

Chapter 3

Global Value Chain Integration in Indo-Pacific: Asia, Oceania, US, and the EU

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Chapter 3

Global Value Chain Integration in Indo-Pacific: Asia, Oceania, US, and the EU

Alicia Garcia Herrero

1. Introduction

What was thought of as an unstoppable trend – globalisation – has recently halted, and worse still, it seems to have started reversing. A centrality of this process has been the development of global value chains (GVCs), pushed by transnational corporations as a way to reduce their costs of production through efficiency gains. More specifically, GVCs refer to international production sharing, a phenomenon where production is broken into activities and tasks carried out in different countries. The fragmentation of production and input goods traveling across global supply chains before a good is finalised and sold to the consumer is a GVC.

The ability of developing economies to tap into their comparative advantages of cheap labour markets through the liberalisation of trade and investment policy – not to mention lax environmental and labour regulations – has allowed them to gain more productive jobs and sticky capital investment and to tap into GVCs to raise productivity and to generate wealth. From Eastern Europe to China – and most recently Viet Nam – the process has lifted millions out of poverty. Indeed, GVCs have shaped the world beyond trade, from the increasing importance of efficiency as a key objective of the production process – and the development of new business models to accommodate it – to the surge in foreign direct investment to set up production plants overseas to produce parts and components.

There are a number of reasons why GVCs are important for trade, however. The first is how they shape the roles that countries play in moving up the ladder of value added in production. An increasingly significant role in the supply of parts and components – especially if accompanied with supporting innovation policies – helps countries move up in the value imbedded in production. This has clearly been the case for China, but other countries are following – even if in the far distance, either because of their smaller size, lack of necessary infrastructure, or, in the case of developed countries, high wages.

There are a number of relevant regions for GVCs, such as the European Union (EU) with its single market but also the Association of Southeast Asian Nations (ASEAN), which is closely intertwined with China in the Asian supply chain. A new geographical area, which is growing its geopolitical importance, is the Indo-Pacific. This concept was introduced by Japan as the ‘Free and Open Indo-Pacific’, and endorsed by the United States (US). It is security-related and are anchored in the Quadrilateral Security Dialogue, to which Australia, India, Japan, and the US have participated since 2007.

More recently, with President Joseph Biden, Jr.’s official 2022 visit to Asia, the concept of the Indo-Pacific has been expanded in terms of the countries involved through the *Indo-Pacific Economic*

Framework for Prosperity (IPEF)⁸ and towards a more economic domain – although it falls short of a trade and investment deal. The countries that have signed on to the IPEF in Asia are Australia, Brunei Darussalam, India, Indonesia, Japan, Republic of Korea, Malaysia, New Zealand, the Philippines, Singapore, Thailand, and Viet Nam, as well as the US.

This chapter aims to understand the degree of economic integration, through GVCs, of Indo-Pacific countries. Four countries – Australia, India, Japan, and the US – are first examined, as well as their relations with ASEAN, as many countries signing on to the IPEF are Members of ASEAN.

China is key when it comes to measuring countries' integration into supply chains, especially in Asia. China has been able to massively increase its manufacturing capacity and to intertwine its production with that of other economies by liberalising access. As a result, China's global market share in manufactured goods is more than 19%⁹, but foreign investors do not enjoy the same privilege for Chinese domestic markets; the liberalisation of trade and investment is only targeted towards tradeable sectors. The question, thus, is whether a new economic area – the Indo-Pacific – can be developed in Asia with growing trade and investment relations amongst its members, even if China is not part of this geography.

2. Developments in Global Value Chains and the Indo-Pacific

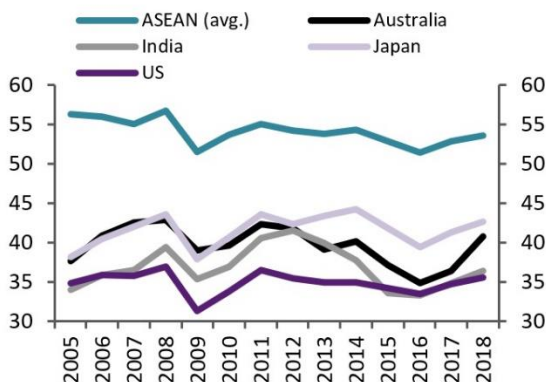
The size of GVCs peaked in 2008, during the global financial crisis, and has shrunk since. Regarding the key economies of the Indo-Pacific, their participation in GVCs stagnated before a rebound in 2016. Amongst them, the speed of recovery also diverges. Australia has been accelerating its integration in GVCs and quite quickly, jumping above 40% of its gross exports as of 2018, which is the most recent input–output data available to measure supply chain integration (see Appendix for details about this dataset and definitions). The other members of the Indo-Pacific, such as India, Japan, and US, have seen moderate improvements since 2016, but less than Australia. As for ASEAN Member States, many of which are now members of the IPEF, the trend is similar, but their level of integration into GVCs is much higher than for all Indo-Pacific members (Figure 3.1a).

Outside of the region, the EU is very integrated into GVCs, nearly as much as ASEAN, and its participation has remained stable, with the global financial crisis creating only a short impact. This contrasts with the much lower participation of the US and China (Figure 3.1b).

⁸ “Statement on Indo-Pacific Economic Framework for Prosperity,” The White House, accessed September 15, 2022, <https://www.whitehouse.gov/briefing-room/statements-releases/2022/05/23/statement-on-indo-pacific-economic-framework-for-prosperity/>.

⁹ Data from “UN Comtrade Database,” United Nations, accessed September 19, 2021, <https://comtradeplus.un.org/>.

Figure 3.1a: GVC Participation by Economic Area
(% of gross exports)



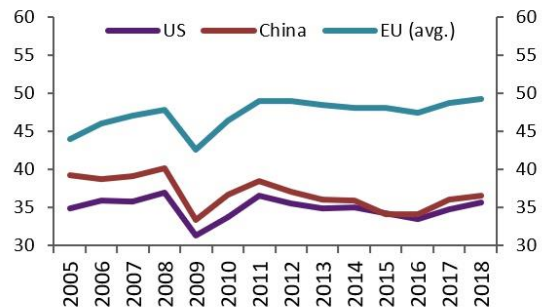
ASEAN = Association of Southeast Asian Nations; avg. = country weighted average, GVC = global value chain, US = United States.

Notes:

1. Data for ASEAN include intra-region trade.
2. See Box 1 for the definition of GVC participation. ASEAN refers to eight of its 10 Member States: Brunei Darussalam, Cambodia, Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Viet Nam (no data available for the Lao People's Democratic Republic and Myanmar).

Source: OECD (2022).

Figure 3.1b: GVC Participation by Economic Area
(% of gross exports)



EU = European Union; avg. = country weighted average, GVC = global value chain, US = United States.

Notes:

1. Data for EU include intra-region trade.
2. See Box 1 for the definition of GVC participation. EU refers to the member countries as of 2013-2019.

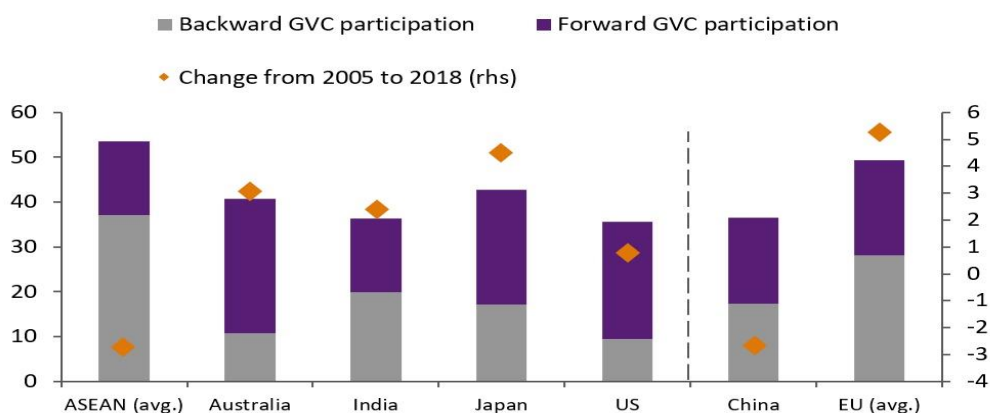
Source: OECD (2022).

