DECEMBER 2019

DISCUSSION PAPER SERIES NO. 2019-19

Performance of Philippine Services Trade: An Update

Ramonette B. Serafica

CONTACT US:

RESEARCH INFORMATION DEPARTMENT
Philippine Institute for Development Studies

18th Floor, Three Cyberpod Centris - North Tower
EDSA corner Quezon Avenue, Quezon City, Philippines

publications@mail.pids.gov.ph
(+632) 8877-4000

https://www.pids.gov.ph

Performance of Philippine Services Trade: An Update

Ramonette B. Serafica

PHILIPPINE INSITUTE FOR DEVELOPMENT STUDIES

December 2019

Abstract

Services trade is expected to be the new driver of global trade growing further in the coming years with the adoption of new technologies and rising incomes, among others. To some extent, the Philippines has already gained a foothold having achieved significant success in the BPO sector. Moreover, there are new opportunities particularly in digital trade, the creative industries and possibly, telemigration. Recently however, Philippine services exports have been growing at a pace much slower compared to past performance and also lower than global and regional trends. In terms of accessing foreign services, the supply of services through commercial presence in the Philippines is still limited as the FDI regime of the country remains highly restrictive. With increasing deficit in the use of licensing fees it is possible that non-equity-based activities are substituting for FDI and Mode 3 supply. Further disaggregation of trade data and the compilation of Foreign Affiliates Trade Statistics for the Philippines together with firm and industry level analysis will be useful in examining the components of services trade and evolving trends and patterns in specific sub-sectors.

Keywords: services trade

Table of Contents

List of Tables

List of Figures

Performance of Philippine services trade: An update

Ramonette B. Serafica*

1. Introduction

1.1 Background

Expanding economic opportunities through services trade is one of the priorities identified in the Philippine Development Plan (PDP) 2017-2022 (NEDA 2017). Given the significant role of the Information Technology and Business Process Management (IT-BPM) sector, the Plan recommends value chain upgrading to sustain its growth. For travel exports, it encourages increasing the country's global market share in international tourism, including for health and education services. It also seeks to promote the creative industries which include both tangible products as well as intangible services and to develop the potential of the Philippines in digital trade and e-commerce. In line with these, the IT-BPM, creative industries, and e-commerce are included in the priority sectors of the Inclusive Innovation Industrialization Strategy (i3S) led by the Department of Trade and Industry (DTI). Additionally, the DTI is developing the Creative Economy Roadmap to 2030 and is in the process of updating of the E-commerce Roadmap.

Globally, services trade holds a lot of promise. According to the WTO (2019), between 2005 and 2017, trade in services expanded faster than trade in goods at 5.4 percent per year on average. The WTO expects further growth with the emergence of digital technologies, demographic changes, rising incomes, and climate change. These major trends are expected to create new types of services trade, affect the demand for services, and disrupt trade in some services while creating new markets in areas such as environmental services. With technological changes accompanied by a reduction of services trade barriers, WTO simulations project that the share of services in global trade could increase by 50 percent by 2040. With digitalization, OECD (2017) expects continued increase in the share of services traded directly to consumers through applications, platforms, and other electronic networks. UNCTAD (2019) further observes that much of the continued expansion of international production today is being driven by intangibles. Baldwin (2019) predicts that with globalization and robotics (globotics), telemigration will be possible allowing foreign professionals and talent to be virtually present in any workplace providing service across borders.

Given the national agenda and global prospects, this paper reviews the performance of Philippines to date to determine if it is on track to take advantage of the projected growth and dynamism in services trade.

1.2 Scope

Following the General Agreement of Trade in Services (GATS), trade in services occur through four modes of supply:

* Senior Research Fellow, Philippine Institute for Development Studies. The assistance of Jean Collen M. Vergara, PIDS Research Analyst, is gratefully acknowledged.

- Cross-Border (mode 1) - the supply of a service from the territory of one Member into the territory of any other Member;
- Consumption Abroad (mode 2) - the supply of a service in the territory of one Member to the service consumer of any other Member;
- Commercial Presence (mode 3) - the supply of a service by a service supplier of one Member, through commercial presence in the territory of any other Member;
- Presence of Natural Persons (mode 4) - the supply of a service by a service supplier of one Member, through presence of natural persons of a Member in the territory of any other Member.

An example of Mode 1 is architectural services (e.g. design) delivered electronically to a client in another country. In this case, only the product crosses the border. Mode 2 is best illustrated by overseas travel for business, leisure or other purposes such as to seek medical treatment or to study. Sending a ship or aircraft overseas for repair is also an example of consumption abroad. A case of Mode 3 is construction services which requires physical presence by the contractor. A local branch of an international bank is another example. Thus, Mode 3 is very much linked to foreign direct investment (FDI). Finally, an example of Mode 4 would be a management consultant traveling to another country to meet face to face with a client and provide advice.

In terms of data, the only services trade statistics available on a global basis are from the Balance of Payments (BOP) statistics, which record transactions between residents and non-residents. Note that a one-year residency rule is generally followed by BOP convention. If factors of production move to another country for a period longer than one year, a change in residency is deemed to have occurred and as such, the output generated by such factors that is sold in the host market is not considered trade. Thus, transactions involving Modes 3 and 4 for durations of more than one year are not covered by the BOP statistics (Mattoo and Stern 2007).

This paper will primarily use BOP statistics. In addition, estimates of services trade by mode of supply from a new WTO dataset will be presented. Services that are indirectly traded (i.e. services embodied in goods exports) are not included in this paper.

2. Factors affecting services exports

Before discussing the performance of Philippine services trade, this chapter briefly presents some insights on the determinants of services exports. Why are some countries more successful than others in exporting services? What are the necessary conditions for success in exporting services? Goswami et al. (2012) reviewed the available literature on the determinants of service trade and identified three fundamental elements, namely: human capital, institutions, and electronic infrastructure. Endowments of human capital are critical as many services are skill intensive (e.g. medical services, software services, business services. and financial services). Moreover, depending on the type of service involved, skill levels in both the supplying and consuming countries may be relevant. Thus, not only do you need a pool of well-educated to export services, but in some cases consumers in the importing country must have the skill to absorb or demand service exports as well. With respect to the role of institutions, there are three key reasons why certain institutions may play a more significant role in the development of service sectors. Firstly, since services are intangible,

informational problems arise particularly with many intermediation and knowledge-based services. Thus, confidence in the quality of services is necessary for trade to take place. Quality assurance can be provided by credible regulators through certification and licensing mechanisms while professional associations can also help in improving the quality and reputation of the industry. Secondly, some services have either natural monopoly or oligopoly characteristics. In these cases, it is important to have regulators that will prevent such advantages from being exploited, for example by ensuring access to essential facilities. Thirdly, some services tend to be customized such that both the supplier and consumer need to make relationship-specific investments. Once the investments are made, big switching costs inhibit moving to another supplier (or consumer) and thus, contract-enforcing institutions are important. The presence of the necessary institutions to address the various market failures work in favor of exporting countries. The third critical factor that Goswami, et al. (2012) identified is the availability of electronic infrastructure which has reduced the cost of delivering many cross-border services. Interestingly, for exports, widespread connectivity is not necessary. What is required for exporting services is that exporting firms, not the general population, have access to high-quality electronic infrastructure. In contrast, consumers in the partner country must have better access to good-quality electronic infrastructure to be able to access and consume the electronically delivered service. The authors add that while the three factors are strong determinants of aggregate services exports, the success factors are likely to vary for specific sub-sectors given their unique characteristics, market structures, and regulatory requirements, among others.

In professional services, local industry practices and quality standards can either enhance or hurt the prospects of competing globally. In the field of accounting for example, Cattaneo and Walkenhorst (2010) note that the existence and diffusion of international standards facilitate global integration. As such, the services of domestic accountants become more tradable as the standards become more uniform. Furthermore, as the adoption of international standards become more widespread in the domestic accounting system, the exposure to competition in an open trade environment increases. Similarly, in engineering services, national standards can have a significant influence on the competitive position of domestic firms (Cattaneo, et al. 2010). If national standards are not at par with international benchmarks, it would be difficult for domestic players to compete in foreign markets.

Jensen and Zhang (2013) examine supply side determinants for international tourism flows providing insights on what countries can do to improve travel exports. It recognizes that tourism activity is not decided solely by demand-side factors but that nations also compete in this activity by directly or indirectly employing strategies to attract tourists. Similar to other industries, "'natural' comparative advantage based on natural resources (sun, sand and sea in tourism) may be challenged by the rising importance of created assets such as entertainment and culture industries, new technologies, public and private infrastructure and institutions" (Ibid, p. 399). Based on global panel data, the general price competitiveness of the destination, tourism infrastructure and the provision of safety were found to be important determinants of travel exports represented by the number of tourist arrivals. In the case of medical tourism, Picazo (2013) cited the empirical model of Jotikasthira (2010) which identified the quality of medical care as the most critical factor influencing a patient's destination choice. After quality, the next consideration is the cost. Beyond the threshold level of quality, additional quality attributes are weighed versus cost savings especially by price sensitive medical tourists. After quality and price, the next criteria are environmental hygiene and safety/security. These factors were deemed most important while touristic/hospitality-industry attributes mattered less to the individual patient.

Heeks and Nicholson (2004) developed a "Software Export Success Model" based on the experience of India, Ireland and Israel. In their analytical framework, they highlighted the role of a) global and local demand; b) a national vision and strategy (the goal and the interventions to build software exports); c) international linkages including reputational effects and trust; d) software industry characteristics including size, competition, clustering and collaboration; and e) supply factors and infrastructure such as human capital, technology and finance. Sahoo and Nauriyal (2014) focused on the determinants of software exports from India where active and facilitative policy measures and actions of the government contributed to the growth of the software sector. Changes in openness index and human capital were found significant. Additionally, the GDP of high-income OECD countries had a positive impact on software exports from India. For digitally delivered services, Deardorff (2017) in an essay argues that in general, the products will be produced where their cost of production (or delivery) is relatively low. There are some cases where this may not be the case, however. For example, the provision of digital cloud services requires different inputs, which do not need to be all located in the same place. A country with access to cheap energy may host the giant server farms, while the highly skilled human capital required to deliver the services may be located elsewhere. For digital platforms, which are characterized by network externalities, the timing of a firm's entry and the size of the market that they can serve initially matter a lot for predicting the pattern of trade.

