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India's FTA with the EU: Opportunities and challenges in services sector

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India's FTA with the EU: Opportunities and Challenges in Services Sector



Ankita Dash
Ayona Bhattacharjee

ASIA-PACIFIC RESEARCH AND TRAINING NETWORK ON TRADE

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ASIA-PACIFIC RESEARCH AND TRAINING NETWORK ON TRADE

WORKING PAPER

India's FTA with the EU: Opportunities and Challenges in Services Sector¹

Ankita Dash ², Ayona Bhattacharjee ³

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Abstract

Trade in services has been of special interest to both India and the EU as services are a major contributor to GDP and trade flows in the two economies. Steadily rising services trade between India and the EU is, however, characterized by certain peculiarities, which are worth noticing. These include differences across sub-sectors, trading partners, modes of trade and regulatory barriers. These make it worth exploring the potential costs and benefits of increasing trade flows through trade agreements even further while also diversifying the sub-sectors and the destination countries. This is highly relevant as after a gap of nine years, in 2022, India and the EU have recently relaunched talks for an all-inclusive free trade agreement (FTA) in 2022, to cater to their common interests concerning trade in services.

Against this background, this study uses both quantitative and qualitative approach to explore the opportunities and challenges for India under a probably India-EU FTA. Using disaggregated data over 2010-2021, we construct different trade indicators, to identify these potential markets and services, prospects of which can be further explored in the India-EU FTA. Legal text analysis of analogous FTAs that EU and India have signed with developing and developed partners respectively was also undertaken to better understand the style to the negotiations, language of legal texts and commissions/restrictions offered by these countries to their respective partners.

The analysis discovers the services sectors in which India has strategic export interest in the EU region, namely, Technical and Trade related services, Research and Development related services and Transport services. The major sectors which need careful negotiations such that India can improve its services balance and put to good use its bilateral RCA are Computer and Information services, Professional and Management services and Travel. Charges for use of intellectual property, Telecommunication and Insurance and Pension services could be other areas for consideration which at present do not experience significant exports from India to the EU but have the potential for significant gains under a liberalized regime.

The broad scope of this study is to analyze the opportunities and challenges for India's services industry under an FTA between India and the EU and provide suggestions for India's negotiation approach.

Keywords: Trade in services, free trade agreement, European Union, Asia Pacific, technical and trade related services

JEL Codes: F13, F14, F15

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List of Acronyms

BRCA	Bilateral Revealed Comparative Advantage
CAGR	Compound annual growth rate
CETA	Comprehensive Economic and Trade Agreement
EC	European Commission
EPA	Economic Partnership Agreement
EU	European Union
FDI	Foreign Direct Investment
FE	Fixed Effects
FTA	Free Trade Agreement
OECD	Organisation for Economic Co-operation and Development
OLS	Ordinary Least Squares
POLS	Pooled Ordinary Least Squares
PPML	Poisson Pseudo Maximum Likelihood Estimation
PMR	Product Market Regulation
R&D	Research and Development
RCA	Revealed Comparative Advantage
SME	Small and medium-sized enterprises
UK	United Kingdom
US	United States

1. Introduction

The services sector currently accounts for around three-fourth of GDP in developed and around half of GDP in developing economies.⁴ The rapid expansion of this sector across countries is also in line with their rising trade flows. In fact, trade in services has been growing faster than trade in goods.⁵ Though this rising trend was suddenly disrupted by the Covid-19 pandemic, resulting in a temporary decline in services trade, the trend started to reverse from the year 2021. It is predicted that global services exports may soon attain a new record high of US\$7 trillion.⁶ With rapid advancements in technology, the services sector and trade in services are predicted to grow fast unless intercepted by restrictive trade policies. Unlike tariff barriers applied to goods trade, policy barriers in services trade are regulatory in nature, making them even more complex to quantify and eliminate. Overcoming these policy hurdles through trade agreements may be a way forward which can bring forth the true potential of services sector globalization. For instance, the current negotiations on an agreement between India and the European Union (EU)⁷ is stated to have immense potential for services sector growth in both the economies. From India's perspective, the agreement can facilitate India's attempt to establish itself as a regional and a global leader of services trade. On the other hand, the agreement may allow the EU firms to access a market of over a billion people. Also, trade in services is of special interest to both India and the EU as services are a major contributor to GDP in both the economies. The effects of this Free Trade Agreement (FTA) are thus worth analysing.

Currently, the EU is India's third largest trading partner, accounting for around 11% of total Indian trade. As per the European Commission, the EU is also one of the largest sources of Foreign Direct Investments (FDI) in India with FDI figures touching €87.3 bn in 2020, up from €63.7 bn in 2017. Services trade between India and the EU exhibit certain peculiar traits. First, services trade is unevenly distributed across the EU member countries. Broad trade patterns over the past decade seem to suggest that India's top trading partners for both exports and imports have been Germany and Ireland (Poitiers, Chowdhry, & GARCÍA-HERRERO, 2021) while there is immense scope for India to diversify its trade in services to other countries within the EU region. Second, services trade between India and the EU is dominated by certain sub-sectors such as transport, telecom/IT, travel and other business services. In 2021, these sectors accounted for more than 80% of the EU's services exports to India and more than 90% of the EU's services imports from India. Strong growth in bilateral trade in these key sectors has been specifically reported during 2010-2019. For instance, the EU imports of other business services from India doubled from USD 5.29 billion to USD

⁴ Source: Services, value added (% of GDP) on World Bank Database:

<https://data.worldbank.org/indicator/NV.SRV.TOTL.ZS>

⁵ Source: https://www.wto.org/english/thewto_e/20y_e/services_brochure2015_e.pdf

⁶ Source:

⁷ Source: India-EU conclude 1st round of negotiations for India-EU Trade and Investment Agreements:

<https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1838839>

11.22 billion during this time. In contrast, trade flows in financial and manufacturing-related services remained low and without significant fluctuations (Poitiers, Chowdhry, & GARCÍA-HERRERO, 2021). Third, there is differential focus on modes of services trade by the trading partners. India seeks greater liberalization of cross border delivery of services (Mode 1 of trade in services) and services delivered via the movement of service providers (Mode 4 of trade in services), particularly in terms of allowing skilled Indian professionals to temporarily reside and work in the EU and provide easier access for its students to the member states. Fourth is the presence of regulatory barriers in services trade between India and the EU. For instance, while the EU is interested in liberalization of services in mode 3 focusing on sectors such as accountancy, legal matters, retail and banking, India is not considered data-secure under the EU legislation, which restricts the flow of sensitive data with its trading partners.

Specific expectations from the FTA differ across sectors and the trading partners. For instance, according to the European Council on Foreign Relations⁸, the EU desires India to liberalize its professional services sector, especially accountancy and legal services. The EU also expects greater strengthening of the intellectual property rights in India to allow evergreening of its patents in the country. On the other hand, India being affected by the EU standards and regulations regarding the digital economy, has expressed concerns over non-identification of the economy as a “data-secure country”. This is despite the introduction of the Information Technology Act (2000) and the Information Technology Rules (2011), in line with the “safe harbor” principles adopted by the United States. India’s interest also lies in easing of restrictions on mobility of skilled Indian professionals as well as the standardization of qualifications and professional standards between the EU partners that have constrained Indian professionals’ access to the EU markets.⁹

The EU, a single market comprising 27 countries, is reported to be the world’s largest trading bloc, the top trading partner for 80 countries and the most open to developing countries.¹⁰ According to the European Commission (EC), the EU is also the world’s largest trader of services, accounting for 25% of the EU’s GDP and supporting 21 million EU jobs, directly and indirectly.¹¹ As per the EC’s estimates, the services sector exports exceeded €900 billion in 2022 highlighting the role that trade in services plays in the EU’s economy. On the other hand, India’s trade in services has been the engine of its economic growth, contributing 53.89% of India’s GVA in 2022.¹² This sector has

⁸ Source: European Council on Foreign Relations

https://ecfr.eu/special/what_does_india_think/analysis/the_fta_a_strategic_call_for_the_eu_and_india, accessed on August 14, 2023

⁹Source: European Commission: https://policy.trade.ec.europa.eu/eu-trade-relationships-country-and-region/countries-and-regions/india_en, accessed on 20th June 2023

¹⁰ Source: EU position in world trade: https://policy.trade.ec.europa.eu/eu-trade-relationships-country-and-region/eu-position-world-trade_en, accessed on 13th January 2023

¹¹ Source; https://policy.trade.ec.europa.eu/help-exporters-and-importers/accessing-markets/goods-and-services/services_en

¹² <https://statisticstimes.com/economy/country/india-gdp-sectorwise.php>

not only provided employment, it has also attracted substantial foreign investment flows and has been a key contributor to India's exports over the past few decades.

2. Background and Preliminary Analysis

India and the EU have been steady trading partners in both goods and services for decades. Both sides adopted a Joint Action Plan in 2005, reviewed in 2008, to strengthen trade and investment ties.¹³ Currently, the EU is India's third largest trading partner, accounting for around 11% of total Indian trade.¹⁴ The EU is also one of the largest sources of Foreign direct investments (FDI) in India.

Growth in services trade between India and the EU has shown rapid increase over the last decade, from USD 28.76 billion in 2010 to USD 48.45 billion in 2019. However, three major shocks disrupted the rising trade flows between the nations, making it imperative to revisit the trade relations between the two economies. First, the Covid-19 pandemic, which was a significant blow to global trade. Second, Britain, which constituted around 16% of EU exports to India in 2019, and almost half of all pre-Brexit EU FDI stock in India, exited the EU thereby necessitating a revisit of the trade relations between India and the EU while a separate agreement is under negotiation between India and the UK. Third is the rise of China becoming a major supplier for India's imports, replacing regional trade blocks, like the EU (Poitiers et. al, 2021). As a result, after a gap of nine years, in 2022, India and the EU have relaunched talks for an all-inclusive free trade agreement (FTA), to cater to their common interests concerning trade in services.

2.1. Trade in Services – India and the EU

This section provides a brief description of India-EU trade in services to understand the relative standing of these economies in global services trade, followed by their current bilateral flows over the years.¹⁵ It discusses the export and imports along with the leading trading partners and the leading services sub-sectors of trade. The period taken into consideration for analysis is 2010-2021. The analyses have been based on cumulative trade flows during 2010-2021, extracted from the UNCTAD database.

2.1.1. The EU's Services Trade flows

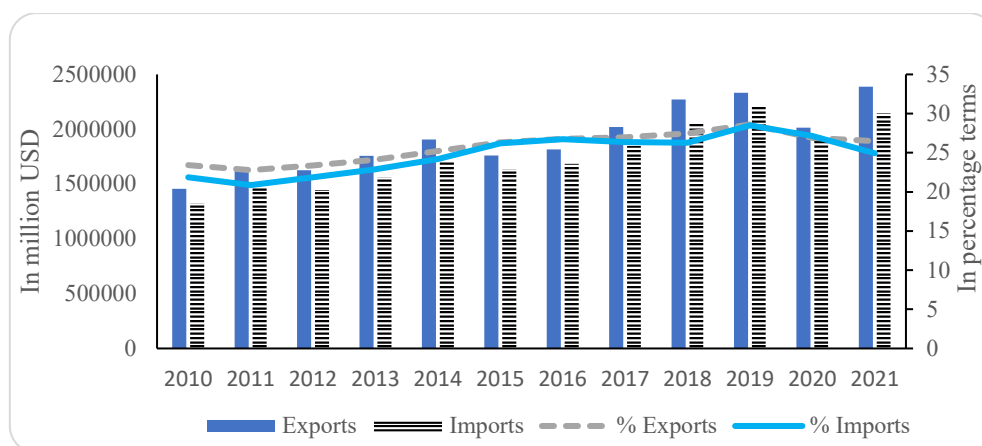
¹³ Source: https://www.mea.gov.in/Portal/ForeignRelation/India-EU_Relations.pdf

¹⁴ Source: European Commission: https://policy.trade.ec.europa.eu/eu-trade-relationships-country-and-region/countries-and-regions/india_en, accessed on 13th January 2023

¹⁵ We adopt the services categorisation from the UNCTAD's definitions (see Table TA.1 in the Appendix).

The EU contributes around 25% of global trade in services¹⁶ while the services sector constitutes about 75% of GVA in the EU.¹⁷ As shown in Figure 1, the EU's trade in services has grown over the years. Total trade in services has grown at around 4% CAGR during this period. Also, services exports have exceeded imports every year over the past decade.

Figure 1: The EU's services trade flows with the world



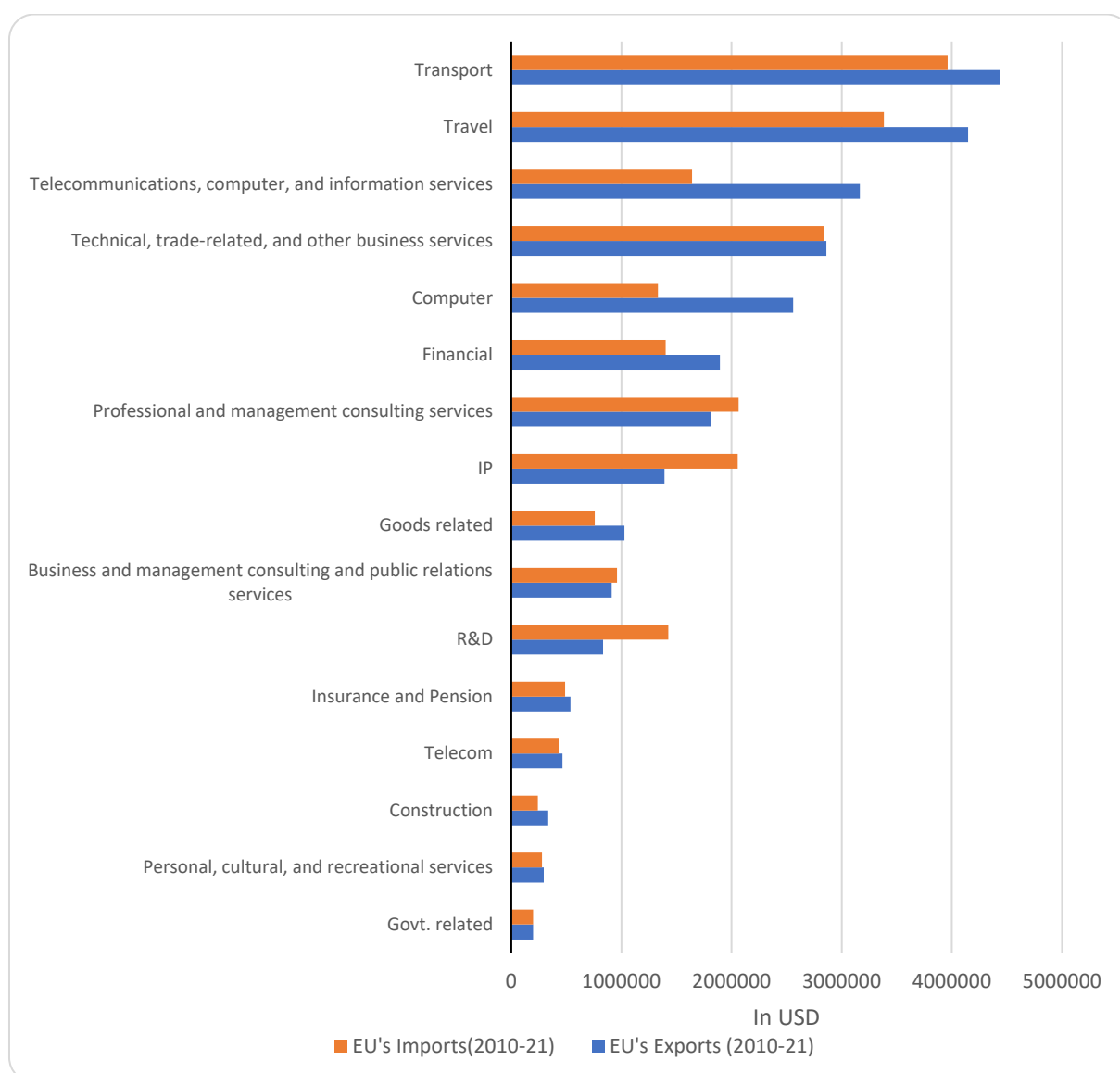
Source: The figure has been compiled by using data from the Database (<https://unctadstat.unctad.org/EN/>). The reporter country is the “EU” and the partner country is the “world”. The percentages are in terms of total exports and total imports of services, respectively.

The most exported services by the EU over the past decade were Transport, Travel, Telecommunication services. The most imported services by the EU over the past decade were Transport, Travel followed by Technical (and trade related) services. Figure 2 gives a relative ranking of the various services traded by the EU with the world during 2010-2021.

¹⁶ Source: EUROSTAT: world trade in services, https://ec.europa.eu/eurostat/statistics-explained/index.php?title=World_trade_in_services#International_trade_in_services_.E2.80.93_overview accessed on 14th January 2023

¹⁷ Source: EUROSTAT: <https://ec.europa.eu/eurostat/web/products-eurostat-news/-/ddn-20211021-1>, accessed on 15th January 2023

Figure 2: The EU's Cumulative Exports and Imports (2010-21) to the World



Source: The figure has been compiled by using data from the UNCTAD Database (<https://unctadstat.unctad.org/EN/>). The sub-sectors have been arranged in descending order of their cumulative trade values of cumulative exports during 2010-2021. The partner country of trade for both the trade flows is the “world”. The figure is based on cumulative exports and imports during 2010-2021.

Based on the cumulative export flows and import flows with the world, over the past decade (2010-2021), we can identify the leading exporter and importer countries in the EU region. Among the 27 countries in the region, high trade flows across different sectors were reported by countries like Germany, France, Netherlands, Ireland, Spain, Italy, Denmark, Belgium, Austria, Sweden, Poland, Luxembourg and Sweden. For overall services, we find that Germany, France and the Netherlands were the major exporters, followed by Ireland and Spain. Table 1 gives a snapshot of the top exporter EU member states in various categories of services with world as the partner.

Table 1: Services sub-sector wise top Exporter EU member states

Total Services	Germany	France	Netherlands
Transport	Germany	France	Denmark
Travel	Spain	France	Italy
Technical & Trade-related	France	Germany	Ireland
Computer	Ireland	Germany	Netherlands
Financial	Luxembourg	Germany	Ireland
Professional & Management	Germany	Belgium	France
Intellectual Property n.i.e.	Netherlands	Germany	France
R&D	Germany	France	Belgium
Insurance & pension	Ireland	Germany	France
Telecom	France	Italy	Germany
Construction	Denmark	Netherlands	Belgium

Source: The table has been compiled by using data from the UNCTAD Database (<https://unctadstat.unctad.org/EN/>). The top exporter member states have been identified on the basis of the cumulative export values for each country over 2010-2021. The partner country in each case is the "world". The United Kingdom, UK, has been dropped from the calculations.

Amongst the EU member states, the top importers of total services from the world are Germany, France, Ireland, Netherlands, and Italy. Table 2 lists the top importer EU member states in various categories of services with the world as the partner. Countries like Germany, Italy, Ireland and Finland have had higher imports over exports in the past decade, resulting in negative services trade balance. The rest of the EU member states have maintained positive balances.

Table 2: Services sub-sector wise top Importer EU member states

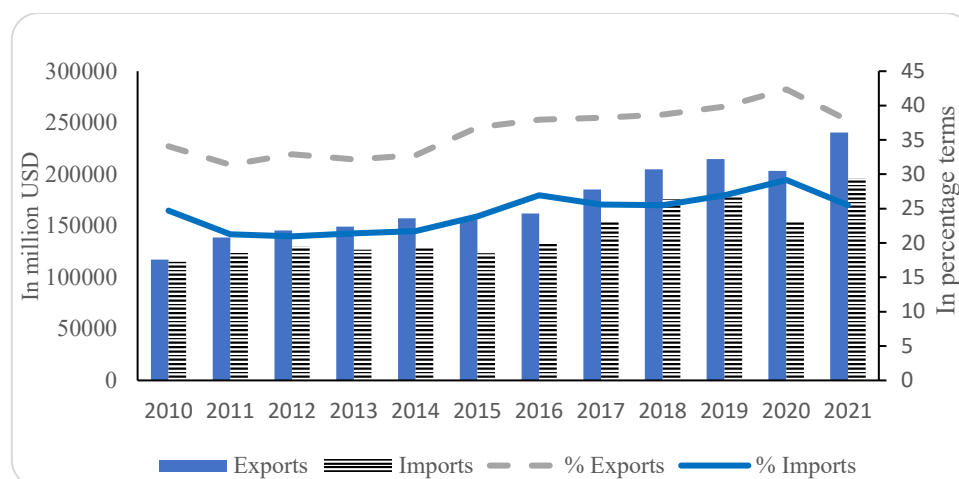
Total Services	Germany	France	Ireland
Transport	Germany	France	Denmark
Travel	Germany	France	Italy
Technical & Trade-related	Ireland	France	Germany
Professional & Management	Germany	Belgium	Netherlands
Intellectual Property n.i.e.	Ireland	Netherlands	France
R&D	Ireland	Germany	France
Financial	Luxembourg	Germany	Ireland
Computer	Germany	France	Netherlands
Goods related	France	Germany	Netherlands
Insurance & pension	France	Ireland	Germany
Telecom	Italy	France	Germany
Personal, cultural and recreational	Germany	Netherlands	France
Construction	Denmark	Belgium	Netherlands

Source: The table has been compiled by using data from the UNCTAD Database (<https://unctadstat.unctad.org/EN/>). The top importer countries have been identified on the basis of the cumulative import values for each country over 2010-2021. The partner country in each case is the "world". The United Kingdom, UK, has been dropped from the calculations.

2.1.2. India's Services Trade flows

In 2021, India contributed around 4% and 3.5% of global services exports and imports, while the contribution of the sector to Indian GDP was more than 50 per cent.¹⁸ India has witnessed a steady growth in services trade over the past decade with a positive trade balance over the years (see Figure 3).

Figure 3: India's services trade flows with the world



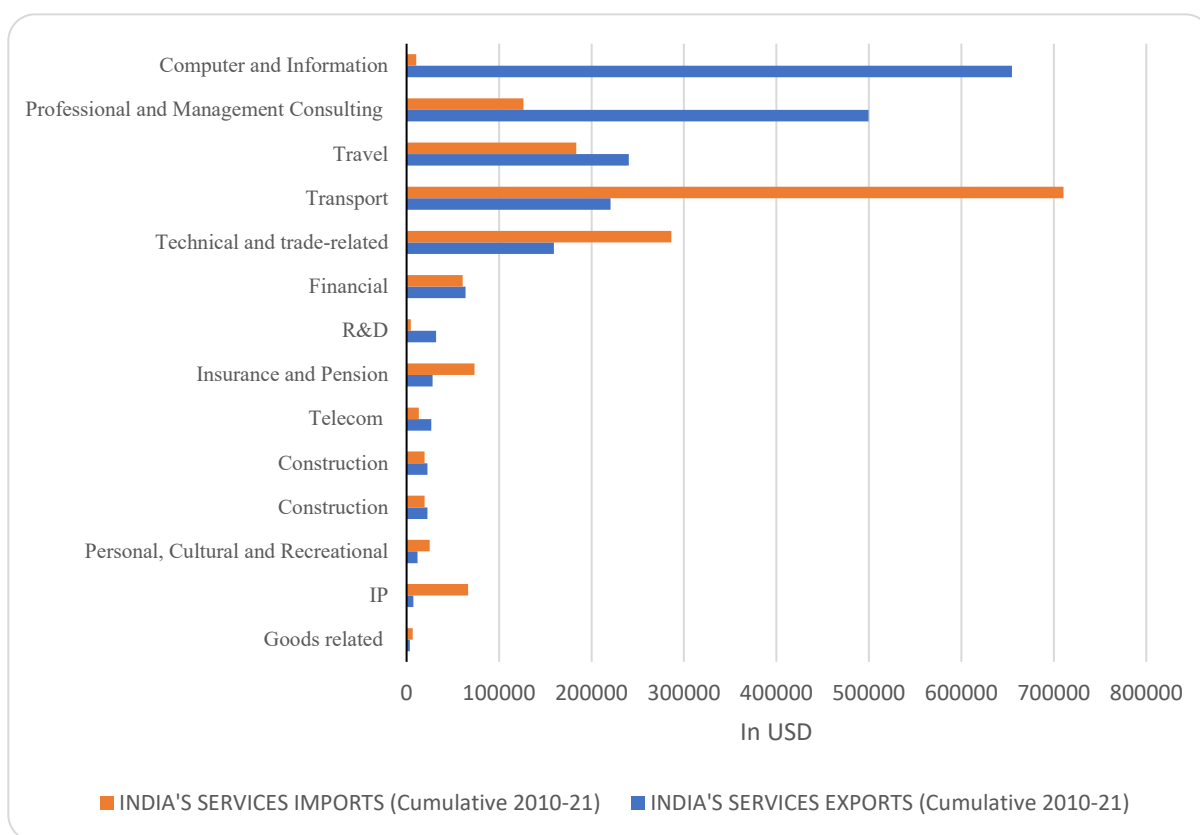
Source: The figure has been compiled by using data from the UNCTAD Database (<https://unctadstat.unctad.org/EN/>). The reporter country is India, and the partner country is the “world”. The percentages are in terms of total exports and total imports of services, respectively.

A closer analysis of India's services trade reveals that Computer-related services and Professional and Management Consulting services have been the major contributors to exports, followed by travel and transport (see Figure 4). Computer and information services have grown steadily at a CAGR of 6% since 2010, witnessing an increase from USD 65.57 billion in 2020 to USD 78.95 billion in 2021 and indicating the rising importance of the sector.

¹⁸ Source: Indian Global Trade Share by Ministry of Commerce:

<https://pib.gov.in/PressReleasePage.aspx?PRID=1593704>, accessed on 16th January 2023

Figure 4: Top services sub-sectors of India's exports and imports to the world



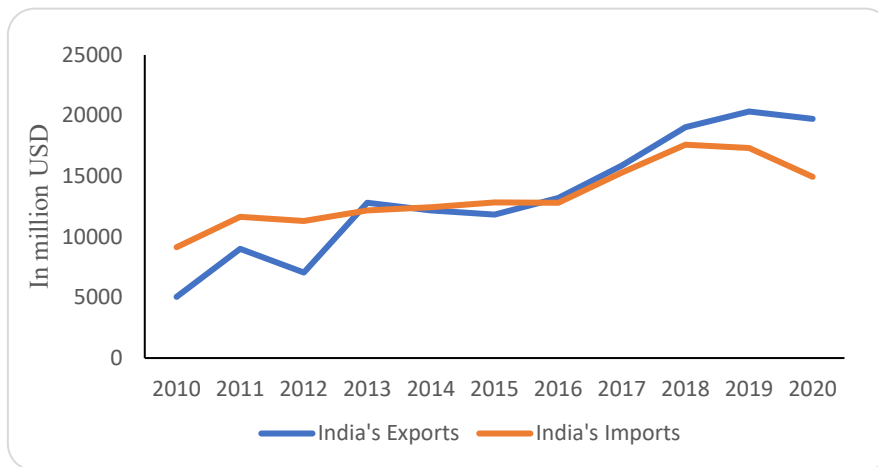
Source: The figure has been compiled by using data from the UNCTAD Database (<https://unctadstat.unctad.org/EN/>). The sub-sectors have been arranged in descending order of their cumulative trade values for India's Exports during 2010-2021. The reporter country is India and the partner country is the "world". The figure is based on cumulative exports and Imports.

On the imports side, Transport related services formed the bulk of India's imports, followed by technical and trade related services and travel. Transport services that included the translocation of people and goods as well as related supporting and auxiliary services witnessed a rapid rise in 2021 with imports at USD 82.65 billion, up from USD 53.8 billion in 2020 while technical and trade related services grew steadily at a CAGR of 6% over the past 5 years. Travel for business or personal reasons, experienced a sharp decline since 2019 due to the pandemic related travel restrictions. Transport as well as Technical and trade-related services along with Insurance and pension services have registered a negative trade balance over the past decade. India has maintained an overall positive trade balance in services.

2.1.3. India-EU Services Trade flows

Services trade between India and the EU has been stable in the past decade, with India increasing its overall services exports over imports to the EU member states especially over the past 5 years (see Figure 5).

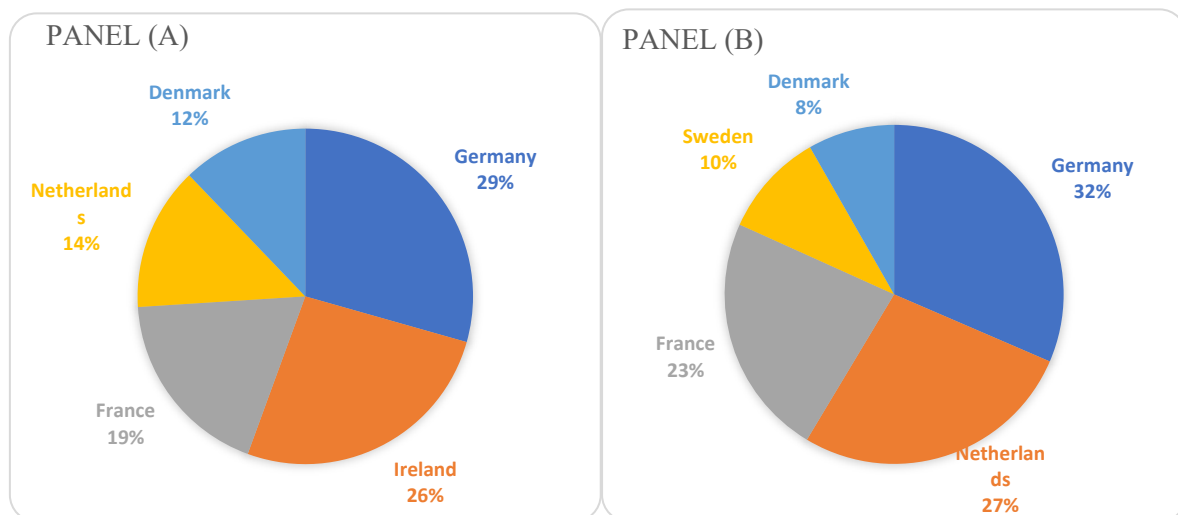
Figure 5: Bilateral Trade between India and the EU



Source: The figure has been compiled by using data from the UNCTAD Database (<https://unctadstat.unctad.org/EN/>). It represents trade flows between India and the EU. This shows year-on-year exports and imports for the services sector in India.

