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# Deconstructing Deglobalization: The Future of Trade is in Intermediate Services

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## ABSTRACT

This article contests the idea that the world has entered a post-globalization era. It argues that rapid globalization has evolved rather than ended. Even though the global goods trade-to-GDP ratio reached its zenith 15 years ago, the rapid rise of services trade has persisted and now accounts for one-fifth of international commerce. The paper makes a statistical and logical case that the future of trade lies in services trade—especially trade in intermediate services.

**Key words:** deglobalization, intermediate services, intermediate trade, service-led development, services trade

**JEL codes:** F10, F13, F15, F60

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## 1. Introduction

Is the world economy deglobalizing? Many observers say 'yes'. Irwin (2020), for example, writes: "The Great Recession of 2008–2010 marked a historic turning point in the degree of global economic integration. Now, in response to the current health and economic crisis, policymakers appear poised to take deliberate steps to reinforce the movement toward deglobalization."

Our paper examines the 'deglobalization' claim using simple statistics and economic logic. The main takeaway is that while the intensity of trade in goods peaked in 2008, the world ratio of trade in services-to-gross domestic product (GDP) has continued to power ahead. Services exports now account for over a fifth of export earnings globally. In short, globalization did not end; it evolved, and we conjecture that it will continue to do so for the foreseeable future.

Globalization is driven by firms that buy or make things in one nation to sell them in another nation with an eye to turning a profit. Arbitrage, in other words, drives globalization. Arbitrage is profitable whenever international differences in relative costs exceed the cost of selling across borders. Globalization will not end until international arbitrage is no longer profitable.

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Although there has been substantial convergence in the relative cost of producing different goods internationally, and geoeconomic tensions may raise barriers to trade in goods, there still exist vast differences in the relative cost of producing services in different nations. As services tend to be labor-intensive, the key relative cost differences lie in relative wage rate differences (adjusted for productivity). And the wage rate differences are vast. A wage of $US 5 an hour for a 2000-h work year produces an income of $US10,000, which corresponds to a middle-class living for an office worker in most of the world's economies, but it is far below the minimum wage in advanced economies. Moreover, digital technology is making it ever cheaper to work in an office in one nation while sitting in another nation. This is the fundamental reason we believe that the end of globalization is a very long way off.

We first take a look at the decline in the goods-trade ratio, before turning to facts on trade in services. We then turn to the economic logic that suggests that the future of globalization lies in trade in intermediate services.

## 2. Trade in Goods Has Peaked or Plateaued

Trade in goods as a share of world GDP has peaked, or at least plateaued. Figure 1 shows three versions of the world goods trade intensity ratio—all indexed such that 2015 equals 100 to improve comparability. The left panel shows the classic ratio of the value of world goods exports to the value of world GDP. After some ructions in the 1970s and 1980s, the ratio rises sharply from 1993 to 2008. It crashes during the 'Great Trade Collapse' of 2009 before starting a jerky but determined decline. The middle panel displays the ratio with exports measured in value-added terms to eliminate the double counting that is always present in standard export figures (Miroudot & Ye, 2022). This ratio broadly confirms the pattern seen in the left panel although data on value-added trade is only available from 1995 to 2018. The right panel shows real goods exports (as a share of world GDP). The peak in this ratio of volumes is less marked and indeed admits the possibility that the ratio plateaued rather than peaked.[1] In this view, the ratio was steady before the mid-1980s and after 2008, so it was the 1987–2008 period which was


**Figure 1** World goods exports to GDP ratios in value, value-added, and volume terms.
Source: Value and volume trade data from stats.wto.org database; current and real USD GDP from World Bank World Development Indicators database. Value added ratio from OECD's TiVA database (OECD 2021b). Goods exports are the sum of agriculture, mining and manufacturing export aggregates.

abnormal, not the post-2008 period. In mid-2023, when this manuscript went to press, it is too early to tell whether this is a plateau or a slow decline.

### 2.1 The false peak that reveals clear facts

The clean 2008 peak is false in the sense that it is a pattern that is shared neither by all major nations nor across all sectors. As Figure 2 (left panel) shows, the ratios of national goods exports to national GDPs are diverse. China's ratio peaked before 2008 while the US, Japanese and Indian national ratios peaked after 2008. The EU's ratio did not peak but rather plateaued (here, EU goods trade includes intra-EU trade).

Moreover, the 2008 peak is not equally present in all categories of goods. The right panel of Figure 2 shows the total world trade in goods as a share of world GDP (both in values) as well as the ratios for manufactured products, mining and fuels, and agricultural products. Because all the lines have the same denominator, the chart provides a decomposition of both the level and change in the total ratio. As it turns out, the drop in the total goods ratio is dominated by commodities. Roughly 60% of the drop in the total stems from a drop in the ratio for mining and fuels. About 40% is from a drop in manufactures. The agricultural ratio did not fall. More precisely, the GDP share for all traded goods (total goods in Figure 2) fell from 51% in 2008 to 42% in 2020 while the share of mining and fuels trade in world GDP dropped from 11% in 2008 to 6% over the same period. The share of manufacturing trade in world GDP dropped from 33% in 2008 to 30% in 2020.