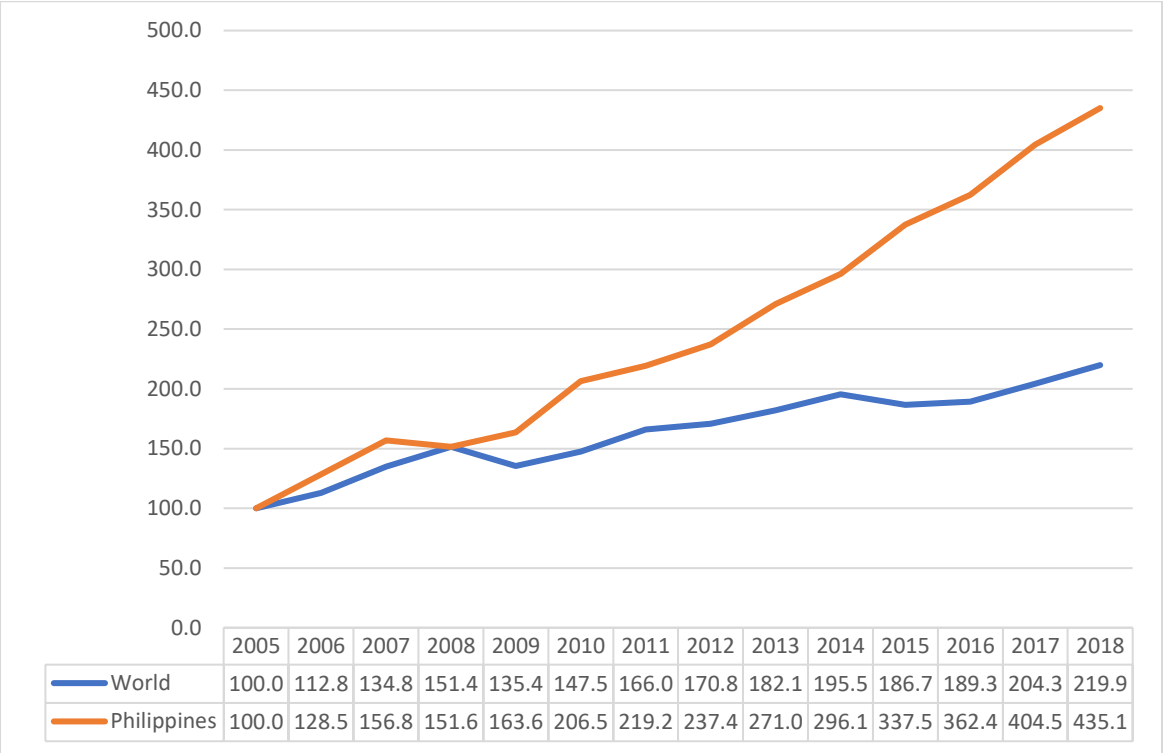
The potential of the Philippines as a services exporter was examined in Pasadilla (2006). Specifically, it looked at country's competitiveness in higher education, health, audio-visual services, and business process outsourcing (BPO). Yi (2012) later reviewed two sectors, tourism and BPO, and the reasons for the seeming underperformance of the former and the remarkable success of the latter. While both sectors received government support, targeted policies in the tourism sector failed to counteract the impacts of the weak transport, travel, and infrastructure facilities as well as poor safety and security environment. In contrast, government incentives combined with low labor, telecommunications, and real estate costs plus the availability of talent and a proactive private sector all contributed to the BPO sector's success.

3. Performance of Philippine services trade

3.1 Overall trends

From 2005 to 2018, world services exports increased by 120 percent. From USD 2.66 trillion in 2005, it reached USD 5.85 trillion in 2018. During the same period, Philippine services exports exceeded world performance, growing by 335 percent. In 2018, the country's services exports reached USD 37.5 billion from USD 8.6 billion in 2015. See Figure 1.

Figure 1. Services Exports
Index 2005 = 100

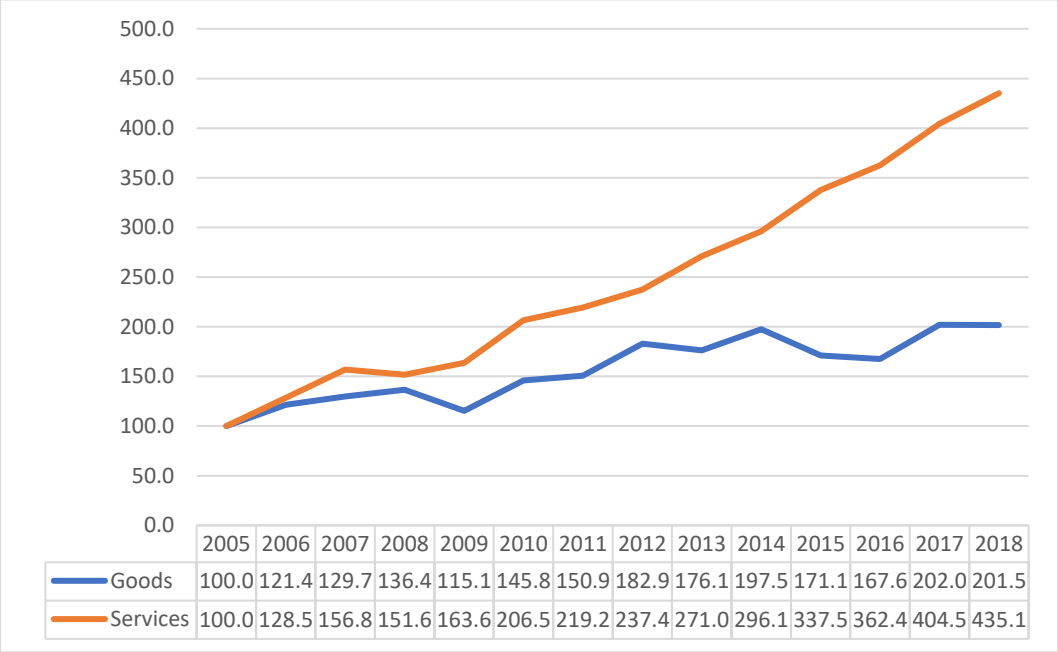


	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
World	100.0	112.8	134.8	151.4	135.4	147.5	166.0	170.8	182.1	195.5	186.7	189.3	204.3	219.9
Philippines	100.0	128.5	156.8	151.6	163.6	206.5	219.2	237.4	271.0	296.1	337.5	362.4	404.5	435.1

Source: https://unctadstat.unctad.org/ accessed on September 8, 2019.

Philippine services exports also outperformed goods exports, which only doubled from 2005 to 2018. In 2005, the total value of goods exported was USD 25.1 billion and reached USD 50.6 billion in 2018. See Figure 2.

Figure 2. Philippine exports (BOP6)
Index 2005 = 100

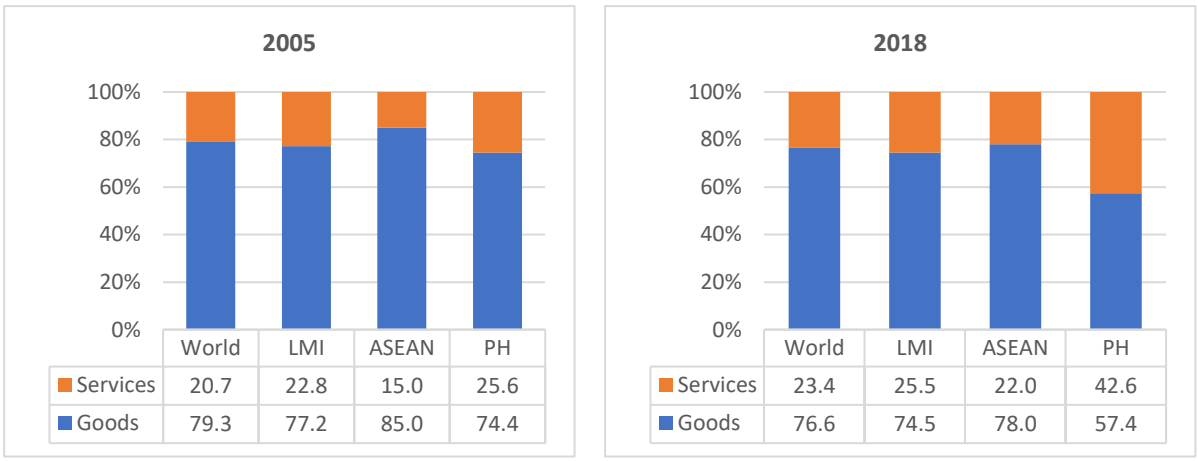


	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Goods	100.0	121.4	129.7	136.4	115.1	145.8	150.9	182.9	176.1	197.5	171.1	167.6	202.0	201.5
Services	100.0	128.5	156.8	151.6	163.6	206.5	219.2	237.4	271.0	296.1	337.5	362.4	404.5	435.1

Source: https://unctadstat.unctad.org/ accessed on September 8, 2019.

With the faster growth of services exports, its share in the Philippines' export basket also increased over time from 25.6 percent in 2005 to 42.6 percent in 2018. See Figure 3.

Figure 3. Distribution of Exports (BOP6)



Notes: LMI – lower middle income countries (World Bank classification)

Source: https://unctadstat.unctad.org/ accessed on September 8, 2019.

Furthermore, there was also a rise in the share of the Philippines in world services exports during this period whereas the share in goods exports have not changed significantly. See Table 1.

Table 1. Share of the Philippines in World Exports, BPM6

	2005	2010	2015	2018
Goods	0.25	0.25	0.26	0.26
Services	0.32	0.45	0.59	0.64

Source: https://unctadstat.unctad.org/ accessed on September 8, 2019.

The growth of Philippine services exports has been slowing down, however, falling below 10 percent on average in the last three years. See Table 2.

