(DE-)GLOBALISATION OF TRADE AND REGIONALISATION: A SURVEY OF THE FACTS AND ARGUMENTS

2021

Documentos Ocasionales
N.º 2124

Iván Kataryniuk, Javier Pérez and Francesca Viani
The Occasional Paper Series seeks to disseminate work conducted at the Banco de España, in the performance of its functions, that may be of general interest.

The opinions and analyses in the Occasional Paper Series are the responsibility of the authors and, therefore, do not necessarily coincide with those of the Banco de España or the Eurosystem.

The Banco de España disseminates its main reports and most of its publications via the Internet on its website at: http://www.bde.es.

Reproduction for educational and non-commercial purposes is permitted provided that the source is acknowledged.

© BANCO DE ESPAÑA, Madrid, 2021

ISSN: 1696-2230 (on-line edition)
Abstract

The COVID-19 pandemic initially caused some international trade distortions, most of which were temporary, since international goods trade flows recovered their pre-pandemic levels by the end of 2020. Against this background, geopolitical factors are gaining traction in shaping cross-border trade, as many countries adopted initiatives geared to influencing the relocation of their international firms’ activity and the reorganisation of global value chains. These recent measures, though, can be seen as part of a larger-scale pre-pandemic process that partly called into question the WTO rules-based multilateral framework. Another process under way prior to the outbreak of the pandemic was the slowdown in international trade in goods. All these elements have spurred an active debate on the direction international trade might take and have called into question the future of globalisation. In this paper we provide a survey of the main arguments put forward in this literature and the key stylised facts needed to frame it.

**Keywords:** globalization, trade policy.

**JEL classification:** F15, F40.
Resumen

La pandemia de COVID-19 provocó algunas distorsiones en el comercio internacional, la mayoría de carácter temporal, ya que los flujos comerciales internacionales de bienes recuperaron sus niveles previos a la pandemia a finales de 2020. En todo caso, los factores geopolíticos están ganando terreno en la configuración del comercio transfronterizo, puesto que muchos países adoptaron iniciativas destinadas a influir en la deslocalización de la actividad de sus empresas internacionales y en la reorganización de las cadenas globales de valor. Estas medidas recientes pueden verse como parte de un proceso previo, a mayor escala, que cuestiona el marco multilateral basado en la Organización Mundial del Comercio. Otro proceso en curso antes del estallido de la pandemia fue la desaceleración del comercio internacional de mercancías. Todos estos elementos han estimulado un debate sobre la dirección en la que podrían evolucionar el comercio internacional y la globalización. En este documento proporcionamos una revisión de los principales argumentos presentados en la literatura y los hechos estilizados necesarios para enmarcarla.

Palabras clave: globalización, política comercial.

Códigos JEL: F15, F40.
Contents

Abstract 5

Resumen 6

1 Introduction 8

2 The past and present of international trade: from the post-GFC slowdown to the COVID-19 challenges 10

3 Some stylised facts on globalisation and regionalisation 13

3.1 Fact 1: Post-GFC trade policy measures offer a mixed picture 13
3.2 Fact 2: The global trade slowdown 18
3.3 Fact 3: The growing relevance of service trade 20
3.4 Fact 4: Regionalisation on the rise 23
3.5 Fact 5: The slowdown in Global Value Chains fragmentation 25
3.6 Fact 6: The reduction in offshoring decisions, and some experiences of re-shoring in the past decade 28

4 The future of trade: technological advances and political factors 30

References 32
1 Introduction

In the first half of 2020 the COVID-19 pandemic, and the measures adopted by governments worldwide to contain it, caused some international trade distortions, most of which were temporary. Examples were travel bans on sanitary grounds, protectionist measures adopted in respect of trade in medical products and, more recently, restrictions on the distribution of vaccines. Although the global closure of borders in the early months of the health crisis prompted a severe decline in world trade, there was a turnaround towards end-2020. As a result, international goods trade flows had by then recovered their pre-pandemic levels.

Nonetheless, many countries also adopted initiatives geared to influencing the relocation of their international firms’ activity and the reorganisation of global value chains. With this aim in mind, some countries such as the United States, Japan, South Korea and France have announced or approved fiscal incentives in the course of 2021. Related initiatives are being pushed forward by the EU in the framework of the so-called “open strategic autonomy”, which aims to increase the robustness of European production chains and to lessen the dependence on third countries in some strategic areas (see for example Montanino et al., 2021). These recent measures, though, can be seen as part of a larger-scale pre-pandemic process that partly called into question the WTO rules-based multilateral framework. Notable landmarks in this process were the escalation of US-China trade rivalry and Brexit.

Another process under way prior to the outbreak of the pandemic was the slowdown in international trade in goods in the wake of the Global Financial Crisis (GFC). This has received a great deal of attention from the literature, with an active discussion on whether we are in a de-globalisation or a slow-globalisation period, and on which forces might underlie trade dynamics in the medium run (see for example Van Bergeijk, 2019; Antrás, 2020; Work stream on globalisation, 2021). A wealth of explanatory factors has been put forward in this connection: the transition in China to a growth model based to a lesser extent on external trade; a tailing off of the dividends arising from the trade liberalisation measures adopted across the board in the decades prior to the financial crisis; and the slowdown in the scope for fragmentation of Global Value Chains (GVCs), which had already attained very high levels of complexity. Yet this slowdown in world trade in goods is proving compatible with an increase in regional trade, against a background in which trade ties among member countries of a single region have strengthened in many areas, most notably in North America and in the EU. In addition, the counterpoint to the slowdown in trade in goods is a rising trend in global trade in services, owing mainly to technological progress and digitalisation, and their increasing weight in the productive processes for certain manufactures.

In this context, this paper has two aims. First, to briefly survey the arguments put forward in the literature in relation to the debate outlined in the previous paragraph (we do this in Section 2). Second, to provide in a structured fashion the key stylised facts needed to follow these debates (Section 3). In particular, we identify six key facts:
— Fact 1: Post-GFC trade policy measures offer a mixed picture.

— Fact 2: The global trade slowdown.

