

Globalisation patterns in EU trade and investment

2017 edition



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**Globalisation patterns
in EU trade
and investment**

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Foreword

'Globalisation patterns in EU trade and investment' focuses on one of the most important issues connected to globalisation, the growing trade and financial flows between the European Union and the rest of the world.

This publication presents a broad range of statistics on the balance of payments, international trade and business in a globalised world. It highlights recent patterns in trade, investment and also in industrial organisation.

The first part is devoted to the role played by the European Union in global trade and investment as compared to other trade partners.

In part two, the publication focuses on the international trade in goods and services, foreign direct investment, and the structure and conduct of foreign affiliates within the EU.

A balanced and progressive trade policy aiming to harness globalisation is high on the priorities list of the European Commission led by President Jean-Claude Juncker.

This Eurostat publication aims to present EU citizens, policymakers and businesses with more information about globalised trade and investment.

I hope that you will find it useful for making better and more informed decisions and I wish you an enjoyable reading experience,



Mariana Kotzeva

Acting Director-General, Eurostat



Abstract

Globalisation patterns in EU trade and investment provides information to describe patterns of 'economic globalisation': it focuses on developments for international trade and investment in the [European Union \(EU\)](#) and its 28 Member States from a business perspective, analysing exchanges between traders and patterns of behaviour within and between enterprises.

The publication provides a starting point for those who wish to explore the wide range of data covering the globalisation phenomenon that are freely available on Eurostat's website at: <http://ec.europa.eu/eurostat>

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For more information please consult

Eurostat website: <http://ec.europa.eu/eurostat>
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Introduction





Globalisation patterns in EU trade and investment provides information to describe patterns of 'economic globalisation': it focuses on developments for international trade and investment in the **European Union (EU)** and its 28 Member States from a business perspective, analysing exchanges between traders and patterns of behaviour within and between enterprises.

Having provided a brief introduction to economic globalisation, European policy developments and a set of background information relating to the statistics used within the publication, the first chapter presents a set of international comparisons (**Chapter 1**) which provide the context for the remainder of the publication, comparing the **EU** with other major economic powers, including China, Japan and the United States; thereafter, the analyses are essentially concentrated upon developments experienced by the EU and its Member States. The subsequent chapters are structured largely according to the different domains used within official statistics. As such, **Chapter 2** presents information on international trade in goods; it is followed by complementary information on international trade in services (**Chapter 3**). After a presentation of developments for international flows of goods and services, **Chapter 4** analyses movements of capital through foreign direct investment (whereby an entity in one economy seeks to obtain a lasting interest in an enterprise that is resident in another). The penultimate chapter expands on the information presented for foreign direct investment by providing an analysis of the structure and conduct of foreign affiliates (**Chapter 5**). The publication closes with a disparate collection of evidence from a range of pilot statistical studies that are designed to capture changes in business models that may be linked to the globalisation phenomenon (**Chapter 6**).

Note that the publication does not aim to measure the costs or the benefits associated with globalisation. Equally, it does not extend beyond an analysis of trade and investment transactions, into other domains which may be impacted by globalisation, such as: social impacts — for example, economic migration, income distribution or wage developments; financial flows; the application of information and communication technologies; environmental impacts; or geopolitical aspects.

Defining globalisation

The Council of Europe (1) defines globalisation as: '*... the ever closer economic integration of all the countries of the world resulting from the liberalisation and consequent increase in both the volume and the variety of international trade in goods and services, the falling cost of transport, the growing intensity of the international penetration of capital, the immense growth in the global labour force, and the accelerated worldwide diffusion of technology, particularly communications.*'

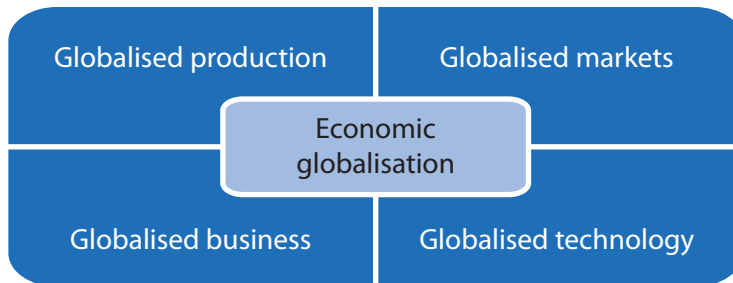
Historically, most economists subscribed to the view that there are positive gains from globalisation. These views are essentially based on Ricardo's theory of comparative advantage in international trade (1817), whereby countries should favour exporting those goods and services which they can produce relatively more efficiently than their competitors, thereby resulting in an expansion of economic output, more competitive economies, the creation of new jobs and lower prices.

(1) Parliamentary Assembly of the Council of Europe, see: <http://assembly.coe.int/nw/xml/XRef/Xref-XML2HTML-en.asp?fileid=17580&lang=en>.



However, it was not until the 1980s and 1990s that the spotlight was thrown onto globalisation, as a number of significant changes aligned to provide the impetus for considerable change. During this period, globalisation became synonymous with the promotion of free trade — based on the removal of tariff and non-tariff barriers — and the deregulation of various markets, in particular, financial deregulation. Around the same time there were a series of geopolitical changes — such as the end of communism, the unification of Germany, or the opening-up of China — all of which provided a further stimulus towards the development of a truly globalised economy. Furthermore, the rapid introduction of new information technologies considerably lowered the costs of communication and increased exponentially the exchange of information. All of these changes impacted upon the way that **multinational enterprises** behaved, with many increasing their levels of international trade, investment and capital flows. As a result, some manufacturing activities (re)located from industrialised economies to (lower cost) transition economies in eastern Europe and emerging economies like Brazil, Russia, India or China (BRICs), followed later by others. Alongside the physical relocation of their output, there were also significant changes in the way that some multinational enterprises were structured, as the role of low tax offshore financial centres became increasingly important.

Economic dimensions of globalisation



As such, globalisation is a broad, multifaceted phenomenon that impacts on businesses, governments, politics, cultures and societies, and has been (dis)credited with a wide range of effects. Some would argue that globalisation has, among other influences, resulted in: the world becoming a richer place; with wider access to larger and more diverse markets; higher living standards (especially in emerging economies); widespread adoption of new technologies; lower prices and greater choice for consumers; greater availability of information leading, for example, to improved human rights. Others may counter that globalisation has, among others, led to: a widening of income inequality (as some people and regions are less adaptable to change and competition than others); increased pressure to lower wages as well as health, safety and other standards in order to gain a competitive advantage; a transfer of power from national governments to multinational enterprises; greater risk of international financial crises due to volatility in capital flows, financial contagion and asset price bubbles; a loss of cultural diversity; or negative environmental impacts.

EU international trade and investment policies

The EU has a common international trade policy, often referred to as the common commercial policy. In other words, the EU acts as a single entity on international trade and investment issues, with the [European Commission](#) negotiating on behalf of its 28 Member States.

Article 206 of the [Treaty on the functioning of the European Union \(TFEU\)](#) specifies that the common commercial policy should contribute to '*the harmonious development of world trade, the progressive abolition of restrictions on international trade and on foreign direct investment, and the lowering of customs and other barriers*'.

To strengthen its international trade relationships, the European Commission has highlighted its desire to complete the Doha round of multilateral trade negotiations launched by the [World Trade Organisation \(WTO\)](#), but also to conclude a wide range of bilateral free trade agreements. Indeed, the EU is currently negotiating more than 20 separate trade agreements.

i For more information concerning international trade relationships between the EU and its partners, please refer to the European Commission's Directorate-General for Trade [website](#).

In May 2017, the European Commission presented five papers linked to the [Future of Europe](#), one of which concerned a [Reflection paper on harnessing globalisation](#) (COM(2017) 240 final). This made a range of proposals linked to issues such as tax evasion, government subsidies, social dumping and trade defence instruments, alongside the creation of a multilateral investment court. The paper also addressed ideas to mitigate the negative impacts of globalisation, for example: protecting and empowering citizens; providing lifelong education and training support; promoting progressive tax policies and encouraging a more equitable distribution of wealth; investing in innovation; using the EU's [structural funds](#) to assist vulnerable regions; using the [European Globalisation Adjustment Fund \(EGF\)](#) to help displaced workers find another job.

In September 2017, the European Commission unveiled a new trade package, which included:

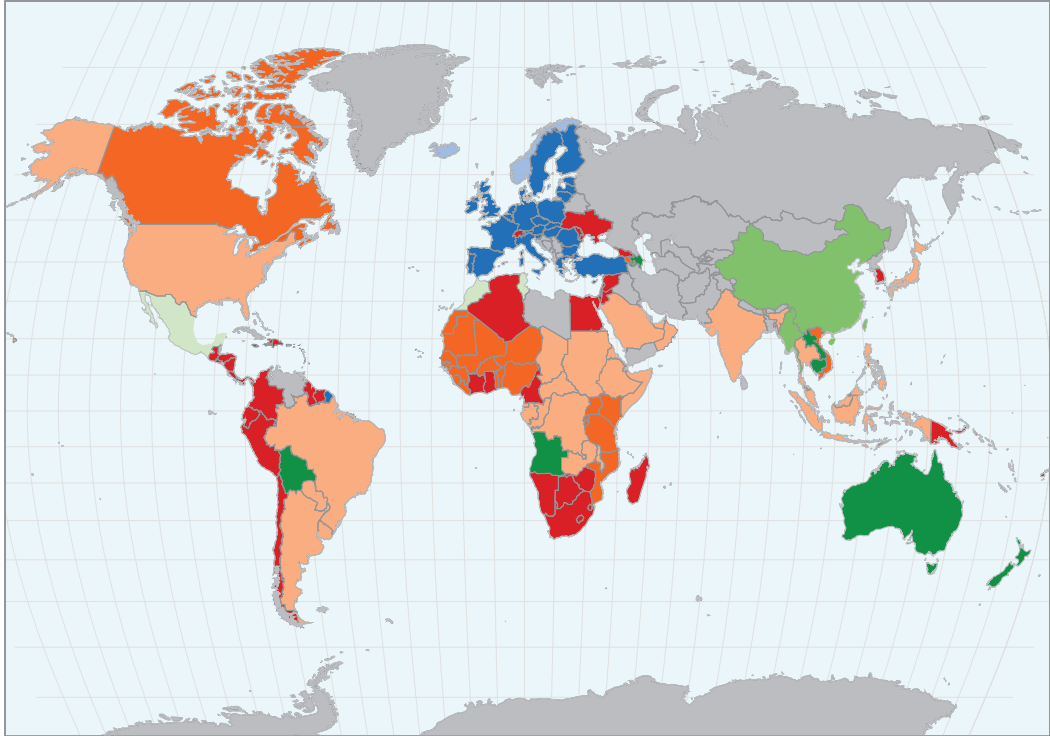
- a [Report on the implementation of the trade policy strategy Trade for All — Delivering a Progressive Trade Policy to Harness Globalisation](#) (COM(2017) 491 final);
- a Communication [A Balanced and Progressive Trade Policy to Harness Globalisation](#) (COM(2017) 492 final);
- a Communication [Welcoming Foreign Direct Investment while Protecting Essential Interests](#) (COM(2017) 494 final).

