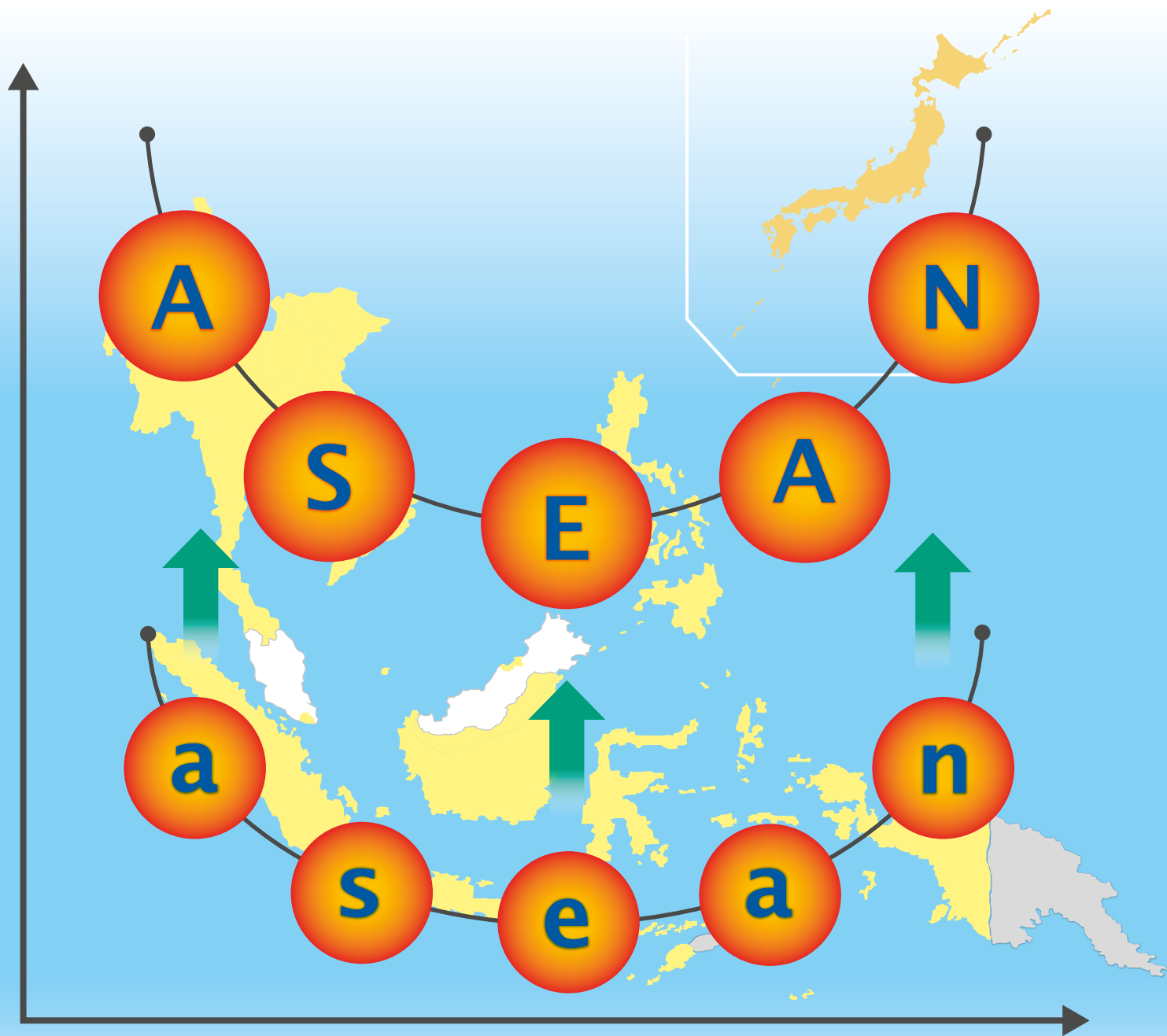


Global Value Chains in ASEAN

Malaysia

PAPER 6

J U L Y
2021



ASEAN-JAPAN CENTRE

ASEAN Promotion Centre on Trade, Investment and Tourism



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NOTES

The terms “country” and “economy” as used in this study also refer, as appropriate, to territories or areas. The designations employed and the presentation of the material do not express any opinion whatsoever on the part of the ASEAN-Japan Centre (AJC) concerning the legal status of any country, territory, city, or area, or of the authorities, or of delimitations of frontiers or boundaries.

The tables use the following symbols:

- Two dots (..) indicate that data are not available or are not separately reported.
- A dash (-) indicates that the item equals zero or its value is negligible.
- Use of an en-dash (–) between dates representing years, e.g., 2015–2016, signifies the full period involved, including the beginning and end years.
- Reference to “dollars” (\$) means United States dollars (USD), unless otherwise indicated.

List of papers under the AJC project on global value chains in ASEAN

The current paper is the sixth of a series of 16 papers on ASEAN GVCs and the final in this series. All of the remaining 15 papers have been already published.

Paper 1. A Regional Perspective (first published in September 2017; revised in January 2019)

Paper 2. Brunei Darussalam (published in February 2018)

Paper 3. Cambodia (published in March 2019)

Paper 4. Indonesia (published in June 2021)

Paper 5. Lao People’s Democratic Republic (published in March 2021)

Paper 6. Malaysia

Paper 7. Myanmar (published in February 2021)

Paper 8. Philippines (published in July 2017)

Paper 9. Singapore (published in August 2018)

Paper 10. Thailand (published in March 2019)

Paper 11. Viet Nam (published in May 2020)

Paper 12. Automobiles (published in January 2020)

Paper 13. Electronics (published in March 2021)

Paper 14. Textiles and Clothing (published in March 2020)

Paper 15. Agribusiness (published in March 2020)

Paper 16. Tourism (published in March 2018)

Prepared by Juita Mohamad (Institute of Strategic and International Studies Malaysia) and Upalat Korwatanasakul (United Nations University) under the direction of Masataka Fujita (AJC). The authors wish to thank AJC staff members for their contributions. The manuscript was edited by Tora Estep and typeset by Laurence Duchemin. Errors and omissions are only those of the authors and should not be attributed to their organizations.

ACRONYMS AND ABBREVIATIONS

ASEAN	Association of Southeast Asian Nations
CMCO	Malaysian Conditional Movement Control Order
DFTZ	Digital Free Trade Zone
DVA	domestic value added
DVX	domestic value added incorporated in other countries' exports
E&E	electrical and electronic
FDI	foreign direct investment
FVA	foreign value added
GDP	gross domestic product
GVC	global value chain
ICT	information and communications technology
MCO	Malaysian Movement Control Order
MSMEs	micro, small and medium-sized enterprises
RM	Malaysian ringgit
RVC	regional value chain
SMEs	small and medium-sized enterprise
SPV	Shared Prosperity Vision
TFP	total factor productivity
UNCTAD	United Nations Conference on Trade and Development
USD	United States dollar

KEY MESSAGES

Deeply involved in global value chains (GVCs), Malaysia has boosted its export volume and overall production. Despite a large drop in the share of foreign value added (FVA) in exports—the value of exports attributed to foreign countries—after 1995, the volume of value added in exports (sum of domestic value added and FVA) and of total exports increased approximately 12 times between 1990 and 2019.

Malaysia, one of the Southeast Asian Tigers, manifested a growth miracle that brought the country close to the developed economy threshold. The key to the growth miracle was a combination of modern industrialisation and export-oriented policies.

Trade and investment partners such as ASEAN, China, Japan and the United States have contributed significantly to Malaysian value added exports.

Leveraging its domestic inputs and capacities, Malaysia is an important contributor of electrical and electronic components and subsystems and a significant business services provider at regional and global levels.

Malaysia may benefit from GVC participation in terms of both economic growth and foreign direct investment.

Digitalization and the digital economy enable the small and medium-sized enterprise community to thrive and contribute to GVCs and regional value chains.

Malaysian policies on digitalization and the digital economy support and strengthen GVC activities.

Policy recommendations that will ensure that digital trade continues to encourage inclusiveness in Malaysia, ASEAN and beyond include

- Enhancing digital infrastructure building and bridging the digital divide,
- Emphasizing capacity building and best practices,
- Developing skilled workers and
- Ensuring fair entry into digital trade zones.

INTRODUCTION

This paper is the sixth in a series of 16 papers on global value chains (GVCs) in ASEAN by the ASEAN-Japan Centre (AJC) (box 1). It illustrates the emergence and growing significance of trade through GVCs. Participating in GVCs yields Malaysia several benefits, such as internationalization of its comparative advantage (Engel and Taglioni, 2017), technological transfer and upgrading (Hausmann, 2014). This paper not only maps out Malaysian GVCs but also discusses and provides policy suggestions on how digital technologies and digitalization can help engage small and medium-sized enterprises (SMEs) in the regional value chains (RVCs) and GVCs.

Box 1. GVC work undertaken by AJC

This paper is part of a multiyear and first-phase research effort, producing annual value chain data for individual member countries of ASEAN and analytical papers based on these data. This Malaysia paper concludes a 16-paper series of ASEAN GVCs.

The first year (FY2016) generated basic data sets for ASEAN as a group and for individual member states, which are updated regularly and used in the present paper. In the following years (FY2017–FY2021), 15 papers were produced: nine country papers on Brunei Darussalam (Paper 2), the Philippines (Paper 8), Singapore (Paper 9), Cambodia (Paper 3), Thailand (Paper 10), Viet Nam (Paper 11), Myanmar (Paper 7), Lao People’s Democratic Republic (Paper 5) and Indonesia (Paper 4), in chronological order; five industry papers on tourism (Paper 16), automobiles (Paper 12), agribusiness (Paper 15), textiles and clothing (Paper 14) and electronics (Paper 13); and a regional paper (Paper 1). In the next phase AJC will continue to produce evidence-based, policy-oriented technical papers while maintaining and updating the GVC database.

This work also reinforces AJC’s technical cooperation programme in trade and investment by identifying sectors to target for promotional activities in terms of value chains. It assesses the size and significance of economic partnerships between ASEAN and Japan through GVCs in different sectors, in part to identify sectors for which AJC should make more promotional efforts and should try to derive synergies between its technical cooperation efforts and its analytical contributions. The programme has produced the following two outputs:

Output 1: Creation of the database on ASEAN GVCs

Based on the United Nations Conference on Trade and Development (UNCTAD)–Eora GVC database and additional data construction for ASEAN countries, a unique database on GVCs was established for 10 ASEAN member countries, with a special emphasis on Japan as a partner. Other important partners of ASEAN such as China and the Republic of Korea are included. This database uses data on value added trade derived from the Eora global, multiregional input-output table (www.worldmrio.com). AJC’s database is called the AJC-UNCTAD-Eora database on ASEAN GVCs. It has been made public gradually as Eora validates the estimated data on GVCs.

Statistics on value added trade can lead to important policy insights for trade, investment and development. As part of new efforts to conduct research and policy analysis, AJC aims to analyse the relevance, impact and patterns of value added trade and GVCs across ASEAN and in member countries. The database is helpful for this purpose.

.../

Box 1. GVC work undertaken by AJC (Concluded)

Database variables include foreign value added trade, domestic value added trade, value added integrated in other countries' exports and gross exports for 26 industries in Brunei Darussalam and the CLM countries (Cambodia, the Lao People's Democratic Republic and Myanmar), 77 industries in Indonesia and the Philippines, 113 industries in Viet Nam, 154 industries in Singapore, 180 industries in Thailand, 298 industries in Malaysia and 462 industries in Japan, covering initially the period 1990–2013. These data are updated regularly. As of August 2020, the period covering industry data has been updated through 2017. For the bilateral country data, the data have been projected until 2019 by UNCTAD and Eora.

Data are systematically collected and estimated. For comparability among ASEAN countries, the data are presented in a standardized industry classification in the database using the following five variables (see box 2):

- Foreign value added: FVA;
- Domestic value added: DVA;
- Value added incorporated in other countries' exports: DVX;
- GVC participation: FVA + DVX and
- Gross exports (total value added exports): FVA + DVA.

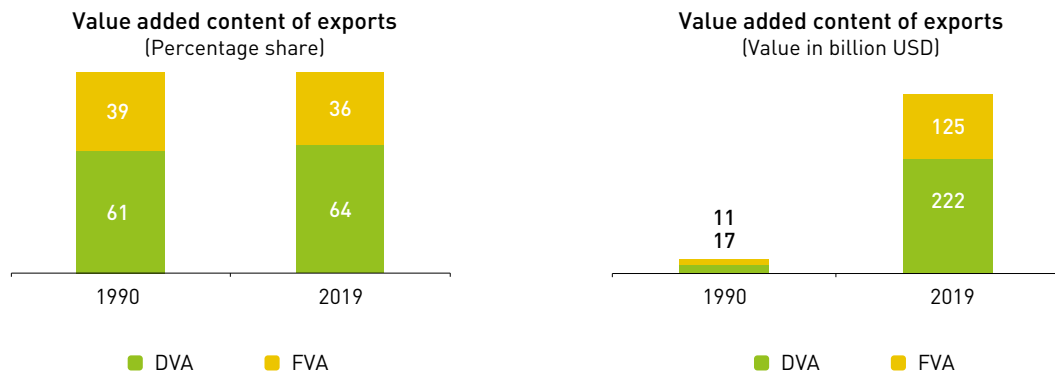
Output 2: 16 evidence-based, policy-oriented technical reports

In a collaborative effort with the Eora project and UNCTAD, the new AJC database has and will be used to assess the patterns, development impact and policy implications of value added trade and investment. Under this multiyear programme, AJC will prepare 16 evidence-based and policy-oriented technical reports (10 country papers, five industry papers and one regional paper).

Deeply involved in global value chains, Malaysia has boosted its export volume and overall production. Despite a large drop in the share of foreign value added in exports after 1995, the volume of value added in exports (both domestic and foreign) and of total exports increased approximately 12 times during the period 1990–2019.

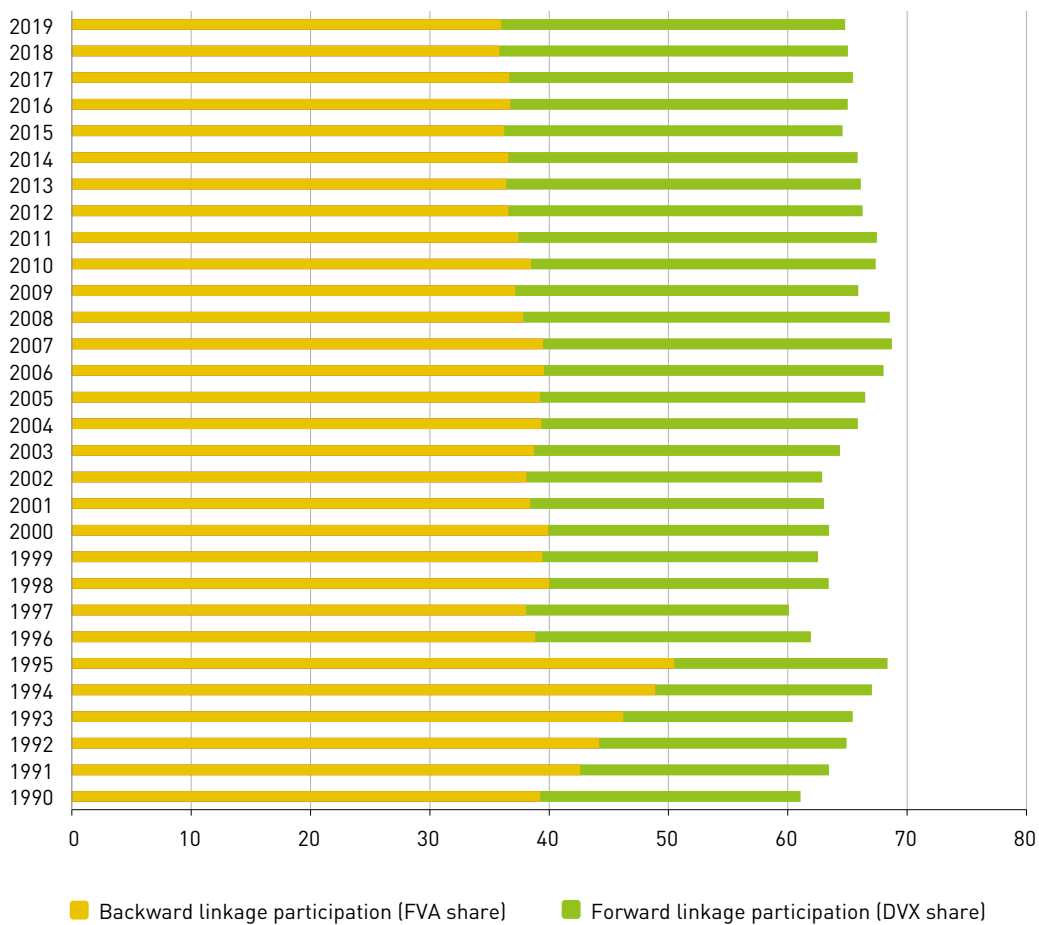
Malaysia has implemented a liberal and transparent trade policy that maintains a high degree of trade openness, with a trade to gross domestic product (GDP) ratio of 123 per cent in 2019 (World Bank, 2020). This helps facilitate Malaysian GVC participation, with the share of FVA in exports at 36 per cent in 2019 (figure 1). FVA is the value attributed to foreign countries that supply parts and components to the exported products and is an important component of GVCs together with other indicators (box 2). Even though the levels of FVA share in 1990 and 2019 are very similar (39 per cent in 1990), the FVA share reached its peak in 1995 at more than 50 per cent but dropped sharply to 39 per cent in the following year (figure 2).