India's top trading partners in the EU have been Germany, followed by France and Netherlands. Figure 6 represents the relative changes in shares of top EU exporters and importers of India's services trade during 2010-2021.

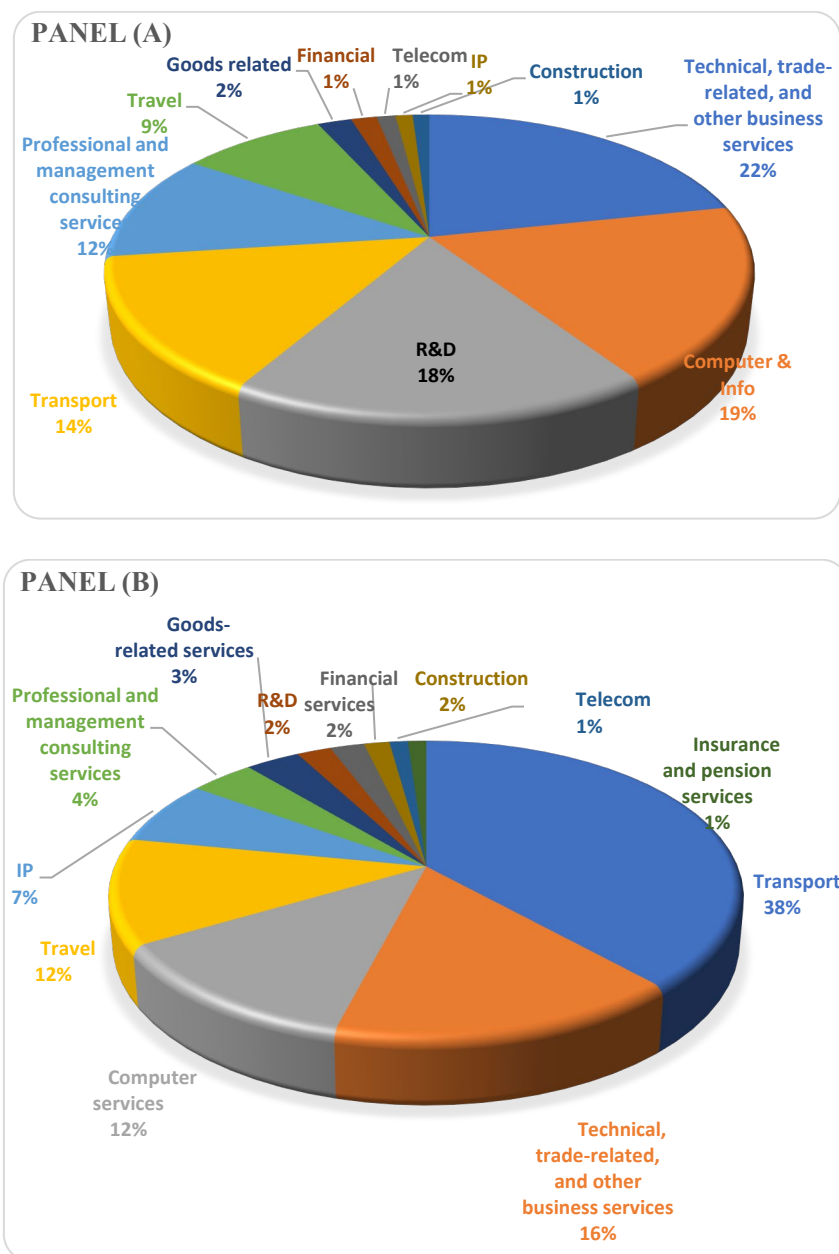
Figure 6: India's top exporters and importers of services sector in the EU during 2010-2021



Source: The figure has been compiled by using data from the UNCTAD Database (<https://unctadstat.unctad.org/EN/>). Leading exporter and importer countries for India, from within the EU region, have been identified on the basis of cumulative trade flows during 2010-2021. Panel (A) represents the leading exporter and Panel (B) represents the leading importer countries for India. It is worth noting that Germany has been the most significant trading partner in terms of both exports and imports of services.

Amongst the services sub-sectors, India's top exports to the EU have been Technical (and trade related) services followed by Computer and Information, R&D, Transport and Consulting services (Figure 7). India's top imports from the EU have been Transport and Technical (and trade related) services followed by Computer and Information services and Travel.

Figure 7: Sub-sectoral composition of Indian services trade with the EU



Source: The figure has been compiled by using data from the UNCTAD Database (<https://unctadstat.unctad.org/EN/>). The sub-sectors are in terms of their cumulative trade values during 2010-2021. The reporter country is India and the partner country is the "EU". Panel (A) is for exports and Panel (B) is for imports.

The top 3 trading partners of India for each service subsector are listed in Table 3. Germany and France dominate the trade flows in most of the subsectors with India, followed by Italy and Sweden.

Table 3: Subsector-wise top exporter & importer EU member states for India

<i>Service sub-sector</i>	<i>Top 3 importers of India's services</i>			<i>Top 3 exporters of services to India</i>		
<i>Computer</i>	Germany	Sweden	Netherlands	Germany	Sweden	Netherlands
<i>Transport</i>	Denmark	Germany	France	Germany	Denmark	France
<i>Travel</i>	Germany	France	Italy	Italy	France	Germany
<i>Construction</i>	Denmark	Netherlands	France	Netherlands	Denmark	Belgium
<i>Financial</i>	France	Germany	Netherlands	Luxembourg	Germany	France
<i>Information</i>	Germany	Netherlands	Czech	Germany	Sweden	Netherlands
<i>Insurance & pension</i>	Ireland	France	Sweden	Ireland	France	Sweden
<i>Professional & Management</i>	Netherlands	Germany	France	Germany	Netherlands	France
<i>Technical & Trade-related</i>	Netherlands	Germany	France	Ireland	Germany	France
<i>Telecom</i>	Germany	Italy	Finland	Italy	Germany	Belgium
<i>Intellectual Property n.i.e.</i>	France	Germany	Sweden	Germany	France	Italy
<i>R&D</i>	Germany	Sweden	France	France	Germany	Italy
<i>Goods-related</i>	France	Germany	Finland	France	Germany	Italy

Source: Authors' own calculations based on data from the UNCATD database (<https://unctadstat.unctad.org/EN/>). This has been calculated for the cumulative trade flows during 2010-2021.

2.2. Revealed comparative advantage (RCAs) for services subsectors

This section deals with the computation of Revealed Comparative Advantage (RCA) indices. This is an index employing trade data to identify sectors in which an economy has a comparative advantage, by comparing that country's trade profile with respect to the world average. We adopt this measure which is used as a standard practice for RCA in goods trade, defined as

$$RCA_{ij} = \frac{\left(\frac{x_{ij}}{X_{it}}\right)}{\left(\frac{x_{wj}}{X_{wt}}\right)}$$

x_{ij} and x_{wj} are the values of country i 's exports and world exports of product j ; X_{it} and X_{wt} are the country's total exports and world total exports. An index value of less than unity implies that the country has a revealed comparative disadvantage in the product¹⁹. The RCA analysis using this methodology points to interesting trends in services trade for India and the EU.

2.2.1 RCAs for EU services exports

We find that the EU member states which trade the most are not necessarily the ones with the highest RCAs. This is shown in Table 4, wherein we outline the countries in descending order of their major traded services. It is worth noting that countries listed as the top exporters in certain subsectors are not necessarily those with high comparative advantage but rather, they are the ones with comparative disadvantage in the respective services. This anomaly could be due to the trade agreements that these countries have signed to increase trade flows. This is most notable in countries like Germany, Ireland and Netherlands which feature as top exporters of services like Telecom or Financial services despite their low RCA indices. France, on the other hand, has high RCA in most services that it trades in, except for financial or construction services, despite being one of the major exporters.

Table 4: List of the EU member states based on RCA indices and trade flows

Services Subsector	Top 3 RCA EU member states (RCAs as of 2021)	Top 3 Exporter EU member states (RCAs as of 2021)

¹⁹ Source: https://wits.worldbank.org/wits/wits/witshelp/Content/Utilities/e1.trade_indicators.htm. A separate section, A.2 in the appendix follows Langhammer (2004) to calculate the RCA indices separately for the services sector.

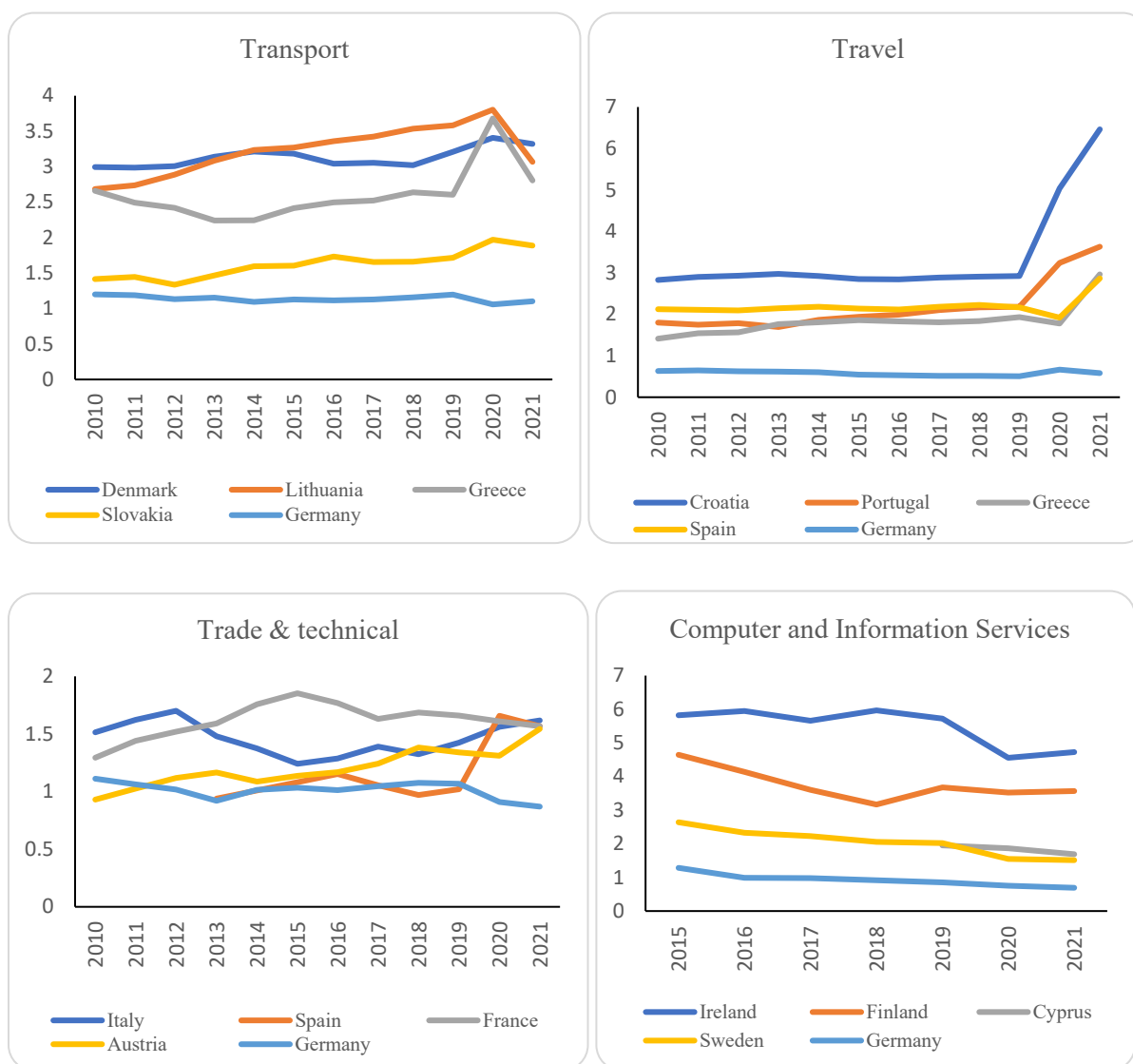
Transport	Denmark (3.32)	Lithuania (3.06)	Greece (2.80)	Germany (1.10)	France (1.21)	Denmark (3.32)
Travel	Croatia (6.46)	Portugal (3.63)	Greece (2.96)	Germany (0.58)	France (1.33)	Italy (2.48)
Technical & Trade-related	Italy (1.61)	Spain (1.56)	France (1.56)	Ireland (1.24)	France (1.56)	Germany (0.87)
Computer	Ireland (4.72)	Finland (3.56)	Cyprus (1.68)	Germany (0.69)	Belgium (0.77)	Netherlands (0.79)
Financial	Luxembourg (5.29)	Cyprus (3.42)	Malta (1.97)	Ireland (0.74)	Netherlands (0.53)	France (0.58)
Professional & Management	Belgium (2.08)	Slovakia (1.46)	Poland (1.22)	Ireland (0.06)	Germany (0.78)	France (0.85)
Intellectual Property n.i.e.	Netherlands (2.07)	Germany (2.02)	Sweden (1.44)	Luxembourg (0.19)	Germany (2.02)	Ireland (0.70)
R&D	Belgium (1.97)	Germany (1.81)	Sweden (1.72)	Germany (1.81)	France (1.24)	Netherlands (0.72)
Insurance & pension	Bulgaria (2.22)	Ireland (1.53)	Germany (1.17)	France (1.02)	Germany (1.17)	Netherlands (0.22)

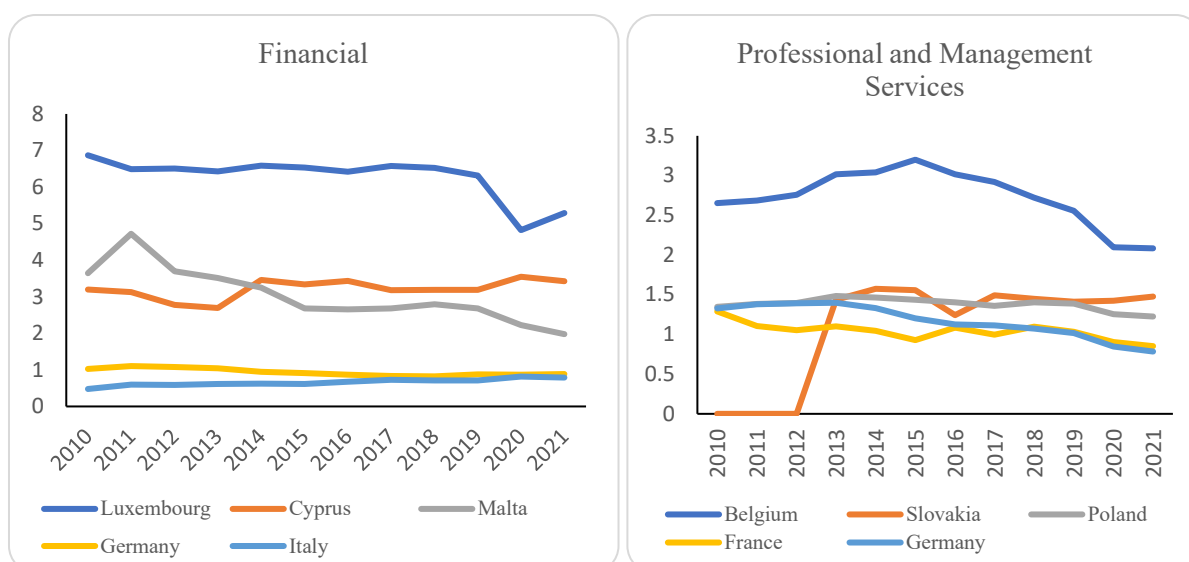
Telecom	Latvia (4.08)	Italy (2.56)	Slovenia (2.55)	France (1.06)	Ireland (0.11)	Germany (0.80)
Constructio n	Slovenia (5.50)	Latvia (4.31)	Estonia (2.52)	Italy (0.20)	France (0.23)	Germany (0.35)

The table reports the EU member states with their RCAs for exports in different subsectors, ordered in terms of RCA indices in columns (2) to (4) and in terms of export volumes in the last three columns (Columns (5) to (7)). The respective RCA indices are presented in parentheses.

Figure 8 provides a brief snapshot of how the RCAs have evolved for various EU member states in the six most traded services.

Figure 8: EU member states' trends in RCAs across services subsectors





The figure represents the trends in RCA indices across the top 6 most traded services in the EU member states. It is worth noting the relatively high, though declining trends in computer and information services and financial services across the EU member countries.

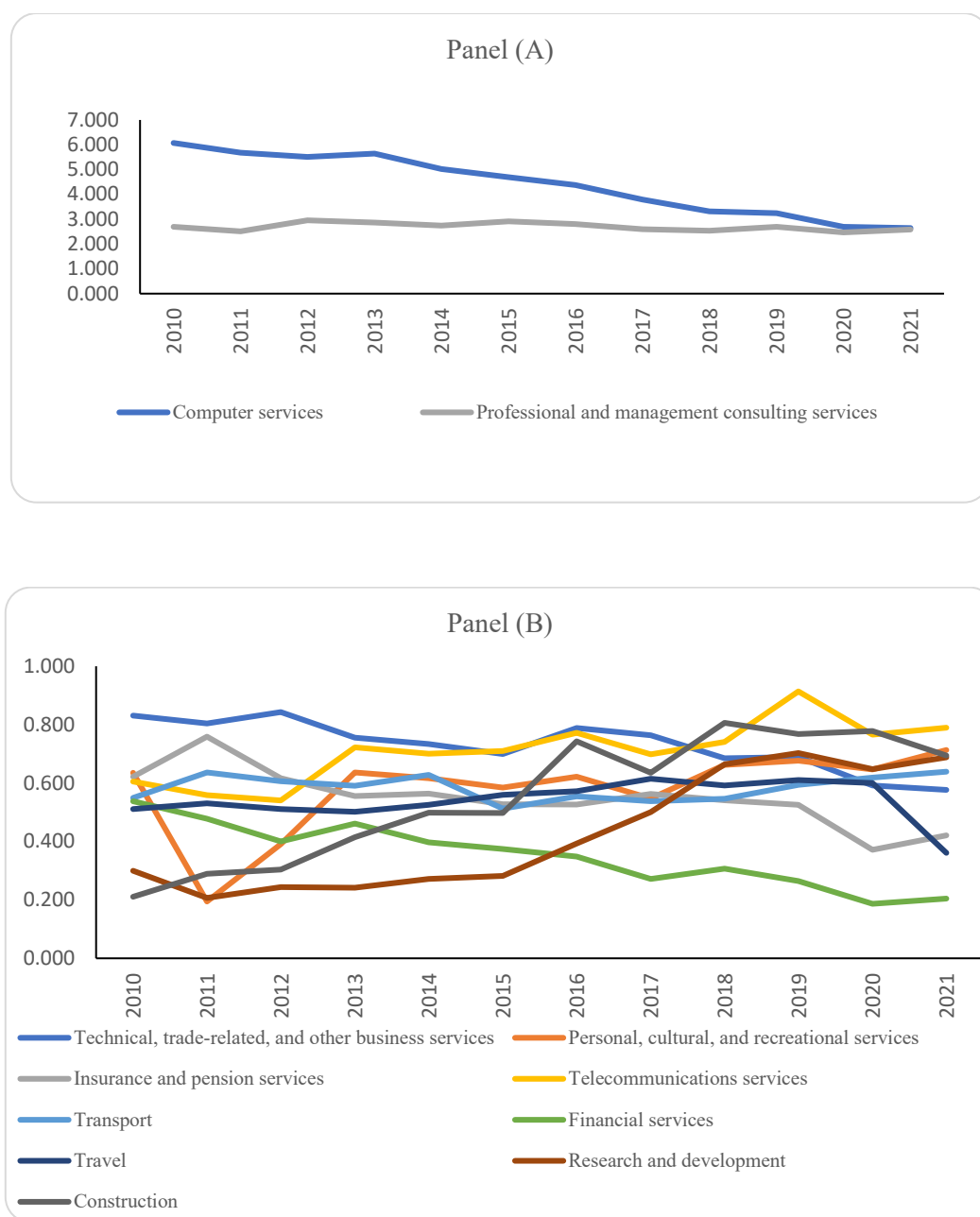
Another interesting finding from this analysis is that most EU member states do not have a comparative advantage in many of the services. Only the top three exporter EU member states possess RCA greater than unity for subsectors like Transport and Technical and Trade-related services.

2.2.2 RCAs for India's services exports

The RCA analysis for India's trade in services subsectors is presented in Figure 9. Panel (A) depicts the trends in RCA indices for subsectors in which India has exhibited revealed comparative advantage. Panel (B) depicts the trends in RCA indices for subsectors in which India has exhibited revealed comparative disadvantage.

India's RCA indices mostly show declining trend over the last decade and dip in the RCA indices for all the subsectors except transport in the last two years (2020-21), during the pandemic. Overall, India enjoys a comparative advantage in subsectors like (i) Computer services, (ii) Telecommunications, Computer and information services, and (iii) Professional and Management consulting services. Telecommunications and Computer and Information services have exhibited the highest fluctuations in the RCA indices over the last decade while the comparative advantage in Professional and Management consulting has remained almost unchanged during the same period. India has been at a relative disadvantage in construction and research and development (R&D) over the last decade.

Figure 9: RCA Services for services subsectors in India



Note: The RCA indices have been calculated for India's exports of different services subsectors. Three of the subsectors clearly exhibit revealed comparative advantage while the rest exhibit revealed comparative disadvantage. Also, there are wide variations in the RCA indices across the sectors and over time. Panel (A) represents the trends in RCAs for subsectors in which India has had comparative advantage and Panel (B) represents the subsectors in which India has had comparative disadvantage.

2.2.3 BRCAs of India and EU services trade

To deviate from the overall picture and understand bilateral trade, we calculate the Bilateral RCAs (BRCA), which gives a better picture of comparative advantages of export flows at the bilateral level. The interpretation of this index is like any RCA index but in the bilateral context. The BRCA for India may thus be calculated as,

BRCA

$$= \frac{\text{India's sectoral exports to EU member states}}{\text{India's total services exports to EU member states}} \bigg/ \frac{\text{India's sectoral exports to World}}{\text{India's total services exports to World}}$$

BRCA index greater than 1 implies that India has a revealed comparative advantage in the subsector as it is more important in India's services exports to the partner country than India's trade in that services subsector with the world.

Different services in India's exports basket have shown consistency over the entire period, 2010–2020. India's performance in terms of BRCA with respect to trade with the EU member states, based on data from 2020, is outlined in Table 5. It shows the number of EU member states with which India possesses a relative advantage in various services subsectors. India possesses a bilateral comparative advantage in the Technical and Trade-related services, Research and Development (R&D) and Transport. Computer and Information services, which are India's major exports to the EU, is associated with a BRCA > 1 only with a handful of countries. However, these countries are not the bulk importers of this service from India.

Table 5: No. of EU member states with India's comparative advantage/disadvantage

Service subsector	BRCA>1	BRCA<1
Trade and Technical	20	7
R&D	15	12
Transport	14	13
Intellectual Property n.i.e.	10	17
Insurance and Pension	8	19
Telecom	7	20
Computer and Information	6	17
Financial	5	22
Travel	4	23

Professional and Management	2	25
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Note: The table represents the number of countries with bilateral RCAs (between EU member countries and India) for different subsectors, being greater or less than unity, as of the year 2020.

While India possesses a relatively high BRCA in Financial Services, Insurance and Pension services, Travel and Telecommunication services for some EU member states, it is at a comparative disadvantage with the rest of the member states (see Table 6). India exhibits a distinct comparative disadvantage in Professional and Management Consulting with most EU member states, though India's RCA with the rest of the world in Consulting services is high.

Table 6: Analysis of India's BRCA with the EU member states

SERVICES SUBSECTOR	NATIONS WITH WHICH INDIA POSSESSES HIGHEST BRCAS (1)	BRCAS WITH INDIA'S HIGHEST TRADING PARTNERS (2)	BRCAS WITH EU'S MAJOR IMPORTERS (3)
TECHNICAL AND TRADE- RELATED	1. Romania (8.62) 2. Czechia (7.95) 3. Austria (6.49)	1. Netherland (3.16) 2. Germany (1.77) 3. France (2.92)	1. France 2. Germany 3. Ireland (5.465)
COMPUTER & INFORMATION	1. Lithuania (1.41) 2. Sweden (1.409) 3. Netherlands (1.14)	1. Germany (0.901) 2. Sweden (1.409) 3. Netherlands (1.14)	1. Germany 2. France (NA) 3. Netherland
R&D	1. Ireland (18.71) 2. Finland (13.75) 3. Croatia (12.81)	1. Germany (12.74) 2. Sweden (12.6) 3. France (4.74)	1. Ireland 2. Germany 3. France
TRANSPORT	1. Latvia (6.83) 2. Greece (5.91) 3. Denmark (5.38)	1. Denmark (5.38) 2. Germany (0.874) 3. France (0.99)	1. Germany 2. France 3. Denmark
PROFESSIONAL & MANAGEMENT CONSULTING	1. Hungary (1.23) 2. Belgium (1.02) 3. Estonia (0.89)	1. Netherland (0.644) 2. Germany (0.213) 3. France (0.233)	1. Germany 2. Netherlands 3. France
TRAVEL	1. Italy (3.87) 2. Estonia (2.3) 3. Portugal (1.29)	1. Germany (0.85) 2. France (0.4) 3. Italy (3.87)	1. Germany 2. France 3. Italy
FINANCIAL	1. Latvia (50.97) 2. Poland (19.25)	1. France 2. Germany (1.08)	1. Luxembourg (0) 2. Germany

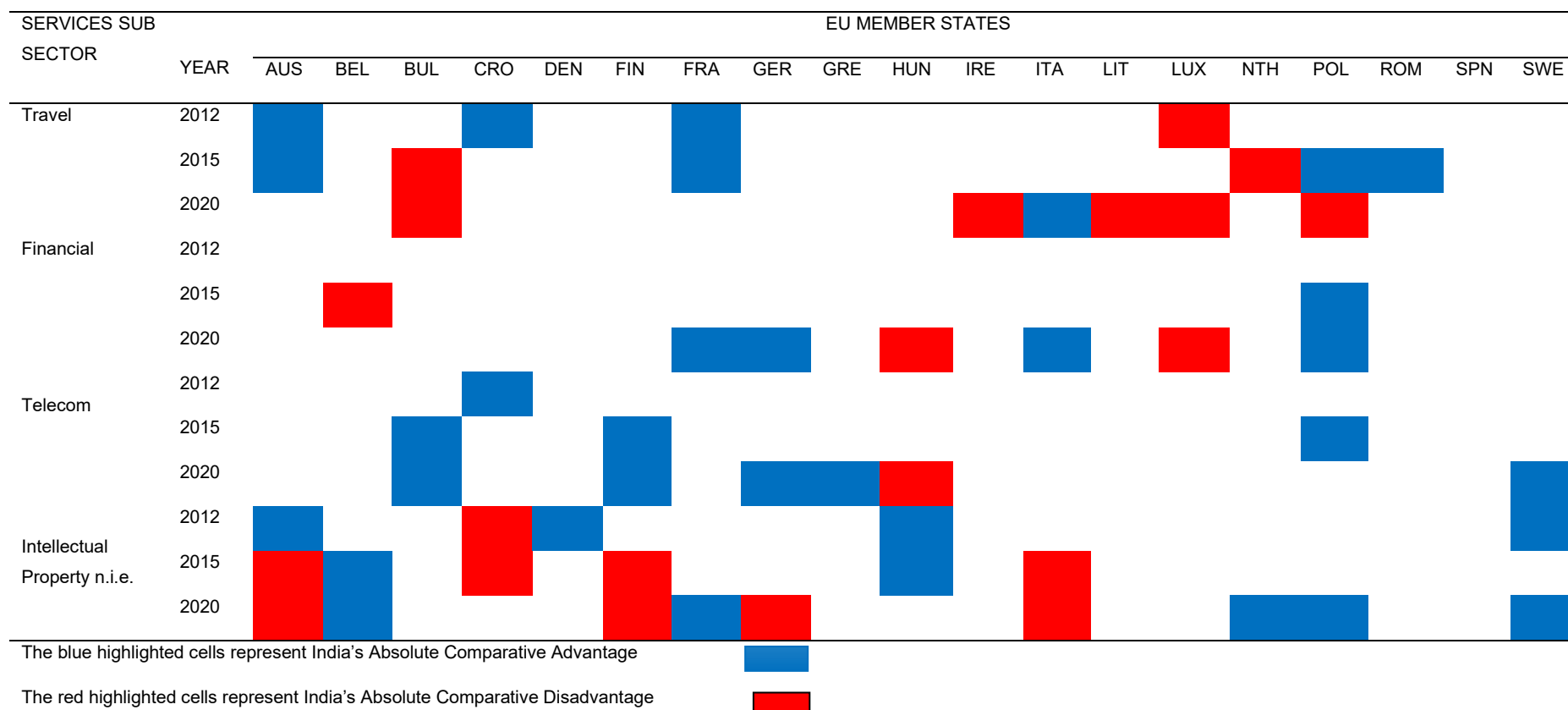
INSURANCE & PENSION	3. France (4.46)	3. Netherlands (NA)	3. Ireland (NA)
	1. Greece (7.86)	1. Ireland	1. France
	2. Slovenia (7.36)	2. France (0.41)	2. Ireland
	3. Ireland (3.39)	3. Sweden (1.42)	3. Germany (0.18)
TELECOM	1. Romania (4.41)	1. Germany (1.23)	1. Italy
	2. Italy (3.03)	2. Italy	2. France
	3. Finland (1.58)	3. Finland	3. Germany
INTELLECTUAL PROPERTY N.I.E.	1. Bulgaria (6)	1. France	1. Ireland (0.22)
	2. Croatia (4.38)	2. Germany (0.74)	2. Netherlands (1.66)
	3. France (3.92)	3. Sweden (2.79)	3. France

To understand India's relative performance across various services sub-sectors as compared to its EU trading partners, India's services trade basket was further analyzed for exclusive comparative advantage (where India's BRCA >1 and EU member states' BRCA < 1) and exclusive comparative disadvantage (where India's BRCA < 1 and EU member states' BRCA > 1).