The key messages that emerge from Figures 1 and 2 are straightforward. First, there was a very distinct acceleration in the pace of goods trade globalization from the mid-1990s to the mid-2000s. This acceleration reflected the rapid increase in parts and components trade that arose during the phase of globalization known as the 'second unbundling' (Baldwin, 2006, 2012; Baldwin, 2016a), hyperglobalization (Rodrik, 2011), or the Global

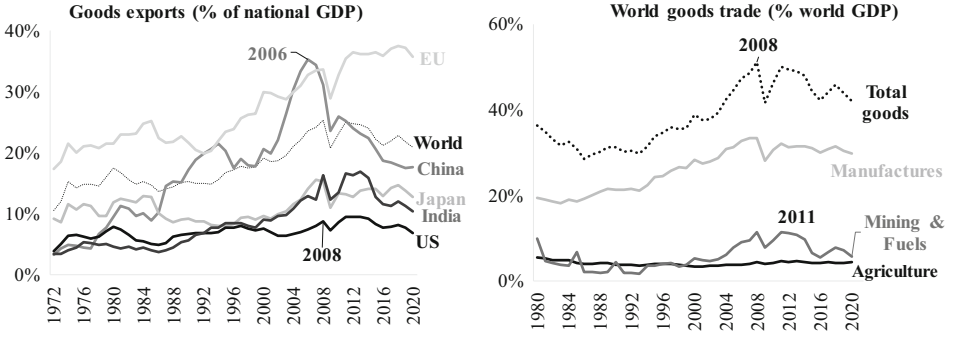


**Figure 2** National goods trade to GDP ratios, and world goods trade ratio by sector.
Source: Left panel data is in current USD from World Bank World Development Indicators (WDI) database. Right panel trade data is current USD from WTO database, GDP data is from WDI.

 

Value Chain revolution (World Bank, 2017). Second, this rapid rise halted for the world overall, for all major trading nations, and for all types of goods. In other words, the second unbundling phase of globalization has culminated and is possibly going into reverse gear.

Why did the intensity of goods trade fall? Much of the fall in the mining and fuels ratio to world GDP is due to a large and long price swing known as the 'commodity super cycle' (Baldwin, 2022). The cause of the drop in manufactures ratio is less clear. Authors writing in Hoekman (2015) explore a wide range of explanations for the drop ranging from purely cyclical factors to deep structural factors such as the rise of trade frictions, and the end or slowing of the second unbundling as evidenced, for example, by the slower offshoring of manufacturing stages to emerging markets (Constantinescu *et al.*, 2015; Baldwin, 2022).

## 3. Trade in Services Has Not Peaked or Plateaued

The left panel of Figure 3 shows that the world services trade as a share of world GDP did not peak or plateau in 2008. The ratio boomed before 2008 and after 2008 once it recovered from the Great Trade Collapse. In short, when thinking about deglobalization, it is critical to distinguish between services trade and goods trade.

The rising role of trade in services is shown in the left panel of Figure 4, which plots the ratio of world services trade to total world trade in goods and services. The services trade share started at 16% in 1980 and has risen to 23% in 2019, with much of the rise coming after the 2008 Great Trade Collapse and Global Financial Crisis. The spike in 2009 is due to the fact that services trade was less affected by the Great Trade Collapse than was goods trade (Baldwin, 2009). The right panel shows, separately, the constituents of the ratio in the left panel. To stress the trends rather than the levels, world exports of

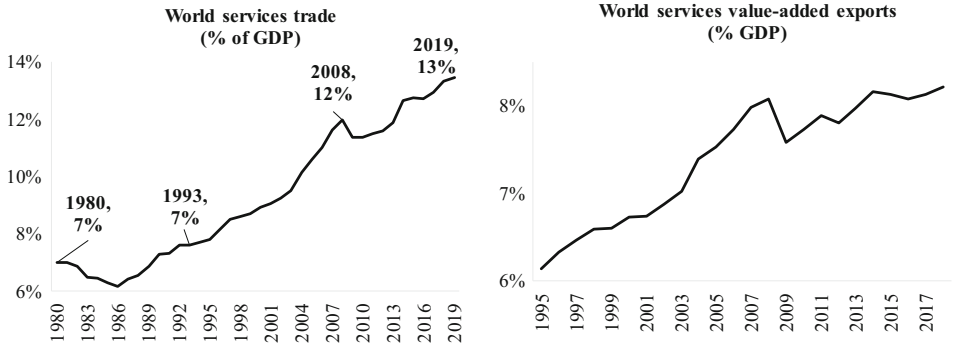


**Figure 3** World services trade ratio in value and value-added terms.
Source: The left panel is a ratio of values based on trade data (exports and imports) from WTO and GDP from the World Bank WDI database (both in current USD). Data in the right panel is from the OECD TiVA database (OECD 2021b) for domestic value-added content of gross exports and total economy value added.

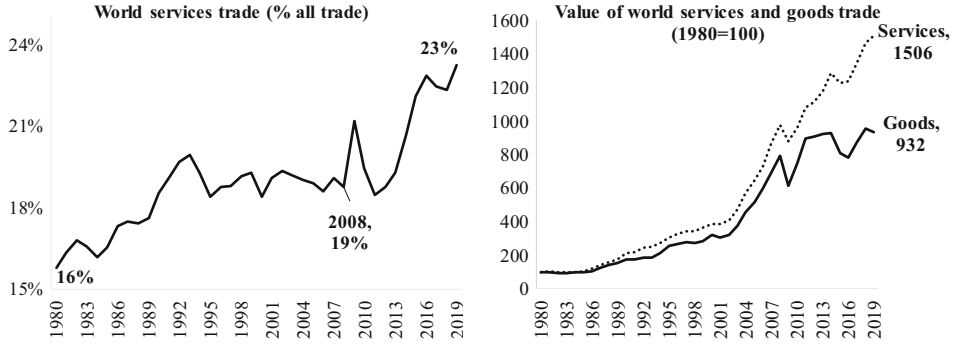


**Figure 4** World services share of all world trade in goods and services, and evolution of world goods versus services trade.

Source: Authors' calculations based on trade data from WTO Stats and data on GDP (current USD) from the World Bank World Development Indicators database.

goods and of services are indexed to 100 in 1990. Services trade grew by about 15 times between 1990 and 2019 while goods trade grew only about nine times.

As with the goods trade ratios from Figure 1, the world ratio in Figure 4 (left panel) hides important diversity among large trading nations. However, unlike the world goods ratio, the world services ratio is largely indicative of national experiences. All the national services trade shares rose rapidly since the early 2010s, and most display the 2009 spike. While there are some emerging economies where the services trade share is falling, for example, Vietnam and Mexico (not shown), the largest emerging economies exhibit patterns that are quite like those of advanced economies. All their services trade shares have been rising over the past decade, as evidenced in Figure 5.

