

PART III

Global Value Chains



Global Value Chain Participation in Asia and the Pacific: Variations Across Economies, Across Sectors, and Over Time

Snapshot

- Variations in global value chain (GVC) participation across economies in Asia and the Pacific reflect economies' relative positions in global production networks, which in turn reflect economies' endowments and comparative advantage. Economies where high-technology products comprise a large part of exports tend to have relatively high backward and low forward participation ratios, while economies whose exports are largely composed of natural resource-based products tend to show the opposite.
- Economies in the region generally participate more through the supply side of GVCs (forward participation), rather than through the demand side (backward participation), highlighting the importance for the region of trade in intermediate goods.
- Economy-level participation ratios mask substantial variations in GVC participation across sectors within economies, with more diversified economies showing more cross-sectoral variation in participation.
- Significant changes in participation ratios are possible over time, which economies accomplished via inter-sectoral shifts in the composition of exports, or intra-sectoral changes in GVC participation.

Since 2015, statistics on the participation of economies and sectors in global value chains (GVCs) have been published as part of *Key Indicators for Asia and the Pacific (Key Indicators)*. The 2015 edition of *Key Indicators* covered 11 Asian economies for 2000, 2005, and 2011, and documented the exponential growth in trade in intermediates in these economies. The 2016 edition of the publication expanded its coverage to 13 Asian economies and added the years 2008 and 2015. It found a strong tendency for economies in Asia to localize production in response to the uncertainty brought about by the 2008 global financial crisis as well as growing domestic demand. Finally, last year's edition of *Key Indicators* focused on 2014–2016 and expanded its coverage to 23 economies from Asia and the Pacific. It found that an increase in the domestic content of exports helped mitigate the impact of the global trade slowdown on incomes in the region.

The GVC statistics in this publication cover 25 economies from Asia and the Pacific for the years 2010 and 2017. The GVC statistical methodologies are defined in Tables 3.1.1 and 3.1.2. The statistics themselves are presented in Tables 3.2.1 to 3.2.4. This accompanying analysis, which covers a longer period from 2000–2017, takes a closer look at how participation in GVCs varies in Asia and the Pacific—across economies, across sectors, and over time.¹

Economies can participate in GVCs in two ways. They can use imported intermediate products in their exports, and they can export intermediate goods and services that other economies use in production. These two means of GVC participation for economies across Asia and the Pacific are

¹ The data presented in this Part III are not official statistics. Production and trade data from various sources were integrated into the input-output economic analysis framework and adjusted as required to conform to specific macroeconomic concepts. As such, data and statistics presented here could differ from relevant official statistics.

measured by constructing backward and forward participation ratios, following the approaches of Koopman et al. (2014) and Wang, Wei, and Zhu (2018). Specifically, the *backward participation ratio* denotes the foreign value-added contribution to an economy's (or economy-sector's) exports. The *forward participation ratio* shows how much of an economy's (or economy-sector's) locally generated value-added is embedded in the production of other economies. The methodology for constructing

the backward and forward participation ratios are described in Box 3.1.1.

Variation Across Economies

Results based on the method described in Box 3.1.1 show that GVC participation varies widely across economies in Asia and the Pacific (Figure 3.1.1). Singapore leads in terms of its use of foreign inputs

Box 3.1.1: Constructing Backward and Forward Participation Ratios

Data on intermediate and final exports by economy-sector are extracted from the multiregional input-output tables (MRIOTs) database of the Asian Development Bank (ADB), and decomposed into 16 value-added terms following the methodology espoused by Wang, Wei, and Zhu (2018) and described in *Key Indicators 2015*. Backward and forward participation ratios are then estimated for each economy (and economy-sector) for each year by applying the following four equations to the 16 value-added terms of the decomposition.

For each economy i with sectors k exporting to all other economies j , the backward participation ratio (BPR_i) is given by:

$$BPR_i = \frac{\sum_k \sum_j DDC_{ij}^k + FVA_FIN_{ij}^k + FVA_INT_{ij}^k + FDC_{ij}^k}{\sum_k \sum_j EXP_{ij}^k} \quad (1)$$

while for sector k in economy i , the backward participation ratio (BPR_i^k) is given by:

$$BPR_i^k = \frac{\sum_j DDC_{ij}^k + FVA_FIN_{ij}^k + FVA_INT_{ij}^k + FDC_{ij}^k}{\sum_j EXP_{ij}^k} \quad (2)$$

where BPR is backward participation ratio, DDC is domestic double counted in total exports, FVA_FIN is foreign value-added in final goods exports, FVA_INT is foreign value-added in intermediate goods exports, FDC is foreign double counted in total exports, and EXP is total exports.^a The index i stands for exporting economy, k stands for exporting sector, and j stands for importing economy.

The forward participation ratio of economy i (FPR_i) is given by:

$$FPR_i = \frac{\sum_k \sum_j DVA_INT_{ij}^k + DVA_INTrex_{ij}^k + RDV_B_{ij}^k}{\sum_k \sum_j EXP_{ij}^k} \quad (3)$$

while for sector k in economy i , the forward participation ratio (FPR_i^k) can be calculated as:

$$FPR_i^k = \frac{\sum_j DVA_INT_{ij}^k + DVA_INTrex_{ij}^k + RDV_B_{ij}^k}{\sum_j EXP_{ij}^k} \quad (4)$$

where DVA_INT stands for intermediates exports absorbed by direct importers, DVA_INTrex stands for intermediates sent to first importer and then re-exported to a third economy, and RDV_B stands for domestic value-added first exported then returned home.

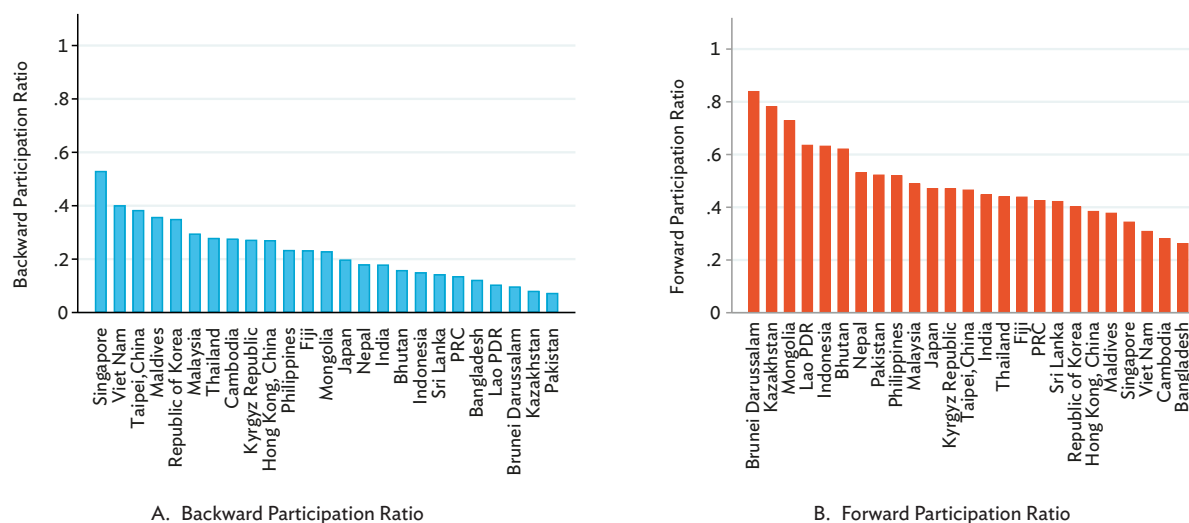
^a See *Key Indicators 2015* for a detailed description of these statistics and their interpretation.

Sources:

R. Koopman, Z. Wang, and S.J. Wei. 2014. "Tracing Value-Added and Double-Counting in Gross Exports," *American Economic Review*, Vol. 104, No. 2 (February), pp. 459–94.

Z. Wang, S.J. Wei, and K. Zhu. 2018. Quantifying international production sharing at the bilateral and sector levels (No. w19677). National Bureau of Economic Research.

Figure 3.1.1: Global Value Chain Participation in Asia and the Pacific, 2017



Lao PDR = Lao People's Democratic Republic, PRC = People's Republic of China.

Sources: Authors' calculations; and Asian Development Bank Multiregional Input-Output Tables 2017.

in the production of its exports, as evidenced by its backward participation ratio of close to 60%. It mainly imports intermediate inputs of coke, refined petroleum, and nuclear fuel; renting of machinery and equipment and other business activities; electrical and optical equipment; and water transport. The result is intuitive, given Singapore's pivotal position as a major transit point and oil-refining and trading hub, and its well-developed electronics-processing ecosystem.

Economies such as Viet Nam; Taipei, China; the Republic of Korea; and Malaysia, which are also leading exporters of electrical and optical equipment in the region, show similarly high backward participation ratios. This is primarily because the production processes in the high-technology manufacturing sector are highly fragmented and widely distributed geographically. Data show that Viet Nam is fast emerging as an assembly hub in the industry, while the other three economies host leading manufacturers of high-technology components such as electronic chips, the production

of which relies heavily on specific primary products and technical know-how imported from economies across the world.

At the other end of the spectrum, Pakistan lags in terms of its use of foreign inputs, with a backward participation ratio of close to 5%. Pakistan's main exports are textiles and textile products, whose inputs are mainly sourced domestically. Kazakhstan also exhibits notably lower backward participation rates. The country's main exports are in the sectors of mining and quarrying; basic metals and fabricated metal; and coke, refined petroleum, and nuclear fuel, and these are either primary goods or processed primary goods, which need few imported intermediate inputs to produce.

The forward participation of economies across Asia and the Pacific also vary substantially, but tell a somewhat different story. Panel B of Figure 3.1.1 shows that economies such as Brunei Darussalam, Kazakhstan, and Mongolia, whose exports are largely composed of natural resource-based products, are at the upstream segments of value chains. As a

result, these economies have the highest forward participation ratios, with 70%–80% of their exports going into the production of other economies.

Economies with the lowest forward participation are Bangladesh and Cambodia, whose main exports are in textiles and textile products. Although Bangladesh's textile sector is well integrated into global garment supply chains, the economy shows low forward participation since it produces largely final or near-end products. Cambodia also displays low participation due to the large contribution of textiles to its exports, but there is a distinction between the two economies. Specifically, data show that while foreign value-added is rather significant in Cambodia's textile exports (indicating high backward participation) the relevant numbers are low for Bangladesh. This is largely attributable to the fact that Cambodia specializes in assembly processes, whereas Bangladesh has localized assembly as well as upstream processes related to the sector.

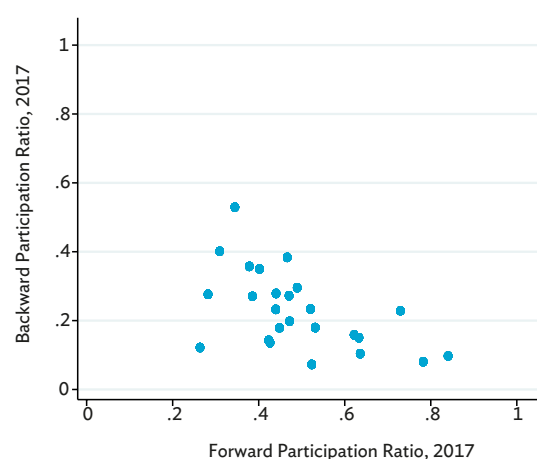
A comparison of the magnitudes in panel A of Figures 3.1.1. against those in panel B illustrates that, except for Singapore and Viet Nam, economies in Asia and the Pacific seem to participate more through the supply side of GVCs, rather than through the demand side. Further analysis also indicates that most economy-sectors participate in relatively low value-adding segments of GVCs, signifying the need for policies aimed at developing and fostering conditions that enable local sectors to move up the value chain.

Given the frequent characterization of the People's Republic of China (PRC) as “the factory of the world,” the economy's backward and forward participation ratios may strike many as being low. The reason for this is that, in many sectors and products, the PRC economy has well-developed

local supply chains and, hence, a relatively large share of the value-added in its exports originates domestically. However, it is also noteworthy that most of the domestic value-added exported by the PRC is through final products, which are not accounted for in this analysis.

Figure 3.1.2 further illustrates that when talking about GVC participation, it matters what kind of participation you are referring to. The correlation between backward and forward participation ratios is negative (-0.54), so economies which have high backward participation tend to have low forward participation, and vice versa. This reflects economies' positions along global production networks, and this in turn reflects their relative endowments and comparative advantage. For example, resource-rich Brunei Darussalam tends to export primary inputs and has a higher forward participation ratio than backward participation ratio. By contrast, Singapore is a small economy with few natural resources, and must use many foreign inputs in producing its exports, resulting in a high backward participation ratio and a low forward participation ratio.

Figure 3.1.2: Backward versus Forward Participation Ratios, 2017



Sources: Authors' calculations; and Asian Development Bank Multiregional Input-Output Tables 2017.

These economy-level backward and forward participation ratios mask substantial variations in GVC participation across sectors within economies. The modified box-and-whisker plots in Figure 3.1.3—with the upper fence representing the 90th percentile and the lower fence representing the 10th percentile—show that GVC participation varies widely across sectors for almost all economies. Plots in Figure 3.1.3 show that economies can simultaneously participate extensively in GVCs in some sectors, while having almost zero participation in others.

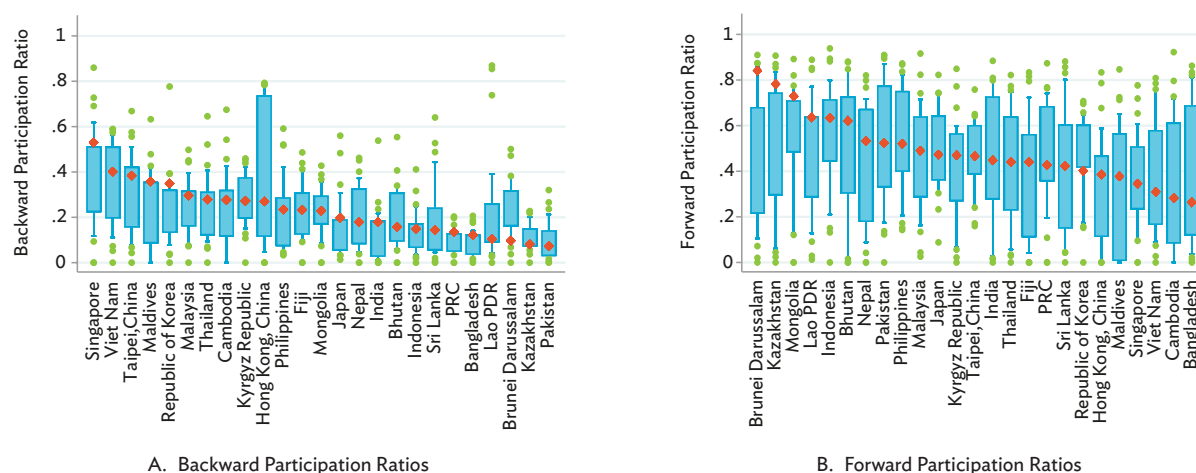
For Hong Kong, China, exports are dominated by service sectors with low backward participation, such as wholesale trade and commission trade, financial intermediation, retail trade, air transport, and inland transport. This leads to a modest backward participation ratio for the aggregate economy. At the same time, the economy is also engaged in sectors with high backward participation, such as chemicals and chemical products, transport

equipment, electrical and optical equipment, rubber and plastics, and general machinery. Thus, the presence of sectors with low backward participation and high backward participation ratios leads to the wide variation in Hong Kong, China.