India has maintained an absolute comparative advantage over Italy, and Poland in a wide range of services over the years (see Table 7). India has also managed to maintain an exclusive comparative advantage with Austria, Bulgaria, France, Hungary, and Sweden over the years. Its performance with its major trading partners like Germany, Netherlands, and Ireland has scope for significant improvement.

Table 7: Comparing India's BRCA with EU Member states BRCAs

Services subsectors	Year	EU MEMBER STATES																		
		AUS	BEL	BUL	CRO	DEN	FIN	FRA	GER	GRE	HUN	IRE	ITA	LIT	LUX	NTH	POL	ROM	SPN	SWE
Technical and Trade-related	2012																			
	2015																			
	2020																			
Computer & Information	2012																			
	2015																			
	2020																			
R&D	2012																			
	2015																			
	2020																			
Transport	2012																			
	2015																			
	2020																			
Professional & Management Consulting	2012																			
	2015																			
	2020																			
Insurance & Pension	2012																			
	2015																			
	2020																			



The table represents India's sub-sectoral comparative advantage (disadvantage) based on bilateral RCAs with 20 major trading partners from the EU, as of three time points – 2012, 2015 and 2020. We select 20 top trading partners instead of 27 EU member states, for pictorial clarity. The names of the countries along with corresponding country codes are listed in the appendix (see Appendix A.1)

3. Quantitative Analysis

This section discusses the potential gains and the corresponding quanta of these potential gains when restrictions are lowered through the India-EU FTA. The analysis applies the Gravity model framework to investigate the impact of India's services liberalization for the EU and vice versa. The key objective is to empirically estimate the impact of reducing trade restrictions on overall services and on different services sub-sectors trade flows between India and the EU.

To address the above-mentioned questions, we base our analysis on Gravity Model techniques. This modelling framework helps us delineate the role of economic factors and trade costs in bilateral trade flows. We try Pooled OLS (POLS) and Poisson Pseudo-Maximum Likelihood (PPML) estimations using standard variables of gravity modelling framework. We use Product Market Regulation (PMR) indicators and average trade openness measures of source and destination countries as the trade restrictiveness/openness indicators to find the effect of reducing these measures through the FTA, on services trade flows, both at the aggregate and at sub-sectoral level. In the following sections, we discuss the corresponding model setup, the results and the implications.

3.2. Methodology & Data

The Gravity Model asserts that bilateral trade between two countries is proportional to the economic size of the trading partners, as measured by their GDP, and inversely related to the trade restrictions and geographic distance between them. The model in its basic form may be defined as,

$$\log (BilateralImports)_{ijt} = c + b_1 \log GDP_i + b_2 \log GDP_j + b_1 \log \tau_{ij} + e_{ij} \text{ ----- (1)}$$

where $(BilateralImports)_{ijt}$ is the bilateral trade flows between countries i and j . GDP stands for Gross Domestic Product and we account for the GDP of both trading partners. τ_{ij} is the trade cost between the countries, considered as logarithm of factors which may account for trade costs. e_{ij} is the random error term. We cluster the error term by country pairs. Each country pair is identified separately

and thus the distance between them is unique to every country pair, independent of the direction of trade.²⁰

First, we use Pooled OLS (POLS) estimation. Since we are dealing with panel data, we also use Fixed Effects (FE) models. The model specification is as follows,

$$\log (BilateralImports)_{ijt} = C + F_i + F_j + (1 - \sigma) \log \tau_{ij} + \varepsilon_{ij} \text{ ----- (2)}$$

With the same notations as mentioned earlier, F_i represents the exporter fixed effects and F_j represents the importer fixed effects.

The drawback of the FE estimation is the inability to account for time invariant factors. As the logarithm of the error term may depend on higher moments and violate the necessary conditions for OLS regression, resulting in biased and inconsistent estimators. Thus, we try the Poisson pseudo-maximum likelihood (PPML) estimator. The advantage of using this method is that it allows us to control for fixed effects and also introduce importer fixed effects and year effects in our regression equations. It also includes observations for which the observed trade value is zero which in the case of $\log(\text{imports})$ were dropped while using OLS. The PPML model specification may be specified as,

$$\log (BilateralImports)_{ijt} = \log Y_i^k + \log E_i^k - \log Y^k + (1 - \sigma_k)[\log \tau_{ij}^k - \log \pi_i^k - \log P_j^k] + \log e_{ij}^k \text{ ----- (3)}$$

Where the mean of $\log e_{ij}^k$ depends on higher moments of e_{ij}^k . Santos Silva and Tenreyro (2006) show that under weak assumptions, the PPML estimator provides consistent estimates of the original nonlinear model while also allowing for the fixed effects.²¹ While POLS model is the econometric equivalent of the lines of best fit,

²⁰ We follow (Shepherd, 2013) available at <https://www.unescap.org/sites/default/files/tipub2645.pdf> to identify all these methods, variables and to construct the model framework.

²¹ See Shepherd (2013) for details.

PPML naturally includes observations for which the observed trade value is zero and are thus dropped with log transformation.

To carry out these methods, we extract bilateral services imports data from UNCTADStat²² for 47 countries²³, spanning 2000-2019, for which data was available for analysis. In case where majority of the imports data for a country is missing, we substitute the same with bilateral exports data, as extracted from UNCTADStat²⁴. We initially analyse the impact using the full sample of 47 countries. We also do a separate analysis using India as the source or the destination country within this sample. Some of the sub-sectors show significant results and are reported in the appendix.

The entire bilateral services imports data is segregated as per services sub-sectors and includes the following sub-sectors:

- Overall services
- Audio-visual services
- Charges for the use of intellectual properties
- Commercial services
- Computer and information services
- Financial services
- Insurance and Pension related services
- Personal cultural and recreational
- Professional & Management consulting services
- Research & Development
- Technical trade-related
- Telecom
- Transport
- Travel

As per the empirical trade literature, we control for variables such as PPP-adjusted Real GDP (in logarithmic terms) of the source and destination countries. This data is extracted from the Penn World Tables.²⁵ The additional variables²⁶ which have been controlled for, are: population weighted distance between the trading country pairs (in logarithmic terms) from the Dynamic Gravity Dataset. Contiguity (a binary dummy on whether or not a country pair shares a common border), common language (a binary

²² Source: UNCTADStat (<https://unctadstat.unctad.org>)

²³ The list of countries has been provided in the appendix

²⁴ Such data imputation has been done for 20 countries – Argentina, Austria, Brazil, Chile, China, Colombia, Costa Rica, France, Iceland, India, Indonesia, Israel, Korea Rep. of, Mexico, Norway, Saudi Arabia, South Africa, Spain, Switzerland, Türkiye.

²⁵ Source: Penn World Table version 10.01 available at <https://dataverse.nl/dataset.xhtml?persistentId=doi:10.34894/QT5BCC>

²⁶ Source: Majority of the gravity model variables have been extracted from the Dynamic Gravity Dataset (DGD), available at <https://www.usitc.gov/data/gravity/dgd.htm>. DGD covers 286 countries, spanning 1948-2019 on more than 60 variables describing macroeconomic, geographic, trade facilitation, institutional stability and other gravity model related measures.

dummy for whether the residents of country pair speak at least one common language), a binary dummy for whether the destination country was ever a colony of the origin country, and a binary dummy for whether the country pair had a common coloniser. Additionally, we control for year effects. We expect the effects of GDP, contiguity, common language and colonial relations to be positive and the effects of distance and any other trade restrictive policy to be negative.²⁷ For this study, the variables of our concern are the trade policy-related proxies like trade openness and PMR indicators²⁸.

In the absence of any comprehensive services trade restriction index, we use the OECD's Product Market Regulation (PMR) indicator to proxy for services trade restrictiveness.²⁹ This indicator, from the OECD dataset has an overlap with 30 countries in our dataset, which greatly reduces our estimation sample. Nonetheless, including this measure for exporter and importer countries allows us to get an idea about the extent to which policy restrictiveness might matter in the services trade between India and the EU. The PMR measures the regulatory barriers to firm entry and competition in different sectors. This information is collected through a questionnaire for ministries and regulators, vetted by OECD experts. This cross-country data is available every five years spanning 1998, 2003, 2008, 2013 and 2018. To maximise the number of observations and as this data is likely to remain sticky over short periods of time, we impute the missing data on PMR. For this purpose, we use the last available PMR data to impute it for the PMR data of the missing years. In case the data is unavailable for two consecutive five-year periods, we leave it blank. We drop observations where the data is reported as "n/a". The indicator ranges from 0 to 6, with a lower value representing a more competition friendly regulatory regime. We scale it up and represent the same in percentage terms, for easier interpretation. We multiply the PMR indicators of a country pair together, to get a variable that is unique to each country pair and therefore varies across importers for each exporter and across exporters for each importer. We expect the coefficient of this term to be negative as higher trade restrictiveness by either country, is likely to lower trade flows within the country pair.

We use another measure to proxy for openness or restrictiveness to trade in general, i.e., the average of trade openness measures of a country pair, in logarithmic terms. This data is extracted from the world bank database, defined as the sum of exports and imports of goods and services measured as a share of GDP of a country. Higher the average trade openness, lower is the trade restrictiveness between the countries,

²⁷ Data source related details are provided in the appendix.

²⁸ We also analyse the restrictiveness impact of the Services Trade Restrictiveness Index (STRI), obtained from the OECDSTAT. As the data has implications for certain sectors only, we use this only to analyse the impact on services imports in the transport, insurance and telecom sectors. The results, which show significant negative impact of this restrictiveness index measure, are reported in the appendix.

²⁹ The data has been extracted from <https://www.oecd.org/economy/reform/indicators-of-product-market-regulation>

and we would expect this to be reflected in higher trade between the country pair. Thus, we hypothesize the coefficient of this term to be positive.

We separately analyze the impact of disaggregated PMR indicators, such as FDI barriers, Services barriers, and trade and investment barriers. We carry out the PPML estimation when using these indicators and report the results in the subsequent sections.

3.3. Empirical Results

3.2.1 Full Sample Results

For our analysis, we use data on bilateral imports from 47 Countries.³⁰ We use sectoral level bilateral imports data for country i ($i=1$ to 47) from any other country j , as of year t . To smoothen out large fluctuations, we use log transformation of this data. Table 8 reports the descriptive statistics of the services subsector-wise bilateral imports across our sample of countries, spanning 2000-2019.

Table 8: Descriptive statistics of services subsector-wise imports (Full sample)

Variable	Observations	Std.			
		Mean	Dev.	Min	Max
Log(Services imports)	18,324	5.284	2.464	0	12.165
Log(Audio services imports)	8,650	0.959	1.457	0	8.163
Log(Charges for IPR imports)	13,764	2.158	2.297	0	10.374
Log(Commercial services)	12,998	5.499	2.437	0	12.162
Log(Computer & information services)	9,778	2.183	2.036	0	9.621
Log(Financial services)	14,531	2.093	2.250	0	9.770
Log(Insurance and Pension related services imports)	14,302	1.614	1.843	0	9.074

³⁰ The data on bilateral imports using only EU countries and India did not have enough observations for many of the sub-sectors and also did not give significant results. So, we expanded the sample of countries to include not only the EU member states but also other countries for which bilateral import data was available at sub-sectoral level for a long period of time, namely, 2000-2019.

Log(Personal, cultural and recreational imports)	13,259	1.365	1.694	0	8.797
Log(Professional & Management consulting services imports)	12,330	2.921	2.292	0	9.849
Log(Research & Development imports)	12,054	1.803	2.137	0	10.155
Log(Technical trade-related imports)	12,847	3.203	2.256	0	9.942
Log(Telecom imports)	9,339	1.658	1.662	0	7.512
Log(Transport imports)	15,699	3.914	2.315	0	10.453
Log(Travel imports)	15,942	3.656	2.397	0	11.027
Log(IT services)	8,310	0.884	1.287	0	7.051

This table indicates the descriptive statistics for bilateral imports of 47 countries, spanning 2000-2019.

This does not account for the country or time dimensions separately.

Using log-transformed bilateral imports as the outcome variable and the covariates as mentioned earlier, we try both POLS and PPML regressions. Additionally, we control for the PMR indicator and trade openness indicator in separate set of regressions. Table 9 provides a summary of the effects of changing trade restrictions on sub-sectoral level imports in our sample of countries. It also provides the corresponding number of observations and the R-squared values obtained in the estimation procedure.³¹

Table 9: Pooled OLS (POLS) and PPML regression results with NTM variables

Sector	Non-Tariff Measures	Pooled OLS (1)	PPML (2)
Total Services	PMR	-0.227***	-0.039***
	Trade	0.989***	0.229***
	Openness		
	Observations	14,179	14,179

³¹ Similar analysis was done using disaggregated forms of PMR, the results of which are reported in the appendix (Table A.5 – Table A.7).

	R-squared	0.790	0.788
Audio visual services	PMR	-0.138***	-0.171***
	Trade	0.128	0.711***
	Openness		
	Observations	7,121	7,106
	R-squared	0.485	0.628
Charges for the use of IP-related	PMR	-0.257***	-0.196***
	Trade	0.790***	0.710***
	Openness		
	Observations	11,051	11,051
	R-squared	0.547	0.618
Commercial services	PMR	-0.230***	-0.038***
	Trade	0.784***	0.169***
	Openness		
	Observations	10,310	10,310
	R-squared	0.773	0.771
Computer services	PMR	-0.228***	-0.090***
	Trade	0.697***	0.644***
	Openness		
	Observations	8,049	8,049
	R-squared	0.610	0.671
Financial services	PMR	-0.192***	-0.120***
	Trade	1.743***	0.993***
	Openness		
	Observations	11,720	11,720
	R-squared	0.487	0.621
Insurance and pension services	PMR	-0.154***	-0.107***

	Trade	0.682***	0.733***
	Openness		
	Observations	11,480	11,480
	R-squared	0.549	0.648
Personal, cultural, and recreational services	PMR	-0.131***	-0.117***
	Trade	-0.189*	0.223***
	Openness		
	Observations	10,777	10,777
	R-squared	0.530	0.630
	PMR	-0.251***	-0.077***
Professional and management consulting services	Trade	1.157***	0.466***
	Openness		
	Observations	10,003	10,003
	R-squared	0.743	0.752
	PMR	-0.217***	-0.091***
Research and development services	Trade	0.540***	0.454***
	Openness		
	Observations	9,795	9,795
	R-squared	0.584	0.744
Technical, trade-related, and other business services	PMR	-0.224***	-0.068***
	Trade	1.229***	0.479***
	Openness		
	Observations	10,427	10,427
	R-squared	0.713	0.731
IT services	PMR	-0.134***	-0.167***

	Trade	0.221**	0.901***
	Openness		
	Observations	6,900	6,900
	R-squared	0.476	0.586
Telecommunications services	PMR	-0.137***	-0.068***
	Trade	0.304**	0.527***
	Openness		
	Observations	7,706	7,706
	R-squared	0.628	0.670
Transport	PMR	-0.208***	-0.043***
	Trade	0.521***	0.214***
	Openness		
	Observations	12,671	12,671
	R-squared	0.661	0.687
Travel	PMR	-0.221***	-0.042***
	Trade	-0.635***	-0.281***
	Openness		
	Observations	13,004	13,004
	R-squared	0.708	0.700

Note: Models 1 & 2 use Pooled OLS (POLS) and Poisson Pseudo Maximum Likelihood (PPML) Regressions respectively. Here we report the results for overall services imports and different services sub-sectors separately. For countries without import data, we impute the same from their exports data as reported by their corresponding trading partners. We impute such data for 20 countries and retain the original data for the remaining 27 countries. All the corresponding detailed regression results are reported in the Appendix, Table A.1- Table A.4. (* p<0.10, ** p<0.05, *** p<0.01)

Overall, we find that the effect of trade openness is greater than the effect of PMR on bilateral imports, across all the sub-sectors. It appears that a unit percent increment in the trade openness of partner countries, which is a broad measure of trading activities across countries, is likely to have a much larger impact than a reduction in the overall PMR indicator. The statistically significant negative impact of trade restrictions is evident not only for overall services but for all the sub-sectors, except 'Personal, cultural, and recreational' and 'Travel' services. In case of these sub-sectors, the PMR

indicator has the desired effect, but the effect of trade openness is contrary to our hypothesis.

Using these regression coefficients, we further predict the monetary impact of a unit increase or decrease in the PMR measures on import values. To this end, we select the OLS coefficients of the PMR indicators for each sub-sector. As we use the PMR indicator in a multiplicative form (using the PMR values of the origin and the destination countries), we expect an overall negative impact on import values. Table 10 reports the effects of increasing or decreasing the PMR indicator by a unit percentage, which can happen if either one or both the trading partners reduce restrictions by a unit percent, such that the same gets reflected in a unit change in the PMR indicator of our choice.

Table 10: Expected gains or losses in trade based for incremental changes in PMR

Sector	OLS PMR coefficient	Increase in Imports due to decrease in PMR by 1%	Decrease in Imports due to increase in PMR by 1%
<i>Total Services</i>	-0.227***	1.255	0.203
Audio visual services	-0.138***	1.148	0.129
Charges for the use of intellectual property	-0.257***	1.293	0.227
Commercial services	-0.230***	1.259	0.205
Computer services	-0.228***	1.256	0.204
Financial services	-0.192***	1.212	0.175
Insurance and Pension services	-0.154***	1.166	0.143
IT services	-0.134***	1.143	0.125
Personal, cultural, and recreational services	-0.131***	1.14	0.123
Professional and management consulting services	-0.251***	1.285	0.222
Research and development services	-0.217***	1.242	0.195

Technical, trade-related, and other business services	-0.224***	1.251	0.201
Telecommunications services	-0.137***	1.147	0.128
Transport	-0.208***	1.231	0.188
Travel	-0.221***	1.247	0.198

Note: The reported OLS coefficients are the ones obtained by using POLS regressions for the full sample, as reported in Column (3) of Table 9. However, for calculating the effect of changing PMR measures on import values, we use the trade flows between India and the EU only. So, we use the regression coefficients as obtained for the full sample but use it to identify possible effects on India-EU trade.

We find that a unit decrease in the PMR indicator due to either of the trading countries relaxing restrictiveness by 1% will result in a 25% increase in the value of services imports of the destination country as shown in Column (3) of Table 10. Using import data over 2013-2019, this predicted positive effect on total services translates into an increase of \$796 bn for the EU and around \$64 bn for India. Similarly, if either or both trading partners increase PMR by 1%, there will be around 20% decrease in the imports, as shown in Column (4) of Table 10. Using overall services import data over 2013-2019, this effect translates to a decline of \$634 bn for the EU and a decline of \$51 bn for India.³² In either case we see a twelve-fold change in the trade flows in the EU compared to in India, due to changes in PMR restrictions. Similarly, we can analyse the potential effects across other subsectors also.

In terms of the percentage change in import values,

- A unit decrease in the PMR measure due to either or both trading partner reducing restrictiveness by 1% will have
 - the largest effects on ‘Charges for the use of intellectual property’, followed by ‘Professional and management consulting services’, followed by ‘Commercial services’
 - the least effects on ‘Personal, cultural, and recreational services’, ‘IT Services’ and ‘Telecommunication services’
- A unit increase in the PMR measure due to either or both trading partners increasing restrictiveness by 1% will have

³² Note: the coefficients have been obtained from the OLS regression and then transformed by, $\exp(\beta_1 - 1)$. The net change is thus, the resultant effect less one, in percentage terms. Similarly, the decrease is calculated as \exp^{β_1} and one minus this effect in percentage terms is the decrease percentage. The net effect is then interpreted as an increase or decrease in percentage terms. As a second step, CAGR in trade flows during 2013-2019 has been used to arrive at the predicted increase or decrease in trade values (in mn USD). These trade values correspond to trade flows between India and the EU but we prefer not to emphasise on these due to lack of sufficient observations.

- the largest negative effects on ‘Charges for the use of intellectual property’, followed by ‘Professional and management consulting services’, followed by ‘Commercial services’
- the least effects on ‘Personal, cultural, and recreational services’, ‘IT Services’ and ‘Telecommunication services’

Thus, three subsectors – ‘Charges for the use of intellectual property’, ‘Professional and management consulting services’ and ‘Commercial services’ appear to have highest elasticities with respect to changes in PMR indicators, showing the largest increase or decrease when PMR indicator changes by a unit percentage. The relatively least elastic subsectors are – ‘Personal, cultural, and recreational services’, ‘IT Services’ and ‘Telecommunication services’.

3.2.2 India as the source/destination country

Apart from drawing inference about the effect of relaxing trade restrictiveness in terms of PMR indicators on India-EU trade, we separately analyze the effects when studying India as the source or the destination country. We use the entire sample as used in Section 3.1 for this analysis as otherwise using data on India as the source or the destination country yields observations, inadequate for empirical analysis.

A summary of the results regarding the effects of reducing restrictiveness, as reflected in changes in PMR values, on India’s exports across various services sub-sectors are provided in this section (regression results are presented in the Appendix, Table B.1- Table B.8). Following the methodology as outlined in Section 3.1, we derive estimates of the possible impact of liberalizing PMR by a unit percent. These estimates are then extrapolated for the year 2025 (extrapolation based on seven-year CAGR in import values over 2013-19). All the estimates are of the expected sign (i.e. negative) indicating adverse impact of restrictiveness on trade flows.

When considering India as the exporter, we find differential effects of relaxing services trade restrictions on different sectors. The changes in India’s exports to the EU member countries across various sub-sectors has been summarized in Table 11. The estimated rise in exports range between \$13 mn for ‘Financial services’ to \$5 bn for ‘Commercial Services’. The latter is likely to exhibit the greatest rise in exports for a unit reduction in the PMR measures by India.

Table 11: Expected gains or losses in India’s exports based on incremental changes in India’s PMR measures

SECTORS	Increase in exports	Decrease in exports
---------	---------------------	---------------------

<i>Total Services</i>	<i>6458.63</i>	<i>5147.016</i>
Commercial services	4955.7	3937.46
Financial Services	13.83	11.41
Insurance and Pension	73.84	63.3
IP-related	14.53	11.24
Personal, cultural, and recreational services	46.06	40.4
Professional and Management Services	1467.06	1141.41
Research and Development (R&D)	2062.83	1660.43
Technical and Trade related	2064.4	1650.1
Telecommunications, Computer and Information Services	1452.5	1266.53
Transport	507.15	411.91

Note: Trade related figures are in USD mn (Source: Authors' Calculations). These figures are for extrapolated trade in 2025, based on 7-year CAGR in import values covering 2013-2019. The increase is calculated based on the POLS regression coefficient for PMR index from the gravity model, using the entire sample. We do not report results for services sub-sector which do not have enough observations.

A summary of the cross-sector impact of PMR relaxation (resulting in rise of imports by India) vs restriction (leading to decline in imports by India) has been provided in Table 12. These predicted values are as of the year 2025. India's imports from the EU will decline by roughly \$4.6 bn if India shows a rise in PMR by a unit percent. When considering India as the importer, the most notable sectors which may enjoy highest benefits from PMR reduction in India are 'Commercial services', 'Transport' and 'Travel'. The lowest declines are likely to be realized in 'Financial services', 'Professional and Management services' and 'R&D'. These figures correspond to the changes in India's imports for a unit percent change in PMR indicator.

Table 12: Expected gains or losses in India's imports based on incremental changes in India's PMR measures

SECTORS	Increase in imports	Decrease in imports
<i>Total Services</i>	<i>5743.72</i>	<i>4577.28</i>

Charges for IP-related	887.42	686.31
Commercial services	5461.99	4339.74
Financial Services	19.75	16.3
Insurance and Pension	24.575	21.067
Professional and Management Services	583.18	453.72
Research and Development (R&D)	466.87	375.8
Telecommunications, Computer and Information Services	826.86	721
Transport	1518.76	1233.55
Travel	978.93	784.83

Note: Trade related figures are in USD Mn (Source: Authors' Calculations). These figures are for extrapolated trade in 2025, based on 7-year CAGR. The rise is calculated based on the POLS regression coefficient for PMR index from the gravity model, using the entire sample. We do not report results for services sub-sector which do not have enough observations.

There are some other important inferences of these findings which should be noted for the India-EU FTA negotiations. For instance, the impact on India's exports of services to the EU is greater in the event of services trade liberalization. So, India stands to gain more by persuading EU for greater trade openness and reduced PMR restrictions.

3.4. Discussion

This section offers a quantitative analysis of the impact of India-EU free trade agreement whereby reductions in trade restrictions can affect trade flows between the trading partners and result in proportionate or more than proportionate changes in trade flows. Our analysis is based on gravity model framework using POLS and PPML estimation methods. Our key results show that reduction in trade restrictions can significantly increase India's services exports with differential effects across the sub-sectors. Precisely, a unit percent reduction in PMR indicator can increase India's Financial services exports by \$13 bn and Commercial services exports by around \$4 bn in the year 2025. The Financial and IP related services sectors require special attention for lowering sector-specific restrictions as well as enabling trade across all four modes (with concentration on addressing the Mode 4 workers movement across

borders issues). Table 13 summarizes the predicted gains of a unit percent decline in the PMR indicator through the FTA, on India's trade with the EU.

Table 13: Sub-sector wise expected gains for India's trade with EU through the FTA

SECTORS	Exports	Imports
<i>Total Services</i>	6458.63	5743.72
Commercial services	4955.7	5461.99
Research and Development (R&D)	2062.83	466.87
Professional and Management Services	1467.06	583.18
Telecommunications, Computer and Information Services	1452.5	826.86
Transport	507.15	1518.76
Insurance and Pension	73.84	24.575

Note: The above are predicted increments in India's exports and imports in some of the sub-sectors, with the EU as collated from Table 4 and Table 5. The predicted values are as of the year 2025.

The calculations show significant gains in commercial services and R&D and relatively less gains in insurance and Pension or transport services. While Telecom and Computer, IT and information services are traditional sub-sectors of Indian exports and have formidable prowess in trade, these services are relatively newer areas and will need targeted effort to expand our services trade relationship with EU. When considering the effects of the FTA on India's imports, the most notable sectors likely to witness greater benefits from a reduction in restrictiveness are 'Commercial services', 'Transport' and 'Travel'. Each sub-sector needs individual and sector-centric discussion of pertinent impediments related to services trade like regulations, legal barriers, ease of doing business, movement of factor and resources including workers etc. along with appropriate adjustments in domestic regulations and business environment.

To conclude, this analysis finds that India stands to benefit from negotiating India-EU FTA, with gains across various sectors, ranging from a few millions to billions of dollars. As with every FTA with a developed country or a region, there are several positive externalities like access to technology and investments, larger markets, improved employment, improved productivity, better resource allocation and several other effects, which cannot necessarily be quantified.

India's services trade basket is currently quite diversified with the EU, both in terms of the services delivered and the markets that are catered to. This is indicative of a potentially healthy growth in services trade between the two nations in the future. In

this context, our preliminary analysis of trade in services between India and the EU member states using data from 2010-2021, highlight certain interesting facts. Our study suggests that there are differences in the pattern of services trade between India and the EU vis-a-vis trade between India and the world for certain service sub-sectors. These differences are most distinctive in India's top exports to the EU – for the Computer and Information services and Professional and Management Consulting services. While India possesses relatively high comparative advantage ($RCA > 1$) in these services, when it comes to EU member states, India exhibits a low or no comparative advantage. These sectors can be specially targeted as potential subsectors for review under the India-EU FTA. Services in these subsectors are high-valued and given India's global comparative advantage in them, they could be prioritized for greater market access in the EU.

When considering gross trade flows and revealed comparative advantage, India is reported to have been performing well in three important sectors - Technical and Trade-related, Research and Development (R&D) and Transport services. India also enjoys absolute comparative advantage over several EU member states in these services. It could thus continue its focus on these sectors and explore new markets for trading these services. There are two other potential sectors that India could possibly target for greater inroads into EU's services landscape – Insurance and Pension services and Intellectual Property related services. India already has a foothold in several EU member states in these services, though the volume of trade can increase significantly.

India's top trading partners in terms of gross services flows are Germany, France, Netherlands, Ireland, Sweden, and Denmark but India does not seem to harness any comparative advantage against these nations in most services, except France. While this can be taken as an opportunity to improve the terms of services trade with these nations, Austria, Bulgaria, Hungary, Italy and Poland should be explored as potential target markets for the future. Given the preliminary analysis, the next step in this study would be to identify the trade restrictions and how their removal could potentially enable India to become a major trading partner for the EU, while improving cooperation between the nations.

4. Analysis of Legal Text of EU's and India's FTAs

Removing unnecessary restrictions on the supply of services is essential in realizing the benefits of international services trade. Trade agreements have the potential to complement services liberalization with unilateral and/or multilateral efforts with deeper commitments to facilitate trade. The India-EU FTA is still under negotiation, hence there are no chapters or annexes on services to be analyzed for legal text. Therefore, we adopted the approach of analyzing the legal text in analogous FTAs that India and EU have signed with their trading partners. We explore the recent FTAs

of these two economies to determine their approach to FTAs, with special focus on chapters on services and analyzed how these pacts aligned with their autonomous regimes.

This section presents the results of this analysis in form of the style to the negotiations, language of legal texts and commissions/restrictions offered by these countries to their respective partners. This exploratory legal text analysis provided key takeaways that could help build a roadmap for India in its ongoing trade negotiations with the EU.

4.1 Approaches to Negotiations

The EU currently has 41 active trade agreements with 72 countries³³, while India has various types of trade agreements with over 50 nations³⁴. EU's bilateral trade agreements typically cover trade in services. Recent agreements of the EU, such as the Comprehensive Economic and Trade Agreement (CETA) with Canada, and ongoing negotiations of the EU such as that with Australia³⁵ include services provisions.