Participation in GVCs, however, can come from two different angles. The first occurs from the foreign value added in exports (FVA), also called backward participation, which is the share of exports that stems from imports of intermediate goods and for which there is no domestic value added imbedded. The second is the mirror of the FVA – the domestic value added in exports (DVX), also called forward participation. Countries able to produce higher value-added goods will tend to have a larger share of forward participation in GVCs, as they do not need to import as many intermediate goods to be able to export.

As Figure 3.2 below shows, the key difference between ASEAN and the EU is not the level of participation in GVCs – which is similarly high – but the composition, as downstream participation is much more pervasive for ASEAN than for the EU. The share of backward participation is also higher for the EU and India than for Australia, Japan, or the US. It is important to note that China's forward participation is higher than ASEAN or India although still much lower than the US.

Thus, the core Indo-Pacific countries are relatively less integrated into GVCs than ASEAN or the EU – but are in line with China. At the same time, relatively large shares of the value of their exports are produced domestically, especially for the US. That makes ASEAN complementary to Indo-Pacific countries, as their participation in GVCs is mostly through exports of imported intermediate goods. Finally, all economies of interest have seen an increase in their GVC participation from 2005 to 2018, except for China whose degree of participation has fallen by a stunning 20%; in stark contrast, ASEAN and the EU have increased their integration by as much as 10%, respectively (Figures 3.3a and 3.3b).

Figure 3.2: GVC Participation by Economic Area and Type, 2018
(% of gross exports)



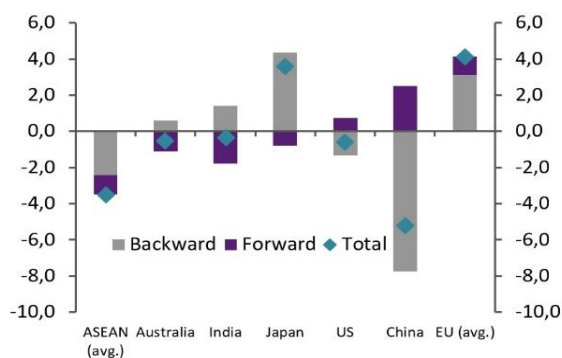
ASEAN = Association of Southeast Asian Nations; EU = European Union; avg. = country weighted average; GVC = global value chain; US = United States.

Notes:

1. Data for ASEAN and EU include intra-region trade.
2. See Box 1 for the definition of GVC participation. Forward participation means domestic value-added in foreign exports. Backward participation means foreign value-added in domestic exports.
3. ASEAN refers to eight of its 10 Member States: Brunei Darussalam, Cambodia, Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Viet Nam (no data available for the Lao PDR and Myanmar). EU refers to the member countries as of 2013-2019.

Source: OECD (2022)

Figure 3.3a: Change of GVC Participation by Economic Area and Type, 2005–2015
(% of gross exports)



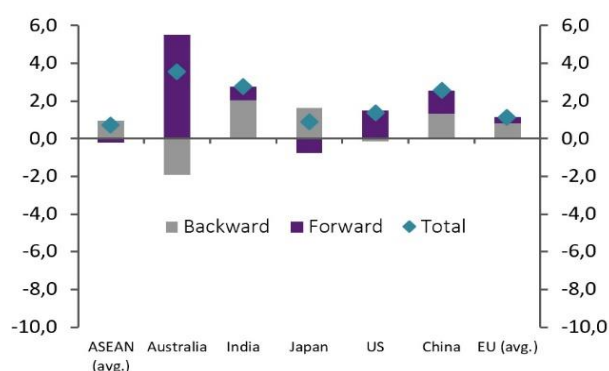
ASEAN = Association of Southeast Asian Nations; avg. = country weighted average, GVC = global value chain, US = United States.

Notes:

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Source: OECD (2022).

Figure 3.3b: Change of GVC Participation by Economic Area and Type, 2015–2018
(% of gross exports)



ASEAN = Association of Southeast Asian Nations; avg. = country weighted average, GVC = global value chain, US = United States.

Notes:

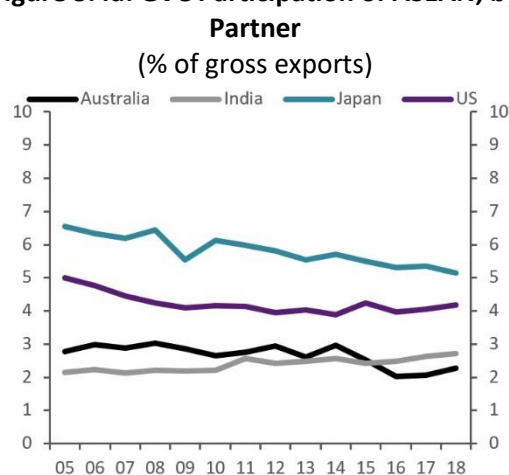
1. Data for ASEAN and EU include intra-region trade.
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Source: OECD (2022).

3. ASEAN

Given the importance of ASEAN in the IPEF – as well as the potential complementarities between core Indo-Pacific countries and ASEAN, – ASEAN’s bilateral participation in GVCs with other key players is examined. ASEAN has been reducing its integration with developed economies’ supply chains since 2005, and especially with Japan and Australia, although the trend is slightly better with the EU and US (Figures 3a and 3b). This trend contrasts with ASEAN’s rapidly increasing integration with China’s supply chains, which nearly doubled during 2005 to 2018. India, too, has been increasing its bilateral integration with ASEAN but from a very low level, which makes it hardly relevant compared to China. In fact, ASEAN’s integration with India remains minimal at 2.7% of ASEAN’s total exports (Figures 3.4a and 3.4b).

Figure 3.4a: GVC Participation of ASEAN, by



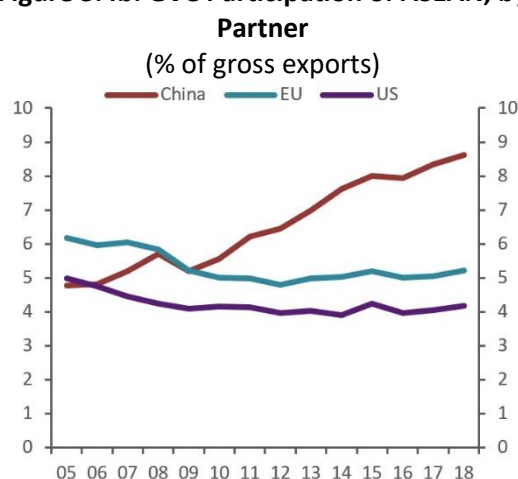
ASEAN = Association of Southeast Asian Nations; avg. = country weighted average, EU = European Union; GVC = global value chain; US = United States.

Notes:

1. See Box 1 for the definition of GVC participation.
2. ASEAN refers to 8 of its 10 Member States: Brunei Darussalam, Cambodia, Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Viet Nam (no data available for the Lao PDR and Myanmar). EU refers to the member countries as of 2013-2019.

Source: OECD (2022).

