Chapter 4

Trade Integration between ASEAN and the UK

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This chapter makes use of value chain analysis to describe the degree and nature of trade integration between the Association of Southeast Asian Nations (ASEAN) and the United Kingdom (UK), and in the global context. It provides an overall characterisation as well as sectoral disaggregation of the UK’s main trading partners, focusing on trade integration with the European Union (EU). It provides comparative data for the UK to establish its competitiveness in key goods and services sectors which have potential for further integration. It also includes a box on definitions and data related to value chain analysis.

Overview

Trade integration is very important for ASEAN, especially participation in global supply chains. This is particularly the case of electronics and other parts and components. However, supply chains are increasingly less global and more dominated by Asian players, especially China.

The participation of ASEAN in the value chain is mostly downstream. In other words, ASEAN economies import a large share of intermediate goods, with which they produce goods for re-export. Hence, they are very dependent on the rest of the world to re-export, and the value added produced domestically is rather limited. This is no longer the case for China. In fact, a good part of the intermediate goods imported by ASEAN economies come from China, as the latter has moved up the production ladder in the past couple of decades.

ASEAN does not import as many intermediate products from the EU for re-export as it does from China (or Japan or the Republic of Korea (henceforth, Korea)) or even the United States (US). Furthermore, the relative importance of the EU as a provider of intermediate goods for ASEAN to re-export is waning. This is even more true for the UK.

In sectoral terms, electronics are critical in the participation of ASEAN economies in the global supply chain, but with a very important characteristic: ASEAN imports most intermediate goods from China to re-export, but most of ASEAN’s exports of intermediate – or final – goods go to the West. In other words, Asia’s value chain is increasingly asymmetrical in China’s favour. This makes it hard for the UK to benefit as much as could have been the case in the past before China acquired such a central role in the production of parts and components.

The mirror of China’s centrality in the global supply chain is that the share of the UK – or even the EU – in key areas of the supply chain has been shrinking, especially in electronics. Trade in business services, however, has increased significantly. This trend is shared to a lesser extent by EU economies. The question is how far the UK can go without a trade deal which includes further liberalisation in trade in services.

Against such a backdrop, the UK should look at ASEAN as an area of great potential, not only for its current size – but most importantly, potential – given its population dynamics. However, the law of gravity makes it very difficult for the UK to carve out a space in a region increasingly dominated by China. This is not only the case of trade in goods, which has been fostered by China’s rapidly increasing role in the global supply chain and its fast move up the production ladder, but also beyond trade issues. China is very engaged in building hard and digital infrastructure in ASEAN as well as developing
common standards. The longer the UK waits to become a full member of the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), the harder it will be to carve out market share even in services, especially digital services.

Our findings call for a swift move towards speedy accession to the CPTPP as well as any other form of bilateral deals. The recently announced free trade agreement between the UK and Australia is a good example, given Australia’s close integration with ASEAN – both economically and politically.

**Box 4.1: Data Description and Definitions**

**Value chain framework**

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) used throughout chapter 3 do not capture these complex relations.

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 (intermediate demand) and production used for final consumption or investment (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 relations defined in the input–output framework.

**Definitions**

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 foreign 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 could 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 (backward participation) and the supply of inputs to a non-member for its exports to a third country (forward participation).

**Sectoral approach**

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 throughout this chapter 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 could 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 as the one used in chapter 3.

Database

Annual data in nominal United States (US) dollars are sourced from the 2018 release of the Organisation for Economic Co-operation and Development (OECD) Trade in Value Added database (TiVA), which covers 2000–2015 (OECD, 2018).* Country coverage includes, amongst others, all 27 European Union (EU) member countries, the United Kingdom (UK), the US, China, Japan, India, the Republic of Korea, and eight of the 10 Association of Southeast Asian Nations (ASEAN) Member States (Brunei Darussalam, Cambodia, Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Viet Nam).

Sectoral data correspond to codes from the International Standard Industrial Classification of All Economic Activities (ISIC) at the two-digit level (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 (ISIC codes 10–12), textiles (13–15), petroleum products (19), chemicals and pharmaceuticals (20–21), metals (24–25), electronics (26), machinery and equipment (27–28 & 30), motor vehicles (29), and other activities (other manufacturing). In turn, business services are disaggregated into trade activities (ISIC codes 45–47), transportation (49–53), information and communication technology (ICT) services (58–63), and other activities (other business services).

* An update with data until 2018 is expected during 2021.

** No data were available for the Lao People’s Democratic Republic and Myanmar.

Source: Authors.

