
Digital services facing the new global challenges and supporting the globalization

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Abstract:

This paper tries to bring together some elements highlighting that the future of globalization will be supported by digital technologies and service business models. Recent global challenges generated by the pandemic crisis and geopolitical tensions have brought up discussions about new obstacles in the way of globalization. However, despite the pandemic restrictions, trade in many professional and cultural services was supported by digital technologies that were successfully implemented in other traditional service sectors. Our analysis aims to gather some opinions and arguments, including those presented at the level of international organizations, related to the chance to continue the globalization process based on new advanced technologies applied mainly in service business in a world marked by new challenges. Digital platforms and the Internet have opened a new door to trading system, which, despite the new economic and geopolitical tensions, will represent the source of the growth trends in the coming years. These developments have to be accompanied by the regulatory framework created within international and regional organizations, to ensure a set of appropriate trading rules in the new era of digitalisation.

Keywords: globalization, trade in services, digitalisation, perspectives, challenges

JEL classification: F13, F63, J24, L86, O24

1. Introduction

Over time, the globalization has developed into a force, known as the process of building *networks among actors from different parts of the world*, connecting various flows of *goods, capital, people, information, and ideas*. This is also seen as a process that makes national borders irrelevant, integrates various economies, cultures, and governmental systems, generating complex and mutual interdependences (Gygli et al., 2019). The process where goods and services are traded worldwide, and also information and knowledge are created and disseminated globally, is facilitated by *policies promoting free trade and capital* among countries for getting easy access to a wide range of resources all around the world, including human capital, in order to maximize returns and benefits for everyone taking part of it (Lutkevich, 2023).

Furthermore, globalization has been a *strong and positive driver of economic growth* and the most important force for *creating economic prosperity*. From this perspective, the International Monetary Fund (IMF) has estimated in its studies that during recent decades, globalization has been lifting more than a billion people out of poverty. However, nowadays globalization is increasingly *controversial*, as its transformative changes have resulted in lagging behind many regions of the world, but also the worsening of climate-related consequences.

Consequently, the current changes regarding the growing pressures between the US and China, the pandemic, the outbreak of the Russian-Ukrainian war along with the consistent measures imposed to achieve sustainable objectives (among which those regarding climate change stand out) have led to some discussions about the *slowbalisation* (or slowing down of globalization) (Aiyar & Ilyina, 2023; ADB et al., 2021),

deglobalization (WEF, 2023), *reglobalisation* (Schneider-Petsinger, 2023; Okonjo-Iweala, 2023) even the *end of globalization* (or death of globalization) (PIIE, 2023).

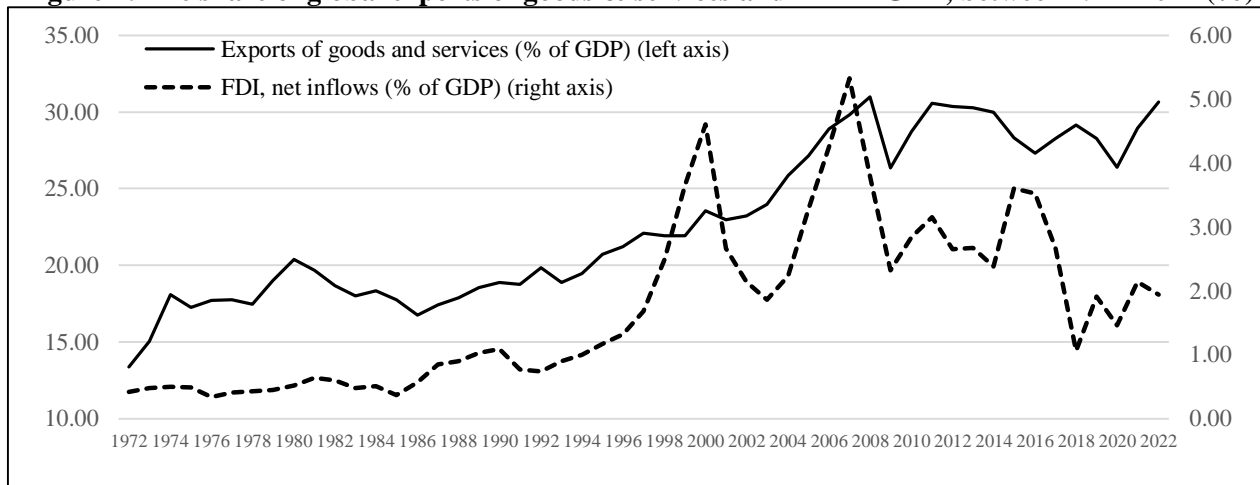
Other opinions, shared within the World Trade Organization (WTO), argue that *globalization process is advancing to a new phase*, where *digital technologies will have an overwhelming contribution to supporting service transactions and foreign investments in service industries*. In this respect, international organizations are called to ensure the appropriate regulatory framework in the line with the new developments of services and the digital economy at global level. From these perspectives, *new directions of this process are highlighted*, where (i) the *technological advances* as the basis for the development of a new generation of internationally traded services through digital means (Javeus, 2023), as well as (ii) the appearance of some trends of *fragmentation* of the world economy (Georgieva, 2023) which could result in the reconfiguration of globalization.