— Fact 3: The growing relevance of service trade.

— Fact 4: Regionalisation on the rise.

— Fact 5: The slowdown in Global Value Chains fragmentation.

— Fact 6: The reduction in offshoring decisions, and some experiences of re-shoring in the past decade.

Finally, in Section 4 of the paper we wrap up the discussion, presenting the views of the literature on the role of technological advances and geopolitical factors as the key aspects that will shape the future of trade.

All in all, our reading of the literature and facts is that there is clear evidence that sustaining a global framework of shared multilateral rules contributes to increasing the robustness and resilience of national economies. In particular, diversification and trade integration have helped tackle the impact of the current crisis and they will be a fundamental factor in driving the recovery. The pandemic has not affected the main factors stemming from the benefits of international trade, such as labour specialisation and the organisation of production. These have allowed the income of the world population to expand in recent decades. Moreover, some of the new emerging challenges – such as combating climate change and how the major digital corporations operate – are on a global scale, and should be addressed from a multilateral perspective. However, the recent experience might indeed strengthen certain previous trends, with a geopolitical backdrop, which may lead to a greater geographical fragmentation of movements in goods, services, capital and people. On one hand, mounting geopolitical competition, which is particularly visible in the technological realm, might heighten insofar as the digitalisation of activity increases dependence on specific technologies provided by major global players based chiefly in the United States and in China. On the other, the advanced economies’ diminished relative economic weight and the rising inequality in these countries, which might fuel political and social polarisation processes, could prompt changes in agents’ preferences with respect to globalisation
2 The past and present of international trade: from the post-GFC slowdown to the COVID-19 challenges

In the last decade, the debate on international trade has mainly focused on explaining the slowdown in cross-border trade activity observed in the aftermath of the GFC. World trade as a share of global GDP more than doubled from the early 1980s, but most of this increase was concentrated from 1986 to 2008, implying a marked stagnation in the post-crisis period (Antrás, 2020). A related observation is the reduction in the ratio of world imports to GDP growth (commonly termed “income elasticity of trade”) observed since 2012 (IRC Trade Task Force, 2016; Martínez-Martín, 2016). Faced with these developments, some authors claimed the world has entered a de-globalisation phase (Van Bergeijk, 2019), as the global economy seems to restlessly oscillate between periods of globalisation and de-globalisation.¹

Most studies still maintain that the globalisation process is only undergoing a slowdown – hence, the term “slowbalisation”² – which, nonetheless, far from being a purely temporary phase, could prove to be a lasting and rather structural phenomenon. Antrás (2020) argues that the data offer no conclusive evidence that globalisation is currently less deep than it was in the pre-crisis period. Indeed, in 2018 the world trade-to-GDP ratio recovered its highest pre-GFC peak. On the other hand, the same study argues that the hyperglobalisation phase observed since 2008 was due to the development of information and communication technology, a significant fall in effective trade costs due both to tariff elimination and technological factors, and political forces that promoted the adoption of market economy practices in several Asian countries. In recent years these forces lost steam, apparently making a slowdown in trade globalisation inevitable.

IRC Trade Task Force (2016) attributes part of the decrease in the income elasticity of trade observed since 2012 to temporary factors, such as the fall in global investment (a component of GDP with a high import content) in the post-GFC period. However, other determinants of the trade elasticity decrease are likely to be of a longer-lasting or permanent nature, such as the absence of strong liberalisation policies, the slowdown in GVC fragmentation and the waning reductions in transportation costs. Likewise, Constantinescu et al. (2020) argue that temporary factors, such as the relatively worse performance of advanced economies in the wake of the GFC, cannot fully explain the decrease in trade elasticity, signalling the presence of other, more structural, factors at play. Among these, the slowing pace of international vertical specialisation is estimated to account for roughly one-half of the decline in import growth during the 2000s³.

There is also broad consensus in the literature on the role of China’s rebalancing in contributing to the post-crisis trade slowdown. In recent years, China has implemented

¹ According to Van Bergeijk (2019), the alternation between the two phases occurs because of the diminishing returns of further globalisation and the progressively increasing costs of redistribution of the benefits of globalisation.
³ Crozet et al. (2015) also highlight the role of GVC in explaining the trade slowdown.
policies aimed at reducing its economy’s dependence on investment and export-led growth, and at increasing the role of domestic demand (Zhang, 2016). These policies are estimated to have had a significant contractionary impact on Chinese trade flows and powerful spillover effects on trading partners’ trade activity (Pei et al., 2015, and Hong et al., 2017).

More recently, trade tensions and protectionist measures might also have adversely affected trade activity, spurring at the same time a variety of complex substitution and diversion effects of international trade flows. Several analyses estimated a relatively contained impact of the tariff increases associated with the US-China trade war on global trade flows (Gunnella and Quaglietti, 2019; IMF, 2019), although the impact was sizable for bilateral trade flows between the United States and China (Bekkers and Schroeter, 2020) and even more pronounced for the varieties subject to tariff increases (Amiti et al., 2019; Fajgelbaum et al., 2020). US-China tensions also gave rise to significant trade diversion effects, with countries such as Mexico, Korea and Vietnam increasing their exports to the United States (Nicita, 2019). These tensions had a negative impact on trade flows also due to the perceived increase in uncertainty surrounding trade policy, as the expectation of smaller export markets led to a reduction in the number of US exporter firms and a decrease in trade flows, even in the absence of actual tariff increases, with a negative effect on investment and production (Caldara et al. 2020; Albrizio et al. 2021).

Several studies also estimated Brexit to have a significant negative effect on regional trade flows (Bank of England, 2018; Steinberg, 2019; Campos and Timini, 2019; Berthou et al., 2020), which seems to be partly confirmed by the fall in bilateral exports between the United Kingdom and the EU in the early months of 2021, when the separation took effect. This effect was preceded, moreover, by significant trade diversions, which started with the 2016 referendum and meant, for example, in the case of Spain, that those firms particularly exposed to the United Kingdom progressively reduced their trade with this country and increased imports and exports vis-à-vis the rest of the EU (Gutiérrez et al. 2021).