ASEAN trade integration

Countries’ participation in global value chains (GVCs), as measured by the value added generated in a country that crosses at least two borders in international trade relative to gross exports (see Box 4.1 for detailed definitions of GVC concepts used throughout this chapter) reached a peak at the global level in 2008 and progressively declined afterwards.¹ This feature also included Asian economies and the ASEAN region (Figure 4.1).

From a more structural perspective, the degree of GVC participation for ASEAN is high by global standards (Figure 4.2), both when considering the average for its Member States and in terms of regional participation in GVCs. This reflects the global orientation of ASEAN regional value chains – in contrast with the internal market orientation of EU trade networks.

By type of participation, the share of foreign value added in gross exports (FVA) – or backward integration – accounts for almost two-thirds of ASEAN participation in GVCs, stressing its global

¹ The database used in this chapter covers 2000–2015, as indicated in Box 4.1. Unfortunately, data for GVC analysis are published with a substantial delay and the available sample does not allow a thorough analysis of recent trends – particularly the effect of the coronavirus disease (COVID-19) outbreak. For the latter, higher-frequency but indirect and partial metrics are used in chapter 5 to provide insights on potential GVC reshuffling originated by the pandemic.
upstream position as final exporter (Figure 4.2). This contrasts with the predominant role of the share of domestic value added in foreign exports (DVX) – or forward integration – in the US and Japan, both specialised in intermediate exports.

ASEAN integration with the main developed economies has declined since its peak in the late 2000s, keeping a steady negative trend vis-à-vis the US and Japan, while we observe a partial recovery with respect to the EU. On the other hand, ASEAN has become increasingly integrated with the two largest Asian economies, particularly with China, which has become the main individual partner in GVCs.

ASEAN integration has progressively shifted away from developed to developing economies, particularly reflecting what is known as ‘China centrality’ in GVCs (Figure 4.3). Within developed economies, a steady negative trend has been observed for ASEAN integration with the US and Japan since its peak in the late 2000s. In contrast, a partial recovery took place in recent years with respect to the EU, which remains the main integration partner for ASEAN amongst developed economies.

On a structural basis, the GVC integration of ASEAN with other economies predominantly corresponds to backward participation, i.e. importing foreign products that are incorporated into ASEAN exports (Figure 4.4). This is particularly strong vis-à-vis the US and Japan, while it is more balanced with the rest of the world. Interestingly, the nature of bilateral integration has changed over time, positioning ASEAN more upstream with respect to the EU and downstream with respect to China, accounting for a larger participation of Chinese inputs in ASEAN exports.
The degree of integration within an economic bloc can be measured by the size of its regional value chain, which corresponds to the sum of foreign supplies imported from non-members and used in exports to other member countries (backward participation) and inputs exported by a member state that are re-exported within the regional borders to a third country (forward participation).

According to this definition, the integration of the ASEAN regional trade network has remained very low (Figure 4.5), particularly when compared with the extensive multi-country production network of the EU, as well as with the aforementioned high GVC participation of ASEAN. These contrasts highlight the external orientation of ASEAN regional trade as opposed to the more internal-oriented single market in the EU.

From a country perspective, the main partners of ASEAN Member States (AMS) in GVC participation correspond either to other ASEAN economies, the EU, or China. Integration with China has increased in recent years in all cases, particularly for Cambodia, Malaysia, the Philippines, Thailand, and Viet Nam (Figure 4.6). As mentioned before for ASEAN as a region, increasing backward participation has been the main contributor to this push towards further integration with China, with Chinese inputs having reached close to 15% of the gross value of Vietnamese exports in 2015.
ASEAN = Association of Southeast Asian Nations, EU = European Union, RVC = regional value chain.

Notes: See Box 4.1 for the definition of RVC participation. ASEAN refers to eight of its 10 Member States: Brunei Darussalam, Cambodia, Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Viet Nam. EU refers to the member countries as of 2013–2019. Source: OECD (2018).

Moving to the sectoral composition of trade integration (see Box 4.1 for details), manufacturing exports concentrate the vast majority of GVC participation across all main global economies, reflecting both a higher degree of tradability and a more internationally fragmented value chain (Figures 4.7 and 4.8).

Having said that, certain specialisation is observed across different economic areas. For instance, China, Japan, and Korea show a higher share in manufacturing GVC participation by exporting sector, particularly as purchasers of foreign inputs (backward participation). On the opposite side, the EU and India are relatively specialised in GVC participation for business services exports, while the US and ASEAN show a mixed picture.