Variations Across Sectors

For any given sector, variations in participation ratios across economies could be attributed to the nature of the sector categories in the MRIOTs (Figure 3.1.4). Each sector is made up of several subsectors, whose products and processes could be quite dissimilar to each other at a more granular level. Thus, those sectors whose products have dissimilar production processes will tend to show wider variation in participation ratios. For example, the mean backward participation ratio in the coke, refined petroleum, and nuclear fuel sector is high for the 25 economies in Asia and the Pacific covered by the MRIOTs. This is to be expected as many

Figure 3.1.3: Variations in Global Value Chain Participation within Economies of Asia and the Pacific, 2017



- ◆ Aggregate economy participation ratio
- Sector participation ratios above the 90th percentile and below the 10th percentile

Lao PDR = Lao People's Democratic Republic, PRC = People's Republic of China.

Note: Bars represent interquartile regions, with the upper quartile representing the 75th percentile and the lower quartile representing the 25th percentile. Upper and lower fences represent the 90th and 10th percentiles, respectively.

Sources: Authors' calculations; and Asian Development Bank Multiregional Input-Output Tables 2017.

Figure 3.1.4: Variations in Global Value Chain Participation within Sectors in Asia and the Pacific, 2017



Sources: Authors' calculations; and Asian Development Bank Multiregional Input-Output Tables 2017.

economies import these products and use them in export production. However, the variation within the sector is quite high, with some economies (those which both extract and refine fuels) having little backward participation in this sector.

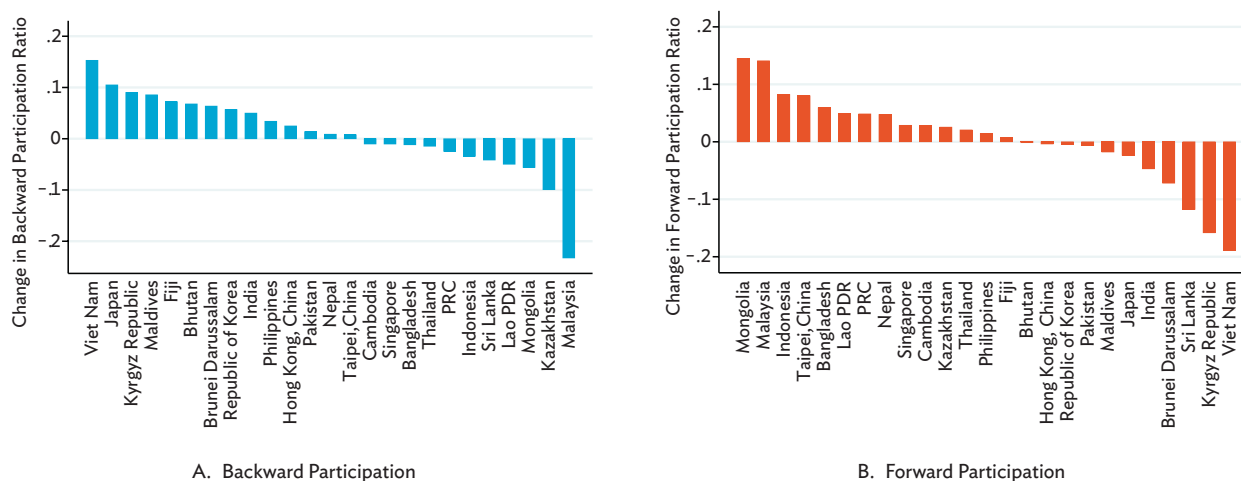
Compared to backward participation, forward participation ratios display a greater range (Figure 3.1.4). It may come as a surprise that sectors such as construction; real estate activities; financial intermediation; postage and telecommunications; and electricity, gas, and water supply show high mean forward participation ratios across all economies. After all, these sectors do not normally engage in direct exports in the traditional sense. However, these sectors provide the goods and services that enable other sectors to successfully engage in production processes and supply their products to domestic and foreign markets. The indirect contributions of these support sectors are counted in the domestic value-added portion of the exported product. Hence, the forward participation indices of such sectors tend to be relatively high even with little or no direct

exports attributable to them. Conversely, direct exporting sectors such as textiles, leather products, and appliance manufacturing show average lower forward participation rates due the final or near-complete nature of their exports.

Variations Over Time

Figure 3.1.5 shows how GVC participation has changed dramatically in Asian economies over time. For instance, the backward participation ratios of Viet Nam and Japan have increased by more than 10 percentage points from 2000 levels, while the forward participation ratios of these two economies have fallen. The opposite is true for economies such as Mongolia, Malaysia, and Indonesia, where backward participation fell, while forward participation increased. As was the case in levels documented in Figure 3.1.2, the changes in backward and forward participation ratios for the regional economies tend to have a negative relationship.

Figure 3.1.5: Changes in Participation Ratios over Time, 2000–2017



Lao PDR = Lao People's Democratic Republic, PRC = People's Republic of China.

Sources: Authors' calculations; and Asian Development Bank Multiregional Input-Output Tables 2000 and 2017.

These changes can be driven by shifts in each economy's main exports. In 2000, Viet Nam's main exports came from mining and quarrying, followed by agriculture, hunting, forestry, and fishing. The primary sectors are typically expected to have high forward participation ratios, given that their products are mainly extracted from natural resources within the economy. In 2017, Viet Nam's main exports had shifted to food, beverages, and tobacco; electrical and optical equipment; textile and textile products; and leather, leather products, and footwear in terms of total exports. In electrical and optical equipment especially, backward participation ratios are relatively high compared to industries in the primary sector.

The greatest decrease in backward participation is seen in Malaysia, which shows the second highest increase in its forward participation ratio. However, unlike in Viet Nam, the shift is partly driven by the increase in the domestic value-added in the intermediates used in the high-technology industry. While Malaysia's exports are still led by firms producing electrical and optical equipment, the sector's backward participation ratio declined from 0.70 in 2000 to 0.44 in 2017, as a greater share of intermediates were sourced domestically. Meanwhile, forward participation increased from 0.19 in 2000 to 0.35 in 2017. Thus, it appears that, in this sector, the economy has not only progressively localized upstream segments of the relevant GVCs already passing through it, but has also expanded its intermediate supplies to the global market. Given the sector's critical and increasing contribution to the Malaysian economy, further studies are needed to clarify this phenomenon and determine the extent

to which it could be attributed to the "ecosystem" effect, i.e., whether already having the essential infrastructure, policies, and related businesses is helping Malaysia to attract more value chain segments and more businesses in the high-tech sector.

Conclusion

Analysis of the MRIOTs and GVC participation indices show that, although economies across Asia and the Pacific tend to participate in GVCs through both backward and forward linkages to varying degrees, forward participation is generally more pronounced and significant than backward participation. However, data also reveal that there is substantial variation in GVC participation across economies and sectors, and importantly, over time. For policymakers aiming to raise their economies' level of trade integration, this demonstrates that it is possible for economies to raise GVC participation substantially over a decade or two. Given these stylized facts, and the importance of global production networks as an avenue for economies to participate in the global economy, more comprehensive and in-depth exploration of various factors that determine GVC participation is required. Future editions of *Key Indicators* will delve more deeply into this issue.

References

- Asian Development Bank. *Key Indicators for Asia and the Pacific*. Manila (3 years: 2015–2017).
- Asian Development Bank. 2000, 2010–2017. Multiregion Input-Output Tables.
- R. Koopman, Z. Wang, and S.J. Wei. 2014. "Tracing Value-Added and Double-Counting in Gross Exports," *American Economic Review*, Vol. 104, No. 2 (February), pp. 459-94.
- Z. Wang, S.J. Wei, and K. Zhu. 2018. *Quantifying international production sharing at the bilateral and sector levels* (No. w19677). National Bureau of Economic Research.

Table 3.1.1: Definitions of Global Value Chains Terms and Indicators

Indicator	Definition
Domestic Value Added (DVA)	Domestic inputs of goods and services in the overall exports of an economy.
Domestic Value Added Absorbed Abroad (VAX_G)	All domestic value added embodied in the gross exports and ultimately absorbed abroad.
Domestic Value Added First Exported then Returned Home (RDV_B)	Domestic value added that are exported first, but then return to the home economy for domestic consumption. This would happen, for example, when the Philippines export electronic parts to the PRC for final assembly of laptops, which then return to the Philippines for final consumption.
Foreign Value Added (FVA)	Imported inputs of goods and services in the overall exports of an economy.
Global Value Chains (GVCs)	A network of interlinked stages of production for goods and services that straddles international borders. Typically, a GVC involves combining imported and domestically produced goods and services into products that are then exported for use as intermediates in the subsequent stage of production or as final consumption products.
GVC participation	There are various ways to measure economies' participation in GVCs. A simple metric is the share of foreign value added in total exports. It reflects the extent to which an economy uses foreign inputs in producing for exports. A more rigorous measure is Vertical Specialization (VS), which is the share of foreign value added and pure double counted terms in total exports.
Pure Double-Counted Terms (PDC)	In a GVC, some goods or services may cross the same national border for three or more times.
Revealed Comparative Advantage (RCA)	It is an index, introduced by Bela Balassa, to calculate the relative advantage an economy has in the export of any given good or service. An economy is said to have an RCA in a product if it exports more than its "fair share", or a share that is equal to or greater than the share of total world trade that the product represents.
Value Added Exports by Forward Industrial Linkages (VAX_F)	Domestic value added that is originated from a particular sector and ultimately absorbed abroad via the exports of all sectors in the source economy. For example, besides direct export, the value added of German business services sector may be exported as an input to German automobiles. This indicator is useful in understanding the contribution of a given sector to the economy's aggregate exports.
Value Added Exports by Backward Industrial Linkages (VAX_B)	Value added that is originated from all domestic sectors and ultimately absorbed abroad via the export of a particular sector in the source economy. For example, the domestic value added of German automobile exports includes that of all German sectors (e.g., business service, computers) used as inputs.

Source: Asian Development Bank. 2015. *Key Indicators for Asia and the Pacific 2015*. <https://www.adb.org/publications/key-indicators-asia-and-pacific-2015>

Table 3.1.2: Sector Aggregation

Aggregate Economic Sectors	Industry Sectors used by the World Input-Output Database
Primary Sector	Consists of the sectors Agriculture, Hunting, Forestry, and Fishing; Mining and Quarrying.
Low-Technology Sector	Consists of the sectors Food, Beverages, and Tobacco; Textiles and Textile Products; Leather, Leather Products, and Footwear; Wood and Products of Wood and Cork; Pulp, Paper, Paper Products, Printing, and Publishing; Rubber and Plastics; Manufacturing, NEC; Recycling; Electricity, Gas, and Water Supply; Construction.
High- and Medium-Technology Sector	Consists of the sectors Coke, Refined Petroleum, and Nuclear Fuel; Chemicals and Chemical Products; Other Non-Metallic Mineral; Basic Metals and Fabricated Metals; Machinery, NEC; Electrical and Optical Equipment; Transport Equipment.
Business Services Sector	Consists of the sectors Sale, Maintenance, and Repair of Motor Vehicles and Motorcycles; Retail Trade, Except of Motor Vehicles and Motorcycles; Repair of Household Goods; Hotels and Restaurants; Inland Transport; Water Transport; Air Transport; Other Supporting and Auxiliary Transport Activities; Activities of Travel Agencies; Post and Telecommunications; Financial Intermediation; Real Estate Activities; Renting of Machinery and Equipment; Other Business Activities.
Personal Services Sector	Consists of the sectors Public Administration and Defense; Compulsory Social Security; Education; Health and Social Work; Other Community, Social, and Personal Services; Private Households with Employed persons.

Source: Asian Development Bank. 2015. *Key Indicators for Asia and the Pacific 2015*. <https://www.adb.org/publications/key-indicators-asia-and-pacific-2015>

Table 3.2.1a: Value-Added Decomposition of Exports—Primary Sector

ADB Regional Member	Exports	VAX_G	RDV_B	FVA	PDC
	(\$ million)		(% share in exports)		
Bangladesh					
2010	331	94.02	0.06	4.83	1.09
2017	464	94.07	0.06	4.91	0.96
Bhutan					
2010	74	93.74	0.02	5.67	0.58
2017	104	91.82	0.02	7.41	0.75
Brunei Darussalam					
2010	4,845	93.03	0.00	4.74	2.23
2017	3,012	91.58	0.01	5.39	3.02
Cambodia					
2010	221	89.90	0.18	6.98	2.94
2017	1,002	88.87	0.21	7.32	3.60
China, People's Republic of					
2010	22,609	87.39	2.61	6.86	3.14
2017	24,181	89.58	3.29	4.67	2.45
Fiji					
2010	86	72.61	0.01	24.06	3.33
2017	168	74.96	0.01	21.84	3.19
Hong Kong, China					
2010	88	49.14	0.16	37.79	12.91
2017	125	63.20	0.26	28.26	8.29
India					
2010	24,905	94.34	0.75	3.51	1.40
2017	23,371	93.40	0.88	3.96	1.76
Indonesia					
2010	48,635	92.21	1.12	3.73	2.94
2017	48,489	92.96	1.27	3.18	2.59
Japan					
2010	2,588	66.03	1.59	20.94	11.44
2017	3,601	61.42	1.43	24.49	12.67
Kazakhstan					
2010	35,319	89.36	0.12	6.52	4.00
2017	20,223	91.43	0.09	5.13	3.34
Korea, Republic of					
2010	776	83.03	0.30	14.59	2.08
2017	933	83.42	0.70	12.34	3.53
Kyrgyz Republic					
2010	718	69.47	0.02	22.85	7.66
2017	406	77.43	0.10	17.66	4.82
Lao People's Democratic Republic					
2010	909	84.21	0.01	10.92	4.86
2017	2,471	91.81	0.05	6.16	1.99
Malaysia					
2010	13,156	91.40	0.33	5.57	2.70
2017	13,995	89.43	0.35	7.31	2.92

continued on next page

Table 3.2.1a: continued

Table 3.2.1a: Value-Added Decomposition of Exports—Primary Sector					
ADB Regional Member	Exports	VAX_G	RDV_B	FVA	PDC
	(\$ million)	(% share in exports)			
Maldives					
2010	20	54.95	0.00	38.75	6.30
2017	32	58.10	0.00	35.22	6.68
Mongolia					
2010	2,098	75.06	0.01	17.95	6.98
2017	4,524	76.41	0.01	17.52	6.05
Nepal					
2010	79	92.00	0.05	7.61	0.34
2017	60	91.37	0.06	8.14	0.42
Pakistan					
2010	1,534	96.58	0.08	2.75	0.59
2017	2,213	96.92	0.10	2.44	0.54
Philippines					
2010	1,265	91.61	0.23	6.16	2.00
2017	1,618	91.05	0.27	6.46	2.22
Singapore					
2010	60	67.28	0.15	24.97	7.59
2017	46	66.76	0.09	26.36	6.78
Sri Lanka					
2010	379	88.25	0.04	8.92	2.78
2017	840	89.52	0.04	8.78	1.66
Taipei,China					
2010	1,652	74.33	0.12	22.35	3.20
2017	1,895	75.89	0.14	19.80	4.17
Thailand					
2010	4,914	86.61	0.30	9.79	3.30
2017	10,886	88.22	0.24	8.91	2.63
Viet Nam					
2010	10,056	66.04	0.20	25.39	8.38
2017	19,987	63.81	0.19	27.37	8.63

0.00 = magnitude is less than half of unit employed, \$ = United States dollars, FVA = foreign value-added, PDC = pure double counted terms, RDV_B = domestic value-added first exported then returned home, VAX_G = domestic value-added absorbed abroad.