The global trade slowdown that characterised the post-GFC period was accompanied by an increase in regional linkages. The regional clustering of trade flows is a well-known phenomenon. In 2000, roughly half of global trade in goods was at the regional level. This reflects in part the regional organisation of production activities. Since their emergence, GVCs have been heavily regionalised, as production is organised across three main hubs: the United States, Germany and China. These are the centres, respectively, of what have been called Factory North America, Factory Europe and Factory Asia (Johnson and Noguera, 2012).

The degree of trade regionalisation was on a decreasing trend in the pre-GFC period. This was evident in some EMEs regional blocs, such as emerging Asia (Iapadre and Tajoli, 2014), but also at the global level (Lund et al., 2019). In the post-GFC years, this trend seems to have been reversing. Intra-regional trade in goods as a share of total trade increased by 2.7 pp between 2013 and 2017, mostly due to rising regional flows within the EU28 (i.e. the EU in its pre-Brexit composition), inside the NAFTA bloc and among countries in the Asia-Pacific region (Lund et al., 2019). Yet, when looking at how value chains have evolved
(rather than at gross trade flows), the picture becomes more complex. The proportion of regional to total value-chain trade has been expanding in recent years in Asia, but seems to have been stagnating in the EU and in North America (Li et al., 2019 and Vidya et al., 2020). This is related in part to the changing relative importance of the three supply-chain factories, as production shifted away from North America and Europe towards Asia (Baldwin and Lopez-Gonzalez, 2015). On the other hand, network analysis shows that the bilateral, complex value chain linkages between the hubs of Factory EU, Factory Asia and Factory North America in place in 2000 had disappeared in 2017, hinting at a stronger segmentation into regional blocs of supply chain linkages (Li et al., 2019).

The COVID-19 pandemic, for its part, has posed a series of important challenges to the international trade framework. The pandemic has caused the introduction of several trade distortions. Most of them were temporary and related to the attempts to secure the provision of medical products, and were particularly prominent in March and April last year. More recently, some restrictions have been placed on the distribution of vaccines against COVID-19. In this connection, the United Kingdom and the United States signed preferential supply contracts with pharmaceutical companies, while some other countries, such as India, imposed restrictions on vaccine exports.

In the longer run, several countries are announcing policy initiatives to increase the resilience of global value chains. Although in some cases they seek to increase the robustness of production inputs, by diversifying sources and reducing the impact of critical products, there are also initiatives geared to incentivising the renationalisation of productive processes by means of subsidies and tax credits.

The literature has emphasised that, in fact, a more national mix of inputs will make countries more vulnerable to shocks. For example, Miroudot (2020) finds that more integrated companies have a greater capacity to recover following an adverse shock. Conversely, resorting to a higher amount of national inputs usually increases the volatility of GDP because it reduces the degree of risk diversification. In the context of the COVID-19 crisis, Bonadio et al. (2020) use a model to simulate a counterfactual pandemic scenario, comparing the current situation with one in which there is no international trade. They find that the decline in GDP in the renationalised scenario will be slightly worse than in the current situation, as countries become more vulnerable to national lockdowns. This result is consistent with the empirical evidence in Espitia et al. (2021). They find that, although those sectors of the EU countries, Japan and the United States most integrated into the GVCs bore the brunt of the initial external shock originating in China, when the pandemic also hit domestic markets, it was these firms that performed comparatively better. Similar results are obtained by Borino et al. (2021), who shows that firms engaging in international trade exhibited a higher resilience in the context of the COVID-19 crisis.

---

4 See García et al. (2020).
5 See OECD (2020).
3 Some stylised facts on globalisation and regionalisation

3.1 Fact 1: Post-GFC trade policy measures offer a mixed picture

The reduction in tariff barriers (measured as the simple average of effectively applied tariffs) was particularly marked during the 1990s, when global tariffs decreased by almost 4 pp.6 The reduction in tariff barriers subsequently slowed, entailing a decrease in global tariffs of about 3 pp over a 10-year period. An even lower pace of reduction was observed in the post-GFC period, as tariffs decreased by 1.3 pp between 2008 and 2018. It should be also stressed that in this period tariff barriers were not lowered homogenously across all goods categories. Indeed, they were raised in the post-crisis years on imports of animal and food products (Chart 1, Panel 1).7

The decrease in tariffs observed in the post-GFC years was due mostly to liberalising measures undertaken in low and middle-income countries in the Middle East and Sub-Saharan Africa (Panel 2). The reduction in high-income economies as a whole, on the contrary, was negligible. Still, there is some heterogeneity within income groups (Panel 3). While tariff barriers applied by the United States and the EU held almost unchanged in the post-GFC years, other advanced economies such as Japan pursued a significant process of liberalisation. Among emerging countries, some, such as Mexico, experienced a marked opening, while in others, such as India, tariffs were significantly increased. China, meantime, kept tariff barriers basically unchanged during the post-GFC years to finally implement a marked reduction in Most Favored Nation (MFN) applied tariffs in 2017, when they were cut by 2.7 pp.

The trade war between the United States and China further slowed the process of tariff reduction8. As a consequence of trade tensions, Chinese tariffs on US goods exports more than doubled with respect to their 2018 level, and US tariffs on Chinese exports increased more than sixfold (Panel 4). The implementation of the Phase 1 deal between the two parties, in February 2020, only led to a marginal reduction in applied tariffs.