Our work aims to bring together a series of arguments and opinions related to the chance of *continuing globalization under the new coordinates of transactions with services developed on the advanced technologies in a world marked by new challenges*, and that globalization is such a complex process that its conclusion is unlikely to happen.

2. The evolution of international trade flows that support the services globalization process

The analysis of the *evolution of the intensity of globalization* over the last five decades by means of two important traditional indicators: the share of exports of goods and services in world GDP and the share of foreign direct investments (FDI) in GDP, reveals the impact of the financial crisis in 2008 and the COVID-19 pandemic crisis in 2020 on this process (Figure 1). Therefore, globalization has been put to the test in recent decades, in a context where after each crisis we have witnessed new developments under the impact of other determined factors, always related with technological developments.

Figure 1: The share of global exports of goods & services and FDI in GDP, between 1972-2022 (%)



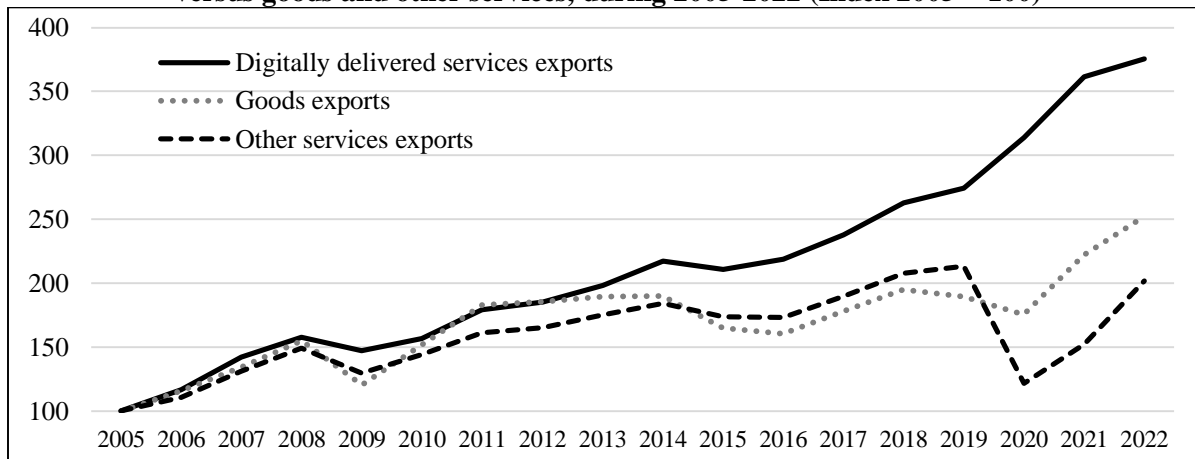
Source: World Bank Data (2023).

The analysis of recently statistics reveals the *increase in the volume of international trade flows with services*, among which those transacted by digital means stand out. This evolution is supported by the increase in

the contribution of services to GDP, both globally (in 2021, the *share of added value of services in GDP* was 64.4%) (WBD, 2023), and at the level of the main international trade partners (in 2021, the *share of added value of services in US GDP* was 77.6%, in EU GDP 65%, and in China GDP 53.3%). According to WTO (2023a), in 2022, the volume of international trade in services (ITS) amounted to USD 6.8 trillion, i.e. more than 21% of the total global trade in goods and services. Based on the pace of technological developments, Ellard (2023a) states that the share of services in world trade will increase so that *in 2040 services will represent a third of global transactions*. However, the real extent of the ITS is estimated to be much higher taking into account that the service transactions made through the mode of supply through commercial presence are included in FDI transactions (corresponding to the mode 3 of services supply, according to GATS-WTO¹).