The latter recognised concerns about foreign investors taking over European enterprises, especially when these relate to strategic technologies/activities, while EU investors are sometimes prevented from enjoying the same rights if they wish to invest in non-member countries. To provide assurances to EU citizens and industry, the Communication outlines a proposal for screening certain types of foreign direct investment in the EU (on the grounds of security and public order) in order to deter unfair practices.

The other Communications in the trade package outlined a set of new initiatives, while underlining the EU's commitment to building an open, sustainable, rules-based global trade and investment system, subject to European values and interests, while upholding the work of the WTO. Indeed, recent settlements — such as those concluded with Canada and Japan — show the potential for progressive trade agreements to create mutually beneficial outcomes, strengthening global governance and harnessing globalisation.



Map 1: The state of EU trade agreements and trade negotiations



- EU and customs union (Andorra, Monaco, San Marino, Turkey)
- European Economic Area (Norway, Iceland, Liechtenstein)
- Preferential trade agreement in place (FTA, EPA, DCFTA)
- Preferential agreement awaiting adoption / ratification
- Preferential trade agreement being negotiated
- Potential for free trade partnership
- Stand-alone investment agreement being negotiated
- Preferential agreement in the process of modernisation

Source: Directorate-General for Trade, European Commission



Challenges for statistics in a globalised world

In practice, most indicators for measuring economic globalisation from the EU's perspective are provided by members of the [European statistical system \(ESS\)](#) and the [European System of Central Banks \(ESCB\)](#) in accordance with regulations such as those applying to [national accounts](#), the [balance of payments](#), [foreign direct investment](#) and [international trade in services](#), [international trade in goods](#), [structural business statistics](#) and [foreign affiliates statistics](#).

That said, official statistics were originally developed to measure relatively closed economies where most of the economic activity, with the exception of international trade in goods, took place within regional and national markets; these statistics were based on the nation state as a reporting entity.

With increasing levels of internationalisation and globalisation, there have been a range of challenges/demands placed on statistical systems both in relation to measurement and interpretation issues. Indeed, the freedom with which goods, services, capital and people can circulate within the EU and around the world has led to a reassessment of traditional statistical surveys and indicators, as these may no longer reliably take account of international and intra-enterprise flows. As such, statisticians and policymakers have worked together to modify data collection methods with the aim that these should capture more clearly the ways in which multinational and international enterprises do their business, allowing changes in economic models to be more reliably measured. Some of the main issues include:


- considering that goods may no longer be designed, manufactured, assembled nor marketed in a single country, but rather through global value chains;
- adjusting national statistical frameworks that developed over decades so they remain relevant for assessing multinational enterprises operating in a 'borderless' business world;
- considering how to capture the sizeable flow of intangible assets, for example, how R&D and technological know-how passes through EU borders or how the digital economy allows the coordination of complex activities and sales to consumers with no restrictions linked to physical location;
- considering the possible impact of multinational enterprises restructuring on macroeconomic aggregates, in particular for small open economies;
- bearing in mind how to take account of changes in direct investment behaviour, especially the increasing role of [special purpose entities \(SPEs\)](#), which give rise to increased complexity for inter-enterprise dealings within multinationals.

Issues such as those detailed above have driven statisticians to review data sources and methods for measuring global production. This work is carried out in consultation with EU Member States and international partners, including, the [European Central Bank \(ECB\)](#), other parts of the [European Commission \(EC\)](#), the [United Nations Statistical Division \(UNSD\)](#), the [International Monetary Fund \(IMF\)](#) and the [Organisation for Economic Cooperation and Development \(OECD\)](#).



Methodological notes

Globalisation patterns in EU trade and investment is based on data that was extracted in May and June 2017, largely from [Eurostat's online database](#); the information is derived from a wide range of surveys and data collection exercises. As a result, there may be differences concerning the latest available reference year for each source, as data for some are more quickly available than for others. Note also that the online database may have fresher data due to the continuous nature of data collection and processing resulting in updates and new reference periods being added throughout the year.

 For more information concerning detailed data sources used in the compilation of this publication, please refer to the annex at the end of this publication.

SPATIAL AND TEMPORAL DATA COVERAGE

The EU-28 aggregates that are provided include information for all of the EU Member States or estimates for missing information; any incomplete totals that are created are systematically footnoted. [Time series](#) for these geographical aggregates are based on a fixed set of Member States for the whole of the time period (unless otherwise indicated) — any time series for the EU-28 refers to a sum or an average for all 28 current Member States regardless of when they joined the EU.

As the EU-28 is generally treated as a single trading bloc, the information presented relates to its trade and investment with the rest of the world (extra-EU flows) and excludes any trade and investment between EU Member States (intra-EU flows). The value of trade and investment flows between EU Member States has therefore been subtracted from global aggregates in order to maintain coherency when analysing, for example, shares in world trade.

The first chapter of this publication provides data for the EU-28 aggregate, considering its trade and investment patterns with extra-EU partners. The EU-28 is contrasted with a number of international competitors, namely: Australia, Brazil, Canada, China, Hong Kong, India, Japan, Mexico, Russia, Singapore, South Africa, South Korea, Turkey, the United Arab Emirates and the United States. Note that statistics presented for China are systematically excluding Hong Kong (which is shown separately), unless otherwise stated.



Within the remainder of the publication, statistics are shown for the EU-28 aggregate and the 28 individual Member States; data are also shown for the EFTA countries of Iceland, Liechtenstein, Norway and Switzerland (when available/if applicable). In these remaining chapters, analyses of trade and investment by partner are based on a fixed list of countries: Argentina, Australia, Brazil, Canada, China, Egypt, Hong Kong, India, Indonesia, Israel, Japan, Malaysia, Mexico, Morocco, Nigeria, Norway, Russia, Saudi Arabia, Singapore, South Africa, South Korea, Switzerland, Taiwan, Thailand, Turkey, Ukraine, United Arab Emirates and the United States; for international trade in services and foreign direct investment an additional partner has been included, namely, offshore financial centres ^(?); note that information for Hong Kong and Singapore is shown separately and hence these two countries are excluded from the offshore financial centres aggregate in this publication (to avoid double-counting).

The geographical descriptions used to group EU Member States, for example, 'northern', 'eastern', 'southern' and 'western' are not intended as political categorisations. Rather, these references are made in relation to the geographical location of one or more EU Member States, as listed within the geography domain of Eurovoc, the European Commission's [multilingual thesaurus](#). The northern Member States are often further distinguished between the [Baltic Member States](#) (Estonia, Latvia and Lithuania) and the [Nordic Member States](#) (Denmark, Finland and Sweden).

If data for a [reference period](#) are not available for a particular country, then efforts have been made to fill tables and figures with data for previous reference years (these exceptions are footnoted). Generally, an effort has been made to go back at least two reference years, for example showing data for 2014 or 2015 for those countries (or geographical aggregates) for which 2016 data are not yet available.

(?) The full list of offshore financial centres includes: Andorra, Antigua and Barbuda, Anguilla, Aruba, Barbados, Bahrain, Bermuda, Bahamas, Belize, Cook Islands, Curaçao, Dominica, Grenada, Guernsey, Gibraltar, Hong Kong, Isle of Man, Jersey, St Kitts and Nevis, Cayman Islands, Lebanon, Saint Lucia, Liechtenstein, Liberia, Marshall Islands, Montserrat, Mauritius, Nauru, Niue, Panama, Philippines, Seychelles, Singapore, Sint Maarten, Turks and Caicos Islands, Saint Vincent and the Grenadines, British Virgin Islands, US Virgin Islands, Vanuatu, Samoa. For the purpose of this publication, information for Hong Kong and Singapore is shown separately and hence these two countries are excluded from the offshore financial centres aggregate.



EUROSTAT DATA

Eurostat's data are published with accompanying metadata that provide background information on each source, as well as specific information (flags). These flags provide information pertaining to the status of the data for individual data cells, for example, detailing whether data are estimated or provisional. Many flags on data status have been converted into footnotes which appear with each figure or indicated through the use of an italic font in tables. In order to improve readability, only the most significant information has been included as footnotes under the tables and figures. In tables, the following formatting/symbols are used, as necessary:

<i>Italic font</i>	data value is estimated or provisional (and is hence likely to change);
billion	a thousand million;
trillion	a thousand billion;
:	not available, confidential or value of low reliability;
–	not applicable.

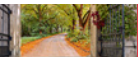
Breaks in series are indicated, as appropriate, in the footnotes provided under each table or figure.

INTERNATIONAL DATA

The indicators presented are often compiled according to international — sometimes global — standards, for example, United Nations' standards for national accounts and the International Monetary Fund's standards for balance of payments statistics. Although most data are based on international concepts and definitions there may be certain discrepancies in the methods used to compile the data.

Many of the international sources that were used in the first chapter present monetary data in national currencies and/or United States dollars (USD), whereas Eurostat data are normally presented in national currencies and/or [euro \(EUR\)](#). Monetary data for international partners from the rest of the world have been converted into euro using annual average exchange rates.