Some of the important aspects of EU's negotiation approach include the following:

- i) The EU uses both negative lists (for instance in the agreements with Canada and Japan) and positive lists (in the agreements with Singapore and Vietnam) approach in trade agreements³⁶.
- ii) The EU does not make commitments in its trade agreements regarding public services and hence, these agreements do not
 - affect the member states' ability to run public monopolies for particular services
 - force member state governments to deregulate public services, such as, health and education
 - member states' ability to decide which services they want to keep universal and public and/or to subsidize them
- iii) Since 2011, the EU's FTAs contain a Trade and Sustainable Development (TSD)³⁷ chapter providing for environmental and labour commitments. However, Wout (2022)³⁸ finds that the ratification and implementation of these commitments are insufficient.

³³ <https://www.consilium.europa.eu/en/eu-free-trade/> accessed: 24-3-23

³⁴ https://commerce.gov.in/wp-content/uploads/2020/02/FAQ_on_FTA_9April2014.pdf accessed: 28-3-23

³⁵ https://policy.trade.ec.europa.eu/eu-trade-relationships-country-and-region/countries-and-regions/australia/eu-australia-agreement/factsheets-and-guides_en accessed: 28-3-23

³⁶ <https://trade.ec.europa.eu/access-to-markets/en/content/positive-and-negative-listing> accessed: 28-3-23

³⁷ The EU-Korea FTA of 2011 is the first agreement between the EU and an Asian country and its first agreement containing a TSD chapter.

³⁸ The enforceability of the trade and sustainable development chapters of the European Union's free trade agreements, Demy van 't Wout, Asia Europe Journal (2022) 20:81–98, <https://doi.org/10.1007/s10308-021-00627-1>

- iv) In its bilateral trade agreements, the EU generally includes references to regulatory dialogue to facilitate the development of electronic commerce (e-commerce), particularly to benefit small and medium-sized enterprises (SMEs). Important e-commerce³⁹ related provisions in its bilateral trade agreements include
- Removal of barriers to e-commerce
 - Utilization of electronic authentication methods and signatures
 - Establishment of dialogue on regulatory issues such as the recognition of electronic signatures. For instance, in the recent EU-Singapore trade agreement, both sides are investigating a potential mutual recognition agreement on electronic signatures. Intermediary liability of service suppliers with respect to electronic transmissions and the storage of information are also covered
 - Online consumer protection measures
- v) The EU has developed a Digital Trade Title that it proposes in all its FTA negotiations. These seek predictability and legal certainty for businesses and a secure online environment for consumers, along with removal of barriers to digital trade. Core elements of the EU's approach to digital trade cover:
- no customs duties on electronic transmissions
 - data flows and the prohibition of data localization requirements
 - consumer protection
 - protection against unsolicited direct marketing communications
 - provisions regarding the conclusion of contracts by electronic means and e-signatures
 - protection of software source code
 - cooperation and regulatory dialogue

4.2. The EU's FTAs

To illustrate the major elements affecting services trade in the EU's recent FTAs, we compare the chapter coverage of some its recent comprehensive trade agreements, including trade agreements with three Asian nations – Singapore, Vietnam and Japan – and one developed nation - Canada. While the EU's trade agreements with Singapore and Vietnam both have the positive list approach to scheduling commitments, the EU-Japan and EU-Canada trade agreements are based on negative lists.

³⁹ The widening of the scope of the digital chapters in trade agreements along with data's centrality to global trade has led to the WTO plurilateral negotiations on "e-commerce". E-commerce negotiations in trade agreements started to spill into provisions on a vast number of digital policy issues, such as data flows and data protection. (https://www.ituc-csi.org/IMG/pdf/digital_chapters_and_the_impact_on_labour_en.pdf and <https://www.diplomacy.edu/topics/e-commerce-and-trade/> accessed: 28-3-23)

4.2.1 EU Singapore FTA

The EU and Singapore have signed a free trade agreement (FTA) and an Investment Protection Agreement (IPA)⁴⁰. The FTA entered into force on November 21, 2019.

There are sixteen chapters in the EU Singapore FTA. Chapter Eight is on Services, Establishment and Electronic Commerce with separate annexes outlining the EU's schedule of specific commitments across all modes as mentioned below and a separate one for financial services across modes:

- Cross-Border Supply of Services (M1 and M2 related)
- Establishment (that is, M3)
- Key Personnel and Graduate Trainees and Business Services Seller (M4)

The subsequent chapters are on government procurement, intellectual property with GI annexes, TSD, transparency and dispute settlement.

The Investment Protection Agreement is yet to enter into force as it is awaiting ratification by all member states. The Investment Agreement offers investors the option of an investment dispute resolution mechanism, namely, the Investment Court System, in accordance with the EU's recent approach. The EU-Singapore FTA contains inter alia:

- contemporary rules to protect and enforce intellectual property rights
- preferential market access for service providers of the partner economies, such as, computer services, financial services, transport services, certain business services and so on.
- opportunities for public procurement contracts⁴¹
- binding commitments on environmental protection and workers' rights aligned with international standards and agreements
- provisions to enhance contribution of trade to sustainable development

4.2.1.1 Commitments of the EU

All broad sectors listed under the General Agreement on Trade in Services (GATS) of the World Trade Organization (WTO) services sectoral classification are covered under the EU Singapore FTA and commitments have been made by the EU in all. However, various wide-ranging reservations have been imposed under this FTA by EU that includes comprehensive controls by different member states or EU across

⁴⁰ https://policy.trade.ec.europa.eu/eu-trade-relationships-country-and-region/countries-and-regions/singapore/eu-singapore-agreement_en, accessed: 9-6-2023

⁴¹ The EU and Singapore are members of the World Trade Organization's Government Procurement Agreement and they already have open systems of public procurement and apply high standards of transparency and procedural fairness to their public tendering.

specific and/or all modes in certain committed sectors and subsectors. Some notable instances include -

- a) Modes 1, 2 and 3 are fully open in Computer and related services, Postal and courier services, Telecommunications and Research and Development (R&D) services on Social sciences and Humanities (excluding psychologist services) but mode 4 is not committed in these sectors.
- b) Nationality conditions across the EU for specialists and graduate trainees restrict Mode 4 trade in international services.
- c) Bulgaria restricts Mode 4 as foreign specialists must have experience of at least two years in the sector of Construction.
- d) In Distribution services, Mode 4 is committed only in retailing in contrast to other modes.
- e) In Transport services, Modes 1 and 2 are fully open whereas Modes 3 and 4 have restrictions.

4.2.1.2 Commitments of Singapore

In reciprocation, Singapore has made commitments in all twelve broad sectors as well. In most subsectors of the GATS based classification, such as Business Services, Construction and related Engineering services and Recreational, Cultural and Sporting services⁴², only Mode 4 has pertinent regulations mainly from horizontal limitations in Market Access (MA) and is unbound in National Treatment (NT). Other notable commitments include -

- a) Communication Services, except audiovisual services, replicates the EU's communication services coverage.
- b) In tourism and travel services, most limitations are applicable to the subsector hotels and restaurants (including catering).
- c) More sub-sub sectors are committed by Singapore than the EU in transport services with most of its limitations applicable to maritime transport services. However, pipeline transport is not committed by Singapore contrary to the EU.

4.2.2 EU Vietnam FTA

The EU Vietnam FTA covers trade and investment, governance, along with sustainable development issues. It is expected to benefit services firms of both partners by reducing regulatory barriers, protecting intellectual property rights, liberalizing services and public procurement markets as well as ensuring that the

⁴² News & press agencies services subsector is not committed by Singapore unlike the EU.

agreed rules are enforced. It entered into force on August 1, 2020.⁴³ The committed subsectors coverage of the EU in the EVFTA is very similar to that of the EU under the EU Singapore FTA.

The EU Vietnam FTA covers a range of services and provides additional Market Access for services providers in the two economies. The EU and Vietnam have agreed to reduce or remove certain restrictions on

- how many firms can supply services
- the value of services transactions or assets
- the number of services operations or quantity of services outputs
- foreign shareholding/equity limits.

Some noteworthy instances that define the context of National Treatment under the EU Vietnam FTA are:

- a) *Postal services*: Dominant market players will not engage in anti-competitive practices, fair licensing and regulator independence are ensured.
- b) *Telecommunication services*: Major suppliers must provide other operators with access to specific network elements on reasonable and transparent terms and conditions; independence of regulator; number portability etc. are ensured.
- c) *International Maritime Transport Services*: clear definitions of the services committed; nondiscriminatory conditions for access to ports; provision of feeder and re-positioning of empty containers in certain ports are included.
- d) *Domestic Regulation*: Comprehensive provisions on licensing procedures and professional qualifications and right to appeal is in place; investors applying for a license to provide a service or to invest are treated fairly and protected from arbitrary restrictions.
- e) *E-commerce*: The EU and Vietnam have agreed not to impose custom duties on electronic transmissions, to maintain a dialogue on regulatory issues raised by e-commerce and to develop e-commerce compatible with international data protection standards.
- f) *Government Procurement*: Public procurement will be as transparent and fair as set out in trade agreements the EU has signed with other developed and advanced developing countries. It covers, among others,
 - all central Vietnamese ministries, including for infrastructure such as roads and ports
 - public bodies in Hanoi and Ho Chi Minh City
 - branches of the national electricity operator Electricity of Vietnam and Vietnam Railways

⁴³ Despite being a member over the course of negotiations and legal texts, after exit from the EU, the United Kingdom is no longer a member state of the EU and therefore outside the coverage of EVFTA. (https://vietnamcredit.com.vn/news/3-scenarios-on-uk-vietnam-trade-relations-with-brexite-and-evfta_13649 accessed: 29-3-23)

- thirty-four public hospitals under the Ministry of Health of Vietnam
 - two major universities and two major research institutes
- g) *Construction and dredging services*: EU companies will be able to bid for public procurement contracts under the same conditions as Vietnamese companies.

Of the seventeen chapters of the EU Vietnam FTA, the chapters on liberalization of investment, trade in services and electronic commerce⁴⁴; government procurement; TSD⁴⁵; competition policy; state-owned enterprises, enterprises granted special rights or privileges and designated monopolies; intellectual property (with list of GIs); transparency; dispute settlement; and cooperation and capacity building are significant for our discussion, hence have been explored at length.

The EU and Vietnam have also signed an Investment Protection Agreement to improve market access for investment in services sectors. as well. Once in force⁴⁶, it will replace the twenty-one existing bilateral investment treaties between Vietnam and EU MS. The investment agreement also includes a provision on the transition from the bilateral Investment Court System established under the agreement to a multilateral investment court as and when such a court comes into existence.

4.2.2.1. Commitments of the EU

Despite commitments made by the EU under all the twelve broad GATS classified sectors, the level of commitments varies significantly across sectors. Some notable instances include -

- a) Key subsectors such as Audiovisual services and Air Transport services are not committed by EU. Only supporting services in Modes 1, 2 and 3 are committed regarding air transport services in it.
- b) Computer and related services and construction and related engineering services are open across the EU and almost all of its member states.
- c) Mode 2 is completely liberalized in most professional services across member states while Mode 1 in professional services is fully closed in many member states.
- d) Mode 4 is not committed for many subsectors that include Advertising services, management consulting, scientific and technical consulting services etc.
- e) There are greater number of conditions are in Modes 3 and 4 (across various member states) as compared to Modes 1 and 2 indicating the less liberalized nature of the former two modes.

⁴⁴ The parties shall not impose customs duties on electronic transmissions and shall maintain a dialogue on regulatory issues.

⁴⁵ This chapter seeks to promote sustainable development by fostering the contribution of trade and investment related aspects of labour and environmental issues.

⁴⁶ The Investment Protection Agreement will enter into force when it is ratified by all EU Member States.

- f) Apart from sector-specific reservations in the FTA, cross sectoral restrictions and conditions (by modes) are also applicable to the Vietnamese services providers as shown in Annexure Table AT.2.

Though more subsectors are covered by the EU, intricacies due to member states related regulations increase the overall complexity of its commitments. As there are different national conditions, it is very complex to provide services across the EU even under the FTA which may affect small enterprises more than their larger counterparts.

4.2.2.2. Commitments of Vietnam

Vietnam has committed to eleven broad sectors except other services not included elsewhere. Some key observations related to Vietnam's commitments are -

- a) Vietnam has not committed under a few subsectors/sub-subsectors which the EU has committed. These include -
- real estate services,
 - courier services,
 - medical and dental services,
 - R&D services on social sciences and humanities,
 - rental/leasing services relating to aircraft and other transport equipment,
 - primary education services,
 - residential health facilities other than hospital service,
 - recreational, cultural and sporting services except entertainment services (and electronic gaming) and
 - pipeline transport services⁴⁷.
- b) Vietnam has committed air transport services (with applicable restrictions) which is not committed by the EU under the FTA.
- c) More subsectors are committed in Telecommunications by Vietnam (like Singapore) than the EU.
- d) Vietnam has fully liberalized accounting, auditing and bookkeeping services, taxation advisory services, architectural services and urban planning and landscape architectural services with no restrictions under any mode.

The EU Vietnam FTA provides an excellent window to how the EU has negotiated an FTA with a global South⁴⁸ counterpart Vietnam. This holds major repercussions for India in setting its expectations and goals for an effective India – EU FTA.

⁴⁷ We may recall that Singapore has also not committed pipeline transport either in its FTA with the EU.

⁴⁸ The differences in economic development levels between countries can be broadly viewed as the world divided between rich North and poor South. North-South models divide the world economy based on this and examine the interaction of the two regions through trade and other economic relationships. (<https://www.encyclopedia.com/social-sciences/applied-and-social-sciences-magazines/north-south-models> accessed: 28-3-23)

4.2.3 EU Japan Economic Partnership Agreement (EPA)⁴⁹

The EU-Japan Economic Partnership Agreement (EPA) entered into force on February 1, 2019. The agreement comprises of twenty-three chapters. These include chapters on trade in services⁵⁰, investment liberalization and electronic commerce⁵¹, government procurement, intellectual property (having annexes on GI), TSD, transparency, regulatory cooperation and dispute settlement.

The agreement does not prevent the EU or Japan from regulating their services markets in a non-discriminatory manner and also does not affect public services like public healthcare or state-funded education. Additionally, irrespective of applicability to foreign and domestic services providers, the agreement does not change rules on issues such as health, safety, environmental standards, qualification requirements and labour rights.

4.2.3.1. Commitments of the EU

The EU has commitments under all major GATS based services sectors. There are existing reservations in almost all services sub-sectors except Construction services and other services. Computer and audiovisual services are two notable categories that do not have any specific existing or future reservation except reservations applicable to all sectors (see Table 14).

Table 14: The EU's Sector specific list of reservations in EU Japan EPA

Sector Enlisted	Existing Reservations	Future Reservations
Business Services-Professional services (including retail of pharmaceuticals)	Yes	Yes
Business services- R&D services	Yes	Yes
Business services-Real estate services	Yes	Yes

⁴⁹ [https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:02018A1227\(01\)-20220201&from=EN#bm1174level1](https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:02018A1227(01)-20220201&from=EN#bm1174level1) accessed:8-6-2023

⁵⁰ Scope of electronic commerce does not apply to gambling and betting services, broadcasting services, audiovisual services, services of notaries or equivalent professions, and legal representation services.

⁵¹ This chapter has three annexes on movement of natural persons, namely, on business visitors for establishment purposes, intra-corporate transferees, investors, on short-term business visitors and contractual service suppliers and independent professionals and on understanding movement of natural persons for business purposes along with an appendix on limitations of business activities of contractual service suppliers and independent professionals in Japan. Hence, the EU Japan FTA has no separate chapter on temporary entry and stay of natural persons unlike CETA (as we will see shortly).

Business services	Yes	Legal, health related, retail of pharmaceuticals, rental or leasing, other business services
Communication services	Yes	Telecommunication services
Distribution services	Yes	Yes
Education services	Yes	Yes
Environmental services	Yes	Yes
Financial services	Yes	Yes
Health and social services	Yes	Yes
Tourism and travel related services	Yes	Yes
Recreational, cultural and sporting services	Yes	Yes
Transport services and services auxiliary to transport	Yes	Yes
Energy related activities	Yes	Yes
Construction services	No	Yes
Other services not included elsewhere	No	Yes

Source: Constructed from legal text at https://policy.trade.ec.europa.eu/eu-trade-relationships-country-and-region/countries-and-regions_en accessed: 9-6-23

4.2.3.2. Commitments of Japan

Japan also has reservations that apply in several key sectors. These include -

- distribution services,
- education services,
- financial services,
- telecommunications services,
- internet-based services,
- health and welfare,
- transport services
- business services and
- Certain professional services such as lawyers' offices.

Certain sub-sectors are expected to experience reservations by Japan in the future. These include-

- Education and learning support
- financial services,
- transport services,
- public law enforcement and
- correctional and social services.

The EU Japan Economic Partnership Agreement is based on a Negative List approach which restricts free trade in certain key sectors of both the economies.

4.2.4. EU Canada Comprehensive Economic Trade Agreement (CETA)⁵²

The EU Canada CETA entered into force provisionally on September 21, 2017, as all national (and in some cases regional) parliaments in the EU countries are yet to approve the CETA before it can take full effect. It is considered the first of the new generation of trade agreements signed by the EU and features some of the strongest⁵³ commitments made by EU under any trade agreement. CETA binds the EU and Canadian commitments to also apply international rules on workers' rights, environmental protection and climate action.

There are thirty chapters of the EU Canada CETA that include chapters on investment, cross-border trade in services, temporary entry and stay of natural persons for business purposes⁵⁴, mutual recognition of professional qualifications⁵⁵, domestic regulation⁵⁶, financial services, international maritime transport services, telecommunications, electronic commerce, state enterprises, monopolies and enterprises granted special rights or privilege, government procurement, intellectual property (annexes on GI is also inscribed), regulatory cooperation, TSD, trade and

⁵² https://policy.trade.ec.europa.eu/eu-trade-relationships-country-and-region/countries-and-regions/canada_en
accessed: 8-6-23

⁵³ <https://enterprise.gov.ie/en/what-we-do/trade-investment/free-trade-agreements/> 8-6-23

⁵⁴ This chapter provides legal certainty for trained workers, who temporarily enter the EU or Canada to do business. It states in a transparent, predictable way the types of professionals covered, the sectors in which they can operate, the maximum length of their stay, and that EU professionals will enjoy equal treatment in Canada and vice versa.

The chapter include annexes on Reservations and exceptions applying in specific MS for key personnel and short-term business visitors, Equivalent qualifications for engineering technologists and scientific technologists and activities of short-term business visitors, among others.

⁵⁵ This chapter creates a framework that would allow Canada to recognise professional qualifications earned in the EU, and vice versa. CETA leaves it to the relevant authorities or professional bodies in the EU and Canada to negotiate a proposal on mutual recognition to be integrated into CETA. it has an annex on Guidelines for MRAS.

⁵⁶ This chapter ensures that all regulations which the EU and Canada issue are publicly available, easily understandable, and reasonable. This is to ensure that domestic regulations in the other territory don't act as an unfair barrier to trade for either party. Some areas of regulation, such as water distribution or other public services are outside the purview of this chapter.

labour⁵⁷, trade and environment, bilateral dialogues and cooperation, transparency, and dispute settlement.

The text of the agreement implies that the scope of the cross-border trade in services does not apply to a measure adopted or maintained by a Party affecting cross-border trade in services by a service supplier of the other Party. This affects the following sectors specifically:

- audio-visual services for the EU,
- cultural industries⁵⁸ for Canada
- air services, related services in support of air services and other services supplied by means of air transport other than (i) aircraft repair and maintenance services; (ii) the selling and marketing of air transport services; (iii) computer reservation system (CRS) services; (iv) ground handling services; and (v) airport operation services;

Table 15 provides a snapshot of sectors and subsectors having existing and future reservations in the EU Canada CETA.

Table 15: Key sectors/subsectors having reservations in EU Canada CETA

Sectors/subsectors	EU		CANADA	
	Existing	Future	Existing	Future
1. Business services				
a) Professional services				
• Legal Services	Yes	Yes	Yes	No
• Accounting and bookkeeping services	Yes	Yes	Yes	No
• Auditing services	Yes	Yes	yes	No
• Taxation advisory services	Yes	No	No	No

⁵⁷ Parties commit to respecting the labour standards set by the International Labour Organization (ILO), and ratifying and implementing the ILO's fundamental conventions. It also establishes a mechanism for ensuring both sides put the chapter's provisions into practice, that is, (enforcement mechanism).

⁵⁸ Cultural industries, means persons engaged in:

- (a) the publication, distribution or sale of books, magazines, periodicals or newspapers in print or machine-readable form, except when printing or typesetting any of the foregoing is the only activity;
- (b) the production, distribution, sale or exhibition of film or video recordings;
- (c) the production, distribution, sale or exhibition of audio or video music recordings;
- (d) the publication, distribution or sale of music in print or machine-readable form; or
- (e) radio-communications in which the transmissions are intended for direct reception by the general public, and all radio, television and cable broadcasting undertakings and all satellite programming and broadcast network services for Canada.

• Architectural services; Urban planning and landscape architectural services	Yes	No	No	No
• Engineering services; Integrated engineering services	Yes	No	No	No
• Medical and dental services	Yes, except dental	No	No	No
• Veterinary services	Yes	Yes	Yes	No
• Services provided by nurses, midwives, physiotherapists and paramedical personnel	Yes (e.g., paramedical, physiotherapists at national level)			
b) Computer and related services	No	No	No	No
c) R&D services	Yes	Yes	Yes	No
d) Real estate services	Acquisition, purchase, rental or leasing of real estate	Acquisition, purchase, rental or leasing of real estate	Yes	No
e) Rental/leasing services without operators	No	Yes	No	No
f) Other business services	As many services fall under this category, we note some instances only: Such as, the EU having existing and Canada having future reservation in technical testing and analysis services category			
2. Communication services				
a) Postal services	Yes	No	No	No
b) Courier services	No	No	No	No
c) Telecommunication services	No	Yes	Yes	No
3. Construction and related engineering services	No	Yes	No	No
4. Distribution services				
a) Commission agents' services	Yes	No	No	No
b) Wholesale trade services	Yes	No	No	No
c) Retailing services	Yes	No	No	No
d) Franchising	No	No	No	No

5. Educational services	Yes	Yes	Yes	No
6. Environmental services	No	Yes, includes Collection, purification and distribution of water	No	Yes: Collection, purification and distribution of water
7. Financial services	No	Yes	No	Yes
a) All insurance and insurance-related services	Yes	Yes	No	No
b) Banking and other financial services (excl. insurance)	Yes	No	Yes	No
8. Health related and social services	Yes	Yes	Yes: Social	No
9. Tourism and travel related services	Yes	Yes	Yes	No
10. Recreational, cultural and sporting services (other than audiovisual services)	Yes	Yes	Yes	Yes
11. Transport services	Yes: Supporting services for all modes of transport	No	Yes	Yes: Selling and marketing of air transport services, Pipeline transport

Notes: Sectors/subsector nomenclature based on GATS classification list, not necessarily as per the legal texts of the agreement for uniformity. EU level and any MS level is clubbed in EU columns (only to be interpreted for overall indication). Source: Constructed from legal text available at https://policy.trade.ec.europa.eu/eu-trade-relationships-country-and-region/countries-and-regions/canada_en accessed: 9-6-23

Some key observations regarding the provisions under the EU Canada FTA are—

- a) Certain services like transport services, R&D services and recreational, cultural and sporting services have existing and future reservations for both Canada and the EU. These sectors will remain restricted.

- b) In financial services, there are separate sets of overall future reservations, as well as existing and future ones under subsectors such as insurance and banking for both economies.
- c) Several sectors like Computer and related services, courier services, and franchising are completely liberalized for both the EU and Canada.

4.2.4.1. Commitments of the EU

EU appears to be more restrictive in its services trade than Canada. In most Professional services, Construction and related engineering services, Educational and Environmental services, EU has committed future reservations, even if at present there may or may not exist restrictions in these sectors.

4.2.4.2 Commitments of Canada

Canada, on the other hand, has agreed to lower the reservations for most services sectors in the future except Recreational, cultural and sporting services (other than audiovisual services) and Transport services.

4.2.5. Summary of EU's FTAs

A brief comparative summary of the EU's FTAs with different partners (both developing and developed) is outlined in Table 16. The EU's agreements with the developed nations like Canada and Japan are more extensive and have more relaxed commitments. For instance, the EU-Canada FTA is the most detailed FTA with the highest number of chapters and separate chapters on topics like trade and labour, trade and environment, inter alia. It is also the only FTA with more relaxed Mode 4 norms related to temporary entry and stay of natural persons for business purposes and mutual recognition of professional qualifications (separate chapters). Similarly, the EU Japan Economic Partnership Agreement (EPA) has a chapter on small and medium enterprises (SMEs). The EU's commitments under FTAs with Vietnam are more limiting than with its partners such as Singapore and Japan.

Table 16: Summary of topics relevant to services specifically covered in chapters of select trade agreements of the EU

Topics	EU Vietnam	EU Singapore	EU Japan	EU Canada
Cross-border trade in services	Yes	Yes	Yes	Yes
Investment	Yes	Separate IPA	Yes	Yes
E commerce	Yes	Yes	Yes	Yes

Temporary entry and stay of natural persons for business purposes	No	No	No	Yes
Mutual recognition of professional qualifications	No	No	No	Yes
Government/Public Procurement	Yes	Yes	Yes	Yes
Competition policy	Yes	No	No	No
State-owned enterprises, enterprises granted special rights or privileges and designated monopolies	Yes	No	Yes	Yes
Intellectual property (Including GI list)	Yes	Yes	Yes	Yes
Capital movements, payments and transfers and temporary safeguard measures	No	No	Yes	No
Domestic regulation	No	No	No	Yes
TSD	Yes	Yes	Yes	Yes
Small and medium-sized enterprises (SMEs)	No	No	Yes	No
Transparency	Yes	Yes	Yes	Yes
Regulatory cooperation	Yes: cooperation and capacity building	Yes	Yes	Yes: bilateral dialogues & cooperatio n
Dispute settlement	Yes	Yes	Yes	Yes

Source: Constructed from legal texts available at https://policy.trade.ec.europa.eu/eu-trade-relationships-country-and-region/countries-and-regions_en accessed: 8-6-23

A brief comparative summary of the above discussed EU's FTAs with different partners (both developing and developed) across different modes is outlined in Table 17. Mode 4 is the most restricted mode by EU.

Table 17: EU's commitments across partners in different modes (Select Sectors)

Select Sectors	EU Vietnam				EU Singapore				EU Japan				EU Canada			
	M1	M2	M3	M4	M1	M2	M3	M4	M1	M2	M3	M4	M1	M2	M3	M4
Business Services- Professional services	Closed for most subsectors in many MS.	Unrestricted except conditions in legal services.	Conditions including fully closed apply in some subsectors in some MS.	Restrctions in many MS in most professional services.	Having various reservations including fully closed in different MS/whole EU				Existing and future reservations apply in most subsectors				Existing measures apply in most subsectors, future measure apply in a few subsectors			
Business services- R&D services	Conditions apply in natural sciences; Interdisciplinary			Not committed	Having various reservations including fully closed in different MS/whole EU				Existing and future reservations apply				Existing and future reservations apply			
Business Services- Computer and Related services	Completely open (liberalised), that is, no restrictions by any MS in any subsectors			For CSS: In Austria, Bulgaria, Cyprus, Czechia, Germany, Denmark, Finland, Hungary, Lithuania, Latvia, Romania, Slovakia Economic needs test requirement. In Croatia: Residency requirement.	Completely open (liberalised), that is, no restrictions by any MS in any subsectors		Not committed		Neither existing, nor future reservations apply, i.e., completely liberalised				Neither existing, nor future reservations apply, i.e., completely liberalised			
Financial services	Restricted in many MS subject to conditions.				Having various reservations including fully closed in different MS/whole EU				Existing and future reservations apply				Future reservations apply			
Tourism and travel related services	Restricted in many MS subject to conditions.				Having various reservations including fully closed in different MS/whole EU				Existing and future reservations apply				Existing and future reservations apply			

4.3 India's FTAs

4.3.1 India Australia Economic Cooperation and Trade Agreement

(IAECTA⁵⁹)

The India Australia Economic Cooperation and Trade Agreement (IAECTA) entered into force on December 29, 2022. It has fourteen chapters including transparency and dispute settlement⁶⁰.

4.3.1.1 Commitments of India

India has made GATS-plus⁶¹ commitments in domestic regulations to provide predictability and ease of doing business measures related to services sectors and to transition to negative⁶² schedule approach.

India has undertaken commitments in all broad services categories covered under GATS except Other services not included elsewhere category. However, India reserves the right to add any terms, limitations, conditions, or qualifications to this Schedule for it to maintain a measure at the regional level of government that existed on 1 January 2005.

Detailed provisions to pursue mutual recognition of professional Services and other licensed/regulated occupations have also been agreed upon. In contrast to India's previous FTAs, such as those with Singapore, Japan and Korea, these obligations include coverage of all licenses and regulated occupations and allow for temporary/project specific license where feasible.

4.3.1.2 Commitments of Australia

Australia has kept commercially meaningful services areas for India in terms of Market Access (MA), National Treatment (NT) and Local Presence (LP) under the ECTA. Important sub sectors include –

- computer and related services;

⁵⁹ Came into effect from December 29, 2022 (<https://www.pib.gov.in/PressReleasePage.aspx?PRID=1887259> accessed: 14-4-23)

⁶⁰ <https://www.dfat.gov.au/trade/agreements/in-force/australia-india-ecta/australia-india-ecta-official-text> accessed: 25-6-23

⁶¹ An extension or update of GATS rules (http://mddb.apec.org/Documents/2017/SOM/DIA3/17_som_dia3_005.pdf accessed: 14-4-23)

⁶² Australia already follows negative scheduling in IAECTA. "Negative list" is a commitment approach under which countries specify the sectors exempted from the obligation of liberalisation. "Positive list" is an approach under which countries specify the sectors for which liberalization is implemented. (see <https://www.meti.go.jp/english/report/downloadfiles/2010WTO/3-2Services.pdf>)

- professional services including, accounting, taxation, engineering, integrated engineering, urban planning and landscape architectural services, medical, dental and veterinary services, services provided by midwives and nurses;
- R&D services;
- telecommunications;
- construction and related engineering;
- distribution
- tourism and travel related services.