Table 2. Average Annual Growth Rate of Exports (BOP6)

		2006-2010	2011-2015	2016-2018
World	Goods	9.3	2.24	5.89
	Services	**8.6**	**4.98**	**5.65**
Lower Middle-Income countries	Goods	14.9	3.04	8.56
	Services	**13.9**	**4.96**	**8.84**
ASEAN	Goods	10.8	2.81	7.33
	Services	**14.2**	**8.69**	**7.33**
Philippines	Goods	8.9	3.96	6.08
	Services	**16.3**	**10.37**	**8.85**

Source: https://unctadstat.unctad.org/ accessed on September 8, 2019.

The biggest contributor to the Philippines' services exports is 'Other services'. Moreover, exports are concentrated in a couple of services specifically, 'Technical, trade-related, and other business services' and 'Computer services' revealing the country's reliance on the IT-BPM sector as the main driver of services trade (See Table 3). These are considered part of modern services as opposed to the traditional exports such as transport, travel, and construction. The share of Travel is also significant contributing a fifth of services exports particularly in recent years. Note that starting in 2016, a new category of goods related services has been included following the latest BOP manual. Manufacturing services on physical exports owned by others averaged 10 percent of Philippine services exports in the last three years.

Table 3. Composition of Philippine services exports (BOP6), %

CATEGORY	2005	2010	2015	2016	2017	2018
Total services value (US million)	8611	17782	29065	31204	34832	37469
Services share (%)	100.00	100.00	100.00	100.00	100.00	100.00
Goods-related services	0.47	0.60	0.27	9.00	10.14	10.93
Manufacturing services on physical inputs owned by others	-	-	-	8.73	9.91	10.71
Maintenance and repair services n.i.e.	0.47	0.60	0.27	0.26	0.23	0.22
Transport	10.88	7.58	6.65	6.08	7.13	7.16
Sea transport	0.20	0.15	0.03	0.10	1.67	1.65
Passenger transport, Sea	0.03	0.00	0.00	0.00	0.01	0.03
Freight transport, Sea	-	-	-	0.00	1.49	1.33
Other transport, Sea (other than passenger and freight)	0.17	0.15	0.03	0.10	0.17	0.29
Air transport	10.34	7.42	6.60	5.94	5.44	5.48
Passenger transport, Air	6.65	4.48	3.93	3.67	3.89	3.91
Freight transport, Air	2.92	2.07	1.75	1.37	0.48	0.65
Other transport, Air (other than passenger and freight)	0.77	0.87	0.92	0.90	1.07	0.92
Other modes of transport (other than sea and air)	-	-	-	0.00	0.00	0.00
Postal and courier services	0.34	0.01	0.02	0.03	0.02	0.03
Travel	26.56	14.87	18.14	16.48	20.06	19.91
Travel, Business	0.06	0.05	0.07	0.08	0.12	0.13
Travel, Personal	26.51	14.82	18.07	16.40	19.94	19.78
Travel, Personal, Health-related	0.04	0.08	0.13	0.14	0.20	0.52
Travel, Personal, Education-related	0.15	0.18	0.19	0.18	0.20	0.22
Travel, Personal, Other (other than health and education)	26.31	14.56	17.76	16.08	19.54	19.04
Other services	62.09	76.95	74.94	68.44	62.66	62.00
Construction	0.77	0.68	0.21	0.23	0.16	0.16
Insurance and pension services	0.47	0.38	0.41	0.25	0.25	0.23
Financial services	0.77	0.65	1.43	1.26	0.68	0.75
Charges for the use of intellectual property n.i.e.	0.06	0.02	0.04	0.03	0.05	0.12
Telecommunications, computer, and information services	7.59	12.57	11.91	17.60	16.19	15.85

Telecommunications services	5.72	1.72	1.01	0.99	1.28	1.69
Computer services	1.86	10.84	10.88	16.60	14.90	14.08
Information services	0.01	0.01	0.01	0.01	0.01	0.09
Other business services	52.19	62.35	60.38	48.47	44.73	44.45
Research and development (R&D)	0.09	0.08	0.33	0.16	0.07	0.17
Professional and management consulting services	0.16	0.11	0.16	0.25	0.21	0.27
Technical, trade-related, and other business services	51.94	62.16	59.90	48.06	44.45	44.01
Personal, cultural, and recreational services	0.23	0.23	0.51	0.54	0.55	0.40
Audiovisual and related services	0.22	0.15	0.15	0.20	0.16	0.19
Other personal, cultural, and recreational services (other than audiovisual and related)	0.01	0.08	0.37	0.34	0.39	0.20
Government goods and services n.i.e.	0.00	0.07	0.06	0.06	0.05	0.05
Memo item: Commercial services	100.00	99.93	99.94	99.94	99.95	99.95

Source: https://unctadstat.unctad.org/ accessed on September 8, 2019.

In terms of imports, as indicated in Table 4, payments related to travel account for the biggest portion of services imports. Its share was at 46.7 percent and 44.62 percent in 2005 and 2018, respectively, with education-related travel steadily increasing. Transport services are next as these are related to the imports of goods. Note that the shift of freight transport by air to sea in 2017 which could be due to a change in the composition of the goods being imported or simply a change in how the transactions are recorded.

Table 4. Composition of Philippine services imports (BOP6), %

CATEGORY	2005	2010	2015	2016	2017	2018
Total services value (US million)	6463	12017	23610	24160	26139	26976
Services share (%)	100.00	100.00	100.00	100.00	100.00	100.00
Goods-related services	0.07	0.18	0.35	0.46	0.50	0.51
Manufacturing services on physical inputs owned by others	-	-	-	0.00	0.00	0.00
Maintenance and repair services n.i.e.	0.07	0.18	0.35	0.46	0.50	0.51
Transport	34.01	27.63	16.33	17.96	19.20	19.67
Sea transport	0.54	0.56	0.12	0.06	14.92	15.58
Passenger transport, Sea	-	-	-	0.00	0.00	0.00
Freight transport, Sea	-	-	-	0.00	14.83	15.37
Other transport, Sea (other than passenger and freight)	0.54	0.56	0.12	0.06	0.09	0.20
Air transport	33.27	26.99	16.20	17.88	4.27	4.08
Passenger transport, Air	4.15	3.97	2.22	2.26	2.27	2.26
Freight transport, Air	27.02	19.19	11.45	13.22	0.00	0.00
Other transport, Air (other than passenger and freight)	2.10	3.83	2.52	2.40	2.00	1.82
Other modes of transport (other than sea and air)	-	-	-	0.00	0.00	0.00
Postal and courier services	0.20	0.08	0.01	0.01	0.01	0.01

Travel	46.70	45.66	48.04	46.09	45.33	44.62
Travel, Business	0.65	0.65	0.59	0.76	0.86	0.89
Travel, Personal	46.05	45.01	47.45	45.33	44.47	43.73
Travel, Personal, Health-related	0.10	0.09	0.16	0.22	0.25	0.26
Travel, Personal, Education-related	0.21	0.17	0.45	0.51	0.55	0.64
Travel, Personal, Other (other than health and education)	45.74	44.76	46.84	44.60	43.67	42.83
Other services	19.22	26.53	35.28	35.49	34.97	35.20
Construction	0.12	0.17	0.18	0.25	0.24	0.27
Insurance and pension services	2.13	7.32	3.80	5.57	5.75	5.73
Financial services	1.45	1.90	1.91	2.31	1.93	2.04
Charges for the use of intellectual property n.i.e.	4.11	3.72	2.59	2.26	2.87	3.40
Telecommunications, computer, and information services	2.70	1.97	3.27	2.78	3.26	3.67
Telecommunications services	1.58	1.00	1.74	1.13	1.63	1.36
Computer services	0.97	0.93	1.44	1.56	1.50	2.02
Information services	0.14	0.04	0.08	0.09	0.13	0.29
Other business services	7.50	8.50	21.65	20.33	19.07	17.16
Research and development (R&D)	0.32	0.19	0.16	0.11	0.06	0.08
Professional and management consulting services	1.42	0.46	0.56	0.59	0.82	0.95
Technical, trade-related, and other business services	5.76	7.85	20.92	19.63	18.19	16.12
Personal, cultural, and recreational services	0.15	0.43	0.79	0.52	0.72	1.02
Audiovisual and related services	0.08	0.32	0.11	0.21	0.25	0.38
Other personal, cultural, and recreational services (other than audiovisual and related)	0.07	0.11	0.69	0.32	0.47	0.64
Government goods and services n.i.e.	1.05	2.52	1.08	1.48	1.12	1.92
Memo item: Commercial services	98.95	97.48	98.92	98.52	98.88	98.08

Source: https://unctadstat.unctad.org/ accessed on September 8, 2019.

The Philippines enjoys a trade surplus in commercial services which in 2018 reached USD 11 billion (Table 5). Goods-related services, Telecommunications services, computer services, and Technical, trade-related, and other business services contributed to the surplus. Other sub-sectors that have recently generated net receipts are Research and Development services and Health-related personal travel, which had a trade balance of USD 125 million in 2018 due to a 185 percent jump in exports from 2017 to 2018, the highest among the subsectors. Other types of travel and sub-sectors incurred a deficit. After travel, the other categories with the highest trade deficit are transport and insurance where the bulk of payments are related to goods import and Charges for the use of intellectual property n.i.e.