Figure 3.4b: GVC Participation of ASEAN, by



ASEAN = Association of Southeast Asian Nations; avg. = country weighted average, EU = European Union; GVC = global value chain; US = United States.

Notes:

1. See Box 1 for the definition of GVC participation.
2. ASEAN refers to 8 of its 10 Member States: Brunei Darussalam, Cambodia, Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Viet Nam (no data available for the Lao PDR and Myanmar). EU refers to the member countries as of 2013-2019.

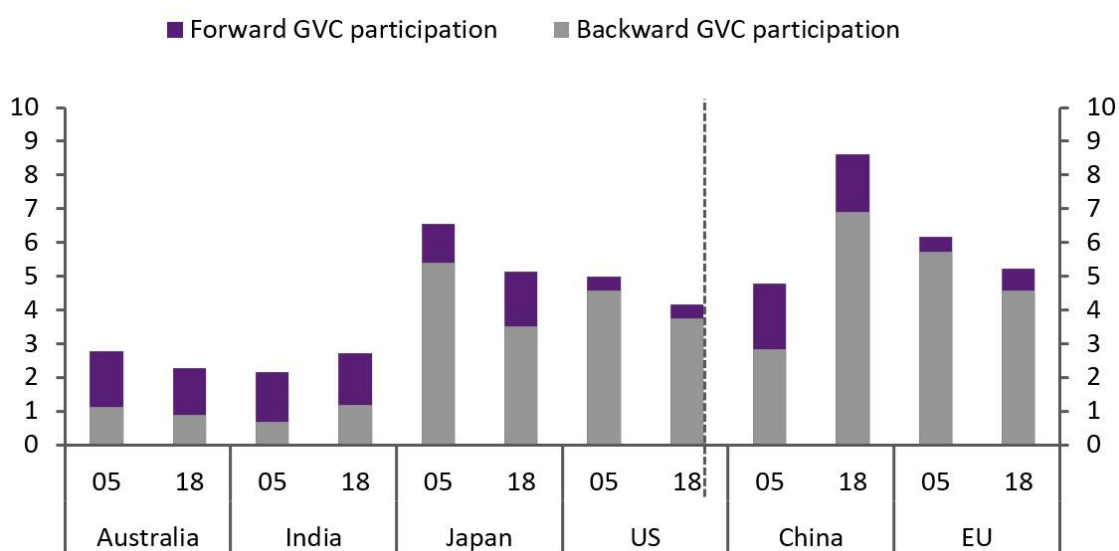
Source: OECD (2022).

When focusing on the type of GVC integration that ASEAN conducts with different countries, ASEAN’s GVC integration predominantly corresponds to the backward direction – especially so with the US and EU. In simple terms, ASEAN tends to import a relatively large share of intermediate goods for re-export from the West, while its exports of intermediate goods for other countries to re-export are small with the West and somewhat larger with Australia and India. ASEAN integration has been more balanced with China in the past, but the bulk of the increment so far comes from ASEAN’s larger backward participation, which means that ASEAN is again importing more intermediate goods for its exports (Figure 3.5).

It is clear that ASEAN is mostly an assembly platform, as its backward participation dominates global supply chains. This is particularly the case of ASEAN’s trade with the US, EU, and, to a lesser extent,

Japan and China. ASEAN Member States' linkages with Australia and India are more balanced, as ASEAN's forward participation is greater than its backward (Figure 3.5). The reason for a more balanced pattern with Australia and India may be related to the lack of a key industry that integrates ASEAN with these two countries rather than a strong performance in exporting products with large domestic value added – the generally low share of exports of intermediate goods between ASEAN and Australia or ASEAN and India clearly points in this direction. Finally, ASEAN's increasing integration with China is obvious in these data but with the same pattern – a lot of value added in exports from ASEAN into China and mostly imports of intermediate goods from China for re-export.

Figure 3.5: GVC Participation of ASEAN, by Partner and Type
(% of gross exports)



ASEAN = Association of Southeast Asian Nations; EU = European Union; avg. = country weighted average; GVC = global value chain; US = United States.

Notes:

1. Data for ASEAN and EU include intra-region trade.
2. See Box 1 for the definition of GVC participation. Forward participation means domestic value-added in foreign exports. Backward participation means foreign value-added in domestic exports.
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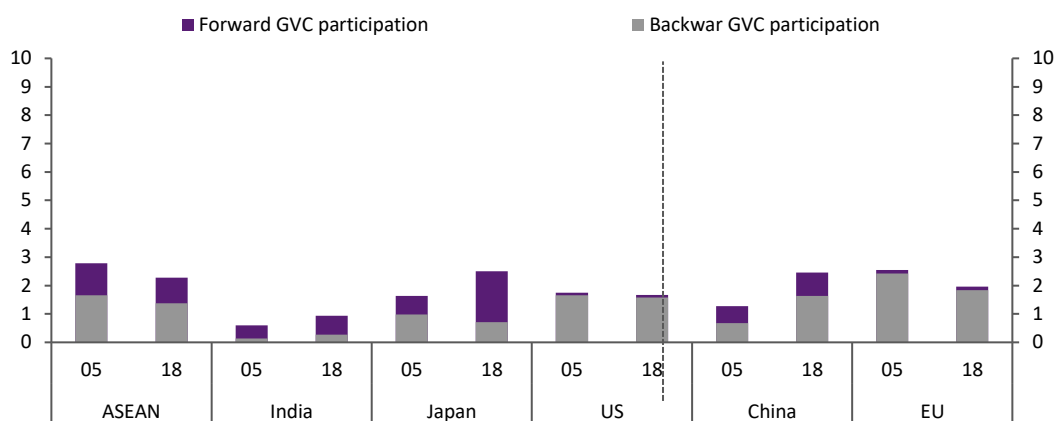
Source: OECD (2022)

4. Australia

For Australia, the much lower level of bilateral integration in other countries' supply chains is noted. Within such a trend, integration with ASEAN used to stand out but decreased from 2005 until 2018. The opposite is true for Japan, with which Australia now has the largest bilateral integration in terms of supply chains. Most of the increase came from Australia's value added in Japanese exports, meaning that Australia is stepping up to be a major upstream supplier for Japan. China is also crucial for Australia, with rapid growth like Japan and with a very similar pattern – Australia's exports of its own value added to China. This pattern is the same for India but at a lower level. Integration with other

members of the Indo-Pacific, like the US, remains very low and is mostly backward. This means that Australia is only importing intermediate goods from the US or EU for re-export, but it is not exporting its own value added to these two economies. (Figure 3.6).

Figure 3.6: GVC Participation of Australia, by Partner and Type
(% of gross exports)



ASEAN = Association of Southeast Asian Nations, EU = European Union, GVC = global value chain, US = United States.

Notes:

1. See Box 1 for the definition of GVC participation. Forward participation means domestic value-added in foreign exports. Backward participation means foreign value-added in domestic exports.
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Source: OECD (2022).