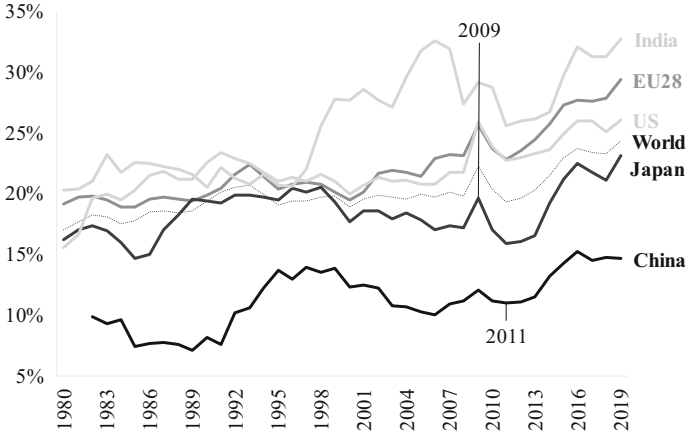


**Figure 5** National services trade (% total trade), 1980–2019.

Source: Authors' calculations based on trade data from WTO data, sliced from the 1980–2013 BOP5 data (up to 2005) and the BOP6 series afterwards.

 

### 3.1 Composition of services exports

The services data in the charts hereto discussed the run only up to 2019 since lockdowns and travel embargoes during the Covid-19 pandemic greatly distorted services trade from 2020. The impact of the pandemic can be seen in the left panel of Figure 6 which shows the ratios of the value of services trade and GDP for the world.

The left panel also shows a decomposition of world services trade into its traditional high-level aggregates: transportation services, travel services, and 'modern services' which are all commercial services other than the traditional transport and travel services (Ghani & Anand, 2009 and Ghani, 2010). In the World Trade Organization (WTO) dataset, modern services are called Other Commercial Services, (OCS).

Because travel services consist largely of international tourism, the lockdowns and other public health policies imposed during the pandemic reduce travel services to almost nothing. Although they normally account for only 20% of the total trade in services, the sharp decline in travel services brought down overall trade in services figures for 2020 and 2021. Likewise, transport services are closely tied to trade in goods, so the slowdown in goods trade dragged down trade in transport services. Importantly, the flow of modern services, which largely take place electronically, did not falter during the pandemic. Modern service exports include sub-categories such as telecommunications, computer and information services, other business services, financial services, insurance services, and royalties and license fees.

The right panel shows the four main subcategories of modern services (together these account for about 90%). The numbers reveal that Other Business Services (OBS) is by far the largest and fastest growing of the subcategories, followed by Telecommunications, Computer, and Information Services (TCI). The OBS category is made up of three main subcategories: research and development services, professional and

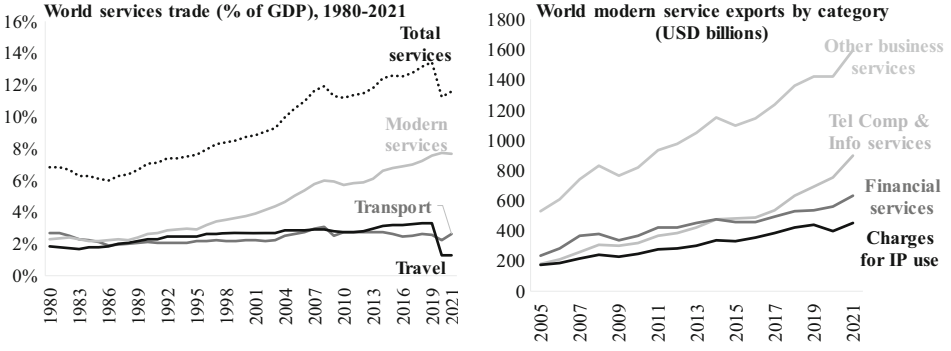


**Figure 6** World services trade ratio by category, and composition of modern services. The right panel data is from the latest revision of the services trade data (BOP6) which is only available from 2005. 'Modern services' here correspond to the OCS category in the WTO data.
Source: Authors' calculations based on trade data from WTO Stats and data on GDP (current USD) from the World Bank World Development Indicators database.

management consulting services, and technical, trade-related, and other business services with the shares in 2019 being 15%, 41%, and 44% of total OBS, respectively. The three subcategories in the category 'Telecommunications, Computer, and Information Services' make up 13%, 81%, and 6% of the TCI total, respectively. Although all the subcategories grew steadily throughout the period during which goods trade peaked, there was a distinct acceleration in the TCI services around 2017, which is the year that Fortune magazine declared to be the Year of AI.

Given the faster growth of modern services versus goods and traditional services (transportation and travel), the ratio of modern services to all trade in goods and services has risen from 9% in 1990 to 12% in 2008 and 20% in 2020. Although this ratio dipped during the Great Trade Collapse of 2008–2009, it rose faster between 2010 and 2020 than it did between 1990 and 2010.

### 3.2 Big exporters and modes of supply

While services exports have long been dominated by developed countries (DCs), service exports by emerging economies have been rising faster since the mid-2010s. In 2021, developed countries accounted for about two-thirds of world service exports (left panel of Figure 7), while India and China together make up only 10%. The data in the right panel, however, show that the modern service exports of developing countries (all nations except the developed countries) are growing faster since 2016. Between 2016 and 2021, developing nation service exports grew 59% while developed country service exports grew 41%.[2]

The services trade statistics in the charts come from the WTO's online database and reflect the numbers reported by governments.[3] They are not, however, the numbers that trade negotiators focus on. They use a very different and much broader definition of services trade, which emerged during the political give-and-take of the 1986–