Several indicators have been standardised by expressing their values relative to an appropriate measure of the size of a country, for example, in relation to the size of the economy (GDP). Where necessary, these size measures have been extracted from the United Nations Statistics Division.



EUROSTAT'S ONLINE DATABASE

The online data code(s) below each table and figure helps users to locate the freshest data available, through codes such as tps00001 and nama_10_gdp. In the PDF version of the publication, readers are directly led to the freshest data when clicking on such data codes (provided in the form of hyperlinks), while in the paper publication, the freshest data can be accessed by typing these codes into the 'Search' utility which is found in the upper-right corner of [Eurostat's homepage](#).

EUROSTAT'S ONLINE GLOSSARY

Many terms and abbreviations in the PDF version of this publication are linked to the glossary pages (http://ec.europa.eu/eurostat/statistics-explained/index.php/Thematic_glossaries) of Eurostat's Statistics Explained website (<http://ec.europa.eu/eurostat/statistics-explained>).

Where to find more information?

The simplest way to find more information on the broad range of topics that appear within *Globalisation patterns in EU trade and investment* is through [Eurostat's website](#). It provides users with free access to data, publications and methodologies. The website is updated daily with the latest and most comprehensive statistical information available on: the EU-28 and the euro area, the EU Member States, EFTA countries, candidate countries and potential candidates.

1

Global developments in trade and investment



Main statistical findings

- Global trade in goods accounted for more than three quarters (76.6 %) of the world's total exports of goods and services in 2016.
- The EU-28 had the highest share (17.9 %) of global exports of goods and services in 2016, while the United States recorded the highest share (16.8 %) of imports.
- The EU-28 accounted for around 15 % of the world's trade in goods in 2016.
- There was a rapid increase in China's share of global exports of goods from 11.0 % in 2006 to 17.0 % by 2016.
- Many developed world economies have experienced a relative stagnation in the value of their trade in goods since 2012, part of which may be linked to the impact of changes in oil prices.
- The EU-28 leads the world in terms of the value of its international trade in services; it accounted for 23.9% of global exports in 2016 and was particularly specialised in exporting other business services (which include management consultancy, legal or marketing services).
- In 2015, the EU-28 accounted for more than one third (37.4 %) of the world's outward investment flows.
- The stock of foreign direct investment in China more than quadrupled between 2008 and 2015.

subsidies on products. In 2015, according to the [United Nations](#), the economic output of the world was valued at EUR 66.9 trillion. The [EU-28](#) accounted for around one fifth (19.9 %) of the global total, while the share of the United States was somewhat higher (at 24.3 %); note the relative shares shown in Figure 1.1 are based on current price series, reflecting [market exchange rates](#).

An analysis over time reveals that the Chinese share of global GDP rose from 4.9 % in 2005 to 15.0 % by 2015. During this period, China moved ahead of Japan to become the world's third largest economy. India's share of global output also grew at a relatively fast pace between 2005 and 2015, rising from 1.7 % to 2.9 %. By contrast, the relative shares of global GDP accounted for by the EU-28, Japan and the United States each declined.

Fluctuating commodity prices impact upon global economic fortunes ...

Globalisation has seen the prices of basic commodities increasingly driven by international forces, rather than conditions in domestic markets. This is apparent from Figure 1.2 which presents price indices for some key basic commodities. Their price developments are clearly linked to economic shocks, for example, there was a considerable reduction in commodity prices as a result of global financial and economic crisis. This was followed by an upswing in the price of most commodities which was widely attributed to sustained economic

This chapter provides an overview of global developments in international trade and investment, detailing economic links between some of the world's largest economies. It focuses on data for the [EU-28](#) and compares this with the recent trade and investment performance of 15 other global economies, including China, Japan and the United States. The data presented in this chapter draws on information from the [European Statistical System \(ESS\)](#) and the [European System of Central Banks \(ESCB\)](#), as well as a range of official international sources — the [International Monetary Fund \(IMF\)](#), the [Organisation for Economic Co-operation and Development \(OECD\)](#), the [United Nations \(UN\)](#) and the [World Trade Organisation \(WTO\)](#). It uses data from a range of different statistical domains, principally: [national accounts](#), the [balance of payments](#) and [international trade in goods](#).

Setting the scene: the EU-28 accounted for almost one fifth of the world's GDP in 2015

[Gross domestic product \(GDP\)](#) is an indicator that provides a basic measure of the overall size of an economy (region, country or economic area); it represents the overall economic output (as measured by gross value added) of resident institutional units engaged in production, plus any taxes on products and minus any

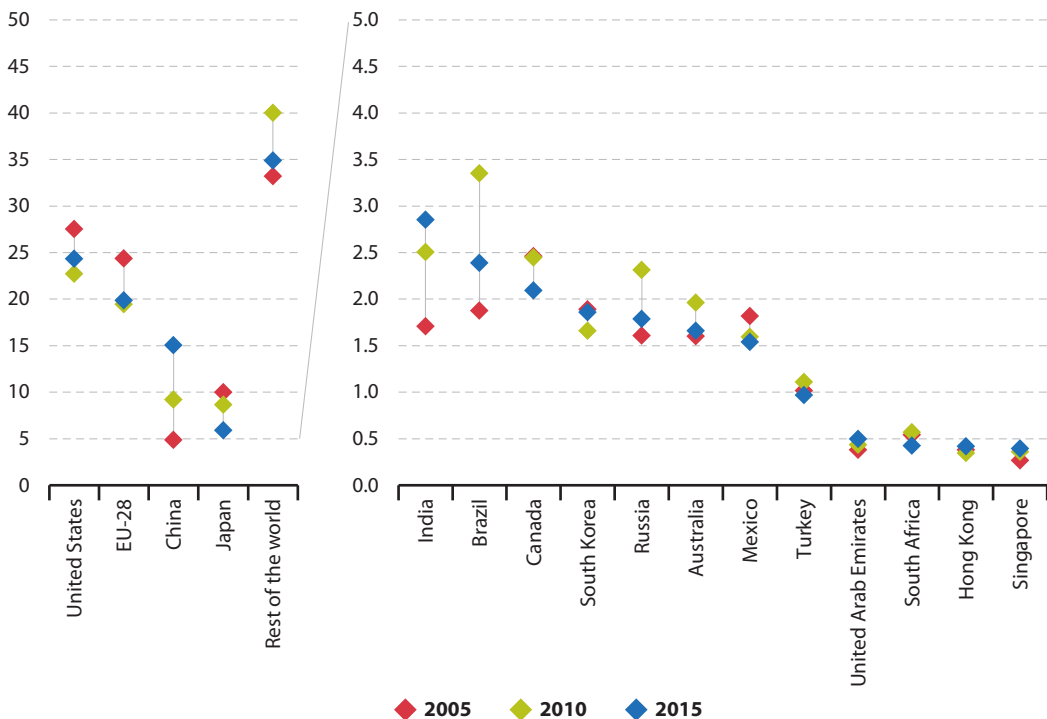
Statistics on international trade and investment

Statistics in this chapter are presented for the EU-28 and a fixed set of 15 countries (subject to availability) that include some of the world's leading trading nations — they are: Australia, Brazil, Canada, China (excluding Hong Kong), Hong Kong, India, Japan, Mexico, Russia, Singapore, South Africa, South Korea, Turkey, the United Arab Emirates and the United States.

Note that the EU-28 statistics in this publication consider the **European Union (EU)** as a single market, with all trade and investment flows presented in relation to non-member countries (often referred to as extra-EU flows). As such, the data shown exclude intra-EU stocks and flows (for example, trade or investment flowing from France to Germany or vice-versa). These flows may, in some cases, be considerable; however, for the purpose of this chapter they have been excluded — note too that they have also been omitted from any global totals and global shares.

The data are generally presented for the most recent decade for which they are available, often covering the period 2006-2016.

Figure 1.1: GDP, selected countries, 2005, 2010 and 2015
(% of world total)



Note: the two parts of the figure have different scales on the y-axis.

Source: Eurostat (online data code: [nama_10_gdp](#)) and United Nations Statistics Division (National Accounts Main Aggregates Database)

growth across a range of emerging markets, particularly China. Thereafter, the price of some commodities fell, for example: there was a reduction in the price of metals, linked to a slowdown in global demand and a realignment of the Chinese economy away from export-led manufacturing activities towards higher levels of domestic consumption; and there was a dramatic fall in the price of oil from mid-2014, which may be linked to slowing economic growth in several emerging economies at the same time as the supply of oil (and substitutes) was expanding.

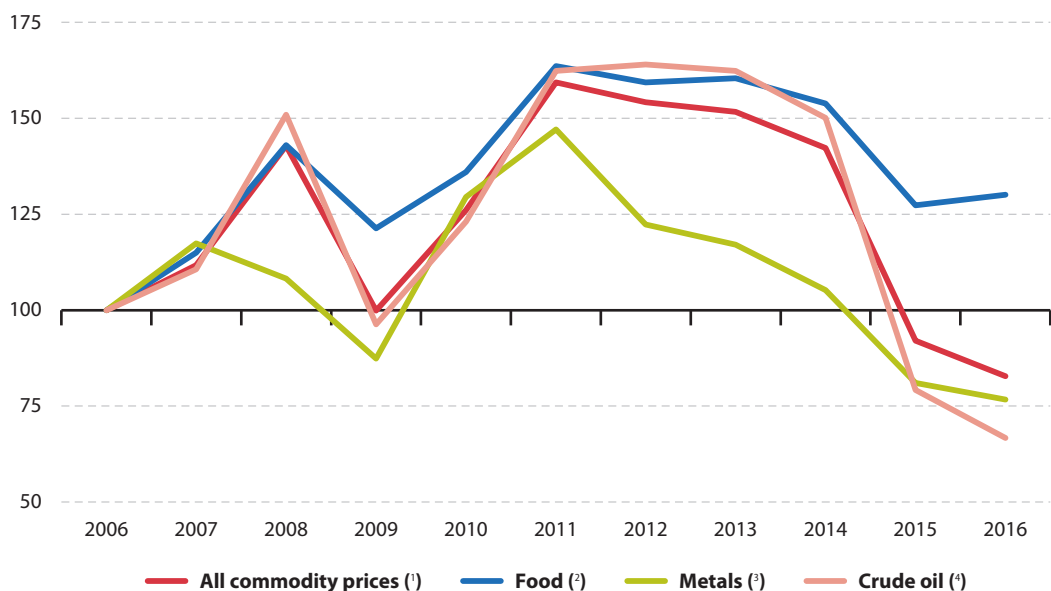
Such changes in commodity prices may have an important impact on aggregate figures at a macroeconomic level, for example: the overall value of international trade can fall as a result of falling commodity prices; lower commodity prices have the potential to dampen international investment flows as expected returns on capital expenditure are reduced; or corporate profits may be affected. Alternatively, falling commodity prices can boost demand for manufactured goods, as the fall in the price of inputs works its way downstream leading to lower prices for intermediate and consumer goods and consequently higher sales.