5. India

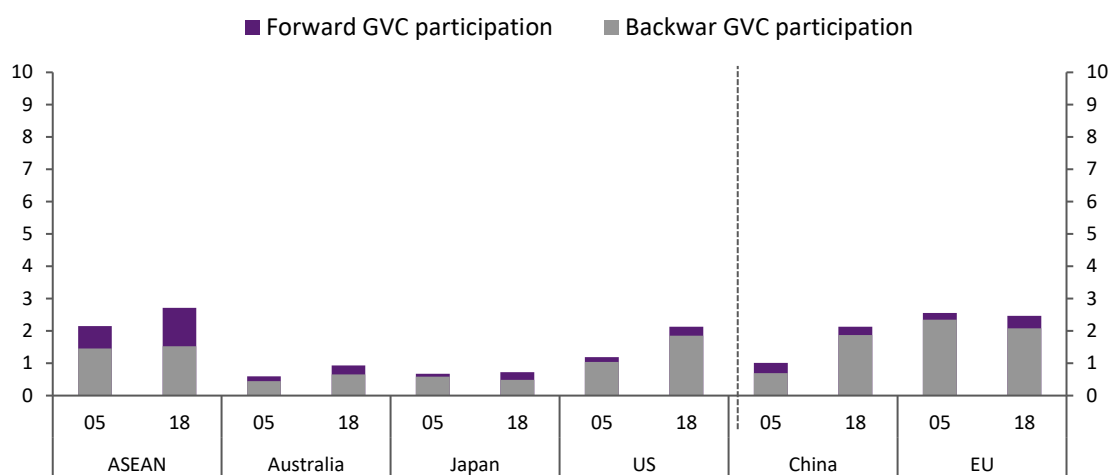
India has been increasing its bilateral integration with all of the countries except those of the EU, although these countries remain more important than the US. Interestingly, India's supply chain exchanges with ASEAN are now the largest – even bigger than that of China – although the speed at which supply chain linkages are growing is faster for India–China bilateral trade. For all other countries, India's backward participation plays a predominant role in all of its bilateral integration, although less so for ASEAN (Figure 3.7).

In contrast to India, Japan's bilateral integration with other Indo-Pacific economies has been flagging over the period – except with Australia. This is because Australia is playing an increasingly important role in Japan's upstream supply, a nation that requires raw materials to manufacture its exports of intermediate goods. Japan is also experiencing a moderate increase in its bilateral supply chain relations with the EU, while they remain stagnant with the US. In both cases, such relationships are dominated by Japan's imports of intermediate goods from both the EU and US for re-export.

In contrast to these trends, a sharp decrease can be seen in Japan's bilateral trade linkages with ASEAN, as far as intermediate goods are concerned. Such a reduction in Japan's participation in GVCs is also

occurring for China. Finally, Japan’s trade with India, in terms of intermediate goods, remains extremely low. All in all, Japan’s supply chain integration with South-East Asia is not advancing as many expected (Figure 3.8).

Figure 3.7: GVC Participation of India, by Partner and Type
(% of gross exports)



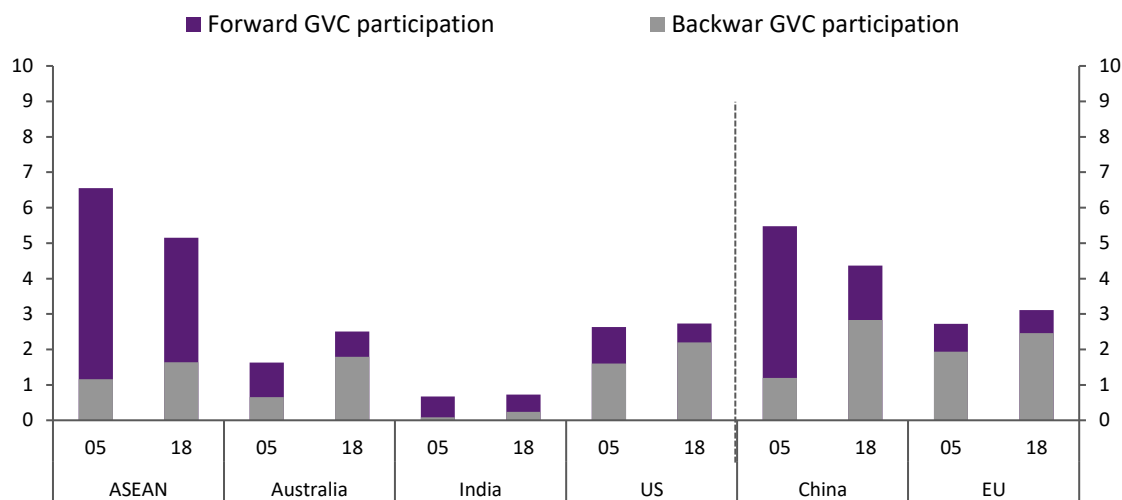
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Source: OECD (2022).

Figure 3.8: GVC Participation of Japan, by Partner and Type
(% of gross exports)



ASEAN = Association of Southeast Asian Nations, EU = European Union, GVC = global value chain, US = United States.

Notes:

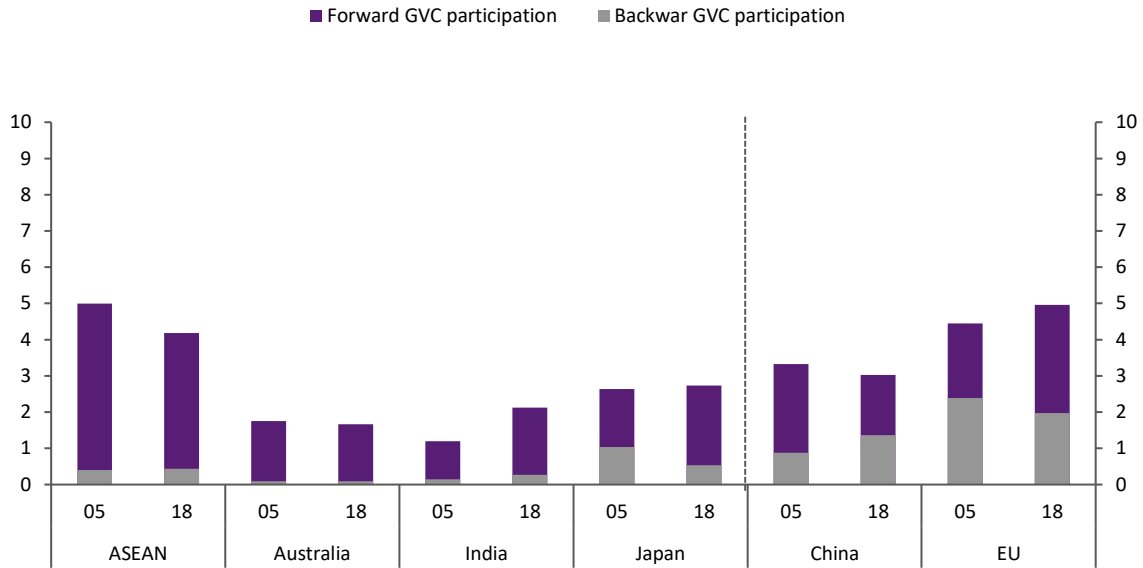
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Source: OECD (2022).

6. United States

The US's bilateral linkages, in terms of global supply chains, with Indo-Pacific countries, China, and the EU were generally stable during 2005 to 2018, with slight declines seen with ASEAN and China and a sharp increase with India. Interestingly, the decrease in the US's GVC integration with China is in forward participation, which points to China adding a lot of value to its production, reducing its dependence on intermediate goods from the US. This also contrasts with the fact that the US has been increasing its forward integration with other high-value adders such as Japan and the EU (Figure 3.9). The US does not seem to be losing value added in its exports with other Indo-Pacific partners, but its commercial relationship with China seems different from that.

Figure 3.9: GVC Participation of US, by Partner and Type
(% of gross exports)



ASEAN = Association of Southeast Asian Nations, EU = European Union, GVC = global value chain, US = United States.