Figure 1. Value added exports from Malaysia, 2019 (USD millions)



Source: AJC-UNCTAD-Eora database on ASEAN GVCs.
 Notes: DVA = domestic value added in exports; FVA = foreign value added in exports.

Figure 2. GVC participation in Malaysia, 1990–2019 (Per cent)



Source: AJC-UNCTAD-Eora database on ASEAN GVCs.
 Note: FVA = foreign value added in exports; DVX = domestic value added incorporated into a third country's exports.

Box 2. GVC terminology used in the AJC paper series

A country's exports can be divided into domestically produced value added and imported (foreign) value added that is incorporated into the country's exported goods and services. Furthermore, exports can either go to a foreign market for final consumption or become intermediate inputs to be exported again to third countries (or back to the original country). GVC analysis accounts for both foreign value added in exports (the upstream perspective) and exported value added incorporated in third-country exports (the downstream perspective). The indicators used in this paper and the other 15 papers in this series are as follows:

1. **Foreign value added:** FVA indicates what part of a country's gross exports consists of inputs that were produced in other countries (annex tables 1-3). The foreign value added share is the share of the country's exports that do not add to its GDP.
2. **Domestic value added:** DVA is the part of exports created in-country, *i.e.*, the part of exports that contributes to GDP. The sum of foreign and domestic value added equals gross exports (annex tables 1-3). Domestic value added can be put in relation to other variables:
 - As a share of GDP, DVA measures the extent to which trade contributes to the GDP of a country.
 - As a share of global value added trade (the "slice of the value added trade pie"), it can be compared with a country's share in global gross exports (relative value capture from trade).
3. **Value added incorporated in other countries' exports:** DVX indicates the extent to which a country's exports are used as inputs to exports from other countries (annex table 4). At the global level, the sum of this value and the sum of foreign value added are the same.
4. **GVC participation** indicates the share of a country's exports that is part of a multistage trade process, by adding to the foreign value added used in a country's own exports and the value added supplied to other countries' exports. Although the degree to which other countries use exports for further export generation may appear less relevant for policymakers, as it does not change the DVA contribution of trade, the participation rate is a useful indicator for the extent to which a country's exports are integrated into international production networks.

The GVC participation rate corrects the limitation of the FVA and DVA indicators in which countries at the beginning of the value chain (*e.g.*, exporters of raw materials) by definition have a low FVA content of exports. It gives a more complete picture of countries' involvement in GVCs, both upstream and downstream.

GVC indicators can also be used to assess the extent to which industries rely on internationally integrated production networks. Although the literature has devised several complex methods to measure GVC length, the degree of double-counting in industries, conceptually, can serve as a rough proxy for the length of GVCs. Data on value added trade by industry can provide useful indications of the comparative advantages and competitiveness of countries and hence form a basis for development strategies and policies.

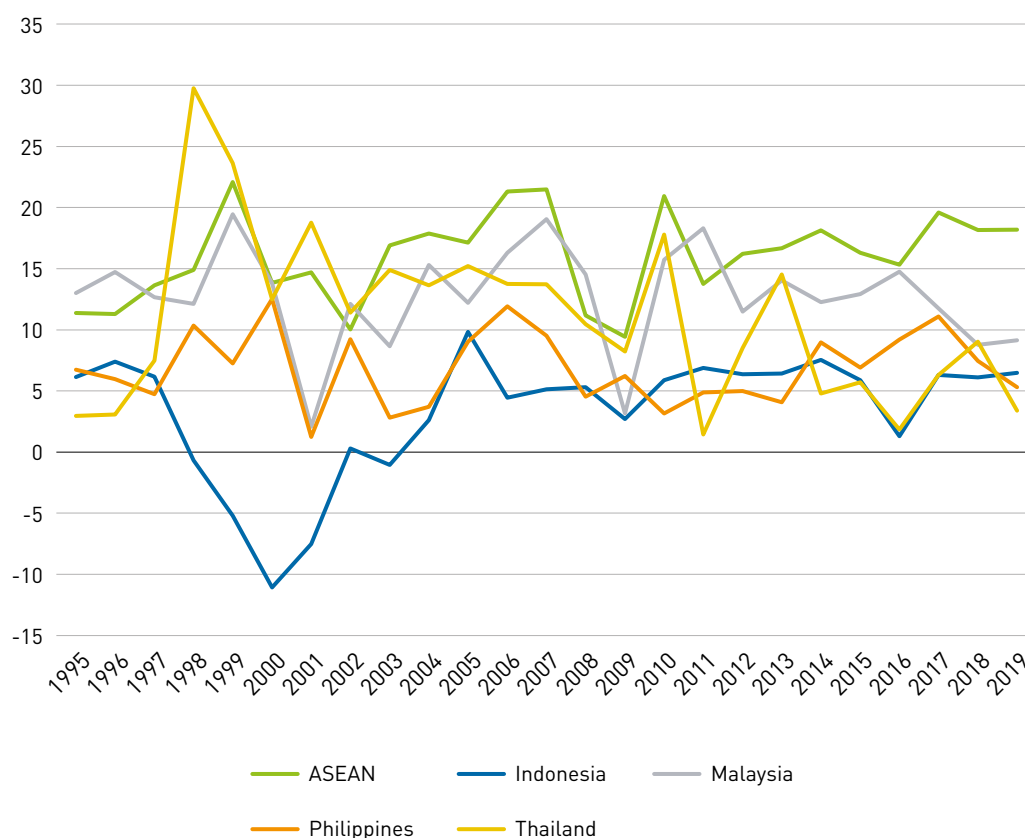
Source: Adapted from UNCTAD (2013).

Until the mid-1990s, Malaysia was relatively dependent on foreign inputs, investment and technologies. During this period, investment in Malaysia accounted for 40 per cent of GDP and concentrated in the manufacturing sector (WTO, 1997). Therefore, capital accumulation rather than efficient allocation (or productivity increases) primarily drove the country's growth. During most of this period, foreign direct investment (FDI) constituted an important source of investment. FDI as a percentage of gross fixed capital formation was higher than or at least about equal to that of other ASEAN countries with the almost same level of development (Thailand, Indonesia and the

Philippines) (figure 3). Indeed, FDI has played an important role in ASEAN’s economic development (Korwatanasakul, 2019; Korwatanasakul and Purbantina, 2021). Foreign investment and technology interplay and are highly regarded and necessary in the initial stage of industrialisation.

While total factor productivity (TFP) growth slowed down and even became negative after the 1997 financial crisis in many countries, Malaysia was able to maintain its steady annual TFP growth thanks to the development of domestic innovation (World Bank, 2018). Increases in value added reflect partly in the increase in the share and volume of DVA in exports; the value that contributes to the country’s GDP. In contrast to FVA, the share of DVA rose from 50 per cent in 1995 to 64 per cent in 2019, indicating less reliance on foreign inputs in producing exports. The volume of DVA increased from United States dollars (USD) 17 billion in 1990 to USD222 billion in 2019 (13 times higher). Overall exports grew at 9 per cent annually during the same period and accounted for USD347 billion in 2019 (12 times greater than that in 1990). Malaysia outperforms other regional countries in terms of nontechnical innovations or functional upgrading such as distribution, management and sales and marketing. Nevertheless, upgrading in terms of process, product and value chain remains relatively weak and needs to be improved to enable Malaysia to escape from the middle-income trap.

Figure 3. FDI inflows as percentage of gross fixed capital formation, 1995–2019 (Per cent)



Source: Data provided by UNCTAD.

This weak structure is observed in the input-output tables. The value added industry structure of the Malaysian economy contrasts strongly with the output industry structure. Among three sectors—the primary, secondary and tertiary sectors—the secondary or manufacturing sector is the largest in terms of output, but is the smallest in terms of value added creation (table 1). Indeed, the value added share of this sector is only half of the output share. Value added created per unit of output is only 20 per cent, half or less than half that of the tertiary and primary sectors. The motor vehicle industry typically does not produce much value added and thus contribute to the country's GDP. The electronics (computer, electronic and optical products in table 1) industry, which is the largest industry in the country, generates even less value added than the agriculture, forestry and fishing industry and the mining industry (table 1). Note that even if the domestic share is large in exports from Malaysia, it does not necessarily mean that value added created within the economy is also large.

The GVC participation rate in Malaysia, or the backward and forward participation in GVCs, is on average 65 per cent and remained stable during 1990–2019 (figure 2). A country can participate in GVCs through either backward GVC participation (backward linkage) as measured by the share of FVA, or forward GVC participation (forward linkage) as captured by the share of domestic value added incorporated in third countries' exports (indirect value-added exports, or DVX) in gross exports. Malaysia mainly participates in GVCs through backward linkage rather than forward linkage as the FVA share (39 per cent) is on average greater than that of DVX (26 per cent). In other words, Malaysia is relatively more specialized in final assembly or final production stages concentrated near the middle stages of GVCs and therefore tends to produce low value added.

However, after 1995, Malaysia put efforts into climbing value chains through functional upgrading in terms of logistics and business operations. This is because policies on local content, especially those targeting the automation industry, were introduced so that SMEs can be included in automation supply chains. As a result, while maintaining its GVC participation level, Malaysia reduced its dependency on foreign inputs (declining FVA share) and promoted more use of domestic products in other countries' exports (rising DVX share), mainly from exports of parts and components of electrical and electronic equipment. The DVX share has been increasing during the 2000s and levelling off since 2008 (annex table 4 for the DVX value). In 2019, the DVX share accounted for 29 per cent, up from 18 per cent in 1995 (figure 2). The increase in DVX share is a positive sign of the Malaysian position in GVCs because Malaysia has been gradually moving away from lower value added activities, or backward linkage participation, to higher value added functions, or forward linkage participation, such as exports of sophisticated electrical and electronic parts and components and business services, e.g., logistics, management, sales and marketing.

Table 1. Value added and output of Malaysia, by sector/industry, 2015

Sector/Industry	Value added at basic prices	Output at basic prices	Value added structure (share of total)	Output structure (share of total)	Ratio of value added to output
	USD million		Per cent		
Primary	68 714	118 911	23.5	15.6	0.58
Agriculture, forestry, and fishing	26 988	47 944	9.2	6.3	0.56
Mining and extraction of energy-producing products	34 438	58 038	11.8	7.6	0.59
Mining and quarrying of non-energy-producing products	4 626	8 318	1.6	1.1	0.56
Mining support service activities	2 662	4 611	0.9	0.6	0.58
Secondary	71 056	340 952	24.3	44.7	0.21
Food products, beverages, and tobacco	8 876	61 589	3.0	8.1	0.14
Textiles, wearing apparel, leather and related products	2 510	8 279	0.9	1.1	0.30
Wood and products of wood and cork (except furniture)	1 273	5 557	0.4	0.7	0.23
Paper products and printing	3 044	10 420	1.0	1.4	0.29
Coke and refined petroleum products	7 492	37 548	2.6	4.9	0.20
Chemicals and pharmaceutical products	7 074	29 268	2.4	3.8	0.24
Rubber and plastics products	3 282	19 240	1.1	2.5	0.17
Other non-metallic mineral products	2 059	9 027	0.7	1.2	0.23
Manufacture of basic metals	2 542	16 195	0.9	2.1	0.16
Fabricated metal products, except machinery and equipment	2 231	8 686	0.8	1.1	0.26
Computer, electronic, and optical products	17 507	85 590	6.0	11.2	0.20
Electrical equipment	2 758	10 579	0.9	1.4	0.26
Machinery and equipment n.e.c.	4 353	12 128	1.5	1.6	0.36
Motor vehicles, trailers, and semi-trailers	1 438	12 133	0.5	1.6	0.12
Other transport equipment	1 140	4 950	0.4	0.6	0.23
Other manufacturing; repair and installation of machinery and equipment	3 480	9 765	1.2	1.3	0.36
Tertiary	152 754	303 392	52.2	39.7	0.50
Electricity, gas, water supply, sewerage, waste, and remediation services	8 108	16 845	2.8	2.2	0.48
Construction	7 688	23 445	2.6	3.1	0.33
Wholesale and retail trade; repair of motor vehicles	36 892	58 289	12.6	7.6	0.63
Transportation and storage	10 512	32 422	3.6	4.2	0.32
Accommodation and food services	7 005	16 296	2.4	2.1	0.43
Publishing, audiovisual, and broadcasting activities	1 998	3 887	0.7	0.5	0.51
Telecommunication	6 456	19 009	2.2	2.5	0.34
IT and other information services	2 930	6 445	1.0	0.8	0.45
Financial and insurance activities	26 496	48 300	9.1	6.3	0.55
Real estate activities	8 843	12 912	3.0	1.7	0.68
Other business sector services	6 592	13 422	2.3	1.8	0.49
Public administration and defence; compulsory social security	11 983	22 883	4.1	3.0	0.52
Education	9 803	12 894	3.4	1.7	0.76
Human health and social work	2 042	5 079	0.7	0.7	0.40
Arts, entertainment, recreation, and other service activities	4 936	10 794	1.7	1.4	0.46
Private households with employed persons	471	471	0.2	0.1	1.00
All industries	292 523	763 255	100.0	100.0	0.38

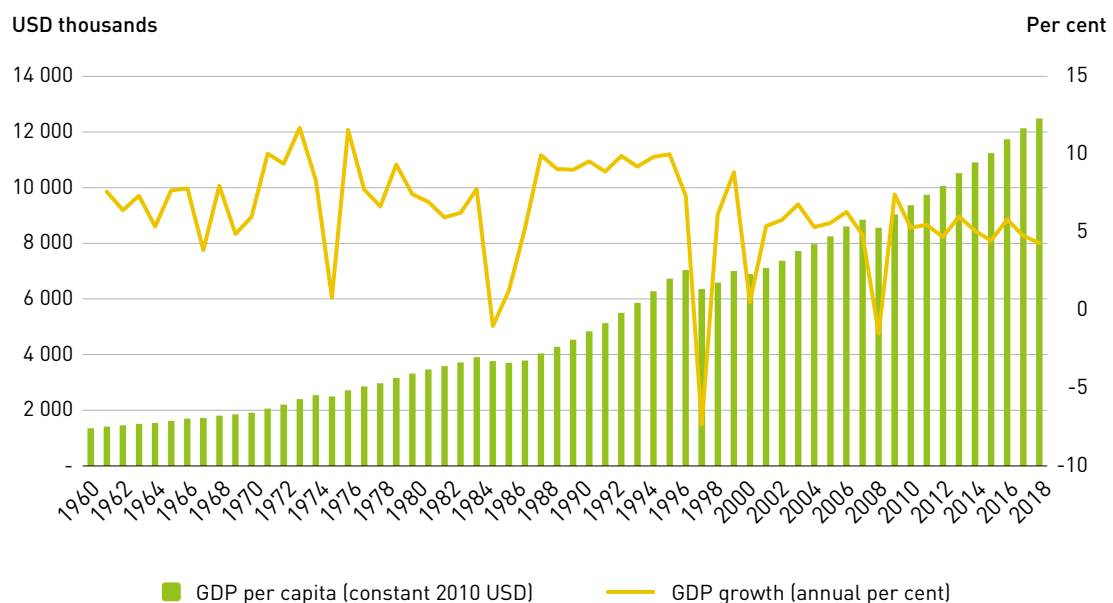
Source: OECD Input-Output Table (www.stats.oecd.org).

Note: n.e.c. = not elsewhere classified. IT = information technology.

