TRADE IN SERVICES

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Services play a crucial role in the global economy. It is hard to imagine economic activities that do not involve business or financial services, transportation or telecommunication services, just to name a few. That is why services are viewed as the backbone of economic activities. In advanced countries, services represent between 60 to 80 percent of national GDP, and account for a similarly high share of employment. Developing countries find themselves not that much behind. This puts the worldwide share of services in global GDP at 64 percent. Developments in communication and information technologies have greatly facilitated international trade in services. This has led to services becoming the fastest growing component of global trade. Services are also responsible for the majority of foreign direct investments (FDI) worldwide. For all these reasons, it is important to understand what trade in services is, its scope, its determinants, and its main implications.

I. Broad Description of Services Trade

In accordance with the System of National Accounts, services are understood as the result of productive activities that: i) change the conditions or the functions of the consuming units, or ii) facilitate the exchange of products and financial assets. The first category of services involves alterations in the conditions of the consuming units through actions performed by the service producers at the consumers' request. These transformation services may involve goods owned by consumers (e.g., cleaning or repairs), may involve the physical condition of individuals (e.g., medical or cosmetic services, accommodation services), or the mental condition of individuals (e.g., education, information, or entertainment services). The second category of services facilitate the market transactions of goods, intellectual property, or financial assets. These services are typically provided by wholesalers, retailers, or financial institutions. They play a vital role in enabling the smooth exchange and distribution of goods and financial assets, supporting efficient market operations between economic agents.

From this broad definition, it becomes clear that services account for a wide range of economic activities. Although not all services are tradeable across national borders, an increasing number of them are, thanks to developments in transportation, information and communication technologies. According to the 2010 Extended Balance of Payments Services Classification (EBOPS), trade in services includes:

1. Manufacturing services on inputs owned by others
2. Maintenance and repair services not included elsewhere (n.i.e.)
3. Transportation services
4. Travel services
5. Construction services
6. Insurance and pension services
7. Financial services
8. Charges for the use of intellectual property (n.i.e.)
9. Telecommunications, computer, and information services
10. Other business services
11. Personal, cultural, and recreational services
12. Government goods and services not included elsewhere (n.i.e.)

As it can be noticed, there is significant heterogeneity among tradeable services in scope, production or delivery methods. Despite this, services are characterized by some common features that distinguish them from goods in several important ways.

First, services are intangible in that they cannot be touched or seen (e.g., education or consulting services), and often involve tacit knowledge. This makes their production and delivery more complex, particularly when considering cross-border trade. Second, services are generally inseparable, meaning that production and consumption needs to happen simultaneously. This often involves the provider and the client to be physically present together. For example, hotels must be located where the guests wish to stay, architectural services must be provided on-site, and medical services traditionally require both the doctor and the patient to be physically present. Third, services are non-storable and, as such, they cannot be saved for future use in the same way that goods can.

Because of these unique characteristics that distinguish services from goods, it is important to give special consideration to the ways in which services get traded internationally. There is a well-established multilateral institution – the General Agreement on Trade in Services (GATS) – that is focused on all issues pertaining to international services trade. Under the GATS, trade in services is categorized into four modes:

- **Mode 1: Cross-border supply**: The service originates in the territory of one country and gets delivered to another country.
    - Example: A U.S.-based software company providing cloud services to Japanese businesses.
- **Mode 2: Consumption abroad**: The service is supplied within the territory of one country to consumers originating from another country.
    - Example: A German tourist booking a hotel room online while on vacation in Australia.
- **Mode 3: Commercial presence**: The service provider establishes a commercial presence in another country.
    - Example: A British consulting firm opening an office in China to offer management advisory services.
- **Mode 4: Presence of natural persons**: Individuals from one country travel to another country to provide the contracted services.
    - Example: An Italian architect visiting Brazil to provide design services for a construction project.