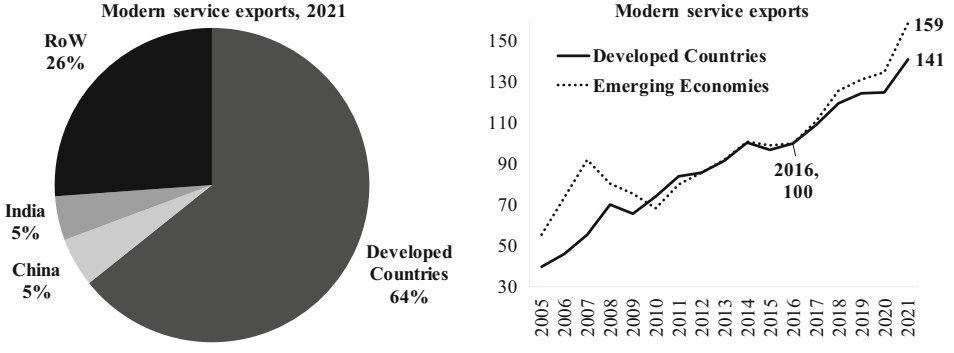


**Figure 7** Developed and developing country exports of OCS. The list of developed countries is taken from the UN (2019). It includes all the EU and EFTA nations, the G7 nations, and Australia and New Zealand. Emerging economies include all other countries.
Source: Authors' calculations based on trade data from WTO Stats.

 

1994 trade negotiations known as the Uruguay Round (Marchetti & Mavroidis, 2011). The broader classifications focus on four 'modes of supply,' with only the first requiring the services to cross international borders. The other three modes focus on the nationalities of the supplying company and the nationality of the buyer, and as such include services that are bought by nationals from one nation buying services inside a foreign country (Mode 2, for example, medical tourism), companies from one nation setting up in another nation to sell services locally (Mode 3, for example, local branches of Citibank in Mexico), and workers from one nation temporarily working in another (Mode 4, for example, Pakistani construction workers building World Cup facilities in Qatar).

Despite playing a central role in four decades of trade negotiations, governments still do not systematically gather data on three of the four Modes of Supply (Modes 2, 3 and 4). The EU recently produced an experimental dataset on the Modes of Supply (MOS) that reclassifies the standard services trade data into three of the Modes (1, 2, and 4) and uses the Foreign Affiliate Statistics – to quantify Mode 3 trade (Eurostat, 2021). The experimental results suggest that Modes 1–4 account for 32%, 5%, 59%, and 5%, respectively, of the EU's total exports of services.

Our study focuses on the contrast between cross-border trade in goods and services, so we concentrate on Mode 1 trade (cross-border services trade). The other Modes require foreign direct investment (Mode 3), personal travel (Mode 2), or temporary migration (Mode 4) and are thus helped or hindered by very different policies and economic forces. While these are clearly part of globalization, they are not strictly comparable to the trade flows in, for example, Figure 1, so we leave them aside for the rest of the paper.

Two other aspects that are common in discussions of services trade are also left aside: servicification of manufactured goods, and Mode 5 services. Servicification refers to the rising value-added share of services inputs into the production of manufactured goods. Manufacturing production increasingly uses services as inputs (e.g., design) or as services that are part of the goods-services bundle that is sold to customers (Miroudot, 2017). While servicification is a general term, Mode 5 focuses on the trade aspects of the phenomenon. It is defined as the services embodied in exported goods including design, engineering, and software services. Preventive maintenance services embodied in commercial trucks is an example of the latter (Cernat & Kutlina-Dimitrova, 2014).

## 4. Trade in Intermediate Services

India's huge service export success from the early 1990s consisted mostly of intermediate services, which is to say services sold by businesses to businesses (B2B) rather than directly to consumers (Basu, 2018). Examples include all manner of back-office services—call center services, IT support, custom website development, etc. China's early export success was also based on trade in intermediate goods but not services (Rodrik, 2006). Although there is early and important work on the topic (Miroudot *et al.*, 2009), intermediate services are still a much less familiar concept than intermediate goods; we start by looking at some facts about intermediate services.

### 4.1 Intermediate services and aggregate intersectoral flows

Figure 8 provides a perspective on the importance of intermediate services. It shows the world's intermediate sales of goods and services in 2018 broken down into broad sectors. The left and right sides of the figure list the selling and buying sectors respectively (no final sales are included here). The widths of the tentacle-like bars sum to 100% on each side. As expected, manufacturing is the largest seller of intermediate goods, but the services sector is not far behind. Moreover, while most manufactured intermediates are sold mostly to the manufacturing sector itself, intermediate services are bought by all sectors. This reflects the reality that operating any business requires many types of intermediate services ranging from human resources, payroll, accounting, and tax preparation to marketing, communications, recruitment, and training.

### 4.2 Importance of intermediate services in the economy

In a typical advanced economy, spending on intermediate services represents a large share of total spending. Table 1, which uses figures for France as an example, shows that services are three times more important as intermediate inputs into domestic production than manufactures. Economy-wide, intermediate service inputs account for 30% of France's total gross output, while manufactured intermediates account for only 11%. The reason for this little-known fact is that services inputs are consistently important in primary, secondary, and tertiary sectors, while manufacturing usage is concentrated in the manufacturing and primary goods sectors. This consistency,

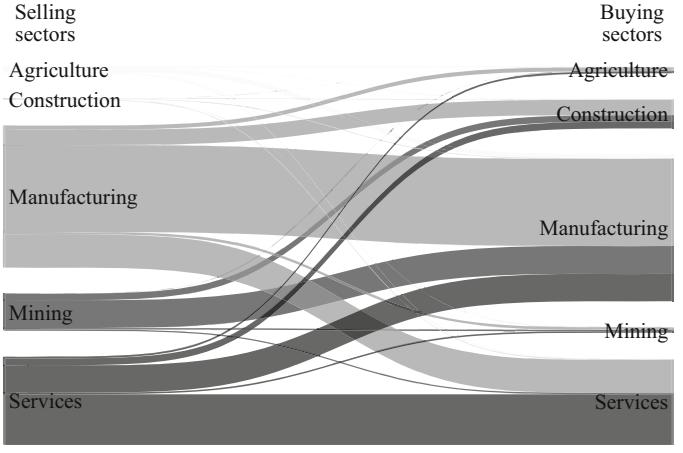


**Figure 8** World production and sales of intermediates by sector, 2018. This figure shows the shares of intermediates sold internationally from one broad economic sector to another in 2018. Source: Authors' calculations based on underlying data from the 2021 edition of OECD ICIO tables (OECD 2021a).