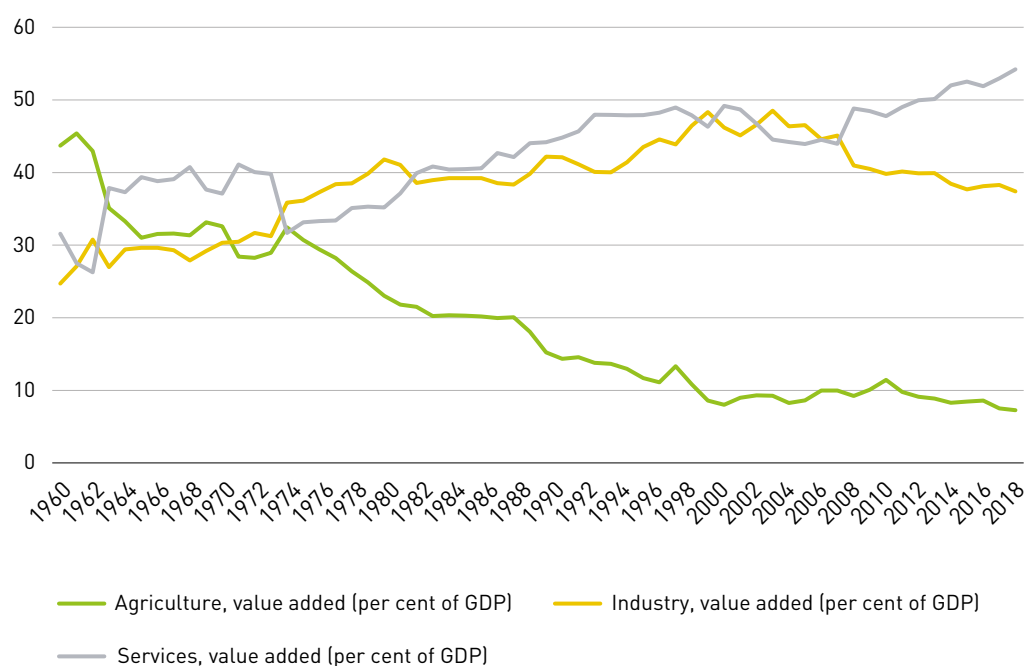
Malaysia, one of the Southeast Asian Tigers, manifested a growth miracle that brought the country close to the developed economy threshold. The key to the growth miracle was a combination of modern industrialisation and export-oriented policies.

Since the early 1960s, Malaysia has been considered one of the most successful economies in ASEAN and in Asia in general. Apart from Brunei Darussalam and Singapore, Malaysia was the only ASEAN nation that came close to the high-level income group level as defined by the World Bank. Malaysian real GDP grew by an average of 6 per cent per year from 1960 to 2019, while per capita GDP has increased substantially from USD1,354 to USD12,487 during the same period (figure 4). The country reached its peak in 1973 with a real GDP growth of almost 12 per cent due to its participation in GVCs through the development of export-oriented manufacturing industries such as textiles, electrical and electronic goods, rubber products and others. Malaysia went through structural transformation and transitioned from a primitive agriculture-based economy to a newly industrialized economy. This transition began in 1971 when the share of industrial (*i.e.*, manufacturing and mining) value added in GDP outweighed that of agriculture for the first time (figure 5). The industrial sector became even more important and has led Malaysian growth since the 1980s. However, pursuing export-oriented policies exposed the Malaysian economy to volatility risks from external shocks, such as the 1970s energy crisis and the early 1980s recession, which dropped the share of the industrial sector in GDP (figure 5). Growth went below 1 per cent in 1977 and even became negative in 1985 (figure 4). Despite these economic crises, Malaysia was able to bounce back and sustain rapid growth averaging almost 8 per cent annually over 1971–1996. However, in 1997, the Asian financial crisis hit Malaysia severely, resulting in a negative growth rate of –7 per cent—the lowest growth rate in modern Malaysian economic history. The growth miracle ended, and Malaysia has been maintaining its average annual growth at 5 per cent since the crisis.

Figure 4. Real GDP growth and per capita GDP in Malaysia, 1960–2019



Source: AJC compilation based on World Bank (2021).

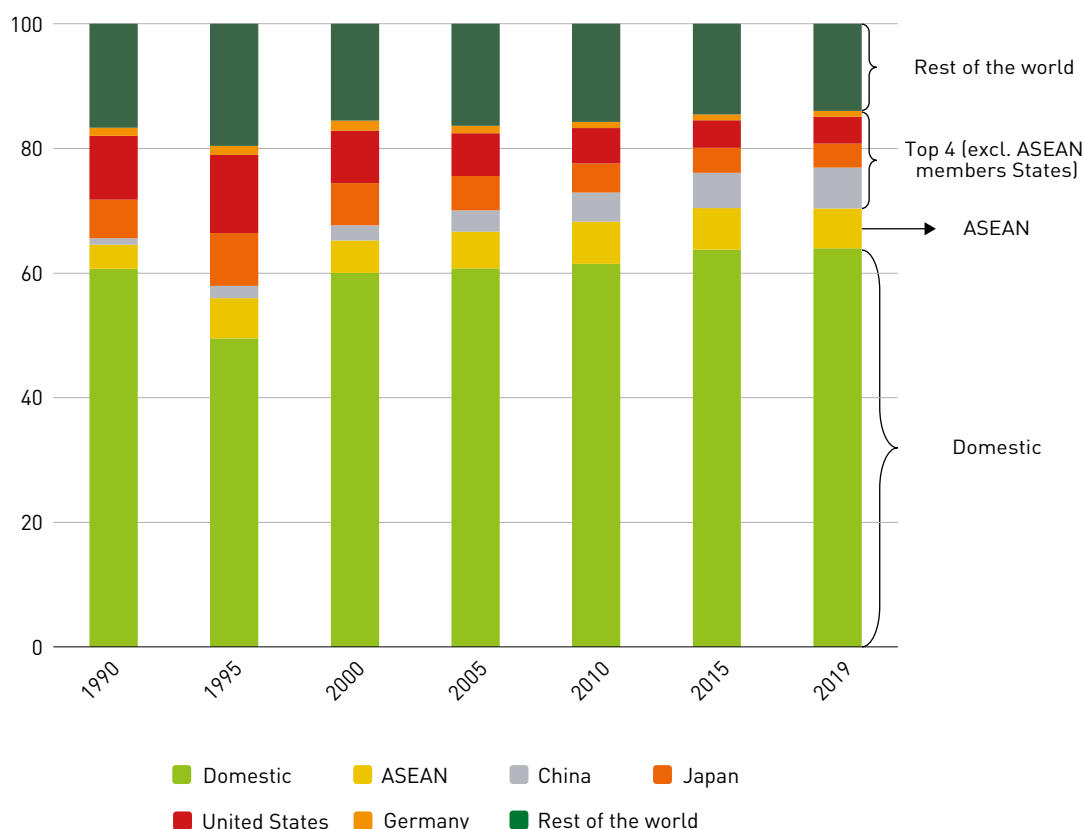
Figure 5. **Structural transformation: net output as percentage of GDP, 1960–2019** (Per cent)

Source: AJC compilation based on World Bank (2021).

Trade and investment partners such as ASEAN, China, Japan and the United States have significantly contributed to Malaysian value added exports.

Since 1990, ASEAN, China, Japan and the United States have been among the largest foreign input suppliers for Malaysian exports (figure 6; annex table 1). Malaysia upgraded in the earlier development stage by involving foreign products. In 1995, when the FVA share reached its peak, Malaysia depended largely on foreign inputs, technologies and investment from the United States, Japan and ASEAN countries, which accounted for more than a quarter of Malaysian value added exports. The shares of FVA created by the United States, Japan and ASEAN were 13 per cent, 8 per cent and 6 per cent, respectively.

Figure 6. Value added exports from Malaysia, by domestic, ASEAN and other top four foreign country value added creators, 1990–2019 (Per cent)



Source: AJC-UNCTAD-Eora database on ASEAN GVCs.

However, the FVA shares of the United States and Japan, the top two foreign country value added creators, have declined and levelled off in the mid-2010s. As the manufacturing sector of Malaysia has been upgrading to the point that it can perform more advanced and sophisticated production rather than mere labour-intensive final assembly, the country imports production materials and inputs more from China and other ASEAN countries. After 1995, Malaysia began to accelerate its upgrading process and leverage its domestic inputs and capacities more, while building closer ties to China and the ASEAN intraregional production network. In contrast to those of the United States and Japan, the FVA shares of ASEAN and China have been increasing since the 1990s. China and ASEAN became the top two foreign country value added creators in 2019, representing the highest FVA share of 7 per cent and 6 per cent, respectively.

Despite their declining roles, however, Japan and the United States remain significant and rank third in terms of value added creators, accounting for 4 per cent each of value added Malaysian exports. Simple inputs imported from Japan and the United States have been replaced by those from China and neighbouring Southeast Asian countries, whereas Malaysia must still rely on advanced technologies and management know-how from developed economies, e.g., Germany, Japan and the United States.

Leveraging its domestic inputs and capacities, Malaysia is an important contributor of electrical and electronic components and subsystems and a significant business services provider at regional and global levels.

In 2017, Malaysian gross exports (FVA + DVA) amounted to USD316 billion, of which 63 per cent was created domestically (table 2). At the sectoral level, the secondary sector (the manufacturing sector) accounted for more than two thirds of gross exports (72 per cent) and DVA exports (67 per cent), equivalent to USD229 billion and USD135 billion, respectively. In contrast, the primary and tertiary sectors represent only 7 per cent and 20 per cent in terms of DVA exports, or USD19 billion and USD46 billion. Thus, the manufacturing sector serves as a main driving force of the Malaysian economy. At the industry level, the top three DVA creators were the electrical and electronic (E&E) equipment industry (36 per cent); the business activity services industry (9 per cent) and the mining, quarrying and petroleum industry (6 per cent). The E&E industry represents more than half of the secondary sector, amounting to USD122 billion and more than one third of total Malaysian gross exports (39 per cent) and DVA exports (36 per cent). Utilizing foreign technologies and know-how, Malaysia successfully enhanced the capabilities of local E&E suppliers and was able to upgrade from simple production to advanced engineering and design of E&E components and subsystems (ASEAN-Japan Centre, 2021). High DVA share in E&E exports (59 per cent) signifies that the industry currently relies largely on local inputs and technology and therefore gains considerably from value added exports, contributing approximately 10 per cent of national GDP (ASEAN-Japan Centre, 2021).

Apart from the E&E industry, the business services sector also contributes significantly to the economy. The overall services sector accounted for 52 per cent of total value added of the economy in 2015 (table 1 and figure 5), is expected to grow at 7 per cent annually and creates more than 9 million jobs (Australian Trade and Investment Commission, 2020). Despite its relatively low DVA share, the business services industry represents 41 per cent of the DVA exports created by the services sector or about USD19 billion, nearly equivalent to the total DVA exports generated from the entire primary sector (table 2 and figure 7). To move up GVCs and achieve developed country status, Malaysia has been advancing the business services sector, which is one of 12 key economic areas identified in the Malaysian Economic Transformation Programme. The business services in focus include creative services, project management, accounting services, systems integration, information technology consulting and outsourcing.

In addition, the petroleum industry under the primary sector coupled with the petroleum product industry under the secondary sector have long been strategic industries in Malaysia. Both industries are well established with mature supporting industries, good infrastructure and an experienced workforce. The DVA share of the petroleum industry represents 66 per cent of the total DVA created within the primary sector or USD13 billion, while the petroleum product industry contributes approximately USD8 billion (table 2; annex table 2). The combined DVA share generated from the petroleum and petroleum product industries accounted for 10 per cent of DVA created in Malaysia, or USD21 billion, close to the level of DVA exports generated from the business services industry.

By balancing domestic and foreign production inputs and technologies, Malaysia aims to transform the country into a knowledge-based economy. The country encourages FDI in higher value added industries such as E&E equipment and business services. Penang is the epitome of a successful E&E cluster in which skill and technological transfer from multinational enterprises to local firms was observed. Building upon foreign technologies and know-how (FVA share of value added exports at 41 per cent), Malaysia could leverage its domestic inputs and capacities (DVA share of value added exports at 59 per cent) and thereby become one of strategic E&E production hubs in the region and the world. While E&E is the largest exporter and value added creator among all industries (table 2), the share of value creation in total production is still small (table 1), implying that room remains for further productivity increases.

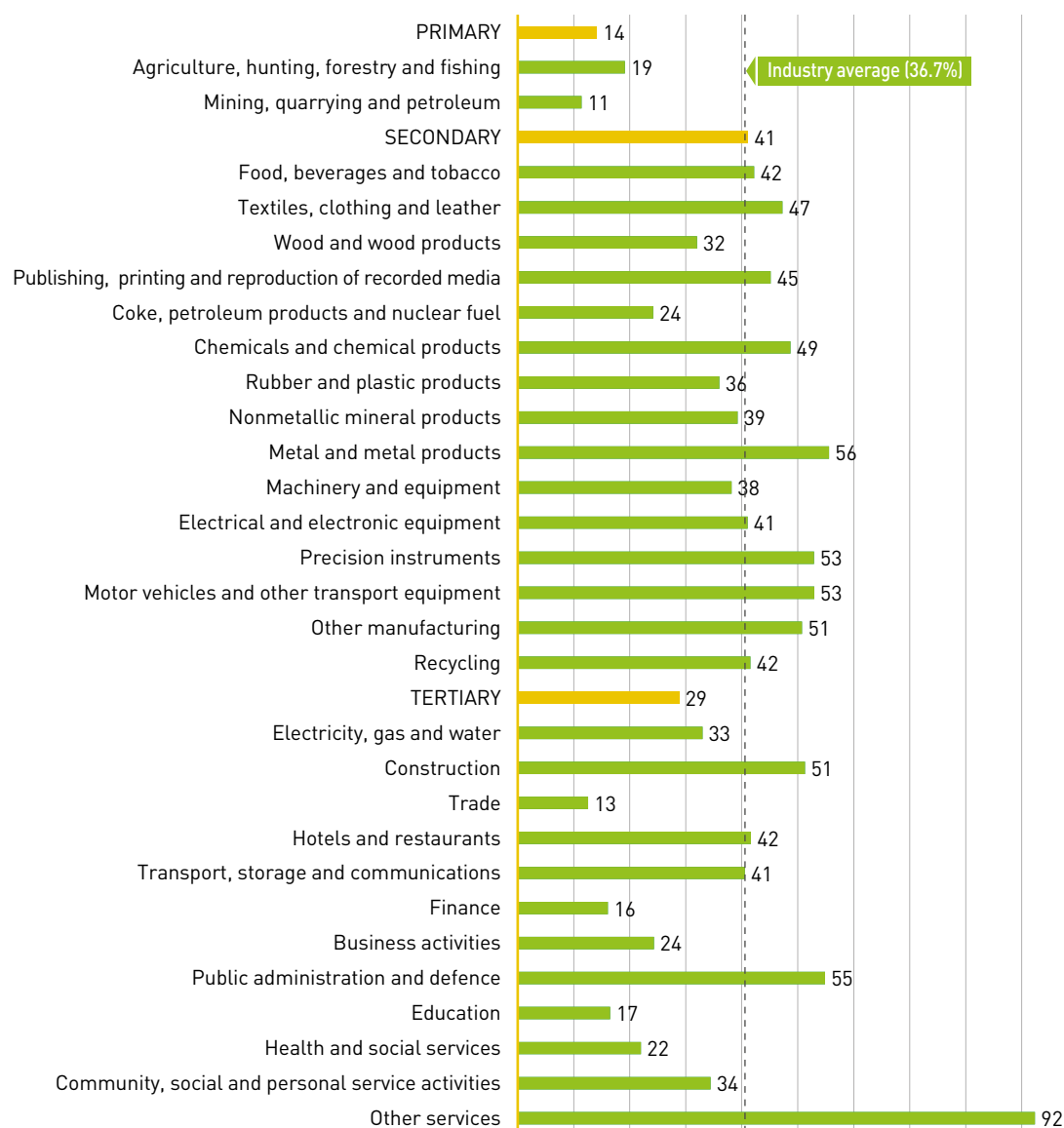
Table 2. Structure of value added exports from Malaysia, by sector/industry, 2017
(USD millions and per cent)

Sector/industry	Gross exports	Domestic value added (DVA)	Foreign value added (FVA)	FVA share in exports (%)
Total	315 554	199 779	115 775	36.7
Primary	22 351	19 188	3 163	14.1
Agriculture, hunting, forestry, and fishing	7 953	6 432	1 521	19.1
Mining, quarrying, and petroleum	14 398	12 756	1 642	11.4
Secondary	228 650	134 638	94 013	41.1
Food, beverages and tobacco	14 008	8 093	5 915	42.2
Textiles, clothing and leather	7 060	3 721	3 338	47.3
Wood and wood products	16 912	11 495	5 417	32.0
Publishing, printing and reproduction of recorded media	659	361	298	45.2
Coke, petroleum products and nuclear fuel	10 549	7 997	2 553	24.2
Chemicals and chemical products	14 297	7 334	6 963	48.7
Rubber and plastic products	8 871	5 678	3 193	36.0
Nonmetallic mineral products	3 565	2 165	1 400	39.3
Metal and metal products	10 375	4 606	5 769	55.6
Machinery and equipment	9 713	6 004	3 709	38.2
Electrical and electronic equipment	122 489	72 218	50 271	41.0
Precision instruments	608	286	322	52.9
Motor vehicles and other transport equipment	2 845	1 339	1 506	52.9
Other manufacturing	6 235	3 069	3 166	50.8
Recycling	464	271	193	41.5
Tertiary	64 545	45 951	18 594	28.8
Electricity, gas, and water	93	62	31	33.0
Construction	1 773	864	910	51.3
Trade	4 769	4 169	600	12.6
Hotels and restaurants	3 141	1 833	1 308	41.6
Transport, storage, and communications	16 233	9 651	6 582	40.5
Finance	6 670	5 597	1 073	16.1
Business activities	24 690	18 688	6 002	24.3
Public administration and defence	429	194	236	54.9
Education	2 200	1 837	363	16.5
Health and social services	624	487	137	22.0
Community, social and personal service activities	3 921	2 570	1 350	34.4
Other services	4	0	4	92.3

Source: AJC-UNCTAD-Eora database on ASEAN GVCs.