Non-tariff barriers increased markedly after the GFC (Chart 2)9. Some of these measures, such as sanitary and phytosanitary ones, and technical barriers to trade are typically used as standard-setting provisions, and introduced to protect consumers’ health and goods standards. For this reason, they may ultimately exert a neutral or even positive impact on trade flows, although this impact is found to be widely heterogeneous across products and partner countries. Other types of non-tariff measures, such as quantity

---

6 Effectively applied tariffs are defined as the lower of preferential tariffs and Most Favored Nation tariffs. The series does not include the tariffs imposed as a consequence of trade tensions between the United States and other countries that have emerged since 2018.
7 Tariffs on food products have been on a rising trend in many regions (Asia, North America, the Middle East) since 2014. A big increase was implemented in 2017 in the United States.
8 Tariffs imposed in the context of the US-China trade tensions are not included among the effectively applied tariffs compiled by the WTO, and are not shown in Panel 1.
9 Contingent trade protective measures include anti-dumping, countervailing duties and safeguards. For the United States, this latter category includes the measures taken by the Trump administration in 2018, affecting imports of solar panels and washing machines.
and price controls, export restrictions and contingent trade-protective measures, have traditionally been used as instruments of commercial policy, and have been found to have an adverse impact on trade flows.\(^\text{10}\)

**Restrictions on international trade in services**, as measured by the Service Trade Restrictiveness Index (STRI) compiled by the OECD, did not undergo marked reductions from 2014 at the global level (Chart 3, Panel 1).\(^\text{11}\) Restrictions were eased only marginally on some specific types of provisions, such as air transport and courier services, while others,

---

10 See, among others, Li and Beghin (2012) and Conesa and Timini (2019).
11 Yearly figures refer to the average STRI of the 48 countries in the OECD STRI database.
such as road transport, even increased marginally. As a result, in 2020 the provision of services from foreign firms is still highly and asymmetrically restricted across different types of services, with stricter restrictions, on average, on air and rail transport, courier services, and accounting and legal services.

From a cross-country perspective, restrictions on service trade are more stringent in emerging countries than in advanced economies (Panel 2). Yet in some emerging countries with the highest protection levels, such as Thailand and China, restrictions have been somewhat lowered over recent years. In many EU countries, restrictions on foreign service provisions are relatively low, although higher levels are observed in some members, such as Greece, Poland and Italy.

The number of trade agreements in force steadily increased following the GFC, although notifications have slowed down markedly since 2018 (Chart 4, Panel 1). The recent upturn in 2021 is mostly a by-product of Brexit, whereby the UK had to sign a number of new bilateral agreements. The region that contributed most to the proliferation of liberalising treaties between 2008 and 2019 was East Asia, which accounted for roughly half of global notifications during this period, followed by the EU (Panel 2). The main agreements signed since the GFC jointly cover approximately 78% of world GDP and 21% of global exports (Panel 3). Treaties that were signed between neighbouring economies (such as the Regional Comprehensive Economic Partnership (RCEP)) and those that have been in force for many

12 For each country, the average STRI of the 19 services sub-sectors in the OECD database is considered.
13 Panel 2 includes agreements only up to 2019 in order to rule out Brexit-related treaties.
Asian countries contributed markedly to new trade agreements, both within the Asia-Pacific region and with countries located in other areas. Despite the withdrawal of the United States decided by the Trump administration, in 2018 Japan, Malaysia, Singapore and Vietnam signed a liberalisation treaty with other economies situated around in the Pacific area (Canada and Australia), giving rise to the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP). This ambitious treaty encompasses tariff provisions, but also addresses measures dealing with broader issues, such as copyright and patents,
and environmental and labour provisions. Moreover, in 2020, China, Japan, Korea and 12 other Asian and Oceania economies signed the RCEP. Although the treaty focuses on tariff elimination and on other goods trade provisions, such as the definition of homogenous rules of origin, its sheer size makes it particularly significant from a global point of view, as its members are responsible for nearly 30% of world GDP (Panel 3).14

The EU has significantly contributed to forging new agreements in recent years. Currently, the most relevant treaties signed by the EU cover roughly 28% of global GDP.

14 For a detailed description of the recent agreements involving the Asia-Pacific region, see Petri and Plummer (2020).
They include Central America, Singapore, Vietnam, Canada, Japan and – pending approval – MERCOSUR, plus the recent investment agreement with China. These agreements share some general characteristics: they are second-generation treaties, going beyond traditional tariff-focused provisions (which are basically eliminated), with measures regulating service trade, public procurement, environmental and labour-related matters. On the investment side, the recently signed investment deal between the EU and China (CAI) opens the door to significant liberalisation by the latter, which also commits to fostering non-discrimination and transparency towards European companies.

During the years of the Trump presidency, the United States was excluded from the main liberalising trade agreements, choosing to withdraw even from those the previous administration had agreed upon, such as the Trans-Pacific Partnership (TPP). Yet in 2018 the country managed to reach an agreement with Canada and Mexico on the USMCA, the treaty that replaces the NAFTA, thus guaranteeing continuity in North American trade relationships.

3.2 Fact 2: The global trade slowdown

After the GFC, the average yearly growth of world cross-border trade flows decreased to 3.7% (excluding 2020) from average growth of almost 7% a year in the previous decades. The fall due to the COVID-19 crisis is comparable to the GFC (Chart 5, Panel 1).

The lower growth of trade flows in the post-GFC period is associated with lower trade openness, as measured by the sum of imports and exports relative to GDP (Panel 2). Trade openness increased exponentially worldwide in the 1990s, peaking in the

---

**Chart 5**  
**GLOBAL TRADE**

**1 VOLUME OF WORLD TRADE IN GOODS AND SERVICES**

**2 WORLD TRADE OPENNESS**

**TOTAL TRADE**

**GOODS TRADE**

**SERVICES TRADE (right-hand scale)**

**SOURCES:** IMF and World Bank.

---

15 See Timini and Viani (2020) for a detailed description of the agreement and an estimation of its economic impact.
years that preceded the crisis. After the abrupt decline in global trade that the GFC entailed, trade openness bounced back in 2010 and 2011, but stagnated and even slightly decreased in the following years. As shown in Chart 5, this pattern is exclusively related to the openness in goods trade. On the contrary, trade in services as a share of GDP continued increasing after the GFC, although in 2019 international service provision represented only 14% of GDP compared to 40% of goods trade.