 

**Table 1** Intermediate services and manufacturing in the French economy, 2018

| Sector | Services inputs | Manufacturing inputs | Imported services inputs | Imported manufacturing inputs | Sector share of total gross output |
|---|---|---|---|---|---|
| Service | 32% | 5% | 4% | 2% | 68% |
| Manufacturing | 24% | 25% | 4% | 13% | 26% |
| Primary | 28% | 17% | 3% | 5% | 6% |
| Total economy | 30% | 11% | 4% | 5% | 100% |

*Note*: Table appears as Table 1 in Baldwin (2022).

Source: Authors' calculations based on underlying data from 2021 edition of OECD ICIO Tables (OECD 2021a).

teamed with the outsized importance of the services sector (68% of French GDP), is why services inputs are so much more important at the economy-wide level.

Intermediate services sectors are important employers in countries around the world. Figure 9 exhibits the numbers for the G7 nations as a whole and five large emerging countries for the most recently available year, 2018. In the G7 nations, there

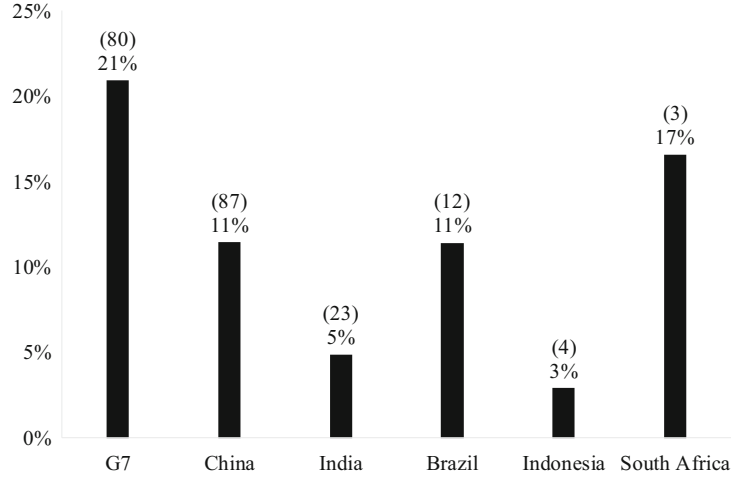


**Figure 9** Jobs in business services sectors other than travel and transportation, 2018, in share of total jobs in the economy (and millions of workers). 'Travel and Transport' is the OECD category "Distributive trade, transport, accommodation and food services", The top numbers in parentheses are millions of jobs; the bottom numbers in percent are shares of total employment in the relevant economy.

Source: Authors' calculations based on OECD Trade in Employment database (OECD 2021c).

are about 80 million jobs (and thus workers) in the various business sectors that correspond most closely to the 'modern services' category used above. Namely, these are business sector workers (and thus not government employees) but not in sectors that are likely to be largely non-traded (travel and transport).

The figure shows that there are more workers in these modern service sectors in China (87 million) than there are in all the G7 (80 million). The numbers in India, Brazil, Indonesia, and South Africa are 23, 12, 4, and 3 million respectively. In terms of job shares, we see that these jobs are more important in the G7 (21%) than in emerging economies but in three of the five emerging economies, the share is in double digits.

Figure 10 switches the focus to trade by decomposing intermediate services exports into subsectors. The left side shows the source intermediate services sectors and the right side shows the buying intermediate services sectors. Slightly over half of the intermediate services exports in 2018 were related to transportation, travel, accommodation, and food. The second largest category—professional, scientific, technical, administrative, and support services—amounts to about a quarter of the total with the categories financial and insurance services, and information and communication services accounting for about an eighth of the total. The other types of services are of negligible importance.

Wholesale and retail trade, transportation, accommodation and food (which includes most of the services listed under both transport and travel in Figure 6) are important to all sectors but especially to manufacturing. The OECD Trade in Value Added (TiVA) data classifications, which are the source for our intermediate service figures, do not line up perfectly with the official WTO services trade data

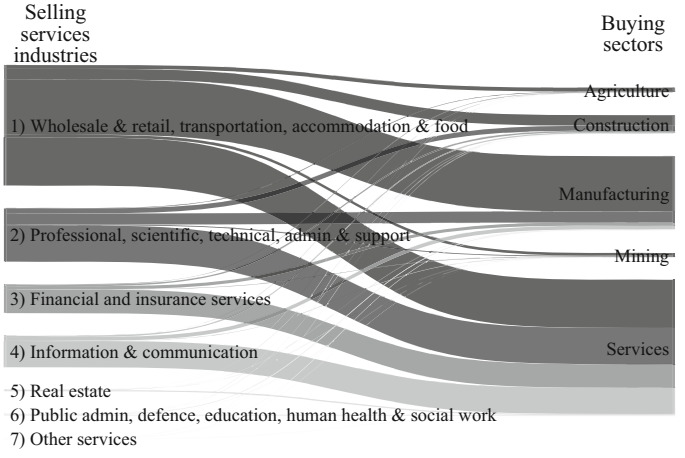


**Figure 10** Allocation of world services trade in intermediates across sectors, 2018. This figure shows the share of intermediate services purchased by a given broad economic sector, as a share of total world intermediates.

Source: Authors' calculations based on underlying data from the 2021 edition of OECD ICIO Tables (OECD 2021a).

 

classifications. However, the next three services sub-sectors listed on the left side are close to the WTO's modern services category in that they mostly involve services produced in one nation and purchased in another.

### 4.3 Who sells intermediate services to whom?

Figure 11 shows the share of world trade in intermediate services for the top 15 services exporters among bilateral trade partners. All in all, these 15 exporters make up 77% of total world OCS exports, and 41% of total world exports of intermediate services.[4] The figure can be read as a matrix, so the value of 0.8 in the row for the USA and the column for the United Kingdom (GBR) means that 0.8% of world trade in intermediate services is between the US and the UK. The shading is a heat plot, where darker shades represent larger shares of world intermediate services exports, and lighter shades represent smaller shares.