Note: Gross exports refer to the sum of domestic value added and foreign value added. For the definition, see box 2.

Figure 7. Malaysia: Share of foreign value added in exports, by industry, 2017 (Per cent)



Source: AJC-UNCTAD-Eora database on ASEAN GVCs.

Furthermore, under the Malaysia Productivity Blueprint, Malaysia emphasises the development and promotion of information and communications technology (ICT) and professional services (close to “business services” in table 2), which are based on high-skilled domestic labour and innovation (DVA share of value added exports at 76 per cent).

The Malaysian GVC participation rate sharply increased from 61 per cent in 1990 to 68 per cent in 1995 (table 3). However, the rate fluctuated during the period 1995–2019 and has declined in the past few years. In contrast, RVC participation has been rising over time thanks to the ASEAN Free Trade Area agreement signed in 1992 and stronger regional production networks. In 2019, the RVC participation rate was 17 per cent, equivalent to almost one third of the GVC participation.

Despite the increasing importance of regional trade and investment, Malaysia remains relatively globally oriented. The trend of backward GVC participation (FVA share) resembles that of overall GVC participation as the level of FVA share jumped from 39 per cent in 1990 to 51 per cent in 1995 and then began to decline (table 3, column A). This declining trend in the FVA share is largely driven by trade and investment with the countries outside ASEAN (column B), while the Malaysian backward linkage with ASEAN countries grows stronger over time (column C). In terms of forward GVC participation (DVX share), the trend was on the rise in 1995–2010 but levelled off thereafter (column D). The DVX share incorporated outside ASEAN has remained around 17–18 per cent since 2005 (column E in table 3), whereas that incorporated within ASEAN has been slightly increasing over time (column F). Hence, the forward linkage is somewhat led by trade and investment within ASEAN. In other words, ASEAN countries have been using inputs imported from Malaysia (e.g., E&E parts and components, E&E subsystems, tradable business services and others) to produce their exports.

In sum, the declining GVC participation rate has largely been driven by the reduction of trade and investment with countries outside ASEAN (column B) because, to some extent, Malaysia managed to develop its own technology and thereby leverage its domestic inputs and capabilities more. In turn, the increasing trend of RVC participation is led by the adoption of Malaysian inputs in other ASEAN countries and the stronger regional production network (column F). For instance, Malaysia became a regional and global hub of E&E equipment production and can therefore distribute E&E parts and components to other ASEAN countries that are part of the E&E regional production network. In addition, the similar levels of backward linkage (29 per cent) and forward linkage (36 per cent) imply that both linkages are important in promoting Malaysian GVC participation.

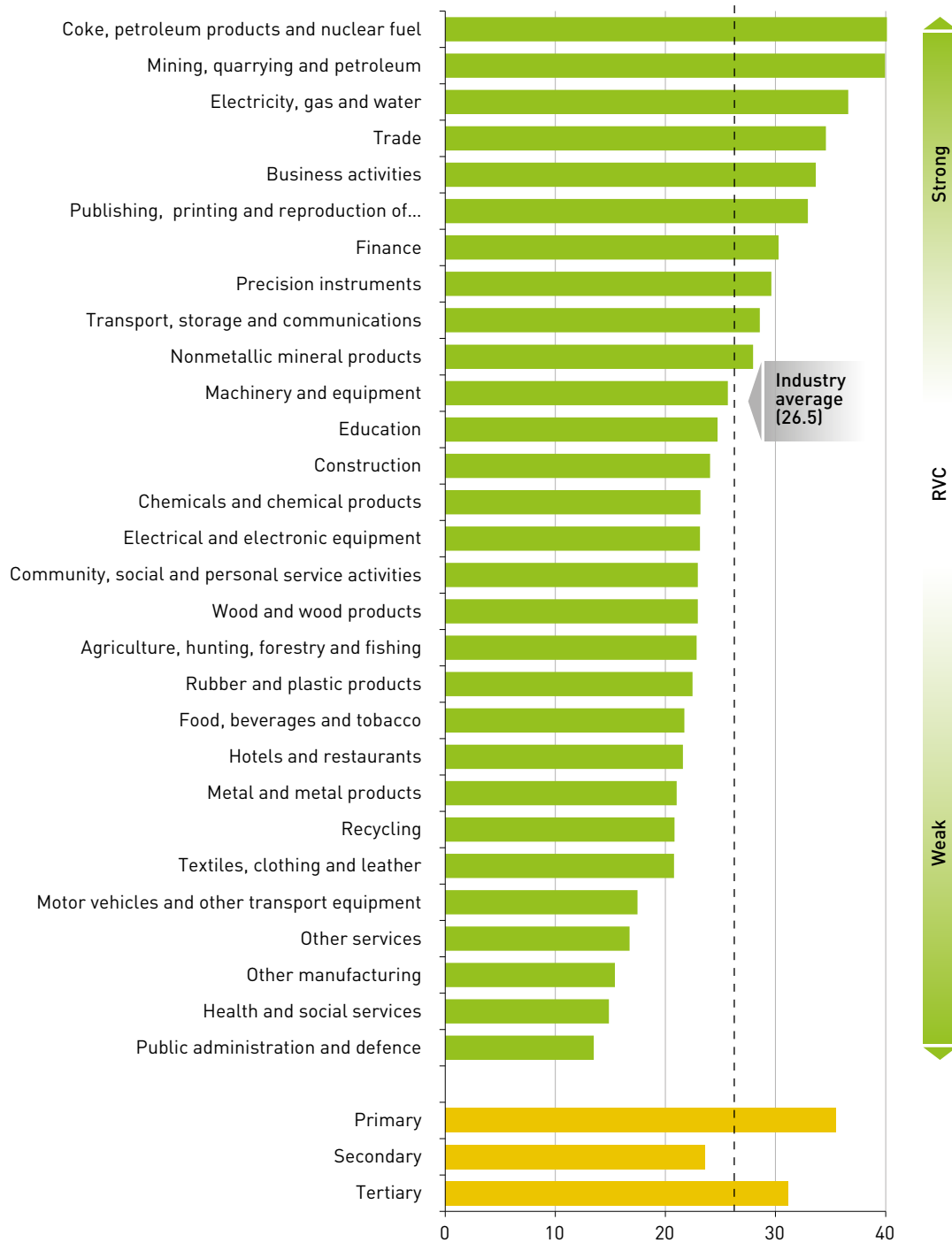
Table 3. GVC and RVC participation in Malaysia, 1990–2019 (Per cent of total exports)

Year	FVA: Foreign value added			DVX: Domestic value added incorporated in other countries' exports			Value chain participation	
	Total (A) = (B+C)	Created outside ASEAN (B)	Created within ASEAN (C)	Total (D) = (E+F)	Incorporated outside ASEAN (E)	Incorporated within ASEAN (F)	GVC participation (A + D)	RVC participation (C + F)
1990	39.3	35.4	3.8	21.8	15.7	6.1	61.1	9.9
1995	50.5	44.0	6.5	17.8	11.3	6.5	68.3	13.0
2000	40.0	34.8	5.2	23.5	15.2	8.3	63.4	13.4
2005	39.2	33.4	5.9	27.2	17.5	9.8	66.5	15.6
2010	38.5	31.8	6.7	28.9	18.5	10.4	67.3	17.1
2015	36.2	29.6	6.7	28.3	17.4	10.9	64.6	17.6
2019	36.0	29.6	6.4	28.8	17.8	11.0	64.8	17.4

Source: AJC-UNCTAD-Eora database on ASEAN GVCs.

Figure 8 shows that the primary sector, including coke, petroleum products and nuclear fuel and mining, quarrying and petroleum, plays an important role in RVCs as Malaysia is one of the major petroleum-exporting countries. Nevertheless, Malaysian trade is more global (65 per cent) than regional (17 per cent) (table 3). This tendency arises as the main industries involved in GVCs are in manufacturing, which tend to be more global than regional as compared with the primary and services sectors.

Figure 8. **The importance of RVCs in Malaysia, compared with GVCs, by industry in 2017**
 (Share of RVC participation in GVC participation)



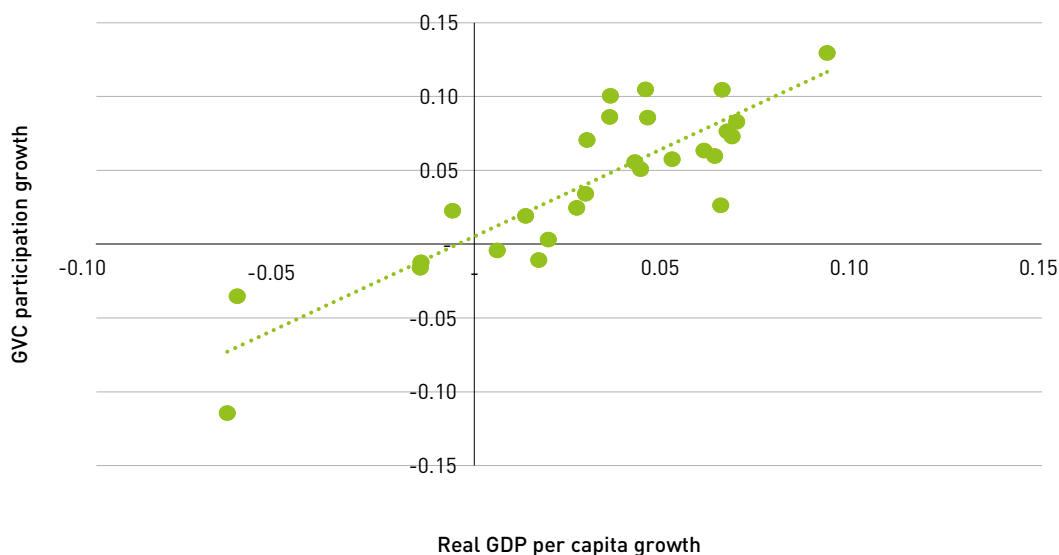
Source: AJC-UNCTAD-Eora database on ASEAN GVCs.

Note: The higher the share of RVC participation in GVC participation is, the more production networks are established in the region. However, for any industry, the degree of participation of countries other than ASEAN in GVCs is larger than that of ASEAN. Industry classification is at the two-three digit level of ISIC (International Standard Industrial Classification of All Economic Activities).

Malaysia may benefit from GVC participation in terms of both economic growth and foreign direct investment.

Malaysian participation in GVCs is positively associated with both economic growth and FDI presence (figures 9 and 10). Regardless of a position on GVCs, higher GVC participation may induce growth through various channels, including higher trade volume and export competitiveness (Collier and Venables, 2007), improved overall and labour productivity (Constantinescu et al., 2019; Korwatanasakul et al., 2020), increased industry value added (Kummritz et al., 2017), domestic job creation (Lopez-Gonzalez, 2016; Sen, 2019) and FDI spillovers (e.g., Javorcik, 2014). New production base countries, e.g., Malaysia, enjoy productivity gains from greater input varieties, knowledge and technology spillovers and the pro-competitive effects of foreign competition (Baldwin and Robert-Nicoud, 2014; Constantinescu et al., 2019; Criscuolo et al., 2015; Li and Liu, 2014). As GVC participation mainly involves internationally fragmented production, offshoring and FDI, figure 10 shows that Malaysian involvement in GVCs has grown with increasing FDI. A high degree of complementarity between GVCs and growth and between GVCs and FDI suggest the significance of the GVC-oriented growth model, which considers both GVC upgrading and economic development strategies synergistically.

Figure 9. Relationship between GVC participation and economic growth rates in Malaysia, 1990–2018 (Log scale)

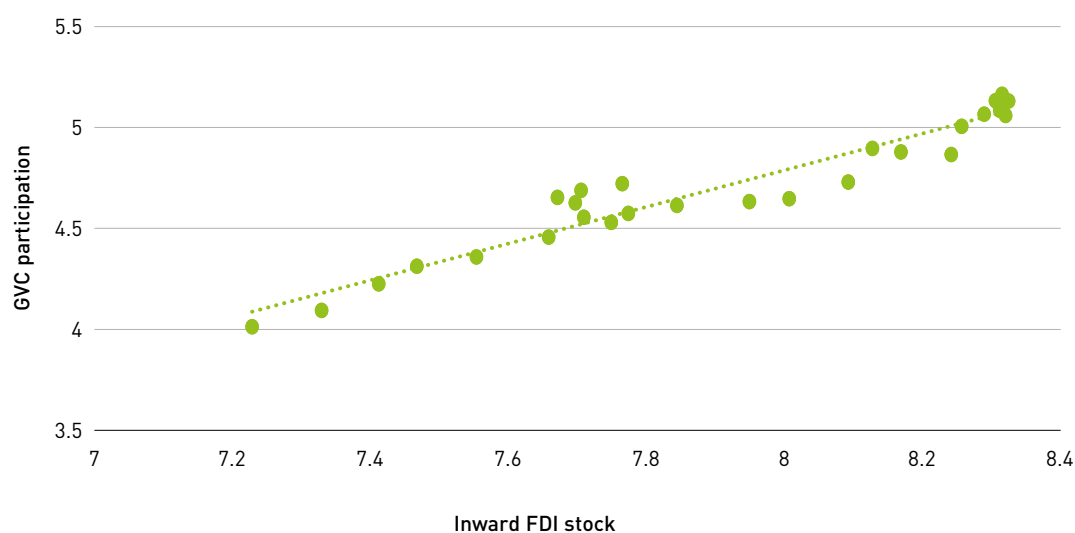


Source: AJC-UNCTAD-Eora database on ASEAN GVCs; GDP data from UNCTAD GlobStat.

Note: 28 observation points.

For GVC participation, yearly differences in the log value of the sum of foreign value added and domestic value added incorporated in other countries, both in USD millions, are used, while, for GDP per capita, yearly differences in its log in USD are used.

Figure 10. Relationship between GVC participation and FDI presence in Malaysia, 1990–2018 (Log scale)



Source: AJC-UNCTAD-Eora database on ASEAN GVCs and UNCTAD FDI/TNC database (for FDI stock).

Note: 29 observation points. As data for FDI stock in 2019 are not available, data stop at 2018.

For GVC participation, the log of the sum of foreign value added and domestic value added incorporated in other countries, both in USD millions, is used, while, for inward FDI stock, its log in USD millions is used.

The strong correlation between GVC participation and FDI presence in Malaysia reflects the nature of the Malaysian FDI community where FDI affects the local economy, enabling local firms, including micro, small and medium-sized enterprises (MSMEs), to participate in GVCs. However, the COVID-19 pandemic has endangered this correlation as it has weakened the relationship between FDI and MSMEs.

Malaysian economic growth is partly attributed to its vibrant export activities resulting from a strong FDI presence in the country. According to the Department of Statistics Malaysia, FDI flows into Malaysia increased to USD7.7 billion in 2019, up from USD7.4 billion in the previous year. This observed increase of 3.1 per cent could be attributed to higher contributions of equity in the services and manufacturing sectors, particularly from Japan in the healthcare sector and in the financial sector.

In 2020, during the pandemic, FDI flows declined significantly. This sharp decrease can be attributed to the spread of the coronavirus pandemic in early 2020. When lockdowns were implemented around the world, activities related to GVCs, trade and investments were impacted negatively.

In 2020, reduced FDI inflow focused in the mining and quarrying sector, with an aggregated investment of Malaysian ringgit (RM) 2 billion, or in the services sector, specifically the financial services subsector, amounting to RM 0.8 billion. Unlike the previous year, the manufacturing sector observed a significantly lower amount of investment. Lowered manufacturing FDI in turn reduces the opportunities to create GVCs.

Associated with increasing FDI is the internationalization of SMEs (Arudchelvan and Wignaraja, 2015). This is because Malaysia and its players have considerable engagement in GVC trade activities and continually pursue liberalization and reforms through various avenues, such as unilateral liberalization and free trade agreements. The next sections will focus on the importance of digitalization and the digital economy among SMEs and how such tools are vital for them to participate in GVCs.

Digitalization and the digital economy enable the SME community to thrive and contribute to GVCs and RVCs.

What is the digital economy and why is it so important for a developing country like Malaysia? A positive relationship exists between digital connectivity and enterprises' GVC participation, and the positive effect of digital connectivity is greater for SMEs than for large firms (Korwatanasakul, 2020; Korwatanasakul, forthcoming). In general, the digital economy encompasses the ICT sector and e-commerce. In Malaysia, the ICT sector includes ICT wholesale and retail trade, content and media activities and other miscellaneous ICT services. Malaysia has significant ICT manufacturing and telecommunication sectors, which represent a sizable proportion of value added in the digital economy (World Bank, 2018).