Notes:

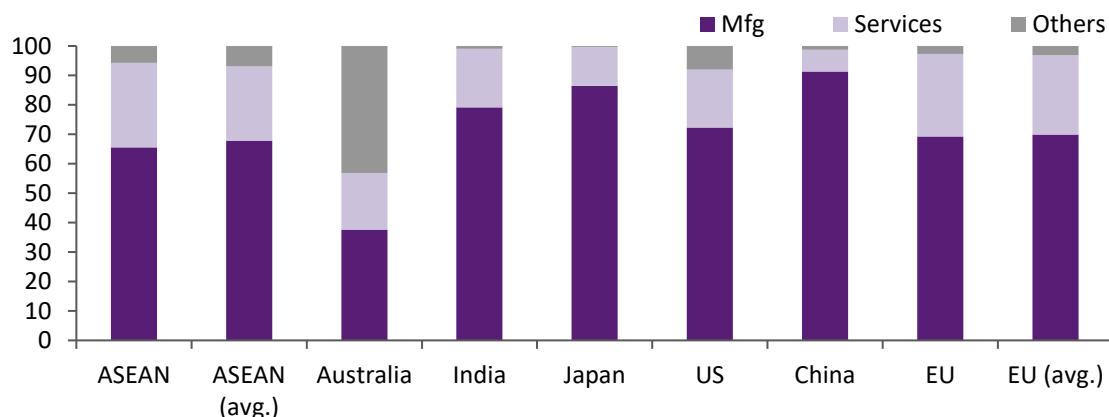
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7. Sectoral Trends

It is important to distinguish between the exports coming from imports of intermediate goods (i.e. backward participation) and those stemming from domestic value added (i.e. forward participation). For backward participation, the manufacturing exports concentrate the majority of GVC participation across all economies of interest, except for Australia, 60% of whose mainly stems from business services and other sectors. This means Australia is less in demand of foreign inputs for manufacturing products, as it is mostly focussed on exporting raw materials. Regarding forward participation, Australia stands out for its high integration with global supply chains. In other words, Australia's manufacturing manages to create large value added in its exports for other countries' re-exports.

Amongst the remaining countries, China and Japan have the highest shares of manufacturing for backward participation, showing their massive purchases of industrial materials as inputs for manufacturing. India is trying to move up in the global manufacturing value chain by increasing its backward integration, but India's forward value added of manufacturing sectors is still lagging behind. India is not yet able to add a lot of value to its production, which is then imported by other players to re-export. Meanwhile, ASEAN and the US are more balanced between the two extremes of Australia and India (Figure 3.10 and 3.11).

Figure 3.10: Sectoral Composition of Backward GVC Participation, by Economic Area, 2018 (%)



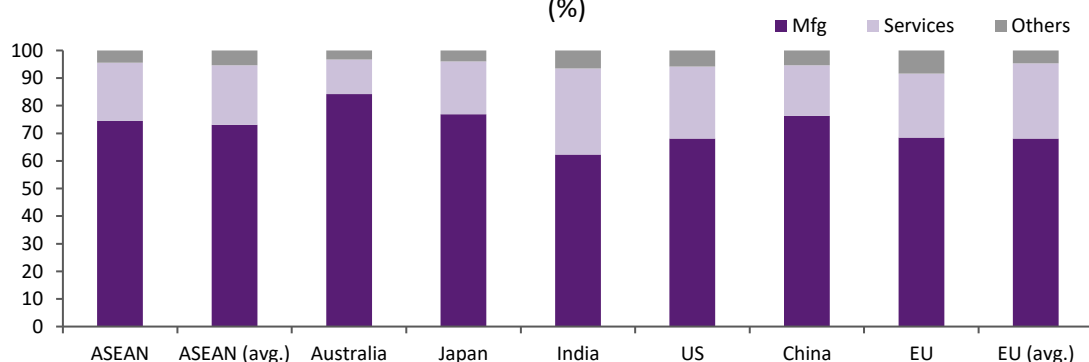
ASEAN = Association of Southeast Asian Nations, avg. = country weighted average, EU = European Union, GVC = global value chain, US = United States.

Notes:

1. Weighted averages include intra-region data.
2. See Box 1 for the definition of GVC participation. Backward participation means foreign value-added in domestic exports.
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Source: OECD (2022).

Figure 3.11: Sectoral Composition of Forward GVC Participation, by Economic Area, 2018 (%)



ASEAN = Association of Southeast Asian Nations, avg. = country weighted average, EU = European Union, GVC = global value chain, US = United States.

Notes:

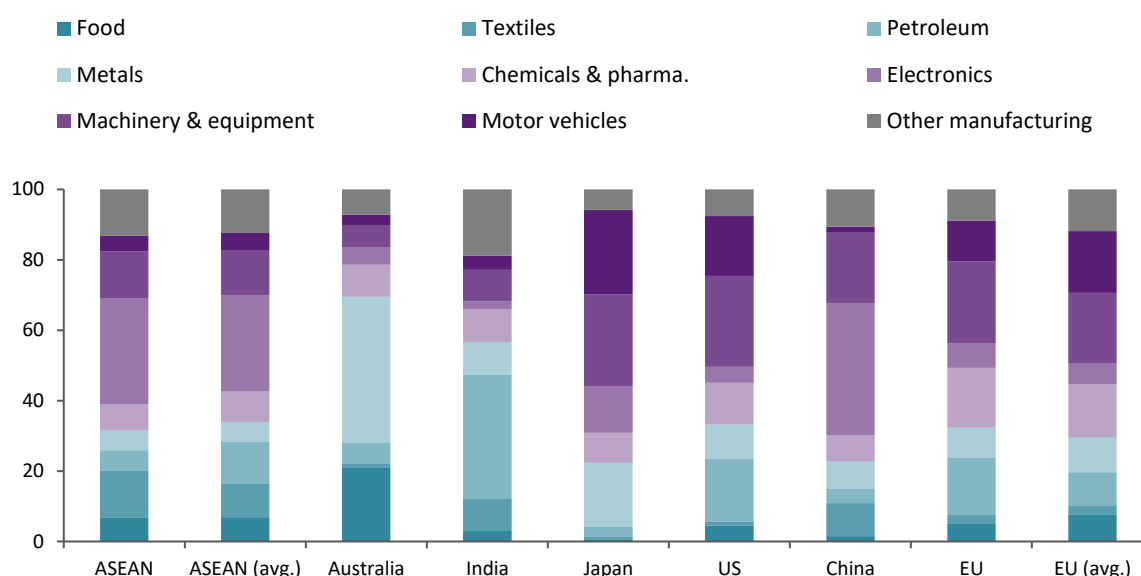
1. Weighted averages include intra-region data.
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Source: OECD (2022).

Higher-skilled manufacturing, such as machinery and equipment, electronics, and motor vehicles, explain most of the backward participation for Japan and the US. For the EU and China, there is more heterogeneity across sectors. The exceptions are Australia and India. Regarding backward participation, Japan, the EU, and US specialise in motor vehicles, while China and ASEAN focus on electronics. Australia leads in metals in backward trade, and India imports a huge amount of value added via crude and raw petroleum products.

In regards to forward participation, specialisation patterns are less intense. The EU and US still lead in motor vehicles, but China and India are catching up. Electronics takes up as much as 31% of Japan’s forward GVC integration, reflecting the industry’s dominance amongst Japan’s manufacturing sectors. China and ASEAN remain significant in electronics, and India shows a very balanced structure (Figures 3.12 and 3.13).