Table 5. Services trade balance in USD million (BOP6), Philippines

CATEGORY	2005	2010	2015	2016	2017	2018
Services	2,148	5,765	5,455	7,043	8,693	10,493
Goods-related services	36	85	(6)	2,696	3,402	3,959
Transport	(1,261)	(1,974)	(1,922)	(2,441)	(2,533)	(2,622)
Travel	(731)	(2,842)	(6,070)	(5,992)	(4,861)	(4,577)

Travel, Business	(37)	(69)	(120)	(158)	(182)	(190)
Travel, Personal	(694)	(2,773)	(5,950)	(5,834)	(4,680)	(4,387)
Travel, Personal, Health-related	(2)	4	(2)	(10)	3	125
Travel, Personal, Education-related	(1)	12	(52)	(68)	(74)	(91)
Travel, Personal, Other (other than health and education)	(691)	(2,788)	(5,896)	(5,756)	(4,608)	(4,421)
Other services	4,104	10,496	13,453	12,781	12,686	13,734
Construction	58	101	17	11	(6)	(12)
Insurance and pension services	(97)	(813)	(779)	(1,269)	(1,417)	(1,460)
Financial services	(27)	(111)	(37)	(164)	(268)	(270)
Charges for the use of intellectual property n.i.e.	(260)	(442)	(601)	(537)	(734)	(873)
Telecommunications, computer, and information services	479	1,999	2,688	4,822	4,787	4,949
Telecommunications services	390	186	(118)	37	20	264
Computer services	97	1,816	2,822	4,802	4,797	4,729
Information services	(8)	(4)	(16)	(17)	(31)	(44)
Other business services	4,010	10,066	12,440	10,214	10,596	12,025
Research and development (R&D)	(13)	(9)	57	25	10	41
Professional and management consulting services	(78)	(35)	(87)	(66)	(143)	(155)
Technical, trade-related, and other business services	4,100	10,109	12,470	10,254	10,729	12,139
Personal, cultural, and recreational services	10	(11)	(38)	43	3	(125)
Audiovisual and related services	13	(11)	18	14	(10)	(30)
Other personal, cultural, and recreational services (other than audiovisual and related)	(3)	0.33	(56)	29	13	(96)
Government goods and services n.i.e.	(68)	(291)	(237)	(339)	(275)	(499)
Memo item: Commercial services	2,216	6,056	5,692	7,383	8,968	10,992

Source: https://unctadstat.unctad.org/ accessed on September 8, 2019

3.2 Digitally-deliverable services

A new group of services called digitally-deliverable services is an aggregation of insurance and pension services, financial services, charges for the use of intellectual property, telecommunications, computer and information services, other business services and audiovisual and related services.

Digitally-deliverable services are based on the concept of potentially ICT-enabled services as developed by UNCTAD (2015). ICT-enabled services (ITES) conceptually include "activities that can be specified, performed, delivered, evaluated and consumed electronically" and is has been proposed that ITES be defined as "services products delivered remotely over ICT networks (i.e. over voice or data networks, including the Internet)" (Ibid, page 9). Although the various ITES products could be delivered remotely, there is no information to confirm whether they were actually delivered digitally.

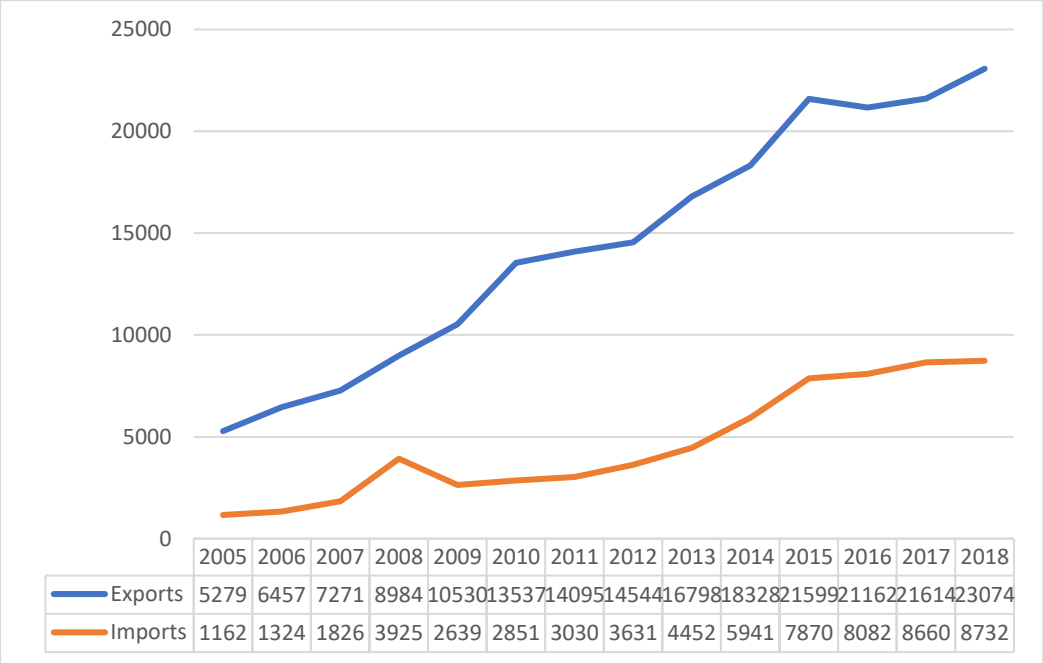
Digitally deliverable services account for a significant portion of Philippine services exports (Table 6). Moreover, as Figure 4 shows, the Philippines enjoys a surplus in this cluster of services.

Table 6. Share of Digitally Deliverable Services Exports in Total Services Exports (%)

YEAR	2005	2010	2015	2018
World	44.4	46.3	49.7	50.2
Lower-middle-income economies (World Bank)	40.9	46.2	50.6	46.5
ASEAN (Association of Southeast Asian Nations)	32.7	35.2	41.1	40.3
Philippines	61.3	76.1	74.3	61.6

Source: https://unctadstat.unctad.org/ accessed on September 8, 2019.

Figure 4. Trade in digitally-deliverable services, Philippines (USD million)



Source: https://unctadstat.unctad.org/ accessed on September 8, 2019.

Since 2005, there has been a slowdown in the average annual growth rate of digitally-deliverable services. The deceleration in the growth of Philippine exports is quite significant and it has been underperforming compared to world and regional average (Tables 7).

Table 7. Digitally Deliverable Services Exports, Average Annual Growth Rate (%)

	2006-2010	2011-2015	2016-2018
World	9.43	6.51	5.96
Lower-middle-income economies (World Bank)	16.95	6.88	5.75
ASEAN (Association of Southeast Asian Nations)	15.44	12.02	6.59
Philippines	20.85	9.95	2.29

Source: https://unctadstat.unctad.org/ accessed on September 8, 2019.

While there has been a steady improvement in the last few years from 2016 to 2018, the pace of growth of the Philippines' digitally deliverable services exports has been slower than others (Table 8).

Table 8. Digitally Deliverable Services Exports, Annual Growth Rate (%)

	2016	2017	2018
World	3.31	6.89	7.69
Lower-middle-income economies (World Bank)	2.32	5.56	9.36
ASEAN (Association of Southeast Asian Nations)	5.05	6.68	8.04
Philippines	-2.02	2.13	6.75

Source: https://unctadstat.unctad.org/ accessed on September 8, 2019.

Table 9 shows the performance by sub-sector. As presented above, Computer services and Technical, trade-related, and other business services accounted for 14.08 and 44.01 percent, respectively, of total services exports in 2018. Thus, the slowdown in these sub-sectors have contributed the most to the poor performance overall of digitally-deliverable services exports.

Table 9. Digitally deliverable services exports of the Philippines by component, annual growth (BPM6), %

YEAR	2016	2017	2018	Average (2016 - 2018_
Insurance and pension services	-35.37	11.33	-0.70	-8.25
Financial services	-4.83	-39.82	17.68	-8.99
Charges for the use of intellectual property n.i.e.	-15.21	78.23	160.65	74.56
Telecommunications, computer, and information services	58.72	2.64	5.35	22.24
- Telecommunications services	5.39	44.02	41.51	30.31
- Computer services	63.73	0.17	1.67	21.86
- Information services	8.56	-6.20	832.89	278.41
Other business services	-13.82	3.01	6.89	-1.31
- Research and development (R&D)	-46.52	-51.96	157.03	19.51
- Professional and management consulting services	70.85	-7.01	41.07	34.97
- Technical, trade-related, and other business services	-13.86	3.24	6.49	-1.38
Personal, cultural, and recreational services				

- Audiovisual and related services	47.06	-11.80	29.64	21.63

Source: https://unctadstat.unctad.org/ accessed on September 8, 2019.

3.3 WTO experimental dataset on trade in services by mode of supply

The data presented in the previous tables were based on the Balance of Payments 6 (BPM6) which capture services trade via Modes 1, 2 and 4. The World Trade Organization (WTO) recently released the very first estimates of services exports by mode of supply and includes Mode 3. Called TISMOS or trade in services by mode of supply, it contains estimates of services trade for more than 200 countries and 66 services sectors. According to Wettstein, et al. (2019), the aggregated results show that the global supply of services nearly doubled from 2005 to 2017, reaching almost USD 13.5 trillion in 2017. The biggest share by mode of supply is Mode 3 with almost 60 percent of the total supply. Next is Mode 1, which includes an estimation for distribution services, is close to 30 percent. Mode 2 represents a little over 10 percent while Mode 4 accounts for around 3 percent of the total supply of services. By sub-sector, Wettstein, et al. (2019) estimate that Mode 3 (outward FATS) is the dominant mode in all sectors except for Transport and Trade-related services which are supplied mainly through Mode 1 and Tourism and business travel and Education services which are mostly supplied through Mode 2. See Table 10.