Five points are noteworthy. First, the US (and to a lesser extent the UK) are clear leaders when it comes to intermediate services exports to all nations. Second, the distribution of world trade in intermediate services is fairly dispersed. This is in stark contrast to the distribution of world intermediate manufacturing trade, which is highly concentrated among the three 'giants'—China, the US, and Germany (Baldwin *et al.*, 2022, Baldwin & Freeman, 2022). Third, the upper left quadrant of the heat plot is, in general, more darkly shaded, indicating a larger set of leaders in world trade in intermediate services (eight to ten countries) than for manufacturing. Fourth, the US, UK, and France—all countries which are heavy exporters of intermediate services—are large intermediate services importers, as seen by the fact that their

| | USA | GBR | IRL | DEU | NLD | CHN | IND | FRA | JPN | SGP | LUX | CHE | BEL | CAN | SWE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| USA | | 0.8 | 1.2 | 0.8 | 0.6 | 1.2 | 0.4 | 0.5 | 1.1 | 0.6 | 0.3 | 0.2 | 0.3 | 1.4 | 0.1 |
| GBR | 1.0 | | 0.5 | 0.5 | 0.4 | 0.2 | 0.1 | 0.6 | 0.2 | 0.2 | 0.3 | 0.1 | 0.2 | 0.1 | 0.1 |
| IRL | 0.2 | 0.3 | | 0.4 | 0.2 | 0.1 | 0.1 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 |
| DEU | 0.5 | 0.3 | 0.2 | | 0.3 | 0.5 | 0.1 | 0.5 | 0.1 | 0.2 | 0.4 | 0.3 | 0.2 | 0.1 | 0.1 |
| NLD | 0.2 | 0.2 | 0.4 | 0.4 | | 0.1 | 0.0 | 0.2 | 0.1 | 0.1 | 0.0 | 0.1 | 0.3 | 0.0 | 0.1 |
| CHN | 0.7 | 0.1 | 0.0 | 0.2 | 0.1 | | 0.1 | 0.1 | 0.4 | 0.5 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 |
| IND | 0.7 | 0.1 | 0.0 | 0.2 | 0.1 | 0.2 | | 0.1 | 0.1 | 0.3 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 |
| FRA | 0.2 | 0.4 | 0.3 | 0.5 | 0.2 | 0.3 | 0.0 | | 0.1 | 0.1 | 0.2 | 0.1 | 0.4 | 0.0 | 0.1 |
| JPN | 0.4 | 0.1 | 0.2 | 0.1 | 0.2 | 0.7 | 0.1 | 0.1 | | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| SGP | 0.3 | 0.1 | 0.1 | 0.2 | 0.1 | 0.5 | 0.2 | 0.1 | 0.2 | | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| LUX | 0.1 | 0.2 | 0.2 | 0.2 | 0.1 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | | 0.1 | 0.2 | 0.0 | 0.0 |
| CHE | 0.2 | 0.1 | 0.1 | 0.3 | 0.1 | 0.1 | 0.0 | 0.2 | 0.1 | 0.1 | 0.1 | | 0.1 | 0.0 | 0.0 |
| BEL | 0.2 | 0.1 | 0.1 | 0.2 | 0.3 | 0.1 | 0.0 | 0.4 | 0.0 | 0.0 | 0.2 | 0.1 | | 0.0 | 0.0 |
| CAN | 1.1 | 0.1 | 0.0 | 0.1 | 0.0 | 0.1 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 |
| SWE | 0.1 | 0.1 | 0.0 | 0.1 | 0.0 | 0.1 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |

**Figure 11** Share of world trade in intermediate services (%), 2018. Countries are the top 15 OCS exporters, accounting for 77% of world OCS exports and 41% of world intermediate services exports. Source: Authors' calculations based on underlying data from the 2021 edition of OECD ICIO Tables (OECD 2021a).

respective columns are darkly shaded. Finally, while China appears heavily reliant on intermediate services imports (as seen by the dark shading of its row), it is not a key intermediate services exporter.

### 4.4 How are intermediate services traded?

Trade in intermediate services is pervasive but less documented than trade in goods. The papers in this issue of the Asian Economic Policy Review are, for example, forms of intermediate services trade since the authors were requested to write content for the journal that is then provided to final customers. There are, nonetheless, three notable vehicles for services trade.

The most easily observed vehicles for intermediate service exports are freelancing platforms like Upwork and Fiver. Some of the most common tasks purchased on these sites involve logo design, graphic design, banner design, photo editing, website design, data entry, illustrator services, coding in JavaScript, HTML5, or Python, creating custom Excel spreadsheets, copywriting, translation, building software architecture, video editing, creating 3D models, feature article and blog writing, search engine optimization, internet marketing, social media marketing, creative writing, and setting up and running e-commerce websites (Baldwin *et al.*, 2021).

Another common and fast-growing organizational form of services trade is Business Process Outsourcing (BPO) firms (A.T. Kearney, 2019). For instance, in India and the Philippines, call centers are often the entry-level service exports that firms use to get into the service exporting sector. Furthermore, Callzilla.net, a US company, headquartered in Florida, operates two offices in Bogota, Colombia. It provides outsourced call and contact center services; they hire Colombians with experience in customer service, sales or employee retention services. Another BPO, Kolvoz Ltd., focuses on conducting marketing campaigns, positioning brands, as well as customer services to boost loyalty and satisfaction with the company's products. Other BPOs specialize in debt collection services including consumer credit, loan credit, revolving credit, mortgage credit, and automotive credit.

Shared Service Centers (SSCs) are a third common vehicle for trade in intermediate services. These hubs, typically owned by a multinational company, consolidate various business functions (like finance, human resources, IT, or customer services) for use by multiple departments or business units within the firm. For instance, a multinational corporation might have a Shared Service Centre in India or the Philippines providing IT support or customer service to its global operations. SSCs are primarily set up to reduce costs by reducing duplication, leveraging economies of scale, and taking advantage of lower labor costs in certain geographic areas (Deloitte, 2022).

