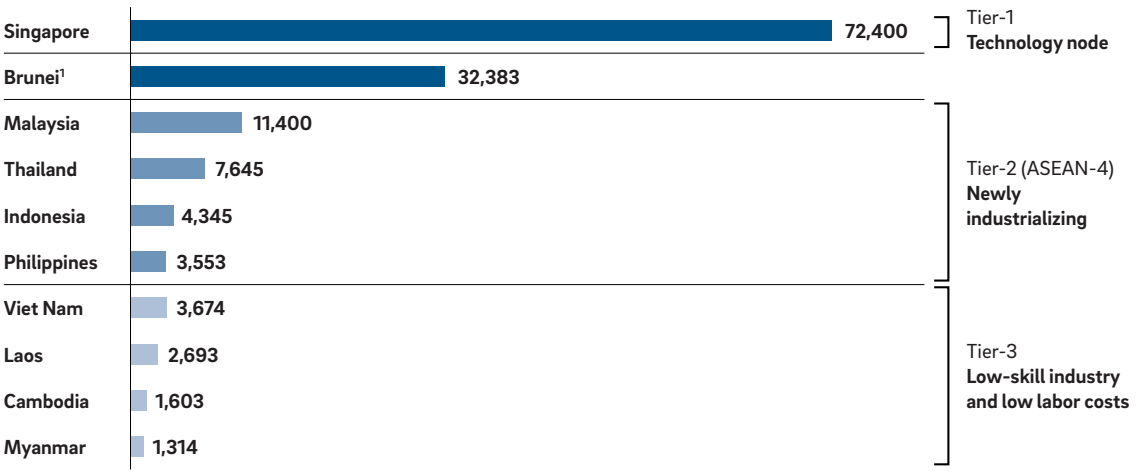
ASEAN countries

Map illustration of ASEAN countries

Source ASEAN Statistical Yearbook 2022

Tiers of the ASEAN economy

GDP per capita, 2021 [USD]



1 Brunei is not classified in the manufacturing specialization

Source ASEAN Statistical Yearbook 2022

ASEAN supply chains are also deeply integrated with Northeastern Asian neighbors. Economists usually use the flying geese pattern to explain the labor division in the region, with Japan as technology leader vis-a-vis newly industrializing economies and developing countries. In maximizing each economy's competitiveness regarding cost and technology, the frequent cross-border transportation of a good during its production life cycle in the network of multinational enterprises (MNEs) leads to vibrant regional supply chains.

We take a deep dive into the electronics and automobile industries – the main drivers of the regional merchandise goods exports – to illustrate the nature and trends of the alternative Asian value chain. Although the archetype textile and clothing industry is more conspicuous due to their consumer goods character, it mainly concerns CLMV and accounts only for a small portion of their exports.

Electronics industry relocates to ASEAN in two directions

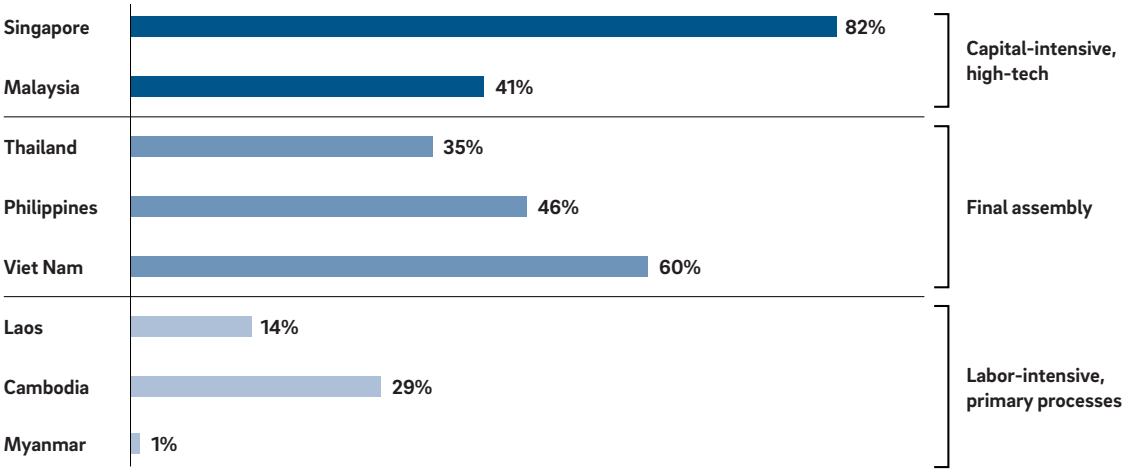
Because of modular technology, standardization, and a high value to weight ratio, the electronics industry is internationally fragmented but well integrated in global and regional networks. ASEAN becomes a perfect match: it is the largest export industry accounting for 29% of the total value exports in the region in 2022, varying between 20 to 50 percent per ASEAN country. The industry drives regional economic growth by contributing approximately USD 268 billion to regional GDP (8.5 percent of GDP), creating more than 2.4 million jobs in 2019.