This classification captures the different channels through which services can be traded internationally, from physical presence to digital platforms and to the mobility of service personnel. It is important to note that these categories are not mutually exclusive and that many services are traded using multiple modes. In fact, understanding the degree of substitution or complementarity between the four modes of trade is important when considering policy interventions meant to reap the benefits of globalization. If, for example, mode 1 and mode 3 are complements in the trade of financial services, then liberalizing just one mode of supply will not help grow trade in financial services to its full potential. If, on the contrary, mode 1 and mode 3 are substitute modes of supply, liberalizing them separately will still achieve the desired level of openness.

II. Determinants of Trade in Services

How important is trade in services? As the structure of economic production continues to expand globally, services trade plays an increasingly significant role. According to the United Nations Conference on Trade and Development (UNCTAD) Handbook of Statistics 2024, world services exports reached $7.9 trillion in 2023, representing 26% of global exports of goods and services, and a growth of 8.3% relative to 2022. Developing countries accounted for 30% of global services exports in 2023, with the top five developing nations alone representing 17% of the total. The largest service exporters in 2023 among developing countries were China, India, and Singapore, while the United States, the United Kingdom, and Germany led the charts among developed nations. All these countries saw significant growth in their services exports in 2023 compared to 2022. For developed countries, the most exported services are business services, including finance and insurance. In contrast, for developing countries, transportation and travel services play a crucial role in their services exports.

There are several important factors that have contributed to the rapid growth of trade in services over the last several decades. We discuss the key factors below.

A. Technological advancements:

One of the primary drivers of trade in services is the rapid growth of technology, particularly in information and communication technologies (ICT). The rise of the internet, cloud computing, and telecommunication networks have enabled businesses to offer services remotely. For instance, companies can now outsource customer support, IT services, and even medical diagnostics to countries like India and the Philippines, where skilled labor is available at lower costs.

B. Liberalization and trade agreements:

Multilateral trade agreements such as the General Agreement on Trade in Services (GATS), developed under the guidance of the Word Trade Organization (WTO), have opened up service sectors to international competition. This has facilitated cross-border trade in services such as banking, insurance, and telecommunications. The European Union's Single Market is a notable example, where member countries enjoy free movement of services, allowing businesses to operate seamlessly across borders.

Moreover, according to the WTO database on Regional Trade Agreements (RTAs), of the 373 RTAs currently in effect, 54 percent cover both goods and services trade. Negotiating simultaneously conditions for goods and services trade can generate important benefits for signatory countries, in part because of the known complementarities between goods and services trade and in part because of a wider scope for concessions bargaining (e.g., gaining market access on service exports by lowering barriers on goods imports).

C. Globalization-driven demand forces:

As businesses expand internationally, the need for specialized services such as legal consulting, financial advisory, and research and development grows. For example, multinational companies often seek expertise from global accounting firms to navigate complex tax and regulatory environments. Similarly, financial hubs like New York and London provide financial services that are in high demand worldwide.

D. Fragmentation of production:

The ability to split production across countries to minimize costs has transformed the landscape of international trade. In line with this, companies often outsource services to countries where labor costs are lower, driving trade in services. For example, many US and European companies outsource software development, customer support, and back-office operations to countries like India and the Philippines. This has led to a booming trade in business process outsourcing (BPO) and IT-enabled services.

E. Digital platforms and e-commerce

The rise of digital platforms, such as Amazon Web Services (AWS) for cloud computing, Upwork for freelance work, and Coursera for online education, has made it easier to trade services online. These platforms have broken down traditional geographic barriers, allowing service providers to reach a global audience.

F. Increased global mobility

The movement of professionals across borders – facilitated by technological advancements in air passenger transport, more relaxed immigration and visa policies in some regions, or better coordination of regulation across countries – has also contributed to service trade growth. For example, healthcare professionals and engineers often work in countries where their skills are in high demand, providing services across borders.