Figure 3.12: Sectoral Composition of Backward GVC Participation in Manufacturing Exports, by Economic Area, 2018 (%)



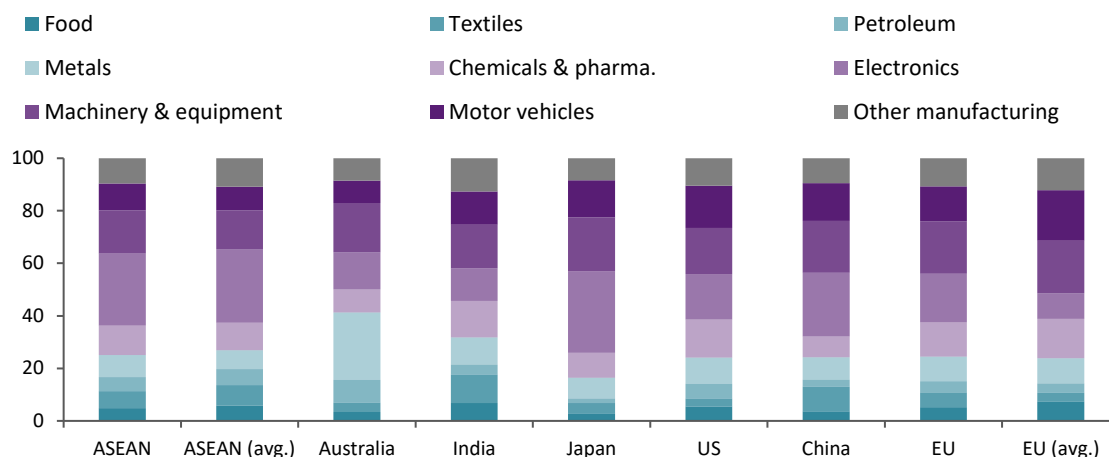
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Source: OECD (2022).

Figure 3.13: Sectoral Composition of Forward GVC Participation in Manufacturing Exports, by Economic Area, 2018 (%)



ASEAN = Association of Southeast Asian Nations, avg. = country weighted average, EU = European Union, GVC = global value chain, US = United States.

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Source: OECD (2022).

Box 1: The RCEP – A Regional Trade Agreement with Asian Linkages Only

After 8 years of negotiations, the Regional Comprehensive Economic Partnership (RCEP), comprising 15 Asian countries as parties, was announced in November 2020. The trade deal is expected to tighten ties amongst Asian countries in terms of key liberalisation measures and the value chain in Asia.

As the largest trade agreement so far, the RCEP links 15 Asia-Pacific economies in trade liberalisation – the 10 Association of Southeast Asian Nations (ASEAN) Member States, Australia, China, Japan, the Republic of Korea, and New Zealand. The signatories make up nearly one-third of the world’s total population and nearly 29% of global gross domestic product (GDP).

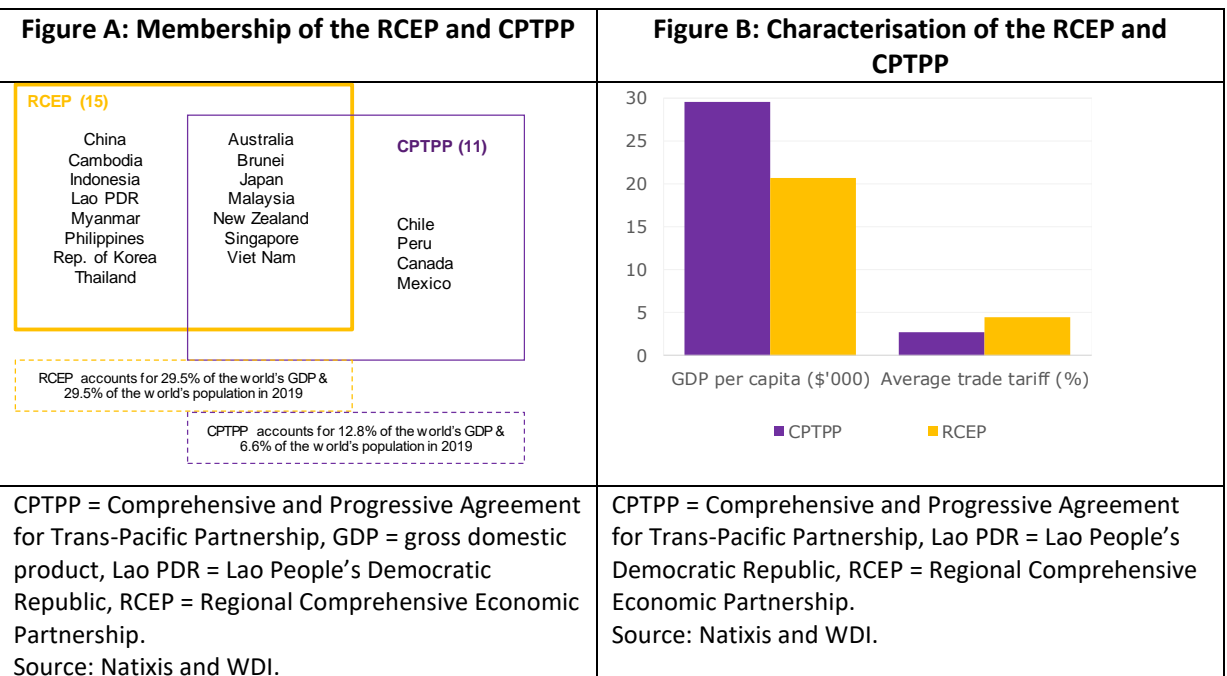
The aim of the RCEP was even bigger when the negotiations started in 2012. Not only was the geographical coverage larger – with India, the third-largest economy in Asia – but so was the scope in terms of liberalisation. India withdrew from the negotiations because of the potential negative impact on its local industry development from Chinese imports. Furthermore, when the RCEP started as a response to the Trans-Pacific Partnership (TPP), the strategic competition between the United States (US) and China was beginning; now, it is pulling RCEP members in different directions. The best example is the ongoing trade friction between China and Australia, which started almost immediately

after the RCEP was concluded. Although the US is not a member of the RCEP, increasingly pervasive US sanctions against China will affect the RCEP’s performance.

The importance of the RCEP is apparent on both economic and political fronts. The RCEP is expected to reduce tariffs over a 20-year period, streamline customs procedures, and replace a number of bilateral trade agreements in the region with one set of rules. The unique value of the RCEP is in simplifying and minimising different rules of origins, thus equating the requirements for all players. The RCEP is not as broad an agreement as the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), because it focusses only on trade in goods, excludes services, and does not mitigate the influence of state-owned enterprises in the economy (Figure A). Still, it is a valuable regional structure, as it links the major economies in the Asia-Pacific region and tightens the bond amongst Asian countries, particularly in a time of de-globalisation and post-pandemic recovery, without the involvement of the US or Europe.