As mentioned before, apart from the FDI community, MSMEs also are an important component of GVCs in Malaysia and in the region. MSMEs make up the part of GVCs that mainly supplies primary and intermediary goods within symbiotic domestic and regional networks of supply chains. As much as 98.5 per cent of business establishments, amounting to more than 900,000 establishments in Malaysia, are MSMEs (Economic Census of 2016). Micro-enterprises make up 77 per cent of the MSME community. MSMEs mainly concentrate in the services sector with 89 per cent of total MSMEs.

Improvements in Internet access in Malaysia have benefitted MSMEs. According to the 2018 Bank Negara annual report, which had a total of 1,529 formal SMEs responding to a survey, about 83 per cent of SMEs used ICT in their business operations, 22 per cent have their own websites and 14 per cent operate online stores.¹ The survey also highlighted how SMEs are using other financial services, including insurance, which includes Islamic insurance (takaful), and e-payments. More than 50 per cent of the respondents have insurance or takaful products, although this was less prevalent among micro-enterprises. SMEs primarily made electronic payments, but preferred cash when receiving payments from customers (Mohamad and Said, 2020).

Additionally, between 2010 and 2016, the digital economy in Malaysia grew 9 per cent annually in value-added terms. If this steady growth continues, the digital economy was projected to make up 20 per cent of the country's GDP by 2020, as e-commerce alone, which made up nearly 40 per cent of the digital economy in 2020, is expected to exceed USD26.6 billion (World Bank, 2018).

In Malaysia, digital trade promotes inclusiveness and a set of standards. Under the MCO in Malaysia, a key concern is employment and livelihood, especially for those working in the informal sector. Digital trade platforms have enabled sellers and restaurants to continue providing their services during movement restrictions, thereby keeping their income flow somewhat steady, which to a certain extent has propelled those who are in the informal sector to formalize their businesses at minimum costs.²

Despite its benefits, MSMEs face challenges in terms of digitalization. Overall, businesses in Malaysia do not adopt digital technologies as readily as anticipated. This is partly because many MSMEs do not have accounts at financial institutions. Digital adoption by Malaysian businesses lags the global average: only 29 per cent of businesses have a web presence while a meagre 5 per cent of businesses engaged in e-commerce in 2015 (World Bank, 2018).

Additionally the nature of technology adoption is also different in Malaysia. SMEs digitalize primarily using fundamental and simple technologies, not more complex digital solutions, causing them to

¹ "Understanding SME financing in Malaysia", The Star, 1 April 2019.

² As an example, for restaurants to join Foodpanda, they would need to have a Suruhanjaya Syarikat Malaysia registration number. Even when they do not have a physical restaurant, they can still operate from their homes and be registered on the platform.

lag large firms with more capital to invest in more complex technologies and systems. According to Consultancy Asia (2020), even though 77 per cent of digitalized firms are SMEs, only a quarter of the firms are adopting advanced digitalization tools. In general, SMEs in Malaysia have adopted ICT in their businesses with more than 80 per cent of firms using computers and smartphones, while more than 70 per cent of the firms used Internet in their operations in 2018. Nevertheless, less than half of the SMEs adopted digital finance and accounting systems in their operations (SME Corp, 2020).

Malaysian policies on digitalization and the digital economy support and strengthen GVC activities.

To support the sustainable growth of GVCs and MSMEs in Malaysia and the region, policies were introduced to provide a framework and guidelines for all players in the digital economy. In Malaysia in 2010, the New Economic Model was introduced to realign the country's priorities to reflect those of an upper-middle-income and newly industrialized country. The main goals of this new model included a) Malaysia becoming a high-income nation by 2020, b) prioritizing inclusiveness so that all communities can benefit from development and c) emphasizing sustainability in development without putting future generations at risk for today's development. Achieving all three targets would ensure an increased quality of life for all Malaysians that is well beyond mere poverty eradication. The old approach of growth through capital accumulation and sectoral transformation has become inadequate to push Malaysia to graduate from the middle-income status.

To date, growth has come from large-scale physical capital investment, sustained human capital investment and the exports of manufactures, natural resource-based goods and petroleum products. To become a high-income country, Malaysia needs to focus on increasing productivity. This means higher levels of automation and digitalization in the production line and in business activities. This is where digitalization and digital trade can play an important role in not only eradicating poverty but also in ensuring that all communities in Malaysia can achieve inclusiveness in wealth creation and development opportunities.

Ten years after the introduction of the New Economic Model, the Digital Economy 2030 Blueprint is still being developed. Due to the COVID-19 pandemic, the publication and launch of the Blueprint, which was set for October 2020, has been postponed to a later undetermined date. Nevertheless, the Digital Economy 2030 Blueprint is meant to be a supplement to the already launched Shared Prosperity Vision (SPV) 2030 document. SPV 2030, which was launched in November 2019, is a document that outlines the Malaysian 10-year goal to restructure the economy from a low-skilled labour-intensive economy to a knowledge-based economy. The aim of SPV 2030 is that by 2030 the Malaysian labour force and population would enjoy a decent standard of living with a narrow gap.

The official description and aim of SPV 2030 is "... a commitment to make Malaysia a nation that achieves sustainable growth along with fair and equitable distribution, across income groups, ethnicities, regions and supply chains. The commitment is aimed at strengthening political stability, enhancing the nation's prosperity and ensuring that the *rakyat* (people) is united whilst celebrating ethnic and cultural diversity as the foundation of the nation-state' (SPV 2030, November 2019).

SPV 2030 will serve as a guiding document for the government in its task to formulate economic policies for the next 10 years, namely the 12th Malaysia Plan, which is due to be announced in 2021. This vision will guide the developmental path of Malaysia past its Vision 2020, as Malaysia has reached upper-middle income status and is on the threshold of becoming a high-income status country by 2025 as projected by the Organisation for Economic Co-operation and Development in 2016 (OECD Development Centre, 2016). An important component in propelling Malaysia to the next stage is the digital economy.

SPV 2030 includes 15 guiding principles that are divided into three main objectives: a) development for all, b) addressing wealth and income disparities and c) a united, prosperous and dignified nation. Under the second objective of addressing wealth and income disparities, the future economy and the needs-based economy are vital components to be strengthened, while under the first objective of development for all, narrowing inequality gaps in the society is vital. A strengthened GVC network can help minimize inequality and provide abundant job availability.

SPV 2030 highlights seven strategic thrusts: a) business and industry ecosystem, b) key economic growth activities, c) human capital, d) labour market and compensation of employees, e) social wellbeing, f) regional inclusion and g) social capital. There are examples of targets in relation to digitalization and automation in different sectors of the Malaysian economy. In the first strategic thrust, the goal is that in the manufacturing and services subsectors 30 per cent of the total SMEs will be represented by high-technology companies. Thrust two requires manufacturing and services subsectors to increase their contribution of high-technology subsectors by 50 per cent and 30 per cent in 10 years. Finally, thrust 4 aims for labour productivity to increase along with the quality of technology invested in specific sectors.

Additionally, to propel Malaysia to the next level of development, there are 15 proposed key economic growth activities, with the digital economy being one of the key areas. The digital economy has been identified as a new source of growth that can strengthen GVC activities and boost the local economy, especially in the manufacturing sector. The other areas are Islamic Finance Hub 2.0, Industrial Revolution 4.0, Content Industry, ASEAN Hub, Halal and Food Hub, Commodity Malaysia 2.0, Logistic, Transportation and Sustainable Mobility, Coastal and Maritime Economy, Centers of Excellence, Renewable Energy, Green Economy, Smart and High Value Agriculture, Advanced and Modern Services and Malaysia Truly Asia. To ensure that the other key areas can flourish and grow sustainably investments in digitalization and automation are vital.³

To ensure that the digital economy can benefit GVCs and MSMEs in Malaysia in the medium to long term, cyber security issues need to be resolved simultaneously. In 2020, the Cyber Security Strategy 2020–2024 was launched in October amid the booming growth of the digital economy in cyber space. With the rapid growth of the digital economy in Malaysia and the region, this blueprint aims to create effective governance and management through three strategic pillars: a) enhancing national cyber security governance and ecosystem, b) improving organization management and business operations among government Critical National Information Infrastructure and business entities and c) strengthening cyber security incident management and active cyber defense. Recognizing the importance of the digital economy, the government has included trade, industry and economy as one of the many sectors to cover. For each sector, a government-led technical working group will be established to examine the laws, rules and regulations, including standards and practices in cyber security in each sector. The government will then cooperate with private sector entities to encourage awareness and understanding of cyber security risks, promote more informed risk management decisionmaking and advocate for investments in timely security measures. More importantly, a data leakage protection mechanism will be developed through the adoption and implementation of policies, procedures and guidelines related to data protection, public key infrastructure and electronic information management.

Such steps are important in supporting the digital economy and its activities especially when cybercrime incidents hinder the healthy growth of digital trade. Crimes related to digital payments

³ Examples of beneficiaries of such plans are Selangor and Pahang. Selangor is poised to develop its manufacturing and automotive sectors, its industry 4.0 hub and high-tech hubs and its digital economy and disruptive economy, while on the East Coast in Pahang, high-tech agriculture and transportation and logistics hub are areas of growth to be focus on among others.

and digital trade have been on the rise in the past few years. In Malaysia in 2018, the Royal Malaysia Police dealt with 10,742 cybercrime cases with an estimated loss of about RM 400 million. The number of cases increased to 11,875 the next year with an estimated loss of an additional RM 500 million. Such crimes are not only targeted towards big, international firms but also towards local SMEs that make up the cyber security ecosystem. Another component that makes up the ecosystem is international cooperation, as highlighted in the blueprint.

In an uncertain global environment in the digital age international cooperation is clearly needed to strengthen and protect the growth of the digital economy worldwide. To do this successfully, trust and transparency among countries is vital and must be nurtured through close international cooperation on cyber issues. Two initiatives were highlighted to realize this ambition, which are a) strengthening international collaboration and cooperation in cyber security affairs and b) demonstrating the Malaysian commitment to promoting a secure, stable and peaceful cyberspace to uphold international security (National Security Office, 2020).

Policy recommendations that will ensure that digital trade continues to encourage inclusiveness in Malaysia, ASEAN and beyond.

The evidence in the previous sections clearly shows that digitalization could be an important tool for both FDI and SMEs, especially in a post-pandemic environment. Following are policy recommendations that would enable digitalization and the digital economy to provide a level playing field for players in the market, which facilitates the smoothing functions of GVCs.

Enhance digital infrastructure building and bridge the digital divide. As digital trade is an effective tool that enables producers and sellers to continue to sell their products and provide services online during the spread of COVID-19, countries in ASEAN and beyond are recommended to invest in digital infrastructure development and education to address the digital divide and promote digital trade. At the same time, it is imperative to issue and update laws, rules and regulations and to set standards to protect online consumers.

Emphasize capacity building and best practices. Successful cases of digital trade implemented during the pandemic should be deliberately explored to draw lessons to apply in other countries in the region.

Develop skilled workers. As skilled workers are still lacking in some countries in ASEAN, priorities should be given to enable skilled labor mobility within ASEAN to support the booming digital economy and its ecosystem. With sufficient and adequately trained labour supply, the GVCs' productivity will increase, strengthening the sector and other supporting subsectors in the medium term. Transfer of knowledge will also be beneficial for local and international firms and workers.

Ensure fair entry into digital trade zones. On digital trade, further bilateral cooperation between China and Malaysia was established in October 2017 with the founding of the Digital Free Trade Zone (DFTZ) by Alibaba in Malaysia, the first of its kind outside China, which aims to assist SMEs in their exporting activities. The DFTZ also can be used to nurture a thriving ecosystem that drives innovation in the e-commerce and Internet economy in ASEAN. The Malaysian Ministry of Trade and Industry projected at that time that such an infrastructure could propel growth of e-commerce from a mere 11 per cent to 20 per cent by 2020. When used collectively and widely, such platforms can provide local MSMEs with more opportunities and a bigger market access beyond Malaysia, both in normal and emergency times. Nevertheless, MSMEs must be able to participate in this platform and not be left marginalized. This can be done by examining barriers to entry for smaller firms and making sure a level playing field is created for all firms.

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ANNEX TABLES

Annex table 1. Value added exports of goods and services from Malaysia, by value added creator, 1990–2019 (USD millions)

	Value added creator	Exports from Malaysia						
		1990	1995	2000	2005	2010	2015	2019
Foreign value added (FVA)	World	10 882	33 620	36 626	59 908	103 197	109 215	125 117
	Developed countries	7 246	22 636	22 892	34 922	54 173	51 833	58 136
	Europe	2 163	7 078	7 182	12 818	20 704	20 166	23 206
	European Union	2 009	6 485	6 627	11 883	18 884	18 247	21 089
	Belgium	114	400	360	677	1 002	1 061	1 134
	France	231	771	749	1 407	2 215	2 098	2 203
	Germany	573	1 829	1 796	3 325	5 601	4 741	6 651
	Italy	210	631	629	1 119	1 703	1 650	1 762
	Netherlands	171	603	584	914	1 523	1 515	1 591
	Spain	56	212	202	481	735	765	967
	Sweden	131	310	248	450	747	770	838
	United Kingdom	322	1 054	1 302	2 025	2 874	3 129	2 813
	Other developed Europe	154	593	554	936	1 820	1 919	2 117
	Switzerland	111	448	380	658	1 333	1 483	1 586
	North America	1 811	5 920	6 692	9 130	13 610	13 292	14 696
	Canada	90	291	463	721	1 166	1 178	1 268
	United States	1 720	5 629	6 229	8 409	12 444	12 115	13 428
	Other developed countries	3 273	9 638	9 018	12 974	19 859	18 375	20 234
	Australia	363	1 026	1 028	1 987	3 695	4 035	4 200
	Japan	2 832	8 363	7 694	10 471	15 203	13 311	14 886
	New Zealand	49	160	184	342	616	662	724
	Developing countries	3 533	10 749	13 477	24 309	47 697	55 921	65 441
	Africa	71	276	385	746	1 409	1 300	1 457
	Latin America and the Caribbean	123	428	556	970	2 101	2 058	2 321
	Brazil	43	127	139	286	659	626	820
	Asia	3 335	10 036	12 525	22 574	44 145	52 523	61 614
	West Asia	192	510	634	1 254	2 102	2 445	2 798
	Saudi Arabia	96	226	238	419	647	731	922
	South, East and South-east Asia	3 144	9 526	11 891	21 320	42 043	50 078	58 816
	East Asia	1 967	4 741	6 502	11 013	21 002	26 621	32 745
	China	283	1 301	2 217	5 304	12 627	17 025	22 733
	Hong Kong, China	250	908	943	1 264	1 702	2 366	2 044
Korea, Republic of	303	1 132	1 309	2 683	4 673	5 462	6 038	
Taiwan Province of China	1 130	1 397	2 026	1 751	1 976	1 743	1 872	
South Asia	110	463	633	1 359	2 985	3 311	3 850	
India	76	341	486	1 043	2 395	2 636	3 144	
ASEAN	1 067	4 321	4 756	8 949	18 056	20 146	22 221	
Brunei Darussalam	3	9	13	25	41	47	42	
Cambodia	1	13	19	22	38	37	44	
Indonesia	283	1 341	1 377	2 498	5 268	5 965	7 958	
Lao PDR	0	1	1	2	4	4	5	
Myanmar	12	26	50	39	81	94	102	
Philippines	72	277	301	658	1 553	1 775	2 184	
Singapore	465	1 647	1 774	3 286	7 371	7 996	6 991	
Thailand	210	929	1 052	2 158	3 449	3 943	4 475	
Viet Nam	20	79	169	262	251	285	421	
Oceania	4	10	11	19	43	40	49	
Transition economies	103	235	258	677	1 326	1 461	1 539	
Russian Federation	88	194	209	549	1 068	1 213	1 165	
Domestic value added (DVA)	16 828	32 965	55 051	92 738	164 867	192 176	222 462	
Gross exports	27 711	66 585	91 678	152 646	268 064	301 391	347 579	

Source: AJC-UNCTAD-Eora database on ASEAN GVCs. Data for 2016–2018 are projected by UNCTAD and Eora.

Note: All values are estimated. Regions and countries refer to where the value added is attributed. For GVC terminology, see box 2.