Source: ADB Multi Region Input–Output Tables Database.

Table 3.2.1b: Value-Added Decomposition of Exports—Low-Technology Manufacturing Sector

ADB Regional Member	Exports	VAX_G	RDV_B	FVA	PDC
	(\$ million)		(% share in exports)		
Bangladesh					
2010	13,022	85.18	0.01	13.36	1.45
2017	25,614	86.07	0.02	12.39	1.52
Bhutan					
2010	210	88.14	0.00	8.44	3.42
2017	281	88.93	0.00	8.28	2.79
Brunei Darussalam					
2010	28	61.04	0.01	35.58	3.38
2017	104	62.47	0.01	30.79	6.73
Cambodia					
2010	2,124	63.97	0.00	33.30	2.72
2017	5,287	64.67	0.01	33.24	2.09
China, People's Republic of					
2010	373,984	85.93	0.75	11.55	1.77
2017	538,939	89.85	1.16	7.58	1.40
Fiji					
2010	208	76.19	0.01	20.76	3.05
2017	347	77.57	0.00	19.32	3.11
Hong Kong, China					
2010	7,004	51.21	0.08	40.45	8.26
2017	7,591	51.69	0.09	40.72	7.51
India					
2010	50,210	81.07	0.43	15.52	2.99
2017	81,506	87.14	0.32	10.43	2.11
Indonesia					
2010	61,583	83.73	0.27	12.96	3.04
2017	96,989	83.90	0.23	12.87	3.00
Japan					
2010	48,927	85.06	1.62	8.84	4.48
2017	53,835	82.31	1.30	11.18	5.22
Kazakhstan					
2010	1,221	85.37	0.18	11.47	2.98
2017	1,072	86.90	0.35	10.58	2.17
Korea, Republic of					
2010	36,177	70.96	0.39	20.84	7.80
2017	49,251	70.50	0.57	20.10	8.83
Kyrgyz Republic					
2010	127	55.88	0.01	37.11	6.99
2017	329	61.78	0.08	31.62	6.53
Lao People's Democratic Republic					
2010	420	88.02	0.00	9.60	2.38
2017	2,719	88.60	0.02	8.87	2.51
Malaysia					
2010	39,595	71.25	0.12	22.22	6.41
2017	46,435	70.37	0.12	23.20	6.31

continued on next page

Table 3.2.1b: continued

Table 3.2.1b: Value-Added Decomposition of Exports—Low-Technology Manufacturing Sector					
ADB Regional Member	Exports	VAX_G	RDV_B	FVA	PDC
	(\$ million)	(% share in exports)			
Maldives					
2010	30	55.93	0.00	34.39	9.68
2017	158	58.24	0.00	37.40	4.36
Mongolia					
2010	126	76.77	0.01	18.64	4.58
2017	194	72.28	0.01	20.94	6.77
Nepal					
2010	222	75.09	0.02	22.98	1.91
2017	224	73.42	0.03	24.09	2.46
Pakistan					
2010	13,348	91.74	0.06	6.29	1.91
2017	14,582	92.53	0.10	5.76	1.61
Philippines					
2010	10,611	85.90	0.07	12.05	1.98
2017	14,420	85.32	0.11	12.44	2.13
Singapore					
2010	8,486	50.17	0.09	40.50	9.24
2017	9,851	55.43	0.08	36.72	7.77
Sri Lanka					
2010	5,783	78.47	0.01	18.84	2.67
2017	7,316	84.07	0.01	14.21	1.70
Taipei,China					
2010	22,044	57.30	0.14	30.65	11.91
2017	25,488	61.55	0.14	28.04	10.27
Thailand					
2010	32,266	73.88	0.14	21.40	4.57
2017	48,692	78.23	0.14	17.25	4.39
Viet Nam					
2010	30,398	64.91	0.03	31.15	3.91
2017	82,026	60.54	0.05	34.25	5.16

0.00 = magnitude is less than half of unit employed, \$ = United States dollars, FVA = foreign value-added, PDC = pure double counted terms, RDV_B = domestic value-added first exported then returned home, VAX_G = domestic value-added absorbed abroad.

Source: ADB Multi Region Input–Output Tables Database.

Table 3.2.1c: Value-Added Decomposition of Exports—Medium- and High-Technology Manufacturing Sector

ADB Regional Member	Exports	VAX_G	RDV_B	FVA	PDC
	(\$ million)		(% share in exports)		
Bangladesh					
2010	268	88.11	0.05	10.84	1.00
2017	600	89.18	0.04	10.19	0.60
Bhutan					
2010	104	78.82	0.02	19.64	1.52
2017	99	77.88	0.02	20.52	1.58
Brunei Darussalam					
2010	3,483	94.12	0.01	3.94	1.93
2017	2,395	92.86	0.01	4.85	2.29
Cambodia					
2010	26	63.79	0.01	32.74	3.46
2017	94	68.83	0.06	25.42	5.68
China, People's Republic of					
2010	1,012,325	73.05	2.28	18.72	5.96
2017	1,395,964	79.66	2.97	12.77	4.61
Fiji					
2010	24	62.79	0.01	32.28	4.92
2017	44	64.27	0.00	31.51	4.22
Hong Kong, China					
2010	9,308	21.00	0.03	57.74	21.23
2017	10,775	22.00	0.03	58.85	19.12
India					
2010	100,794	64.84	0.57	23.72	10.88
2017	159,752	67.23	0.49	22.12	10.15
Indonesia					
2010	58,388	77.47	0.46	15.84	6.23
2017	75,721	78.41	0.46	14.96	6.17
Japan					
2010	591,966	80.66	1.21	12.68	5.45
2017	644,100	76.03	0.98	16.36	6.63
Kazakhstan					
2010	12,533	89.22	0.19	6.69	3.90
2017	8,072	92.31	0.22	4.26	3.21
Korea, Republic of					
2010	427,863	61.37	0.33	28.55	9.74
2017	558,619	60.67	0.38	28.39	10.56
Kyrgyz Republic					
2010	654	75.81	0.01	15.90	8.29
2017	1,022	73.16	0.02	19.36	7.46
Lao People's Democratic Republic					
2010	15	46.10	0.01	48.61	5.28
2017	30	75.14	0.08	16.44	8.34
Malaysia					
2010	71,360	60.25	0.22	26.87	12.66
2017	71,743	61.34	0.33	24.27	14.07

continued on next page

Table 3.2.1c: continued

Table 3.2.1c: Value-Added Decomposition of Exports—Medium- and High-Technology Manufacturing Sector					
ADB Regional Member	Exports	VAX_G	RDV_B	FVA	PDC
	(\$ million)	(% share in exports)			
Maldives					
2010	1	61.24	0.01	31.01	7.75
2017	4	68.11	0.00	27.98	3.91
Mongolia					
2010	58	65.36	0.01	25.04	9.59
2017	122	74.92	0.01	18.93	6.15
Nepal					
2010	83	60.26	0.09	34.75	4.91
2017	90	59.02	0.11	36.58	4.28
Pakistan					
2010	1,352	78.34	0.07	17.99	3.60
2017	1,658	80.31	0.12	16.13	3.45
Philippines					
2010	21,598	62.82	0.19	22.34	14.64
2017	25,201	51.88	0.20	29.81	18.10
Singapore					
2010	139,236	34.38	0.12	45.07	20.43
2017	163,847	35.55	0.11	46.64	17.70
Sri Lanka					
2010	899	58.87	0.02	32.85	8.25
2017	509	54.21	0.03	37.82	7.94
Taipei, China					
2010	240,938	51.31	0.22	31.57	16.89
2017	267,892	55.93	0.23	28.31	15.54
Thailand					
2010	79,186	55.47	0.26	31.88	12.39
2017	110,470	55.58	0.24	31.96	12.22
Viet Nam					
2010	11,609	49.06	0.08	35.35	15.50
2017	35,976	44.35	0.12	36.48	19.05

0.00 = magnitude is less than half of unit employed, \$ = United States dollars, FVA = foreign value-added, PDC = pure double counted terms, RDV_B = domestic value-added first exported then returned home, VAX_G = domestic value-added absorbed abroad.

Source: ADB Multi Region Input–Output Tables Database.

Table 3.2.1d: Value-Added Decomposition of Exports—Business Services Sector

ADB Regional Member	Exports	VAX_G	RDV_B	FVA	PDC
	(\$ million)		(% share in exports)		
Bangladesh					
2010	1,577	96.99	0.05	2.13	0.82
2017	2,012	97.30	0.10	1.87	0.73
Bhutan					
2010	123	74.94	0.00	20.31	4.75
2017	225	77.46	0.01	17.40	5.13
Brunei Darussalam					
2010	613	77.94	0.01	16.44	5.61
2017	446	74.63	0.01	18.46	6.89
Cambodia					
2010	1,598	81.76	0.01	14.35	3.88
2017	2,927	80.27	0.01	15.55	4.17
China, People's Republic of					
2010	276,698	86.97	2.65	7.11	3.26
2017	362,212	90.37	3.19	4.37	2.07
Fiji					
2010	824	70.29	0.01	25.01	4.69
2017	1,269	76.96	0.01	18.78	4.25
Hong Kong, China					
2010	125,939	74.94	0.17	20.14	4.75
2017	172,005	76.78	0.18	19.31	3.73
India					
2010	128,581	88.18	0.94	8.01	2.87
2017	107,667	94.50	0.63	3.75	1.12
Indonesia					
2010	12,906	88.56	0.32	8.32	2.80
2017	12,573	91.08	0.31	6.60	2.01
Japan					
2010	188,197	90.10	1.24	6.18	2.49
2017	155,946	91.51	0.90	5.32	2.26
Kazakhstan					
2010	13,190	91.43	0.32	6.46	1.80
2017	12,611	92.12	0.37	5.85	1.66
Korea, Republic of					
2010	50,285	79.58	0.46	14.68	5.27
2017	95,041	83.61	0.51	11.74	4.15
Kyrgyz Republic					
2010	217	70.74	0.01	22.37	6.87
2017	622	69.13	0.02	23.03	7.82
Lao People's Democratic Republic					
2010	191	80.65	0.01	13.81	5.52
2017	759	85.81	0.02	10.46	3.72
Malaysia					
2010	35,348	82.77	0.13	13.20	3.89
2017	32,674	80.50	0.17	14.39	4.95

continued on next page

Table 3.2.1d: continued

Table 3.2.1d: Value-Added Decomposition of Exports—Business Services Sector					
ADB Regional Member	Exports	VAX_G	RDV_B	FVA	PDC
	(\$ million)	(% share in exports)			
Maldives					
2010	1,709	69.51	0.00	24.75	5.74
2017	3,012	64.19	0.00	28.29	7.52
Mongolia					
2010	668	78.67	0.01	16.03	5.29
2017	1,012	81.11	0.03	14.28	4.58
Nepal					
2010	355	82.94	0.03	13.95	3.09
2017	415	78.94	0.04	17.08	3.94
Pakistan					
2010	3,963	93.49	0.07	5.21	1.23
2017	5,377	94.08	0.12	4.62	1.18
Philippines					
2010	18,373	92.21	0.11	5.95	1.72
2017	31,645	90.95	0.15	6.79	2.11
Singapore					
2010	135,393	58.82	0.11	29.05	12.02
2017	200,924	55.45	0.13	33.23	11.19
Sri Lanka					
2010	3,182	85.62	0.03	11.58	2.77
2017	6,521	89.24	0.03	8.58	2.15
Taipei,China					
2010	49,626	77.90	0.29	15.51	6.30
2017	76,514	79.88	0.27	14.38	5.47
Thailand					
2010	31,850	80.21	0.20	15.42	4.16
2017	88,998	85.31	0.15	11.79	2.76
Viet Nam					
2010	10,332	73.59	0.06	22.13	4.22
2017	26,671	74.20	0.09	21.12	4.59

0.00 = magnitude is less than half of unit employed, \$ = United States dollars, FVA = foreign value-added, PDC = pure double counted terms, RDV_B = domestic value-added first exported then returned home, VAX_G = domestic value-added absorbed abroad.

Source: ADB Multi Region Input–Output Tables Database.