Together, these drivers have accelerated the global trade of services, making it easier for businesses to source, provide, and deliver a large menu of services across the world. However, the policy work is not fully done. Going forward, it is important for countries to make continued efforts to remove policy restrictions and regulations affecting services trade (Cristea et al., 2017). In comparison to goods trade, services face more barriers that negatively impact their cross-border trade. Measuring the magnitude of such frictions is challenging because of several reasons. Services are mostly subject to non-tariff barriers, which are very heterogeneous in nature and difficult to aggregate. Many times, barriers take place "behind the border" and are hidden under the guise of domestic regulation (e.g., discriminatory licensing for foreign service suppliers, barriers to foreign investments in services, etc.). As a result, making comparisons in the restrictiveness of services trade across sectors and across countries becomes a real challenge. Borchert et al. (2014) makes important contributions by constructing a global database on Services Trade Restrictions Indexes (STRIs). The study finds that transportation (particularly air transport) and some of the professional services (e.g., legal, accounting) are among the most restricted sectors to international trade. Across regions, some of the fastest-growing countries in Asia and the Gulf states have the most restrictive trade policies, while some of the poorest countries are remarkably open. Despite significant heterogeneities across countries, in general there is an inverse relation between a country's per-capita GDP and its average STRI across sectors, with OECD countries implementing fairly open policies.

Liberalizing trade in services can be contentious at times, particularly when it is done in a multilateral context such as the GATS. Countries' strategic interests may be quite different when it comes to trade in goods versus services. In addition, services are very heterogeneous in nature and in mode of delivery. Because the process of liberalizing trade in services interferes with domestic regulations and national interests (e.g., breaking monopolies, privatizing state-owned enterprises, removing barriers to entry, etc.), the negotiating process can become quite complex and cumbersome. Lastly, negotiations may be slowed down by the limited knowledge and evidence that policymakers have about the effects of services liberalization. Therefore, a better understanding of policy barriers in services trade is much needed.

III. Micro-level Facts About Trade in Services

In recent years, administrative data at the firm level has become increasingly available. This has allowed for a deeper understanding of the micro-level features of trade in services between countries. These are important in designing accurate models of trade in services and in deriving informed policy predictions.

A. The number of service importers and exporters is small, but spread in all economic sectors

International transactions like the importing and exporting of services are performed by only a small fraction of firms in an economy. According to research based on Belgian micro data (Ariu 2016b), the majority of exporting firms sell goods (slightly more than 63%), and only a minority of them sell services (29%) or both (8%). Figures for imports closely mirror those of exports. Firms trading services are predominantly concentrated in the services sector, representing 38% of exporters and 20% of importers, while they are less common in manufacturing and agriculture. Instead, companies that trade both goods and services are more evenly spread across sectors.

B. Service exporters and importers are among the best firms in the economy

Service exporters and importers tend to exhibit several distinctive characteristics compared to firms that export or import goods, and compared to firms that sell only in the domestic market. A study by Breinlich and Criscuolo (2011) documents that:

1. **Size and productivity**: firms trading services are generally larger in terms of both employment and sales, and they are more productive. This fact can be rationalized by higher costs for trade in services, in that only the larger and more productive firms are equipped to handle the complexities of international trade in services, including regulatory compliance and market adaptation.
2. **Wages**: service exporters tend to offer higher wages. This is usually a reflection of the specialized skills and expertise required to produce services and offer them in global markets. Higher wages can also be a strategy to attract and retain top talent necessary for maintaining a competitive edge in international markets.
3. **Capital**: interestingly, service exporters often require less physical capital compared to their size. Unlike manufacturing or heavy industry sectors, service-oriented businesses typically rely more on human capital and intellectual property rather than substantial physical infrastructure. For instance, a consulting firm or software company doesn't need large factories or machinery, but rather skilled employees and innovative technology.
4. **Multinational Status**: there is a higher probability for service exporters and importers to be multinational firms. This reflects the fact that services tend to be

delivered in person, which requires physical proximity between providers and clients. Thus, maintaining local presence in foreign markets through foreign affiliates seems necessary for trading services. For goods, on the other hand, trading them through foreign affiliates represents an alternative to exporting them from the headquarters. Thus, for goods, foreign presence is a substitute mode of supply rather than a necessary condition for trade. Moreover, while the sales of foreign affiliates are counted as exports following the GATS rules, the same it is not true for goods.