Over the past three decades, ASEAN's global value chain participation in electronics dropped from 74.3 percent to 68.9 percent of value-added export, meanwhile its regional value chain participation doubled from 8.7 percent to 17.8 percent reflecting a stronger regional production network. For now, the average foreign value added in export accounts for 53 percent in ASEAN, among which China, Japan, the US, and Germany are the major foreign contributors. Historically, China overtook Japan as the top contributor largely reflecting the relocation of MNEs to China and China's upgrade in the value chain from final assembly to intermediate goods provider, and, in some cases, to leading firms.

The share of foreign value chain participation in electronics is high in two types of countries: one with great capital-intensive high-tech investment such as Singapore and Malaysia, while the other usually is involved in final assembly, such as Thailand, Philippines, and Vietnam. In Laos, Cambodia, and Myanmar the share is low due to their status in labor-intensive primary processes. Meanwhile, Indonesia's industry is focused on the domestic market while Brunei is still a fossil fuel dominated economy.

Diversified specializations

Share of foreign value added in electrical and electronic equipment, 2017 [% share]



Note: Indonesia is not included as its industry is mainly focused on the domestic market, and Brunei is not included as it is still a fossil fuel dominated economy

Source AJC-UNCTAD-Eora database on ASEAN Global Value Chains

Roland Berger

The current supply chain reconfiguration is driven by two factors, one is political and refers to high-tech decoupling and trade barriers due to the US-China trade war. The other is economic, relating to cost increases in China. Accordingly, MNEs look at different categories of ASEAN countries to more broadly diversify their own competitive advantages.

To adapt to high-tech decoupling, chip companies increased their investment mainly in the Singapore-Malaysia-Indonesia triangle. During chip fabrication shortages due to the coronavirus pandemic, American companies Global Foundries and Micron, Germany's Infineon and Siltronic, and the Taiwanese Semiconductor Manufacturing Company have quickly and greatly expanded to those countries. By contrast, to reduce production costs, other leading firms moved to CLMV (Cambodia, Laos, Myanmar and Vietnam), followed by their supply chains due to requirements of spatial proximity. For instance, Taiwanese company Foxconn and Chinese CoreTek, major electronics manufacturing services provider for Apple, are relocating to Vietnam.