Table 3.2.1e: Value-Added Decomposition of Exports—Personal Services Sector

ADB Regional Member	Exports	VAX_G	RDV_B	FVA	PDC
	(\$ million)		(% share in exports)		
Bangladesh					
2010	393	97.88	0.03	1.69	0.39
2017	2,045	97.80	0.05	1.66	0.49
Bhutan					
2010	9	87.14	0.00	11.19	1.67
2017	28	83.43	0.00	14.55	2.02
Brunei Darussalam					
2010	31	82.04	0.01	13.82	4.14
2017	56	83.92	0.00	15.09	0.99
Cambodia					
2010	71	80.12	0.01	14.63	5.24
2017	109	80.33	0.02	15.67	3.98
China, People's Republic of					
2010	12,136	88.48	0.86	8.95	1.71
2017	14,606	92.61	1.11	5.18	1.11
Fiji					
2010	18	85.63	0.01	12.06	2.30
2017	39	88.15	0.00	11.49	0.36
Hong Kong, China					
2010	1,094	85.96	0.13	10.87	3.03
2017	1,200	87.89	0.16	9.31	2.63
India					
2010	10,837	94.06	0.01	5.90	0.03
2017	11,295	97.00	0.01	2.96	0.03
Indonesia					
2010	2,009	90.25	0.20	8.12	1.44
2017	2,047	92.88	0.17	6.09	0.86
Japan					
2010	3,677	94.24	0.66	4.18	0.92
2017	3,453	93.75	0.47	4.98	0.80
Kazakhstan					
2010	360	88.15	0.02	10.94	0.90
2017	251	94.01	0.04	5.47	0.48
Korea, Republic of					
2010	3,802	84.51	0.48	11.74	3.26
2017	4,578	82.82	0.39	13.77	3.02
Kyrgyz Republic					
2010	59	79.10	0.00	16.68	4.21
2017	335	83.32	0.00	13.73	2.94
Lao People's Democratic Republic					
2010	13	85.88	0.00	13.75	0.36
2017	168	90.89	0.01	7.50	1.60
Malaysia					
2010	2,468	83.13	0.08	14.67	2.12
2017	2,437	84.68	0.08	13.48	1.76

continued on next page

Table 3.2.1e: continued

Table 3.2.1e: Value-Added Decomposition of Exports—Personal Services Sector					
ADB Regional Member	Exports	VAX_G	RDV_B	FVA	PDC
	(\$ million)	(% share in exports)			
Maldives					
2010	31	73.44	0.00	19.23	7.32
2017	105	76.38	0.00	17.92	5.70
Mongolia					
2010	6	84.83	0.00	13.30	1.87
2017	42	82.12	0.01	15.74	2.14
Nepal					
2010	328	90.93	0.04	7.01	2.03
2017	474	91.77	0.05	6.70	1.47
Pakistan					
2010	902	95.38	0.03	4.24	0.35
2017	1,311	95.56	0.04	4.06	0.33
Philippines					
2010	695	90.83	0.06	6.98	2.12
2017	1,418	89.11	0.12	8.00	2.77
Singapore					
2010	1,003	79.89	0.15	13.59	6.37
2017	1,634	80.54	0.16	13.54	5.77
Sri Lanka					
2010	2	90.13	0.04	7.99	1.83
2017	560	88.82	0.01	9.71	1.46
Taipei,China					
2010	1,314	84.28	0.07	14.90	0.75
2017	1,784	79.82	0.08	18.61	1.48
Thailand					
2010	4,016	84.38	0.11	13.88	1.62
2017	8,275	88.12	0.10	10.65	1.14
Viet Nam					
2010	580	78.05	0.02	21.03	0.90
2017	1,840	76.38	0.03	22.53	1.06

0.00 = magnitude is less than half of unit employed, \$ = United States dollars, FVA = foreign value-added, PDC = pure double counted terms, RDV_B = domestic value-added first exported then returned home, VAX_G = domestic value-added absorbed abroad.

Source: ADB Multi Region Input–Output Tables Database.

Table 3.2.1f: Value-Added Decomposition of Exports—All Sectors

ADB Regional Member	Exports	VAX_G	RDV_B	FVA	PDC
	(\$ million)	(% share in exports)			
Bangladesh					
2010	15,590	86.93	0.02	11.71	1.34
2017	30,734	87.77	0.03	10.83	1.37
Bhutan					
2010	521	83.92	0.01	13.15	2.92
2017	736	84.14	0.01	12.83	3.02
Brunei Darussalam					
2010	9,000	92.28	0.01	5.36	2.35
2017	6,012	90.25	0.01	6.68	3.06
Cambodia					
2010	4,041	72.71	0.01	24.03	3.24
2017	9,419	72.31	0.03	24.70	2.95
China, People's Republic of					
2010	1,697,752	78.46	2.00	15.02	4.53
2017	2,335,901	83.85	2.58	10.14	3.43
Fiji					
2010	1,160	71.60	0.01	24.13	4.27
2017	1,866	76.83	0.01	19.30	3.86
Hong Kong, China					
2010	143,434	70.35	0.16	23.52	5.98
2017	191,697	72.77	0.17	22.32	4.74
India					
2010	315,328	80.28	0.69	13.80	5.23
2017	383,592	81.59	0.50	12.81	5.10
Indonesia					
2010	183,521	84.40	0.56	11.05	4.00
2017	235,820	84.46	0.52	11.15	3.86
Japan					
2010	835,356	83.06	1.24	10.98	4.72
2017	860,935	79.24	0.98	14.02	5.76
Kazakhstan					
2010	62,624	89.68	0.18	6.66	3.48
2017	42,229	91.71	0.21	5.32	2.77
Korea, Republic of					
2010	518,902	64.01	0.35	26.53	9.11
2017	708,423	64.61	0.41	25.46	9.52
Kyrgyz Republic					
2010	1,774	71.31	0.01	21.05	7.63
2017	2,713	72.75	0.04	20.74	6.48
Lao People's Democratic Republic					
2010	1,548	84.45	0.01	11.30	4.24
2017	6,146	89.54	0.03	7.97	2.45
Malaysia					
2010	161,928	70.74	0.18	20.83	8.25
2017	167,285	70.28	0.24	20.47	9.02

continued on next page

Table 3.2.1f: continued

Table 3.2.1f: Value-Added Decomposition of Exports—All Sectors					
ADB Regional Member	Exports	VAX_G	RDV_B	FVA	PDC
	(\$ million)	(% share in exports)			
Maldives					
2010	1,790	69.19	0.00	24.97	5.84
2017	3,310	64.24	0.00	28.46	7.30
Mongolia					
2010	2,955	75.77	0.01	17.68	6.54
2017	5,894	77.09	0.02	17.10	5.79
Nepal					
2010	1,067	82.66	0.03	14.85	2.46
2017	1,263	81.96	0.05	15.38	2.61
Pakistan					
2010	21,099	91.72	0.06	6.49	1.73
2017	25,141	92.60	0.10	5.82	1.48
Philippines					
2010	52,542	78.82	0.14	13.94	7.10
2017	74,301	76.57	0.16	15.71	7.55
Singapore					
2010	284,178	46.66	0.11	37.18	16.04
2017	376,303	46.90	0.12	39.07	13.91
Sri Lanka					
2010	10,245	79.34	0.02	17.45	3.20
2017	15,747	85.71	0.02	12.19	2.08
Taipei,China					
2010	315,574	56.17	0.23	28.86	14.74
2017	373,573	61.43	0.23	25.35	12.99
Thailand					
2010	152,231	66.32	0.22	25.03	8.44
2017	267,321	71.94	0.19	20.97	6.91
Viet Nam					
2010	62,975	63.72	0.07	29.43	6.78
2017	166,500	59.80	0.09	31.67	8.44

0.00 = magnitude is less than half of unit employed, \$ = United States dollars, FVA = foreign value-added, PDC = pure double counted terms, RDV_B = domestic value-added first exported then returned home, VAX_G = domestic value-added absorbed abroad.

Source: ADB Multi Region Input–Output Tables Database.

Table 3.2.2a: Value-Added Exports by Various Measures—Primary Sector

ADB Regional Member	VAX_G	DVA_B	DVA_F	VAX_B	VAX_F
	Value-Added Export Measure to Gross Exports Ratio (%)				
Bangladesh					
2010	94.02	94.10	513.18	94.02	513.06
2017	94.07	94.15	584.52	94.07	584.33
Bhutan					
2010	93.74	93.75	99.96	93.74	99.94
2017	91.82	91.84	100.65	91.82	100.63
Brunei Darussalam					
2010	93.03	93.03	122.00	93.03	121.99
2017	91.58	91.58	122.38	91.58	122.37
Cambodia					
2010	89.90	90.09	234.25	89.90	234.07
2017	88.87	89.10	129.53	88.87	129.32
China, People's Republic of					
2010	87.39	90.36	827.30	87.39	808.62
2017	89.58	93.13	1,042.87	89.58	1,012.96
Fiji					
2010	72.61	72.61	116.91	72.61	116.90
2017	74.96	74.97	98.72	74.96	98.71
Hong Kong, China					
2010	49.14	49.29	39.26	49.14	39.14
2017	63.20	63.46	58.94	63.20	58.71
India					
2010	94.34	95.13	157.06	94.34	155.86
2017	93.40	94.33	178.28	93.40	177.02
Indonesia					
2010	92.21	93.38	132.18	92.21	130.96
2017	92.96	94.29	149.65	92.96	148.25
Japan					
2010	66.03	67.69	238.89	66.03	234.63
2017	61.42	62.90	185.95	61.42	182.89
Kazakhstan					
2010	89.36	89.48	79.59	89.36	79.47
2017	91.43	91.53	79.91	91.43	79.81
Korea, Republic of					
2010	83.03	83.35	610.00	83.03	607.09
2017	83.42	84.23	679.62	83.42	675.57
Kyrgyz Republic					
2010	69.47	69.48	63.26	69.47	63.24
2017	77.43	77.52	63.13	77.43	63.06
Lao People's Democratic Republic					
2010	84.21	84.21	80.91	84.21	80.90
2017	91.81	91.85	96.80	91.81	96.75
Malaysia					
2010	91.40	91.81	244.66	91.40	243.97
2017	89.43	89.83	230.37	89.43	229.65

continued on next page

Table 3.2.2a: continued

Table 3.2.2a: Value-Added Exports by Various Measures—Primary Sector					
ADB Regional Member	VAX_G	DVA_B	DVA_F	VAX_B	VAX_F
	Value-Added Export Measure to Gross Exports Ratio (%)				
Maldives					
2010	54.95	54.95	465.29	54.95	465.27
2017	58.10	58.11	279.09	58.10	279.09
Mongolia					
2010	75.06	75.07	63.74	75.06	63.73
2017	76.41	76.43	55.94	76.41	55.93
Nepal					
2010	92.00	92.05	166.10	92.00	166.03
2017	91.37	91.44	207.99	91.37	207.87
Pakistan					
2010	96.58	96.66	470.91	96.58	470.58
2017	96.92	97.02	380.44	96.92	380.03
Philippines					
2010	91.61	91.85	393.88	91.61	393.36
2017	91.05	91.33	365.94	91.05	365.33
Singapore					
2010	67.28	67.49	86.65	67.28	86.47
2017	66.76	66.87	73.40	66.76	73.29
Sri Lanka					
2010	88.25	88.30	220.22	88.25	220.15
2017	89.52	89.56	147.19	89.52	147.14
Taipei,China					
2010	74.33	74.42	112.77	74.33	112.52
2017	75.89	76.01	126.06	75.89	125.80
Thailand					
2010	86.61	86.93	202.69	86.61	202.16
2017	88.22	88.49	179.13	88.22	178.77
Viet Nam					
2010	66.04	66.29	102.68	66.04	102.49
2017	63.81	64.10	102.02	63.81	101.81

DVA_B = domestic value-added exports by backward industrial linkages, DVA_F = domestic value-added exports by forward industrial linkages, VAX_B = value-added exports by backward industrial linkages, VAX_F = value-added exports by forward industrial linkages, VAX_G = domestic value-added absorbed abroad.

Source: ADB Multi Region Input–Output Tables Database.

Table 3.2.2b: Value-Added Exports by Various Measures—Low-Technology Manufacturing Sector

ADB Regional Member	VAX_G	DVA_B	DVA_F	VAX_B	VAX_F
Value-Added Export Measure to Gross Exports Ratio (%)					
Bangladesh					
2010	85.18	85.19	45.64	85.18	45.63
2017	86.07	86.09	48.36	86.07	48.35
Bhutan					
2010	88.14	88.14	98.35	88.14	98.34
2017	88.93	88.93	94.31	88.93	94.31
Brunei Darussalam					
2010	61.04	61.04	173.85	61.04	173.84
2017	62.47	62.48	58.44	62.47	58.43
Cambodia					
2010	63.97	63.97	54.16	63.97	54.16
2017	64.67	64.67	49.98	64.67	49.97
China, People's Republic of					
2010	85.93	86.59	64.11	85.93	63.11
2017	89.85	90.96	65.70	89.85	64.37
Fiji					
2010	76.19	76.19	62.15	76.19	62.15
2017	77.57	77.57	60.26	77.57	60.26
Hong Kong, China					
2010	51.21	51.25	52.14	51.21	52.04
2017	51.69	51.73	49.63	51.69	49.53
India					
2010	81.07	81.43	48.65	81.07	48.31
2017	87.14	87.44	45.29	87.14	45.06
Indonesia					
2010	83.73	83.97	48.78	83.73	48.62
2017	83.90	84.11	48.65	83.90	48.51
Japan					
2010	85.06	86.77	142.30	85.06	139.96
2017	82.31	83.68	122.16	82.31	120.48
Kazakhstan					
2010	85.37	85.54	126.99	85.37	126.73
2017	86.90	87.23	114.70	86.90	114.35
Korea, Republic of					
2010	70.96	71.40	81.58	70.96	81.12
2017	70.50	71.11	81.25	70.50	80.67
Kyrgyz Republic					
2010	55.88	55.90	50.72	55.88	50.71
2017	61.78	61.86	53.27	61.78	53.21
Lao People's Democratic Republic					
2010	88.02	88.02	72.05	88.02	72.05
2017	88.60	88.62	74.05	88.60	74.03
Malaysia					
2010	71.25	71.36	32.45	71.25	32.38
2017	70.37	70.47	33.38	70.37	33.31

continued on next page

Table 3.2.2b: continued

Table 3.2.2b: Value-Added Exports by Various Measures—Low-Technology Manufacturing Sector					
ADB Regional Member	VAX_G	DVA_B	DVA_F	VAX_B	VAX_F
	Value-Added Export Measure to Gross Exports Ratio (%)				
Maldives					
2010	55.93	55.93	267.37	55.93	267.36
2017	58.24	58.24	211.97	58.24	211.97
Mongolia					
2010	76.77	76.77	92.83	76.77	92.82
2017	72.28	72.29	153.07	72.28	153.04
Nepal					
2010	75.09	75.11	52.48	75.09	52.46
2017	73.42	73.45	50.63	73.42	50.60
Pakistan					
2010	91.74	91.80	33.05	91.74	33.03
2017	92.53	92.63	33.74	92.53	33.70
Philippines					
2010	85.90	85.96	67.06	85.90	66.99
2017	85.32	85.42	67.61	85.32	67.52
Singapore					
2010	50.17	50.24	69.95	50.17	69.78
2017	55.43	55.47	67.71	55.43	67.58
Sri Lanka					
2010	78.47	78.49	55.63	78.47	55.62
2017	84.07	84.08	65.62	84.07	65.61
Taipei, China					
2010	57.30	57.44	60.27	57.30	60.09
2017	61.55	61.67	65.67	61.55	65.49
Thailand					
2010	73.88	74.00	58.76	73.88	58.61
2017	78.23	78.35	63.27	78.23	63.13
Viet Nam					
2010	64.91	64.93	42.17	64.91	42.15
2017	60.54	60.56	40.32	60.54	40.29

DVA_B = domestic value-added exports by backward industrial linkages, DVA_F = domestic value-added exports by forward industrial linkages, VAX_B = value-added exports by backward industrial linkages, VAX_F = value-added exports by forward industrial linkages, VAX_G = domestic value-added absorbed abroad.