C. *Service exporters and importers grow more and are more resilient to crises*

The distinction between service and goods exporters reveals significant differences in their growth trajectories. Using firm-level data for Belgium, Ariu (2016b) shows that the growth trajectory of new service exporters is impressive: after 10 years, these companies expand to more than seven times their initial size. This substantial growth reflects the scalability and high potential of service-based businesses in international markets, as they can rapidly increase their reach and operations with relatively fewer physical constraints. On the import side, service importers still show higher growth rates compared to goods importers, though the gap between them is less dramatic.

During the 2008–2009 financial crisis, trade in goods saw a significant decline, falling by nearly 30%. In contrast, trade in business, telecommunications, and financial services continued to grow at pre-crisis rates, demonstrating their resilience (Ariu 2016a). The only exception was services related to transport, which experienced a decline due to reduced global travel and trade activities. This contrast suggests that certain services, such as management, legal, accounting, and marketing, function more like essential consumables rather than durable goods. Despite the challenging economic environment, these services remained in demand because they are vital for maintaining business operations and overall productivity.

These findings underline the critical role of services in driving growth and economic resilience, particularly in international trade. Given their impressive scalability and sustained demand, even in times of crisis, it is clear that further liberalization of trade in services would unlock even greater potential for global economic growth. Reducing regulatory barriers and fostering open markets for services could enhance the ability of service-based businesses to expand, innovate, and contribute to broader economic stability.

IV. Implications of Trade in Services

All the aggregate and micro-level evidence described this far point to the rapid expansion of trade in services, and to the substantial potential for further growth (subject to policy decisions regarding liberalization and trade promotion). What are some of the main implications of the growing importance of services trade? Importantly, trade in services impacts key economic dimensions such as employment, goods production and aggregate productivity, among others. In what follows, we discuss the main ramifications of trade in services.

A. *Employment effects*

One of the main concerns related to the increased trade in services is that their production is much more skill intensive than for manufactured products. For example, a consultancy or a technical service is produced by high-skilled workers, while the production of cars is more intensive in unskilled labor. Therefore, importing services might represent a threat for more educated workers while goods imports could represent a problem mostly for low-skilled workers. Since advanced economies are abundant in skilled workforce, and since the majority of their employment is in the services sector, the import of services by advanced economies is feared to be a major negative shock to the labor market.

The imports of services – often defined in the economics literature as service outsourcing – can affect worker employment in the importing country in two ways. First, there is a direct effect coming from the displacement of domestic workers employed in those service sectors facing import competition. The direct effect has a negative impact on employment. Second, there is also an indirect effect, operating via market forces, whereby domestic firms that import services become more productive or cost-effective as a result of it. This leads to an increase in output and sales, which in turn causes an increase in the demand for labor. The increased labor demand could happen in both manufacturing and service sectors alike, depending on the degree to which firms use service inputs in the production of their final output.

The economics literature has tried to estimate the net effect of services trade on employment, decomposing whenever possible the two counteracting effects -- direct and indirect. Understanding the labor market effects of service outsourcing is important given its key policy implications.

An early literature used sectoral or aggregate occupational data to investigate the reallocation of employment associated with increases in services trade (Crino, 2010). The empirical results are mixed: there is evidence of higher employment turnover, but no evidence of significant job losses. A more recent strand of the literature uses more granular data at the firm level and focuses on within firm changes due to service imports (Eppinger, 2019). The general finding is that firms benefit from importing services: employment remains constant or grows, the composition of employment shifts in favor of high-skilled workers, and there is no evidence of negative consequences on wages. Moreover, firms become more productive and sell more. Overall, these findings highlight the complex but generally positive relationship between service imports and labor markets.

Evidence on the employment consequences of exporting services is scanter. Existing studies have found that following an increase in service exports, firms tend to experience an increase in employment, in productivity, in average wages, and in sales (Bamieh et al., 2022; Munoz, 2024). According to Bamieh et al. (2022), employment growth is explained mostly by an increase in managers and white collar workers . However, more work is needed to understand at a finer level which workers are involved in these firm-level changes, and what are the mechanisms at play.