ASEAN = Association of Southeast Asian Nations, BN = Brunei Darussalam, CM = Cambodia, GVC = global value chain, ID = Indonesia, MY = Malaysia, PH = Philippines, SG = Singapore, TH = Thailand, VN = Viet Nam.

Notes: See Box 4.1 for the definition of GVC participation. No data were available for the Lao PDR and Myanmar.

ASEAN = Association of Southeast Asian Nations, avg. = country weighted average, EU = European Union, GVC = global value chain, US = United States. Notes: See Box 4.1 for the definition of backward GVC participation and sectors. ASEAN refers to eight of its 10 Member States: Brunei Darussalam, Cambodia, Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Viet Nam (no data were available for the Lao PDR and Myanmar). EU refers to the member countries as of 2013–2019.


Heterogeneity is larger at a more disaggregated level. For instance, when looking into GVC participation in manufacturing exports, the EU, the US, and Japan are relatively specialised in backward integration for motor vehicles and machinery and equipment exports, while China and ASEAN are specialised in backward integration for electronics, food, and textiles (Figure 4.9).

Specialisation patterns are less intense in terms of forward GVC participation (Figure 4.10), although still significant for some manufacturing exports: motor vehicles and chemicals and pharmaceuticals for the EU and the US, textiles for China and India, and electronics for Korea and ASEAN.
When looking into the bilateral integration of ASEAN with other economic areas, the sectoral composition would in principle reflect ASEAN export specialisation for backward GVC participation and partners’ specialisation for forward GVC participation.

For instance, ASEAN GVC integration in manufacturing exports is characterised by the pivotal role of electronics. In terms of backward integration, electronics accounts for the largest share vis-à-vis all partners, being slightly higher relative to developed countries (Figure 4.11), while the picture is rather heterogeneous for forward participation manufacturing, observing the largest sectoral shares in bilateral integration with China and Korea (Figure 4.12).

A similar characterisation could be drawn for the second largest sectoral category in ASEAN GVC participation – machinery and equipment – which shows a relatively homogeneous share in backward integration and a significantly higher weight with developed economies in forward integration.
At the country level, sectoral specialisation in GVC participation across AMS is rather heterogeneous, reflecting overall production resources and capabilities, as well as competitive advantages within regional and global trade networks.

Heterogeneity is already observed when using broad sectors and is particularly acute in terms of backward participation (Figure 4.13). For instance, while 70% of GVC-related foreign value added is used for mining exports in Brunei Darussalam, the rest of the AMS concentrate backward integration in manufacturing and business services exports, with manufacturing more dominant in Viet Nam and business services more dominant in Singapore.

The composition of forward GVC participation is more homogeneous at this level of analysis, reflecting similarities in the export composition of ASEAN partners (Figure 4.14). Again, Singapore is the exception – showing a marked specialisation in providing inputs for business services exports.
Trade integration between ASEAN and the UK

GVC integration between ASEAN and the UK is asymmetrical in both its characterisation and evolution. Backward participation accounts for the largest share from the ASEAN perspective (Figure 4.15) and forward participation is the main contributor from the UK’s side (Figure 4.16), showing its input exporter specialisation. As for gross trade flows covered in chapter 3, bilateral integration has become less important for ASEAN, particularly in terms of backward participation, while it has remained relatively stable from the UK perspective.
ASEAN = Association of Southeast Asian Nations, GVC = global value chain, UK = United Kingdom. Notes: See Box 4.1 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 were available for the Lao PDR and Myanmar). Source: OECD (2018).

From a country perspective, the most significant bilateral integration is observed between Singapore and the UK (Figures 4.17 and 4.18), reflecting the offshore nature of Singapore and holding from the perspective of both partners. For the rest of the AMS, it has remained relatively limited, particularly for commodity exporting countries such as Brunei Darussalam, Cambodia, and Indonesia.
When looking into the sectoral composition of integration between the UK and ASEAN (Figure 4.19), the first noticeable feature is the relatively high share of business services when compared with the overall structure of ASEAN GVC participation (Figures 4.7 and 4.8), reflecting the UK’s specialisation in service activities. Furthermore, the share of bilateral integration in business services has been rising over time in both directions (Figure 4.15). More disaggregated data show that this increase has been mainly driven by financial and professional services.