Source: ADB Multi Region Input-Output Tables Database.

Table 3.2.2c: Value-Added Exports by Various Measures—Medium- and High-Technology Manufacturing Sector

ADB Regional Member	VAX_G	DVA_B	DVA_F	VAX_B	VAX_F
	Value-Added Export Measure to Gross Exports Ratio (%)				
Bangladesh					
2010	88.11	88.16	139.26	88.11	139.21
2017	89.18	89.22	134.48	89.18	134.43
Bhutan					
2010	78.82	78.84	34.37	78.82	34.37
2017	77.88	77.91	42.73	77.88	42.72
Brunei Darussalam					
2010	94.12	94.13	48.82	94.12	48.81
2017	92.86	92.87	47.83	92.86	47.82
Cambodia					
2010	63.79	63.80	106.83	63.79	106.81
2017	68.83	68.90	94.74	68.83	94.67
China, People's Republic of					
2010	73.05	75.21	47.59	73.05	46.24
2017	79.66	82.56	45.47	79.66	43.93
Fiji					
2010	62.79	62.79	84.17	62.79	84.16
2017	64.27	64.27	83.49	64.27	83.49
Hong Kong, China					
2010	21.00	20.97	5.77	21.00	5.76
2017	22.00	21.97	4.66	22.00	4.65
India					
2010	64.84	65.39	41.82	64.84	41.46
2017	67.23	67.71	37.59	67.23	37.33
Indonesia					
2010	77.47	77.91	50.84	77.47	50.55
2017	78.41	78.86	48.45	78.41	48.19
Japan					
2010	80.66	81.84	53.75	80.66	52.98
2017	76.03	76.99	48.66	76.03	48.05
Kazakhstan					
2010	89.22	89.40	63.65	89.22	63.52
2017	92.31	92.53	61.49	92.31	61.36
Korea, Republic of					
2010	61.37	61.69	44.85	61.37	44.60
2017	60.67	61.03	44.46	60.67	44.18
Kyrgyz Republic					
2010	75.81	75.82	70.69	75.81	70.68
2017	73.16	73.18	67.24	73.16	67.22
Lao People's Democratic Republic					
2010	46.10	46.10	117.26	46.10	117.25
2017	75.14	75.22	246.04	75.14	245.93
Malaysia					
2010	60.25	60.46	38.90	60.25	38.76
2017	61.34	61.66	39.63	61.34	39.42

continued on next page

Table 3.2.2c: continued

Table 3.2.2c: Value-Added Exports by Various Measures—Medium- and High-Technology Manufacturing Sector					
ADB Regional Member	VAX_G	DVA_B	DVA_F	VAX_B	VAX_F
	Value-Added Export Measure to Gross Exports Ratio (%)				
Maldives					
2010	61.24	61.25	481.84	61.24	481.82
2017	68.11	68.12	244.28	68.11	244.27
Mongolia					
2010	65.36	65.37	78.50	65.36	78.49
2017	74.92	74.93	90.08	74.92	90.07
Nepal					
2010	60.26	60.35	48.40	60.26	48.34
2017	59.02	59.13	50.85	59.02	50.77
Pakistan					
2010	78.34	78.41	68.13	78.34	68.08
2017	80.31	80.42	69.42	80.31	69.34
Philippines					
2010	62.82	63.01	37.63	62.82	37.52
2017	51.88	52.08	35.58	51.88	35.46
Singapore					
2010	34.38	34.45	27.42	34.38	27.33
2017	35.55	35.61	25.87	35.55	25.79
Sri Lanka					
2010	58.87	58.89	61.21	58.87	61.19
2017	54.21	54.24	86.72	54.21	86.70
Taipei,China					
2010	51.31	51.52	42.93	51.31	42.74
2017	55.93	56.15	49.53	55.93	49.32
Thailand					
2010	55.47	55.73	35.56	55.47	35.40
2017	55.58	55.82	35.07	55.58	34.93
Viet Nam					
2010	49.06	49.14	48.35	49.06	48.27
2017	44.35	44.47	44.13	44.35	44.03

DVA_B = domestic value-added exports by backward industrial linkages, DVA_F = domestic value-added exports by forward industrial linkages, VAX_B = value-added exports by backward industrial linkages, VAX_F = value-added exports by forward industrial linkages, VAX_G = domestic value-added absorbed abroad.

Source: ADB Multi Region Input–Output Tables Database.

Table 3.2.2d: Value-Added Exports by Various Measures—Business Services Sector

ADB Regional Member	VAX_G	DVA_B	DVA_F	VAX_B	VAX_F
Value-Added Export Measure to Gross Exports Ratio (%)					
Bangladesh					
2010	96.99	97.05	269.69	96.99	269.61
2017	97.30	97.41	373.13	97.30	372.96
Bhutan					
2010	74.94	74.94	90.23	74.94	90.23
2017	77.46	77.47	83.77	77.46	83.76
Brunei Darussalam					
2010	77.94	77.94	96.35	77.94	96.34
2017	74.63	74.64	104.44	74.63	104.43
Cambodia					
2010	81.76	81.77	73.44	81.76	73.43
2017	80.27	80.28	90.74	80.27	90.72
China, People's Republic of					
2010	86.97	90.13	155.69	86.97	151.48
2017	90.37	93.87	200.00	90.37	193.69
Fiji					
2010	70.29	70.30	67.76	70.29	67.76
2017	76.96	76.97	77.43	76.96	77.42
Hong Kong, China					
2010	74.94	75.12	74.07	74.94	73.90
2017	76.78	76.97	75.65	76.78	75.47
India					
2010	88.18	89.16	105.49	88.18	104.47
2017	94.50	95.16	148.73	94.50	147.81
Indonesia					
2010	88.56	88.88	226.59	88.56	225.47
2017	91.08	91.40	323.22	91.08	321.67
Japan					
2010	90.10	91.41	155.75	90.10	153.48
2017	91.51	92.47	183.64	91.51	181.52
Kazakhstan					
2010	91.43	91.75	139.86	91.43	139.48
2017	92.12	92.50	128.71	92.12	128.29
Korea, Republic of					
2010	79.58	80.17	193.78	79.58	192.72
2017	83.61	84.23	160.78	83.61	159.78
Kyrgyz Republic					
2010	70.74	70.76	114.64	70.74	114.62
2017	69.13	69.14	100.00	69.13	99.95
Lao People's Democratic Republic					
2010	80.65	80.66	127.36	80.65	127.35
2017	85.81	85.82	119.13	85.81	119.10
Malaysia					
2010	82.77	82.91	110.70	82.77	110.48
2017	80.50	80.67	119.66	80.50	119.33

continued on next page

Table 3.2.2d: continued

Table 3.2.2d: Value-Added Exports by Various Measures—Business Services Sector					
ADB Regional Member	VAX_G	DVA_B	DVA_F	VAX_B	VAX_F
	Value-Added Export Measure to Gross Exports Ratio (%)				
Maldives					
2010	69.51	69.51	60.56	69.51	60.56
2017	64.19	64.19	51.65	64.19	51.65
Mongolia					
2010	78.67	78.68	105.77	78.67	105.75
2017	81.11	81.15	150.70	81.11	150.66
Nepal					
2010	82.94	82.96	101.79	82.94	101.75
2017	78.94	78.98	95.84	78.94	95.79
Pakistan					
2010	93.49	93.56	151.07	93.49	150.96
2017	94.08	94.20	142.00	94.08	141.82
Philippines					
2010	92.21	92.33	111.30	92.21	111.11
2017	90.95	91.11	97.44	90.95	97.24
Singapore					
2010	58.82	58.98	64.64	58.82	64.50
2017	55.45	55.62	62.64	55.45	62.49
Sri Lanka					
2010	85.62	85.65	106.68	85.62	106.65
2017	89.24	89.27	98.24	89.24	98.22
Taipei,China					
2010	77.90	78.25	112.14	77.90	111.72
2017	79.88	80.18	97.24	79.88	96.92
Thailand					
2010	80.21	80.42	128.16	80.21	127.77
2017	85.31	85.46	108.50	85.31	108.26
Viet Nam					
2010	73.59	73.65	105.64	73.59	105.55
2017	74.20	74.30	108.39	74.20	108.25

DVA_B = domestic value-added exports by backward industrial linkages, DVA_F = domestic value-added exports by forward industrial linkages, VAX_B = value-added exports by backward industrial linkages, VAX_F = value-added exports by forward industrial linkages, VAX_G = domestic value-added absorbed abroad.

Source: ADB Multi Region Input–Output Tables Database.

Table 3.2.2e: Value-Added Exports by Various Measures—Personal Services Sector

ADB Regional Member	VAX_G	DVA_B	DVA_F	VAX_B	VAX_F
Value-Added Export Measure to Gross Exports Ratio (%)					
Bangladesh					
2010	97.88	97.92	328.60	97.88	328.52
2017	97.80	97.85	174.83	97.80	174.76
Bhutan					
2010	87.14	87.14	103.45	87.14	103.44
2017	83.43	83.43	70.56	83.43	70.55
Brunei Darussalam					
2010	82.04	82.04	178.38	82.04	178.37
2017	83.92	83.92	123.82	83.92	123.81
Cambodia					
2010	80.12	80.13	96.19	80.12	96.18
2017	80.33	80.35	118.31	80.33	118.28
China, People's Republic of					
2010	88.48	89.32	218.04	88.48	213.17
2017	92.61	93.69	366.55	92.61	356.14
Fiji					
2010	85.63	85.64	123.08	85.63	123.07
2017	88.15	88.15	103.41	88.15	103.41
Hong Kong, China					
2010	85.96	86.12	330.89	85.96	330.23
2017	87.89	88.08	447.44	87.89	446.43
India					
2010	94.06	94.01	128.99	94.06	128.62
2017	97.00	96.99	142.78	97.00	142.43
Indonesia					
2010	90.25	90.43	131.78	90.25	131.28
2017	92.88	93.04	162.51	92.88	161.91
Japan					
2010	94.24	94.92	465.21	94.24	458.47
2017	93.75	94.23	532.08	93.75	525.65
Kazakhstan					
2010	88.15	88.14	51.73	88.15	51.71
2017	94.01	94.03	91.46	94.01	91.40
Korea, Republic of					
2010	84.51	85.10	273.41	84.51	271.85
2017	82.82	83.25	285.82	82.82	284.08
Kyrgyz Republic					
2010	79.10	79.10	61.38	79.10	61.38
2017	83.32	83.32	70.00	83.32	70.00
Lao People's Democratic Republic					
2010	85.88	85.88	65.70	85.88	65.70
2017	90.89	90.90	73.24	90.89	73.23
Malaysia					
2010	83.13	83.19	118.18	83.13	117.97
2017	84.68	84.74	110.36	84.68	110.11

continued on next page

Table 3.2.2e: continued

Table 3.2.2e: Value-Added Exports by Various Measures—Personal Services Sector					
ADB Regional Member	VAX_G	DVA_B	DVA_F	VAX_B	VAX_F
	Value-Added Export Measure to Gross Exports Ratio (%)				
Maldives					
2010	73.44	73.45	93.62	73.44	93.62
2017	76.38	76.38	131.05	76.38	131.04
Mongolia					
2010	84.83	84.84	596.36	84.83	596.29
2017	82.12	82.12	194.90	82.12	194.86
Nepal					
2010	90.93	90.96	71.12	90.93	71.09
2017	91.77	91.82	74.56	91.77	74.52
Pakistan					
2010	95.38	95.41	91.07	95.38	91.04
2017	95.56	95.60	90.17	95.56	90.12
Philippines					
2010	90.83	90.90	116.99	90.83	116.86
2017	89.11	89.24	108.74	89.11	108.57
Singapore					
2010	79.89	80.13	124.51	79.89	124.25
2017	80.54	80.76	120.82	80.54	120.56
Sri Lanka					
2010	90.13	90.17	5,570.73	90.13	5,569.25
2017	88.82	88.83	109.53	88.82	109.51
Taipei,China					
2010	84.28	84.30	284.11	84.28	283.25
2017	79.82	79.82	232.25	79.82	231.61
Thailand					
2010	84.38	84.48	84.47	84.38	84.31
2017	88.12	88.21	86.78	88.12	86.65
Viet Nam					
2010	78.05	78.06	85.86	78.05	85.81
2017	76.38	76.39	79.28	76.38	79.22

DVA_B = domestic value-added exports by backward industrial linkages, DVA_F = domestic value-added exports by forward industrial linkages, VAX_B = value-added exports by backward industrial linkages, VAX_F = value-added exports by forward industrial linkages, VAX_G = domestic value-added absorbed abroad.

Source: ADB Multi Region Input–Output Tables Database.