From a geographical perspective, the pattern of slowing goods trade openness since the GFC is strongly related to the reduction in the trade-to-GDP ratio of some emerging and developing countries (Chart 6, Panel 1). The most notable decrease in this respect was in China, coinciding with its strong economic expansion in the second half of the 2000s and the rebalancing of its economy towards a growth model less reliant on
exports, which also related to an upstream movement in GVC. Other relevant countries whose openness declined after the GFC were India and other emerging Asian economies. In Asia, there was a particularly sharp decline in trade openness in the ASEAN-5 economies (Thailand, Indonesia, Malaysia, Singapore and the Philippines), whose degree of integration started declining as from the mid-2000s (Panel 3). Also, the so-called “Asian tigers” – a group of very open countries which, like Korea and Hong Kong, had enjoyed a period of spectacular growth during the 1990s – experienced a marked decline in openness, but only in the post-crisis period. The decline did not involve, however, a number of smaller lower-income Asian countries, such as Vietnam and Myanmar, which presumably took advantage of China’s move up in GVCs to replace it as a provider of low-end products.

On the contrary, emerging countries in Latin America, the EU and the euro area were less affected by this slowing process, and even recorded a small increase in trade openness (Panel 2). Similarly, the flattening of the opening-up curve was much softer in other advanced economies such as the United States and Japan.

The slowdown in goods trade integration is related to a number of factors. As emphasised by the literature, beyond the rebalancing of the Chinese economy, the slowdown in global investment – a GDP component with a particularly high import value – also played an important role, as did the absence of marked liberalisation initiatives.

### 3.3 Fact 3: The growing relevance of service trade

Global service trade as a share of GDP was on an increasing trend as from the second half of the 1990s (Chart 7, Panel 1), and continued expanding also in the post-crisis period. Still, the aggregate tendency masks significant differences: while service trade openness increased markedly in high-income countries after the GFC, driven by a strong boost in service trade in Europe and central Asia (Panel 2), it remained roughly unchanged in middle and low-income economies. There is marked heterogeneity even among the advanced countries, as the notable increase in service trade openness in the EU and Euro Area economies was not matched by a similar development in other high-income countries, such as the United States and Japan, where the relevance of service trade held at much lower levels (Panel 3). Among emerging countries, just a few (Russia, Mexico) recorded a significant increase in service trade openness in recent years (Panel 4).

Chart 8 shows that, in the post-GFC period, exports of all types of services grew significantly globally. Among the categories of services the trade in which posted the biggest increases are maintenance and repair services, telecommunications and IT, along with cultural and recreational services, the use of Intellectual Property (IP) rights and other business services (Panel 1). A similar pattern characterised EU service trade. Indeed, the large increase in both imports and exports of EU services, which amounted to nearly 60% between 2009 and 2019,

---

16 See, inter alia, Kee and Tang (2016).
17 See, inter alia, IRC Trade Task Force (2016).
was mostly due to a rise in service exports related to telecommunications, the use of IP, other business services and other service categories that exhibited a lower percentage growth, but whose trade is very relevant to European economies, such as travel and transport (Panel 2).

Globally, services value added embedded in manufacturing exports (as a share of export total value added from different industries), stayed roughly unchanged at 30% as from the GFC. Yet these developments mask significant differences across groups of economies. For OECD countries, as well as for EU economies, the share of services value added tended to decline, while it constantly rose for non-OECD economies from 2012 (Chart 9, Panel 1). These trends were mostly due to the domestic component of services value added. Indeed, the imported share of services value added embedded in manufacturing exports remained roughly constant for OECD countries at about 12% (of total VA embedded in exports), and it even displayed an increasing trend in the EU aggregate, reaching almost

**Sources:** IMF and World Bank.
15% of total VA in 2014. On the contrary, the imported share of services tended to decrease over time for non-OECD economies, as their domestic service markets grew (Panel 2).

Focusing on the origin of the imported portion of services value added embedded in manufacturing exports, Panel 3 shows that in 2015 the United States was the biggest cross-border service provider, followed by Japan, the United Kingdom and the largest EU countries. Among emerging economies, China was the biggest exporter of services used in manufacturing exports, closely followed by Russia.

When distinguishing among different types of imported services, those related to distributive trade, transport and accommodation have the largest impact on manufacturing goods exports, followed by other business sector activities and by financial and insurance services (Panel 4).
3.4 Fact 4: Regionalisation on the rise

In some areas, there has been an increase in regional trade flows after the GFC. As shown in Chart 10 (Panel 1), in the EU28 and among NAFTA countries, the internal share of trade in goods and services was on a declining trend in the early 2000s, but started to rebound in the post-GFC period. In other highly integrated areas, such as those encompassing the countries of the Asian and Pacific region that recently agreed to the RCEP trade treaty (Australia, Brunei, China, Indonesia, Japan, Korea, Laos, Malaysia, Myanmar, New Zealand, the Philippines, Singapore, Thailand and Vietnam), regionalisation in goods trade was on an increasing trend even before the GFC, although bilateral trade flows as a
The share of total trade tended to decrease among some of its members, such as the ASEAN economies. Finally, regionalisation seems not to have taken place in some other trade blocs, such as the MERCOSUR.

Focusing on European economies, the level of regionalisation, as measured by the internal share of trade, is higher among the EU28 countries than within the euro area (Panel 2). This applies to both goods and service trade. While regional integration of goods trade at the EU level has bounced back in the post-GFC period, goods trade regionalisation...
in the euro area has held practically unchanged since 2012. On the contrary, regional integration of service trade has shown an upward trend in both blocs starting in 2015.

The increase in regional integration among EU countries seems to be related to a strengthening of trade linkages between euro area economies and other EU countries outside the Eurozone. This has occurred since 2013, due mainly to an increase in goods trade (Panel 3). EU integration with the UK, on the contrary, has been diminishing both on the goods and the service side, a trend that accelerated further to the 2016 Brexit referendum (Panel 4).

3.5 Fact 5: The slowdown in Global Value Chains fragmentation

After a recovery in the immediate post-GFC period, the defragmentation of GVCs levelled out. As shown in Chart 11, world GVC value added as a share of gross exports slightly decreased in the post-GFC years, and has held almost unchanged since 2015 (Panel 1)\(^{18}\).

The foreign value added share in domestic gross exports (an index of “backward” value chain participation) and the domestic value added share in foreign gross exports (proxying “forward” value chain participation) diminished slightly from 2012, for both advanced and developing countries (Panel 2).