... while exchange rate developments may also play a pivotal role

In a globalised world, international trade in goods and services has become commonplace. Exchange rates play an important role: a weaker domestic currency generally results in import prices rising alongside increased demand for exports, whereas a stronger domestic currency may reduce the price of foreign goods but weaken demand for exports.

Figure 1.2: Indices of average commodity prices, 2006-2016

(2006 = 100)



(¹) Includes both fuel and non-fuel prices.

(²) Based on cereals, vegetables, oils, meat, seafood, sugar, bananas and oranges.

(³) Based on copper, aluminum, iron ore, tin, nickel, zinc, lead, and uranium.

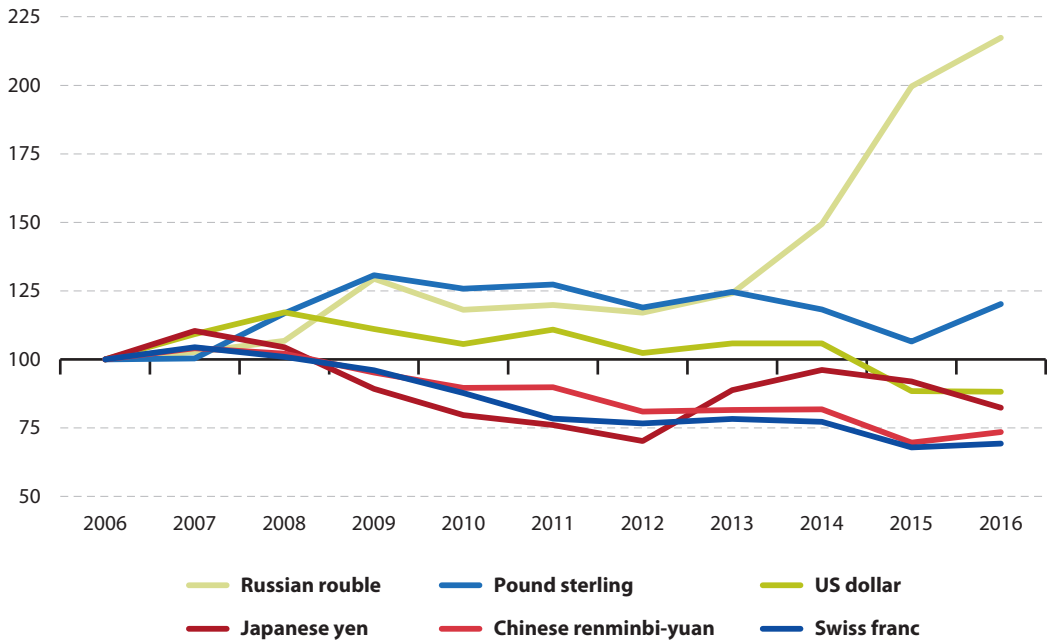
(⁴) Based on average of spot prices for Dated Brent, West Texas Intermediate and Dubai Fateh.

Source: International Monetary Fund (Primary Commodity Prices)



Figure 1.3: Indices of average exchange rates, euro, 2006-2016

(2006 = 100)



Note: a fall in the value of the index represents a depreciation in the value of the euro against the currency concerned; an increase in the index represents an appreciation in the value of the euro.

Source: Eurostat (online data code: ert_bil_eur_a)

Currency markets usually reflect underlying fundamentals, such as expected growth in domestic and foreign markets, changes in commodity prices, or country-specific shocks. Countries with relatively weak growth prospects are likely to be affected by global adjustments, in the form of currency depreciation and a worsening of their terms of trade (in other words, being able to buy a smaller volume of goods for the same amount of currency). Note also that the price of some commodities is denominated in dollar terms (for example, oil) and that changes in commodity prices may be further amplified if commodity prices and exchange rates move in the same direction.

Figure 1.3 shows the development of bilateral exchange rates between the euro and six other global currencies. While the Russian rouble and the British pound sterling both lost value against the euro between 2006 and 2016, the value of the remaining currencies appreciated.

i Further information on international trade in goods by invoicing currency is presented in Subchapter 2.7.

1.1 World trade in goods and services: an overview

Within the context of globalisation, stronger links between some of the world's most rapidly growing economies — in the form of increased levels of trade and cooperation — can provide a stimulus to help ensure continued economic development.

Most economists tend to agree that 'open' economies grow at a faster pace than closed ones, as international trade has the potential to promote economic growth through increasing external demand for goods and services, while at the same time providing consumers with greater choice (and often lower prices), fostering efficiency and productivity gains and supporting innovation. Enterprises and households are more likely to consume goods and services from an international partner if such transactions are free from tariffs and other trade barriers, thereby allowing goods and services to cross borders in a frictionless and efficient manner.

At a practical level, this means the [European Union's \(EU's\)](#) international trade policy has been designed around promoting reciprocal market opening and trade liberalisation, creating new opportunities for increased levels of trade (for both goods and services), investment, innovation and productivity growth.

World exports of goods and services reached nearly EUR 15 trillion in 2016

In 2016, the global value of exports of goods and services was EUR 14.6 trillion (or EUR 14 600 billion). Figure 1.4 shows that the highest levels of trade in goods and services were recorded, unsurprisingly, in some of the biggest economies, as the [EU-28](#) exported more goods and services (EUR 2.6 trillion) than any individual country, while the highest level of imports was recorded by the United States (EUR 2.5 trillion).

The largest trade surplus for international trade in goods and services — as measured by the difference between exports and imports — was recorded in the EU-28 (EUR 304 billion in 2016), followed by China (EUR 226 billion). By contrast, the largest deficit was registered in the United States (EUR 456 billion), followed at some distance by India (EUR 38 billion).

In 2015, international trade in goods and services represented 17.0 % of the EU-28's GDP

The information presented in Figure 1.5 shows that the importance of international trade in goods and services between some of the world's largest trading countries was quite different when measured in relation to economic output (GDP). The ratio presented in Figure 1.5 is based on the average value of exports and imports relative to GDP and provides a means for analysing the 'depth' of globalisation or the 'openness' of individual economies.

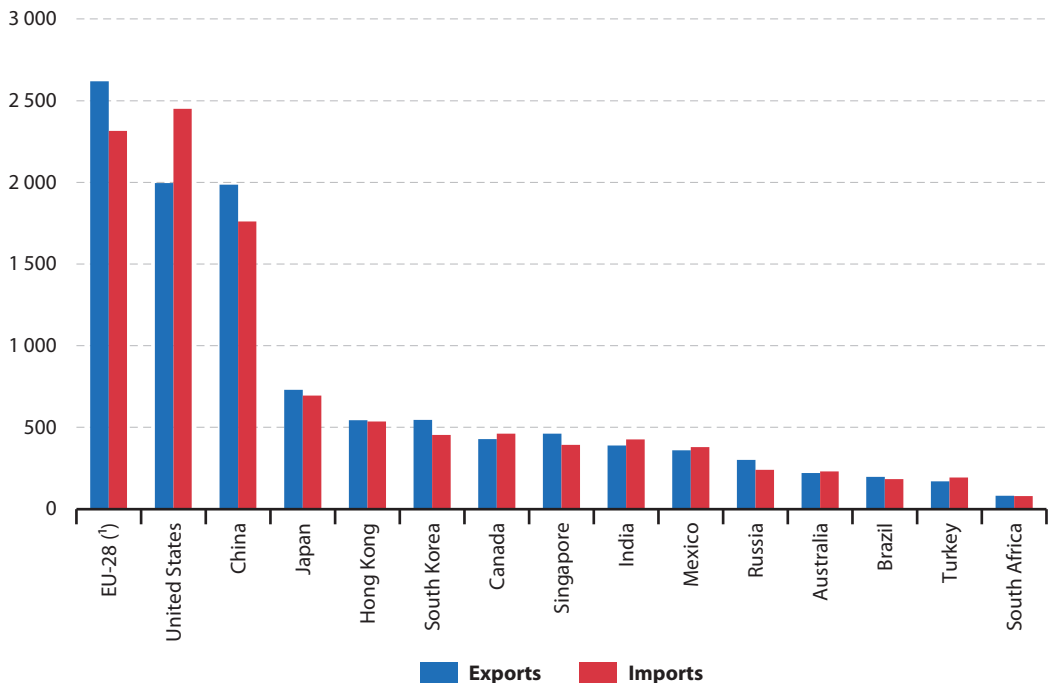
Statistics on international trade in goods and services

The main methodological reference used for the production of statistics on international trade in goods and services is the [International Monetary Fund's \(IMF's\) Balance of Payments and International Investment Position Manual \(BPM6\)](#).

Increased trade liberalisation from the 1990s onwards provided a stimulus for international trade in goods and services. Within the EU-28, the ratio of international trade in goods and services relative to GDP rose from 12.6 % in 2005 to 17.0 % by 2015, thereby confirming that trade in goods and services was growing at a faster pace than the overall EU-28 economy. This relative shift



Figure 1.4: Value of international trade in goods and services, selected countries, 2016
(billion EUR)



Note: ranked on the total value of exports and imports. United Arab Emirates: not available.