B. Aggregate productivity effects

As global production networks are rapidly expanding, services are increasingly becoming an integral part of such global supply chains. Complementarities in production between material inputs and business services have only increased the share of service imports in total intermediate input trade. From a policy perspective, it is then important to ask whether international service outsourcing has contributed to productivity gains at the aggregate level as well as the firm level.

There are several channels through which imports of services could generate productivity gains. First, foreign providers may expand the range of services supplied to domestic producers. By offering new services that domestic producers may not have otherwise access (e.g., cellphone and internet services, complex software technologies, etc.), the import of services leads to variety gains from trade. This, in turn, spurs productivity improvements. Second, for services for which there already exists a domestic supplier, foreign producers may increase product availability and quality, thus intensifying market competition. Competitive pressure may force incumbent providers, such as monopolies or state-owned enterprises, to make production decisions that would lower prices and/or raise the quality of their services to retain market share. This in turn affects aggregate productivity. Third, foreign service providers could create knowledge spillovers benefiting the domestic firms that they interact with through market transactions. Such knowledge spillovers could further contribute to aggregate productivity gains.

All these various channels would raise the productivity of both downstream firms that use imported services as inputs, but also the productivity of existing domestic providers who must withstand increased foreign competition. Empirical evidence from both developed and developing countries corroborate these predictions. For example, Arnold, Javorcik and Mattoo (2011), using data from the Czech-Republic, find that aggregate productivity in the manufacturing sector increases with the expansion of service outsourcing. This provides additional rationale for supporting the liberalization of international trade in services.

C. Goods-Services complementarity

The distinction between manufacturing and services is getting blurred (Baldwin, 2016). A study conducted in France reveals that 77% of manufacturing firms have embraced a "servitisation" model, meaning that they offer not just manufactured goods but also services. This proportion varies significantly across different sectors. For instance, in the food, beverage, and tobacco industry, around 60% of firms are servitised, whereas in the transport equipment sector, the figure rises to approximately 90%. Servitised firms tend to be larger on average compared to those solely focused on manufacturing goods.

The rationale behind this servitization trend is that integrating services into manufacturing firms' offerings enhances their export performance. According to research by Ariu et al. (2020), offering services helps increase the export values, quantities, and prices of manufactured goods. This demonstrates that services often act as essential complements to goods. In this context, while the product itself is crucial and provides fundamental utility, the associated service, although not mandatory, adds significant value and enhances the overall appeal of the product.

V. Conclusions

Trade in services has exhibited greater potential for growth and development than trade in goods in the past thirty years. While services already comprise over 20% of global trade flows, advancements in digital technologies will further expand services trade. Many services can now be delivered remotely and thanks to new technologies such as cloud computing, artificial intelligence, and internet connectivity many more will be able to be commercialized internationally. As the world economy grows more interconnected, services will likely dominate future trade flows.

Emerging economies also stand to benefit from increased participation in services exports. For instance, countries like India have built strong reputations for exporting IT services globally. If these countries can develop strong services export capabilities, this could enhance their productivity and employment. At the same time, this could induce a more inclusive economic growth around the world and a more equitable distribution of the gains from globalization.

One of the main deterrents to the growth of services trade are regulatory barriers. Their extent and incidence remain poorly understood compared to barriers to goods trade. Restrictions on cross-border mobility of service professionals or barriers to foreign direct investment in services are heavily complex. Programs aimed to attract foreign high-skilled workers, such as the H1B Visa system are crucial to make firms competitive in services markets, and recent threats calling for restricting immigration can harm the capabilities of firms to reach foreign markets. Further research is needed to quantify these restrictions and support negotiations at the WTO towards greater liberalization. Initiatives like the Services Trade Restrictions Index make valuable contributions on this front.

In conclusion, continued efforts to enable digital trade in services and to reduce policy restrictions will be vital to exploit the growth and development power of trade in services. But realizing this potential hinges on a nuanced understanding of existing trade barriers paired with pragmatic reforms towards openness.

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