In recent years, the *main source of ITS growth* has been the *development of technologies* that make it possible to *deliver services remotely* (covering the most diverse fields from professional to cultural and educational services provided via the Internet). In this context, WTO data reveals that, over the period 2005-2022, the value of exports of digitally provided services increased almost four times (Figure 2), the annual average growth rate of *digitally provided services being 8.1%* (compared to of 4.2% for other services exports or 5.6% for goods exports). During the pandemic, this trend was accelerated, which made the exports of digitally provided services grow by 37% in 2022 compared to 2019. After the pandemic, *in 2022, services traded globally through digital means reached USD 3.82 trillion*, representing 56.18% of the total ITS (up from USD 2.79 trillion in 2019).

Figure 2: Comparative evolution of global exports of digitally delivered services versus goods and other services, during 2005-2022 (Index 2005 = 100)



Source: Author's representation based on the WTO data. (2023).

Digital delivery is applied on *services traded across borders* via *computer networks, Internet, applications, e-mail, voice and video calls*, and increasingly by means of *digital intermediation platforms* (for

¹ According to the treaty of WTO, General Agreement on Trade in Services (GATS), services are traded at the global level through four *international modes of supply*: mode 1 - cross-border supply, mode 2 - consumption abroad, mode 3 - commercial presence, and mode 4 - movement of natural persons.

entertainment services such as online games, music and video streaming as well as educational services). In 2022, business, professional and technical services accounted for approximately 40% of exports of digital services, followed by IT services with 20%, financial services with 16% and intellectual property services with 12%. The ranking continues with services with lower weights such as insurance with 5%, telecommunications services with 3%, audio-visual and other personal, cultural and recreational services with 3% and information services with 1% (WTO, 2023a). *The global market of these services is dominated by European economies*, with more than half of global exports of digitally provided services, followed by *Asian countries*, with almost a quarter of the market (Asia's exports recorded the highest growth rate compared to other regions), and 19 % of those in North, Central and Latin America and the Caribbean, and Middle East. Africa and the least developed countries continue to lag behind, the African countries accounting for less than 1% of digitally supplied services exports in 2022 (WTO, 2023a). The data presented in Table 1 illustrate the evolution of the volume and growth rate of digitally traded services exports in 2022 compared to 2019, detailed on the top ten international trading partners. Herein, it can be noticed that the top of the main exporters of digital services in 2022 is dominated by developed countries, which is in the line with the discussions related to the unequal distribution of the benefits of globalization on a global scale.

Table 1: Top exporters of digitally traded services in 2019 and 2022 - volume, growth rate, share of global total (USD billion, %)

Countries	Volume (USD billion)		Change (%)		Share in world export in 2022 (%)
	2019	2022	2022/2021	2022/2019	
US	486	632	6	30	16.5
United Kingdom	280	350	1	25	9.2
Ireland	166	290	-1	75	7.6
Germany	180	227	-6	26	5.9
India	118	227	28	93	5.9
China	114	201	9	75	5.2
Netherlands	164	165	6	1	4.3
Singapore	106	159	5	49	4.2
France	127	136	-6	7	3.6
Luxembourg	93	111	-8	19	2.9
Total above	1,834	2,498	-	-	65,3
World	2,795	3,475	4	37	100

Source: Author's representation based on the WTO data. (2023).

So, in light of these developments, *what is changing today is the nature of globalization*, where international transactions in *intangible goods* have the leading role. In this context, the current Deputy Director General of the WTO in charge of trade in services, taking over a term launched two decades ago (Grünfeld & Moxnes, 2003), declares that *we are currently in the era of intangible globalization*, in which the digital technologies are increasingly used even in international trade in goods. Accordingly, the benefits of digital finance, customs declarations and AI-assisted supply management tools already implemented in trade in goods generate trade-related cost reductions of approximately 6%.