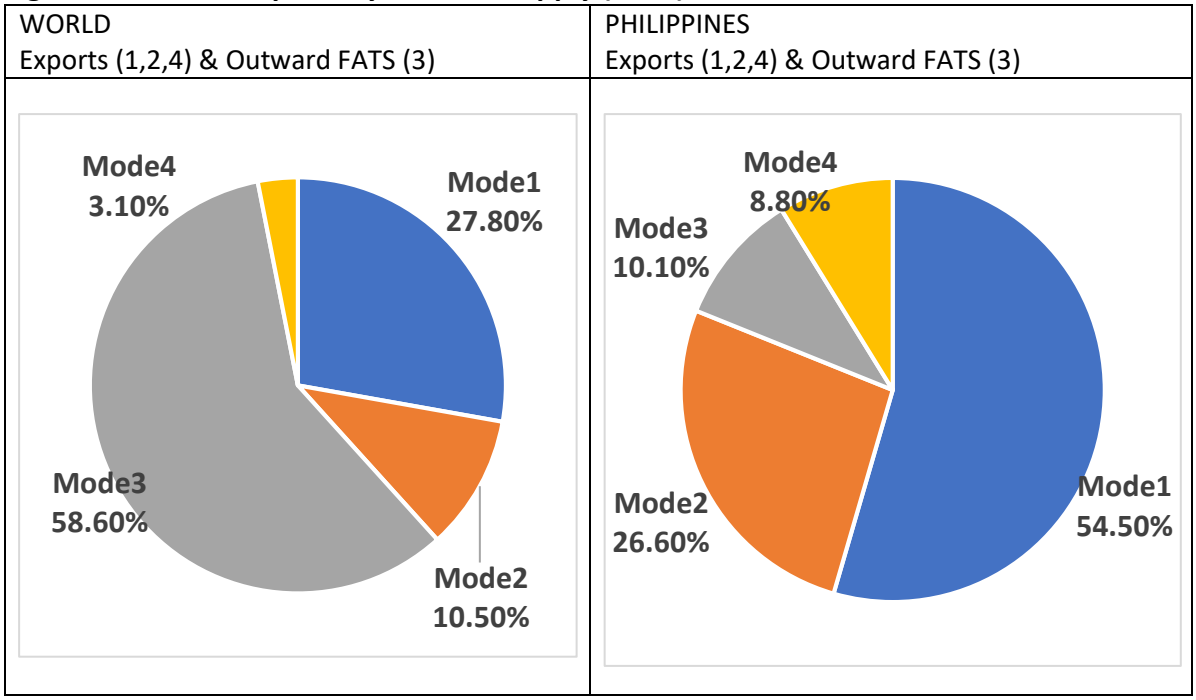
Table 10. World services exports, 2017

EBOPS DESCRIPTION	TOTAL (USD M)	SHARE (%)	MODE 1 (%)	MODE 2 (%)	MODE 3 (%)	MODE 4 (%)
Total Services	13420090	100.0	27.8	10.5	58.6	3.1
Manufacturing services on physical inputs owned by others	98990	0.7	0.0	100.0	0.0	0.0
Maintenance and repair services not included elsewhere	89050	0.7	0.0	92.8	0.0	7.2
Transport	1502693	11.2	47.0	16.1	36.9	0.0
Tourism and business travel	1043241	7.8	0.0	82.9	17.1	0.0
Health services	54053	0.4	4.5	23.0	71.0	1.4
Education services	116009	0.9	4.4	84.8	8.5	2.3
Construction	504782	3.8	0.0	0.0	91.6	8.4
Insurance and financial services	2535756	18.9	23.5	0.0	76.5	0.0
Charges for the use of intellectual property n.i.e.	381238	2.8	100.0	0.0	0.0	0.0
Telecommunications, computer, information and audiovisual services	1851490	13.8	24.2	0.1	70.3	5.4
Other business services (excluding trade-related)	2532071	18.9	33.0	0.5	56.2	10.2
Heritage and recreational services	54526	0.4	10.2	0.0	86.5	3.3
Other personal services	68124	0.5	12.9	0.0	82.9	4.2
Trade-related services (Distribution)	2588064	19.3	28.5	0.0	71.5	0.0

Notes: 1) Mode 3 represents Outward Foreign Affiliates Statistics. 2) Distribution services is not an EBOPS 2010 standard item. It was added for the purpose of TiSMoS.
Source: https://www.wto.org/english/res_e/statis_e/trade_datasets_e.htm accessed on October 6, 2019

The estimated total services exports covering all modes of supply for the Philippines was USD 40.1 billion in 2017. Unlike the world pattern, the dominant mode of supply is Mode 1 accounting for almost 55 percent. Next is by Mode 2 or consumption abroad with 27 percent. The shares of Mode 3 and Mode 4 are nearly the same at 10 and 9 percent, respectively. See Figure 5 comparing the global export pattern and that of the Philippines.

Figure 5. Services exports by mode of supply (2017)



Source: https://www.wto.org/english/res_e/statis_e/trade_datasets_e.htm accessed on October 6, 2019

In terms of specific sub-sectors, cross-border supply is the predominant mode for the delivery of transport services; telecommunication, computer, information, and audiovisual services; and other business services while tourism, health and education services were mostly delivered by Mode 2. In some sub-sectors such as construction, financial services, and in heritage and recreational services, the supply of services through the establishment of commercial presence was also undertaken. A number of sub-sectors such as health, education, construction, and computer services were delivered services through the movement of natural persons. In education services; telecommunication, computer, information, and audiovisual services; and other business services all modes of supply were employed although in varying degrees of importance. See Table 11.

Table 11. Philippine services exports, by mode of supply (2017)

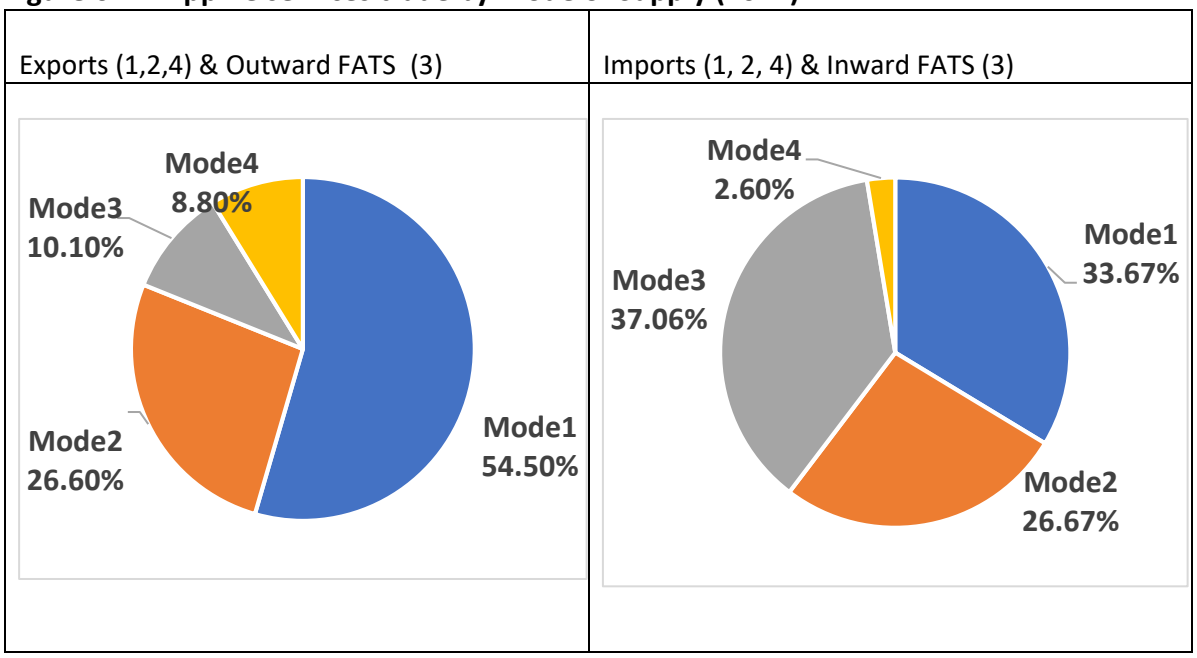
EBOPS DESCRIPTION	TOTAL (USD M)	SHARE (%)	MODE 1 (%)	MODE 2 (%)	MODE 3 (%)	MODE 4 (%)
Total Services	40825.0	100.0	54.5	26.6	10.1	8.8
Manufacturing services on physical inputs owned by others	3453.0	8.5	0.0	100.0	0.0	0.0
Maintenance and repair services not included elsewhere	80.0	0.2	0.0	90.0	0.0	10.0
Transport	2521.0	6.2	81.4	17.1	1.4	0.0
Tourism and business travel	6764.7	16.6	0.0	99.9	0.1	0.0
Health services	129.0	0.3	35.6	52.7	0.0	11.6
Education services	112.4	0.3	28.5	60.5	1.2	9.8
Construction	183.0	0.4	0.0	0.0	84.2	15.8
Insurance and financial services	1717.0	4.2	18.8	0.0	81.2	0.0
Charges for the use of intellectual property n.i.e.	17.0	0.0	100.0	0.0	0.0	0.0

Telecommunications, computer, information and audiovisual services	6539.6	16.0	67.0	0.1	12.9	20.0
Other business services (excluding trade-related)	14848.0	36.4	84.6	0.1	0.5	14.9
Heritage and recreational services	87.0	0.2	27.6	0.0	63.2	9.2
Other personal services	0.0	0.0	0.0	0.0	0.0	0.0
Trade-related services (Distribution)	4373.0	10.7	64.1	0.0	35.9	0.0

Notes: 1) Mode 3 represents Outward Foreign Affiliates Statistics. 2) Distribution services is not an EBOPS 2010 standard item. It was added for the purpose of TiSMoS.
Source: https://www.wto.org/english/res_e/statis_e/trade_datasets_e.htm accessed on October 6, 2019

Whereas exports are dominated by Mode 1, on the imports side, Mode 3 (or inward FATS) accounted for the biggest share with 37 percent followed closely by cross border supply or Mode 1 with 34 percent. Mode 2 captures 27 percent of services imports driven primarily by Filipino tourists. Trade via Mode 4 only make up a very small portion of services imports at 2.6 percent. See Figure 6.

Figure 6. Philippine services trade by Mode of Supply (2017)



Source: https://www.wto.org/english/res_e/statis_e/trade_datasets_e.htm accessed on October 6, 2019

Similar to the case of exports, all modes of supply were used to import telecommunications, computer, information, and audiovisual services; and other business services. In addition, health services were also imported using all modes of supply. See Table 12.