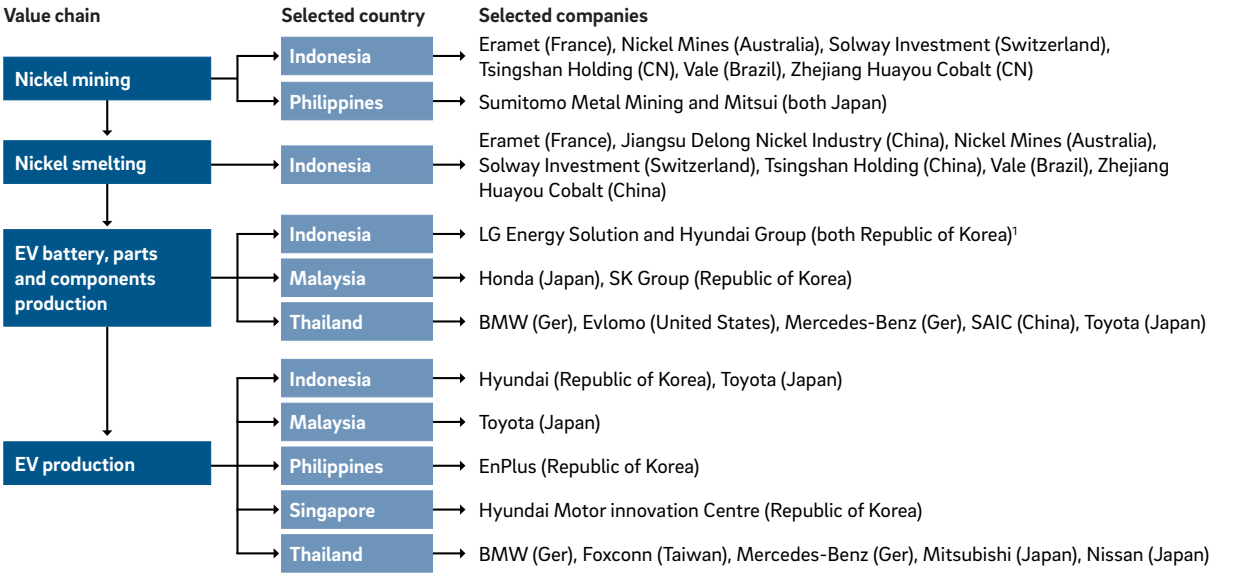
Automobile industry is driven by raw material resilience

Unlike electronics, the automobile industry is clustered. Bulky and model specific parts are produced close to the assembly plant to reduce logistics cost and for just-in-time inventory aspects. In contrast, light and generic parts are produced in countries characterized by cheap labor. More interestingly, ASEAN countries take a balance between trade liberalization policies and local content requirements as a form of industrial protection policy. In response, MNEs relocated to ASEAN in the past decade and pushed up domestic value added in exports to 56 percent in 2015, up from 43 percent in 1990. Overall, this contributed at least USD 177 billion to ASEAN's GDP (6.3 percent of GDP), creating 2.4 million jobs in the region (both numbers date back to 2017 because of limited data availability but highlight a relevant long term).

Thailand and Indonesia are the two major beneficiaries of Japan and South Korea's offshoring. The former focuses on downstream parts of the value chain, producing and exporting assembled cars, while the latter's focus is on upstream value chain parts, such as intermediates and components. Malaysia and Philippines are somewhat in the middle, producing electronics and mechanic parts. CLMV are mainly beneficiaries of the Thailand+1 strategy for cost reduction and climate risk mediation. Singapore focuses on the high value-added part such as distribution and autonomous driving.

Beyond the automotive value chain based on the internal combustion engine, the electronic vehicle (EV) value chain is growing rapidly – from nickel mining, nickel smelting, EV battery and components production to final assembly. Indonesia and the Philippines – estimated to account for 37 percent and 13.7 percent of global nickel production in 2021, respectively – are the top two countries in terms of global nickel production, making them highly important regarding the global energy transformation. Indonesia is also taking on a more downstream policy by trying to leverage its natural resources to improve its position in the global value chain. Accordingly, we observe a clustering of the vertical value chain in Indonesia.

Integrated EV value chain in ASEAN



1 LG consortium consists of LG Chem, LG Energy Solution, LG international, Posco (all Republic of Korea) and Huayou Holdings (China)

Source ASEAN Investment Report 2022

Roland Berger

Because of its strong footprint in both the electronics industry and automobile production, ASEAN will play a bigger role in the re-configuration of global value chains with the goal of increasing supply chain resilience. Due to integrated regional division of labor, we observe expansion of Japanese, South Korean and Chinese MNEs as strong (and rotating) leaders – akin to the flying geese paradigm. However, the industry in the region is challenged by the conundrum of FDI-led industrialization that is mainly based on the technology input and supplier chain network of MNEs instead of competitive, indigenous companies.