Nevertheless, as in the global perspective, most of the bilateral integration between ASEAN and the UK is in manufacturing exports (Figure 4.19). Within this sector, UK inputs for ASEAN electronics exports (backward participation) account for the largest share, although it has declined over time (Figure 4.20). On the other hand, machinery and equipment is the main category in ASEAN inputs for UK manufacturing exports, followed by motor vehicles. In both cases, the share has increased in recent years.
ASEAN = Association of Southeast Asian Nations, GVC = global value chain, UK = United Kingdom.
Notes: See Box 4.1 for the definition of GVC participation types and sectors. ASEAN refers to eight of its 10 Member States: Brunei Darussalam, Cambodia, Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Viet Nam (no data were available for the Lao PDR and Myanmar).

Trade integration between ASEAN and the EU compared with the UK

GVC integration between ASEAN and the EU is much more significant from the perspective of ASEAN, which can be explained by both the EU’s larger economic size and the internal orientation of its regional production network (Figures 4.21 and 4.22). In recent years, the picture has slightly changed, with the EU becoming less relevant for ASEAN and ASEAN becoming more relevant for the EU as an input provider.

When compared with the UK, GVC integration between ASEAN and the EU is not as asymmetrical as in the previous section (Figures 4.15 and 4.16), although it still confirms the ASEAN downstream GVC specialisation.
By partner, and from the ASEAN perspective, Germany has consolidated its position as the most relevant integration EU counterpart, maintaining relatively stable GVC participation in its exports (Figure 4.23). This contrasts with the declining relevance of other EU countries, such as France, Italy, and Spain – a similar trend to the one described for the UK in the previous section.

On the other hand, the relevance of integration with ASEAN has increased for a number of EU countries since the Great Recession in 2008 (Figure 4.24) – for the Netherlands in particular – while it has remained stable over the whole period for Spain (similar to what was previously noted for the UK). Still, given ASEAN’s economic size and growth perspective, bilateral integration with ASEAN remains generally low.
ASEAN = Association of Southeast Asian Nations, EU = European Union, GVC = global value chain, UK = United Kingdom.

Notes: See Box 4.1 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 were available for the Lao PDR and Myanmar).

In sectoral terms, the bilateral integration of ASEAN with the EU, as concluded in the previous section for the UK, shows both a differentiated nature relative to overall sectoral specialisation patterns, as well as significant changes over time.

At a broad sectoral level (Figure 4.25), in line with global patterns, most of the bilateral integration between ASEAN and the EU is for manufacturing exports. However, the share in both the backward and forward GVC participation of business services has increased over time, and it is not only particularly high when compared to ASEAN specialisation patterns, as was the case for the UK, but also in the opposite direction (i.e. ASEAN inputs used in EU business services exports). ASEAN–EU integration in business services has been driven by information and communication technology (ICT) services in contrast to the leading role of financial and professional services observed for the UK.

Within manufacturing exports, changes over time have been very similar to those of ASEAN–UK integration, with the significant decline in bilateral GVC participation for electronics exports being the most distinctive feature (Figure 4.26), while an opposite trend was observed for machinery and equipment, particularly for the participation of ASEAN supplies in EU exports (ASEAN forward integration).
Main takeaways for UK opportunities in ASEAN

The UK, in line with the trend for the EU, but possibly even more so, has so far missed ASEAN as an export market. This is true for final goods but, possibly, to a larger extent for intermediate goods. The latter is particularly important since ASEAN region is becoming increasingly integrated in the global supply chain and in which China is playing an increasingly central role. It may seem difficult for the UK to make great strides on this front for a number of reasons. First, China’s positive growth differential with the UK is here to stay, even if China’s growth is expected to slow down in the following decade and even more sharply after 2035. Second, China’s growing market size and the push to remain relevant in the industrial space with stepped up innovation will make it very hard for ASEAN to turn towards suppliers of intermediate goods other than China. Third, China has stepped up efforts to reduce trade barriers with ASEAN, the best example of which is the Regional Comprehensive Economic Partnership, signed in November 2020. Both the size and improved market access make China hard to beat as regards intermediate goods. Still, the UK has a comparative advantage in services, especially finance and education, which is rather untapped.

Furthermore, in the UK Government’s overarching international policy objectives to 2025, an important objective is to establish an open and innovative digital economy, where the UK would strive to remain a global services, digital, and data hub and continue to be one of the world’s most open economies. ASEAN, on the other hand, is working towards greater participation in the GVCs of the
new digital economy and increasing its trade in services. The UK could be an important and reliable
partner for ASEAN to engage in the value chain of a more digitalised global economy through a
spectrum of cooperation in infrastructure, regulatory frameworks, data flow, and security related to
services trade.

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