Table 12. Philippine services Imports, by mode of supply (2017)

EBOPS DESCRIPTION	TOTAL (USD M)	Share (%)	MODE 1 (%)	MODE 2 (%)	MODE 3 (%)	MODE 4 (%)
Total Services	46407.3	100.0	33.7	26.7	37.1	2.6
Manufacturing services on physical inputs owned by others	0.0	0.0				

Maintenance and repair services not included elsewhere	131.8	0.3	0.0	90.0	0.0	10.0
Transport	5740.1	12.4	77.9	9.5	12.6	0.0
Tourism and business travel	12005.8	25.9	0.0	95.7	4.3	0.0
Health services	304.7	0.7	30.0	21.2	38.7	10.0
Education services	171.3	0.4	0.0	82.7	17.3	0.0
Construction	1081.0	2.3	0.0	0.0	97.1	2.9
Insurance and financial services	7713.8	16.6	26.0	0.0	74.0	0.0
Charges for the use of intellectual property n.i.e.	751.4	1.6	100.0	0.0	0.0	0.0
Telecommunications, computer, information and audiovisual services	4330.7	9.3	18.5	0.2	78.8	2.6
Other business services (excluding trade-related)	6262.6	13.5	48.8	0.1	34.9	16.2
Heritage and recreational services	56.5	0.1	0.0	0.0	100.0	0.0
Other personal services	0.0	0.0				
Trade-related services (Distribution)	7857.7	16.9	56.7	0.0	43.3	0.0

Notes: 1) Mode 3 represents Inward Foreign Affiliates Statistics. 2) Distribution services is not an EBOPS 2010 standard item. It was added for the purpose of TiSMoS.
Source: https://www.wto.org/english/res_e/statis_e/trade_datasets_e.htm accessed on October 6, 2019

3.4 Revealed comparative advantage and world ranking

Table 13 reveals the revealed comparative advantage (RCA) of Philippines in the various services sub-sectors. With an RCA index consistently greater than 1, the country has maintained its comparative advantage in two sub-sectors, namely: Computer services and Technical, trade-related, and other business services. Another sub-sector, Manufacturing services on physical services on physical inputs owned by others, which replaced Goods for processing and originally part of the goods account in the old balance of payments manual, is another subsector with a very high RCA.

Table 13. Revealed comparative advantage index of services sub-sectors (BPM6)

CATEGORY	2005	2010	2011	2012	2013	2014	2015	2016	2017	2018
Goods-related services	0.14	0.17	0.12	0.14	0.09	0.11	0.08	2.59	2.92	3.03
Manufacturing services on physical inputs owned by others								4.72	5.41	5.66
Maintenance and repair services n.i.e.	0.38	0.51	0.33	0.38	0.22	0.27	0.17	0.16	0.14	0.13
Transport	0.50	0.36	0.37	0.39	0.36	0.39	0.37	0.35	0.41	0.41
Sea transport		0.02	0.01	0.02	0.00	0.01	0.00	0.02	0.24	0.24
Air transport			1.10	1.11	1.04	1.06	0.99	0.91	0.82	0.82
Other modes of transport (other than sea and air)						0		0	0	0
Postal and courier services		0.03	0.09	0.06	0.06	0.04	0.06	0.09	0.05	0.08
Travel	1.01	0.61	0.70	0.81	0.81	0.82	0.74	0.67	0.81	0.81
Other services	1.28	1.51	1.45	1.39	1.38	1.36	1.39	1.25	1.15	1.14
Construction	0.45	0.32	0.12	0.23	0.19	0.11	0.10	0.12	0.09	0.09
Insurance and pension services	0.19	0.15	0.16	0.13	0.16	0.19	0.16	0.10	0.10	0.09

Financial services	0.09	0.08	0.06	0.06	0.04	0.08	0.16	0.15	0.08	0.09
Charges for the use of intellectual property n.i.e.	0.01	0.00	0.00	0.01	0.00	0.01	0.01	0.00	0.01	0.02
Telecommunications, computer, and information services	1.09	1.49	1.68	1.66	1.59	1.52	1.26	1.82	1.66	1.53
Telecommunications services		0.75	0.92	1.13	1.01	0.71	0.55	0.55	0.78	1.06
Computer services				1.95		1.87	1.54	2.27	1.99	1.73
Information services	0.03	0.02	0.02	0.02	0.01	0.02	0.02	0.02	0.02	0.14
Other business services	2.71	3.08	2.87	2.66	2.68	2.62	2.80	2.18	2.04	2.05
Research and development (R&D)		0.03	0.03	0.03	0.02	0.08	0.11	0.05	0.02	0.05
Professional and management consulting services		0.02	0.01	0.02	0.02	0.02	0.02	0.03	0.02	0.03
Technical, trade-related, and other business services		5.91		5.22	5.23	5.12	5.59	4.46	4.28	4.39
Personal, cultural, and recreational services	0.24	0.22	0.30	0.39	0.44	0.61	0.52	0.54	0.57	0.42
Audiovisual and related services			0.32	0.53	0.60	0.48	0.35	0.47	0.39	0.50
Other personal, cultural, and recreational services (other than audiovisual and related)	0.03	0.15	0.28	0.27	0.30	0.71	0.64	0.59	0.71	0.36

Note: Total exports cover services only
Source: https://unctadstat.unctad.org/ accessed on September 8, 2019.

In 2017, the value of Philippine services exports was the 34th highest in the world and accounted for 0.64 percent of total world exports, which is dominated by the United States. The rank and share of the Philippines in the three sub-sectors where the country has revealed comparative advantage are shown in Table 14 below.

Table 14. Key indicators of select sub-sectors (BPM6), Philippines 2017

Sub-sector	Exports (USD million	Rank	Share in world total (%)
Manufacturing services on physical inputs owned by others	3453	8	3.47
Computer services	5188	18	1.28
Technical, trade-related, and other business services	15483	11	2.75

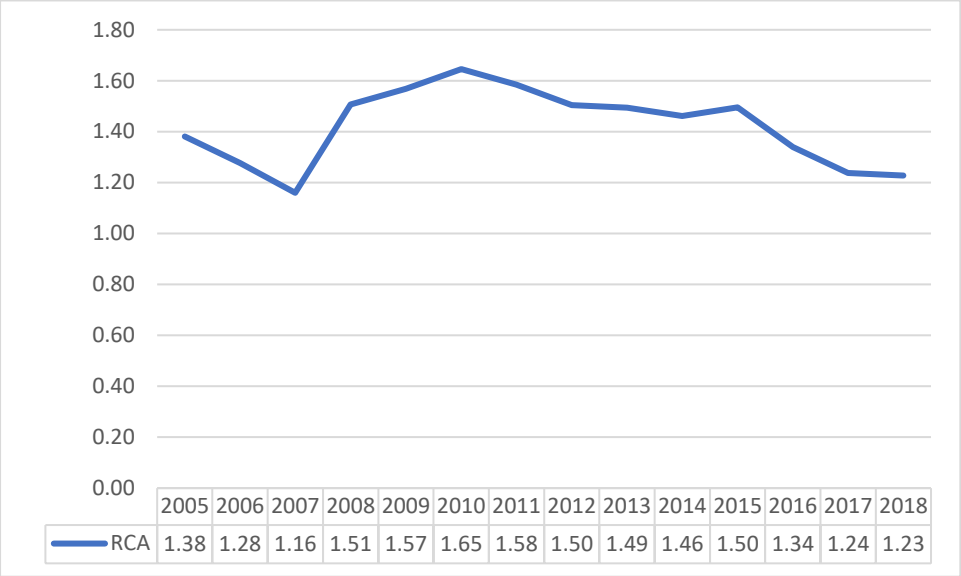
Source: https://unctadstat.unctad.org/ accessed on September 8, 2019.

In travel exports, which account for 20 percent of the country's services exports, the share of the Philippines in world exports was only 0.52 percent in 2017. It was outperformed by other ASEAN countries in this category, particularly by Thailand which ranks 4th in the world and accounts for 4.25 percent of world travel exports.

Additional tables and further details on the definition of the subsectors are in Appendix A.

In terms of digitally-deliverable services, the RCA index reveals that the Philippines enjoys a comparative advantage in this category of services, although it has been declining through the years (Figure 7).

Figure 7. Revealed comparative advantage index of Digitally-deliverable services, Philippines



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
RCA	1.38	1.28	1.16	1.51	1.57	1.65	1.58	1.50	1.49	1.46	1.50	1.34	1.24	1.23

Note: Total exports cover services only
Source: https://unctadstat.unctad.org/ accessed on September 8, 2019

Following Langhammer (2004), RCA indices are computed by mode of supply. The result as shown in Table 15 indicate that the Philippines has comparative advantage in the supply of services through different channels except in Mode 3 or commercial presence. As noted previously, WTO estimates that only 10 percent of Philippine services trade are delivered by Mode 3 (outward FATS) or through the establishment of commercial presence.

Table 15. RCA index by Mode of Supply, Philippines (2017)

Mode 1	Mode 2	Mode 3	Mode 4
1.96	2.53	0.17	2.83

Notes: (1) Total exports cover services only; (2) Mode 3 represents Outward Foreign Affiliates Statistics.
Source: https://www.wto.org/english/res_e/statis_e/trade_datasets_e.htm accessed on October 6, 2019

4. Summary and assessment

The foregoing discussion confirms the competitiveness of the Philippines in services trade. From 2005 to 2018, world services exports increased by 120 percent. During the same period, Philippine services exports exceeded world performance, growing by 335 percent and it also outperformed goods exports. With the faster growth of services exports, its share in the Philippines' export basket increased over time from 25.6 percent in 2005 to 42.6 percent in 2018.

The biggest contributors to the Philippines' services exports are 'Technical, trade-related, and other business services' and 'Computer services' revealing the country's reliance on the IT-BPM sector as the main driver of services trade. The share of Travel is also significant contributing a fifth of services exports in recent years. Starting in 2016 a new category of

goods related services has been included following the latest BOP manual. Manufacturing services on physical exports owned by others averaged 10 percent of Philippine services exports in the last three years.

The Philippines enjoys a trade surplus in commercial services which reached USD 11 billion in 2018. Goods-related services, Telecommunications services, computer services, and Technical, trade-related, and other business services contributed to the surplus. Other sub-sectors that have recently generated net receipts are Research and Development services and Health-related personal travel, which had a trade balance of USD 125 million in 2018 due to a 185 percent jump in exports from 2017 to 2018, the highest among the subsectors. The share of digitally-deliverable services exports to total exports is high, again owing to the IT-BPM sector.

However, the growth of Philippine services exports has been slowing down particularly in digitally-deliverable services. Although it appears to be a global trend, the deceleration of Philippine exports growth is quite significant especially when compared to past performance and to world and regional averages. While there has been a steady improvement in the last few years from 2016 to 2018, the pace of growth of the Philippines' digitally deliverable services exports has been slower than others. Given that Computer services and Technical, trade-related, and other business services accounted for 14.08 and 44.01 percent, respectively, of total services exports in 2018, the slowdown in these sub-sectors have contributed the most to the poor performance overall of digitally-deliverable services exports.