Capitalizing the potential of digital trade requires actions in the following *directions*: (i) *reducing the digital gap* between countries with different levels of development, and (ii) *taking measures to reduce obstacles*

to *ITS flows*, among which the *impediments* to payments and cross-border data flows, the conditions to be met for establishing a commercial presence (branches) for provision of services or restrictions on FDI and the ability to move abroad of persons for the services provision (execution). In this regard, the WTO collaborates with the World Bank (WTO, 2023b; WTO, 2022) and OECD (2023) for analysing, quantifying and publishing information on services trade policies for approximately 130 economies (in the case of World Bank), and 50 economies (in the case of OECD). Also, within the WTO, the member countries collaborate to improve the existing regulations and develop new ones that reflect current changes in the world economy and international trade, the most recent activities being related to the regulation of electronic commerce within some *joint initiatives*. According to the constitutive act of the WTO, member states have the possibility to conclude plurilateral agreements in some regulatory areas, and currently, this provision is intensively applied (WTO, 2022b, 2023e, 2023f, 2023g).

3. Services, especially those delivered and consumed digitally, may be the next engine of globalization

Analysing the history of globalization, it is obvious that the main driver of its development has been linked to *technological progress* (Javeus, 2023). So, nowadays, considering the great *development of technologies, and especially of digital ones*, as well as the *expansion of business models based on services*, we may be entitled to say that *the globalization is entering a new stage*. Nowadays, the statements about the future of globalization are mostly related to the *changes in the factors that support it*. The many worries arising from the strong competition between countries are the ones that generate discussions on the *diversification or fragmentation of globalization*.

Going further with the identification of the factors that have supported globalization throughout history, and how they have changed over time, it can be noticed that so far *the globalization model has combined the development of technologies with the opening of countries' economic policies for trade and investment flows*. This leads us to outline another determining factor of globalization, namely the growing interest of countries to participate in international, multilateral, regional or bilateral agreements. According to the WTO, in March 2023, *194 regional trade agreements* were in force, all containing in various extents provisions regarding the liberalization of transactions with goods, services and investments (WTO, 2023d). The willingness of the countries to join the agreements has made it possible for companies to develop strategies that *exploit the cost differences* of production factors, mainly natural and human resources of different countries.

In the context of the COVID pandemic crisis, a main part of business models developed on goods and services (those based on physical interaction and mobility) was affected by the measures taken against the spread of the virus, so that they had the effect of limitation and blockage (the transport of consumer and productive goods, global supply chains, or travel services). Currently, considering the pandemic officially ended, these problems have been replaced by those generated by the intensification of international geopolitical tensions. In conclusion, globalization has passed a critical time, but it is not about to disappear, it just needs to be reconfigured. What is remarkable, however, is that during this time, business models based on digitally transacted services have advanced strongly, and they accompany classic business models. Therefore, these developments may lead us to believe that *services will be the ones that will continue globalization and will shift it on a new stage*.

If in the past, globalization was associated with international trade in goods, shipping physical goods around the world and business models focused on manufacturing processes, today we can see an important shift towards new service intensive business models. Nowadays, services have grown as a share in everything that is produced and consumed or traded and invested. For many services, technological advances are rather quickly

redrawing the map. Considering that the *internet has enabled many services to be performed remotely* without the need for buyers and sellers to meet, this will open the way for an increasing globalization of the service sector.

There are many *services which have already begun to be globalized many years before pandemic*. Many companies have already outsourced their *support services* and *call centres* to other countries, or have developed systems for *monitoring* and *controlling* remotely performed with advanced technical equipment. It is also the case of *computer programmers* or *architects*, being able to work from anywhere in the world. *Cloud storage*, *streaming entertainment platforms*, or *online education* are fields that are well suited to globalisation with the aid of new technologies. Another successful field where technologies connect buyers and sellers of services performed remotely is the *global trading platform for freelance services* (this area covers a wide range of services such as online marketing or real estate, also known as part of the *global gig economy*), that offers equal opportunities for people from different countries, especially from developing and emerging ones ((Javeus, 2023).

Related to services traded by digital means is the *artificial intelligence (AI)* technologies, considered as a revolutionary innovation that will also accelerate globalisation in the service sector. The new ChatGPT, an open intelligent chatbot, has generated headlines when the company made it available to the public. The AI technologies already jeopardize different professional service providers, such as journalists, accountants, lawyers, programmers and many others facing increasingly strong competition from AI in the next few years, in terms of time and costs for completing many tasks. When it comes to the geographical terms, the market of these services is completely globalised, in this area being required regulations covering the *legal terms* of these transactions.

Social media are another technological innovation that has driven social globalisation. Globalisation through *social media* has also led to network effects that are enabling more and more people around the world to *transact cultural services*. This new technology has made it possible for anyone, using simple means, to both produce professional content and distribute it globally. Today talented and creative individuals use social media to reach a global audience that is sometimes larger than traditional mass media.