(†) Extra-EU trade.

Source: Eurostat (online data code: bop_eu6_q) and International Monetary Fund (Balance of Payments and International Investment Position Statistics)

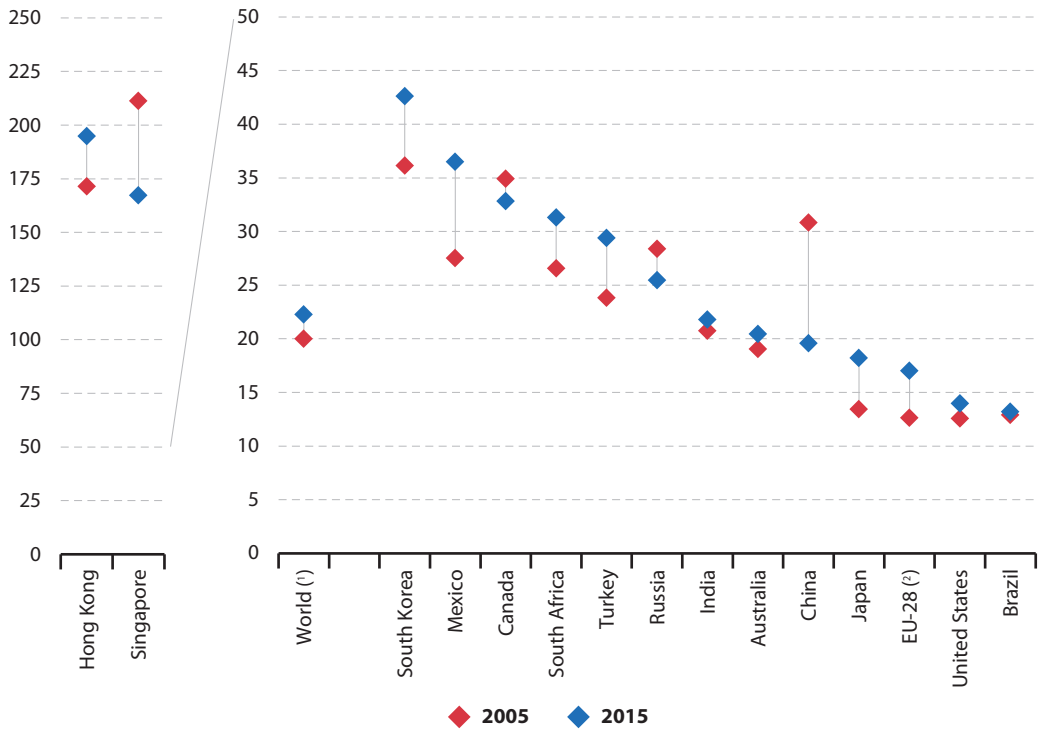
may, at least in part, be attributed to the growing importance of trade in intermediate goods, which itself was driven by higher levels of international outsourcing as global production chains were established.

... while much higher ratios for trade to GDP were recorded in some Asian economies

Two relatively small Asian economies reported the highest degrees of exposure to international trade, as the average value of exports and imports for goods and services (relative to GDP) in Hong Kong represented 194.8 % of its GDP in 2015, while the corresponding ratio for Singapore was 167.3 %. These figures could be contrasted with much lower ratios for some of the world's largest economies — China (19.5 %), the EU-28 (17.0 %) and the United States (13.9 %).

The ratio of trade in goods and services relative to GDP rose in most of the world's leading economies between 2005 and 2015 and this was particularly the case in Hong Kong, Mexico, South Korea and Turkey. The only exceptions were China (where the domestic economy grew at a faster pace than the value of international trade, even though China captured a growing share of world trade), Singapore, Russia and Canada.

Figure 1.5: International trade in goods and services relative to GDP, selected countries, 2005 and 2015
(%, relative to GDP)



Note: the two parts of the figure have different scales on the y-axis. Based on the average value of exports and imports. United Arab Emirates: not available.

(¹) Excludes intra-EU trade.

(²) Extra-EU trade.

Source: Eurostat (online data codes: [bop_eu6_q](#) and [nama_10_gdp](#)), International Monetary Fund (Balance of Payments and International Investment Position Statistics) and United Nations Statistics Division (National Accounts Main Aggregates Database)

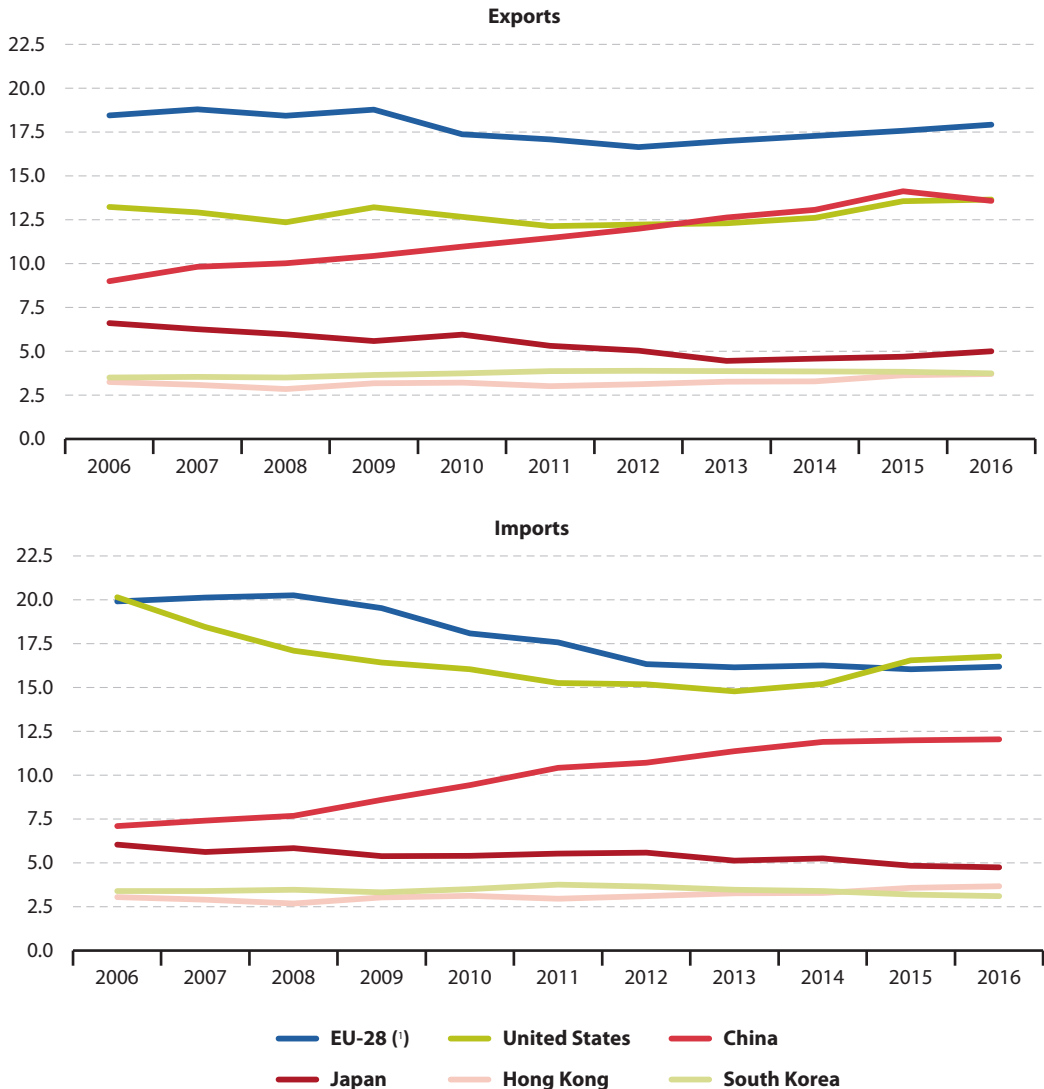
The EU-28's share of world exports of goods and services was 17.9 % in 2016

On average, every day the EU-28 exports millions of euros worth of goods and services to the rest of the world, while it imports millions more. While the value of the EU's international trade in goods and services with the rest of the world has expanded at a relatively fast pace compared with the value of trade between EU Member States (intra-EU trade), this has not prevented a gradual reduction in the EU's share of global trade since 2010.

In 2016, some 17.9 % of world exports for goods and services originated from the EU-28; as such, its share of world exports was relatively unchanged when compared with a decade before (18.4 %). By contrast, there was a more marked reduction in the share of the EU-28 in world imports for goods and services, as its share of the global trade fell to 16.2 % in 2016, a reduction of 3.7 percentage points when compared with a decade earlier.

The most striking feature concerning developments for international trade in goods and services between 2006 and 2016 was the continued progression of China as one of the world's leading trading nations. China's share of the world exports for goods and services rose from 9.0 % to 13.6 % during the period 2006-2016, while its share of imports grew at an even faster pace, increasing by 4.9 percentage points to reach 12.0 % in 2016 (see Figure 1.6).

Figure 1.6: World trade for goods and services, selected countries, 2006-2016
(% of total)



Note: the figure shows developments for the top six countries/geographic aggregates with the highest combined values of exports and imports in 2016. The total value of exports and imports for the world excludes intra-EU trade. United Arab Emirates: not available.

(*) Extra-EU trade.