Figure 12 shows the global importance and evolution of intermediate trade in goods and services. The left panel shows that the ratio of world trade in manufactured intermediates as a share of total world trade has trended down from 1995 to 2018 while the services intermediates' ratio has trended up. Note that the scales indicate that trade in intermediate manufactures is roughly 50% higher than intermediate services.

 

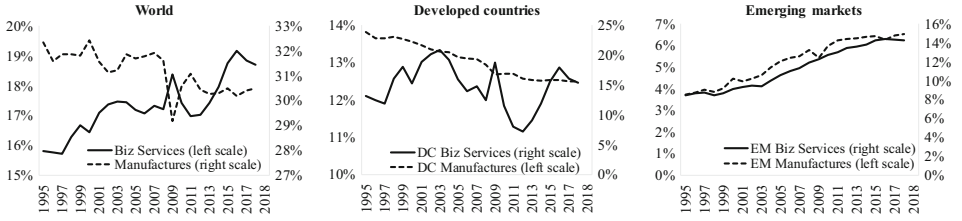


**Figure 12** Exports of manufactured and business service intermediates (% total world exports, goods & services), world, developed countries, and emerging markets.
Source: Authors' calculations based on OECD TiVA database (OECD 2021b).

Notes: Intermediates are measured as gross exports of Manufactures and Total Business Services, respectively, both as shares of total world gross exports (goods & services). Business services include all non-government services. Developed Countries (DC) are those listed by the UN (2019) consisting of all EU and EFTA nations plus Japan, US, Canada, New Zealand, and Australia. EMs are all other nations.

The middle and right panels reveal that the evolution of manufactured intermediates versus services intermediates trade is quite different for developed and emerging economies. The charts all show the ratio of the relevant export flow over the world's exports of all goods and services. Developed countries' shares in manufactured intermediates fell rather sharply between 1995 and 2018. Intermediate services, by contrast, saw more of a see-saw evolution in their shares of world exports. The right panel shows the same data but for emerging economies. Here we see their shares of both goods and service intermediates' lines rose steadily throughout the period for which data are available (1995–2018).

Figure 12 data cover all categories of services data listed in Figure 8. As it turns out, the categories have grown at very different rates. Figure 13 (left panel) illustrates how rapidly the category of information and communication services has grown with the index rising from 100 in 1995 to 1000 in 2018. The next fastest are professional, technical & administrative services. Financial and insurance services have risen more slowly but at a steady pace. By contrast, transportation and hospitality services have stagnated since 2008 (in line with goods trade). The right panel of the chart spotlights the growth in the two fastest growing sectors and distinguishes the growth of intermediate services exports by developed countries and emerging economies. The message from this chart is that emerging economies are expanding their exports of intermediate services almost twice as fast as developed countries, albeit from a lower base.

### 4.5 Why services trade is likely to continue to grow faster than goods trade

Using a purely extrapolative argument based on the charts above, one can make a prima facie case that the future of trade lies in services, not goods. What mechanisms, then, drove the faster rise of services trade over goods trade, and how confident can we

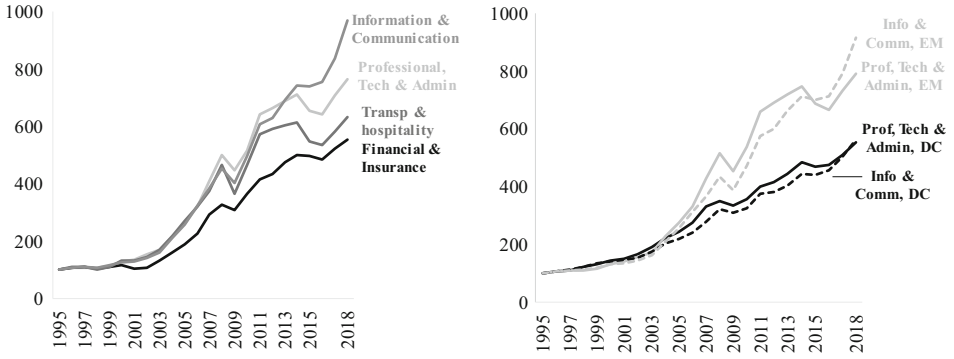


**Figure 13** Intermediate services trends by categories and country group (1995 = 100). 'Transport & hospital' is the TiVA category Distributive trade, transport, accommodation, and food services.
Source: Authors' calculations based on OECD TiVA database (OECD 2021b).

be that this trend will continue? An argument for the continuation of the services trade trend can be built on four facts and a subsequent deduction.

The first fact is that services trade barriers are much higher than goods trade barriers, but they are falling faster. The second fact is that digital technology is reducing barriers to services trade. The third fact is that demand is not a limiting factor, nor is supply, which is the fourth fact. The deduction is simple: trade barriers for services are significantly higher and falling faster than for goods, which indicates that the growth in services trade is likely to persist for many years and will continue to be more rapid than the growth of goods trade. In short, it suggests that the future of trade lies in services. In the following paragraphs, we discuss these four facts in detail.

#### *4.5.1 Fact 1: Trade barriers for services are radically higher than for goods*

The first fact is that current trade barriers for most services are significantly higher than those for goods (Benz & Jaax, 2022). This is the standard explanation for why trade in services is so small compared to the size of the services economy in all nations. When thinking ahead, it is important to distinguish two sources of services trade barriers: technical barriers related to the importance of face-to-face interactions in the production and delivery of services, and regulatory barriers. The latter will be difficult to remove, but the former will almost irresistibly be lowered by the rapid advance of digital technology (WTO, 2019).

As Figure 6 (left panel) showed, there was a considerable acceleration of trade in services when digital technology hit an inflection point around the year 2016. The improvement in digital technology lowered the difficulty of inter-personal communication that is often critical to the creation and delivery of services. This is one reason why the many gravity regression studies of trade in services found that while distance had a negative effect on trade in services, the size of the effect was somewhat ambiguous – especially given what one might expect for exports that travel via fiber

 

optic cables rather than container ships. For instance, Kimura and Lee (2006) find that distance has a more negative impact on services trade than goods trade but Mirza and Nicoletti (2004) found the opposite.