Nowadays, *global value chains in services* are also a significant business model within service industries. While offshoring was typically used in manufacturing, lately it has also become an important segment of the services market, and therefore of the service globalization. *Seeking cost efficiency* through offshoring, companies *outsource* their noncore business processes to specialized third-party service providers, which can then offshore their labour-intensive operations to developing countries with lower labour costs (ADB et al., 2021). *Digital platforms* provide various benefits and additional capabilities for companies connected in global value chains in services, and make it possible for companies to interact directly with each other. Relational global value chains create the context of close links between firms and intra-firm trade in intangibles, such as technologies associated with production processes and business practices, which can have the effect of upgrading participating firms through learning and innovation (ADB et al., 2021).

Considering the elements presented above, which are only a part of what comprises the scope of the development of new services, it can be said that the globalization process will enter a new phase based on digital technological developments, those that can offer the possibility to commercialize the new categories of services, within new and interdependent business models.

4. Threats to continuing the globalization of services

At the international level, *technology* is subject of trade tensions, for some countries, this being even a topic of national policies and strategies (in areas such as economy, security, relations with foreign partners,

geopolitics). Over the two years of the pandemic crisis, plans to relocate nearshore or friend-shore or even onshore the supply chains for strategic technologies have been highlighted, which has fuelled debates on the future of globalization. Distortions at the level of global supply chains firstly generated by the pandemic (given the movement restrictions imposed to stop the spread of the virus) and later by the conflict in Ukraine (which generated the imposition of severe sanctions and restrictions, with the reconfiguration of some trade flows) represent sources of increasing trade costs with consequences for reducing resilience and increasing vulnerability to future shocks, whose imminence, frequency and intensity support the urgency of taking concrete measures (Ellard, 2023b). Thus, actions are required to ensure the increase of international cooperation and the diversification of global supply chains (a phenomenon which led to the concept of *diversified globalization*). WTO research reveals that the *splitting of the global economy* into two blocs would lead to a *reduction in real incomes globally by an average of 8.7%, the most affected being developing countries* which would record reductions of 10.1% and the least developed of 11.3% (Ellard, 2023a). So, the high cost of fragmentation is a very important argument in continuing to support globalization despite the pressures of fragmentation, isolation or self-sufficiency, especially in the field of technology.

The risk of fragmentation, both economic and technological, has the effect of reducing trade and diminishing productivity, as countries will have to develop equivalent solutions for covering their own needs. In such a situation, companies and authorities are going to face new difficulties related to the need to agree on common standards, which will generate additional barriers to trade between countries, considering a minimum economic cooperation among countries. For example, as China is no longer allowed to use high-tech components or software from American companies in its products, it will instead be forced to develop its own solutions (Javeus, 2023). *Political tensions are also obviously reflected in the mutual trade in high-tech intensive services*. Another related topic is the global internet splitting risk between the US and China (Bateman, 2022). The solution for most countries and companies instead seems to be greater *diversification*, in order to reduce dependency from a single economy. While their interest in being in countries such China or Russia is decreasing, other countries such as India, Indonesia or Vietnam are seeing increased interest from foreign companies. Such a change will lead to a diversified globalisation.

5. Conclusions

To summarise, despite the recent threats, globalisation still looks set to continue, based on digital technologies, in a diverse but still interconnected world. The global trade in services has the potential to grow rapidly for many years to come, and it is going to be the engine of the new globalisation phase. As before, globalization will continue to generate greater prosperity for most people, but also changes in the competitive advantages of economies. Obviously, the technological transformations will not devoid of problems, especially at the level of those economies that are more difficult to adapt, given that these processes require investments in infrastructure and education, as well as open policies.

Despite the slow pace of trade reforms at the WTO level in recent years, the joint initiatives launched for the negotiation of new rules and disciplines in the trade of services provided by digital technologies are significant stages in improving the covering of the current regulatory framework required by these developments. Outside the current fears, technological developments mostly used in the services are going to represent the factor that will ensure the continuation of the globalization process, given the fact that in the last decades the dominant economic development model was the service-intensive one (as demonstrated by the high share of services in

GDP in most countries of the world). The globalization of services has the potential for rapid growth in the coming years, which leads us to say that *the new generation of services could become the engine of the globalization trend*, a trend that, just like in its previous stages, will generate changes even in positions and competitive advantages of world economies.

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