Annex table 2.1. Value added exports of goods and services from Malaysia, by value added creator and by sector and industry,

Value added creator	Exports from Malaysia by sector/industry							
	Primary			Manufacturing				
	Total	Agriculture, hunting, forestry and fishing	Mining, quarrying and petroleum	Total	Food, beverages and tobacco	Textiles, clothing and leather	Wood and wood products	Coke, petroleum products and nuclear fuel
World	856	245	611	8 556	385	298	576	192
Developed countries	594	159	435	5 608	258	150	388	105
Europe	162	52	110	1 756	83	54	109	34
European Union	150	48	102	1 630	78	51	102	31
Belgium	8	3	5	95	5	3	5	2
France	17	6	11	184	11	6	11	4
Germany	43	13	31	464	20	13	28	7
Italy	16	5	11	172	7	7	10	3
Netherlands	12	5	7	143	9	4	8	2
Spain	4	2	3	46	2	2	3	1
Sweden	11	3	8	102	5	3	9	2
United Kingdom	25	8	17	260	11	8	16	8
Other developed Europe	12	4	8	125	6	4	7	2
Switzerland	8	2	6	90	3	3	5	1
North America	169	43	126	1 300	65	36	106	29
Canada	8	3	5	71	5	3	8	2
United States	161	40	121	1 229	60	33	97	28
Other developed countries	263	64	199	2 552	110	60	173	42
Australia	32	14	18	280	32	8	17	8
Japan	225	48	177	2 216	67	50	150	33
New Zealand	4	1	2	37	10	1	4	0
Developing countries	255	83	172	2 861	123	145	184	86
Africa	6	2	4	55	3	2	4	1
Latin America and the Caribbean	10	4	6	96	8	3	7	2
Brazil	3	1	2	35	2	1	2	0
Asia	239	76	162	2 707	111	140	173	83
West Asia	22	8	13	143	10	6	13	11
Saudi Arabia	11	4	7	73	5	3	6	8
South, East and South-east Asia	217	68	149	2 564	101	134	161	72
East Asia	111	31	80	1 671	48	97	86	23
China	24	10	14	224	16	12	14	5
Hong Kong, China	12	3	9	219	5	10	9	2
Korea, Republic of	19	5	14	251	7	11	16	3
Taiwan Province of China	56	13	43	976	20	65	47	13
South Asia	9	4	5	86	8	7	6	2
India	6	3	3	60	6	4	4	1
ASEAN	96	33	63	806	46	29	68	47
Brunei Darussalam	0	0	0	2	0	0	0	0
Cambodia	0	0	0	1	0	0	0	0
Indonesia	26	10	15	225	15	8	26	34
Lao PDR	0	0	0	0	0	0	0	0
Myanmar	2	1	0	8	2	0	1	0
Philippines	7	1	5	50	2	1	4	1
Singapore	40	12	28	350	14	10	22	9
Thailand	19	7	12	156	10	9	13	3
Viet Nam	3	1	1	13	2	0	1	1
Oceania	0	0	0	3	0	0	0	0
Transition economies	6	3	4	88	3	2	4	1
Russian Federation	5	2	3	75	3	2	3	1
Domestic value added (DVA)	2 504	1 127	1 377	11 242	645	510	1 361	271
Gross exports	3 360	1 371	1 988	19 798	1 030	808	1 937	464

Source: AJC-UNCTAD-Eora database on ASEAN GVCs.

Note: All values are estimated. Regions and countries refer to where the value added is attributed. For GVC terminology, see box 2.

1990 (USD millions)

Exports from Malaysia by sector/industry

Chemicals and chemical products	Rubber and plastic products	Metal and metal products	Machinery and equipment	Electrical and electronic equipment	Motor vehicles and other transport equipment	Services		
						Total	Transport, storage and communications	Business activities
525	275	411	374	4 830	117	1 441	449	325
351	177	271	267	3 174	88	1 020	325	223
145	56	83	93	955	24	237	62	54
135	53	77	86	885	23	220	58	50
10	3	5	4	50	1	11	2	2
17	6	8	8	97	2	29	8	6
36	15	23	27	254	8	63	17	15
13	5	9	12	91	2	21	6	5
14	4	5	6	80	1	16	4	4
5	2	3	2	24	1	6	1	1
8	3	6	5	50	3	18	5	4
20	8	11	12	144	3	36	10	9
10	4	5	6	71	1	16	4	4
6	3	4	5	53	1	12	3	3
84	43	40	52	753	11	333	98	75
6	2	3	2	33	1	11	4	2
77	40	37	49	720	11	322	94	73
123	77	148	122	1 466	53	451	165	94
17	8	22	11	133	3	50	12	10
102	67	124	110	1 308	49	386	150	81
2	1	1	1	13	0	9	1	2
165	96	129	104	1 615	29	412	122	100
5	2	4	2	26	1	9	3	2
8	3	7	3	45	1	16	5	4
2	1	4	1	16	0	5	1	1
153	90	117	98	1 543	27	386	114	94
16	6	6	4	61	1	27	13	5
10	3	2	2	29	1	12	6	3
136	84	112	94	1 482	25	359	102	89
74	41	78	69	1 034	17	182	54	47
20	8	11	8	112	2	35	9	8
6	4	5	7	154	1	18	6	5
14	7	17	11	145	3	33	10	8
34	22	45	43	623	11	96	29	27
7	3	4	2	38	1	14	4	3
5	2	3	2	27	1	9	2	2
55	40	29	23	410	7	162	43	39
0	0	0	0	1	0	1	0	0
0	0	0	0	0	0	0	0	0
19	8	9	5	83	2	32	9	7
0	0	0	0	0	0	0	0	0
0	2	0	0	2	0	2	0	0
2	2	3	2	28	0	15	4	4
24	12	11	11	215	2	74	19	19
9	14	5	5	76	2	34	10	8
1	1	0	0	5	0	5	1	1
0	0	0	0	1	0	0	0	0
8	3	11	3	41	1	9	2	2
8	3	9	3	36	1	7	2	2
603	764	375	379	5 337	155	3 063	530	983
1 128	1 039	786	753	10 167	272	4 504	980	1 308

Annex table 2.2. Value added exports of goods and services from Malaysia, by value added creator and by sector and industry,

Value added creator	Exports from Malaysia by sector/industry							
	Primary			Manufacturing				
	Total	Agriculture, hunting, forestry and fishing	Mining, quarrying and petroleum	Total	Food, beverages and tobacco	Textiles, clothing and leather	Wood and wood products	Coke, petroleum products and nuclear fuel
World	1 708	593	1 115	27 276	1 562	904	1 818	901
Developed countries	1 177	380	796	18 171	1 004	485	1 230	478
Europe	348	131	217	5 905	344	185	367	173
European Union	318	120	198	5 406	318	171	340	158
Belgium	19	8	10	339	22	12	20	9
France	39	15	24	628	44	22	40	19
Germany	90	31	59	1 522	75	45	94	36
Italy	31	10	20	532	28	21	32	12
Netherlands	31	15	16	505	48	15	29	13
Spain	10	5	6	180	13	7	10	5
Sweden	17	5	11	251	13	7	24	5
United Kingdom	53	20	32	878	45	26	54	45
Other developed Europe	30	11	19	499	26	14	27	15
Switzerland	22	7	15	378	17	11	19	9
North America	343	102	241	4 447	272	121	367	135
Canada	16	7	9	237	21	8	26	8
United States	327	95	232	4 211	251	113	340	127
Other developed countries	486	147	338	7 818	388	178	496	170
Australia	62	32	30	804	127	20	48	30
Japan	410	111	300	6 830	222	153	429	136
New Zealand	8	3	5	122	35	4	14	2
Developing countries	523	209	314	8 900	549	413	578	419
Africa	16	8	8	226	19	7	14	7
Latin America and the Caribbean	23	10	13	346	38	10	23	10
Brazil	5	2	3	108	8	3	7	2
Asia	483	191	293	8 321	492	396	540	401
West Asia	37	17	19	397	36	15	33	47
Saudi Arabia	16	7	9	177	13	6	14	28
South, East and South-east Asia	447	173	273	7 924	456	381	507	355
East Asia	176	59	117	4 104	168	219	211	78
China	59	27	32	1 098	87	73	66	25
Hong Kong, China	30	8	22	794	21	38	32	12
Korea, Republic of	39	10	29	999	28	36	51	18
Taiwan Province of China	48	14	34	1 211	32	72	62	23
South Asia	27	16	11	375	48	27	24	11
India	19	12	7	280	38	17	16	5
ASEAN	243	98	146	3 445	239	135	271	266
Brunei Darussalam	1	0	0	7	1	0	1	1
Cambodia	1	1	0	10	2	0	0	0
Indonesia	72	33	39	1 126	93	40	98	186
Lao PDR	0	0	0	0	0	0	0	0
Myanmar	3	2	0	19	5	0	3	0
Philippines	17	5	12	200	15	6	16	5
Singapore	91	29	62	1 292	62	41	88	40
Thailand	52	23	29	729	52	46	60	18
Viet Nam	6	4	3	60	10	2	5	16
Oceania	1	0	0	8	1	0	1	0
Transition economies	9	4	5	205	8	5	10	4
Russian Federation	8	4	4	171	7	4	8	3
Domestic value added (DVA)	3 477	1 485	1 992	23 112	1 209	789	2 744	917
Gross exports	5 185	2 078	3 107	50 388	2 771	1 693	4 562	1 817

Source: AJC-UNCTAD-Eora database on ASEAN GVCs.

Note: All values are estimated. Regions and countries refer to where the value added is attributed. For GVC terminology, see box 2.

1995 (USD millions)

Exports from Malaysia by sector/industry

Chemicals and chemical products	Rubber and plastic products	Metal and metal products	Machinery and equipment	Electrical and electronic equipment	Motor vehicles and other transport equipment	Services		
						Total	Transport, storage and communications	Business activities
1 426	899	1 234	1 110	15 328	465	4 631	1 584	1 386
953	571	822	823	10 378	343	3 286	1 148	968
395	189	280	290	3 214	102	824	247	249
364	174	257	265	2 928	96	760	227	230
28	12	16	14	178	5	42	12	12
48	22	27	26	331	10	103	31	29
99	49	79	85	831	34	216	65	67
32	16	27	35	284	9	69	20	21
41	16	18	20	273	6	67	18	20
14	7	10	7	91	3	22	6	7
16	8	14	13	125	8	42	13	14
56	28	40	39	480	13	123	40	38
30	15	23	25	286	6	64	20	19
20	10	17	21	225	4	49	15	14
233	137	139	169	2 568	56	1 128	378	343
17	8	10	8	114	3	39	14	10
216	130	129	161	2 454	53	1 089	364	333
325	244	403	364	4 596	185	1 333	523	376
40	21	59	29	364	11	161	38	38
275	217	338	330	4 151	172	1 123	475	324
6	3	4	3	43	1	31	4	7
458	322	386	280	4 852	118	1 326	430	412
16	11	20	8	103	3	35	12	9
25	12	22	11	165	5	59	20	17
5	3	10	4	54	2	14	4	5
417	300	343	261	4 579	110	1 231	398	386
36	15	16	10	163	5	77	37	19
19	7	6	4	69	2	33	17	8
381	284	327	251	4 416	106	1 154	361	367
170	101	180	148	2 542	51	460	141	152
78	36	59	35	555	16	144	40	43
17	14	19	27	559	6	84	30	25
38	23	48	37	653	12	94	25	38
36	28	54	49	773	17	139	46	46
29	14	16	9	165	6	61	17	15
21	10	12	7	128	5	42	10	10
182	169	132	93	1 709	49	633	203	201
1	0	0	0	3	0	2	1	0
0	6	0	0	1	0	1	0	0
65	35	42	23	467	15	142	45	44
0	0	0	0	0	0	0	0	0
1	5	0	0	3	0	4	1	1
8	9	11	6	107	3	61	18	19
77	44	45	42	770	16	264	84	94
29	68	31	20	341	14	148	51	39
3	3	2	1	17	1	12	4	3
0	0	1	0	3	0	1	0	0
15	7	27	7	98	3	20	5	6
13	5	22	6	82	3	16	4	5
966	1 318	790	831	11 612	439	6 375	1 093	2 429
2 391	2 218	2 024	1 942	26 940	904	11 006	2 676	3 815

Annex table 2.3. Value added exports of goods and services from Malaysia, by value added creator and by sector and industry,

Value added creator	Exports from Malaysia by sector/industry							
	Primary			Manufacturing				
	Total	Agriculture, hunting, forestry and fishing	Mining, quarrying and petroleum	Total	Food, beverages and tobacco	Textiles, clothing and leather	Wood and wood products	Coke, petroleum products and nuclear fuel
World	1 142	557	585	29 893	1 551	1 359	1 946	781
Developed countries	716	328	387	18 561	933	644	1 220	436
Europe	227	113	114	5 945	319	237	395	156
European Union	209	104	105	5 484	295	220	367	143
Belgium	11	6	5	301	19	13	19	7
France	24	12	12	604	39	27	41	15
Germany	57	26	31	1 486	68	57	96	31
Italy	19	8	10	528	26	26	34	9
Netherlands	20	12	8	485	40	18	32	16
Spain	7	4	3	171	11	9	10	5
Sweden	8	3	5	199	9	7	20	3
United Kingdom	42	22	20	1 079	53	41	72	45
Other developed Europe	18	9	9	460	24	17	28	12
Switzerland	12	5	7	315	14	12	18	7
North America	232	103	129	5 166	296	184	400	148
Canada	16	10	7	379	29	15	38	14
United States	216	93	123	4 787	267	169	362	134
Other developed countries	256	112	144	7 451	318	223	424	132
Australia	42	27	15	790	108	26	51	26
Japan	204	81	123	6 446	172	189	349	102
New Zealand	6	3	2	137	34	6	18	2
Developing countries	419	225	194	11 106	610	707	715	342
Africa	14	9	6	318	20	11	19	9
Latin America and the Caribbean	19	11	8	451	43	17	30	12
Brazil	4	2	2	117	7	4	8	2
Asia	385	205	180	10 328	546	679	665	321
West Asia	30	18	13	491	39	23	41	50
Saudi Arabia	11	6	5	185	13	9	16	22
South, East and South-east Asia	355	187	168	9 837	506	656	623	271
East Asia	154	73	81	5 570	204	411	289	90
China	58	35	23	1 903	104	209	92	34
Hong Kong, China	18	7	11	813	21	54	37	10
Korea, Republic of	31	13	19	1 114	31	47	67	18
Taiwan Province of China	47	19	28	1 735	47	100	93	28
South Asia	26	19	7	513	55	41	41	13
India	19	15	5	398	44	27	31	6
ASEAN	175	95	80	3 754	248	203	294	168
Brunei Darussalam	1	0	0	10	1	1	1	1
Cambodia	2	2	0	16	1	0	0	0
Indonesia	45	28	17	1 152	95	79	97	59
Lao PDR	0	0	0	1	0	0	0	0
Myanmar	4	4	1	37	6	1	5	2
Philippines	11	4	7	219	14	7	16	5
Singapore	57	23	34	1 374	60	51	96	32
Thailand	44	27	17	813	57	60	69	21
Viet Nam	10	6	4	132	14	4	9	47
Oceania	0	0	0	9	1	0	1	0
Transition economies	7	4	3	226	9	8	11	4
Russian Federation	5	3	2	184	7	6	9	3
Domestic value added (DVA)	6 207	2 132	4 075	35 916	1 794	1 231	4 178	2 107
Gross exports	7 349	2 689	4 660	65 809	3 345	2 590	6 124	2 888

Source: AJC-UNCTAD-Eora database on ASEAN GVCs.

Note: All values are estimated. Regions and countries refer to where the value added is attributed. For GVC terminology, see box 2.