Table 3.2.2f: Value-Added Exports by Various Measures—All Sectors

Table 3.2.2f: Value-Added Exports by Various Measures—All Sectors					
ADB Regional Member	VAX_G	DVA_B	DVA_F	VAX_B	VAX_F
	Value-Added Export Measure to Gross Exports Ratio (%)				
Bangladesh					
2010	86.93	86.95	86.95	86.93	86.93
2017	87.77	87.80	87.80	87.77	87.77
Bhutan					
2010	83.92	83.93	83.93	83.92	83.92
2017	84.14	84.15	84.15	84.14	84.14
Brunei Darussalam					
2010	92.28	92.29	92.29	92.28	92.28
2017	90.25	90.26	90.26	90.25	90.25
Cambodia					
2010	72.71	72.72	72.72	72.71	72.71
2017	72.31	72.34	72.34	72.31	72.31
China, People’s Republic of					
2010	78.46	80.45	80.45	78.46	78.46
2017	83.85	86.43	86.43	83.85	83.85
Fiji					
2010	71.60	71.60	71.60	71.60	71.60
2017	76.83	76.83	76.83	76.83	76.83
Hong Kong, China					
2010	70.35	70.50	70.50	70.35	70.35
2017	72.77	72.94	72.94	72.77	72.77
India					
2010	80.28	80.97	80.97	80.28	80.28
2017	81.59	82.09	82.09	81.59	81.59
Indonesia					
2010	84.40	84.95	84.95	84.40	84.40
2017	84.46	84.98	84.98	84.46	84.46
Japan					
2010	83.06	84.30	84.30	83.06	83.06
2017	79.24	80.22	80.22	79.24	79.24
Kazakhstan					
2010	89.68	89.86	89.86	89.68	89.68
2017	91.71	91.91	91.91	91.71	91.71
Korea, Republic of					
2010	64.01	64.36	64.36	64.01	64.01
2017	64.61	65.02	65.02	64.61	64.61
Kyrgyz Republic					
2010	71.31	71.32	71.32	71.31	71.31
2017	72.75	72.79	72.79	72.75	72.75
Lao People’s Democratic Republic					
2010	84.45	84.46	84.46	84.45	84.45
2017	89.54	89.57	89.57	89.54	89.54
Malaysia					
2010	70.74	70.92	70.92	70.74	70.74
2017	70.28	70.51	70.51	70.28	70.28

continued on next page

Table 3.2.2f: continued

Table 3.2.2f: Value-Added Exports by Various Measures—All Sectors					
ADB Regional Member	VAX_G	DVA_B	DVA_F	VAX_B	VAX_F
	Value-Added Export Measure to Gross Exports Ratio (%)				
Maldives					
2010	69.19	69.19	69.19	69.19	69.19
2017	64.24	64.24	64.24	64.24	64.24
Mongolia					
2010	75.77	75.79	75.79	75.77	75.77
2017	77.09	77.11	77.11	77.09	77.09
Nepal					
2010	82.66	82.70	82.70	82.66	82.66
2017	81.96	82.01	82.01	81.96	81.96
Pakistan					
2010	91.72	91.78	91.78	91.72	91.72
2017	92.60	92.70	92.70	92.60	92.60
Philippines					
2010	78.82	78.96	78.96	78.82	78.82
2017	76.57	76.74	76.74	76.57	76.57
Singapore					
2010	46.66	46.78	46.78	46.66	46.66
2017	46.90	47.01	47.01	46.90	46.90
Sri Lanka					
2010	79.34	79.36	79.36	79.34	79.34
2017	85.71	85.73	85.73	85.71	85.71
Taipei,China					
2010	56.17	56.39	56.39	56.17	56.17
2017	61.43	61.66	61.66	61.43	61.43
Thailand					
2010	66.32	66.53	66.53	66.32	66.32
2017	71.94	72.12	72.12	71.94	71.94
Viet Nam					
2010	63.72	63.79	63.79	63.72	63.72
2017	59.80	59.88	59.88	59.80	59.80

DVA_B = domestic value-added exports by backward industrial linkages, DVA_F = domestic value-added exports by forward industrial linkages, VAX_B = value-added exports by backward industrial linkages, VAX_F = value-added exports by forward industrial linkages, VAX_G = domestic value-added absorbed abroad.

Source: ADB Multi Region Input–Output Tables Database.

Table 3.2.3a: Revealed Comparative Advantage by Aggregate Sector (Traditional Method)

ADB Regional Member	2010	2017
	(ratio)	
Bangladesh		
Business Services Sector	0.40	0.25
Low-Technology Manufacturing Sector	5.47	5.21
Medium- and High-Technology Manufacturing Sector	0.04	0.04
Personal Services Sector	1.32	3.46
Primary Sector	0.20	0.15
Bhutan		
Business Services Sector	0.94	1.17
Low-Technology Manufacturing Sector	2.65	2.38
Medium- and High-Technology Manufacturing Sector	0.43	0.29
Personal Services Sector	0.88	1.96
Primary Sector	1.30	1.43
Brunei Darussalam		
Business Services Sector	0.27	0.28
Low-Technology Manufacturing Sector	0.02	0.11
Medium- and High-Technology Manufacturing Sector	0.83	0.87
Personal Services Sector	0.18	0.48
Primary Sector	4.95	5.08
Cambodia		
Business Services Sector	1.57	1.19
Low-Technology Manufacturing Sector	3.44	3.51
Medium- and High-Technology Manufacturing Sector	0.01	0.02
Personal Services Sector	0.92	0.60
Primary Sector	0.50	1.08
China, People's Republic of		
Business Services Sector	0.65	0.59
Low-Technology Manufacturing Sector	1.44	1.44
Medium- and High-Technology Manufacturing Sector	1.27	1.30
Personal Services Sector	0.37	0.32
Primary Sector	0.12	0.10
Fiji		
Business Services Sector	2.83	2.59
Low-Technology Manufacturing Sector	1.17	1.16
Medium- and High-Technology Manufacturing Sector	0.04	0.05
Personal Services Sector	0.81	1.08
Primary Sector	0.68	0.91
Hong Kong, China		
Business Services Sector	3.49	3.42
Low-Technology Manufacturing Sector	0.32	0.25
Medium- and High-Technology Manufacturing Sector	0.14	0.12
Personal Services Sector	0.40	0.33
Primary Sector	0.01	0.01
India		
Business Services Sector	1.62	1.07
Low-Technology Manufacturing Sector	1.04	1.33
Medium- and High-Technology Manufacturing Sector	0.68	0.91
Personal Services Sector	1.80	1.53
Primary Sector	0.73	0.62
Indonesia		
Business Services Sector	0.28	0.20
Low-Technology Manufacturing Sector	2.20	2.57
Medium- and High-Technology Manufacturing Sector	0.68	0.70
Personal Services Sector	0.57	0.45
Primary Sector	2.44	2.08

continued on next page

Table 3.2.3a: continued

Table 3.2.3a: Revealed Comparative Advantage by Aggregate Sector (Traditional Method)		
ADB Regional Member	2010	2017
	(ratio)	
Japan		
Business Services Sector	0.90	0.69
Low-Technology Manufacturing Sector	0.38	0.39
Medium- and High-Technology Manufacturing Sector	1.51	1.63
Personal Services Sector	0.23	0.21
Primary Sector	0.03	0.04
Kazakhstan		
Business Services Sector	0.84	1.14
Low-Technology Manufacturing Sector	0.13	0.16
Medium- and High-Technology Manufacturing Sector	0.43	0.42
Personal Services Sector	0.30	0.31
Primary Sector	5.19	4.85
Korea, Republic of		
Business Services Sector	0.39	0.51
Low-Technology Manufacturing Sector	0.46	0.43
Medium- and High-Technology Manufacturing Sector	1.76	1.71
Personal Services Sector	0.38	0.34
Primary Sector	0.01	0.01
Kyrgyz Republic		
Business Services Sector	0.49	0.87
Low-Technology Manufacturing Sector	0.47	0.76
Medium- and High-Technology Manufacturing Sector	0.79	0.82
Personal Services Sector	1.73	6.41
Primary Sector	3.72	1.51
Lao People's Democratic Republic		
Business Services Sector	0.49	0.47
Low-Technology Manufacturing Sector	1.78	2.76
Medium- and High-Technology Manufacturing Sector	0.02	0.01
Personal Services Sector	0.45	1.42
Primary Sector	5.40	4.07
Malaysia		
Business Services Sector	0.87	0.74
Low-Technology Manufacturing Sector	1.60	1.73
Medium- and High-Technology Manufacturing Sector	0.94	0.93
Personal Services Sector	0.80	0.76
Primary Sector	0.75	0.85
Maldives		
Business Services Sector	3.80	3.47
Low-Technology Manufacturing Sector	0.11	0.30
Medium- and High-Technology Manufacturing Sector	0.00	0.00
Personal Services Sector	0.91	1.65
Primary Sector	0.10	0.10
Mongolia		
Business Services Sector	0.90	0.65
Low-Technology Manufacturing Sector	0.28	0.21
Medium- and High-Technology Manufacturing Sector	0.04	0.04
Personal Services Sector	0.10	0.37
Primary Sector	6.53	7.78
Nepal		
Business Services Sector	1.32	1.25
Low-Technology Manufacturing Sector	1.36	1.11
Medium- and High-Technology Manufacturing Sector	0.17	0.15
Personal Services Sector	16.09	19.50
Primary Sector	0.68	0.49

continued on next page

Table 3.2.3a: continued

Table 3.2.3a: Revealed Comparative Advantage by Aggregate Sector (Traditional Method)		
ADB Regional Member	2010	2017
	(ratio)	
Pakistan		
Business Services Sector	0.75	0.82
Low-Technology Manufacturing Sector	4.14	3.62
Medium- and High-Technology Manufacturing Sector	0.14	0.14
Personal Services Sector	2.24	2.71
Primary Sector	0.67	0.89
Philippines		
Business Services Sector	1.39	1.62
Low-Technology Manufacturing Sector	1.32	1.21
Medium- and High-Technology Manufacturing Sector	0.88	0.74
Personal Services Sector	0.69	0.99
Primary Sector	0.22	0.22
Singapore		
Business Services Sector	1.90	2.04
Low-Technology Manufacturing Sector	0.20	0.16
Medium- and High-Technology Manufacturing Sector	1.05	0.95
Personal Services Sector	0.18	0.23
Primary Sector	0.00	0.00
Sri Lanka		
Business Services Sector	1.24	1.58
Low-Technology Manufacturing Sector	3.70	2.90
Medium- and High-Technology Manufacturing Sector	0.19	0.07
Personal Services Sector	0.01	1.85
Primary Sector	0.34	0.54
Taipei,China		
Business Services Sector	0.63	0.78
Low-Technology Manufacturing Sector	0.46	0.43
Medium- and High-Technology Manufacturing Sector	1.63	1.56
Personal Services Sector	0.22	0.25
Primary Sector	0.05	0.05
Thailand		
Business Services Sector	0.83	1.27
Low-Technology Manufacturing Sector	1.39	1.14
Medium- and High-Technology Manufacturing Sector	1.11	0.90
Personal Services Sector	1.38	1.61
Primary Sector	0.30	0.41
Viet Nam		
Business Services Sector	0.65	0.61
Low-Technology Manufacturing Sector	3.16	3.08
Medium- and High-Technology Manufacturing Sector	0.39	0.47
Personal Services Sector	0.48	0.57
Primary Sector	1.47	1.22

Source: ADB Multi Region Input–Output Tables Database.

Table 3.2.3b: Revealed Comparative Advantage by Aggregate Sector (Value-Added Method)

ADB Regional Member	2010	2017
	(ratio)	
Bangladesh		
Business Services Sector	0.77	0.65
Low-Technology Manufacturing Sector	3.44	3.46
Medium- and High-Technology Manufacturing Sector	0.10	0.11
Personal Services Sector	2.61	3.50
Primary Sector	0.80	0.72
Bhutan		
Business Services Sector	0.63	0.71
Low-Technology Manufacturing Sector	3.71	3.22
Medium- and High-Technology Manufacturing Sector	0.30	0.26
Personal Services Sector	0.57	0.83
Primary Sector	1.08	1.21
Brunei Darussalam		
Business Services Sector	0.17	0.20
Low-Technology Manufacturing Sector	0.05	0.08
Medium- and High-Technology Manufacturing Sector	0.75	0.81
Personal Services Sector	0.18	0.34
Primary Sector	4.57	4.87
Cambodia		
Business Services Sector	0.98	0.91
Low-Technology Manufacturing Sector	3.07	2.92
Medium- and High-Technology Manufacturing Sector	0.03	0.05
Personal Services Sector	0.64	0.50
Primary Sector	1.13	1.36
China, People's Republic of		
Business Services Sector	0.78	0.84
Low-Technology Manufacturing Sector	1.38	1.32
Medium- and High-Technology Manufacturing Sector	1.29	1.21
Personal Services Sector	0.53	0.70
Primary Sector	0.88	0.89
Fiji		
Business Services Sector	1.65	1.60
Low-Technology Manufacturing Sector	1.22	1.10
Medium- and High-Technology Manufacturing Sector	0.09	0.10
Personal Services Sector	0.73	0.74
Primary Sector	0.78	0.83
Hong Kong, China		
Business Services Sector	2.27	2.17
Low-Technology Manufacturing Sector	0.28	0.20
Medium- and High-Technology Manufacturing Sector	0.02	0.01
Personal Services Sector	0.98	1.01
Primary Sector	0.00	0.00
India		
Business Services Sector	1.31	1.18
Low-Technology Manufacturing Sector	0.75	0.88
Medium- and High-Technology Manufacturing Sector	0.60	0.73
Personal Services Sector	1.50	1.35
Primary Sector	0.98	0.95
Indonesia		
Business Services Sector	0.46	0.47
Low-Technology Manufacturing Sector	1.51	1.77
Medium- and High-Technology Manufacturing Sector	0.70	0.70
Personal Services Sector	0.46	0.44
Primary Sector	2.65	2.59

continued on next page

Table 3.2.3b: continued

Table 3.2.3b: Revealed Comparative Advantage by Aggregate Sector (Value-Added Method)		
ADB Regional Member	2010	2017
	(ratio)	
Japan		
Business Services Sector	1.02	0.97
Low-Technology Manufacturing Sector	0.78	0.72
Medium- and High-Technology Manufacturing Sector	1.65	1.74
Personal Services Sector	0.66	0.70
Primary Sector	0.06	0.07
Kazakhstan		
Business Services Sector	0.81	0.97
Low-Technology Manufacturing Sector	0.22	0.24
Medium- and High-Technology Manufacturing Sector	0.52	0.49
Personal Services Sector	0.09	0.16
Primary Sector	3.21	2.98
Korea, Republic of		
Business Services Sector	0.72	0.77
Low-Technology Manufacturing Sector	0.69	0.65
Medium- and High-Technology Manufacturing Sector	2.10	2.07
Personal Services Sector	0.85	0.75
Primary Sector	0.09	0.10
Kyrgyz Republic		
Business Services Sector	0.48	0.73
Low-Technology Manufacturing Sector	0.40	0.67
Medium- and High-Technology Manufacturing Sector	1.34	1.34
Personal Services Sector	0.78	3.13
Primary Sector	2.30	0.93
Lao People's Democratic Republic		
Business Services Sector	0.46	0.38
Low-Technology Manufacturing Sector	1.81	2.76
Medium- and High-Technology Manufacturing Sector	0.05	0.05
Personal Services Sector	0.18	0.59
Primary Sector	3.61	3.11
Malaysia		
Business Services Sector	0.84	0.77
Low-Technology Manufacturing Sector	0.88	0.99
Medium- and High-Technology Manufacturing Sector	0.88	0.93
Personal Services Sector	0.69	0.60
Primary Sector	1.80	1.96
Maldives		
Business Services Sector	2.05	1.70
Low-Technology Manufacturing Sector	0.50	1.18
Medium- and High-Technology Manufacturing Sector	0.01	0.02
Personal Services Sector	0.64	1.71
Primary Sector	0.47	0.30
Mongolia		
Business Services Sector	0.78	0.78
Low-Technology Manufacturing Sector	0.41	0.49
Medium- and High-Technology Manufacturing Sector	0.07	0.09
Personal Services Sector	0.41	0.48
Primary Sector	3.83	3.99
Nepal		
Business Services Sector	1.01	0.89
Low-Technology Manufacturing Sector	1.04	0.83
Medium- and High-Technology Manufacturing Sector	0.17	0.17
Personal Services Sector	7.23	9.01
Primary Sector	0.95	0.87