How does the policy boost the supply chain integration?

ASEAN understands that collective bargaining power serves its best interests – avoiding being torn apart by big power blocs. In this manner, it is holding on to a strategy of ambiguity to secure military protection from the U.S. while gaining economic benefit from China. Although highly diverse in culture, religion and politics, ASEAN countries take on similar FDI policies, building up regional foreign trade agreements, and aim to fix the regional infrastructure gap to further strengthen their economic prospects and integrity.

ASEAN countries compete for best practices in FDI friendly policies

Although holding diversified political regime, most ASEAN countries have shared knowledge in economic development. The tried-and-tested export-oriented strategy has been passed on from Singapore to ASEAN-4 (Malaysia, Thailand, Indonesia and the Philippines) and to CLMV (Cambodia, Laos, Myanmar and Vietnam). To attract FDIs, governments normally establish free trade zones, invest in infrastructure development and human capital including education and vocational training.

However, their policies differ slightly. Now afraid of being overtaken by CLMV, ASEAN-4 countries are looking for policies on how to further diversify drivers of growth, how to reduce non-tariff measures, and how to foster relationships between domestic suppliers and MNEs. Policies in CLMV are more 'China-style', such as making a 5-year industrial plan and setting out special economic zones. They are competing in FDI policies because they have been witnessing how quickly supply chains reconfigure when costs increase.

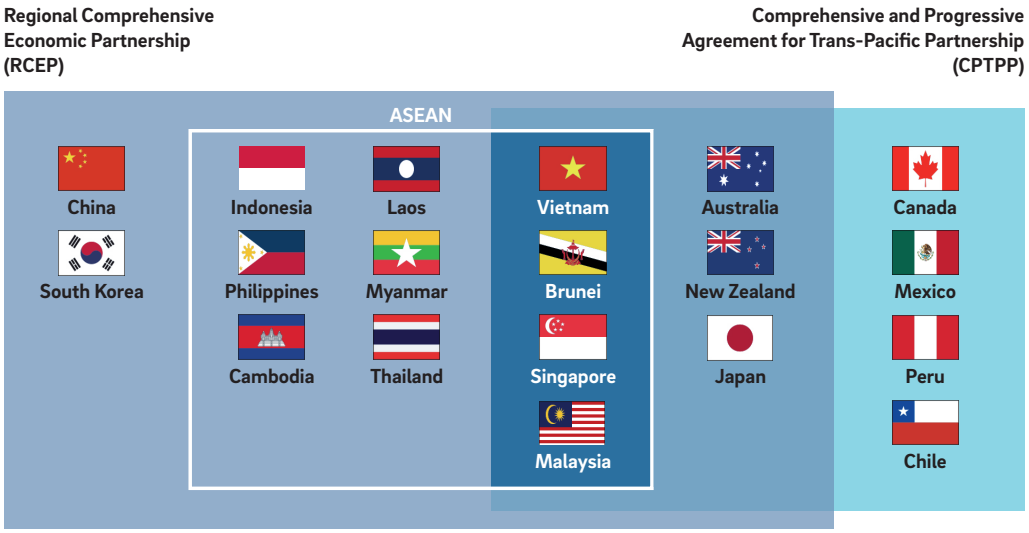
From booming bilateral FTAs to regional FTA

Due to the importance of the regional value chain driven by MNEs in ASEAN industrialization, free trade agreements (FTA) have progressed rapidly. At the beginning in 1992, this covered only the 6 members of ASEAN (excluding CLMV). But since the 1997 Asian Financial Crisis, countries eagerly advanced for ASEAN-centered regional economic integration in the structure of ASEAN+1 (China, Japan, or South Korea respectively), ASEAN+3 (3 Northeast Asian countries as a group) and even ASEAN+6 (further including Australia, New Zealand and India). Bilateral FTAs boomed. Except China-Japan and South Korea-Japan, every two countries in ASEAN+3 have signed bilateral FTAs. On the one hand, it facilitates regional trade, but on the other hand, it creates bureaucratic complications.