Among advanced economies, backward participation is particularly strong in small open EU countries, such as the Slovak Republic, Ireland, Belgium and the Netherlands, while forward participation is more pronounced in bigger countries with high value-added exports, such as the United States, the United Kingdom and several euro area economies, and in commodity exporters, such as Norway (Panel 3). Apart from an increase in the backward integration of Japan, matched by a decrease in its forward integration, and a reduction in Switzerland’s and New Zealand’s forward integration indices, advanced economies’ GVC participation in 2018 was almost unchanged with respect to its 2005 level, including in the major European economies, such as Germany, France, Italy and Spain.

Among developing countries, backward participation is particularly strong in Asian economies, such as the Philippines, Malaysia and Vietnam, which are highly integrated into the regional value chain, and in Mexico. Forward participation seems more pronounced in commodity producers, such as Russia, Saudi Arabia and Indonesia (Panel 4). Contrary to what happened in the advanced economies, the GVC participation of some developing countries changed significantly from the mid-2000s. Indeed, there was a large reduction in China’s backward participation, offset by a rise in the country’s forward participation, thereby signalling a shift in its position in the global production chain\(^{19}\). Backward integration also diminished in other Asian countries, such as Malaysia, Thailand and the Philippines, while it tended to increase in Turkey and some African economies.

---

\(^{18}\) GVC value added is calculated as the sum of foreign value added in gross domestic exports and domestic value added in foreign exports, for all the countries in the UNCTAD EORA-GVC database.

\(^{19}\) According to Kee and Tang (2016), as China’s integration into GVCs progressed, the country also promoted the domestic production of intermediate goods that were then embedded in exports, which tended to increase its forward integration.
GLOBAL VALUE CHAIN (GVC) INTEGRATION

1 WORLD GVC VALUE ADDED AS A SHARE OF GROSS EXPORTS (a)

% of world exports

2 BACKWARD AND FORWARD GVC PARTICIPATION (b)

Foreign (domestic) value added in gross domestic (foreign) exports as a share of gross domestic exports

3 GVC PARTICIPATION, SELECTED ADVANCED ECONOMIES (b)

Backward and forward participation

4 GVC PARTICIPATION, SELECTED EMERGING ECONOMIES (b)

Backward and forward participation

SOURCE: UNCTAD.

a GVC value added is the sum of the foreign value added in gross domestic exports and domestic value added in foreign exports.
b Backward participation is the foreign value added in gross domestic exports as a share of gross domestic exports. Forward participation is domestic value added in gross foreign exports as a share of gross domestic exports.
c Simple averages across advanced and developing economies in the UNCTAD EORA-GVC database.
Globally, the sectors that embed more foreign value added are the computer, transport equipment, machinery and chemical industries, with a percentage of foreign value added in final demand higher than 40% (Chart 12, Panel 1). The same industries also display a high share of foreign content in their gross exports (Panel 3). The service sector’s final demand and gross exports, on the other hand, tend to exhibit a lower foreign value added than most goods industries. Yet the service sectors of transport, accommodation and the food industry, and business services are those that originate more foreign value added at the global level, followed by the mining and the chemical industries (Panels 2 and 4).

SOURCE: OECD.

a Aggregate of all countries in the OECD TiVA database. 2015 data.
3.6 Fact 6: The reduction in offshoring decisions, and some experiences of re-shoring in the past decade

The slowdown in the fragmentation of GVCs entailed a reduction in the offshoring of production activities. As shown in Chart 13, in recent years there has been a decrease in European companies that resort to offshoring and outsourcing to both European and non-EU countries.\(^20\)

At the same time, there has been a tendency to re-shore or near-shore productive activities. According to a Bank of America survey of 3,000 companies based in different regions (Bank of America, 2020), North American companies belonging to about half of the productive sectors were planning to move their supply chains back to North America by the end of 2019. The sectors more inclined to re-shoring would appear to be the high-tech and energy-intensive ones. Among the reasons alleged for re-shoring are the protectionist measures imposed by the Trump administration.

Among European firms, between 2016 and 2018, nearly 100 cases of re-shoring from extra-EU countries were reported, and 90 from other EU economies.\(^21\) Among the reasons why European economies chose to re-shore their production from emerging countries were the shrinking differential between EU and foreign labour costs, and the tariffs imposed

---

\(^20\) Offshoring intra-EU (extra-EU): EU firms that open an establishment in another EU country (a non-EU country) increase their activity in that country or contract a provider of another EU country (a non-EU country) to perform tasks that were previously done within the firm.

\(^21\) According to data from the European Reshoring Monitor (https://reshoring.eurofound.europa.eu/).
by the US administration on imports from China. Re-shoring from other EU economies, on the other hand, was mostly motivated by the need to reduce overcapacity and to rely on “made in” effects.

---

22 An example of the former motivation was Monbento re-shoring its production of lunch boxes from China back to France in 2017 because the shrinking differential between Chinese and French labour costs did not make the location of production activities in Asia profitable anymore. An example of the latter motivation was Volvo re-shoring from China to Sweden, in 2018, its production of cars aimed at the US market because of the tariffs imposed by the Trump administration on imports of cars from China.

23 This happened, for instance, in the case of Arkopharma, which re-shored its activities from Italy and Ireland back to France in 2017 in order to reduce overcapacity, to rely on the “made in” effect and to be close to R&D facilities.
4 The future of trade: technological advances and political factors

Looking forward, technological advances are among the factors that could have a significant impact on international trade patterns in the coming decades. Their impact on trade flows, however, may prove to be more complex than the positive effect exerted on global trade by the advances in previous technological waves, such as the emergence of digital technologies in the 1990s and the early 2000s (Baldwin, 2016; Bughin and Lund, 2019). Indeed, some advances, such as those related to digital platforms, are likely to further reduce transaction costs, with a positive impact on goods trade flows (WTO, 2018). On the other hand, other types of technological improvements, like automation, may reduce the weight of labour relative to capital in production processes, thereby increasing firms’ incentives to bring production close to final consumers—a process that could tend to decrease international goods trade (Bughin and Lund, 2019).