continued on next page

Table 3.2.3b: continued

Table 3.2.3b: Revealed Comparative Advantage by Aggregate Sector (Value-Added Method)		
ADB Regional Member	2010	2017
	(ratio)	
Pakistan		
Business Services Sector	0.76	0.76
Low-Technology Manufacturing Sector	1.79	1.59
Medium- and High-Technology Manufacturing Sector	0.17	0.19
Personal Services Sector	1.16	1.34
Primary Sector	2.39	2.59
Philippines		
Business Services Sector	1.21	1.26
Low-Technology Manufacturing Sector	1.34	1.29
Medium- and High-Technology Manufacturing Sector	0.72	0.60
Personal Services Sector	0.54	0.71
Primary Sector	0.77	0.74
Singapore		
Business Services Sector	1.62	1.66
Low-Technology Manufacturing Sector	0.35	0.28
Medium- and High-Technology Manufacturing Sector	1.05	0.92
Personal Services Sector	0.26	0.29
Primary Sector	0.00	0.00
Sri Lanka		
Business Services Sector	1.03	1.11
Low-Technology Manufacturing Sector	3.10	2.68
Medium- and High-Technology Manufacturing Sector	0.25	0.13
Personal Services Sector	0.45	1.20
Primary Sector	0.66	0.66
Taipei,China		
Business Services Sector	0.77	0.75
Low-Technology Manufacturing Sector	0.59	0.55
Medium- and High-Technology Manufacturing Sector	2.13	2.21
Personal Services Sector	0.57	0.47
Primary Sector	0.07	0.07
Thailand		
Business Services Sector	0.99	1.17
Low-Technology Manufacturing Sector	1.47	1.20
Medium- and High-Technology Manufacturing Sector	1.02	0.77
Personal Services Sector	0.92	0.98
Primary Sector	0.63	0.72
Viet Nam		
Business Services Sector	0.67	0.68
Low-Technology Manufacturing Sector	2.50	2.50
Medium- and High-Technology Manufacturing Sector	0.51	0.61
Personal Services Sector	0.34	0.39
Primary Sector	1.65	1.46

Source: ADB Multi Region Input–Output Tables Database.

Table 3.2.4a: Vertical Specialization, Disaggregated—Bangladesh

	Exports	VS	FVA_FIN	FVA_INT	DDC	FDC
	(\$ million)	(% of gross exports)	(% of VS)			
Agriculture, Hunting, Forestry, and Fishing						
2010	329	5.94	26.73	54.85	0.25	18.17
2017	458	5.91	27.43	56.28	0.29	16.00
Leather, Leather Products, and Footwear						
2010	280	9.32	78.97	12.77	0.01	8.24
2017	950	8.92	80.50	11.33	0.02	8.15
Textiles and Textile Products						
2010	12,647	14.95	78.71	11.52	0.06	9.70
2017	24,516	14.11	76.87	12.15	0.08	10.90

\$ = United States dollars, DDC = domestic value-added double counted in exports, FDC = foreign value-added double counted in exports, FVA_FIN = foreign value-added in exports for final consumption, FVA_INT = foreign value-added in intermediate exports, VS = vertical specialization.

Source: ADB Multi Region Input–Output Tables Database.

Table 3.2.4b: Vertical Specialization, Disaggregated—Bhutan

	Exports	VS	FVA_FIN	FVA_INT	DDC	FDC
	(\$ million)	(% of gross exports)	(% of VS)			
Agriculture, Hunting, Forestry, and Fishing						
2010	49	4.36	46.64	42.08	0.01	11.26
2017	52	5.35	38.58	49.17	0.01	12.24
Basic Metals and Fabricated Metal						
2010	34	31.18	22.86	65.69	0.01	11.44
2017	50	31.37	39.25	52.46	0.01	8.28
Electricity, Gas, and Water Supply						
2010	196	10.86	7.89	59.64	0.01	32.47
2017	245	8.28	7.60	59.20	0.01	33.19

\$ = United States dollars, DDC = domestic value-added double counted in exports, FDC = foreign value-added double counted in exports, FVA_FIN = foreign value-added in exports for final consumption, FVA_INT = foreign value-added in intermediate exports, VS = vertical specialization.

Source: ADB Multi Region Input–Output Tables Database.

Table 3.2.4c: Vertical Specialization, Disaggregated—Brunei Darussalam

	Exports	VS	FVA_FIN	FVA_INT	DDC	FDC
	(\$ million)	(% of gross exports)	(% of VS)			
Air Transport						
2010	224	24.48	38.34	41.92	0.02	19.72
2017	22	26.11	35.51	33.84	0.01	30.64
Coke, Refined Petroleum, and Nuclear Fuel						
2010	3,396	5.73	9.96	57.08	0.02	32.93
2017	2,331	6.81	7.59	59.90	0.02	32.49
Mining and Quarrying						
2010	4,843	6.96	1.77	66.23	0.02	31.98
2017	2,990	8.28	0.78	63.53	0.02	35.67

\$ = United States dollars, DDC = domestic value-added double counted in exports, FDC = foreign value-added double counted in exports, FVA_FIN = foreign value-added in exports for final consumption, FVA_INT = foreign value-added in intermediate exports, VS = vertical specialization.

Source: ADB Multi Region Input–Output Tables Database.

Table 3.2.4d: Vertical Specialization, Disaggregated—Cambodia

	Exports	VS	FVA_FIN	FVA_INT	DDC	FDC
	(\$ million)	(% of gross exports)	(% of VS)			
Agriculture, Hunting, Forestry, and Fishing						
2010	221	9.91	30.00	40.40	0.08	29.51
2017	990	10.88	31.31	35.77	0.21	32.71
Hotels and Restaurants						
2010	880	15.13	58.29	27.26	0.01	14.44
2017	1,260	17.54	59.34	25.91	0.02	14.74
Textiles and Textile Products						
2010	1,950	36.50	84.74	8.59	0.01	6.66
2017	4,777	35.88	86.82	8.07	0.01	5.11

\$ = United States dollars, DDC = domestic value-added double counted in exports, FDC = foreign value-added double counted in exports, FVA_FIN = foreign value-added in exports for final consumption, FVA_INT = foreign value-added in intermediate exports, VS = vertical specialization.

Source: ADB Multi Region Input–Output Tables Database.

Table 3.2.4e: Vertical Specialization, Disaggregated—China, People's Republic of

	Exports	VS	FVA_FIN	FVA_INT	DDC	FDC
	(\$ million)	(% of gross exports)	(% of VS)			
Basic Metals and Fabricated Metal						
2010	103,206	21.94	21.49	45.70	4.66	28.15
2017	166,177	16.70	21.67	44.25	5.56	28.52
Electrical and Optical Equipment						
2010	561,086	28.14	58.81	17.48	4.37	19.34
2017	749,449	19.74	54.19	20.37	5.42	20.02
Textiles and Textile Products						
2010	177,812	12.12	77.07	12.34	1.45	9.15
2017	232,261	7.94	73.99	13.61	2.03	10.36

\$ = United States dollars, DDC = domestic value-added double counted in exports, FDC = foreign value-added double counted in exports, FVA_FIN = foreign value-added in exports for final consumption, FVA_INT = foreign value-added in intermediate exports, VS = vertical specialization.

Source: ADB Multi Region Input–Output Tables Database.

Table 3.2.4f: Vertical Specialization, Disaggregated—Fiji

	Exports	VS	FVA_FIN	FVA_INT	DDC	FDC
	(\$ million)	(% of gross exports)	(% of VS)			
Air Transport						
2010	217	51.59	21.15	63.25	0.00	15.60
2017	265	43.94	22.32	61.09	0.00	16.58
Food, Beverages, and Tobacco						
2010	153	25.05	48.42	38.45	0.01	13.12
2017	242	23.59	49.51	36.98	0.01	13.50
Hotels and Restaurants						
2010	345	21.11	57.75	30.00	0.01	12.24
2017	485	19.01	54.47	30.85	0.01	14.66

0.0 = magnitude is less than half of unit employed, \$ = United States dollars, DDC = domestic value-added double counted in exports, FDC = foreign value-added double counted in exports, FVA_FIN = foreign value-added in exports for final consumption, FVA_INT = foreign value-added in intermediate exports, VS = vertical specialization.

Source: ADB Multi Region Input–Output Tables Database.

Table 3.2.4g: Vertical Specialization, Disaggregated—Hong Kong, China

	Exports	VS	FVA_FIN	FVA_INT	DDC	FDC
	(\$ million)	(% of gross exports)	(% of VS)			
Financial Intermediation						
2010	12,960	10.30	25.17	50.15	1.11	23.57
2017	21,662	8.66	25.63	52.99	1.04	20.34
Retail Trade, except of Motor Vehicles and Motorcycles; Repair of Household Goods						
2010	14,206	10.01	64.77	25.77	0.74	8.72
2017	19,224	8.51	68.37	23.92	0.45	7.26
Wholesale Trade and Commission Trade, except of Motor Vehicles and Motorcycles						
2010	71,290	27.88	55.02	32.02	0.49	12.47
2017	98,185	26.59	54.23	33.98	0.31	11.48

\$ = United States dollars, DDC = domestic value-added double counted in exports, FDC = foreign value-added double counted in exports, FVA_FIN = foreign value-added in exports for final consumption, FVA_INT = foreign value-added in intermediate exports, VS = vertical specialization.

Source: ADB Multi Region Input–Output Tables Database.

Table 3.2.4h: Vertical Specialization, Disaggregated—India

	Exports	VS	FVA_FIN	FVA_INT	DDC	FDC
	(\$ million)	(% of gross exports)	(% of VS)			
Coke, Refined Petroleum, and Nuclear Fuel						
2010	27,678	50.65	21.18	42.22	0.52	36.08
2017	48,926	53.79	21.13	42.65	0.51	35.71
Renting of Machinery and Equipment, and Other Business Activities						
2010	81,864	11.58	24.90	49.75	0.99	24.36
2017	71,270	4.20	51.03	30.47	1.22	17.27
Transport Equipment						
2010	16,052	28.53	65.78	20.07	0.27	13.88
2017	33,876	21.73	70.28	17.71	0.26	11.74

\$ = United States dollars, DDC = domestic value-added double counted in exports, FDC = foreign value-added double counted in exports, FVA_FIN = foreign value-added in exports for final consumption, FVA_INT = foreign value-added in intermediate exports, VS = vertical specialization.

Source: ADB Multi Region Input–Output Tables Database.

Table 3.2.4i: Vertical Specialization, Disaggregated—Indonesia

	Exports	VS	FVA_FIN	FVA_INT	DDC	FDC
	(\$ million)	(% of gross exports)	(% of VS)			
Coke, Refined Petroleum, and Nuclear Fuel						
2010	15,422	10.10	22.52	48.38	0.85	28.25
2017	16,670	12.38	21.00	45.23	0.81	32.96
Electrical and Optical Equipment						
2010	14,883	35.94	59.10	19.03	0.34	21.53
2017	17,919	31.64	57.81	20.14	0.32	21.73
Food, Beverages, and Tobacco						
2010	21,957	8.42	21.74	57.96	0.73	19.57
2017	39,531	8.12	26.99	55.19	0.70	17.12

\$ = United States dollars, DDC = domestic value-added double counted in exports, FDC = foreign value-added double counted in exports, FVA_FIN = foreign value-added in exports for final consumption, FVA_INT = foreign value-added in intermediate exports, VS = vertical specialization.

Source: ADB Multi Region Input–Output Tables Database.

Table 3.2.4j: Vertical Specialization, Disaggregated—Japan

	Exports	VS	FVA_FIN	FVA_INT	DDC	FDC
	(\$ million)	(% of gross exports)	(% of VS)			
Basic Metals and Fabricated Metal						
2010	99,376	25.29	7.63	52.99	2.37	37.01
2017	110,891	30.76	9.26	53.42	1.80	35.53
Electrical and Optical Equipment						
2010	170,482	16.42	34.83	29.32	3.26	32.59
2017	170,863	19.90	34.22	33.11	2.49	30.18
Transport Equipment						
2010	173,959	14.18	72.83	16.73	0.91	9.53
2017	190,032	18.83	70.69	19.25	0.74	9.32

\$ = United States dollars, DDC = domestic value-added double counted in exports, FDC = foreign value-added double counted in exports, FVA_FIN = foreign value-added in exports for final consumption, FVA_INT = foreign value-added in intermediate exports, VS = vertical specialization.

Source: ADB Multi Region Input–Output Tables Database.

Table 3.2.4k: Vertical Specialization, Disaggregated—Kazakhstan

	Exports	VS	FVA_FIN	FVA_INT	DDC	FDC
	(\$ million)	(% of gross exports)	(% of VS)			
Basic Metals and Fabricated Metal						
2010	9,479	8.45	3.06	49.07	0.55	47.31
2017	6,112	6.97	2.49	42.51	0.40	54.60
Coke, Refined Petroleum, and Nuclear Fuel						
2010	2,201	15.63	24.29	47.46	0.30	27.96
2017	1,056	6.06	27.67	50.98	0.51	20.83
Mining and Quarrying						
2010	34,362	10.58	4.70	56.65	0.45	38.20
2017	19,406	8.45	6.69	52.62	0.44	40.25

\$ = United States dollars, DDC = domestic value-added double counted in exports, FDC = foreign value-added double counted in exports, FVA_FIN = foreign value-added in exports for final consumption, FVA_INT = foreign value-added in intermediate exports, VS = vertical specialization.

Source: ADB Multi Region Input–Output Tables Database.

