Executive Summary

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India's weight in the global economy has expanded rapidly, from 1.5% in 2002 to 3.5% in 2022, thanks to rapid growth. This growth was mostly driven by domestic demand. India has also made critical progress in global value chain (GVC) participation. Its exports have idled, however, with the share of global merchandise exports remaining as low as 1.8%. India could tap into huge external demand if it could increase its international competitiveness and integrate more in global supply chains. In an increasingly protectionist world, regional and trans-regional trade deals are increasingly important means for improved trade relations and supply chain integration. The Association of Southeast Asian Nations (ASEAN) is a close trading partner of India, with a fully operational Comprehensive Economic Cooperation Agreement. The ongoing review of the ASEAN–India Trade in Goods Agreement (AITIGA) presents an important opportunity for reducing barriers to trade with ASEAN and for greater integration with ASEAN both in trade and foreign direct investment (FDI).

This study reviews the GVC performance and integration of India and ASEAN, both bilaterally and globally, and draws policy recommendations for both India and ASEAN to enhance their trade competitiveness in manufacturing within the region and globally. Data on GVC participation have been interpreted extensively to capture how India is performing in terms of exports and imports of intermediate goods, which then feed other countries' exports. The advantage of such a data set, which focuses on trade in intermediate goods, is that it only counts the value added embedded in exports by a given country versus others. More importantly, the bilateral data sets help to understand the degree of integration in the value chains of different trading partners. The trajectory of India's GVC participation suggests that India has been gaining ground and adding more value to GVCs, and its reliance on foreign value added has also significantly dropped thanks to continuous FDI inflows that have bolstered the domestic supply chains. On the other hand, ASEAN has been consistent in GVC participation but with huge dependence on China for both exports and imports, with more dependence on imports from China or backward participation in the GVC vis-à-vis China.

In the intervening period between 2009 and 2024 (the respective years of the signing and review of AITIGA), India has improved its GVC participation in several industries, such as chemicals, pharmaceuticals, machinery, and automobile parts and engines. The long-standing insufficiency of manufacturing FDI inflows, however, continues as India has lagged other ASEAN emerging markets such as Malaysia and Viet Nam. Meanwhile, India has made much progress in global service value chains, especially in the information and communication technology (ICT) sector, in which India now creates 7% of global value added, only behind China in emerging markets.

Tariffs and the volume of trade between the two partners were used as the important index of competitiveness, or lack thereof. Viewed from a GVC integration perspective, while ASEAN is better integrated into the regional and global value chains, India has been rising in terms of integration in the value chain. India's integration has been asymmetric, though. Its imports of intermediate goods to re-export (backward participation) have gone down, while its exports of intermediate goods for other countries to re-export have increased, including with ASEAN. ASEAN has consolidated its position in the GVCs, albeit with huge dependencies on manufacturing in China. ASEAN integration with large, developed economies has declined since its peak in the late 2000s – keeping a steady negative trend vis-à-vis the US and Japan, and a partial recovery with respect to the European Union (EU), which remains the main integration partner for ASEAN amongst developed economies. During this time, ASEAN has become increasingly integrated with China, which has become the main individual partner in GVCs. ASEAN's integration with India has also grown during the same period, but the 'China centrality' in ASEAN's GVCs is remarkable.

In 2020, India ranked higher in GVCs than ASEAN, meaning that India exported more value added to the world. But that was not always the case since India has received extensive investment from ASEAN, which helped India move up in GVCs to surpass ASEAN. This explains the upward trend in India's forward participation with ASEAN since the 1990s. The India–ASEAN GVC integration surge has been predominantly driven by Singapore and to a lesser extent Viet Nam, and India has mainly gained on forward participation with the two countries.

Meanwhile, India's backward participation with ASEAN has dropped significantly since 2006 as India seeks to diversify its imports of raw materials, especially from Malaysia and Indonesia.

The growth of India's forward GVC participation (globally) in the manufacturing sectors remains sluggish due to the low FDI. Although the FDI received by India has been on the rise for many manufacturing sectors (e.g. automobile, pharmaceutical, renewables, and electrical and electronics), the FDI values remain underwhelming with most of the FDI going to the digital sector. United Nations Trade and Development (UNCTAD) data reveal that ASEAN received FDI of US$9.5 billion for its electronics industry in 2022, which is in stark contrast to India's US$539 million. As such, most of India's sectors see their exported value added remaining flat or down in recent years, except transport equipment, chemicals, and pharmaceutical manufacturing.

A more optimistic picture emerges for services as India has utilised its huge young workforce to fuel the development of the domestic service sectors, and progress has been made in most sectors regarding forward participation, such as ICT, financial, and professional services. ICT is the sector growing the most in terms of forward participation. In other words, Indian exports of ICT goods for other countries to re-export are one of the most dynamic GVC trends from 2007 onwards. India's manufacturing requires a similar lift. As for ASEAN, its prospects for participation in the GVCs of the digital economy – or economy of the future – will require greater capacities and investments in the coming years.