To solve this challenge, the Regional Comprehensive Economic Partnership (RCEP) was signed in 2020 based on an ASEAN+6 structure. Only India backed away due to its own parallel plan but may join at some point since the US and its allies are pushing an Indo-Pacific strategy. Being the largest regional FTA covering 30 percent of the world population and world GDP, RCEP streamlines procedures for trade licensing and customs declaration, which saves logistic lead time and cost. By further cutting tariffs, it has magnified effects of trade fragmentation since products are shipped cross-border multiple times.

FTAs support regional integration

ASEAN's Regional Free Trade Agreements



Source RB desk research

More importantly, rules of origin principles – based on which trade policy measures are implemented – are no longer based on country level but on regional value content criteria, which further stimulates intra-regional trade integration and FDIs. Accordingly, companies with multiple suppliers in the region could largely reduce their costs by enjoying preferential treatment. RCEP follows the "ASEAN way" through built-in provisions regarding a gradual progress of trade liberalization while considering different development stages of member states, rather than firm commitments adopted at the outset, like in the ongoing Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP).

How to fix the infrastructure gap within the region

The next key push for regional efficiency lies with infrastructure. According to the Asian Development Bank (ADB), ASEAN requires USD 3.15 trillion in 2016-2030, equivalent to 5.7 percent of GDP annually. Besides ambitious in-country infrastructure strategies, ASEAN promotes regional public goods for connectivity, including the ASEAN Highway Network with a total length of 38,400 km (or 23,860 miles), Singapore-Kunming (China) Rail Link spans 7,000 km (or 4,350 miles) rails, the ASEAN power grid, and the trans-ASEAN gas pipeline involves 4,500 km (or 2,796 miles) pipelines.

Moreover, renewable resources will become ASEAN's latest factor of competitiveness; in this, Viet Nam and Laos stand out at present. Viet Nam rapidly installed solar power, scaling up from nearly zero in 2017 to 16 gigawatts in 2021, thus taking it to 9th place in the global ranking of installed solar capacity. Still, ADB believes most ASEAN economies have utilized less than 2 percent of their solar potential. Laos sees itself as another ASEAN 'powerhouse' based on its hydropower, which has already been exported to Thailand, Viet Nam, Cambodia and Singapore.

However, ASEAN faces many issues in terms of fulfilling infrastructure demand. CLMV countries display gaps in funding because of low domestic saving rates. World Bank and ADB aid financing only covers some of the gap. Meanwhile, below market interest rate loans from China's Belt and Road Initiative and Japan's Partnership for Quality Infrastructure play important roles regarding the mobilization of public and private resources. Yet, funding still remains a challenge.

In the same instance, considering that ASEAN-4 countries generally saved more than they invested following the Asian Financial Crisis, these countries do not have a funding gap, but a currency gap, to further support infrastructure investment. These economies are (more) vulnerable to external shocks regarding their open capital account. Accordingly, ASEAN+3 countries launched the Chiang Mai Initiative, building bilateral swaps between central banks. Moreover, countries in the region have been promoting the use of local currencies in trade recently to further mitigate their currency gap.

Given its sizeable, bourgeoning middle class, ASEAN is also poised to evolve from "factory Asia" to "shopper Asia". In the region, digital economy platforms are booming with a dynamic mixture featuring American and Chinese styles with local content. E-commerce can bridge the gap between consumers and producers to further increase the efficiency of the supply chain, subject to ongoing improvements.

In conclusion, the future competitiveness of Southeast Asia will largely come from regionalization based on distribution of cost, specialization, and good infrastructure. RCEP development signals that Asia does not want to take the decoupling approach. In the contrary, China will be more integrated in the global trade though the regional value chain as the main provider of intermediate goods and the FDI source.