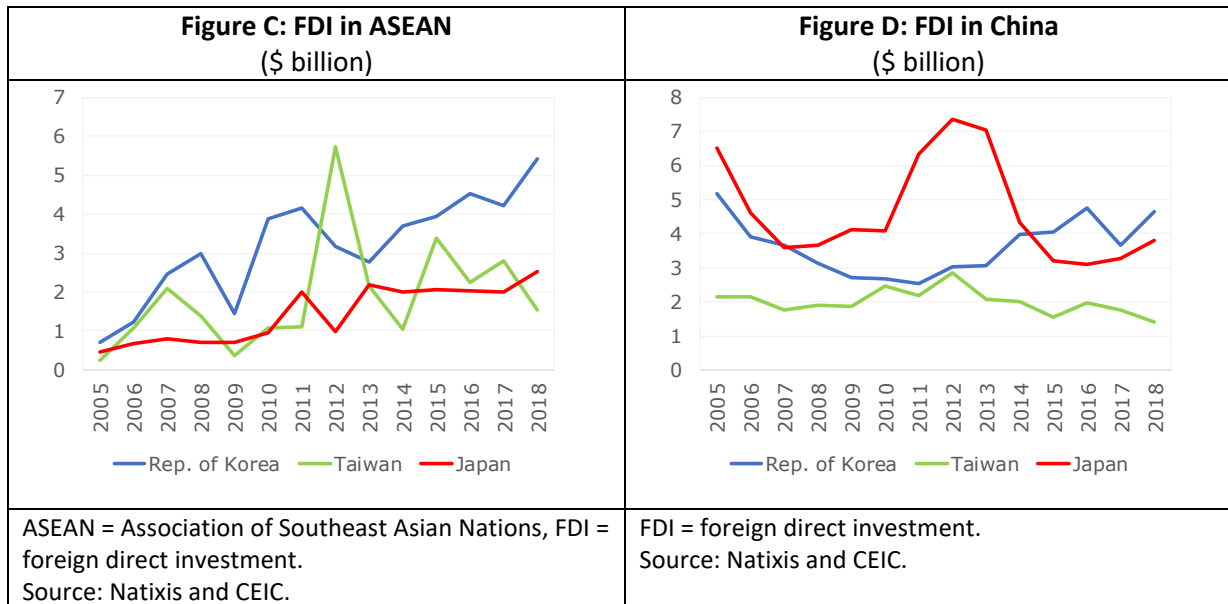
The impact from the RCEP is believed to be incremental, as the existing trade agreements have already pushed tariffs low. In fact, the current average tariff is 4.4% amongst the members of the RCEP and only 2.7% amongst the members of the CPTPP, yet the GDP per capita of CPTPP members is 1.5 times higher than that of the RCEP members (Figure B). For the RCEP to enter into force, at least six ASEAN Member States and three non-ASEAN countries need to ratify the agreement. By the end of April 2021, China, Singapore, and Thailand had completed procedures for ratification, while Japan is in the process of completion.

Beyond the economic benefits – which may not be obvious in the short term, as tariffs are already low – the high point of the RCEP may be simplifying different rules into a single set of rules of origin, equating the requirements for all players.



ASEAN has been receiving increasing manufacturing foreign direct investment (FDI) from Japan, Korea, and Taiwan (Figure C), and the amount has already been larger than to China (Figure D). This is in

response to the increasingly high labour costs in China compared with the rest of ASEAN, and the need to diversify the risks from a value chain that remains overly concentrated in China. With the increasing amount of FDI – and the ease of the RCEP rules – ASEAN will be able to grow its manufacturing capacity to serve the massive market of North Asia. China’s ageing population makes this trend even more meaningful.



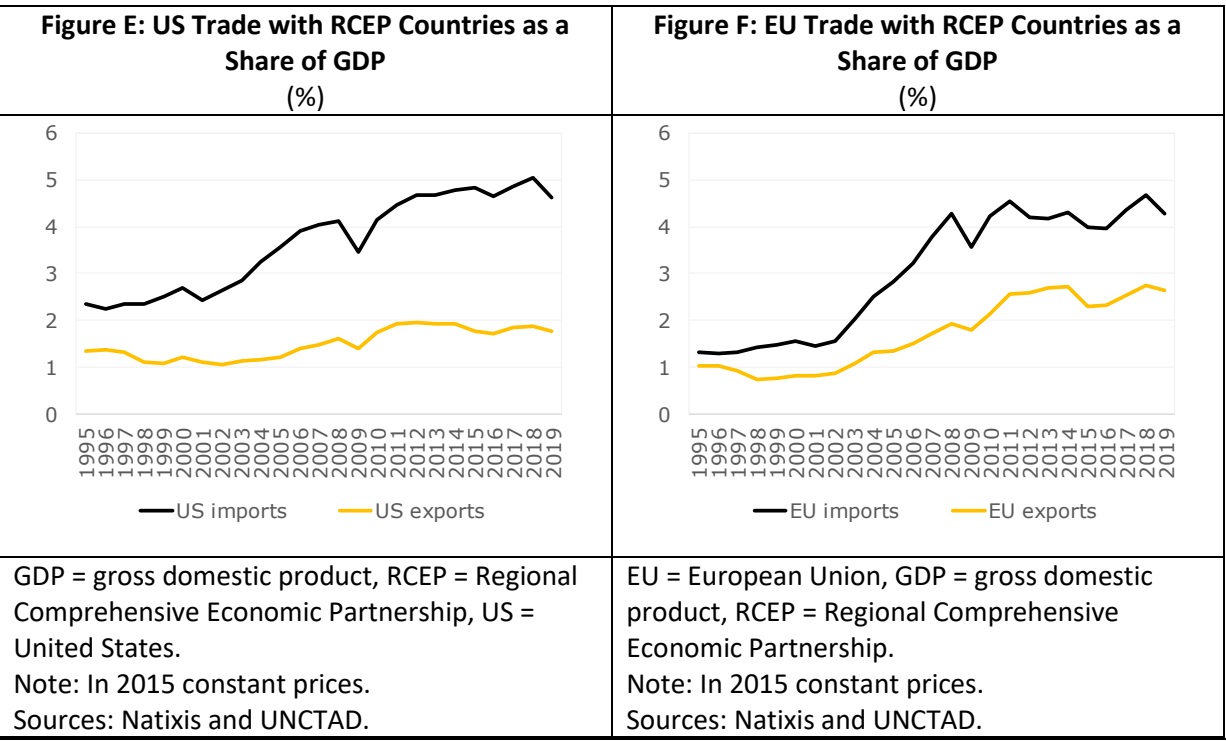
The RCEP and CPTPP will shape regional economic architecture, but the RCEP poses challenges for the CPTPP and for the influence of the US and the European Union (EU) in the Indo-Pacific region. If the US re-joins the CPTPP, participation in the CPTPP will require a higher level of commitment than the RCEP, as it covers more areas of trade and investment beyond tariff reduction. In addition, existing members have potential veto power – offering less negotiation room for newcomers to alter existing rules. As such, the CPTPP is poised to receive attention from several countries, especially after the closure of the RCEP negotiations, but the actual expansion of its membership may not be as fast.

Multi-regional trade between the US and EU with Asian countries has been evolving, with increases in both imports and exports. Both the US and EU have incorporated heavy trade relations with Asian countries beyond the RCEP (Figures E and F), particularly with China, Japan, and Korea.

Since the US and EU are not yet part of either trade deal, the RCEP may tilt economic reliance towards China – reducing Asian dependence on the US market. The RCEP covers all of East Asia, which is a hub for the supply-chain networks of major manufacturing companies. The gradual shift of manufacturing from China to more cost-efficient South-East Asia could enable China to accumulate more cost-competitive exporting power to the US. On the other hand, the RCEP includes key US allies – Australia, Japan, Korea, and New Zealand. Tighter economic ties with these countries could provide leverage for any aspiring member of the RCEP.

The EU has concluded the Comprehensive Agreement on Investment with China and free trade agreements with Japan, Korea, Singapore, and Viet Nam. Amongst the existing economic relations, the RCEP could benefit the EU through a reduction in costs under rules of origin, as European companies participate in intra-Asian supply chains or subsidiaries. On the other hand, the cost-competitive manufactured products from Asian countries could threaten EU manufactured goods with

more intense competition. That said, the impact of the RCEP on EU–Asia economic relations will be seen incrementally in the long term.