On this point, it is noteworthy that the technical barriers to trade in most services are so high that it makes them non-tradable. There are many regulatory barriers to services trade but in most services sectors, the bulk of barriers are technological rather than regulatory or fiscal in nature. The reason for this fact is telling: the lack of fiscal barriers, such as tariffs, is not so much a policy choice as it is a technical necessity. The main challenge is that imported services are difficult to track when they cross borders, and thus, are difficult to tax at the border. Indeed, the features of trade in services that make it difficult to collect statistics are the same features that make them difficult to tax.

Given that putting tariffs on services poses many challenges, domestic service providers who wanted protection from foreign competition would typically lobby for regulations that stymie foreign service providers. For example, competition from foreign architects is restricted by a lack of mutual recognition of qualifications even among nations with high safety standards. Removal of such regulatory barriers via negotiations is going very slowly (WTO, 2019).

#### *4.5.2 Fact 2: Digital technology is reducing obstacles to trading services*

To our knowledge, there are no empirical studies which link advances in digital technology to the expansion of modern services, but Oh *et al.* (2020) estimate that digital technologies have reduced trade costs for digitally deliverable services. The rapid adjustment to telework during the pandemic provides abundant anecdotal evidence for the impact of digital technology on intra-national services trade. In the services trade context, digital transformation reduces the costs of international telework, what has been called 'telemigration', and the delivery of services like language training, translation, telemedicine and copyediting across borders (Baldwin, 2019). Specifically, digital technology has reduced transaction costs by easing communication, coordination, and contracting between providers and consumers. It has also facilitated quality improvement by enabling customization, feedback mechanisms, and rating systems.

The first and second facts taken together imply that services-trade barriers are declining significantly more rapidly than trade barriers for goods and are expected to continue doing so for the foreseeable future since the services barriers were so much higher to begin with.

#### *4.5.3 Fact 3: Export capacity and import demand are not a limiting factor*

The third fact is that export capacity is not as great a limiting factor in services as it is in goods. The argument rests on two considerations. First, services are very labor-intensive compared to manufacturing, agriculture, and mining—to the extent that appropriate labor is the main constraint on production—not capital, infrastructure, or materials. Second, every nation has a workforce that is already producing business services of the type that could be exported, as Figure 9 suggested.

This abundance of service sector workers is not limited to developed economies. All emerging market economies have lots of workers trained to perform intermediate services domestically in all the occupations listed above. There is no need to develop new sectors, build factories, or develop farms or mines. Although not all the workers included in the numbers in Figure 9 could easily join the services export sector, the data make the point that the problem of export capacity in services sectors is quite different than that of export capacity in goods sectors.

Adding to the third fact, demand does not serve as a limiting factor. Businesses in all nations spend heavily on services, and some of these services could potentially be provided by workers based in foreign countries, as Table 1 illustrated for the example of France. For the world economy, about 30% of all gross spending is on intermediate services.

#### *4.5.4 Fact 4: Emerging economies workers are paid far less*

A key factor that suggests that the future of trade lies in services turns on the view of globalization as arbitrage (Baldwin, 2016b). That is, whenever relative prices of goods or services differ across nations, arbitrage is possible since the goods or services that are relatively cheap in one nation are relatively dear in the other. This is always a two-way arbitrage opportunity since the reverse cheap-versus-dear ranking holds for the other good or service in relative prices. Again, noting the highly labor-intensive nature of the production of most services, the key to relative prices lies in the wage gaps among countries. As is well known, wages are far higher in developed nations than they are in emerging markets.

On average, a Colombian worker earns $US2.2 per hour working on occupations that are 'teleworkable' while the average wage for such an occupation in the US is $US25 (Baldwin *et al.*, 2021). The fact that US wages are, on average, more than 11 times higher suggests that there are plenty of arbitrage opportunities. Of course, the same occupation performed in the US and Colombia may be very different across a variety of dimensions, but the very large wage gap suggests that outsourcing services sector tasks from US offices to Colombian service workers would have the potential to be cost saving.

The implication of these four facts is simple. Trade barriers are significantly higher and falling much faster for services than they are for goods, which indicates that the growth in services trade is likely to persist for many years. Moreover, the great difficulties of setting up firms or factories and developing overseas markets are much less problematic for services than they are for goods. This is why we believe that the growth in services trade—especially from emerging economies and especially intermediate services—will outstrip the growth in goods trade for years to come. In short, this line of reasoning suggests that the future of trade lies in services.

## 5. Concluding Remarks

The end of the rapid globalization period—the second unbundling—that started around 1990 has gained widespread attention and is clearly supported by the data.

 

Some commenters go further and assert that the world economy is actually de-globalizing—a stance that is clear in the title of Rana Foroohar's, 2022 book, *Homecoming: The Path to Prosperity in a Post-Global World* (Foroohar, 2022).

In this aricle, we argue that this view of deglobalization misses the key facts that indicate globalization has evolved, not ended. The ratio of global goods trade to GDP did peak 15 years ago, but trade in services has continued to boom and now accounts for a fifth of international commerce.

To sum up, the notion that we are entering a post-globalization period is based on an outdated and oversimplified perspective on what globalization is. Although the share of global trade in goods may be declining, the rise in services trade intensity and the growing importance of intermediate services suggest that, as Mark Twain might put it, reports of globalization's death are greatly exaggerated.

## Notes

1 While these three panels paint slightly different pictures, the underlying message of world goods exports peaking or plateauing remains.

2 The rapid expansion of services trade in emerging markets has the potential to lessen pre-existing inequalities between developed and emerging economies.

3 It is well known that trade in services data can be affected by profit-shifting to economies with beneficial tax regimes/which are knows as tax havens for large corporations.

4 For comparison, the top 15 manufacturing exporters make up 44.4% of world intermediate manufacturing exports.

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