Table 3.2.4l: Vertical Specialization, Disaggregated—Korea, Republic of

	Exports	VS	FVA_FIN	FVA_INT	DDC	FDC
	(\$ million)	(% of gross exports)	(% of VS)			
Chemicals and Chemical Products						
2010	49,484	39.88	4.83	59.04	0.94	35.18
2017	64,148	39.29	5.14	59.23	1.02	34.60
Electrical and Optical Equipment						
2010	164,945	35.01	44.60	24.45	1.23	29.72
2017	233,163	34.71	35.31	34.01	1.58	29.09
Transport Equipment						
2010	102,407	31.42	82.49	11.29	0.20	6.02
2017	112,959	31.89	76.60	14.74	0.28	8.37

\$ = United States dollars, DDC = domestic value-added double counted in exports, FDC = foreign value-added double counted in exports, FVA_FIN = foreign value-added in exports for final consumption, FVA_INT = foreign value-added in intermediate exports, VS = vertical specialization.

Source: ADB Multi Region Input–Output Tables Database.

Table 3.2.4m: Vertical Specialization, Disaggregated—Kyrgyz Republic

	Exports	VS	FVA_FIN	FVA_INT	DDC	FDC
	(\$ million)	(% of gross exports)	(% of VS)			
Agriculture, Hunting, Forestry, and Fishing						
2010	714	30.51	31.60	43.43	0.01	24.96
2017	380	22.11	43.64	35.77	0.04	20.54
Basic Metals and Fabricated Metal						
2010	626	22.89	12.08	52.85	0.01	35.06
2017	961	26.24	35.40	35.74	0.01	28.84
Inland Transport						
2010	34	40.58	23.86	51.73	0.01	24.40
2017	179	41.61	25.60	51.16	0.02	23.23

\$ = United States dollars, DDC = domestic value-added double counted in exports, FDC = foreign value-added double counted in exports, FVA_FIN = foreign value-added in exports for final consumption, FVA_INT = foreign value-added in intermediate exports, VS = vertical specialization.

Source: ADB Multi Region Input–Output Tables Database.

Table 3.2.4n: Vertical Specialization, Disaggregated—Lao People's Democratic Republic

Table 3.2.4.4: Vertical Specialization, Disaggregated – Lao People's Democratic Republic						
	Exports	VS	FVA_FIN	FVA_INT	DDC	FDC
	(\$ million)	(% of gross exports)	(% of VS)			
Agriculture, Hunting, Forestry, and Fishing						
2010	102	4.06	12.19	63.89	0.02	23.91
2017	581	3.24	8.11	51.06	0.08	40.74
Electricity, Gas, and Water Supply						
2010	175	9.29	12.02	56.20	0.01	31.77
2017	1,663	7.15	16.97	54.88	0.02	28.13
Mining and Quarrying						
2010	807	17.26	13.24	55.75	0.01	31.00
2017	1,890	9.66	29.13	48.13	0.02	22.72

\$ = United States dollars, DDC = domestic value-added double counted in exports, FDC = foreign value-added double counted in exports, FVA_FIN = foreign value-added in exports for final consumption, FVA_INT = foreign value-added in intermediate exports, VS = vertical specialization.

Source: ADB Multi Region Input–Output Tables Database.

Table 3.2.4o: Vertical Specialization, Disaggregated—Malaysia

	Exports	VS	FVA_FIN	FVA_INT	DDC	FDC
	(\$ million)	(% of gross exports)	(% of VS)			
Coke, Refined Petroleum, and Nuclear Fuel						
2010	14,158	19.91	11.51	45.74	0.68	42.08
2017	17,338	23.73	8.47	47.30	0.47	43.76
Electrical and Optical Equipment						
2010	26,071	44.60	34.50	26.36	0.65	38.49
2017	37,007	44.33	36.94	26.78	0.73	35.55
Food, Beverages, and Tobacco						
2010	19,583	26.08	47.51	37.51	0.23	14.75
2017	21,630	26.14	51.15	34.75	0.19	13.91

\$ = United States dollars, DDC = domestic value-added double counted in exports, FDC = foreign value-added double counted in exports, FVA_FIN = foreign value-added in exports for final consumption, FVA_INT = foreign value-added in intermediate exports, VS = vertical specialization.

Source: ADB Multi Region Input–Output Tables Database.

Table 3.2.4p: Vertical Specialization, Disaggregated—Maldives

	Exports	VS	FVA_FIN	FVA_INT	DDC	FDC
	(\$ million)	(% of gross exports)	(% of VS)			
Air Transport						
2010	36	41.95	28.55	54.57	0.01	16.88
2017	124	38.79	35.38	55.58	0.01	9.03
Food, Beverages, and Tobacco						
2010	12	35.41	72.10	22.12	0.00	5.78
2017	92	42.67	71.12	23.02	0.00	5.86
Hotels and Restaurants						
2010	1,399	26.83	40.76	38.18	0.00	21.06
2017	2,603	36.58	43.49	35.77	0.00	20.74

0.00 = magnitude is less than half of unit employed, \$ = United States dollars, DDC = domestic value-added double counted in exports, FDC = foreign value-added double counted in exports, FVA_FIN = foreign value-added in exports for final consumption, FVA_INT = foreign value-added in intermediate exports, VS = vertical specialization.

Source: ADB Multi Region Input–Output Tables Database.

Table 3.2.4q: Vertical Specialization, Disaggregated—Mongolia

	Exports	VS	FVA_FIN	FVA_INT	DDC	FDC
	(\$ million)	(% of gross exports)	(% of VS)			
Agriculture, Hunting, Forestry, and Fishing						
2010	104	13.27	24.28	55.01	0.01	20.71
2017	246	11.10	17.27	61.41	0.02	21.31
Inland Transport						
2010	79	29.19	23.96	54.61	0.01	21.42
2017	162	33.79	19.38	62.78	0.03	17.82
Mining and Quarrying						
2010	1,994	25.54	8.61	63.19	0.01	28.18
2017	4,278	24.29	0.36	73.86	0.02	25.75

\$ = United States dollars, DDC = domestic value-added double counted in exports, FDC = foreign value-added double counted in exports, FVA_FIN = foreign value-added in exports for final consumption, FVA_INT = foreign value-added in intermediate exports, VS = vertical specialization.

Source: ADB Multi Region Input–Output Tables Database.

Table 3.2.4r: Vertical Specialization, Disaggregated—Nepal

	Exports	VS	FVA_FIN	FVA_INT	DDC	FDC
	(\$ million)	(% of gross exports)	(% of VS)			
Inland Transport						
2010	80	29.92	43.55	44.32	0.00	12.12
2017	103	37.23	35.99	49.74	0.00	14.27
Other Community, Social, and Personal Services						
2010	228	7.81	20.90	61.40	0.01	17.69
2017	350	9.01	21.27	62.08	0.01	16.64
Other Supporting and Auxiliary Transport Activities; Activities of Travel Agencies						
2010	108	18.48	35.56	44.90	0.01	19.53
2017	115	23.22	23.84	55.70	0.01	20.44

0.00 = magnitude is less than half of unit employed, \$ = United States dollars, DDC = domestic value-added double counted in exports, FDC = foreign value-added double counted in exports, FVA_FIN = foreign value-added in exports for final consumption, FVA_INT = foreign value-added in intermediate exports, VS = vertical specialization.

Source: ADB Multi Region Input–Output Tables Database.

Table 3.2.4s: Vertical Specialization, Disaggregated—Pakistan

	Exports	VS	FVA_FIN	FVA_INT	DDC	FDC
	(\$ million)	(% of gross exports)	(% of VS)			
Agriculture, Hunting, Forestry, and Fishing						
2010	1,450	3.44	38.02	44.34	0.06	17.58
2017	2,014	3.11	31.13	50.74	0.06	18.07
Food, Beverages, and Tobacco						
2010	2,355	6.33	47.79	35.97	0.03	16.21
2017	2,612	5.80	48.85	36.17	0.03	14.94
Textiles and Textile Products						
2010	9,915	8.19	48.01	26.26	0.03	25.70
2017	10,858	7.41	48.73	27.77	0.03	23.47

\$ = United States dollars, DDC = domestic value-added double counted in exports, FDC = foreign value-added double counted in exports, FVA_FIN = foreign value-added in exports for final consumption, FVA_INT = foreign value-added in intermediate exports, VS = vertical specialization.

Source: ADB Multi Region Input–Output Tables Database.

Table 3.2.4t: Vertical Specialization, Disaggregated—Philippines

	Exports	VS	FVA_FIN	FVA_INT	DDC	FDC
	(\$ million)	(% of gross exports)	(% of VS)			
Electrical and Optical Equipment						
2010	15,773	38.24	28.13	27.31	0.48	44.08
2017	16,417	52.09	30.97	26.48	0.28	42.27
Food, Beverages, and Tobacco						
2010	7,957	10.18	51.14	33.79	0.08	14.99
2017	11,467	12.06	48.44	38.39	0.09	13.08
Renting of Machinery and Equipment, and Other Business Activities						
2010	10,815	6.16	9.28	60.70	0.36	29.66
2017	19,120	6.83	10.14	59.52	0.33	30.00

\$ = United States dollars, DDC = domestic value-added double counted in exports, FDC = foreign value-added double counted in exports, FVA_FIN = foreign value-added in exports for final consumption, FVA_INT = foreign value-added in intermediate exports, VS = vertical specialization.

Source: ADB Multi Region Input–Output Tables Database.

Table 3.2.4u: Vertical Specialization, Disaggregated—Singapore

Table 3.2.4a: Vertical Specialization, Disaggregated - Singapore						
	Exports	VS	FVA_FIN	FVA_INT	DDC	FDC
	(\$ million)	(% of gross exports)	(% of VS)			
Electrical and Optical Equipment						
2010	62,507	62.35	37.94	28.43	0.56	33.07
2017	62,848	61.82	37.89	29.70	0.57	31.83
Water Transport						
2010	26,594	71.58	0.50	58.61	1.17	39.72
2017	40,737	72.77	1.42	67.57	1.43	29.59
Wholesale Trade and Commission Trade, except of Motor Vehicles and Motorcycles						
2010	57,602	33.21	17.62	58.63	0.75	23.00
2017	73,653	39.33	18.72	59.93	1.08	20.27

\$ = United States dollars, DDC = domestic value-added double counted in exports, FDC = foreign value-added double counted in exports, FVA_FIN = foreign value-added in exports for final consumption, FVA_INT = foreign value-added in intermediate exports, VS = vertical specialization.

Source: ADB Multi Region Input–Output Tables Database.

Table 3.2.4v: Vertical Specialization, Disaggregated—Sri Lanka

	Exports	VS	FVA_FIN	FVA_INT	DDC	FDC
	(\$ million)	(% of gross exports)	(% of VS)			
Agriculture, Hunting, Forestry, and Fishing						
2010	336	12.28	38.25	37.48	0.03	24.24
2017	655	11.59	59.79	25.35	0.02	14.84
Food, Beverages, and Tobacco						
2010	1,527	13.41	65.59	23.40	0.01	11.01
2017	2,527	11.40	66.62	22.84	0.01	10.52
Textiles and Textile Products						
2010	2,978	28.21	76.95	13.05	0.03	9.97
2017	3,756	17.85	76.05	15.22	0.02	8.71

\$ = United States dollars, DDC = domestic value-added double counted in exports, FDC = foreign value-added double counted in exports, FVA_FIN = foreign value-added in exports for final consumption, FVA_INT = foreign value-added in intermediate exports, VS = vertical specialization.

Source: ADB Multi Region Input–Output Tables Database.

Table 3.2.4w: Vertical Specialization, Disaggregated—Taipei, China

	Exports	VS	FVA_FIN	FVA_INT	DDC	FDC
	(\$ million)	(% of gross exports)	(% of VS)			
Chemicals and Chemical Products						
2010	34,858	58.97	2.98	62.19	0.44	34.38
2017	33,010	55.58	3.88	64.18	0.42	31.51
Electrical and Optical Equipment						
2010	134,799	44.07	28.49	33.73	1.23	36.55
2017	157,158	39.14	18.50	43.02	1.49	36.99
Wholesale Trade and Commission Trade, except of Motor Vehicles and Motorcycles						
2010	26,495	12.32	27.24	44.97	1.12	26.67
2017	41,832	12.21	30.27	44.42	0.89	24.42

\$ = United States dollars, DDC = domestic value-added double counted in exports, FDC = foreign value-added double counted in exports, FVA_FIN = foreign value-added in exports for final consumption, FVA_INT = foreign value-added in intermediate exports, VS = vertical specialization.

Source: ADB Multi Region Input–Output Tables Database.

Table 3.2.4x: Vertical Specialization, Disaggregated—Thailand

	Exports	VS	FVA_FIN	FVA_INT	DDC	FDC
	(\$ million)	(% of gross exports)	(% of VS)			
Basic Metals and Fabricated Metal						
2010	41,816	48.04	13.00	55.68	0.38	30.94
2017	50,566	43.01	14.21	55.89	0.51	29.39
Food, Beverages, and Tobacco						
2010	15,291	26.90	58.30	30.51	0.16	11.03
2017	24,479	20.06	58.01	30.36	0.25	11.38
Transport Equipment						
2010	16,465	39.40	52.46	24.86	0.23	22.44
2017	20,684	29.72	64.85	21.50	0.25	13.40

\$ = United States dollars, DDC = domestic value-added double counted in exports, FDC = foreign value-added double counted in exports, FVA_FIN = foreign value-added in exports for final consumption, FVA_INT = foreign value-added in intermediate exports, VS = vertical specialization.

Source: ADB Multi Region Input–Output Tables Database.

Table 3.2.4y: Vertical Specialization, Disaggregated—Viet Nam

	Exports	VS	FVA_FIN	FVA_INT	DDC	FDC
	(\$ million)	(% of gross exports)	(% of VS)			
Electrical and Optical Equipment						
2010	6,994	53.75	39.97	26.79	0.08	33.16
2017	21,571	58.74	23.45	36.33	0.23	39.98
Food, Beverages, and Tobacco						
2010	12,422	34.59	66.69	25.74	0.05	7.53
2017	31,432	37.94	60.36	30.01	0.10	9.54
Textiles and Textile Products						
2010	7,283	35.32	82.19	9.50	0.09	8.22
2017	20,710	41.31	76.86	12.13	0.15	10.86

\$ = United States dollars, DDC = domestic value-added double counted in exports, FDC = foreign value-added double counted in exports, FVA_FIN = foreign value-added in exports for final consumption, FVA_INT = foreign value-added in intermediate exports, VS = vertical specialization.

Source: ADB Multi Region Input–Output Tables Database.