However, Australia has reserved the rights to adopt or maintain any measure as deemed fit as part of its non-conforming measures under the agreement, in segments of broadcasting and audiovisual services. Further, Indian firms have to navigate general foreign investment rules in all sectors including media and financial sector. Public monopoly in postal services can also act as a barrier to foreigners, including India (Annexure Table AT.3)

Future measures may be applicable in certain sectors/subsectors mentioned in the agreement. Regional level regulations in all sectors and some specific subsectors also exist within the agreement.

Some key observations regarding the India Australia Economic Cooperation and Trade Agreement (IAECTA) –

- Australia has relaxed standards for Mode 4. IAECTA contains a specific chapter on Temporary Movement of Natural Persons
- Provisions by Australia regarding post-study work visa up to four years for Indian students; quota of 1800 per year for Indian chefs and yoga instructors along with work and holiday visa arrangement for young professionals as well as temporary entry and stay for up to four years for ICT, CSS and Independent Executives categories imply favourable conditions for Indian workers under Mode 4.
- Furthermore, Australia has agreed to extend possible stays from two to three years for Indian students graduating in Australia with bachelor's degrees in science, Technology, Engineering or Mathematics (STEM) with First Class Honors, including Information and Communications Technology.
- According to the Ministry of Commerce and Industry of India website⁶³, Australia has agreed to amend Australian domestic taxation law to stop the taxation of offshore income of Indian firms providing technical services to Australia. Once the amendment is made, the Indian technology companies would no longer be required to pay taxes on offshore revenues in Australia.

⁶³ <https://commerce.gov.in/international-trade/faqs-on-ftas/> accessed: 31-3-23

4.4 Key Insights for India

The study of various FTAs signed by the EU and India with developing and developed partners provides insights into the approaches of the two economies in negotiating FTAs and their emphasis on enhancing services trade. A few major implications for India that were gleaned for analyzing the FTAs are as follows:

1. The twelve broad sectors under the GATS classification of the services sector are committed by the EU in all the agreements studied above. However, the details on subsectors and limitations differ on a case-to-case basis.
2. Key subsectors that the EU did not make concessions for, in its FTA with a developing country like Vietnam includes Audiovisual services, Air transport services and Auditing services . Additionally, within the EU's limited coverage of telecommunications services in the EVFTA, telecommunications services do not cover the provision of content which requires telecommunications services for its transport.
3. Computer and related services as well as Construction and related engineering services are open across the EU and its member states⁶⁴. India can effectively look to expand its market access to new member states in these sectors if it can secure such liberalization level in its negotiations with the EU.
4. Mode 4⁶⁵ is the most restricted mode by EU within committed sectors in its FTAs with developing countries (not committed in some sectors under the Europe Vietnam FTA like News and press agencies services and sporting services). Further, EU commits to Mode 4 only partially for certain sectors (for instance, only food retailing is committed for Mode 4 in distribution services in EVFTA).
5. Professional Services are another area where EU is selective about the modes it liberalizes. In the EU Vietnam FTA, Mode 1 is fully closed by many member states while Mode 2 is completely liberalized across all member states in Professional services (except legal services). India needs to be cautious about the terms of negotiation and safeguard its interest across modes in Professional services with EU.
6. India needs to be mindful that it has to navigate through the demands of EU's Member States as well for different services. Overall Austria, Bulgaria, Slovakia, Slovenia, Romania, Poland and Lithuania appear as some of the more restricted MS than others. A few instances where the expectations of MS vary are-
 - a. Under EVFTA, Austria is either restricted or fully closed in most services for Mode 1; Social services is fully closed in Czechia; Mode 3 in health services is closed in Bulgaria.

⁶⁴ Conditions apply only to the CSS category in Mode 4 in many member states in Computer and related services; Cyprus and Bulgaria are the only member states with conditions in Mode 3 and Mode 4 respectively for construction and related

⁶⁵ We are just touching upon a few issues as we have chosen both negative and positive list agreements of the EU with broad thrust on its approach in recent trade agreements and non-conformity measures of the negative lists do not mention modes of supply as opposed to GATS positive lists.

- b. Bulgaria restricts Mode 4 in Construction services under the EU Singapore FTA.

India has to be cognizant of the diverse regulations applicable in different MS especially when attempting to enter new and less saturated markets within the EU points, while negotiating FTA with the EU,

7. The provision of future reservations has been applied by EU in its FTAs with developed partners like Japan and Canada. For instance, almost all broad sectors in the EU Japan EPA and services like Transport services and R&D services for Canada in their CETA have future reservations that make market access in these sectors complicated and undermines the predictability in services. India needs to incorporate the possibility of future reservations in its calculations.
8. EU is more conservative regarding mutual recognition of professional qualifications as these are primarily based on rules and regulations of MS (noted in the discussion on IAECTA, earlier). Canada (global North partner) is the only partner with whom the EU has a separate chapter on mutual recognition.
9. EU^{66, 67} has agreed to open its Government Procurement (GP) market⁶⁸ to Vietnam in EVFTA including certain services sectors as well. India can also assess the GP market of the EU in services. Nevertheless, issues such as transparency need to be studied in detail beforehand. Further, in negotiations with larger trading partners such as the EU, India needs to carefully carve out the obligations under the GP chapter considering the complexity provided by the regulations of the MS.
10. With respect to e-commerce and digital trade, the EU primarily follows a standard framework that it has proposed in its recent FTAs. Frictions may arise over the Investment Court System if India does not agree to the arrangement.
11. Beyond these services, there exist opportunities for India in services like tourism, financial, education (including emerging areas of Fintech and EdTech mostly by leveraging Mode 1 trade), health, and many professional services (here lies the importance of qualification recognition and overall Mode 4 issues).

⁶⁶ Public procurement accounts for 15-20% of global GDP and GPA commitments alone represent around EUR 1.3 trillion in global business opportunities. The EU favours open international public procurement markets and has granted market access to its public procurement markets for certain goods and services.

⁶⁷ A major international agreement related to public procurement is the World Trade Organization's (WTO) plurilateral (that is, not all WTO members are parties to the agreement, but it is within the WTO framework) Agreement on Government Procurement (GPA). The EU is a party to the GPA, while India is an observer since 2010.

⁶⁸ The inclusion of GP chapter leads to equal opportunities in government tenders to procure goods and services in both economies. It implies that suppliers cannot be discriminated against in a signatory economy based on their nationality or foreign affiliation to bid for government tender. For instance, both India and UAE have agreed to treat suppliers from the other country no less favorably than their local suppliers and would not discriminate between their local suppliers because they are procuring goods or services from the other party of the agreement. However, these obligations would only apply if the value of government procurement is more than the threshold as a safeguard to protect small domestic suppliers agreed by India and UAE in their schedules of commitments are also subject to certain exceptions. India and UAE have also taken obligations to enhance transparency in their government procurement market since a transparent and accountable bidding system in government procurement is expected to attract foreign investors. This allows India to take a targeted approach than the GPA on what sectors it wants to open on non-discriminatory basis and to whom they open these sectors.

12. India can also look to expand the investment presence of Indian companies in services, for instance, in education and health, through technology and knowledge transfer, efficiency improvements, among others, which could arise from increased investment in services from the EU to India. Outward investment in services could be a means to facilitate services exports through other modes as well.
13. Possibilities for replacing M4 with M1 exports could be explored across different services.

4.5 Recent developments in services negotiations between India and the EU

On June 17, 2022, the EU relaunched negotiations with India for a Free Trade Agreement and initiated separate negotiations for an Investment Protection Agreement (IPA) and an Agreement on Geographical Indications (GIs). The negotiations aim to:

- Remove barriers and help EU firms, especially the smaller ones to export more;
- Open up services and public procurement markets;
- Ensure protection of geographical indications;
- Pursue commitments on trade and sustainable development, and;
- Ensure the agreed rules are enforceable

The Investment Protection negotiations aim to provide investors of signatory parties with a predictable and secure investment environment, through commitments on:

- Non-discrimination, that is, national treatment (NT).
- Protection against expropriation without compensation and unfair treatment of investors and their investments, while preserving the right to regulate.
- Put in place an effective dispute settlement mechanism.

On February 6, 2023, the EU and India set up a new Trade and Technology Council (TTC). The new TTC will deepen strategic engagement in trade and technology between the two economies.

Some topics that have necessitated deeper and more extensive negotiations between India and EU are as follows -

- a) Computer and related services sectors face emerging challenges in data protection regulations. Concerns have been raised by the EU regarding financial and other data transfer, storage and privacy.
- b) Concerns regarding movement of people under Mode 4 are primarily India's. India is seeking to negotiate the type of services providers to be covered under different categories such as Business Visitors (BV) and Contractual Service

Suppliers (CSS) in specific services of its interest such as medical and dental services, higher and other education services within the EU.

- c) Investment presence under Modes 1 & 2 of Indian companies in the EU have also been brought under scanner. India could try to leverage the momentum on Mode 1 based services exports depending on the recent trend of increased digital delivery of services. Nonetheless, India needs to carefully consider issues of data protection and liability, which pose challenges particularly for this mode.

Other broad contentious issues for India with the EU could concern the perspectives on labour and environmental matters of the two economies.

In summary, our analysis suggests that FTAs do not necessarily bind in existing autonomous regulatory regimes in all fields. Various detailed regulations, conditions and reservations continue to limit overall services liberalization under FTAs. For instance, the EU's regulations of emerging technologies could have implications for services provided in the EU by third countries.

In general, complying with the rules and regulations governing the services sector of the EU is complicated for foreign firms, particularly SMEs, more so where MS regulations are asymmetric. For example, each MS has its own independent national regulatory authority for the telecommunications sector. EU nationality requirement for operating a pharmacy in Austria, France, Greece, and Hungary is another example arising from the fact that the EU single services market is incomplete.

Furthermore, there remain concerns including lack of regulatory transparency limitations and discretionary application of conditions, uncertainties about evolving regulations and others in some areas from both the EU and India. It may also be noted that the agreement texts do not automatically offer increased predictability in the partner market or significant commercially meaningful market access in services. This indicates the case for a defensive and cautious approach along with in-depth research and comprehensive understanding of all aspects when negotiating modern complex FTAs with partners such as the EU. Issues such as coverage of modes, exceptions, treatment of sensitive sectors have to be worked out for the negotiations to be fruitful.

5. Conclusion and the Path Ahead

This study examines the existing trends in services trade between India and the EU nations to better understand the features, challenges and prospects of this association, moving forward. It also attempts to empirically evaluate how the trade in services between these two partner members is likely to be affected under a more relaxed (or conversely a more restricted) regime once the FTA negotiations are

finalized. An overall evaluation of additional market access gains (or deficit) for India under this agreement was attempted.

Since the FTA is still under negotiation, this study tried to comprehend the likely impact of the FTA on India by analyzing the current trends in its trade with the EU and individual member states as well as by analysing the language of the text and the offers made by India and the EU in their existing FTAs. The net impact on India due to changes in India's services exports to the EU, resulting from greater market access and changes in India's imports of services from EU partners was a focal point of this study and is based on projected figures of trade for the year 2025.

This section briefly summarizes the key findings from the analysis and the implications that can be drawn regarding (a) the potential gains for India from a services FTA with the EU; and (b) what could be India's vital negotiating points in the FTA for strategic advantage. The discussion has been outlined sector-wise for a comprehensive outlook.

1. Growth Sectors: sectors which have the natural inclination for growing strongly under the India EU FTA

- a) **Technical and Trade related services** are expected to continue the trend as the highest traded services between India and EU and hold one of the highest shares in the total Indian exports. This service sector is amongst the highest imported services by the EU and India enjoys a revealed comparative advantage with most EU member states. The crucial point of negotiation that India needs to be mindful are modalities related to Mode 4 commitments in this sub-sector.
- b) **Research and Development (R&D) related services** has the potential for highest gains. In this sector, India holds a bilateral RCA, especially with top EU member states like Germany Sweden, Belgium and France and has a high scope for improvement with Austria, Croatia, Finland, Greece, Hungary, Italy and Ireland. EU has been restrictive for R&D services with its other FTA partners, so India might need to strategically negotiate any resistance by the EU in liberalizing this sector.
- c) **Transport services** is currently amongst the top traded services between India and the EU. India also enjoys absolute comparative advantage over several EU member states in these services including Germany, France and Denmark which also happen to be the highest importers of these services within the EU zone. The promising countries are Austria, Bulgaria, Greece, Latvia and Poland. The EU, however has reservations in certain transport services like Air and Pipeline transport in its FTAs, with commitments mostly made under Modes 1, 2 and 3. India needs to negotiate terms that will help in continuing comparative advantage in these services. India currently enjoys a horizontal agreement with the EU (signed

in 2008; entered into force in 2018) allowing any EU airline to operate flights between India and any EU state where it is headquartered. India is deemed as a strategic market and could leverage its domestic market demand in negotiating better regulations for permissions and traffic, raising private investment for physical infrastructure, exploring diversified trade and travel routes with shorter shipment times and simplified customs procedures.

1. Some adjustments that India could offer are lowered restrictions on cabotage, facilitation of processes involving Mode 4 entry of service providers (India currently has labour market tests for natural persons seeking to provide services in India on a temporary basis as Intra-Corporate Transferee (ICT)s, contractual services supplier (CSS)s or Independent Professional (IP) for Transport services), relaxation in the norms related to authorization and or licenses to deliver Maritime and Rail transport services, and simplification of tax filing under GST.

2. Aspirational Sectors: Those sectors which need special attention for negotiations of terms under the India EU FTA

- d) ***Computer and Information services sector***, though a strong growth sector at present, needs special attention. It is likely to face strong competition for the EU market from other EU member states like Ireland and Finland which demonstrate higher RCA in these services as compared to India. With the exit of UK from EU which was the highest importer of Indian software services within the EU region⁶⁹, India will need to cultivate other partnerships that it can fruitfully harness. The countries that offer the most promise include Bulgaria and Croatia. EU and all its member states have fully opened modes 1, 2 and 3 in Computer and related services for their FTA partners while Mode 4 remains uncommitted under some FTAs. India should tactically pursue individual countries for greater market access as this sector holds great potential for gains from greater reach.
- e) ***Professional and Management Services*** is another aspirational sector of consideration under the India EU FTA. At present, it is amongst India's major exports but India does not possess bilateral RCA with major member states like Germany, Netherlands and France who are major importers of these services and enjoys BRCA with only smaller importer nations like Hungary and Belgium. Additionally, this is a key sector of interest for EU as it wishes further liberalization of the Indian market for EU exports especially in Accountancy and Legal Services. EU has acceded to completely opening up Mode 2 for Professional and Management Services for its other FTA partners but is rather restrictive for Mode 1 and Mode 4.

⁶⁹ RBI Estimates

India's key negotiating point in relation to this sector will be the easing of restrictions regarding Mode 4 (mobility of skilled Indian professionals) as well as the recognition of qualifications and professional standards by the EU partners that have hindered Indian professionals' access to the EU markets. Given the challenges in convincing the EU regarding liberalization of Mode 4 norms, enhanced digital trade is the next best alternative for which India needs to address data and security related concerns. India has introduced a new 'comprehensive framework' for addressing challenges of a digital economy that includes apprehensions of data ownership, localization, secondary use, cybersecurity, database management, cloud computing etc. Annexure Table AT.5. provides a detailed summary of the concerns in varied sub-sectors of Professional Services.

The main issue remains the lack of harmonization of legislations between India and the EU partners including issues of national treatment regarding India's FDI restrictions, dispute resolution (India is not a member of the International Centre for Settlement of Investment Disputes (ICSID) and has also withdrawn its Bilateral Investment Treaties (BITs), and barriers to digital trade and e-commerce which can favour domestic suppliers as opposed to foreign players. The EU's insistence on revamping Indian legislation has been a main hindrance in negotiating terms with the member states.

Global partnerships are also another way through which India can gain greater access to the EU markets. Partnering with EU firms in services like legal services, accounting services, business and management consultancy services might be helpful in this regard.

- f) **Travel**, though, is considered as a strong growth sector for India's exports, it needs special attention under India EU FTA negotiations. India possesses comparative disadvantage against most EU member states, with the only exceptions being Italy, Estonia and Portugal. At present, India is a net importer of Travel services from EU and EU is somewhat restrictive towards travel services, including limitations for hotels and restaurants and movement under Mode 4

3. Sunrise Sectors: Those sectors which exhibit the strongest promise for growth

- g) **Charges for the use of intellectual property** is a promising sector for future growth under a liberalized regime. India possesses a higher BRCA against a fair number of EU member states who could be potential partners – Belgium, Bulgaria, Croatia, France, Netherlands, Poland and Sweden. Germany and Ireland could prove to be its strongest competitors though. EU has made commitments under chapters related to Intellectual Property (including GI list) in its other FTAs and tends to be slightly protectionist when it comes to IP Rights. India will have to

convey its strengths and abilities in ensuring the implementation of mutually agreed IP regimes, both by its companies as well as within its economy.

- h) **Telecommunication** is important for India as it exhibits huge potential for gains but is yet to have a significant presence amongst India's exports to EU. India currently enjoys higher BRCA with its trading partners like Germany, Italy, and Finland that also happen to be major importers of Telecommunication services. The potential markets could be Bulgaria, France, Greece, Romania and Sweden. EU has a slightly differential approach in liberalizing its Telecommunications sector for developing versus developed FTA partners, with the former enjoying greater market access. India could aim to negotiate similar terms for better national treatment and market access.

The major findings from the empirical and legal text analysis indicate that India stands to gain from easing of services- related trade barriers (as exhibited by either the relaxation of PMR index or improvement in Trade Openness index) under an India EU FTA. The extent of increase in services exports for India is likely to be the range of around \$6 billion driven by Technical and Trade-related services as well as R&D related services. Given the prevailing extent and pattern of India's services trade with the EU, and assuming EU offers similar market access and modes of interest in services as it has in its existing FTAs, the gains for India would at best be moderate. EU stands to gain much more from a liberalized Indian market under an India EU FTA.

The preliminary analysis discovers the services sectors in which India has strategic export interest in the EU region, namely, Technical and Trade related services, Research and Development related services and Transport services. The major sectors which need careful negotiations such that India can improve its services balance and put to good use its bilateral RCA are Computer and Information services, Professional and Management services and Travel. Charges for use of intellectual property, Telecommunication and Insurance and Pension services could be other areas for consideration which at present do not experience significant exports from India to the EU but have the potential for significant gains under a liberalized regime.

The limitations of the data availability inhibited the evaluation of the agreement's potential implications in a more granular and holistic manner. The major constraints related to the non-availability of data related to bi-lateral services trade flows, investment flows in services (including FDI) between India and EU member states, data for the latest years and services flows under various modes. Hence the preliminary analysis using RCA (and BRCA) as well as regression results might not have captured the entire momentum of services trade potential between the two partner regions. Additionally, trade with developed partners entails positive externalities like gains from technology, knowledge and skill transfers, improvements in productivity and overall efficiency which cannot be captured by data.

The analysis provided some broad directions for India's negotiating approach for the India EU FTA. The major points have been highlighted below –

- India should negotiate this FTA based on a positive list approach as it is most likely to be able to negotiate better commitments from EU, given EU has employed this approach for its other Asian FTA partners. However, if a negative list approach is engaged, then India needs to clearly define its reservations, exceptions, and commitments under various sectors and modes of interest.
- As EU stands to gain more from this FTA, India should expect demands for greater market access and liberalization of certain vital sectors like Financial services and Insurance and Pension services without reciprocation. India should push for reciprocity in such sectors where it clearly enjoys the bilateral RCA and also has a competitive advantage in terms of skilled workforce.
- Sectors like Education, Health Care and Professional services which offer great opportunity for Indian professionals but pose difficulties in recognition of the professional degrees and liberalization under Mode 4, could be negotiated in terms of partnerships and joint ventures. Clarity on arrangements like “advisory” or “consultation” roles should be sought and incorporated in the FTA for enabling greater access to EU markets.
- Special attention must be paid to the framework and content of the agreement in terms of language of text, extent of coverage, inclusion (or exclusion) of sectors and chapters, national treatment and market access obligations, future reservations and/or liberalization commitments, rules of origin and regulatory annexes.

In conclusion, the India EU FTA should be progressive in its approach and be beneficial for both the partner regions by incorporating mutual interests. The services trade between the two partners should not be analyzed in terms of existing exports and imports alone but should also comprise of synergies between goods, services, investments and technology flows for overall benefit. Potential complementary gains in services could be leveraged from increased trade in goods with the EU by way of integration with the value chain and servicification opportunities in the manufacturing sector along with outward FDI by Indian companies in both the goods and services sectors. India could direct its focus towards entering new services and segments within services, including new technological opportunities arising in services due to technological progress like Artificial Intelligence to diversify and broaden India's export offerings.

India stands to gain from the India- EU FTA by astutely identifying key sectors, partners and spillovers to other areas for future opportunities. In this light, the importance of addressing pervasive regulatory issues, increasing transparency in application of regulations, reducing discretion, and achieving harmonization and the role of service trade facilitation are of paramount significance. India would do well by transforming overarching regulations holistically that should include goods-services

linkages, e-commerce and digital trade and streamlining their implementation, and domestic regulations to gain from international services trade opportunities.

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7. Appendix

A.1 The list of EU27 member states:

Austria (AUT), Belgium (BEL), Bulgaria (BGR), Croatia (HRV), Cyprus (CYP), Czechia (CZE), Denmark (DNK), Estonia (EST), Finland (FIN), France (FRA), Germany (DEU), Greece (GRC), Hungary (HUN), Ireland (IRL), Italy (ITA), Latvia (LVA), Lithuania (LTU), Luxembourg (LUX), Malta (MLT), Netherlands (NLD), Poland (POL), Portugal (PRT), Romania (ROU), Slovakia (SVK), Slovenia (SVN), Spain (ESP), Sweden (SWE).

A.2. List of countries used for regression analysis

Argentina, Australia, Austria, Belgium, Brazil, Canada, Chile, China, China, Hong Kong SAR, Colombia, Costa Rica, Croatia, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, India, Indonesia, Ireland, Israel, Italy, Japan, Korea, Republic of, Latvia, Lithuania, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Saudi Arabia, Slovakia, Slovenia, South Africa, Spain, Sweden, Switzerland, Liechtenstein, Türkiye, United Kingdom, United States of America.

A.3. Data source

Data for all variables have been sourced from publicly available online databases

- Bilateral services imports: [UNCTADSTAT](https://unctadstat.unctad.org/EN/) (<https://unctadstat.unctad.org/EN/>)
- PPP-adjusted Real GDP: Real GDP converted to international dollars using purchasing power parity (PPP) rates from the Penn World Tables (version??)
- Gravity equation variables (from The Dynamic Gravity Dataset <https://www.usitc.gov/data/gravity/dgd.htm>)
- Distance: Population weighted distance between country pair
- Contiguity: Country pair shares a common border
- Common language: Residents of country pair speak at least one common language
- Colony of origin ever: Destination country was ever a colony of the origin country
- Colony of destination ever dummy: Origin country was ever a colony of the destination country
- Common colonizer: Country pair has been colonized by a common colonizer

- NTBs (services barriers, trade and investment barriers, product market regulation, differential treatment of foreign service providers, legal barrier, FDI barriers)
<http://www.oecd.org/eco/growth/indicatorsofproductmarketregulationhomepage.htm>
- Trade openness (trade share to GDP)- calculated for each country as the simple average (i.e. the mean) of total trade (i.e. the sum of exports and imports of goods and services) relative to GDP
<https://data.worldbank.org/indicator/NE.TRD.GNFS.ZS>)

8. Appendix A

Full Sample Results

Table A.1: Bilateral Services Imports and Openness (entire sample) using POLS

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
	Total Services Imports	Audiovisual Services Imports	Charges for the use of Intellectual Property Imports	Commercial Services Imports	Computer Services Imports	Financial Services Imports	Insurance Services Imports	IT Services Imports	Personal Services Imports	Professional Services Imports	R&D Services Imports	Technical Services Imports	Telecom Services Imports	Transport Services Imports	Travel Services Imports
Log (openness)	0.989***	0.128	0.790** *	0.784** *	0.697** *	1.743** *	0.682** *	0.221**	-0.189*	1.157** *	0.540** *	1.229** *	0.304**	0.521** *	- 0.635** *
	(0.112)	(0.112)	(0.162)	(0.128)	(0.131)	(0.182)	(0.124)	(0.095)	(0.110)	(0.153)	(0.166)	(0.146)	(0.120)	(0.160)	(0.161)
Log (GDP of origin country)	0.905***	0.344** *	0.799** *	0.902** *	0.650** *	0.786** *	0.624** *	0.348** *	0.460** *	0.880** *	0.717** *	0.894** *	0.437** *	0.779** *	0.669** *
	(0.022)	(0.029)	(0.036)	(0.027)	(0.033)	(0.035)	(0.029)	(0.027)	(0.026)	(0.030)	(0.038)	(0.028)	(0.026)	(0.029)	(0.028)
Log (GDP of destination)	0.971***	0.442** *	0.706** *	0.983** *	0.720** *	0.732** *	0.536** *	0.317** *	0.416** *	0.840** *	0.707** *	0.839** *	0.610** *	0.809** *	0.770** *

on country)															
	(0.021)	(0.030)	(0.033)	(0.025)	(0.032)	(0.033)	(0.029)	(0.025)	(0.024)	(0.029)	(0.035)	(0.027)	(0.025)	(0.030)	(0.026)
Log (Distanc e between capitals of origin and destinati on)	-1.121***	-0.422** *	-0.610** *	-1.162** *	-0.840** *	-0.607** *	-0.615** *	-0.430** *	-0.602** *	-1.055** *	-0.649** *	-1.019** *	-0.729** *	-1.074** *	-1.117** *
	(0.042)	(0.042)	(0.049)	(0.049)	(0.051)	(0.057)	(0.041)	(0.036)	(0.038)	(0.048)	(0.049)	(0.046)	(0.046)	(0.051)	(0.046)
Contiguit y (common border) dummy	-0.352**	0.433*	0.071	0.342**	0.309	0.311	0.416*	0.265	0.449**	-0.034	0.272	0.019	0.334	-0.054	0.471** *
	(0.160)	(0.258)	(0.266)	(0.172)	(0.258)	(0.321)	(0.225)	(0.217)	(0.226)	(0.225)	(0.304)	(0.199)	(0.212)	(0.172)	(0.171)
Common language dummy	1.054***	0.183**	0.366** *	0.899** *	0.242**	0.859** *	0.558** *	0.153*	0.372** *	0.643** *	0.267**	0.620** *	0.271** *	0.692** *	0.865** *
	(0.085)	(0.092)	(0.129)	(0.102)	(0.110)	(0.133)	(0.102)	(0.079)	(0.095)	(0.112)	(0.134)	(0.101)	(0.085)	(0.122)	(0.107)
Colony of origin ever dummy	1.018***	1.718** *	1.885** *	1.085** *	0.896*	1.789** *	1.928** *	1.395** *	1.545** *	1.444** *	1.255** *	0.615**	1.120** *	1.001** *	1.300** *
	(0.215)	(0.431)	(0.404)	(0.293)	(0.494)	(0.422)	(0.363)	(0.449)	(0.363)	(0.392)	(0.421)	(0.310)	(0.410)	(0.266)	(0.303)
Colony of destinati on ever dummy	0.889***	1.494** *	1.001**	1.033** *	1.839** *	1.396** *	0.630**	1.679** *	1.346** *	1.372** *	1.159** *	1.228** *	1.600** *	0.965** *	1.188** *
	(0.220)	(0.261)	(0.456)	(0.230)	(0.294)	(0.415)	(0.249)	(0.324)	(0.355)	(0.366)	(0.446)	(0.324)	(0.253)	(0.211)	(0.250)

Common colonizer dummy	0.540***	0.616**	0.312	0.591** *	0.909** *	0.539**	0.121	0.489** *	0.572** *	0.837** *	0.594*	0.361**	0.512** *	0.414**	0.547** *
	(-0.129)	(0.258)	(0.273)	(0.144)	(0.266)	(0.212)	(0.206)	(0.186)	(0.199)	(0.218)	(0.308)	(0.163)	(0.162)	(0.202)	(0.205)
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	- 14.501** *	- 6.677** *	- 16.193 ***	- 13.497 ***	- 12.163 ***	- 20.215 ***	- 11.693 ***	- 5.547** *	- 5.036** *	- 16.176 ***	- 14.255 ***	- 16.685 ***	- 7.468** *	- 10.678 ***	- 4.340** *
	(0.922)	(0.912)	(1.330)	(1.080)	(1.088)	(1.354)	(1.049)	(0.760)	(0.890)	(1.246)	(1.413)	(1.194)	(0.945)	(1.365)	(1.303)
Observat ions	16,295	7,748	12,181	11,503	8,773	12,828	12,624	7,452	11,799	10,818	10,552	11,286	8,385	13,921	14,145
R- squared	0.733	0.438	0.472	0.714	0.556	0.503	0.517	0.431	0.492	0.682	0.522	0.665	0.585	0.595	0.662

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table A.2: Bilateral Services Imports and PMR (entire sample) using POLS

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
	Total Services Imports	Audiovisual Services Imports	Charges for the use of Intellectual Property Imports	Commercial Services Imports	Computer Services Imports	Financial Services Imports	Insurance Services Imports	IT Services Imports	Personal Services Imports	Professional Services Imports	R&D Services Imports	Technical Services Imports	Telecom Services Imports	Transport Services Imports	Travel Services Imports
PMR	- 0.227***	- 0.138 ***	- 0.257** *	- 0.230** *	- 0.228** *	- 0.192** *	- 0.154** *	- 0.134** *	- 0.131** *	- 0.251** *	- 0.217** *	- 0.224** *	- 0.137** *	- 0.208** *	- 0.221** *
	(0.013)	(0.014)	(0.017)	(0.014)	(0.019)	(0.019)	(0.014)	(0.014)	(0.014)	(0.015)	(0.017)	(0.015)	(0.014)	(0.018)	(0.014)