Factors that are hurting Philippine services exports must be addressed to reverse the slowdown and maintain the country's market position in sub-sectors where it has comparative advantage, namely: "Computer services" and "Technical, trade-related, and other business services". With an RCA index consistently greater than 1, the country has maintained its comparative advantage in these two sub-sectors. Manufacturing services on physical services on physical inputs owned by others, which was originally part of the Goods account in the old BPM, is another category with a high RCA index.

In terms of offensive interest, the dominance of Mode 1 and digitally-deliverable services means that the Philippines must be especially vigilant against policies or regulations here and abroad, which may impede cross-border supply of services and digital trade more broadly. As the WTO TISMOS reveals, unlike the world pattern, for the Philippines the dominant mode of supply is Mode 1 accounting for almost 55 percent. Next is by Mode 2 or consumption abroad with 27 percent. The shares of Mode 3 and Mode 4 are nearly the same at 10 and 9 percent, respectively. Moreover, it should be noted that the remittances of Overseas Filipinos are recorded in the income (not trade) accounts and these are substantial. Thus, the usual pursuit of market access for Mode 4 and other forms of labor mobility should remain. The Philippines is less sensitive to barriers to Mode 3 although local companies are expanding overseas. Finally, in a GVC-driven world imports and exports are highly linked. Therefore, also important for services exports are the tariff and non-tariff barriers to trade in goods used as inputs, which may make Philippine services exports less competitive.

On the imports side, payments related to travel account were the most significant. In 2018, 44.62 percent of services imports were due to travel-related expenditures of Filipinos abroad, with the share of education-related travel increasing. When estimates of inward FATS are included, Mode 3 or commercial presence accounts for the biggest share with 37 percent

closely followed by cross-border supply or Mode 1 with 33.7 percent. Trade via Mode 4 only make up a very small portion of services imports at 2.6 percent.

Based on the Digital Trade Restrictiveness Index (DTRI), which maps and measures policy restrictions to digital trade in 65 countries, the top two most restrictive policy areas of the Philippines are foreign investment (7th most restrictive out of 65 countries) and business mobility (10th most restrictive out of 65 countries) (Ferracane, *et al.* 2018). Policies and regulations on trade in services have spillover effects to the rest of the economy and negatively affect competitiveness of services and good exports too (Hoekman 2006). The Philippines' FDI regime, which directly affects Mode 3 remains one of the most restrictive compared to OECD and non-OECD countries (OECD 2016) and should be a priority reform measure.

More data will allow detailed analysis of sub-sectors. Further disaggregation of sub-sectors will be useful, for example, in distinguishing between low vs. high value-added services or low vs high skill-intensity exports. As discussed earlier, one of the components of digitally deliverable services is Other business services and within this category "Technical, trade-related, and other business services". This is could be further disaggregated into the following components:

- Architectural, engineering, scientific, and other technical services;
- Waste treatment and de-pollution, agricultural and mining services;
- Operating leasing services;
- Trade-related services; and
- Other business services n.i.e.

Similarly, the category "Personal, cultural, and recreational services" could be further decomposed into the following to understand the potential drivers of the creative services exports:

- Audiovisual services;
- Artistic related services;
- Other personal, cultural, and recreational services (health; education; and heritage and recreational services)

Understanding the composition of imports is equally important. For example, "Charges for the use of intellectual property n.i.e" represent 3.4 percent of imports. Moreover, it incurred a trade deficit of $873 M in 2018. This category however has the following subcomponents, which are currently not reported separately:

- Franchises and trademarks licensing fees;
- Licenses for the use of outcomes of research and development;
- Licenses to reproduce and/or distribute computer software; and
- Licenses to reproduce and/or distribute audio-visual and related products

As noted in UNCTAD (2004), this category reflects the use of assets and expertise under contractual agreements of various types and are used as a proxy for non-equity based activity. Thus, it is possible that some imports could be substituting for other modes of supply (i.e. cross border vs supply through commercial presence) particularly when FDI restrictions exist. According to UNCTAD (2019), non-equity modes of international production are growing faster than FDI, and this is visible in the relative growth rates of royalties, licensing fees and services trade.

The only estimates of Mode 3 for the Philippines are from WTO TISMOS. For more accurate estimates, the Philippines should compile Foreign Affiliates Trade Statistics (FATS). FATS cover all industries (not just services) and include both inward and outward sales statistics. Other variables covered (e.g. employment, R&D, value added, exports, etc.) will be very useful for trade analysis and FDI policy formulation, among others. Inward FATS provide a better picture of the contribution of foreign investment to the country, beyond the investment figures typically reported. Outward FATS will show the extent of internationalization of Filipino companies, which could be useful for crafting government support.

Services trade is expected to be the new driver of global trade growing further in the coming years with new technologies, rising incomes and demographic shifts, among others. To some extent, the Philippines has already gained a foothold having achieved significant success in the BPO sector. Moreover, there are new opportunities particularly in digital trade, the creative industries and possibly, telemigration as predicted by Baldwin (2019). However, there are signs of slowing down. Issues which cannot be attributed entirely to external factors must be addressed by the government and industry. Human capital, institutions and electronic infrastructure have been identified as the critical success factors in services exports. For developing strategies in specific sub-sectors, firm level case studies and industry analysis will be needed.

5. Bibliography

Baldwin, Richard. 2019. *The globotics upheaval: globalization, robotics, and the future of work.* Orion Publishing Group, Limited.

Cattaneo, Olivier, and Peter Walkenhorst. 2010. "Accounting Services: Ensuring Good Governance, Financial Stability, and Economic Growth." In *International Trade in Services: New Trends and Opportunities for Developing Countries*, edited by Olivier Cattaneo, Michael Engman, Sebastin Sáez and Robert M. Stern, 263–291. Washington, DC: World Bank.

Cattaneo, Olivier, Linda Schmid, and Michael Engman. 2010. "Engineering Services: How to Compete in the Most Global of the Professions." Chap. 9 in *International Trade in Services: New Trends and Opportunities for Developing Countries*, edited by Olivier Cattaneo, Michael Engman, Sebastian Saez and Robert M. Stern, 293-318. Washington, DC: World Bank.

Copeland, Brian, and Aaditya Mattoo. 2007. "The Basic Economics of Services Trade." In *A Handbook of International Trade in Services*, edited by Aaditya Mattoo, Robert M. Stern and Gianni Zanini, 84-129. New York: Oxford University Press.

Deardorff, Alan V. 2017. "Comparative advantage in digital trade." In *Cloth for Wine? The Relevance of Ricardo's Comparative Advantage in the 21st Century*, by Simon J Evenett, 35-44. London: CEPR Press.

Ferracane, Martina Francesca, Hosuk Lee-Makiyama, and Erik van der Marel. 2018. *Digital Trade Restrictiveness Index.* ECIPE. Accessed July 1, 2018. http://ecipe.org/dte/dte-report/.

Goswami, Arti Grover, Poonam Gupta, Aaditya Mattoo, and Sebastián Sáez. 2012. "Service Exports: Are the Drivers Different for Developing Countries?" Chap. 2 in *Exporting Services: A Developing Country Perspective*, edited by Arti Grover Goswami, Aaditya Mattoo and Sebastián Sáez, 25-79. Washington DC: The World Bank. doi:10.1596/978-0-8213-8816-7.

Gupta, Sangita Dutta, Ajitava Raychudhuri, and Sushil Kumar Haldar. 2015. "Determinants of Exports of Information Technology in India: An Empirical Analysis." *South Asia Economic Journal* 16 (1): 64-81. doi:10.1177/1391561415575128 .

Heeks, Richard, and Brian Nicholson. 2004. "Software export success factors and strategies in "follower" nations." *Competition & Change* 8 (3): 267-303. doi:10.1080/1024529042000301962.

Hoekman, Bernard. 2006. *Liberalizing Trade in Services: A Survey.* World Bank Policy Research Working Paper No. 4030.

IMF. 2009. *Balance of Payments and International Investment Position Manual.* Sixth Edition (BPM6, 2009). https://www.imf.org/external/pubs/ft/bop/2007/pdf/bpm6.pdf.

Jensen, Camilla, and Jie Zhang. 2013. "Trade in tourism services: Explaining tourism trade and the impact of the general agreement on trade in services on the gains from trade." *The Journal of International Trade & Economic Development: An International and Comparative Review* 22 (3): 398-429. doi: 10.1080/09638199.2011.574723.

Jotikasthira, Nuttapong. 2010. *Salient Factors Influencing Medical Tourism Destination Choice.* DBA dissertation, Southern Cross University, Lismore, NSW, Australia.

Langhammer, Rolf J. 2004. "Revealed comparative advantages in services trade of the United States, the European Union and Japan: what do they tell us?" *The Journal of World Investment and Trade* 5 (6): 887-896.

Mattoo, Aaditya, and Robert M. Stern. 2007. "Overview." In *A Handbook of International Trade in Services,* edited by Aaditya Mattoo, Robert M. Stern and Gianni Zanini, 3-47. New York: Oxford University Press.

National Economic Development Authority. 2017. *Philippine Development Plan 2017-2022.* Pasig City: NEDA.

OECD. 2016. *OECD Investment Policy Reviews: Philippines 2016.* Paris: OECD Publishing. doi:http://dx.doi.org/10.1787/9789264254510-en.

OECD. 2017. *Services Trade Policies and the Global Economy.* Paris: OECD Publishing. doi:https://doi.org/10.1787/9789264275232-en.

Pasadilla, Gloria O., ed. 2006. *The Global Challenge in Services Trade: A Look at the Philippine Competitiveness.* Quezon City: PIDS and GTZ.

Picazo, Oscar F. 2013. *Medical Tourism in the Philippines: Market Profile, Benchmarking Exercise, and S.W.O.T. Analysis.* Discussion Paper Series No. 2013-45, Quezon City: Philippine Institute for Development Studies.