Source: Eurostat (online data code: [bop_eu6_q](#)) and International Monetary Fund (Balance of Payments and International Investment Position Statistics)



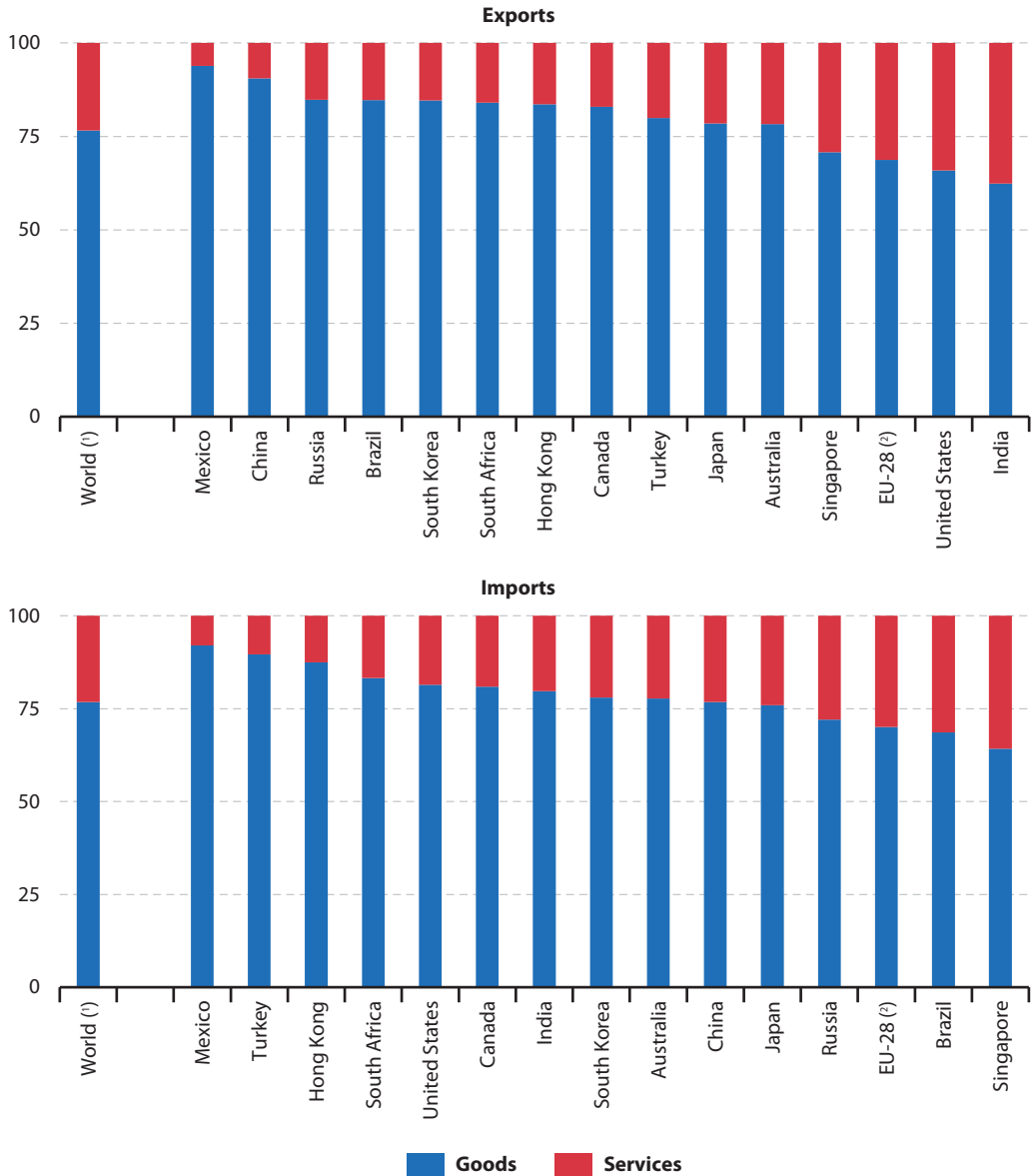
In 2016, goods accounted for more than three quarters of world exports of goods and services

Figure 1.7 presents information on the relative importance of trade flows for both international trade in goods and international trade in services (more detailed information on these two types of products are provided in the subsequent subchapters). In 2016, goods accounted for just over three quarters (76.6 %) of the world's total trade, their share of exports peaking at 93.9 % in Mexico and 90.5 % in China. By contrast, the relative weight of services in total exports was far more pronounced in the EU-28 (31.3 % of the total) and the United States (34.1 %), rising to a high of 37.6 % in India.

The EU-28 had a relatively balanced structure to its trade, insofar as it ran a trade surplus for both goods and services in 2016; this was in contrast to the situation prior to the global financial and economic crisis, when the EU-28 ran a deficit for its trade in goods. However, there were quite often considerable differences in the balance of trade between goods and services in other economies. For example, China had a particularly large trade surplus for goods (but a deficit for services), while the Brazilian, Russian and South Korean economies were also relatively specialised in exporting goods and were more reliant on importing services. By contrast, the United States imported considerably more goods than it exported, while the Indian and Turkish economies were relatively specialised in exporting services (business and information services for the former and tourism for the latter).



Figure 1.7: Analysis of international trade in goods and services, selected countries, 2016 (%)



Note: United Arab Emirates: not available.

(¹) Excludes intra-EU trade.

(²) Extra-EU trade.

Source: Eurostat (online data code: [bop_eu6_q](#)) and International Monetary Fund (Balance of Payments and International Investment Position Statistics)

1.2 World trade in goods

Patterns of international trade in goods have seen wide-ranging changes in recent decades reflecting, among others: trade liberalisation, the introduction of new technologies, different methods of industrial organisation and the development of global production chains. The relocation of some manufacturing activities abroad has led to a shift in the composition of

international trade, reflected in a higher share of total trade for intermediate goods (parts and components), and lower shares for final (consumer) goods.

Statistics on international trade in goods

Note that the information presented in the previous subchapter is based on statistics from the **balance of payments (BOP)** domain, while the statistics presented in this subchapter are based on **international trade in goods statistics (ITGS)**. There are a number of differences between the recommendations for **international trade in goods statistics** and the goods account of the balance of payments in terms of, for example, coverage, the time of recording, or methods of valuation; these differences and adjustments may have a substantial effect on the final reporting of figures for these two distinct sources. Moreover, the data collection exercise for international trade in goods statistics is far more detailed, literally covering thousands of individual products. That said, in many countries one of the most important uses of international trade in goods statistics is as a data source for estimating components of the balance of payments and national accounts.

It is also important to note that changes in business models have implications for the collection and the reliability of international trade in goods statistics. For example, new forms of industrial organisation have led to an increasing share of intermediate goods being traded within and between enterprises as part of global value chains: these flows continue to be assessed as gross measures, which may 'inflate' their true value, especially when intermediate goods are counted several times as they cross borders as part of intricate production chains (for example, as in the aerospace or motor vehicles industry).

i Further information on global value chains is presented at the end of Chapter 6.

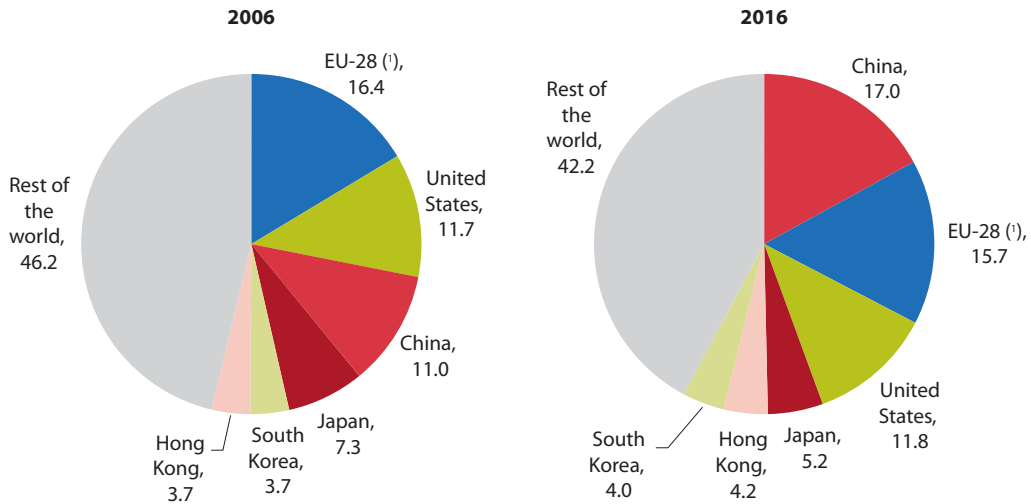
In 2016, the EU-28 accounted for around 15 % of world trade in goods

Figures 1.8 and 1.9 provide information on the share of world exports and imports of goods, showing developments between 2006 and 2016. The biggest change in the structure of global exports of goods was an expansion in the share of Chinese exports, which rose from 11.0 % of the total value in 2006 to 17.0 % by 2016.

While China was the leading exporter of goods in 2016 (EUR 1.9 trillion), the United States was the largest importer of goods (EUR 2.0 trillion), in both cases the **EU-28** occupied second position, with both exported and imported goods valued at EUR 1.7 trillion. The EU-28, China and the United States have been the three largest global players for international trade in goods since 2004 (when China passed Japan). In 2007, China surpassed the United States as the second largest exporter of goods in the world and this pattern was reproduced again in 2014 when China overtook the EU-28 to record the highest share of exported goods, a position that was maintained in 2015 and 2016.

During this same period, the EU-28's share of the global exports of goods declined, falling from 16.4 % in 2006 to 15.7 % by 2016, while the share of the United States was relatively unchanged (11.7 % in 2006 and 11.8 % in 2016). There was a contrasting pattern to developments in three other Asian economies as the Japanese share of exported goods contracted, while the shares recorded by Hong Kong and South Korea grew.

Figure 1.8: World exports of goods, selected countries, 2006 and 2016
(% of total)



Note: the figure shows the top six countries/geographic aggregates with the highest values for exports of goods in 2016. The total value of exports for the world excludes intra-EU trade.

(¹) Extra-EU trade.