Log (GDP of origin country)	0.834***	0.386***	0.773** *	0.856** *	0.668** *	0.633** *	0.588** *	0.384** *	0.509** *	0.810** *	0.695** *	0.814** *	0.469** *	0.760** *	0.760** *
	(0.019)	(0.029)	(0.029)	(0.022)	(0.027)	(0.033)	(0.024)	(0.027)	(0.026)	(0.024)	(0.031)	(0.021)	(0.025)	(0.022)	(0.021)
Log (GDP of destinati on country)	0.923***	0.416** *	0.733** *	0.972** *	0.649** *	0.600** *	0.534** *	0.282** *	0.470** *	0.806** *	0.719** *	0.795** *	0.573** *	0.816** *	0.895** *
	(0.018)	(0.029)	(0.029)	(0.020)	(0.028)	(0.029)	(0.025)	(0.023)	(0.023)	(0.022)	(0.028)	(0.021)	(0.022)	(0.022)	(0.020)
Log (Distanc e between capitals of origin and destinati on)	- 1.029***	- 0.352** *	- 0.496** *	- 1.069** *	- 0.776** *	- 0.634** *	- 0.585** *	- 0.374** *	- 0.497** *	- 0.949** *	- 0.500** *	- 0.940** *	- 0.705** *	- 0.982** *	- 0.884** *
	(0.038)	(0.040)	(0.047)	(0.042)	(0.046)	(0.061)	(0.040)	(0.033)	(0.038)	(0.044)	(0.047)	(0.041)	(0.042)	(0.048)	(0.040)
Contigui ty (commo n border) dummy	-0.263*	0.461*	0.107	-0.256*	0.366	0.444	0.427**	0.324	0.474**	0.106	0.387	0.117	0.324	0.046	0.553** *
	(0.148)	(0.247)	(0.228)	(0.151)	(0.226)	(0.330)	(0.208)	(0.202)	(0.209)	(0.196)	(0.266)	(0.161)	(0.199)	(0.157)	(0.159)
Commo n languag e dummy	0.940***	0.239**	0.366** *	0.842** *	0.256**	0.730** *	0.523** *	0.169**	0.442** *	0.529** *	0.240**	0.526** *	0.300** *	0.636** *	0.906** *
	(0.077)	(0.093)	(0.117)	(0.088)	(0.104)	(0.151)	(0.102)	(0.077)	(0.093)	(0.098)	(0.121)	(0.093)	(0.085)	(0.112)	(0.098)
Colony of origin ever dummy	0.602***	1.700** *	1.390** *	0.625**	0.626*	1.551** *	1.679** *	1.236** *	1.398** *	0.941** *	0.887** *	0.107	0.940** *	0.588**	0.690** *

	(0.170)	(0.341)	(0.291)	(0.243)	(0.358)	(0.411)	(0.336)	(0.412)	(0.307)	(0.294)	(0.334)	(0.271)	(0.338)	(0.242)	(0.237)
Colony of destination ever dummy	0.516***	1.280** *	0.845**	0.651** *	1.535** *	1.083** *	0.298	1.395** *	1.164** *	0.938** *	0.897**	0.789** *	1.321** *	0.632** *	0.873** *
	(0.198)	(0.262)	(0.356)	(0.216)	(0.260)	(0.417)	(0.217)	(0.328)	(0.320)	(0.307)	(0.384)	(0.269)	(0.249)	(0.217)	(0.200)
Common colonizer dummy	0.635***	0.651**	0.354	0.677** *	0.981** *	0.585**	0.138	0.488**	0.526** *	0.825** *	0.658**	0.403**	0.502** *	0.373**	0.491** *
	(0.133)	(0.260)	(0.278)	(0.139)	(0.281)	(0.268)	(0.235)	(0.196)	(0.201)	(0.205)	(0.289)	(0.174)	(0.161)	(0.178)	(0.178)
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	- 7.945***	- 5.840** *	- 11.948 ***	- 8.662** *	- 7.444** *	- 8.013** *	- 7.572** *	- 4.093** *	- 6.885** *	- 9.160** *	- 11.421 ***	- 9.140** *	- 5.350** *	- 7.595** *	- 9.653** *
	(0.421)	(0.618)	(0.606)	(0.445)	(0.572)	(0.760)	(0.520)	(0.508)	(0.562)	(0.507)	(0.641)	(0.477)	(0.466)	(0.506)	(0.481)
Observations	14,179	7,121	11,051	10,310	8,049	11,720	11,480	6,900	10,777	10,003	9,795	10,427	7,706	12,671	13,004
R-squared	0.790	0.485	0.547	0.773	0.610	0.487	0.549	0.476	0.530	0.743	0.584	0.713	0.628	0.661	0.708

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table A.3: Bilateral Services Imports and openness (entire sample) using PPML

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Total Services Imports		Audiovisual Services Imports	Charges for the use of Intellectual Property	Commercial Services Imports	Computer Services Imports	Financial Services Imports	Insurance Services Imports	IT Services Imports	Personal Services Imports	Professional Services Imports	R&D Services Imports	Technical Services Imports	Telecom Services Imports	Transport Services Imports	Travel Services Imports

			y Imports												
Log (openness)	0.229***	0.711** *	0.710** *	0.169** *	0.644** *	0.993** *	0.733** *	0.901** *	0.223** *	0.466** *	0.454** *	0.479** *	0.527** *	0.214** *	- 0.281** *
	(0.020)	(0.119)	(0.084)	(0.023)	(0.077)	(0.075)	(0.071)	(0.124)	(0.083)	(0.052)	(0.073)	(0.050)	(0.072)	(0.039)	(0.052)
Log (GDP of origin country)	0.186***	0.529** *	0.473** *	0.173** *	0.390** *	0.463** *	0.490** *	0.583** *	0.448** *	0.346** *	0.474** *	0.322** *	0.348** *	0.218** *	0.170** *
	(0.005)	(0.030)	(0.019)	(0.006)	(0.017)	(0.018)	(0.017)	(0.032)	(0.018)	(0.012)	(0.017)	(0.011)	(0.018)	(0.009)	(0.009)
Log (GDP of destinati on country)	0.272***	1.017**	0.710** *	0.295** *	1.028** *	0.030	0.285** *	0.985** *	0.689** *	0.577** *	0.903** *	0.449** *	0.561** *	0.557** *	0.345** *
	(0.030)	(0.417)	(0.165)	(0.035)	(0.161)	(0.139)	(0.102)	(0.306)	(0.223)	(0.093)	(0.210)	(0.068)	(0.180)	(0.072)	(0.060)
Log (Distanc e between capitals of origin and destinati on)	- 0.234***	- 0.693** *	- 0.424** *	- 0.227** *	- 0.493** *	- 0.412** *	- 0.494** *	- 0.738** *	- 0.598** *	- 0.415** *	- 0.399** *	- 0.376** *	- 0.555** *	- 0.290** *	- 0.353** *
	(0.009)	(0.046)	(0.030)	(0.011)	(0.023)	(0.028)	(0.027)	(0.044)	(0.035)	(0.021)	(0.026)	(0.018)	(0.028)	(0.014)	(0.017)
Contigui ty (commo n border) dummy	- 0.161***	- 0.356** *	- 0.323** *	- 0.148** *	- 0.311** *	- 0.306** *	- 0.280** *	- 0.431** *	- 0.305** *	- 0.321** *	- 0.265** *	- 0.245** *	- 0.316** *	- 0.164** *	- 0.097**
	(0.033)	(0.105)	(0.081)	(0.033)	(0.071)	(0.079)	(0.080)	(0.111)	(0.077)	(0.061)	(0.077)	(0.054)	(0.081)	(0.041)	(0.046)
Commo n languag	0.168***	0.266** *	0.176** *	0.161** *	0.184** *	0.384** *	0.362** *	0.272** *	0.357** *	0.227** *	0.168** *	0.200** *	0.241** *	0.176** *	0.214** *

e dummy															
	(0.016)	(0.080)	(0.057)	(0.019)	(0.049)	(0.048)	(0.052)	(0.088)	(0.057)	(0.036)	(0.050)	(0.033)	(0.058)	(0.027)	(0.027)
Colony of origin ever dummy	0.077**	0.302**	0.252**	0.092*	0.140	0.074	0.215	0.420** *	0.329** *	0.128	0.113	0.070	0.206	0.120*	0.081
	(0.038)	(0.138)	(0.118)	(0.048)	(0.129)	(0.109)	(0.160)	(0.122)	(0.127)	(0.101)	(0.091)	(0.082)	(0.130)	(0.069)	(0.065)
Colony of destination ever dummy	0.070	0.649** *	0.100	0.107** *	0.355** *	0.075	0.076	0.507**	0.442** *	0.160**	0.069	0.119*	0.299**	0.105**	0.163** *
	(0.043)	(0.166)	(0.110)	(0.041)	(0.116)	(0.118)	(0.073)	(0.226)	(0.097)	(0.080)	(0.068)	(0.064)	(0.131)	(0.051)	(0.062)
Common colonizer dummy	0.121***	0.327**	0.100	0.117** *	0.379** *	0.115	0.120	0.322**	0.268**	0.349** *	0.303** *	0.229** *	0.241** *	0.130**	0.113**
	(0.029)	(0.152)	(0.121)	(0.032)	(0.083)	(0.087)	(0.116)	(0.129)	(0.108)	(0.064)	(0.100)	(0.057)	(0.076)	(0.055)	(0.048)
Importer dummy	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	- 3.830***	- 19.437***	- 15.724***	- 2.939** *	- 19.016***	- 7.547** *	- 10.694***	- 16.077***	- 10.784***	- 11.025***	- 18.481***	- 8.741** *	- 9.716** *	- 8.709** *	- -1.310*
	(0.517)	(7.006)	(2.845)	(0.394)	(2.735)	(1.417)	(1.145)	(3.117)	(2.266)	(1.633)	(3.451)	(1.189)	(3.080)	(1.242)	(0.672)
Observations	16,295	7,731	12,181	11,503	8,773	12,828	12,624	7,452	11,799	10,818	10,552	11,286	8,385	13,921	14,145
R-squared	0.756	0.581	0.519	0.747	0.665	0.597	0.616	0.554	0.593	0.739	0.736	0.719	0.652	0.664	0.693

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table A.4: Bilateral Services Imports and PMR (entire sample) using PPML

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
	Total Service Imports	Audiovisual Service Imports	Charges for the use of Intellectual Property Imports	Commercial Services Imports	Computer Services Imports	Financial Services Imports	Insurance Services Imports	IT Services Imports	Personal Services Imports	Professional Services Imports	R&D Services Imports	Technical Services Imports	Telecom Services Imports	Transport Services Imports	Travel Services Imports
PMR	- 0.039** *	- 0.171** *	- 0.196** *	- 0.038** *	- 0.090** *	- 0.120** *	- 0.107** *	- 0.167** *	- 0.117** *	- 0.077** *	- 0.091** *	- 0.068** *	- 0.068** *	- 0.043** *	- 0.042** *
	(0.003)	(0.014)	(0.010)	(0.003)	(0.011)	(0.009)	(0.008)	(0.020)	(0.010)	(0.006)	(0.009)	(0.006)	(0.009)	(0.005)	(0.005)
Log (GDP of origin country)	0.163** *	0.444** *	0.407** *	0.162** *	0.321** *	0.348** *	0.412** *	0.487** *	0.434** *	0.303** *	0.427** *	0.276** *	0.306** *	0.205** *	0.212** *
	(0.004)	(0.024)	(0.014)	(0.005)	(0.014)	(0.019)	(0.015)	(0.027)	(0.016)	(0.010)	(0.014)	(0.009)	(0.017)	(0.007)	(0.007)
Log (GDP of destination country)	0.184** *	1.159** *	0.303* 0.233** *	0.233** *	0.954** *	-0.047 0.331** *	0.331** *	0.959** *	0.599** 0.400** *	0.400** *	0.652** *	0.367** *	0.609** *	0.426** *	0.387** *
	(0.030)	(0.420)	(0.160)	(0.036)	(0.170)	(0.149)	(0.079)	(0.336)	(0.237)	(0.095)	(0.191)	(0.065)	(0.183)	(0.080)	(0.072)
Log (Distance between capitals of origin and destination)	- 0.216** *	- 0.557** *	- 0.342** *	- 0.220** *	- 0.444** *	- 0.401** *	- 0.468** *	- 0.624** *	- 0.517** *	- 0.388** *	- 0.343** *	- 0.362** *	- 0.554** *	- 0.286** *	- 0.296** *
	(0.009)	(0.045)	(0.026)	(0.010)	(0.024)	(0.027)	(0.027)	(0.044)	(0.033)	(0.020)	(0.025)	(0.017)	(0.029)	(0.014)	(0.016)

Contiguity (common border) dummy	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0.137**	-	0.248**	0.137**	0.243**	0.232**	0.234**	-	0.252**	0.288**	0.222**	0.222**	0.293**	0.149**	-0.079
	*	0.220**	*	*	*	*	*	0.270**	*	*	*	*	*	*	
	(0.031)	(0.110)	(0.071)	(0.033)	(0.072)	(0.073)	(0.080)	(0.112)	(0.082)	(0.062)	(0.081)	(0.053)	(0.085)	(0.042)	(0.050)
Common language dummy	0.152**	0.253**	0.188**	0.156**	0.163**	0.351**	0.339**	0.243**	0.362**	0.200**	0.148**	0.176**	0.221**	0.169**	0.237**
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	(0.016)	(0.077)	(0.055)	(0.019)	(0.050)	(0.050)	(0.055)	(0.086)	(0.058)	(0.038)	(0.050)	(0.033)	(0.062)	(0.028)	(0.028)
Colony of origin ever dummy	0.019	0.069	-0.083	0.034	0.000	-0.076	0.088	0.134	0.125	-0.004	-0.084	-0.054	0.115	0.085	0.019
	(0.038)	(0.119)	(0.103)	(0.051)	(0.113)	(0.087)	(0.161)	(0.124)	(0.124)	(0.098)	(0.093)	(0.083)	(0.129)	(0.068)	(0.061)
Colony of destination ever dummy	0.085**	0.633**	0.176**	0.110**	0.344**	0.170*	0.057	0.464**	0.417**	0.144**	0.007	0.115**	0.279**	0.109**	0.122*
	*	*	*	*	*			*	*			*	*	*	
	(0.040)	(0.125)	(0.080)	(0.041)	(0.091)	(0.092)	(0.075)	(0.166)	(0.088)	(0.073)	(0.076)	(0.058)	(0.107)	(0.054)	(0.066)
Common colonizer dummy	0.150**	0.350**	0.226**	0.149**	0.404**	0.229**	0.203*	0.361**	0.321**	0.376**	0.346**	0.239**	0.254**	0.158**	0.139**
	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	(0.028)	(0.153)	(0.109)	(0.030)	(0.086)	(0.090)	(0.123)	(0.149)	(0.099)	(0.064)	(0.098)	(0.063)	(0.086)	(0.051)	(0.044)
Importer dummy	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Consta nt	- 0.839** *	- 14.308 ***	- -3.812	- 1.336** *	- 9.414** *	- 2.019	- 6.706** *	- 15.248 ***	- - 9.367**	- 5.130** *	- 11.459 ***	- 4.114** *	- - 7.644**	- 3.815** *	- 4.500** *
	(0.299)	(4.378)	(2.673)	(0.363)	(1.647)	(2.486)	(0.872)	(5.597)	(3.929)	(1.582)	(3.154)	(0.738)	(3.050)	(0.768)	(1.195)
Observ ations	14,179	7,106	11,051	10,310	8,049	11,720	11,480	6,900	10,777	10,003	9,795	10,427	7,706	12,671	13,004
R- squared	0.788	0.628	0.618	0.771	0.671	0.621	0.648	0.586	0.630	0.752	0.744	0.731	0.670	0.687	0.700

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

*Table A.5: Bilateral Services Imports and destination FDI barriers (entire sample)
using PPML*

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
	Total Services Imports	Audiovi sual Service Imports	Charge s for the use of Intellec tual Property Imports	Comm ercial Service Imports	Compu ter Service Imports	Financi al Service Imports	Insuran ce Service Imports	IT Service Imports	Person al Service Imports	Profess ional Service Imports	R&D Service Imports	Techni cal Service Imports	Teleco m Service Imports	Transp ort Service Imports	Travel Service Imports
Destinat ion FDI (disaggr egated PMR)	-0.004***	0.006**	0.000	- 0.005** *	-0.001	- 0.010** *	- 0.013** *	0.002	- 0.005** *	- 0.007** *	- 0.015** *	- 0.005** *	- 0.006** *	- 0.009** *	- 0.003** *
	(0.001)	(0.003)	(0.002)	(0.001)	(0.002)	(0.002)	(0.002)	(0.003)	(0.002)	(0.001)	(0.002)	(0.001)	(0.002)	(0.001)	(0.001)
Log (GDP of origin country)	0.154***	0.423** *	0.377** *	0.152** *	0.307** *	0.321** *	0.397** *	0.463** *	0.412** *	0.296** *	0.429** *	0.265** *	0.277** *	0.191** *	0.205** *
	(0.005)	(0.028)	(0.016)	(0.005)	(0.015)	(0.018)	(0.016)	(0.027)	(0.017)	(0.011)	(0.016)	(0.009)	(0.016)	(0.007)	(0.007)
Log (GDP of	0.174***	0.472** *	0.325** *	0.175** *	0.312** *	0.313** *	0.354** *	0.378** *	0.375** *	0.296** *	0.446** *	0.256** *	0.371** *	0.218** *	0.248** *

destinati on country)															
	(0.005)	(0.022)	(0.015)	(0.005)	(0.013)	(0.017)	(0.016)	(0.022)	(0.016)	(0.011)	(0.016)	(0.009)	(0.014)	(0.008)	(0.007)
Log (Distanc e between capitals of origin and destinati on)	-0.235***	- 0.635** *	- 0.407** *	- 0.230** *	- 0.497** *	- 0.434** *	- 0.517** *	- 0.702** *	- 0.564** *	- 0.464** *	- 0.492** *	- 0.399** *	- 0.550** *	- 0.297** *	- 0.320** *
	(0.010)	(0.047)	(0.030)	(0.012)	(0.027)	(0.036)	(0.030)	(0.044)	(0.035)	(0.023)	(0.034)	(0.019)	(0.028)	(0.016)	(0.016)
Contiguit y (commo n border) dummy	-0.160***	- 0.271**	- 0.227** *	- 0.150** *	- 0.225** *	- 0.202*	- 0.262** *	- 0.340** *	- 0.274** *	- 0.301** *	- 0.273** *	- 0.233** *	- 0.286** *	- 0.160** *	- 0.115**
	(0.031)	(0.127)	(0.083)	(0.032)	(0.076)	(0.105)	(0.086)	(0.115)	(0.096)	(0.064)	(0.102)	(0.052)	(0.078)	(0.041)	(0.046)
Commo n languag e dummy	0.191***	0.269** *	0.183** *	0.172** *	0.115**	0.383** *	0.384** *	0.192**	0.370** *	0.214** *	0.208** *	0.187** *	0.198** *	0.193** *	0.270** *
	(0.018)	(0.095)	(0.060)	(0.020)	(0.053)	(0.067)	(0.062)	(0.091)	(0.067)	(0.043)	(0.070)	(0.035)	(0.052)	(0.030)	(0.029)
Colony of origin ever dummy	0.108**	0.535** *	0.395** *	0.100*	0.132	0.368** *	0.436** *	0.557** *	0.471** *	0.184**	0.168	0.034	0.237**	0.124**	0.126*
	(0.043)	(0.126)	(0.107)	(0.054)	(0.127)	(0.113)	(0.121)	(0.191)	(0.128)	(0.092)	(0.103)	(0.077)	(0.118)	(0.061)	(0.072)
Colony of destinati on ever dummy	0.084**	0.641** *	0.200*	0.108**	0.415** *	0.284** *	0.122	0.735** *	0.418** *	0.210**	0.165	0.175**	0.475** *	0.118**	0.160** *

	(0.039)	(0.137)	(0.106)	(0.043)	(0.097)	(0.100)	(0.093)	(0.158)	(0.099)	(0.088)	(0.135)	(0.076)	(0.132)	(0.054)	(0.059)
Common colonizer dummy	0.090***	0.472** *	0.139	0.097** *	0.400** *	0.216**	0.096	0.630** *	0.367** *	0.236** *	0.175	0.093	0.288** *	0.075	0.102**
	(0.029)	(0.140)	(0.114)	(0.031)	(0.085)	(0.091)	(0.114)	(0.118)	(0.098)	(0.068)	(0.109)	(0.060)	(0.084)	(0.050)	(0.048)
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	-0.824***	-7.398** *	-5.662** *	-0.852** *	-3.762** *	-4.491** *	-5.652** *	-6.316** *	-6.107** *	-3.287** *	-7.462** *	-2.763** *	-3.824** *	-1.707** *	-2.280** *
	(0.093)	(0.482)	(0.305)	(0.099)	(0.261)	(0.383)	(0.316)	(0.468)	(0.342)	(0.198)	(0.315)	(0.174)	(0.284)	(0.144)	(0.142)
Observa tions	14,606	7,443	11,229	10,498	8,404	11,999	11,682	7,116	10,925	10,092	9,908	10,527	8,011	12,908	13,204
R- squared	0.68	0.497	0.463	0.67	0.548	0.461	0.521	0.489	0.522	0.646	0.565	0.617	0.607	0.577	0.628

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table A.6: Bilateral Services Imports under destination services barriers (entire sample) using PPML

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
	Total Services Imports	Audiovi sual Service Imports	Charge s for Intellec tual Propert y Imports	Comm ercial Service Imports	Compu ter Service Imports	Financi al Service Imports	Insuran ce Service Imports	IT Service Imports	Person al Service Imports	Profess ional Service Imports	R&D Service Imports	Techni cal Service Imports	Teleco m Service Imports	Transp ort Service Imports	Travel Service Imports
Destina tion service s barrier (disagg	- 0.003***	- 0.008** *	- 0.007** *	- 0.004** *	- 0.009** *	-0.002	-0.002	- 0.012** *	- 0.006** *	- 0.005** *	- 0.017** *	- 0.007** *	- 0.006** *	- 0.003** *	- 0.003** *

regulated PMR)															
	(0.000)	(0.002)	(0.002)	(0.000)	(0.001)	(0.002)	(0.001)	(0.003)	(0.002)	(0.001)	(0.002)	(0.001)	(0.002)	(0.001)	(0.001)
Log (GDP of origin country)	0.155***	0.426** *	0.377** *	0.154** *	0.310** *	0.325** *	0.400** *	0.469** *	0.415** *	0.301** *	0.436** *	0.268** *	0.280** *	0.196** *	0.206** *
	(0.005)	(0.028)	(0.016)	(0.006)	(0.014)	(0.018)	(0.016)	(0.026)	(0.017)	(0.011)	(0.016)	(0.009)	(0.015)	(0.008)	(0.007)
Log (GDP of destinati on country)	0.171***	0.470** *	0.335** *	0.176** *	0.317** *	0.303** *	0.342** *	0.382** *	0.379** *	0.296** *	0.447** *	0.258** *	0.376** *	0.209** *	0.246** *
	(0.005)	(0.021)	(0.014)	(0.005)	(0.013)	(0.017)	(0.016)	(0.022)	(0.015)	(0.010)	(0.015)	(0.009)	(0.013)	(0.007)	(0.007)
Log (Distanc e between capitals of origin and destinati on)	- 0.247***	- 0.634** *	- 0.419** *	- 0.247** *	- 0.505** *	- 0.456** *	- 0.547** *	- 0.713** *	- 0.584** *	- 0.483** *	- 0.534** *	- 0.414** *	- 0.565** *	- 0.321** *	- 0.334** *
	(0.010)	(0.046)	(0.028)	(0.011)	(0.026)	(0.035)	(0.030)	(0.041)	(0.033)	(0.022)	(0.031)	(0.018)	(0.026)	(0.016)	(0.015)
Contigui ty (commo n border) dummy	- 0.151***	- 0.266** *	- 0.216** *	- 0.146** *	- 0.213** *	- 0.206** *	- 0.272** *	- 0.319** *	- 0.266** *	- 0.297** *	- 0.270** *	- 0.225** *	- 0.280** *	- 0.158** *	- 0.114** *
	(0.032)	(0.121)	(0.078)	(0.032)	(0.073)	(0.105)	(0.087)	(0.106)	(0.093)	(0.063)	(0.099)	(0.051)	(0.077)	(0.042)	(0.046)
Commo n languag e dummy	0.177***	0.310** *	0.163** *	0.159** *	0.137** *	0.356** *	0.354** *	0.232** *	0.344** *	0.202** *	0.183** *	0.178** *	0.199** *	0.172** *	0.260** *

	(0.017)	(0.091)	(0.057)	(0.019)	(0.051)	(0.067)	(0.061)	(0.085)	(0.063)	(0.041)	(0.063)	(0.034)	(0.050)	(0.031)	(0.029)
Colony of origin ever dummy	0.101**	0.526** *	0.380** *	0.091*	0.110	0.375** *	0.446** *	0.519** *	0.470** *	0.179**	0.150	0.023	0.205*	0.118**	0.121*
	(0.040)	(0.125)	(0.103)	(0.049)	(0.121)	(0.110)	(0.115)	(0.173)	(0.120)	(0.087)	(0.103)	(0.072)	(0.114)	(0.057)	(0.069)
Colony of destination ever dummy	0.078**	0.485** *	0.170* *	0.106**	0.270** *	0.299** *	0.147*	0.519** *	0.404** *	0.189**	0.102	0.130**	0.388** *	0.133**	0.154**
	(0.039)	(0.145)	(0.095)	(0.041)	(0.101)	(0.097)	(0.076)	(0.171)	(0.102)	(0.081)	(0.108)	(0.066)	(0.136)	(0.054)	(0.060)
Common colonizer dummy	0.071**	0.396** *	0.095	0.069**	0.323** *	0.220**	0.094	0.536** *	0.334** *	0.212** *	0.089	0.055	0.238** *	0.062	0.083*
	(0.028)	(0.139)	(0.114)	(0.029)	(0.084)	(0.092)	(0.115)	(0.120)	(0.098)	(0.069)	(0.115)	(0.060)	(0.085)	(0.051)	(0.046)
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	- 0.552***	- 6.873** *	- 5.287** *	- 0.568** *	- 3.283** *	- 4.249** *	- 5.309** *	- 5.593** *	- 5.736** *	- 2.955** *	- 6.349** *	- 2.354** *	- 3.525** *	- 1.354** *	- 1.993** *
	(0.093)	(0.509)	(0.296)	(0.100)	(0.260)	(0.368)	(0.329)	(0.491)	(0.348)	(0.198)	(0.323)	(0.175)	(0.304)	(0.149)	(0.148)
Observations	14,529	7,443	11,162	10,431	8,404	11,933	11,617	7,116	10,857	10,040	9,859	10,475	8,011	12,831	13,131
R-squared	0.684	0.501	0.466	0.674	0.556	0.460	0.512	0.504	0.523	0.650	0.590	0.626	0.608	0.570	0.631

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table A.7: Bilateral Services Imports under destination trade and investment barriers (entire sample) using PPML

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
	Total Service Imports	Audiovisual Service Imports	Charges for Intellectual Property Imports	Commercial Service Imports	Computer Service Imports	Financial Service Imports	Insurance Service Imports	IT Service Imports	Personal Service Imports	Professional Service Imports	R&D Service Imports	Technical Service Imports	Telecom Service Imports	Transport Service Imports	Travel Service Imports
Destination trade & investment barrier (disaggregated PMR)	- 0.006***	0.006	-0.002	- 0.008** *	- 0.018** *	- 0.014** *	- 0.019** *	0.007	- 0.013** *	- 0.016** *	- 0.030** *	- 0.009** *	-0.001	- 0.010** *	- 0.010** *
	(0.001)	(0.007)	(0.002)	(0.001)	(0.004)	(0.003)	(0.003)	(0.006)	(0.003)	(0.002)	(0.003)	(0.002)	(0.004)	(0.001)	(0.001)
Log (GDP of origin country)	0.152***	0.423** *	0.376** *	0.149** *	0.305** *	0.318** *	0.393** *	0.463** *	0.409** *	0.290** *	0.420** *	0.262** *	0.277** *	0.188** *	0.200** *
	(0.005)	(0.029)	(0.016)	(0.005)	(0.015)	(0.018)	(0.016)	(0.027)	(0.017)	(0.011)	(0.016)	(0.009)	(0.016)	(0.007)	(0.007)
Log (GDP of destination country)	0.176***	0.472** *	0.328** *	0.178** *	0.301** *	0.313** *	0.356** *	0.382** *	0.379** *	0.294** *	0.440** *	0.256** *	0.372** *	0.216** *	0.254** *
	(0.005)	(0.022)	(0.015)	(0.005)	(0.013)	(0.017)	(0.016)	(0.023)	(0.016)	(0.010)	(0.015)	(0.009)	(0.014)	(0.007)	(0.007)
Log (Distance between capitals of origin and destination)	- 0.228***	- 0.634** *	- 0.402** *	- 0.219** *	- 0.480** *	- 0.418** *	- 0.497** *	- 0.707** *	- 0.542** *	- 0.432** *	- 0.438** *	- 0.384** *	- 0.557** *	- 0.289** *	- 0.302** *
	(0.010)	(0.049)	(0.031)	(0.011)	(0.028)	(0.035)	(0.029)	(0.044)	(0.036)	(0.022)	(0.033)	(0.019)	(0.028)	(0.016)	(0.016)