The Government of the United Kingdom (UK)'s *Global Britain in a Competitive Age: Integrated Review of Security, Defence, Development and Foreign Policy* spells out the global role of the UK as an open economy and a maritime-trading nation with a large diaspora. It identifies the Indo-Pacific as one of the dynamic regions of the world, and the deepening of connections with the economic architecture of this region will enhance the UK's future prosperity. ASEAN is at the centre of the Indo-Pacific, and UK cooperation with ASEAN will be crucial to any prospective participation in the RCEP and CPTPP. The UK has important trade linkages with the 10 ASEAN Member States of the RCEP, as well as the other 5 – Australia, China, Japan, Korea, and New Zealand. The RCEP and CPTPP will also provide pathways for the UK to adapt to the intricate regional value chains in the Indo-Pacific and the balance of power, while working with existing structures.

To attain the objectives under the strategic framework, stronger diplomatic and trading ties are envisaged with several countries in the region such as China, India, and Japan; and to extend to others including Indonesia, Korea, Malaysia, the Philippines, Singapore, Thailand, and Viet Nam. Although closer relations through existing institutions, such as ASEAN and the CPTPP (the UK has applied for accession to the CPTPP), are clearly spelled out in the strategic framework, UK–ASEAN relations may also find a unique synergy through the RCEP.

Chapter 20 (Final Provisions) of the RCEP sets out the relationship between the RCEP and other international agreements, a general review mechanism, procedures to amend the agreement, and an accession provision. The RCEP is open for accession by any state or separate customs territory 18 months after its entry into force.^a The Depositary^b for the RCEP will be responsible for receiving and disseminating documents to the acceding state or customs territory, including any notifications; requests for accession; and instruments of ratification acceptance, approval, or accession. The

provision on entry into force provides that the RCEP needs signatory states, including at least six ASEAN and three non-ASEAN signatory states, to deposit their instruments of ratification, acceptance, or approval for the RCEP to enter into force. The UK still has time to consider its accession plans to the RCEP.

^a This agreement is open for accession by India, as an original negotiating state, from the date of its entry into force, without waiting 18 months.

^b The RCEP has designated the Secretary-General of ASEAN as the Depositary for this agreement and any amendment thereto. The Depositary will accept the instruments of ratification and notice for withdrawal and accession, amongst other functions.

Source: CPTPP, RCEP, Great Britain, UNCTAD, WDI, Authors.

8. Conclusions

GVCs – which have been key to the process of rapid economic globalisation of the last few decades – are being reshuffled. The role of China has changed drastically to become much more central and oriented towards adding more Chinese value to other countries' re-exports (i.e. forward integration), but China's dependence on other countries' imports for its own exports is clearly waning.

Against such a background of increasing economic competition from China, it is important to review the economic linkages of Indo-Pacific members, especially their supply chain integration. The linkages are clearly not uniform, with ASEAN more integrated relative to India, and with the US and China dominating in their own value added into other countries' exports (i.e. forward integration).

Much more integration can be possible with a trade agreement or framework – like the IPEF – which facilitates trade exchanges, amongst other objectives.

Box 2: Data Description and Definitions

Definitions

Products that are traded internationally are composed of inputs from different countries and sectors around the world, creating global production chains. Conventional measures of international trade (e.g. gross exports and imports) do not capture these complex relationships.

Studying the global macroeconomy with its country and cross-sectoral linkages, by using global input–output data, has become a widely used approach since the pioneering work of Hummels, Ishii, and Yi (2001). Broadly speaking, the input–output accounting structure comprises all economic transactions between the possible combinations of producing sectors and countries, differentiating between production used for further processing (i.e. intermediate demand) and production used for final consumption or investment (i.e. final demand).

Global value chain (GVC) analysis refers to the study of how value added is generated and distributed through global production chains (from upstream to downstream activities), making use of the relationships defined in the input–output framework.

The degree to which a country is integrated in GVCs is usually captured by a metric called GVC participation, which is the sum of two components: foreign value added in exports (FVA or backward participation) and domestic value added in exports (DVX or forward participation). In other words, GVC participation accounts for value added generated in a country that crosses at least two borders in international trade relative to gross exports. In terms of specialisation, a country that is backwardly integrated in a GVC corresponds to an economy that relies on foreign inputs for its exports to the rest of the world and is positioned downstream within value chains, while a country that is forwardly integrated in GVC supplies inputs to other economies for their exporting activities and is positioned upstream within value chains.

Participation or integration in value chains can also be applied to narrower economic areas or bilateral relations between countries. For instance, a regional value chain corresponds to transactions between members of a common economic area. The forward and backward participation of each country within the regional value chain could be evaluated with the aforementioned metrics.

Alternatively, if a regional bloc is considered as a single economy, the regional participation in a GVC accounts for both the use of inputs sourced out of the regional bloc that are later exported out of the common area (i.e. backward participation) and the supply of inputs to a non-member for its exports to a third country (i.e. forward participation).

A global production chain encompasses a number of participating activities from different sectors. Accordingly, the sectoral characterisation of GVC participation can be defined in many ways. The criterion used is centrality and takes as a reference the sector of the exporting activity located midstream of the value chain, i.e. the sector that uses foreign supplies for exports when analysing backward participation and the sector to which supplies are sold for re-export in the case of forward participation.

Alternatively, the sectoral composition of GVC participation can be analysed considering the sector where the value added being traded across borders was originally generated, i.e. the sector selling

supplies used for exports in a different country, both in terms of backward and forward participation. However, this approach looks very similar to the standard analysis of sectoral specialisation in bilateral gross trade.

Data

Annual data in nominal United States (US) dollars are sourced from OECD (2018). Country coverage includes, amongst others, all 27 European Union (EU) member countries, United Kingdom (UK), US, China, Japan, India, the Republic of Korea, and 8 of the 10 Association of Southeast Asian Nations (ASEAN) Member States (i.e. Brunei Darussalam, Cambodia, Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Viet Nam).

Sectoral data correspond to two-digit codes from United Nations (2008). Sectors are first defined broadly and divided into three categories: manufacturing activities (ISIC codes 10–33); business services (45–82); and other activities (including agriculture, mining, utilities, construction, and public services). Manufacturing activities are then disaggregated into food products (10–12), textiles (13–15), petroleum products (19), chemicals and pharmaceuticals (20–21), metals (24–25), electronics (26), machinery and equipment (27–28 and 30), motor vehicles (29), and other activities (other manufacturing). In turn, business services are disaggregated into trade activities (45–47), transport (49–53), information and communication technology services (58–63), and other activities (other business services).

Source: OECD, United Nations, Authors.

References

- Cabinet Office of The UK Government (n.d.), *Global Britain in a Competitive Age: the Integrated Review of Security, Defence, Development and Foreign Policy*.
<https://www.gov.uk/government/publications/global-britain-in-a-competitive-age-the-integrated-review-of-security-defence-development-and-foreign-policy>
- Department of Foreign Affairs and Trade of The Australian Government (n.d.), *Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP)*.
<https://www.dfat.gov.au/trade/agreements/in-force/cptpp/comprehensive-and-progressive-agreement-for-trans-pacific-partnership>.
- Hummels, D., J. Ishii, and K. Yi (2021), 'The Nature and Growth of Vertical Specialization in World Trade.' *Journal of International Economics*, 54(1), pp.75–96.
- Organization of Economic Cooperation and Development (n.d.), *Trade in Value Added*.
https://stats.oecd.org/Index.aspx?DataSetCode=TIVA_2021_C1.
- RCEP (n.d.), *About RCEP*. <https://rcepsec.org/about/>.
- The World Bank (n.d.), *World Development Indicators*.
<https://databank.worldbank.org/source/world-development-indicators>.
- United Nations Conference on Trade and Development (n.d.), *Merchandise trade matrix*.
<https://unctadstat.unctad.org/wds/TableViewer/tableView.aspx?ReportId=217476>.
- United Nations Statistics Division (2008), *International Standard Industrial Classification of All Economic Activities (ISIC), Rev.4*. United Nations.