While technological advances and digitalisation might have a mixed effect on goods trade in the coming years, their impact on service trade is likely to be positive and significant. In recent decades, trade in services has largely benefited from technological advances, which made services more tradable across borders and progressively increased their share in the production processes of several types of manufactures (this is known as the “servicification” of manufacturing (Lodefalk, 2017)). As corroborated by model-based analyses, these trends are likely to have a positive and significant impact on service trade flows in the near future (WTO, 2018). The COVID-19 pandemic could also reinforce this upward trend in service trade, as it further made evident that digitalisation can significantly increase their tradability across borders. This is the case, for example, of the so-called “telemigrants” who, through digital technologies, can live in one country and provide services in another (Baldwin, 2019).

On the other hand, technological advances could also contribute to deepening trade controversies in the near future, as digitalisation could increase the dependency of productive activities on technologies provided by big global firms, mainly based in the United States and in China.

Future trade developments will also depend on political factors, which may undermine the support for free trade policies. In particular, a strand of the literature has focused on the impact of the increasing share of Chinese imports in the consumption basket on support for protectionist policies. The main channel is the significant job losses in manufacturing associated with the so-called “China shock” (Autor et al. 2013, Acemoglu et al. 2016). As a result, several papers have found that the higher Chinese share in imports has been associated with an increase in political polarisation in the United States (Autor et al. 2016), a shift in political preferences for more protectionist political parties and legislators (Che et al. (2016)), and a more protectionist stance of legislators when facing political pressure (Conconi et al. (2014)).

In any case, the economic literature has shown that protectionist policies generate losses in welfare, both at the global and local level. In this regard, Felbermayr et al. (2013)
studies a global model characterised by a dominant country (the Hegemon) and several small economies. Against this background, unilateral protectionist policies by the Hegemon may increase welfare in its economy with respect to the equilibrium with free trade, at the expense of the rest of the economies. However, when the rest of the economies retaliate, the global equilibrium is characterised by lower welfare for all economies. The losses from pursuing protectionist policies, in fact, are amplified when there is more than one dominant country, as is increasingly the case in the current situation. Moreover, the literature emphasises that those losses are higher when accounting for intermediates and production networks (Baqee and Farhi, 2021).
References


Bank of America (2020). Tectonic shifts in global supply chains.


BANCO DE ESPAÑA PUBLICATIONS

OCCASIONAL PAPERS


2011 DIRECTORATE GENERAL ECONOMICS, STATISTICS AND RESEARCH: The Spanish economy in 2019. (There is a Spanish version of this edition with the same number).

2012 MARIO ALLOZZA, MARIEN FERDINANDOUISE, PASCAL JACQUINOT and KATJA SCHMIDT: Fiscal expenditure spillovers in the euro area: an empirical and model-based assessment.

2013 DIRECTORATE GENERAL ECONOMICS, STATISTICS AND RESEARCH: The housing market in Spain: 2014-2019. (There is a Spanish version of this edition with the same number).

2014 ÓSCAR ARCE, IVÁN KATARYNIUK, PALOMA MARÍN and JAVIER J. PÉREZ: Thoughts on the design of a European Recovery Fund. (There is a Spanish version of this edition with the same number).

2015 MIGUEL OTERO IGLESIAS and ELENA VIDAL MÚÑOZ: Las estrategias de internacionalización de las empresas chinas.

2016 EVA ORTEGA and CHARA OSIAT: Exchange rate pass-through in the euro area and EU countries.


2018 LUIS J. ÁLVAREZ and MÓNICA CORREA-LOPEZ: Inflation expectations in euro area Philips curves.

2019 LUCÍA CUADRO-SÁEZ, FERNANDO S. LÓPEZ-VICENTE, SUSANA PÁRRAGA RODRÍGUEZ and FRANCESCA VIANI: Fiscal policy measures in response to the health crisis in the main euro area economies, the United States and the United Kingdom. (There is a Spanish version of this edition with the same number).

2020 ROBERTO BLANCO, SERGIO MAYORDOMO, ÁLVARO MENÉNDEZ and MARISTELA MULINO: Spanish non-financial corporations’ liquidity needs and solvency after the COVID-19 shock. (There is a Spanish version of this edition with the same number).

2021 MAR DELGADO-TÉLLEZ, IVÁN KATARYNIUK, FERNANDO LÓPEZ-VICENTE and JAVIER J. PÉREZ: Supranational debt and financing needs in the European Union. (There is a Spanish version of this edition with the same number).

2022 EDUARDO GUTIÉRREZ and ENRIQUE MORAL-BENITO: Containment measures, employment and the spread of COVID-19 in Spanish municipalities. (There is a Spanish version of this edition with the same number).


2024 PABLO HERNÁNDEZ DE COS: The main post-pandemic challenges for the Spanish economy. Appearance before the Parliamentary Committee for the Economic and Social Reconstruction of Spain after COVID-19/Congress of Deputies – 23 June 2020. (There is a Spanish version of this edition with the same number).

2025 ENRIQUE ESTEBAN GARCÍA-ESCUDERO and ELISA J. SÁNCHEZ PÉREZ: Central bank currency swap lines (There is a Spanish version of this edition with the same number).

2026 PABLO AGUILAR, ÓSCAR ARCE, SAMUEL HURTADO, JAIME MARTÍNEZ-MATÍN, GALO NUÑO and CARLOS THOMAS: The ECB monetary policy response to the COVID-19 crisis. (There is a Spanish version of this edition with the same number).

2027 EDUARDO GUTIÉRREZ, ENRIQUE MORAL-BENITO and ROBERTO RAMOS: Tendencias recientes de la población en las áreas rurales y urbanas.

2028 ÁNGEL LUIS GÓMEZ: The effects of changes in the composition of employment on euro area wage growth: panel data analysis. (There is a Spanish version of this edition with the same number).

2029 MIGUEL GARCÍA-PÓSADA GÓMEZ: Analysis of insolvency proceedings in Spain against the backdrop of the COVID-19 crisis: insolvency proceedings, pre-insolvency arrangements and the insolvency moratorium. (There is a Spanish version of this edition with the same number).