Contiguity (common border) dummy	- 0.153***	- 0.275**	- 0.224** *	- 0.137** *	- 0.221** *	- -0.190*	- 0.248** *	- 0.343** *	- 0.258** *	- 0.278** *	- 0.242**	- 0.221** *	- 0.283** *	- 0.149** *	- 0.102**
	(0.031)	(0.128)	(0.082)	(0.032)	(0.075)	(0.103)	(0.084)	(0.115)	(0.095)	(0.062)	(0.096)	(0.051)	(0.078)	(0.041)	(0.046)
Common language dummy	0.191***	0.276** *	0.185** *	0.168** *	0.139** *	0.382** *	0.383** *	0.187**	0.376** *	0.224** *	0.231** *	0.189** *	0.186** *	0.187** *	0.275** *
	(0.017)	(0.095)	(0.061)	(0.019)	(0.053)	(0.066)	(0.060)	(0.091)	(0.066)	(0.041)	(0.067)	(0.034)	(0.051)	(0.030)	(0.029)
Colony of origin ever dummy	0.105**	0.538** *	0.388** *	0.093* 0.174		0.347** *	0.405** *	0.552** *	0.448** *	0.165* 0.133	0.133 0.023	0.023 0.225*	0.225* 0.115*	0.115* 0.119	0.119
	(0.043)	(0.125)	(0.108)	(0.052)	(0.130)	(0.111)	(0.117)	(0.187)	(0.126)	(0.092)	(0.103)	(0.076)	(0.117)	(0.060)	(0.073)
Colony of destinati on ever dummy	0.063	0.645** *	0.192* 0.079*	0.079* 0.361** *	0.361** 0.251** *	0.251** 0.076	0.076 0.751** *	0.751** 0.374** *	0.374** 0.162*	0.162* 0.074	0.074 0.153**	0.153** 0.484** *	0.484** 0.096*	0.096* 0.124**	0.124**
	(0.039)	(0.137)	(0.107)	(0.044)	(0.102)	(0.097)	(0.095)	(0.155)	(0.099)	(0.085)	(0.133)	(0.073)	(0.132)	(0.055)	(0.058)
Common colonize r dummy	0.080***	0.465** *	0.134 0.087** *	0.087** 0.427** *	0.427** 0.203**	0.203** 0.079	0.079 0.620** *	0.620** 0.358** *	0.358** 0.239** *	0.239** 0.169*	0.169* 0.092	0.092 0.290** *	0.290** 0.068	0.068 0.091*	0.091*
	(0.029)	(0.141)	(0.114)	(0.031)	(0.083)	(0.092)	(0.115)	(0.119)	(0.096)	(0.067)	(0.102)	(0.060)	(0.084)	(0.050)	(0.048)
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	- 0.849***	- 7.414***	- 5.700** *	- 0.880** *	- 3.562** *	- 4.517** *	- 5.698** *	- 6.381** *	- 6.205** *	- 3.322** *	- 7.503** *	- 2.774** *	- 3.832** *	- 1.681** *	- 2.370** *

	(0.092)	(0.481)	(0.304)	(0.097)	(0.260)	(0.383)	(0.306)	(0.467)	(0.339)	(0.195)	(0.304)	(0.173)	(0.282)	(0.143)	(0.141)
Observations	14,606	7,443	11,229	10,498	8,404	11,999	11,682	7,116	10,925	10,092	9,908	10,527	8,011	12,908	13,204
R-squared	0.683	0.496	0.462	0.676	0.553	0.464	0.526	0.49	0.525	0.658	0.583	0.621	0.607	0.574	0.633

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

9. Appendix B

India as the destination country

Table B.1: Bilateral Imports and Openness, POLS

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	Total Services Imports	Charges for the use of Intellectual Property Imports	Commercial Services Imports	Financial Services Imports	Insurance Services Imports	Personal Services Imports	Professional Services Imports	R&D Services Imports	Technical Services Imports	Transport Services Imports	Travel Services Imports
Log (openness)	1.236*	0.402	0.304	3.151***	0.781	0.302	2.101***	-0.509	1.272	0.900	-0.169
	(0.645)	(0.792)	(0.746)	(0.843)	(0.487)	(0.480)	(0.733)	(0.357)	(0.842)	(0.686)	(0.750)
Log (GDP of origin country)	1.147***	1.151***	1.133***	1.120***	0.554***	0.457***	1.090***	0.806***	1.217***	1.216***	0.920***
	(0.106)	(0.147)	(0.115)	(0.135)	(0.107)	(0.128)	(0.109)	(0.125)	(0.115)	(0.138)	(0.131)
Log (GDP of destination country)	0.663*	1.161***	0.698*	0.038	0.507	1.108**	0.730	1.091***	0.751	-0.155	2.113***
	(0.331)	(0.420)	(0.390)	(0.466)	(0.326)	(0.430)	(0.428)	(0.389)	(0.581)	(0.441)	(0.484)

Log (Distance between capitals of origin and destination)	0.738	-0.103	-0.163	2.552**	0.986	2.393**	2.126**	0.140	-0.196	-1.826**	1.276
	(0.869)	(1.086)	(1.040)	(1.199)	(0.786)	(0.936)	(1.008)	(0.703)	(1.213)	(0.874)	(0.975)
Common language dummy	1.800***	0.397	2.021***	0.650	0.515	0.809***	0.606*	-0.350	0.216	1.630**	2.002***
	(0.294)	(0.541)	(0.326)	(0.402)	(0.312)	(0.279)	(0.311)	(0.362)	(0.482)	(0.683)	(0.580)
Colony of origin ever dummy	-0.286	1.348**	-0.641**	2.033***	2.616***	0.888**	1.291***	1.102***	0.809*	-0.263	0.039
	(0.309)	(0.528)	(0.304)	(0.393)	(0.345)	(0.430)	(0.251)	(0.318)	(0.437)	(0.600)	(0.519)
Colony of destination ever dummy	-	-	-	-	-	-	-	-	-	-	-
Common colonizer dummy	-0.358	-0.771	-0.067	-2.018***	-0.444	-1.295**	-1.885***	-0.370	1.274	-2.581	-1.781
	(0.804)	(0.499)	(0.965)	(0.615)	(1.659)	(0.602)	(0.554)	(0.430)	(1.248)	(1.618)	(1.188)
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	-31.324**	-31.642**	-20.452	-47.555***	-25.824**	-44.779***	-49.797***	-25.545***	-27.827*	2.619	-52.775***
	(11.712)	(14.429)	(15.415)	(15.045)	(10.582)	(11.557)	(11.594)	(6.678)	(13.608)	(10.054)	(12.508)
Observations	293	246	223	237	229	225	198	199	201	274	285
R-squared	0.811	0.672	0.845	0.707	0.561	0.678	0.858	0.775	0.780	0.680	0.736

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table B.2: Bilateral Imports and PMR, POLS

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	Total Services Imports	Charges for the use of Intellectual Property Imports	Commercial Services Imports	Financial Services Imports	Insurance Services Imports	Personal Services Imports	Professional Services Imports	R&D Services Imports	Technical Services Imports	Transport Services Imports	Travel Services Imports
PMR	-0.218***	-0.197**	-0.199***	0.064	0.049	0.067	-0.104**	-0.023	-0.224***	-0.121	0.030
	(0.042)	(0.082)	(0.045)	(0.068)	(0.065)	(0.043)	(0.041)	(0.052)	(0.045)	(0.095)	(0.074)
Log (GDP of origin country)	1.022***	1.148***	1.127***	0.582**	0.477***	0.421***	0.823***	0.889***	1.089***	1.096***	0.907***
	(0.107)	(0.131)	(0.065)	(0.240)	(0.101)	(0.116)	(0.125)	(0.133)	(0.112)	(0.132)	(0.102)
Log (GDP of destination country)	-0.387	0.465	-0.193	0.942	1.058*	1.700***	0.727	1.045*	-0.425	-0.935	2.582***
	(0.425)	(0.664)	(0.481)	(0.698)	(0.538)	(0.561)	(0.536)	(0.545)	(0.682)	(0.717)	(0.801)
Log (Distance between capitals of origin and destination)	-0.710	-0.326	-1.055	4.088**	0.512	2.661**	2.352**	-0.060	-0.973	-2.410*	2.496**
	(0.721)	(0.940)	(0.725)	(1.799)	(1.401)	(1.030)	(0.887)	(0.816)	(1.515)	(1.338)	(1.085)
Common language dummy	1.862***	0.212	2.105***	-0.760	0.533	0.683*	0.060	-0.149	0.308	1.568	1.476**
	(0.331)	(0.572)	(0.311)	(0.524)	(0.461)	(0.354)	(0.325)	(0.395)	(0.489)	(1.074)	(0.555)
Colony of origin ever dummy	-1.151***	0.575	-1.405***	3.124***	2.721***	1.225***	1.008**	0.894**	-0.320	-0.716	0.601

	(0.357)	(0.680)	(0.218)	(0.663)	(0.478)	(0.405)	(0.375)	(0.374)	(0.406)	(1.131)	(0.627)
Colony of destination ever dummy	-	-	-	-	-	-	-	-	-	-	-
Common colonizer dummy	0.323	-0.365	0.239	-1.206	-0.105	-1.221**	-1.164***	-0.440	1.714	-2.206	-1.507
	(0.653)	(0.585)	(0.712)	(1.116)	(1.787)	(0.513)	(0.325)	(0.452)	(1.390)	(1.609)	(1.218)
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	6.931	-14.667	5.201	-	-27.192	-	-	-	6.778	26.555	-
	(9.797)	(14.438)	(10.886)	(20.642)	(18.712)	(14.049)	(10.915)	(8.835)	(11.928)	(18.558)	(18.469)
Observations	274	227	204	221	212	213	188	190	192	255	267
R-squared	0.822	0.709	0.866	0.614	0.539	0.685	0.849	0.768	0.795	0.651	0.743

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table B.3: Bilateral Imports and Openness, PPML

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	Total Services Imports	Charges for the use of Intellectual Property Imports	Commercial Services Imports	Financial Services Imports	Insurance Services Imports	Personal Services Imports	Professional Services Imports	R&D Services Imports	Technical Services Imports	Transport Services Imports	Travel Services Imports
Log (openness)	0.210	0.395	0.046	2.044***	0.746	0.400	1.111***	0.124	0.584*	0.226	-0.072
	(0.129)	(0.340)	(0.141)	(0.609)	(0.487)	(0.621)	(0.410)	(0.445)	(0.325)	(0.248)	(0.200)

Log (GDP of origin country)	0.206***	0.519***	0.206***	0.724***	0.547***	0.400***	0.636***	0.823***	0.550***	0.337***	0.226***
	(0.031)	(0.105)	(0.034)	(0.120)	(0.102)	(0.092)	(0.090)	(0.112)	(0.078)	(0.059)	(0.052)
Log (Distance between capitals of origin and destination)	0.015	-0.281	-0.134	1.062	0.070	1.111**	-0.201	-0.710	-0.774*	-0.529*	0.052
	(0.190)	(0.422)	(0.219)	(0.826)	(0.567)	(0.565)	(0.584)	(0.599)	(0.427)	(0.294)	(0.242)
Common language dummy	0.308***	0.189	0.384***	0.068	0.465	0.642*	0.162	-0.607	0.081	0.427**	0.504***
	(0.070)	(0.217)	(0.078)	(0.297)	(0.344)	(0.376)	(0.212)	(0.481)	(0.219)	(0.197)	(0.134)
Colony of origin ever dummy	-0.064	0.236	-0.140*	0.802**	0.695***	0.381	0.282	0.726*	0.125	-0.108	-0.042
	(0.073)	(0.177)	(0.073)	(0.315)	(0.212)	(0.260)	(0.201)	(0.403)	(0.199)	(0.160)	(0.125)
Common colonizer dummy	-0.003	-0.027	0.031	-0.390	0.096	-0.567	-0.080	0.622	0.690***	-0.634	-0.301
	(0.140)	(0.185)	(0.170)	(0.331)	(0.858)	(0.419)	(0.373)	(0.457)	(0.252)	(0.688)	(0.295)
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	-2.047	-5.413	-0.179	-	-11.059*	-	-10.230	-5.350	-1.837	0.499	-2.315
	(2.240)	(4.926)	(2.540)	(9.115)	(6.051)	(6.615)	(6.282)	(5.966)	(4.682)	(3.822)	(2.420)
Observations	293	246	223	237	229	225	198	199	201	274	285
R-squared	0.729	0.600	0.745	0.702	0.586	0.743	0.820	0.824	0.749	0.589	0.648

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table B.4: Bilateral Imports and PMR, PPML

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	Total Services Imports	Charges for the use of Intellectual Property Imports	Commercial Services Imports	Financial Services Imports	Insurance Services Imports	Personal Services Imports	Professional Services Imports	R&D Services Imports	Technical Services Imports	Transport Services Imports	Travel Services Imports
PMR	-0.051***	-0.155***	-0.050***	-0.019	-0.043	-0.052	-0.093**	-0.094	-0.109***	-0.056**	-0.022
	(0.009)	(0.028)	(0.008)	(0.064)	(0.059)	(0.048)	(0.038)	(0.059)	(0.029)	(0.026)	(0.023)
Log (GDP of origin country)	0.195***	0.566***	0.217***	0.349	0.491***	0.390***	0.451***	0.792***	0.488***	0.325***	0.234***
	(0.026)	(0.076)	(0.025)	(0.220)	(0.147)	(0.085)	(0.103)	(0.122)	(0.078)	(0.040)	(0.043)
Log (Distance between capitals of origin and destination)	-0.304**	-0.857**	-0.382**	1.503	-0.856	0.786	-0.227	-0.974	-1.247**	-0.888**	0.232
	(0.151)	(0.380)	(0.180)	(1.457)	(1.022)	(0.618)	(0.703)	(0.711)	(0.566)	(0.413)	(0.320)
Common language dummy	0.365***	0.324	0.434***	-0.604	0.755	0.663	0.093	-0.256	0.304	0.516*	0.405***
	(0.066)	(0.297)	(0.076)	(0.709)	(0.548)	(0.412)	(0.320)	(0.534)	(0.229)	(0.285)	(0.141)
Colony of origin ever dummy	-0.311***	-0.588**	-0.369***	1.042	0.227	0.088	-0.163	0.058	-0.558**	-0.417	-0.048
	(0.070)	(0.273)	(0.051)	(0.785)	(0.571)	(0.431)	(0.339)	(0.597)	(0.218)	(0.279)	(0.171)
Common colonizer dummy	0.101	0.184	0.090	-0.070	0.326	-0.425	0.133	0.505	0.802***	-0.561	-0.235
	(0.090)	(0.185)	(0.105)	(0.433)	(0.900)	(0.385)	(0.208)	(0.375)	(0.258)	(0.705)	(0.315)

Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	2.399**	2.590	2.752*	-17.265	1.116	-12.283**	-2.161	-0.780	6.865*	5.490	-3.933
	(1.184)	(2.945)	(1.507)	(10.733)	(7.903)	(4.869)	(4.993)	(5.661)	(4.035)	(3.645)	(2.817)
Observations	274	227	204	221	212	213	188	190	192	255	267
R-squared	0.797	0.748	0.808	0.643	0.571	0.758	0.773	0.808	0.736	0.625	0.659

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

India as the origin country

Table B.5: Bilateral Imports and Openness, POLS

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
	Total Services Imports	Audiovisual Services Imports	Charges for the use of Intellectual Property Imports	Commercial Services Imports	Computer Services Imports	Financial Services Imports	Insurance Services Imports	IT Services Imports	Personal Services Imports	Professional Services Imports	R&D Services Imports	Technical Services Imports	Telecom Services Imports	Transport Services Imports	Travel Services Imports
Log (openness)	1.263*	-0.575*	0.455	-0.146	0.622	1.814**	0.357	-0.269	0.826	2.133**	0.098	2.158**	-1.220*	0.379	-0.761
	(0.615)	(0.330)	(0.457)	(1.086)	(1.015)	(0.420)	(0.714)	(0.493)	(0.545)	(0.806)	(1.515)	(0.980)	(0.610)	(0.790)	(1.013)
Log (GDP of origin country)	0.554**	0.792*	0.488	1.242	1.013**	0.405	0.187	0.564	0.866**	0.312	1.923**	0.880*	0.341	0.175	0.769
	(0.214)	(0.408)	(0.404)	(0.825)	(0.462)	(0.567)	(0.332)	(0.346)	(0.389)	(0.409)	(0.834)	(0.485)	(0.488)	(0.626)	(0.457)
Log (GDP of destination)	1.296**	0.048	0.650**	1.208**	1.145**	0.935**	0.490**	0.306*	0.453**	1.345**	0.864**	1.369**	0.588**	1.024**	0.761**
	*		*	*	*	*	*		*	*		*	*	*	*

on country)															
	(0.128)	(0.080)	(0.123)	(0.166)	(0.225)	(0.124)	(0.103)	(0.177)	(0.134)	(0.152)	(0.373)	(0.146)	(0.133)	(0.172)	(0.169)
Log (Distanc e between capitals of origin and destinati on)	0.804	2.224** *	1.468**	-2.364	2.761**	0.239	-0.426	1.903**	1.017	1.698	3.288	1.329	0.579	- 3.666** *	1.483*
	(0.745)	(0.279)	(0.644)	(1.824)	(1.098)	(0.598)	(1.045)	(0.843)	(0.922)	(1.050)	(1.972)	(1.332)	(0.716)	(1.022)	(0.816)
Commo n languag e dummy	0.738	-0.233*	-0.498	0.114	0.294	0.061	0.420	-0.225	0.160	-0.109	-0.390	0.444	-0.377	0.551	-0.216
	(0.538)	(0.126)	(0.386)	(1.046)	(0.758)	(0.233)	(0.587)	(0.249)	(0.358)	(0.716)	(0.912)	(0.697)	(0.368)	(1.142)	(0.781)
Colony of destinati on ever dummy	0.732	3.044** *	2.138** *	1.628	0.524	2.410** *	1.688**	2.556** *	2.311** *	2.187** *	0.605	1.821**	1.996** *	1.036	3.092** *
	(0.491)	(0.206)	(0.390)	(1.123)	(0.710)	(0.255)	(0.618)	(0.462)	(0.457)	(0.686)	(0.975)	(0.696)	(0.373)	(1.056)	(0.668)
Commo n colonizer dummy	0.236	1.851** *	0.540	1.795	0.293	1.693** *	0.498	2.695** *	1.581**	-0.013	0.292	-0.573	0.995** *	0.350	1.836**
	(0.450)	(0.249)	(0.671)	(1.335)	(0.697)	(0.437)	(0.765)	(0.948)	(0.691)	(0.665)	(1.119)	(0.690)	(0.328)	(1.161)	(0.699)
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	- 32.084 ***	- 30.171 ***	- 29.536 ***	-8.984	- 54.227 ***	- 26.070 **	-5.826	- 27.949 **	- 30.819 **	- 41.958 ***	- 68.281 ***	- 48.016 ***	-12.094	17.807 *	- 29.775 **

	(9.603)	(6.312)	(9.677)	(15.385)	(13.333)	(12.484)	(12.774)	(10.206)	(11.165)	(11.065)	(17.249)	(14.194)	(7.583)	(9.102)	(12.028)
Observations	258	164	222	207	206	219	226	171	206	183	180	198	190	245	245
R-squared	0.797	0.794	0.620	0.671	0.715	0.784	0.549	0.779	0.699	0.828	0.578	0.789	0.737	0.568	0.757

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table B.6: Bilateral Imports and PMR, POLS

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	Total Services Imports	Charges for the use of Intellectual Property Imports	Commercial Services Imports	Financial Services Imports	Insurance Services Imports	Personal Services Imports	Professional Services Imports	R&D Services Imports	Technical Services Imports	Transport Services Imports	Travel Services Imports
PMR	-0.286***	0.015	-0.270**	-0.047	0.040	0.082*	-0.318***	-0.273**	-0.289***	-0.202*	-0.139
	(0.053)	(0.076)	(0.095)	(0.074)	(0.053)	(0.046)	(0.062)	(0.115)	(0.070)	(0.115)	(0.082)
Log (GDP of origin country)	-0.962**	0.472	-0.224	0.493	0.251	1.088**	-1.768***	-0.368	-0.695	-1.226	-0.016
	(0.434)	(0.564)	(1.030)	(0.814)	(0.450)	(0.400)	(0.475)	(0.788)	(0.582)	(0.801)	(0.802)
Log (GDP of destination country)	1.093***	0.560***	1.297***	0.610***	0.491***	0.347**	0.996***	0.713*	1.076***	0.988***	0.853***
	(0.116)	(0.130)	(0.143)	(0.143)	(0.086)	(0.130)	(0.164)	(0.368)	(0.108)	(0.162)	(0.141)
Log (Distance between capitals of origin and destination)	0.616	1.750	-6.927**	2.372**	-1.686	2.931***	1.015	2.263	2.039	-5.362**	0.724
	(1.073)	(1.526)	(2.787)	(1.080)	(1.317)	(0.593)	(1.122)	(1.642)	(1.575)	(2.020)	(1.012)

Common language dummy	0.751**	-0.641	0.649	-0.666*	0.429	-0.203	-0.256	-0.361	0.110	0.567	-0.034
	(0.335)	(0.474)	(0.854)	(0.331)	(0.512)	(0.253)	(0.489)	(0.624)	(0.547)	(1.208)	(0.801)
Colony of destination ever dummy	-0.248	2.471***	0.803	2.525***	1.764***	2.413***	0.990	0.303	0.636	0.629	2.792***
	(0.389)	(0.502)	(0.936)	(0.364)	(0.616)	(0.331)	(0.583)	(0.834)	(0.611)	(1.265)	(0.862)
Common colonizer dummy	-0.396	0.242	3.942**	0.306	1.165	0.243	0.591	1.812	-1.810*	1.104	2.291**
	(0.592)	(1.143)	(1.809)	(0.727)	(0.921)	(0.452)	(0.735)	(1.193)	(1.037)	(1.375)	(0.849)
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	4.412	-29.201	56.055**	-34.582*	4.919	-47.918***	13.355	-17.231	-13.902	59.234**	-12.841
	(13.611)	(19.174)	(20.735)	(16.986)	(14.312)	(8.946)	(13.691)	(17.292)	(15.881)	(22.229)	(17.829)
Observations	196	169	155	166	171	156	140	138	151	186	193
R-squared	0.848	0.596	0.742	0.720	0.561	0.766	0.879	0.625	0.853	0.590	0.768

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table B.7: Bilateral Imports and Openness, PPML

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
	Total Services Imports	Audiovisual Services Imports	Charges for the use of Intellectual Property Imports	Commercial Services Imports	Computer Services Imports	Financial Services Imports	Insurance Services Imports	IT Services Imports	Personal Services Imports	Professional Services Imports	R&D Services Imports	Technical Services Imports	Telecom Services Imports	Transport Services Imports	Travel Services Imports

Log (openness)	0.246*	-0.868	0.714	-0.023	0.549	1.588**	*	0.307	1.865*	1.128**	1.067**	*	0.293	0.890**	-0.697	0.121	-0.548
	(0.135)	(1.672)	(0.467)	(0.216)	(0.428)	(0.563)	(0.543)	(1.005)	(0.527)	(0.397)	(0.874)	(0.368)	(0.640)	(0.303)	(0.501)		
Log (GDP of destination country)	0.242**	0.340	0.606**	0.228**	0.495**	0.798**	0.445**	1.030**	0.491**	0.570**	0.442**	0.528**	0.485**	0.372**	0.209**		
	(0.037)	(0.363)	(0.140)	(0.042)	(0.111)	(0.158)	(0.090)	(0.147)	(0.097)	(0.110)	(0.185)	(0.101)	(0.131)	(0.066)	(0.083)		
Log (Distance between capitals of origin and destination)	0.044	4.765**	0.963	-0.488	0.325	0.062	-0.590	1.444	0.704	0.250	0.910	0.059	-0.065	1.210**	*	0.382	
	(0.152)	(1.691)	(0.591)	(0.316)	(0.399)	(0.577)	(0.702)	(1.636)	(0.668)	(0.452)	(0.868)	(0.466)	(0.510)	(0.377)	(0.403)		
Common language dummy	0.193*	-1.626*	-0.307	0.101	0.253	0.300	0.592	-0.695	0.500	0.149	-0.094	0.315	-0.036	0.300	0.032		
	(0.106)	(0.969)	(0.486)	(0.220)	(0.308)	(0.325)	(0.465)	(1.064)	(0.499)	(0.334)	(0.587)	(0.261)	(0.353)	(0.374)	(0.328)		
Colony of destination ever dummy	0.028	2.655**	0.906**	0.177	-0.146	0.540*	0.289	1.700	1.012**	0.198	0.018	0.047	0.235	0.025	0.575**		
	(0.093)	(0.921)	(0.410)	(0.221)	(0.254)	(0.317)	(0.436)	(1.091)	(0.488)	(0.322)	(0.463)	(0.266)	(0.284)	(0.358)	(0.255)		
Common colonizer dummy	-0.042	-0.627	-0.013	0.234	-0.614**	0.123	-0.007	0.080	0.697	0.528**	-0.667*	0.550**	0.665**	-0.126	0.155		
	(0.103)	(0.579)	(0.362)	(0.261)	(0.214)	(0.442)	(0.523)	(1.126)	(0.576)	(0.248)	(0.367)	(0.255)	(0.223)	(0.407)	(0.268)		
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	-2.880	44.891**	19.351***	2.874	10.461**	17.050**	-1.937	34.199**	17.765**	12.614**	-14.299	-9.783*	-3.101	6.328	-3.430		

	(2.013)	(18.778)	(6.521)	(3.636)	(4.639)	(7.451)	(8.231)	(17.261)	(7.824)	(5.429)	(9.021)	(5.322)	(5.092)	(4.600)	(3.900)
Observations	258	198	222	207	206	219	226	171	206	183	180	198	190	245	245
R-squared	0.733	0.758	0.750	0.629	0.678	0.808	0.536	0.842	0.743	0.768	0.550	0.758	0.713	0.543	0.669

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table B.8: Bilateral Imports and PMR, PPML

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
	Total Services Imports	Audiovisual Services Imports	Charges for the use of Intellectual Property Imports	Commercial Services Imports	Computer Services Imports	Financial Services Imports	Insurance Services Imports	IT Services Imports	Personal Services Imports	Professional Services Imports	R&D Services Imports	Technical Services Imports	Telecom Services Imports	Transport Services Imports	Travel Services Imports
PMR	-0.075***	0.001	-0.121	-0.083** *	-0.102**	-0.249** *	-0.003	-0.277**	-0.142*	-0.165** *	-0.189**	-0.148** *	-0.075	-0.089*	-0.134** *
	(0.010)	(0.094)	(0.079)	(0.021)	(0.042)	(0.055)	(0.049)	(0.124)	(0.073)	(0.039)	(0.078)	(0.030)	(0.049)	(0.047)	(0.042)
Log (GDP of destination country)	0.212***	0.506**	0.504** *	0.255** *	0.395** *	0.524** *	0.442** *	0.698**	0.405** *	0.383** *	0.333**	0.401** *	0.558** *	0.373** *	0.307** *
	(0.024)	(0.247)	(0.099)	(0.034)	(0.097)	(0.141)	(0.092)	(0.330)	(0.092)	(0.083)	(0.139)	(0.069)	(0.105)	(0.062)	(0.052)
Log (Distance between capitals of origin and destination)	-0.014	8.715**	1.645	-1.467**	0.147	1.744*	-1.734	-1.102	2.360** *	0.139	0.783	0.155	-0.663	2.243**	0.094
	(0.168)	(3.685)	(1.463)	(0.718)	(0.581)	(1.010)	(1.162)	(5.086)	(0.875)	(0.509)	(0.759)	(0.446)	(0.600)	(0.902)	(0.468)

Common language dummy	0.220***	-3.656*	-0.689	0.226	0.336	-0.561	0.638	-0.937	-0.010	0.072	-0.115	0.262	0.205	0.385	0.164
	(0.072)	(2.145)	(0.974)	(0.169)	(0.337)	(0.627)	(0.476)	(0.970)	(0.530)	(0.300)	(0.472)	(0.261)	(0.326)	(0.398)	(0.356)
Colony of destination ever dummy	-0.232***	4.466**	0.907	-0.073	-0.495*	0.423	0.317	1.460*	0.808	-0.271	-0.288	-0.447*	-0.080	-0.180	0.157
	(0.071)	(2.060)	(0.881)	(0.211)	(0.297)	(0.590)	(0.588)	(0.822)	(0.504)	(0.300)	(0.475)	(0.243)	(0.261)	(0.446)	(0.337)
Common colonizer dummy	-0.127	-1.219*	-0.181	0.678	-	0.457**	-0.143	0.561	2.424	-0.179	-0.283	-0.074	-	0.690**	*
	(0.089)	(0.701)	(0.417)	(0.465)	(0.223)	(0.260)	(0.786)	(2.744)	(0.319)	(0.218)	(0.388)	(0.252)	(0.334)	(0.573)	(0.285)
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	-0.021	-	85.088***	-	12.218**	-	18.934**	9.278	3.155	-	25.255***	-2.881	-7.924	-3.610	-0.210
	(1.460)	(32.488)	(12.645)	(6.131)	(4.331)	(7.663)	(9.471)	(42.388)	(7.443)	(4.105)	(6.135)	(3.483)	(4.743)	(7.934)	(3.934)
Observations	196	128	169	155	156	166	171	131	156	140	138	151	147	186	193
R-squared	0.825	0.854	0.728	0.688	0.690	0.830	0.538	0.825	0.854	0.794	0.614	0.806	0.726	0.541	0.751

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table A.1: Services subsector categorisation

CATEGORIES	SUB-CATEGORIES	DEFINITION
Goods related Services	<ul style="list-style-type: none"> Manufacturing services on physical inputs owned by others Maintenance and repair services n.i.e. 	Covers: Manufacturing services on physical inputs owned by others and Maintenance and repair services n.i.e.
Transport	<ul style="list-style-type: none"> Sea transport Air transport Other modes of transport (other than sea and air) like Rail, Road, Inland, Pipeline 	Includes all transport services involving the carriage of people and objects from one location to another as well as related supporting and auxiliary services. Also included are postal and courier services.
Travel	<ul style="list-style-type: none"> Travel, Business Travel, Personal 	Travel credits cover goods and services for own use or to give away acquired from an economy by non-residents during visits to that economy. Travel debits cover goods and services for own use or to give away acquired from other economies by residents during visits to these other economies.
Other Services	Construction	Construction covers the creation, renovation, repair, or extension of fixed assets in the form of buildings, land improvements of an engineering nature, and other such engineering constructions as roads, bridges, dams, and so forth. It also includes related installation and assembly work. It includes site preparation and general construction as well as specialized services such as painting, plumbing, and demolition. It also includes management of construction projects.
	Insurance and pension services	Insurance and pension services include services of providing life insurance and annuities, nonlife insurance, reinsurance, freight insurance, pensions, standardized guarantees, and auxiliary services to insurance, pension schemes, and standardized guarantee schemes.
	Financial services	Financial services cover financial intermediary and auxiliary services, except insurance and pension fund services. These services include those usually provided by banks and other financial corporations
	Charges for the use of intellectual property n.i.e.	Charges for the use of intellectual property n.i.e. include: <ul style="list-style-type: none"> (a) charges for the use of proprietary rights (such as patents, trademarks, copyrights, industrial processes and designs including trade secrets, franchises) and (b) charges for licenses to reproduce or distribute (or both) intellectual property embodied in produced originals or prototypes (such as copyrights on books and manuscripts, computer software,

	cinematographic works, and sound recordings) and related rights (such as for live performances and television, cable, or satellite broadcast).
Telecommunications, computer, and information services	<p>(1) Telecommunications services encompass the broadcast or transmission of sound, images, data, or other information by telephone, telex, telegram, radio and television cable transmission, radio and television satellite, electronic mail, facsimile, and so forth, including business network services, teleconferencing, and support services. They do not include the value of the information transported. Also included are mobile telecommunications services, Internet backbone services, and online access services, including provision of access to the Internet. Excluded are installation services for telephone network equipment (included in construction) and database services (included in information services).</p> <p>(2) Computer services consist of hardware- and software-related services and data-processing services. They exclude non- customized packaged software (systems and applications), and video and audio recordings on physical media; computer-training courses not designed for a specific user; and leasing of computers without an operator.</p> <p>(3) Information services include news agency services, such as the provision of news, photographs, and feature articles to the media. Other information provision services include database services, direct non-bulk subscriptions to newspapers and periodicals, other online content provision services, and library and archive services.</p>
Other business services	Other business services cover research and development, professional and management consulting and technical, trade-related and other business services.
Personal, cultural, and recreational services	Personal, cultural, and recreational services consist of (a) audiovisual and related services and (b) other personal, cultural, and recreational services.
Government goods and services n.i.e.	<p>Government goods and services n.i.e. cover:</p> <p>(a) goods and services supplied by and to enclaves, such as embassies, military bases, and international organizations; (b) goods and services acquired from the host economy by diplomats, consular staff, and military personnel located abroad and their dependents; and (c) services supplied by and to governments and not included in other categories of services.</p>

A.4 Revealed comparative advantage for services sub-sectors

This section deals with the computation of Revealed Comparative Advantage (RCA) indices. This is an index employing trade data to identify the sectors in which an economy has a comparative advantage, by comparing that country's trade profile with the world average. While using this measure is a standard practice for goods trade, Langhammer (2004) distinguishes and justifies a modified version of this measure to capture comparative advantage in services trade.