Source: Eurostat (online data code: [ext_lt_intrrole](#)), United Nations (Comtrade) and International Monetary Fund (Direction of Trade Statistics)

Between 2006 and 2016 there was rapid growth in the share of global trade for China

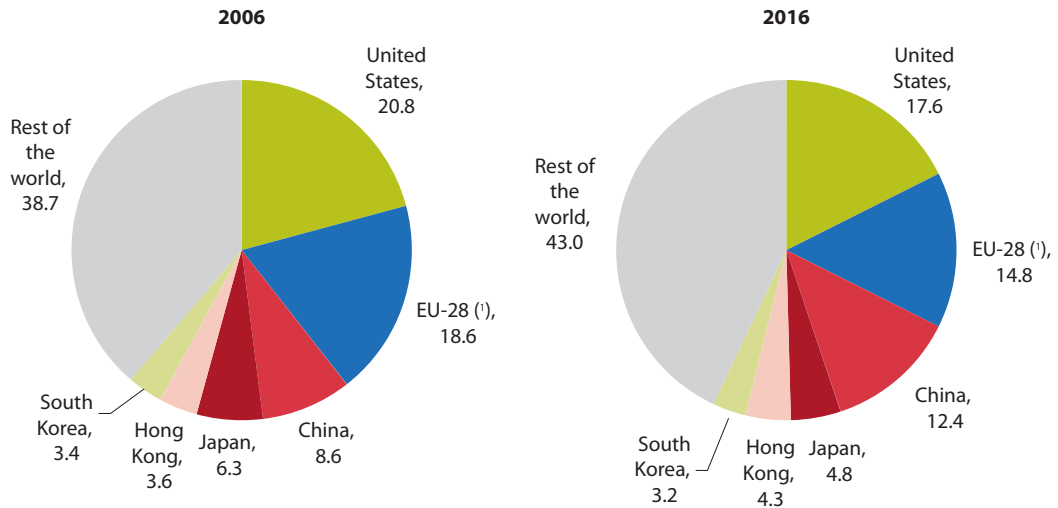
Although a large volume of literature exists concerning the rapid growth in the value of goods exported by China, less has been written about Chinese imports. These also rose at a very rapid pace, in part fuelled by increasing demand for consumer goods from an emerging middle class, but also reflecting the role played by China in global production chains, whereby some goods may be imported for processing or assembly before being re-exported as intermediate or finished goods.

The Chinese share of world imports for trade in goods rose from 8.6 % in 2006 to 12.4 % in 2016 (a gain of 3.8 percentage points). This was in contrast to a similar decline recorded for the EU-28 (as its share of globally imported goods fell by 3.8 points), while there was also a sizeable contraction in the American share (down 3.2 percentage points).

In 2016, the Chinese trade surplus for goods widened to EUR 460 billion

Table 1.1 extends the analysis by providing information on the trade balance and cover ratio for international trade in goods. In 9 out of the 16 countries for which information is shown the balance of trade in goods was reinforced between 2006 and 2016 (in other words, if there was a trade surplus this expanded and if there was a trade deficit this deteriorated). For example, the trade surplus in China widened from an initial EUR 141 billion in 2006 to EUR 460 billion in 2016, while the trade deficit in the United States expanded from EUR 702 billion in 2006 to EUR 720 billion by 2016, thereby continuing the pattern of the American deficit for trade in goods being the largest in world, a situation which was observed during the whole of the last decade.

Figure 1.9: World imports of goods, selected countries, 2006 and 2016
(% of total)



Note: the figure shows the top six countries/geographic aggregates with the highest values for imports of goods in 2016. The total value of imports for the world excludes intra-EU trade.

(¹) Extra-EU trade.

Source: Eurostat (online data code: [ext_lt_introle](#)), United Nations (Comtrade) and International Monetary Fund (Direction of Trade Statistics)

Table 1.1: Derived indicators for international trade in goods, selected countries, 2006 and 2016

	Trade balance (billion EUR)		Cover ratio (%)	
	2006	2016	2006	2016
EU-28 (¹)	-215.8	37.7	84.2	102.2
Australia	-12.8	0.2	88.5	100.1
Brazil	37.0	43.1	150.9	134.7
Canada	30.2	-12.6	110.8	96.5
China	141.3	460.5	122.4	132.1
Hong Kong	-10.4	-27.6	96.1	94.4
India	-45.4	-87.1	68.0	73.0
Japan	53.9	34.3	111.7	106.3
Mexico	-4.9	-11.9	97.6	96.6
Russia	130.4	93.3	218.8	156.6
Singapore	26.4	42.3	113.9	116.6
South Africa	-12.6	-0.6	76.8	99.2
South Korea	12.8	80.6	105.2	122.0
Turkey	-43.0	-50.6	61.3	71.8
United Arab Emirates	35.6	25.1	145.6	110.3
United States	-702.4	-719.6	54.0	64.6

(¹) Extra-EU trade.

Source: Eurostat (online data code: [ext_lt_introle](#)) and United Nations (Comtrade)

However, there was a different development in the EU-28, as a trade deficit of EUR 216 billion for goods in 2006 became a surplus of EUR 60 billion by 2015, before a subsequent fall to EUR 38 billion in 2016. The trade position for goods in Australia followed a similar development passing from a deficit to a surplus, whereas the opposite pattern was observed in Canada (which moved from a surplus to a deficit).

While the trade balance provides information on the absolute value of trading positions, the cover ratio provides a relative measure that is based on the ratio (expressed in percentage terms) between the value of exports and the value of imports; when exports are higher than imports then the cover ratio will be above 100%. In 2016, the highest cover ratios for international trade in goods were recorded for Russia (156.6%), Brazil (134.7%) and China (132.1%). While

cover ratios for Russia and Brazil were lower in 2016 than they had been in 2006 the opposite was true for China, confirming that its trade surplus for trade in goods was continuing to expand not only in absolute terms but also in relative terms.

By contrast, the lowest cover ratios for international trade in goods were recorded in India (73.0 %), Turkey (71.8 %) and the United States (64.6 %); in all three cases their cover ratios in 2016 were higher than those recorded in 2006, indicating that their trade deficits were narrowing in relative terms.

Since 2012, there has been a period of sluggish growth for international trade in goods ...

The global financial and economic crisis had a considerable impact on the level of international trade in goods; this was in contrast to the pattern of development for trade in services (which was less affected by the crisis). That said, it is important to remember that the global value of trade in goods is approximately three times as high as that for services.

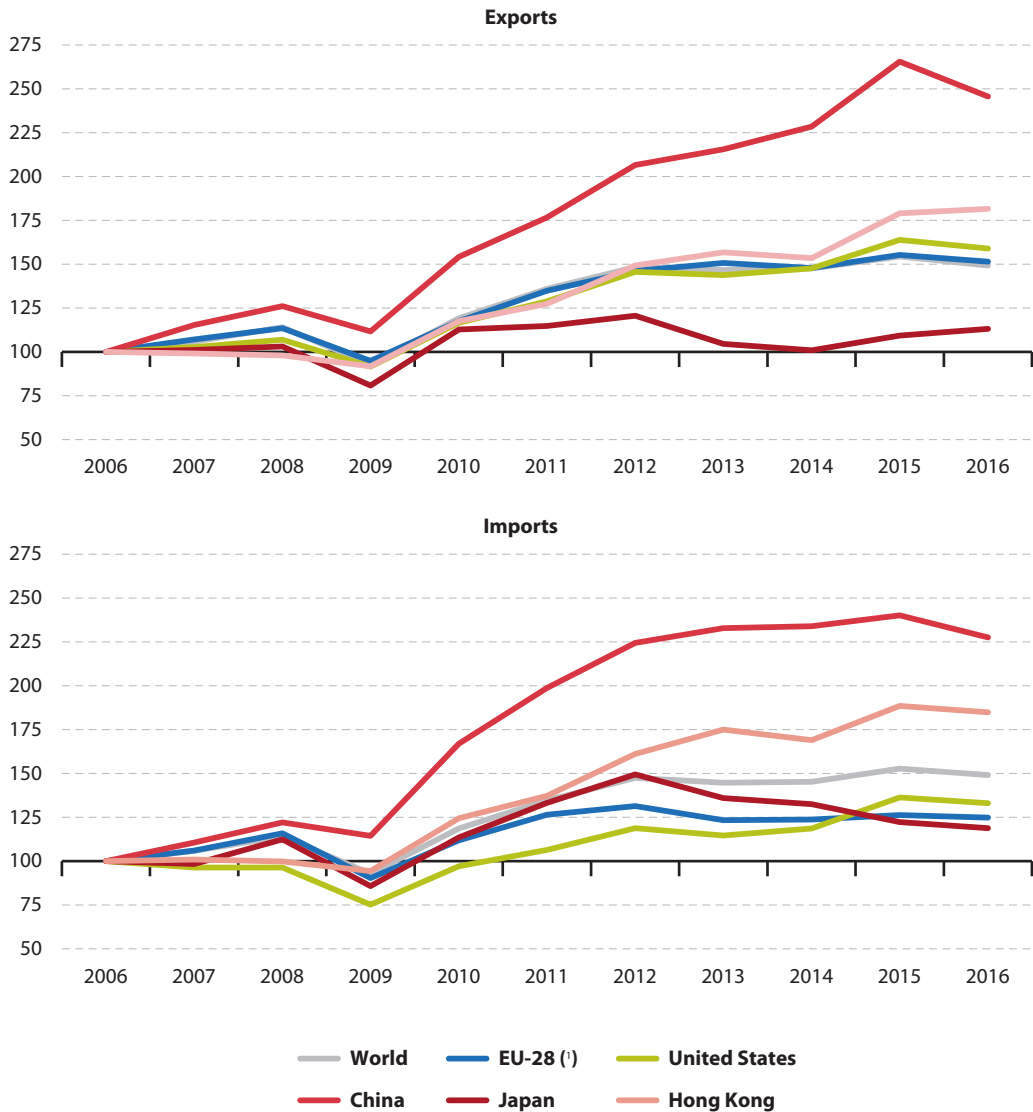
The downturn in the value of international trade in goods in 2009 was followed by a rebound the following year and subsequent growth through to 2012. Thereafter, the global value of world exports and imports stagnated during the four consecutive years through to 2016.

... that may, at least in part, be explained by changes to the structure of the Chinese economy

Aside from the impact of the global financial and economic crisis on levels of trade in 2009, another striking aspect of the information shown in Figure 1.10 is the rapid pace to the development of trade in goods for China during the period 2006-2015. Although Chinese exports and imports rose at a much faster pace than for any of the other leading trading nations, there is some evidence of a slowdown in Chinese trading activity; this is especially the case for Chinese imports since 2012, while the value of both Chinese imports and exports fell in 2016. A closer look at trade developments in some of the other leading trading nations shown in Figure 1.10 confirms that the value of goods exported from South Korea, the United States and the EU-28 also fell in 2016, while the same was true for goods imported into each of the countries/geographical aggregates shown.