2000 (USD millions)

Exports from Malaysia by sector/industry

Chemicals and chemical products	Rubber and plastic products	Metal and metal products	Machinery and equipment	Electrical and electronic equipment	Motor vehicles and other transport equipment	Services		
						Total	Transport, storage and communications	Business activities
1 788	1 056	1 411	1 099	16 643	504	5 589	1 935	1 780
1 126	607	886	761	10 525	335	3 613	1 248	1 156
434	212	295	263	3 165	103	1 009	334	322
402	197	273	242	2 911	97	933	308	298
27	11	15	11	156	4	48	14	15
51	24	28	23	309	10	120	40	36
106	52	78	75	800	34	253	85	82
34	17	28	31	278	9	82	26	27
42	16	19	18	253	6	79	24	24
14	10	10	6	83	2	24	7	8
14	7	12	9	97	7	40	14	14
77	42	53	43	574	16	180	64	58
33	15	22	20	253	6	76	26	23
18	9	15	16	183	4	53	17	16
345	170	180	183	2 912	63	1 293	463	412
31	13	17	11	184	4	68	28	19
313	158	163	172	2 727	59	1 225	435	393
347	224	411	315	4 448	169	1 311	451	423
45	23	61	27	360	11	196	53	49
289	194	343	283	3 995	156	1 043	381	353
8	4	5	3	49	1	42	7	10
644	442	496	330	6 009	167	1 951	679	616
23	17	24	9	157	4	52	20	15
40	16	29	13	215	6	86	32	25
7	4	11	4	59	2	18	5	6
580	408	442	308	5 633	157	1 811	627	575
51	20	20	11	201	6	113	54	30
22	8	7	4	73	2	42	21	11
530	388	421	296	5 432	152	1 698	573	545
255	137	260	189	3 322	94	778	254	263
113	50	89	53	1 021	35	256	78	77
21	15	21	25	549	7	113	42	37
50	29	64	40	686	19	164	56	60
72	43	86	71	1 063	32	245	78	89
42	38	21	11	209	9	94	27	24
32	34	17	9	166	7	68	18	18
233	213	140	96	1 902	49	826	292	259
1	0	0	0	4	0	3	1	1
0	12	0	0	1	0	1	0	0
82	40	39	23	560	12	179	62	55
0	0	0	0	0	0	0	0	0
2	11	1	0	8	0	9	4	2
10	8	8	6	128	5	71	26	23
83	45	50	43	828	15	343	114	118
45	89	38	21	342	16	195	76	54
9	7	3	2	32	1	26	9	6
0	0	1	0	4	0	2	0	0
18	7	29	7	109	3	26	8	8
15	6	23	6	89	2	20	7	6
1 658	1 567	1 077	1 344	18 842	375	12 927	2 635	5 049
3 446	2 623	2 488	2 443	35 485	879	18 516	4 571	6 830

Annex table 2.4. Value added exports of goods and services from Malaysia, by value added creator and by sector and industry,

Value added creator	Exports from Malaysia by sector/industry							
	Primary			Manufacturing				
	Total	Agriculture, hunting, forestry and fishing	Mining, quarrying and petroleum	Total	Food, beverages and tobacco	Textiles, clothing and leather	Wood and wood products	Coke, petroleum products and nuclear fuel
World	1 804	851	953	47 993	2 753	1 994	3 036	1 288
Developed countries	1 073	464	609	27 600	1 552	946	1 805	653
Europe	374	177	197	10 521	591	403	655	258
European Union	347	164	182	9 746	549	375	611	240
Belgium	19	11	9	563	36	24	33	13
France	41	20	21	1 134	75	47	72	28
Germany	98	43	55	2 714	134	96	169	55
Italy	33	14	18	927	50	46	56	18
Netherlands	29	17	12	754	66	28	45	17
Spain	14	8	6	406	25	19	23	10
Sweden	14	6	8	359	18	12	32	7
United Kingdom	60	29	31	1 663	85	62	102	66
Other developed Europe	28	13	14	775	42	28	44	19
Switzerland	19	8	11	545	24	20	29	10
North America	328	126	201	6 623	435	241	533	195
Canada	23	13	10	585	47	22	56	18
United States	305	114	191	6 038	388	219	477	177
Other developed countries	370	160	210	10 456	527	302	618	200
Australia	70	42	28	1 531	196	44	94	48
Japan	285	111	174	8 555	266	245	485	146
New Zealand	9	5	4	249	59	9	29	3
Developing countries	715	378	337	19 807	1 177	1 030	1 203	626
Africa	24	15	10	613	38	20	36	18
Latin America and the Caribbean	31	17	14	782	76	27	49	21
Brazil	7	3	4	238	17	8	16	4
Asia	660	346	313	18 397	1 062	982	1 117	587
West Asia	52	29	23	965	77	41	76	86
Saudi Arabia	18	10	8	323	25	14	26	32
South, East and South-east Asia	607	317	290	17 432	985	941	1 041	501
East Asia	253	123	129	9 316	398	543	454	156
China	133	76	57	4 509	256	308	207	79
Hong Kong, China	22	8	14	1 083	30	59	45	14
Korea, Republic of	61	24	36	2 223	69	80	122	37
Taiwan Province of China	37	14	22	1 493	42	94	80	26
South Asia	48	33	15	1 087	122	84	69	30
India	36	26	10	842	100	58	49	14
ASEAN	306	160	145	7 029	465	314	519	314
Brunei Darussalam	1	1	1	19	1	1	2	1
Cambodia	3	3	0	17	2	1	1	0
Indonesia	76	46	30	2 088	174	102	169	121
Lao PDR	0	0	0	1	0	0	0	0
Myanmar	3	3	0	28	5	1	4	1
Philippines	21	8	14	483	33	13	32	12
Singapore	102	39	63	2 518	119	94	171	63
Thailand	84	52	32	1 668	111	96	127	39
Viet Nam	14	8	6	208	20	6	13	76
Oceania	1	0	0	15	1	0	1	0
Transition economies	16	9	7	586	24	18	28	10
Russian Federation	13	8	5	477	19	15	22	8
Domestic value added (DVA)	9 978	3 289	6 689	60 852	3 227	1 928	6 168	3 597
Gross exports	11 781	4 140	7 641	108 845	5 980	3 922	9 204	4 885

Source: AJC-UNCTAD-Eora database on ASEAN GVCs.

Note: All values are estimated. Regions and countries refer to where the value added is attributed. For GVC terminology, see box 2.

2005 (USD millions)

Exports from Malaysia by sector/industry

Chemicals and chemical products	Rubber and plastic products	Metal and metal products	Machinery and equipment	Electrical and electronic equipment	Motor vehicles and other transport equipment	Services		
						Total	Transport, storage and communications	Business activities
3 178	1 683	2 504	1 765	26 111	824	10 106	3 694	3 123
1 839	939	1 472	1 162	15 050	528	6 245	2 256	1 944
816	357	552	478	5 575	194	1 921	666	597
757	332	514	442	5 147	184	1 789	618	558
54	20	29	22	286	8	94	30	29
99	41	55	44	584	20	232	80	69
198	91	157	138	1 440	68	513	182	162
68	30	52	57	474	17	159	54	50
72	26	31	28	390	10	132	42	40
36	18	26	15	202	6	61	19	19
27	12	24	17	173	12	77	28	25
127	56	78	70	893	25	302	109	97
59	25	37	36	428	10	133	49	39
34	16	26	29	316	7	94	33	28
493	240	265	235	3 515	84	2 177	783	702
50	20	29	18	284	7	113	45	32
444	220	236	217	3 230	77	2 064	738	670
530	343	655	449	5 960	250	2 147	807	645
86	43	133	55	706	21	387	110	97
420	288	508	385	5 090	226	1 629	667	511
15	7	10	5	93	2	84	14	20
1 290	725	955	583	10 781	287	3 785	1 413	1 156
48	25	51	19	305	7	109	42	31
71	28	52	23	374	10	157	58	47
16	8	20	8	120	4	41	12	13
1 170	671	850	541	10 095	270	3 516	1 312	1 077
104	40	45	24	405	11	237	121	60
42	14	13	7	130	3	78	41	20
1 066	632	805	517	9 690	258	3 280	1 191	1 017
489	239	467	305	5 593	147	1 443	531	447
295	122	222	137	2 555	78	662	214	202
31	20	28	35	746	10	158	62	50
106	57	137	80	1 370	37	399	172	121
57	39	78	53	916	23	222	82	74
103	46	51	26	467	17	223	72	57
77	36	42	20	375	14	165	47	42
474	347	288	186	3 630	94	1 613	588	513
2	1	1	1	8	0	5	3	1
0	10	0	0	2	0	2	1	1
167	73	80	44	1 025	23	334	125	104
0	0	0	0	1	0	0	0	0
2	6	1	0	7	0	7	3	1
23	17	18	14	288	10	153	57	50
172	88	100	79	1 472	25	665	229	232
94	143	83	45	777	35	405	157	114
14	9	6	3	51	1	40	14	10
1	0	2	1	7	0	3	1	1
49	19	78	19	280	8	75	25	22
42	16	62	15	228	7	58	20	17
2 992	2 620	1 935	2 373	32 472	596	21 907	4 517	8 646
6 170	4 303	4 440	4 138	58 583	1 420	32 013	8 211	11 768

Annex table 2.5. Value added exports of goods and services from Malaysia, by value added creator and by sector and industry,

Value added creator	Exports from Malaysia by sector/industry							
	Primary			Manufacturing				
	Total	Agriculture, hunting, forestry and fishing	Mining, quarrying and petroleum	Total	Food, beverages and tobacco	Textiles, clothing and leather	Wood and wood products	Coke, petroleum products and nuclear fuel
World	2 807	1 311	1 495	82 963	5 198	3 033	4 787	2 194
Developed countries	1 532	656	876	42 730	2 708	1 333	2 601	1 039
Europe	534	247	287	17 157	1 018	593	948	392
European Union	486	225	261	15 636	931	543	873	358
Belgium	26	14	12	845	56	33	45	20
France	55	27	28	1 818	126	68	100	42
Germany	146	63	83	4 613	246	146	254	91
Italy	45	19	26	1 425	81	65	77	28
Netherlands	40	23	17	1 279	114	43	65	28
Spain	18	9	9	625	38	25	32	13
Sweden	20	8	12	602	32	18	47	11
United Kingdom	79	36	43	2 358	130	81	134	82
Other developed Europe	47	22	25	1 521	86	50	75	35
Switzerland	34	14	20	1 113	53	36	53	21
North America	463	179	284	9 807	743	325	726	321
Canada	34	19	15	947	85	31	83	33
United States	429	160	269	8 860	658	295	643	289
Other developed countries	536	230	306	15 766	947	415	927	325
Australia	112	64	48	2 873	371	74	161	90
Japan	397	154	243	12 194	457	319	698	222
New Zealand	15	8	7	454	105	15	52	7
Developing countries	1 244	638	606	39 094	2 434	1 664	2 135	1 135
Africa	43	25	18	1 156	79	33	62	35
Latin America and the Caribbean	61	33	28	1 700	183	50	98	54
Brazil	15	7	8	554	39	16	33	9
Asia	1 138	578	560	36 203	2 169	1 580	1 972	1 046
West Asia	76	40	36	1 629	133	58	114	141
Saudi Arabia	24	13	11	500	41	19	35	50
South, East and South-east Asia	1 062	539	524	34 574	2 036	1 522	1 859	905
East Asia	421	198	223	17 909	778	814	776	268
China	266	140	126	10 835	560	566	441	167
Hong Kong, China	27	10	17	1 459	43	63	54	19
Korea, Republic of	89	33	56	3 911	121	89	195	51
Taiwan Province of China	39	15	23	1 684	54	95	85	30
South Asia	92	61	30	2 413	279	167	133	62
India	71	49	22	1 952	233	121	100	34
ASEAN	549	279	270	14 252	978	541	950	575
Brunei Darussalam	2	1	1	31	2	1	3	1
Cambodia	6	5	0	28	3	1	1	0
Indonesia	144	85	59	4 419	395	194	334	263
Lao PDR	0	0	0	3	0	0	0	0
Myanmar	7	6	1	58	10	2	7	2
Philippines	42	15	27	1 182	75	25	63	27
Singapore	207	79	129	5 676	285	185	344	141
Thailand	130	82	48	2 649	190	127	187	61
Viet Nam	11	6	5	205	17	6	11	79
Oceania	1	1	0	35	3	1	3	1
Transition economies	31	18	13	1 139	56	36	51	20
Russian Federation	25	15	10	922	46	30	41	17
Domestic value added (DVA)	15 780	5 157	10 623	110 375	6 562	3 172	9 614	6 618
Gross exports	18 586	6 469	12 118	193 338	11 760	6 205	14 401	8 812

Source: AJC-UNCTAD-Eora database on ASEAN GVCs.

Note: All values are estimated. Regions and countries refer to where the value added is attributed. For GVC terminology, see box 2.

2010 (USD millions)

Exports from Malaysia by sector/industry

Chemicals and chemical products	Rubber and plastic products	Metal and metal products	Machinery and equipment	Electrical and electronic equipment	Motor vehicles and other transport equipment	Services		
						Total	Transport, storage and communications	Business activities
6 035	2 890	5 051	3 192	44 332	1 393	17 417	6 358	5 491
3 172	1 462	2 587	1 905	22 622	822	9 905	3 639	3 105
1 454	564	970	845	9 095	314	3 011	1 037	953
1 330	516	893	768	8 250	295	2 760	946	878
92	31	47	36	424	12	131	42	41
172	63	95	77	944	32	341	121	98
368	149	283	246	2 450	113	842	292	272
115	46	87	96	722	26	234	78	75
136	43	56	52	661	18	203	67	62
60	23	44	26	316	10	92	28	30
49	20	43	30	291	18	124	44	41
200	80	124	113	1 251	35	437	153	144
124	48	77	77	846	19	252	91	75
78	33	55	63	645	14	186	65	56
832	367	471	373	4 958	124	3 337	1 186	1 108
87	31	52	32	450	10	185	77	53
745	336	419	342	4 508	114	3 152	1 109	1 054
886	530	1 145	687	8 569	383	3 556	1 416	1 045
172	79	267	111	1 318	38	709	208	184
665	429	850	557	6 936	339	2 611	1 151	789
32	13	19	11	170	4	147	27	39
2 749	1 389	2 337	1 246	21 157	555	7 357	2 664	2 339
97	49	107	39	553	14	209	80	59
163	60	132	54	774	21	339	131	101
38	18	57	21	270	8	91	27	30
2 488	1 279	2 093	1 152	19 814	520	6 802	2 450	2 176
177	64	97	45	685	20	398	202	103
65	21	24	12	200	5	124	65	32
2 311	1 215	1 996	1 107	19 129	500	6 404	2 248	2 073
1 007	455	1 249	625	10 562	285	2 671	897	870
720	283	603	366	6 372	179	1 526	505	489
45	27	39	50	1 023	13	216	87	68
169	100	513	145	2 126	66	673	213	227
71	45	93	63	1 029	26	253	91	84
251	99	139	66	1 036	31	480	159	126
199	80	119	54	860	26	372	111	98
1 053	660	608	416	7 531	184	3 253	1 191	1 077
3	1	2	1	13	0	9	5	2
1	17	1	0	4	0	4	1	1
389	155	190	102	2 118	49	705	268	224
0	0	0	0	1	0	1	0	0
4	14	2	1	15	0	15	6	3
54	36	43	35	751	19	330	123	111
424	200	234	194	3 334	55	1 487	509	535
163	229	130	79	1 244	60	670	266	193
16	8	7	3	50	1	35	14	9
2	1	5	1	16	1	6	2	2
114	39	127	41	553	16	156	55	47
99	33	97	32	449	13	121	44	37
5 930	4 720	3 652	4 717	59 146	1 181	38 707	8 156	15 667
11 966	7 610	8 703	7 909	103 478	2 574	56 124	14 513	21 158

Annex table 2.6. Value added exports of goods and services from Malaysia, by value added creator and by sector and industry,

Value added creator	Exports from Malaysia by sector/industry							
	Primary			Manufacturing				
	Total	Agriculture, hunting, forestry and fishing	Mining, quarrying and petroleum	Total	Food, beverages and tobacco	Textiles, clothing and leather	Wood and wood products	Coke, petroleum products and nuclear fuel
World	2 775	1 304	1 472	88 306	5 619	3 242	4 906	2 299
Developed countries	1 395	596	800	40 929	2 707	1 245	2 440	989
Europe	493	227	266	16 762	1 009	563	901	379
European Union	446	205	241	15 153	919	513	825	344
Belgium	26	14	12	898	61	35	46	21
France	49	24	25	1 729	121	63	92	38
Germany	121	51	71	3 893	212	119	213	76
Italy	41	17	24	1 385	80	62	73	27
Netherlands	38	22	16	1 277	118	42	63	27
Spain	18	9	8	652	41	26	32	13
Sweden	20	8	12	623	34	19	48	11
United Kingdom	80	36	43	2 587	143	88	141	89
Other developed Europe	47	22	25	1 609	90	51	76	35
Switzerland	35	14	21	1 243	59	39	56	22
North America	431	166	265	9 606	749	310	695	309
Canada	32	18	14	962	88	31	82	32
United States	399	148	251	8 644	661	280	612	277
Other developed countries	471	203	268	14 561	949	371	845	300
Australia	116	67	50	3 146	412	78	173	99
Japan	329	125	204	10 665	406	270	600	188
New Zealand	15	8	7	488	117	16	55	7
Developing countries	1 347	689	658	46 118	2 848	1 957	2 411	1 288
Africa	37	22	15	1 071	75	30	55	33
Latin America and the Caribbean	56	31	25	1 672	184	47	92	52
Brazil	13	6	7	526	38	15	31	9
Asia	1 253	636	617	43 343	2 586	1 879	2 262	1 203
West Asia	83	43	40	1 890	157	65	130	167
Saudi Arabia	26	14	12	564	48	21	39	57
South, East and South-east Asia	1 170	593	577	41 453	2 429	1 815	2 132	1 036
East Asia	502	238	264	22 775	1 000	1 044	954	327
China	338	178	161	14 647	753	777	587	218
Hong Kong, China	34	12	22	2 045	57	83	71	25
Korea, Republic of	97	35	61	4 576	141	100	221	58
Taiwan Province of China	32	13	20	1 486	48	83	74	26
South Asia	98	66	32	2 681	319	183	144	69
India	75	52	23	2 154	265	132	108	38
ASEAN	569	289	281	15 997	1 111	588	1 033	639
Brunei Darussalam	2	1	1	36	3	1	3	2
Cambodia	5	5	0	28	3	1	1	0
Indonesia	153	89	63	5 016	455	216	369	296
Lao PDR	0	0	0	3	0	0	1	0
Myanmar	8	7	1	69	12	2	8	3
Philippines	44	15	28	1 365	84	28	68	30
Singapore	210	80	129	6 205	315	192	361	154
Thailand	137	84	52	3 043	219	141	210	69
Viet Nam	12	7	6	233	20	7	12	85
Oceania	1	1	0	33	3	1	2	1
Transition economies	32	19	14	1 259	64	39	55	22
Russian Federation	27	16	11	1 050	54	34	45	19
Domestic value added (DVA)	17 949	5 784	12 165	129 802	8 125	3 722	11 144	7 844
Gross exports	20 724	7 088	13 636	218 108	13 744	6 964	16 050	10 144

Source: AJC-UNCTAD-Eora database on ASEAN GVCs.