Services trade does not only happen through cross-border transactions, but also through mobility of factors or mobility of consumers. Aggregate views on services trade may thus be misleading unless disaggregated information on mode-wise services trade is known. Also, every service subsector has its unique features which makes generalisation difficult. Trade policies that affect domestic performance, like restrictions on setting up foreign subsidiaries, or restrictive migration policies, also play a role in determining services RCA. Additionally, net flow of services could be affected by the degree of internationalization of companies, especially in case of business services like banking, insurance and pension, and financial services. Hence the standard approach of calculating RCA for trade in goods cannot be replicated for services trade.

Langhammer (2004) suggests a different approach in calculating RCA for services which involves the relative performance of exports versus imports by a country in a particular sector as compared to its overall services trade performance.

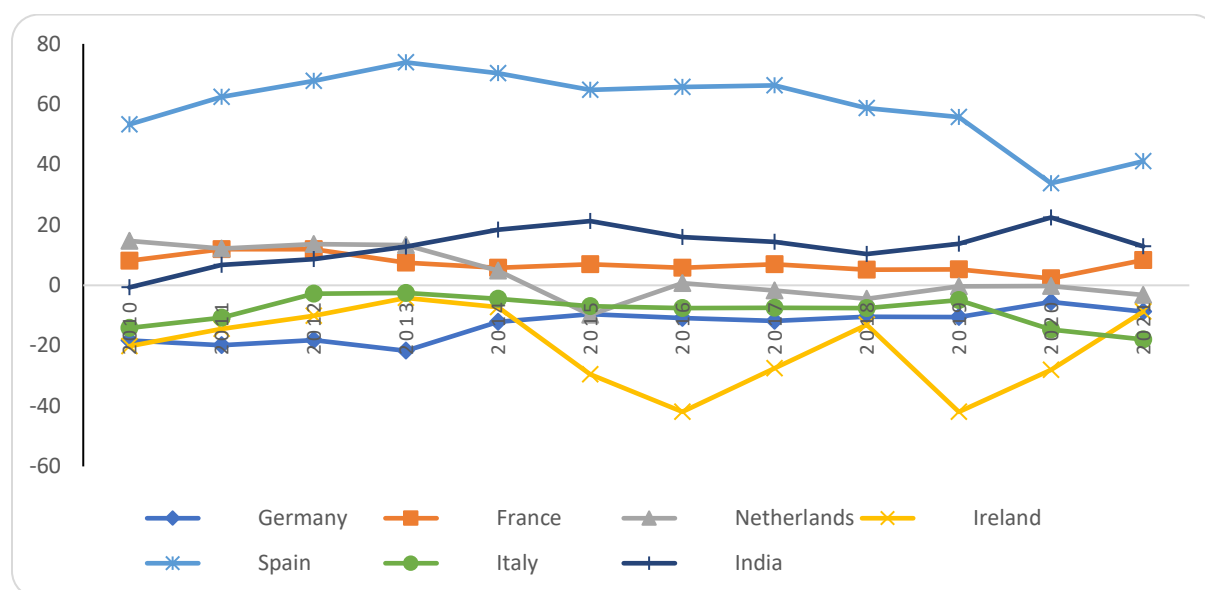
$$RCA_i = \ln \left(\frac{X_i/M_i}{X/M} \right) * 100$$

Where X_i , M_i are exports and imports in service sector i and X , M are exports and imports in total services. A country with a revealed comparative advantage in service subsector i is considered to have an export strength in that service subsector.

The RCA analysis using this technique points to several interesting trends in services trade for India and the EU. For overall services trade (Total Services), India enjoys a

comparative advantage as compared to the RCA measures for major EU member states (Figure A.1), though its volume of services trade is much less than that of Germany, France or Netherlands. The lower RCA for states like Germany and France is indicative of the greater incidence of imports as compared to exports, as also explained by their negative trade balance. Ireland exhibits the highest fluctuations in improving its RCA in total services over the years. Spain, on the other hand, exhibits a higher RCA owing to a greater share of exports in services like Travel as compared to fewer imports across other services.

Figure A.10: RCA Services for Top Exporters and Importers of EU and India



The top services that EU trades in – Transport, Travel, Technical and Trade, Computer and Information services and Financial services show the following EU member states have the comparative advantage. In Transport, Greece enjoys the highest RCA followed by Portugal and Lithuania. Amongst the top member states that deal with the highest volumes of transport services, Germany has a higher comparative advantage as compared to France and Italy. India is at a disadvantage in Transport services with a negative RCA over the years (see Figure A.2).

Figure 11: RCA trends across subsectors of EU member states



In the travel related services, Greece again commands the highest RCA followed closely by Croatia and Malta. Amongst the bulk providers, Italy has a significant edge over Germany, Netherlands and France. India enjoys a comparative advantage as compared to Germany and Netherlands, though its RCA in Travel services has dipped in the last two years (2020-21) due to the pandemic. For the combined category of Telecom, Computer and Information Services, Ireland had the highest RCA and India stood competitively with the second highest RCA.

10. Annexure Tables

Table AT.1: Sector Coverage by the EU in EU Vietnam FTA

Broad sectors committed by the EU	Subsectors committed
Business Services: Professional services	<ul style="list-style-type: none"> • Legal Services (excluding legal advisory, documentation and certification services provided by legal professionals entrusted with public functions) • Accounting and bookkeeping services • Auditing services • Taxation advisory services • Architectural services; Urban planning and landscape architectural services • Engineering services; Integrated engineering services • Medical (including psychologists) and dental services • Veterinary services • Services provided by nurses, midwives, physiotherapists and paramedical personnel • Retail sales of pharmaceuticals, medical and orthopedic goods and other services supplied by pharmacists
Business Services: Computer and related services	All subsectors (listed in the W/120 ⁷⁰ classification list)
Business Services: Research and Development services (M4 not committed)	<ul style="list-style-type: none"> • natural sciences and interdisciplinary sciences • social sciences and humanities (except psychologist services)
Business Services: Real estate services	<ul style="list-style-type: none"> • Involving own or leased property • On a fee or contract basis
Business Services: Rental/leasing services without operators	M4 not committed: <ul style="list-style-type: none"> ❖ Relating to ships ❖ Relating to aircraft ❖ Relating to other transport equipment ❖ Relating to other machinery and equipment • Relating to personal and household goods

⁷⁰ The services sectoral classification list (W/120) is a comprehensive list of services sectors and sub-sectors covered under the GATS. (see <https://unstats.un.org/wiki/pages/viewpage.action?pageId=87426315>)

	<ul style="list-style-type: none"> • Telecommunications equipment rental
Business Services: Other (M4 not committed for many subsectors)	<ul style="list-style-type: none"> • Advertising services; Market research and public opinion polling services; Management consulting services; Advisory and consulting services incidental to manufacturing; Maintenance and repair of equipment (not including maritime vessels, aircraft or other transport equipment); Packaging services; Convention services; Telecommunications consulting services; Telephone answering services • Services related to management consulting • Technical testing and analysis services • Advisory and consulting services incidental to agriculture, hunting and forestry • Advisory and consulting services incidental to fishing • Placement and supply services of personnel; Investigation and security • Related scientific and technical consulting services • Maintenance and repair of vessels, machinery, equipment, personal and household goods; Building-cleaning services; Duplicating services • Photographic services; Printing and publishing • Translation and interpretation services • Interior design and other specialty design services • Collection agency services; Credit reporting services • Services Incidental to Mining • Services incidental to energy distribution
Communication services	All major subsectors, i.e., postal, courier & telecom services, except audiovisual services
Construction services	All subsectors (listed in the W/120 classification list)
Distribution services	M4 not committed: <ul style="list-style-type: none"> ❖ commission agents' services ❖ wholesale trade services • retailing services • franchising services
Educational services (only privately funded)	<ul style="list-style-type: none"> • Primary education services • Secondary education services • Higher education services • Adult education (M4 not committed) • Other education services
Environmental services	All subsectors (listed in the W/120 classification list)
Financial services	<ul style="list-style-type: none"> • Both major subsectors in the W/120 classification list, i.e., insurance and insurance-related services • banking and other financial services
Health related and social services	<ul style="list-style-type: none"> • Hospital services • Residential health facilities other than hospital services • Social Services (M4 not committed)

(only privately funded)	
Tourism and travel related services	<ul style="list-style-type: none"> • hotel, restaurants and catering excluding catering in air transport services • travel agencies and tour operator services (including tour managers) • tourist guide services
Recreational, cultural and sporting services (other than audiovisual services)	<ul style="list-style-type: none"> ❖ entertainment services (including theatre, live bands, circus and discotheque services) ❖ M4 not committed: ❖ news and press agencies services ❖ libraries, archives, museums and other cultural services ❖ sporting services ❖ recreation park and beach services
Transport services	<ul style="list-style-type: none"> • maritime transport services • rail transport services (M4 not committed) • road transport services • pipeline transport services • services auxiliary to all modes of transport • other transport services (M4 not committed)
Other services not included elsewhere	Washing, cleaning and dyeing services; Hairdressing services; Cosmetic treatment, manicuring and pedicuring services; Spa services and non-therapeutical massages to the extent that they are provided as relaxation physical well-being services and not for medical or rehabilitation purposes; Other beauty treatment services

Source: Compiled from EVFTA text available in the Official Journal of the European Union, Volume 63, 12 June 2020

Table AT.2: Restrictions in the EU across all sectors by modes in the EU Vietnam FTA

Modes 1 and 2	Mode 3	Mode 4
Real estate restrictions apply in Austria, Bulgaria, Cyprus, Czechia, Denmark, Greece,	<ul style="list-style-type: none"> • Real estate restrictions applicable in Austria, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Greece, Finland, Hungary, Ireland, Italy, Latvia, Lithuania, Malta, Poland, Romania, Slovenia, Slovakia. • Various conditions on Managing Directors and auditors apply in 	<ul style="list-style-type: none"> • Commitments on business visitors (BV), intra-corporate transferees (ICT) and contractual service suppliers (CSS) do not apply where the intent or effect of their temporary presence is to interfere with, or otherwise affect the outcome of, any labour or management dispute or negotiation. • Sectors where economic needs tests (ENTs) are applied, main criteria will be the assessment of the relevant market situation in the MS or the region where the service is to be provided, including with

Finland, Hungary, Ireland, Italy, Lithuania, Malta, Poland, Romania, Slovenia, Slovakia.	<p>Austria, Finland, France, Romania, Sweden.</p> <ul style="list-style-type: none"> • Economic activities considered as public utilities at a national or local level may be subject to public monopolies or to exclusive rights granted to private operators. • Treatment accorded to subsidiaries (of Vietnam's companies) formed in accordance with the law of the MS and having their registered office, central administration or principal place of business within the Union is not extended to branches or agencies established in the MS by Vietnam's companies. This does not prevent a MS from extending this treatment to branches or agencies established in another MS by a third- country company or firm, as regards their operation in the first MS's territory, unless such extension is explicitly prohibited by Union law. • Other establishment conditions apply in Belgium, Poland, Estonia, Finland, Italy, Romania, Sweden, Slovakia. • Conditions on investment apply on Belgium, Denmark, Spain, France, Finland, Hungary and Italy. 	<p>respect to the number of, and the impact on, existing services suppliers. It does not affect the rights and obligations of MS arising from Union law. Union directives on mutual recognition of diplomas only apply to the citizens of the Union. The right to practise a regulated professional service in one MS of the Union does not grant the right to practise in another MS. Requirements pursuant to the laws and regulations of the Union regarding entry, stay, work and social security measures continue to apply, including regulations concerning period of stay, minimum wages and collective wage agreements apply.</p> <ul style="list-style-type: none"> • In Bulgaria: Number of ICTs not to exceed 10% of the average annual number of EU citizens employed by the respective Bulgarian juridical person. Where fewer than 100 people are employed, the number may, subject to authorisation, exceed 10% of the total employees. • In Hungary: Fully closed for a natural person who has been a partner in a juridical person of Vietnam. • For trainee employees, in Austria, Germany, Spain, France, Hungary, Lithuania, Slovakia: training must be linked to the obtained university degree. • Conditions on Managing Directors and auditors apply in Austria, Finland, France, Romania, Sweden.
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Source: Compiled from EVFTA text available in the Official Journal of the European Union, Volume 63, 12 June 2020

**Table AT.3.: Non-conforming Measures of Australia under the India Australia
Economic Cooperation and Trade Agreement**

Non-conforming Measures of Australia: Sectors	Measures
All	<p>The following investments are subject to approval by the Australian Government and may also require notification⁴ to the Australian Government: (a) proposed investment by a foreign person in an entity or Australian business valued above A\$500 million; (b) proposed investment by a foreign person in an entity or Australian business valued above A\$289 million relating to a sensitive business or its assets; (c) proposed direct investment by a foreign government investor of any interest regardless of value; (d) proposed investment by a foreign person of five per cent or more in the media sector, regardless of the value of the investment; (e) proposed acquisition by a foreign person of an interest in developed commercial land where the value of the interest is more than A\$500 million unless the land meets the conditions for the lower developed commercial land threshold of A\$63 million</p> <p>Separate or additional requirements may apply to measures subject to other existing measures and to sectors, sub-sectors or activities where Australia adopt new or more restrictive measures;</p> <p>The acquisition of a stake in an existing financial sector company by a foreign investor is also restricted.</p> <p>Residency condition for directors and secretaries of both private and public companies.</p> <p>Additional local regulations apply in various regions.</p> <p>Further, Australia reserves the right to adopt or maintain any measure</p> <ul style="list-style-type: none"> • that accords preferences to any Indigenous person or organisation or providing for the favourable treatment of any Indigenous person or organisation. • with respect to a proposed acquisition by a foreign person in Australian land other than developed commercial land or land that is used wholly and exclusively for a primary production business. • with respect to the provision of law enforcement and correctional services, and services to the extent that they are social services established or maintained for a public purpose: income security or insurance, social security or insurance,

	<p>social welfare, public education, public training, health, childcare, public utilities, public transport, and public housing.</p> <ul style="list-style-type: none"> Some regional level market access obligation including transport services
Professional Services	Regional level regulations apply in various regions.
Professional services: legal	To register to practise in Australia, a patent attorney must have been employed for at least two continuous years, or a total of two years within five continuous years, in Australia or New Zealand, or in both countries, in a position or positions that provided the applicant with required experience in Australia's and New Zealand's patent attorney regime.
Professional services: migration services	To practise as a migration agent in Australia, a person must be an Australian citizen or permanent resident or a citizen of New Zealand with a special category visa.
Professional services: customs brokerage	Supplier must supply the service in and from Australia.
Professional services: Auditing and liquidation services	Different LP conditions apply in Australia as well as at regional level in New South Wales and Victoria.
Business services: Architectural services, research and development services, real estate services, mining and related services, Security services, services incidental to fishing, pharmacies	<p>NT & LP related regional level regulations apply; MA related regional level regulations apply to real estate services and pharmacies; for services incidental to fishing national level regulations and market access obligation also applicable.</p> <p>Australia reserves the right to adopt or maintain any measure with respect to access to and use of the biological resources and fishing grounds situated in the Australian Fishing Zone or waters under the jurisdiction of a state or territory.</p>
Communication services: Telecommunications	<p>Aggregate foreign equity is restricted to no more than 35% shares of Telstra (Australia's leading telecommunications and technology company). Individual or associated group foreign investment is restricted to no more than five per cent shares.</p> <p>The chairperson and a majority of directors of Telstra must be Australian citizens and Telstra is required to maintain its head office, main base of operations, and place of incorporation in Australia.</p>
Broadcasting and Audiovisual Services (excluding foreign	Australia reserves the right to adopt or maintain any measure with respect to:

investment restrictions in broadcasting and audiovisual services), Advertising Services Live Performance	<p>(a) transmission quotas for local content on free-to-air commercial television broadcasting services;</p> <p>(b) non-discriminatory expenditure requirements for Australian production on subscription television broadcasting services;</p> <p>(c) transmission quotas for local content on free-to-air radio broadcasting services;</p> <p>(d) other audiovisual services transmitted electronically, to make Australian audiovisual content reasonably available to Australian consumers;</p> <p>(e) spectrum management and licensing of broadcasting services; and</p> <p>(f) subsidies or grants for investment in Australian cultural activity.</p>
Distribution services	<p>MA, NT & LP related regional level regulations apply</p> <p>Australia reserves the right to adopt or maintain any measure with respect to wholesale and retail trade services of tobacco products, alcoholic beverages, or firearms.</p>
Educational services	<p>Market access related regional level regulations apply</p> <p>Australia reserves the right to adopt or maintain any measure with respect to primary education.</p>
Environmental services	<p>Australia reserves the right to adopt or maintain any measure with respect to water, including for domestic, industrial, commercial, agricultural, environmental, cultural, or other uses.</p>
Financial services: insurance services	<p>Approval of non-resident life insurers is restricted to subsidiaries incorporated under Australian law.</p> <p>Comcare, a Commonwealth Government agency, is the monopoly provider of workers' compensation insurance for Commonwealth Government employees.</p> <p>Additional regional level NT and LP regulations apply in some subsectors.</p>
Financial services: Banking	<p>Subject to various conditions such as:</p> <ul style="list-style-type: none"> Foreign bank located overseas can offer its services to Australian enterprises but not allowed to raise deposit funds in Australia or undertake business within Australia unless it is an

	<p>authorised bank (or establishes a money market corporation, subsidiary, etc.).</p> <ul style="list-style-type: none"> Foreign banks located overseas may only raise funds in Australia through the issue of debt securities, provided those securities are offered or traded in parcels of not less than A\$500,000 and the securities and any associated information memoranda clearly state that the issuing bank is not authorised under the Banking Act 1959 in Australia.
Financial services	<ul style="list-style-type: none"> Australia reserves the right to adopt or maintain any measure imposing non-discriminatory limitations on juridical form for juridical persons supplying financial services and constituted under Australian laws. For example, partnerships and sole proprietorships are generally not acceptable juridical forms for authorised depository institutions in Australia. with respect to the guarantee by the government of government-owned entities whose operations include the provision of financial services, including guarantees related to the privatisation of such entities. regarding solicitation. Some regional measures.
Human health services	National and regional level regulations apply
Recreational, cultural and sporting services	<p>NT & LP related regional level regulations apply.</p> <p>Australia reserves the right to adopt or maintain any measure with respect to the creative arts, indigenous traditional cultural expressions, and other cultural heritage</p>
Transport services	<p>MA, NT and LP requirement obligations apply at regional level to various subsectors; for supporting services for air transport and pipeline regulations are applicable at national level as well</p> <p>Australia reserves the right to adopt or maintain any measure with respect to</p> <ul style="list-style-type: none"> maritime cabotage services and offshore transport services and investment in federal leased airports. limit the number of licences in force for any class of commercial passenger vehicle and operation or ownership of ports in the Northern Territory.

Source: Compiled from text of agreement available at <https://commerce.gov.in/international-trade/trade-agreements/>

Table AT.4.. GATS Services Sectoral List

SECTORS AND SUB SECTORS	
1	BUSINESS SERVICES
A.	Professional Services
a.	Legal Services
b.	Accounting, auditing and bookkeeping services
c.	Taxation Services
d.	Architectural services
e.	Engineering services
f.	Integrated engineering services
g.	Urban planning and landscape architectural services
h.	Medical and dental services
i.	Veterinary services
j.	Services provided by midwives, nurses, physiotherapists and para-medical personnel
k.	Other
B.	Computer and Related Services
a.	Consultancy services related to installation of computer hardware
b.	Software implementation services
c.	Data processing services
d.	Data base services
e.	Other
C.	Research and Development (R&D) Services
a.	R&D services on natural sciences
b.	R&D services on social sciences and humanities
c.	Interdisciplinary R&D services
D.	Real Estate Services
a.	Involving own or leased property
b.	On a fee or contract basis
E.	Rental/Leasing Services without Operators
a.	Relating to ships
b.	Relating to aircraft
c.	Relating to other transport equipment
d.	Relating to other machinery and equipment
e.	Other
F.	Other Business Services
a.	Advertising services
b.	Market research and public opinion polling services
c.	Management consulting service
d.	Services related to management consulting
e.	Technical testing and analysis services

f.	Services incidental to agriculture, hunting and forestry
g.	Services incidental to fishing
h.	Services incidental to mining
i.	Services incidental to manufacturing
j.	Services incidental to energy distribution
k.	Placement and supply services of Personnel
l.	Investigation and security
m.	Related scientific and technical consulting services
n.	Maintenance and repair of equipment (not including maritime vessels, aircraft or other transport equipment)
o.	Building-cleaning services
p.	Photographic services
q.	Packaging services
r.	Printing, publishing
s.	Convention services
t.	Other
2	COMMUNICATION SERVICES
A.	Postal services
B.	Courier services
C.	Telecommunication services
a.	Voice telephone services
b.	Packet-switched data transmission services
c.	Circuit-switched data transmission services
d.	Telex services
e.	Telegraph services
f.	Facsimile services
g.	Private leased circuit services
h.	Electronic mail
i.	Voice mail
j.	On-line information and data base retrieval
k.	Electronic Data Interchange (EDI)
l.	Enhanced/value-added facsimile services, including store and forward, store and retrieve
m.	Code and protocol conversion
n.	On-line information and/or data processing (including transaction processing)
o.	Other
D.	Audiovisual services
a.	Motion picture and video tape production and distribution services
b.	Motion picture projection service
c.	Radio and television services
d.	Radio and television transmission services
e.	Sound recording
f.	Other

E.	Other
3	CONSTRUCTION AND RELATED ENGINEERING SERVICES
A.	General construction work for buildings
B.	General construction work for civil engineering
C.	Installation and assembly work
D.	Building completion and finishing work
E.	Other
4	DISTRIBUTION SERVICES
A.	Commission agents' services
B.	Wholesale trade services
C.	Retailing services
D.	Franchising
E.	Other
5	EDUCATIONAL SERVICES
A.	Primary education services
B.	Secondary education services
C.	Higher education services
D.	Adult education
E.	Other education services
6	ENVIRONMENTAL SERVICES
A.	Sewage services
B.	Refuse disposal services
C.	Sanitation and similar services
D.	Other
7	FINANCIAL SERVICES
A.	All insurance and insurance-related services
a.	Life, accident and health insurance services
b.	Non-life insurance services
c.	Reinsurance and retrocession
d.	Services auxiliary to insurance (including broking and agency services)
B.	Banking and other financial services (excluding insurance)
a.	Acceptance of deposits and other repayable funds from the public
b.	Lending of all types, incl., inter alia, consumer credit, mortgage credit, factoring and financing of commercial transaction
c.	Financial leasing
d.	All payment and money transmission services
e.	Guarantees and commitments
f.	Trading for own account or for account of customers, whether on an exchange, in an over-the-counter market or otherwise, the following:
money market instruments (cheques, bills, certificate of deposits, etc.)	
foreign exchange	

derivative products including, but not limited to futures and options	
exchange rate and interest rate instruments, including products such as swaps, forward rate agreements, etc.	
transferable securities	
other negotiable instruments and financial assets, including bullion	
g.	Participation in issues of all kinds of securities, including under-writing and placement as agent (whether publicly or privately) and provision of service related to such issues
h.	Money broking
i.	Asset management, such as cash or portfolio management, all forms of collective investment management, pension fund management, custodial depository and trust services
j.	Settlement and clearing services for financial assets, including securities, derivative products, and other negotiable instruments
k.	Advisory and other auxiliary financial services
l.	Provision and transfer of financial information, and financial data processing and related software by providers of other financial services
C.	Other
8	HEALTH RELATED AND SOCIAL SERVICES (other than those listed under 1.A.h-j.)
A.	Hospital services
B.	Other Human Health Services
C.	Social Services
D.	Other
9	TOURISM AND TRAVEL RELATED SERVICES
A.	Hotels and restaurants (including catering)
B.	Travel agencies and tour operators' services
C.	Tourist guides services
D.	Other
10	RECREATIONAL, CULTURAL AND SPORTING SERVICES (other than audiovisual services)
A.	Entertainment services (including theatre, live bands and circus services)
B.	News agency services
C.	Libraries, archives, museums and other cultural services
D.	Sporting and other recreational services
E.	Other
11	TRANSPORT SERVICES
A.	Maritime Transport Services
a.	Passenger transportation
b.	Freight transportation

c.	Rental of vessels with crew
d.	Maintenance and repair of vessels
e.	Pushing and towing services
f.	Supporting services for maritime transport
B.	Internal Waterways Transport
a.	Passenger transportation
b.	Freight transportation
c.	Rental of vessels with crew
d.	Maintenance and repair of vessels
e.	Pushing and towing services
f.	Supporting services for internal waterway transport
C.	Air Transport Services
a.	Passenger transportation
b.	Freight transportation
c.	Rental of aircraft with crew
d.	Maintenance and repair of aircraft
e.	Supporting services for air transport
D.	Space Transport
E.	Rail Transport Services
a.	Passenger transportation
b.	Freight transportation
c.	Pushing and towing services
d.	Maintenance and repair of rail transport equipment
e.	Supporting services for rail transport services
F.	Road Transport Services
a.	Passenger transportation
b.	Freight transportation
c.	Rental of commercial vehicles with operator
d.	Maintenance and repair of road transport equipment
e.	Supporting services for road transport services
G.	Pipeline Transport
a.	Transportation of fuels
b.	Transportation of other goods
H.	Services auxiliary to all modes of transport
a.	Cargo-handling services
b.	Storage and warehouse services
c.	Freight transport agency services
d.	Other
I.	Other Transport Services
12	OTHER SERVICES NOT INCLUDED ELSEWHERE

Source: https://www.wto.org/english/tratop_e/serv_e/serv_sectors_e.htm accessed: 15-9-23

Table AT.5.: Data and Privacy concerns regarding India's services sectors

Sector	Data and privacy concerns
IT and ITes Services	The trade in IT and ITes services involves enormous cross-border transfer of data. This raises concerns regarding data ownership, localization, secondary use, and cybersecurity for data in transit.
Travel and Transportation Services	Transportation services give rise to privacy concerns in collecting customer leads, maintaining and storing international employee databases, and transferring personal data to third parties for reporting or operations purposes.
Insurance, Pension and Financial Services	The financial sector is the primary target for data breaches. Enormous amounts of sensitive financial data are used and transferred between borders. Such service providers are required to incorporate dual cybersecurity measures for employees and consumers and implement robust privacy mechanisms for data ownership and deanonymization.
Construction Services	Cross-border construction services are facing emerging privacy concerns due to the growth of cloud computing and Building Information Modelling systems. In addition, the industry is raising challenging questions regarding storing proprietary building and financial information and levels of access between different members of building teams.
Personal, Cultural and Recreational Services	Personal, cultural and recreational services are increasingly being conducted through virtual reality and augmented reality systems, requiring event hosts and streaming platforms to consider policies for the level of anonymity they seek to allow, biometric privacy for artists' holographic models and issues of recordings and intellectual property.

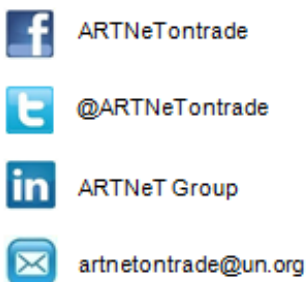
Source: Overview of India's Trade in Services and General Data Considerations, ELP



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