The picture, however, is more complex. India thrives in terms of FDI for ICT: US$18 billion during 2020–2022 compared with less than US$7 billion for ASEAN. However, ASEAN has received much more FDI for manufacturing than India (US$40 billion and US$13 billion, respectively) during the same period. The difference is even larger for insurance and banking. From a policy perspective, attracting FDI for ICT may not be enough for India's need for job creation and income growth. Manufacturing FDI creates more jobs across different skill sets.

The prevailing trend of de-risking supply chains away from China means more opportunities for India as its potential outsizes any country in ASEAN, and even the whole bloc. This is due to India's geographic and demographic advantage as its huge population size, geography, abundant land resources, and proximity to major commodity sources (the Middle East, Africa, and Southeast Asia) make it a particularly attractive location for manufacturing supply chains.

With FDI as the key to increased GVC participation, India may face challenges in attracting FDI. Southeast Asia remains a better target for outsourcing manufacturing industries because of its production and service links with China, Japan, the Republic of Korea (henceforth, Korea), the EU, and the United States (US). The limits of ASEAN's land and labour size mean that none of them will be able to develop a full-industry supply chain like China. Such lack of potential rivalry keeps ASEAN increasingly integrated with China in terms of GVC participation and FDI.

The EU remains the most important trade and investment partner of India, given its steadily increasing trade and FDI flows. India is an ideal upstream supplier for Europe, especially in the current context of de-risking away from China. To continue moving up in GVCs, India's trade agreements with the United Kingdom and the EU will be key.

There are increasing possibilities of cooperation within the Indo-Pacific region. The Indo-Pacific Economic Framework (IPEF) embodies de-risking strategies, as well as removing market distortions. India should leverage the IPEF to firm up its ties with the members in terms of trade and investment. For example, despite having signed free trade agreements with Japan and Korea, their FDI to India has not picked up significantly, and India will need to step up investment partnerships with the two developed markets for more higher-end FDI to bolster its GVC impact. The US will also be an important source of tech FDI, as its investment in India has surged since 2020, albeit gradually falling back.

India therefore will need to balance the manufacturing and service sectors. In the current GVC rank, India imports value from the US and China and then exports together with its own value added mostly to the EU and ASEAN. That is, India has moved up the ladder in GVCs against the EU and ASEAN thanks to their FDI to India, which helped India's domestic supply chains. India needs to step up its cooperation with these two blocs in trade and investment but also needs to seek greater partnership with other major economies in or out of the region, such as the US, Japan, and Korea, for much-needed manufacturing, especially higher-end manufacturing, investment.

India is expected to continue its rise in the GVCs, with its promising demography and the prevailing de-risking strategies in major economies regarding China. ASEAN too has an opportunity to look beyond tariffs and consider structural adjustments and corrections in its GVC map, including greater integration with India than before.

Section two of this study reviews India–ASEAN trade in the niche sectors of digital and environmental goods – or goods of the future. There is a broad consensus that trade integration can boost incomes, increase consumption possibilities, and contribute to poverty reduction. But the SDG framework makes it important to focus on other ways in which trade can facilitate sustainable development outcomes.

One contribution trade can make is facilitating the dissemination of environmentally friendly products, as well as digital products that promote structural change compatible with a lesser environmental footprint. Green and digital trade is an emerging area of concern, as evidenced by the increasing inclusion of chapters and provisions dealing with these areas in free trade agreements, as well as their incorporation in work by the major multilateral agencies concerned with trade. Section two of the study assesses the role of green and digital trade in India–ASEAN trade. How important are these sectors, and what recent growth have they seen? How does the bilateral relationship sit compared with other trading relationships with key partners? What sorts of policy changes could facilitate future growth in green and digital trade?

The study provides some preliminary data on six clusters of goods within the green and digital space – low-carbon technology goods, environmental goods, the lithium-ion battery supply chain, industrial robots, semiconductors, and 3D printing. The methodology is data-based. The approach is not comprehensive, but provides extensive detail on key components of this emerging trading space. The objective is to look at the composition of bilateral and multilateral trading relationships, as well as recent growth rates in the six focus clusters of goods.

There are intensive inter-industry exchanges between India and ASEAN in the green and digital space, which is consistent with trade complementarities between the two, as evident from trade in semiconductors and lithium-ion batteries, which are important inputs into some environmental goods. ASEAN's exports to India in green and digital products have generally increased over time, reaching nearly US$10 billion in aggregate in 2022 from just over US$4 billion in 2017. Over time, ASEAN's exports are becoming more oriented towards semiconductors, and to some extent lithium-ion batteries; the role of environmental goods and low-carbon technology is not declining in absolute terms but was a smaller share of total ASEAN exports to India in green and digital products in 2022 relative to 2017. India's exports to ASEAN have surged too, albeit from a low baseline, to more than US$3 billion in 2022. India's exports – mainly environmental goods and low-carbon technology, although lithium-ion batteries, and to a lesser extent semiconductors – have also seen growth. In the absence of distortionary policies, this pattern of trade would be consistent with different patterns of comparative advantage in the two regions, whether due to resource endowments or technology, or some combination of these and other micro-level factors. Two-way trade in similar but differentiated products is relatively limited in terms of the overall flows between ASEAN and India, which is reflective of distinct patterns of specialisation and broader economic factors in the bilateral trade relationship.