Sahoo, B. K., and D. K. Nauriyal. 2014. "Determinants of software exports from India." *International Economics and Economic Policy* 11 (4): 455–479. doi: 10.1007/s10368-013-0254-7.

United Nations Conference on Trade and Development. 2019. *2019 World Investment Report: Special Economic Zones.* New York and Geneva: United Nations.

United Nations Conference on Trade and Development. 2015. "International Trade in ICT Services and ICT-Enabled Services, Proposed Indicators from the Partnership on Measuring ICT for Development." Technical Note No. 3 unedited. Accessed July 1, 2018.

United Nations Conference on Trade and Development. 2004. *The Shift Towards Services.* World Investment Report 2004, New York and Geneva: United Nations.

Wettstein, Steen, Antonella Liberatore, Joscelyn Magdeleine, and Andreas Maurer. 2019. "A global trade in services data set by sector and by mode of supply (TISMOS)." *WTO.* Accessed September 15, 2019. https://www.wto.org/english/res_e/statis_e/trade_datasets_e.htm.

World Trade Organization. 2019. *World Trade Report 2019 The Future of Services Trade.* Geneva: WTO.

Yi, Soonhwa. 2012. "Reaching the World Through Private Sector Initiative: Service Exports from the Philippines." Chap. 4 in *Exporting Services: A Developing Country Perspective,* edited by Arti Grover Goswami, Aaditya Mattoo and Sebastián Sáez, 121-159. Washington, DC: The World Bank.

6. Appendix A

Table 16. Services exports (2017)

Economy	Exports (USD million)	Rank	Share %	Economy	Exports (USD million)	Rank	Share %
WORLD	5429290		100.0				
United States of America	797690	1	14.69	United Arab Emirates	70508	21	1.30
United Kingdom	356548	2	6.57	Denmark	66818	22	1.23
Germany	307483	3	5.66	Austria	66702	23	1.23
France	275142	4	5.07	Australia	64900	24	1.20
China	228090	5	4.20	Poland	58401	25	1.08
Netherlands	217672	6	4.01	Russian Federation	57730	26	1.06
Japan	186371	7	3.43	China, Taiwan Province of	45071	27	0.83
India	185294	8	3.41	Israel	44700	28	0.82
Ireland	179967	9	3.31	Turkey	43994	29	0.81
Singapore	172601	10	3.18	Norway	40885	30	0.75
Spain	138451	11	2.55	China, Macao SAR	38840	31	0.72
Switzerland, Liechtenstein	121831	12	2.24	Greece	37932	32	0.70
Belgium	119742	13	2.21	Malaysia	37065	33	0.68
Italy	111419	14	2.05	**Philippines**	**34832**	**34**	**0.64**
China, Hong Kong SAR	104313	15	1.92	Brazil	34478	35	0.64
Luxembourg	102742	16	1.89	Portugal	34110	36	0.63
Canada	87999	17	1.62	Finland	29861	37	0.55
Korea, Republic of	87497	18	1.61	Mexico	27185	38	0.50
Thailand	75526	19	1.39	Czechia	26908	39	0.50
Sweden	73715	20	1.36	Hungary	26757	40	0.49

Note: Number of economies with published figures – 188

Source: https://unctadstat.unctad.org/ accessed on September 8, 2019.

Manufacturing services on physical inputs owned by others

Manufacturing services on physical inputs owned by others was previously called Goods for processing and was part of the Goods account as per the Balance of Payments Manual 5 (BPM 5). In the 6th edition, goods for processing was renamed Manufacturing services on physical inputs owned by others and moved to the Services account. According to BPM 6 (IMF 2009, p. 161):

10.62 Manufacturing services on physical inputs owned by others cover processing, assembly, labeling, packing, and so forth undertaken by enterprises that do not own the goods concerned. The manufacturing is undertaken by an entity that does not own the goods and that is paid a fee by the owner. In these cases, the ownership of the goods does not change, so no general merchandise transaction is recorded between the processor and the owner.

10.63 Examples of processes that are often undertaken under arrangements for manufacturing services on physical inputs owned by others include oil refining, liquefaction of natural gas,

assembly of clothing and electronics, assembly (excluding assembly of prefabricated constructions, which are included in construction), labeling, and packing (excluding those incidental to transport, which are included in transport services).

Table 17. Manufacturing Services (2017)

Economy	Exports (USD million)	Rank	Share %
WORLD	99530		100.0
China	18068	1	18.15
France	8787	2	8.83
Netherlands	7115	3	7.15
Germany	7014	4	7.05
Poland	4216	5	4.24
Belgium	4059	6	4.08
Italy	3522	7	3.54
Philippines	**3453**	**8**	**3.47**
United Kingdom	3402	9	3.42
Romania	3253	10	3.27
Spain	3197	11	3.21
China, Taiwan Province of	2586	12	2.60
Malaysia	2501	13	2.51
Korea, Republic of	2193	14	2.20
Hungary	2142	15	2.15
Czechia	2086	16	2.10
Austria	1913	17	1.92
Ireland	1723	18	1.73
Finland	1657	19	1.66
Honduras	1550	20	1.56

Note: Number of economies with published figures – 117

Source: https://unctadstat.unctad.org/ accessed on September 8, 2019.

Computer services

According to IMF (2009, p. 176), computer services "consist of hardware- and software-related services and data-processing services."

Table 18. Computer Services (2017)

Economy	Exports (USD million)	Rank	Share %
WORLD	405920		100.0
Ireland	78073	1	19.23
India	51797	2	12.76
Germany	31557	3	7.77
China	25986	4	6.40
United States of America	22941	5	5.65

Netherlands	14524	6	3.58
United Kingdom	13063	7	3.22
France	12629	8	3.11
Sweden	12102	9	2.98
Israel	11657	10	2.87
Singapore	10974	11	2.70
Spain	9852	12	2.43
Belgium	8496	13	2.09
Finland	7448	14	1.83
Canada	5515	15	1.36
Poland	5370	16	1.32
Austria	5344	17	1.32
Philippines	**5188**	**18**	**1.28**
United Arab Emirates	4730	19	1.17
Denmark	4030	20	0.99

Note: Number of economies with published figures – 127

Source: https://unctadstat.unctad.org/ accessed on September 8, 2019.

Table 19. Computer services

		2014	2015	2016	2017	2018
World	Value (USD m)	340190	351360	367690	405920	474830
	Growth (%)		*3.28*	*4.65*	*10.40*	*16.98*
Philippines	Value (USD m)	3121	3163	5179	5188	5275
	Share of World (%)	0.92	0.90	1.41	1.28	1.11
	Growth (%)		*1.34*	*63.73*	*0.17*	*1.67*

Source: https://unctadstat.unctad.org/ accessed on September 8, 2019.

Technical, trade-related, and other business services

Technical, trade-related, and other business services include: (a) architectural, engineering, and other technical services; (b) waste treatment and depollution, agricultural, and mining services; (c) operating leasing services; (d) trade-related services; and (e) other business services (IMF 2009, p. 178)

Table 20. Technical, trade-related, and other business services (2017)

Economy	Exports (USD million)	Rank	Share %
WORLD	563960		100.0
United Kingdom	58181	1	10.32
France	48408	2	8.58
Netherlands	39675	3	7.04
Germany	32610	4	5.78
Ireland	32138	5	5.70
United States of America	28407	6	5.04
Japan	26799	7	4.75

Korea, Republic of	17851	8	3.17
Italy	16231	9	2.88
Spain	15624	10	2.77
Philippines	**15483**	**11**	**2.75**
India	14640	12	2.60
Luxembourg	12956	13	2.30
Brazil	12344	14	2.19
Singapore	11875	15	2.11
Belgium	10136	16	1.80
Switzerland, Liechtenstein	9606	17	1.70
Thailand	9605	18	1.70
Canada	9037	19	1.60
Austria	8456	20	1.50

Note: Number of economies with published figures – 159

Source: https://unctadstat.unctad.org/ accessed on September 8, 2019.

Table 21. Technical, trade-related, and other business services (2017)

		2012	2013	2014	2015	2016	2017	2018
World	Value (USD m)	478820	521570	571750	531300	542410	563960	586500
	Growth (%)		*8.93*	*9.62*	*-7.07*	*2.09*	*3.97*	*4.00*
Philippines	Value (USD m)	11260	13151	14370	17410	14996	15483	16488
	Share of World (%)	2.35	2.52	2.51	3.28	2.76	2.75	2.81
	Growth (%)		*16.79*	*9.27*	*21.15*	*-13.86*	*3.24*	*6.49*

Source: https://unctadstat.unctad.org/ accessed on September 8, 2019.

Travel

According to IMF (2009, p. 275), "travel refers to the acquisition of goods and services in an economy by individuals who are visiting but not resident in that economy."

Table 22. Travel ranking (2017)

Economy	Exports (USD million)	Rank	Share %
WORLD	1339440		100.00
United States of America	210747	1	15.73
Spain	67944	2	5.07
France	60530	3	4.52
Thailand	56938	4	4.25
United Kingdom	51211	5	3.82
Other ASEAN:			
Singapore	19738	19	1.47
Malaysia	18352	20	1.37
Indonesia	13139	27	0.98
Viet Nam	8890	35	0.66
Philippines	**6988**	**42**	**0.52**
Cambodia	3639	60	0.27

Myanmar	1969	80	0.15
Lao People's Dem. Rep.	761	109	0.06
Brunei Darussalam	177	145	0.01

Note: Number of economies with published figures – 182

Source: https://unctadstat.unctad.org/ accessed on September 8, 2019.

Table 23. Travel exports growth rate

	2006 - 2010	2011 - 2015	2016 - 2018
World	6.92	4.93	5.81
Lower-middle-income economies (World Bank)	11.00	4.68	11.77
ASEAN (Association of Southeast Asian Nations)	15.38	10.00	9.29
Philippines	10.13	15.09	13.39

Source: https://unctadstat.unctad.org/ accessed on September 8, 2019.

Table 24. Philippines' share in world travel exports (%)

2005	2010	2015	2016	2017	2018
0.33	0.28	0.43	0.42	0.52	0.52

Source: https://unctadstat.unctad.org/ accessed on September 8, 2019.