Note: All values are estimated. Regions and countries refer to where the value added is attributed. For GVC terminology, see box 2.

2015 (USD millions)

Exports from Malaysia by sector/industry

Chemicals and chemical products	Rubber and plastic products	Metal and metal products	Machinery and equipment	Electrical and electronic equipment	Motor vehicles and other transport equipment	Services		
						Total	Transport, storage and communications	Business activities
6 282	2 884	5 270	3 484	47 829	1 405	18 123	6 577	5 697
2 985	1 323	2 434	1 912	21 809	744	9 502	3 447	2 977
1 384	518	926	868	9 000	290	2 908	991	916
1 259	471	846	781	8 088	271	2 646	895	838
98	31	49	40	454	12	137	43	42
159	57	89	77	909	29	320	112	92
296	119	234	224	2 082	95	727	250	233
111	43	83	98	708	24	224	74	71
133	41	55	55	664	17	200	64	61
62	22	46	28	332	9	95	28	30
50	20	45	33	303	18	128	45	43
216	82	133	131	1 392	37	462	158	154
125	47	80	87	912	19	262	95	78
84	34	60	74	731	14	204	72	61
801	342	456	387	4 892	119	3 252	1 157	1 086
87	30	53	34	462	10	183	76	52
714	312	404	354	4 430	109	3 069	1 081	1 034
800	463	1 052	657	7 917	336	3 342	1 300	975
186	82	294	129	1 446	41	771	228	198
562	359	729	508	6 131	288	2 317	1 011	701
34	14	21	12	182	4	159	29	41
3 168	1 520	2 695	1 525	25 407	644	8 452	3 071	2 671
88	43	100	37	519	12	192	73	54
158	56	130	55	767	20	330	127	98
36	17	54	20	256	8	87	26	28
2 920	1 420	2 461	1 432	24 107	611	7 924	2 868	2 517
202	71	113	54	800	22	472	245	121
73	23	28	15	226	6	141	75	37
2 718	1 349	2 348	1 378	23 307	589	7 452	2 623	2 396
1 292	549	1 529	816	13 550	350	3 342	1 118	1 080
981	368	812	508	8 623	235	2 038	671	652
60	35	52	72	1 462	17	287	115	91
189	109	583	177	2 540	75	789	251	262
61	37	81	58	914	22	225	80	75
279	105	150	75	1 155	34	532	179	138
218	85	129	61	953	27	407	122	106
1 147	694	668	486	8 601	205	3 577	1 326	1 178
3	1	3	2	15	1	10	6	2
1	17	0	0	4	0	4	1	1
430	166	213	121	2 440	54	796	306	251
0	0	0	0	1	0	1	0	0
4	16	2	1	17	1	18	7	4
58	38	47	42	891	20	366	137	123
450	203	247	220	3 710	58	1 581	548	567
183	245	147	95	1 462	70	763	305	219
17	8	8	4	61	2	40	16	11
2	1	4	1	15	0	6	2	2
128	42	140	46	612	17	169	60	50
114	36	111	38	512	14	136	50	40
6 945	5 273	4 451	5 978	68 865	1 392	44 420	9 470	17 846
13 226	8 157	9 721	9 462	116 694	2 797	62 543	16 047	23 543

Annex table 2.7. Value added exports of goods and services from Malaysia, by value added creator and by sector and industry,

Value added creator	Exports from Malaysia by sector/industry							
	Primary			Manufacturing				
	Total	Agriculture, hunting, forestry and fishing	Mining, quarrying and petroleum	Total	Food, beverages and tobacco	Textiles, clothing and leather	Wood and wood products	Coke, petroleum products and nuclear fuel
World	3 163	1 521	1 642	94 013	5 915	3 338	5 417	2 553
Developed countries	1 580	695	885	43 956	2 819	1 319	2 682	1 091
Europe	593	277	316	18 401	1 091	605	1 044	430
European Union	538	251	287	16 714	997	552	959	391
Belgium	29	16	13	922	63	35	50	23
France	56	27	28	1 734	124	62	98	42
Germany	167	72	94	5 292	282	161	298	105
Italy	48	21	27	1 443	83	64	81	30
Netherlands	40	24	17	1 266	116	41	66	27
Spain	26	14	13	769	47	28	42	19
Sweden	22	10	13	645	35	19	52	12
United Kingdom	76	34	41	2 223	121	75	128	79
Other developed Europe	55	26	29	1 688	94	53	85	39
Switzerland	40	17	23	1 264	61	40	62	25
North America	476	187	289	9 924	759	316	754	332
Canada	36	21	14	994	95	32	90	37
United States	441	166	275	8 930	665	284	664	295
Other developed countries	511	232	279	15 630	970	398	884	329
Australia	123	72	51	3 078	412	77	177	101
Japan	358	147	211	11 772	425	298	631	213
New Zealand	17	9	8	502	118	16	58	8
Developing countries	1 546	804	742	48 809	3 031	1 979	2 677	1 437
Africa	45	26	19	1 130	77	31	63	35
Latin America and the Caribbean	74	40	34	1 915	196	52	112	64
Brazil	21	10	12	654	45	17	41	14
Asia	1 426	738	688	45 727	2 755	1 896	2 499	1 337
West Asia	100	53	47	2 080	167	69	143	178
Saudi Arabia	34	18	16	683	54	23	47	64
South, East and South-east Asia	1 326	685	641	43 647	2 588	1 827	2 356	1 159
East Asia	607	293	314	24 891	1 139	1 070	1 124	403
China	429	224	205	17 002	882	813	736	286
Hong Kong, China	32	12	20	1 634	50	67	63	23
Korea, Republic of	110	42	67	4 738	154	108	245	66
Taiwan Province of China	35	14	21	1 472	50	82	78	27
South Asia	112	73	39	2 759	318	169	158	78
India	86	58	28	2 192	263	118	119	45
ASEAN	607	318	288	15 997	1 132	587	1 074	678
Brunei Darussalam	1	1	1	30	2	1	2	1
Cambodia	6	6	0	28	3	1	1	0
Indonesia	187	109	78	5 980	510	247	433	335
Lao PDR	0	0	0	3	0	0	1	0
Myanmar	7	6	1	65	11	2	7	2
Philippines	49	18	31	1 464	92	30	78	34
Singapore	185	72	113	4 979	256	153	310	132
Thailand	155	99	57	3 149	232	145	226	76
Viet Nam	16	9	7	299	26	8	16	98
Oceania	1	1	1	37	4	1	3	1
Transition economies	37	21	16	1 248	64	40	58	25
Russian Federation	27	16	11	959	50	32	43	18
Domestic value added (DVA)	19 188	6 432	12 756	134 638	8 093	3 721	11 495	7 997
Gross exports	22 351	7 953	14 398	228 650	14 008	7 060	16 912	10 549

Source: AJC-UNCTAD-Eora database on ASEAN GVCs.

Note: All values are estimated. Regions and countries refer to where the value added is attributed. For GVC terminology, see box 2.

2017 (USD millions)

Exports from Malaysia by sector/industry

Chemicals and chemical products	Rubber and plastic products	Metal and metal products	Machinery and equipment	Electrical and electronic equipment	Motor vehicles and other transport equipment	Services		
						Total	Transport, storage and communications	Business activities
6 963	3 193	5 769	3 709	50 271	1 506	18 596	6 582	6 002
3 329	1 478	2 711	2 039	23 161	817	9 750	3 407	3 157
1 577	594	1 068	946	9 695	330	3 130	1 047	1 013
1 439	542	980	856	8 761	309	2 861	952	930
106	34	52	41	454	12	135	42	43
166	59	92	77	889	30	319	109	94
422	168	329	290	2 812	124	944	325	309
122	47	91	104	715	26	227	73	74
136	41	58	55	646	17	194	61	60
73	28	56	33	386	11	113	33	39
54	22	47	33	307	19	129	45	44
194	74	120	112	1 168	33	400	133	136
138	52	89	90	934	20	269	95	83
91	37	65	75	724	15	203	71	62
858	370	494	393	4 957	123	3 364	1 179	1 146
97	32	56	33	455	10	179	75	51
761	337	438	360	4 502	113	3 185	1 103	1 095
894	514	1 149	700	8 508	364	3 257	1 181	998
190	85	288	124	1 382	40	738	209	194
647	404	829	555	6 777	317	2 263	909	726
35	14	22	12	187	4	156	28	42
3 499	1 671	2 923	1 624	26 515	672	8 682	3 121	2 793
94	46	104	40	544	13	198	72	59
180	66	148	65	886	22	361	134	113
46	22	65	26	319	9	106	31	37
3 223	1 557	2 666	1 517	25 069	636	8 116	2 913	2 619
225	79	119	63	899	24	476	233	131
84	27	34	20	288	7	155	76	44
2 998	1 479	2 546	1 454	24 170	612	7 640	2 679	2 488
1 514	649	1 703	897	14 569	371	3 586	1 199	1 180
1 170	451	957	599	9 961	258	2 327	770	763
54	31	47	59	1 136	14	234	94	74
220	125	610	179	2 565	76	796	254	266
66	40	85	58	882	23	222	79	74
279	109	157	82	1 204	34	544	182	147
213	87	134	66	981	27	417	126	113
1 205	720	686	476	8 397	207	3 510	1 298	1 161
3	1	2	2	13	0	8	4	2
1	17	1	0	4	0	4	1	1
512	200	266	149	2 963	63	911	338	299
0	0	0	0	2	0	1	0	0
4	13	2	1	18	0	16	7	4
68	42	54	45	935	22	387	145	132
392	172	195	174	2 910	46	1 351	469	485
201	265	155	98	1 466	74	784	316	225
23	11	11	6	87	2	48	18	14
2	1	5	1	17	1	7	2	2
136	44	135	45	596	17	163	55	51
114	35	101	34	453	13	116	40	36
7 334	5 678	4 606	6 004	72 218	1 339	45 951	9 651	18 688
14 297	8 871	10 375	9 713	122 489	2 845	64 547	16 233	24 690

Annex table 3. Value added exports of goods and services from Malaysia, by value added creating sector and industry, 1990–2017 (USD millions)

Sector/industry	Exports from Malaysia						
	1990	1995	2000	2005	2010	2015	2017
Total	22 863	44 849	76 590	134 315	242 205	277 551	290 483
Primary	2 728	4 274	11 503	19 740	33 479	37 181	38 625
Agriculture, hunting, forestry and fishing	1 402	1 905	3 570	5 908	9 771	10 484	11 063
Mining, quarrying and petroleum	1 326	2 369	7 934	13 832	23 708	26 697	27 562
Secondary	11 663	24 315	35 977	62 846	115 041	137 878	136 783
Food, beverages and tobacco	499	1 043	1 809	3 197	6 135	7 587	7 343
Textiles, clothing and leather	530	789	991	1 677	2 840	3 433	3 346
Wood and wood products	1 357	2 567	3 356	5 373	9 305	11 113	11 016
Publishing, printing and reproduction of recorded media	77	85	168	304	522	594	638
Coke, petroleum products and nuclear fuel	320	995	1 738	3 159	5 667	7 191	6 646
Chemicals and chemical products	858	1 512	2 296	4 152	7 788	9 545	9 359
Rubber and plastic products	999	1 697	1 853	3 171	5 766	6 457	6 797
Nonmetallic mineral products	256	568	692	1 327	2 330	2 733	2 784
Metal and metal products	639	1 415	2 021	3 699	6 560	7 931	7 367
Machinery and equipment	597	1 526	2 788	4 946	9 165	11 101	11 111
Electrical and electronic equipment	4 709	10 384	16 881	29 426	54 536	65 004	65 164
Precision instruments	173	549	384	661	1 152	1 315	1 378
Motor vehicles and other transport equipment	187	463	378	698	1 361	1 494	1 513
Other manufacturing	417	684	569	972	1 781	2 229	2 176
Recycling	44	37	53	85	133	151	145
Tertiary	8 473	16 260	29 109	51 729	93 683	102 492	115 076
Electricity, gas and water	381	833	1 817	3 197	5 546	5 794	6 820
Construction	475	566	403	1 210	2 398	2 720	3 730
Trade	2 817	5 352	9 775	17 426	31 671	33 859	38 836
Hotels and restaurants	267	518	848	1 485	2 530	2 729	2 993
Transport, storage and communications	1 334	2 254	4 354	7 701	13 978	15 799	16 898
Finance	1 005	2 236	3 504	6 163	10 862	11 550	13 330
Business activities	1 743	3 589	6 834	11 890	22 041	24 670	26 529
Public administration and defence	84	82	103	169	288	363	413
Education	208	492	688	1 154	1 957	2 276	2 597
Health and social services	25	77	143	237	375	438	463
Community, social and personal service activities	133	261	641	1 098	2 035	2 293	2 468
Other services	0	0	0	0	1	0	0

Source: AAJC-UNCTAD-Eora database on ASEAN GVCs.

Note: All values are estimated. The value includes both values created abroad (outside Malaysia) (FVA) and within Malaysia (DVA). The industry refers to the industry to which the value is attributed, not the industry from which exports originate.

Annex table 4. Malaysian value added exports incorporated into other countries' exports, by region or country, 1990–2019 (USD millions)

Region/country	DVX from Malaysia						
	1990	1995	2000	2005	2010	2015	2019
World	6 035	11 884	21 538	41 577	77 338	85 375	100 126
Developed countries	2 611	5 113	9 360	17 286	30 382	31 815	38 727
Europe	1 638	3 285	5 973	11 358	21 120	21 356	26 693
European Union	1 603	3 214	5 855	11 110	20 638	20 884	26 043
Belgium	144	266	414	794	1 427	1 517	1 812
France	185	351	672	1 076	1 791	1 941	2 404
Germany	390	730	1 362	2 709	5 285	4 841	7 073
Italy	89	178	301	568	1 045	1 099	1 426
Netherlands	253	490	795	1 528	2 955	3 207	3 065
Spain	41	96	177	361	622	673	848
Sweden	45	84	153	236	414	437	615
United Kingdom	218	449	759	1 377	2 440	2 151	3 092
Other developed Europe	35	71	118	248	483	472	651
Switzerland	18	39	66	167	327	321	462
North America	348	818	1 602	2 291	3 530	3 676	4 153
Canada	73	182	370	602	931	978	1 393
United States	275	635	1 231	1 689	2 599	2 698	2 760
Other developed countries	625	1 010	1 785	3 637	5 732	6 783	7 881
Australia	50	136	249	443	807	932	1 110
Japan	555	834	1 453	3 051	4 662	5 581	6 443
New Zealand	13	26	51	86	162	172	239
Developing countries	3 402	6 749	12 138	24 214	46 785	53 374	61 106
Africa	28	45	81	156	298	320	404
Latin America and the Caribbean	41	181	419	755	1 331	1 474	2 199
Brazil	4	16	36	84	167	214	285
Asia	3 329	6 519	11 633	23 294	45 139	51 561	58 486
West Asia	44	91	145	251	520	597	779
Saudi Arabia	19	34	57	64	128	125	130
South, East and South-east Asia	3 284	6 429	11 488	23 043	44 619	50 964	57 707
East Asia	1 574	2 024	3 793	7 821	16 076	17 182	18 898
China	40	283	975	3 163	8 177	8 280	10 451
Hong Kong, China	120	237	342	727	1 499	1 691	1 554
Korea, Republic of	241	486	1 130	2 430	4 687	5 496	5 206
Taiwan Province of China	1 171	1 016	1 341	1 493	1 696	1 695	1 668
South Asia	27	60	127	325	688	884	444
India	10	33	77	237	536	692	265
ASEAN	1 683	4 345	7 568	14 897	27 854	32 898	38 365
Brunei Darussalam	16	15	16	32	70	79	120
Cambodia	0	2	5	11	18	22	22
Indonesia	94	209	566	984	1 728	2 049	2 517
Lao PDR	0	0	0	1	1	1	1
Myanmar	1	0	0	0	0	0	0
Philippines	118	331	594	1 118	1 933	2 067	2 570
Singapore	1 209	3 082	5 308	10 346	20 421	24 331	28 306
Thailand	232	672	994	2 237	3 421	4 085	4 246
Viet Nam	15	33	83	168	262	263	583
Oceania	5	4	6	9	18	19	17
Transition economies	21	22	41	77	171	186	292
Russian Federation	9	11	24	42	91	100	182

Source: AJC-UNCTAD-Eora database on ASEAN GVCs. Data for 2016–2018 are projected by UNCTAD and Eora.

Note: All values are estimated. The value refers to that incorporated in exports from the countries listed. For GVC terminology, see box 2.

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