The ASEAN–India relationship is established and growing in the green and digital space. However, it is only one aspect of the bilateral trade relationship, which amounted to US$131.6 billion in 2022. Summing the product categories used in the study gives a value of US$12.4 billion in 2022, which is equivalent to under 10% of total bilateral trade. It is also important to stress that this figure overstates the importance of green and digital trade to the bilateral relationship because the product categories are not mutually exclusive, i.e. some products are included in more than one category, so there is some amount of double counting. A realistic conclusion is that the green and digital space is established and growing in importance in India–ASEAN trade, but that it still accounts for a modest share of the overall bilateral relationship. In addition, the reality for individual ASEAN Member States (AMS) is quite different depending on factors like geography, pattern of comparative advantage and specialisation, and per capita income level.

Beyond trade, there are also emerging investment and policy linkages between India and ASEAN in the green and digital space. India has major investment needs in renewable energy and is developing the capacity to be an important player in that sector in the region and potentially beyond. India and ASEAN have therefore initiated collaboration in this area, which has important synergies with the development of a regional ASEAN-wide power grid. India's emerging manufacturing capacity in lithium-ion batteries, where Viet Nam has made a substantial investment to support its developing electric car industry, is an important example. From outside the region, electric vehicle manufacturer Tesla is considering a $500 million investment in India, albeit linked to a preferential easing of burdensome import tariffs. It is important to keep the scale of these kinds of investments in mind. According to the World Development Indicators, US$500 million in new inward investment represented around 1% of total inward investment in India in 2022.

There is more policy activity in environmental goods than in semiconductors, which is perhaps partly a factor of the larger number of individual Harmonised System (HS) products involved. ASEAN maintains, in general but subject to exceptions, a relatively open trade regime for environmental goods and semiconductors, as was the conclusion from the analysis of tariffs. In India, the number of newly implemented policy measures for environmental goods is much higher than in ASEAN. Compared with ASEAN, the balance is far more towards restriction than liberalisation in India, which is using new tariffs and non-tariff measures to limit access to its market for environmental goods, usually with the objective of boosting reliance on domestic production.

The key conclusion is that while India–ASEAN trade is growing rapidly in the green and digital space, the same is true of ASEAN's trade relationship with other major partners (the EU and the US) as well. The overall picture is one of robust growth by India, so there is an expectation that India's share of ASEAN's green and digital trade could grow over time, but that growth is likely to be modest in share terms given the growth rates observed with other major markets.

India lags ASEAN in the manufacturing sectors for two main reasons. The first is on the geostrategic front. In the rapid globalisation process which centred around China, ASEAN is better positioned than India given the cost advantage in transportation and raw materials. FDI from China, Japan, and Korea built up the manufacturing supply chains in ASEAN, especially in Malaysia and Viet Nam. Another factor lies in India's underdeveloped inland transportation and power infrastructure, which is key to manufacturing supply chains. However, India has prioritised the building of infrastructure in its landmark PM Gati Shakti National Master Plan, aiming for connectivity amongst all economic zones.

India is expected to continue its rise in the GVCs, with its promising demography and the global de-risking strategies regarding China. To use these opportunities, India will need to relax its tariffs and non-tariff measures further (to assess if the domestic producers of intermediate goods can still compete with producers outside India) and push forward more trade and investment deals to attract more FDI inflow to improve its domestic manufacturing industries.

For ASEAN, the issues are more structural than just policy reforms. ASEAN's huge dependence on the Chinese inputs in ASEAN's exports have supported the competitiveness of its exports. However, with the current turnaround in the trade policies of large developed markets like the US and the EU, which favour diversified and resilient supply chains, and the emergence of new production centres in India, regions such as South Asia, West Asia, and Africa represent new opportunities for ASEAN to diversify its trade linkages. This may be especially important in the emergent digital and green economy, where the technology and supply chains of environmental and digital goods will be closely monitored by ASEAN's important trading partners.

Two structural issues for India and ASEAN emerge from this study. India's low backward participation, both with ASEAN and the rest of the world, reduces India's dependence on the rest of the world and increases self-reliance while promoting domestic companies. But it increases the costs of intermediate goods in domestic products (as it is mostly a consequence of high tariffs on imports and other trade-related barriers to imports). For a sustainable future of manufacturing in India and for increased exports, import tariffs will need to be reduced to assess if the domestic producers of intermediate goods can still compete with producers outside India.

The key to deeper GVC integration and better quality of trade will lie in more bilateral FDI between India and ASEAN. Finding complementarities in manufacturing and the digital economy, including capacity enhancement, is the way forward for India–ASEAN economic relations.