2030 ÁNGEL GÓMEZ-CARREÑO GARCÍA-MORENO: Juan Sebastián Elcano – 500 años de la Primera vuelta al mundo en los billetes del Banco de España. Historia y tecnología del billete.

2031 OLIMPIA BOVER, NATALIA FABRA, SANDRA GARCÍA-URIBE, AITOR LACUESTA and ROBERTO RAMOS: Firms and households during the pandemic: what do we learn from their electricity consumption?

2032 JÚLIA BRUNET, LUCÍA CUADRO-SÁEZ and JAVIER J. PÉREZ: Contingency public funds for emergencies: the lessons from the international experience. (There is a Spanish version of this edition with the same number).

2101 LUNA AZAHARA ROMO GONZÁLEZ: Una taxonomía de actividades sostenibles para Europa.
2102 FRUCTUOSO BORRALLO, SUSANA PÁRRAGA-RODRÍGUEZ and JAVIER J. PÉREZ: Taxation challenges of population ageing: comparative evidence from the European Union, the United States and Japan. (There is a Spanish version of this edition with the same number).
2103 LUIS J. ÁLVAREZ, M.* DOLORES GADEA and ANA GÓMEZ LOSCOS: Cyclical patterns of the Spanish economy in Europe. (There is a Spanish version of this edition with the same number).
2104 PABLO HERNÁNDEZ DE COS: Draft State Budget for 2021. Testimony before the Parliamentary Budget Committee, 4 November 2020. (There is a Spanish version of this edition with the same number).
2105 PABLO HERNÁNDEZ DE COS: The independence of economic authorities and supervisors. The case of the Banco de España. Testimony by the Governor of the Banco de España before the Audit Committee on Democratic Quality / Congress of Deputies, 22 December 2020. (There is a Spanish version of this edition with the same number).
2106 PABLO HERNÁNDEZ DE COS: The Spanish pension system: an update in the wake of the pandemic. Banco de España contribution to the Committee on the Monitoring and Assessment of the Toledo Pact Agreements. 2 September 2020. (There is a Spanish version of this edition with the same number).
2107 EDUARDO BANDRÉS, MARÍA-DOLORES GADEA and ANA GÓMEZ-LOSCOS: Dating and synchronisation of regional business cycles in Spain. (There is a Spanish version of this edition with the same number).
2108 PABLO BURRIEL, VÍCTOR GONZÁLEZ-DÍEZ, JORGE MARTÍNEZ-PAGÉS and ENRIQUE MORAL-BENITO: Real-time analysis of the revisions to the structural position of public finances.
2109 CORINNA GHIRELLI, MARÍA GIL, SAMUEL HURTADO and ALBERTO URTASUN: The relationship between pandemic containment measures, mobility and economic activity. (There is a Spanish version of this edition with the same number).
2111 IRMA ALONSO and LUIS MOLINA: A GPS navigator to monitor risks in emerging economies: the vulnerability dashboard.
2112 JOSÉ MANUEL CARBÓ and ESTHER DIEZ GARCÍA: El interés por la innovación financiera en España. Un análisis con Google Trends.
2113 CRISTINA BARCELÓ, MARIO IZQUIERDO, AICTOR LACUESTA, SERGIO PUENTE, ANA REGIL and ERNESTO VILLANUEVA: Los efectos del salario mínimo interprofesional en el empleo: nueva evidencia para España.
2114 ERÍK ANDRES-ESCAVOLA, JUAN CARLOS BERGANZA, RODOLFO CAMPOS and LUIS MOLINA: A BVAR toolkit to assess macrofinancial risks in Brazil and Mexico.
2115 ÁNGEL LUIS GÓMEZ and ANA DEL RÍO: The uneven impact of the health crisis on the euro area economics in 2020. (There is a Spanish version of this edition with the same number).
2116 FRUCTUOSO BORRALLO EGEA and PEDRO DEL RÍO LÓPEZ: Monetary policy strategy and inflation in Japan. (There is a Spanish version of this edition with the same number).
2117 MARÍA J. NIETO and DALVINDER SINGH: Incentive compatible relationship between the ERM II and close cooperation in the Banking Union: the cases of Bulgaria and Croatia.
2118 DANIEL ALONSO, ALEJANDRO SUESA, CARLOS MORENO, SUSANA PÁRRAGA and FRANCESCA VIANI: Fiscal policy measures adopted since the second wave of the health crisis: the euro area, the United States and the United Kingdom. (There is a Spanish version of this edition with the same number).
2119 ROBERTO BLANCO, SERGIO MAYORDOMO, ÁLVARO MENÉNDEZ and MARISTELA MULINO: Impact of the COVID-19 crisis on Spanish firms’ financial vulnerability. (There is a Spanish version of this edition with the same number).
2120 MATÍAS PACCIE, ISABEL SÁNCHEZ and MARTA SUÁREZ-VARELA: Recent developments in Spanish retail electricity prices: the role played by the cost of CO2 emission allowances and higher gas prices. (There is a Spanish version of this edition with the same number).
2121 MARIO ALLOZA, JAVIER ANDRÉS, PABLO BURRIEL, IVÁN KATARYNIUK, JAVIER J. PÉREZ and JUAN LUIS VEGA: The reform of the European Union’s fiscal governance framework in a new macroeconomic environment. (There is a Spanish version of this edition with the same number).
2122 MARIO ALLOZA, VÍCTOR GONZÁLEZ-DÍEZ, ENRIQUE MORAL-BENITO and PATROCINIO TELLO-CASAS: Access to services in rural Spain. (There is a Spanish version of this edition with the same number).
2123 CARLOS GONZÁLEZ PEDRÁZ and ADRIAN VAN RIJTE: The role of derivatives in market strains during the COVID-19 crisis. (There is a Spanish version of this edition with the same number).
2124 IVÁN KATARYNIUK, JAVIER PÉREZ and FRANCESCA VIANI: (De-)Globalisation of trade and regionalisation: a survey of the facts and arguments.