Outlook

Southeast Asia will certainly not replace China overnight as the world's factory/ manufacturing powerhouse. For this to happen, its supply chains would need to become much more efficient and integrated. At present, commerce between ASEAN countries often faces too many obstacles. On the one hand, a lack of quality infrastructure inhibits a seamless flow of goods from the outset. On the other hand, essential regulation and legal agreements between countries are lacking as regional disputes and national ambitions stand in the way of beneficial consensus. As outlined above, the relatively new RCEP agreement certainly provides some relief, but more in-depth cooperation schemes need to follow.

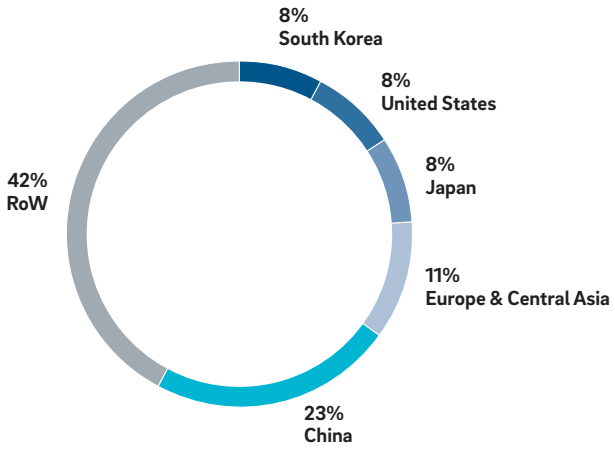
To truly compete with China's vast single market, a massive increase in investment would be necessary, both in terms of foreign as well as domestic investments. However, it will not be easy to convince investors to become even more committed. China remains an attractive destination for FDI. The same is true for other countries. India, for instance, can also be expected to win a growing share of FDI in the future – not least because of its growing consumer market and an equally attractive large low-cost labor force.

Additionally, the strong dependence on Chinese goods poses as an additional impediment to the region's ability to become the new global workbench. One could imagine a scenario where geopolitical contestations intensify, and where Southeast

Asian countries would be increasingly forced to pick sides. In such a case, access to the Chinese market could be restricted or broader tariffs on Chinese value-added content would loom large. In our view, such a scenario seems not to be very likely for now. All sides would lose more than they could gain. But growing geopolitical frictions in the region remain a concern.

Strong dependencies

Imports of ASEAN-6 countries by origin [% share of total imports]



Note: ASEAN-6 includes Indonesia, Malaysia, Philippines, Singapore, Thailand, and Viet Nam
Source WITS; Roland Berger Institute

Likewise, the transition to a low carbon emission economy presents a major challenge for Southeast Asia. If not achieved fast enough, the region's competitive advantages could dwindle rapidly. A scenario, where European countries impose an additional levy on a wide range of goods that violate its emission standards is not too far-fetched. In a similar vein, European companies that closely monitor their scope 3 emissions could look for alternative suppliers. Therefore, it lies in Southeast Asia's self-interest to double down on its sustainability promises.

For the moment, at least, we do not expect most companies to turn their back on China. Many decades and billions of investments of building a supply chain have created a unique production ecosystem that remains unmatched in sophistication and that cannot be recreated easily. Instead of a full trend reversal, we rather expect the so called "China+1" production strategy gaining further momentum, whereby a growing number of multinationals will reduce their exposure and start building up supply chain roles in neighboring countries. In such a scenario, Southeast Asia will increasingly intermediate trade between China and advanced economies. As a natural outcome of this process, a growing share of the global value chain would almost automatically move to the region – and might help Southeast Asia to recreate the conditions that made China the world's production powerhouse.

Further reading

- DESPITE HIGHER INTEREST RATES, CORPORATE INVESTMENT FLOWS ARE UNLIKELY TO DRY UP ESPECIALLY IN LIGHT OF WIDE-RANGING TRANSFORMATIONS IN MANY SECTORS
- A LARGE-SCALE EXODUS OF INDUSTRY FROM EUROPE IS UNLIKELY
- A COMPLETE DECOUPLING IS NEITHER LIKELY NOR DESIRABLE

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