This relatively weak performance for international trade in goods during the period 2012-2016 may reflect a number of different influences. One aspect is falling prices for raw materials and consumables, including energy (for example oil) prices, which have lowered the overall value of trade in goods. Another explanation may be linked to structural changes within the Chinese economy, where policy changes have led to a shift away (to some extent) from manufacturing-based, export-led economy and somewhat more towards one which is more focused on domestic consumption. Some economists have extended this analysis, hypothesising that the slowdown in global trade reflects structural adjustments in global manufacturing, as (Chinese) enterprises have internalised whole supply chains, such that intermediate goods are less likely to flow backwards and forwards across borders, but are rather produced to a greater extent (and in some cases exclusively) on the Chinese territory before eventually being exported (only once) as a finished product. An alternative view is that the previous growth in the value of international trade in goods has, to some degree, been substituted by the growth in the exchange of information/flows of data associated with the digital economy.

Figure 1.10: Developments for trade in goods, selected countries, 2006-2016
(2006 = 100)



Note: the figure shows developments for the world total and the top five countries/geographic aggregates with the highest combined values of exports and imports in 2016. The total value of exports/imports for the world excludes intra-EU trade.

(*) Extra-EU trade.

Source: Eurostat (online data code: [ext_lt_introle](#)), United Nations (Comtrade) and International Monetary Fund (Direction of Trade Statistics)



INTERNATIONAL TRADE IN GOODS — BY PRODUCT

In 2016, the EU-28 was the world's leading exporter of chemicals ...

Table 1.2 details the leading global exporters and importers for a range of different product groups (based on the [standard international trade classification \(SITC Rev. 4\)](#) of the United Nations). In 2016, the EU-28 had the highest value of exports for food, drinks and tobacco and for chemicals and related products, whereas China was the leading exporter for machinery and transport equipment and for other manufactured goods and Russia for mineral fuels and lubricants.

... but was highly dependent upon imports of mineral fuels

The EU-28 also had the highest level of imports for mineral fuels and lubricants, reflecting its high level of dependency for these goods (importing more than half of the energy it consumes), while a similar pattern was observed with respect to raw material imports into China; the United States occupied the position of having the highest share of global imports for a broad range of manufactured goods.

Table 1.2: Highest levels of trade for selected SITC products, selected countries, 2016
(billion EUR)

SITC	Highest level of exports		Highest level of imports	
	Country	Value	Country	Value
Total — all products	China	1 895.1	United States	2 032.4
Food, drinks & tobacco	EU-28 (!)	115.9	United States	117.6
Raw materials	United States	68.4	China	189.1
Mineral fuels, lubricants & related materials	Russia	121.7	EU-28 (!)	264.2
Chemicals & related products, n.e.s.	EU-28 (!)	313.8	United States	200.2
Other manufactured goods	China	795.6	United States	563.0
Machinery & transport equipment	China	889.1	United States	876.5
Commodities & transactions n.ec.	United States	165.3	United Arab Emirates	103.0

Note: based on a selected list of reporting countries (see methodological notes in the introduction for more details).

(!) Extra-EU trade.

Source: Eurostat (online data code: [ext_lt_intertrd](#)) and United Nations (Comtrade)

While the leading global exporters and importers in absolute terms are unsurprisingly some of the largest economies, Table 1.3 provides an alternative analysis focusing on relative specialisation ratios; these are based on the share of total exports/imports accounted for by a particular product, comparing the shares of one country with the average for all 16 reporting countries (analysed in this chapter). For example, the share of raw materials in the total value of goods exported by Australia was 8.8 times as high as the average for the 16 reporting countries, while the share of raw materials in the total value of goods imported by China was 2.7 times as high as the average.

The results based on this relative measure show a greater variation, with Brazil being the most specialised country for exporting food, drinks and tobacco, Australia for raw materials, Hong Kong for machinery and transport equipment, and Turkey for other manufactured goods. The data confirm the EU-28's position as a leading exporter of chemicals and related products as well as Russia's top position (among these economies) for mineral fuels and lubricants.

Table 1.3: Highest relative specialisation ratios for trade in SITC products, selected countries, 2016
(%, average = 100)

SITC	Most specialised country for exports		Most specialised country for imports	
Food, drinks & tobacco	Brazil	455	Russia	205
Raw materials	Australia	884	China	271
Mineral fuels, lubricants & related materials	Russia	716	India	226
Chemicals & related products, n.e.s.	EU-28 (¹)	175	Brazil	242
Other manufactured goods	Turkey	168	United States	120
Machinery & transport equipment	Hong Kong	149	Hong Kong	156
Commodities & transactions n.ec.	United Arab Emirates	797	United Arab Emirates	763

Note: these ratios provide information on revealed specialisation and are calculated as the share of a country's trade accounted for by a given product compared with the average share of trade across 16 selected countries (see methodological notes for a list) accounted for by the same product, the result is expressed as a percentage; a value of more than 100 indicates that the country in question is relatively specialised, whereas a value below 100 means that it is relatively unspecialised.

(¹) Extra-EU trade.

Source: Eurostat (online data code: [ext_lt_intertrd](#)) and United Nations (Comtrade)

Developed economies often specialise in exporting high value goods, while emerging economies tend to focus on exporting natural resource endowments or lower value goods

Table 1.4 reverses the focus of the analysis, detailing for each country where its relative trade specialisation lies. The information presented confirms the role played by the natural endowments of particular goods. For example, Australia, Brazil, Canada and South Africa were all relatively specialised in exporting raw materials, whereas these products accounted for the highest import specialisation ratio in China. It is also interesting to note that while several developed economies were relatively specialised in exporting high value goods such as chemicals and related products for the EU-28 or machinery and transport equipment for Japan, their highest import specialisation ratios were recorded for more basic goods, mineral fuels and lubricants for the EU-28 and food, drinks and tobacco for Japan.

Table 1.4: Highest relative specialisation ratios for trade in selected countries, by SITC products, 2016
(%, average = 100)

	Highest relative specialisation for exports		Highest relative specialisation for imports	
EU-28 (!)	Chemicals & related products, n.e.s.	175	Mineral fuels, lubricants & related materials	139
Australia	Raw materials	884	Food, drinks & tobacco	118
Brazil	Raw materials	725	Chemicals & related products, n.e.s.	242
Canada	Raw materials	264	Food, drinks & tobacco	141
China	Other manufactured goods	165	Raw materials	271
Hong Kong	Commodities & transactions n.ec.	152	Machinery & transport equipment	156
India	Food, drinks & tobacco	183	Mineral fuels, lubricants & related materials	226
Japan	Machinery & transport equipment	144	Food, drinks & tobacco	168
Mexico	Machinery & transport equipment	149	Machinery & transport equipment	124
Russia	Mineral fuels, lubricants & related materials	716	Food, drinks & tobacco	205
Singapore	Mineral fuels, lubricants & related materials	172	Mineral fuels, lubricants & related materials	163
South Africa	Raw materials	391	Commodities & transactions n.ec.	148
South Korea	Machinery & transport equipment	141	Mineral fuels, lubricants & related materials	181
Turkey	Food, drinks & tobacco	186	Commodities & transactions n.ec.	208
United Arab Emirates	Commodities & transactions n.ec.	797	Commodities & transactions n.ec.	763
United States	Commodities & transactions n.ec.	180	Other manufactured goods	120

Note: these ratios provide information on revealed specialisation and are calculated as the share of a country's trade accounted for by a given product compared with the average share of trade across 16 selected countries (see methodological notes for a list) accounted for by the same product, the result is expressed as a percentage; a value of more than 100 indicates that the country in question is relatively specialised, whereas a value below 100 means that it is relatively unspecialised.

(!) Extra-EU trade.

Source: Eurostat (online data code: [ext_lt_maineu](#)) and United Nations (Comtrade)

INTERNATIONAL TRADE IN GOODS — BY PARTNER

Traditionally, trade in high value goods was relatively concentrated between developed economies, while international trade flows between the developing and developed world were largely concentrated on the supply of raw materials and basic goods (such as food). However, globalisation has resulted in some changes to the geographical orientation of trade, through the emergence of new trading relationships, often at the expense of trade with more developed economies.

The rapid growth of China in terms of its integration into the global economy during the last couple of decades was given added impetus by China's accession to the World Trade Organisation (WTO) in 2001. Within the context of globalisation, it is important to note that China often plays a role as a 'hub' for global production chains, often importing semi-finished (intermediate) goods before assembling finished goods for re-export. As such, trade flows with China may in some cases be interpreted as flows that represent a wider Asian region, insofar as China sources many of its intermediate parts/components from its surrounding economies.

In 2016, the United States remained the principal destination for goods exported by the EU-28

Table 1.5 shows bilateral trade relationships for goods in 2006 and 2016 and confirms the rise of China as a trading power, often to the disadvantage of established global players. While the United States remained the EU-28's largest export market for goods in 2016 (slightly ahead of China), it had already been supplanted by China as the main origin of imported goods into the EU-28 in 2006 (a position that was reinforced by 2016).

Table 1.5: Principal trading partners for international trade in goods, 2006 and 2016

	Main export partner		Main import partner	
	2006	2016	2006	2016
EU-28 (¹)	United States	United States	China	China
Australia	Japan	China	EU-28	China
Brazil	EU-28	China	EU-28	EU-28
Canada	United States	United States	United States	United States
China	EU-28	United States	Japan	EU-28
Hong Kong	China	China	China	China
India	EU-28	EU-28	EU-28	China
Japan	United States	United States	China	China
Mexico	United States	United States	United States	United States
Russia	EU-28	EU-28	EU-28	EU-28
Singapore	Malaysia	China	Malaysia	China
South Africa	EU-28	EU-28	EU-28	EU-28
South Korea	China	China	Japan	China
Turkey	EU-28	EU-28	EU-28	EU-28
United Arab Emirates	Japan	India	EU-28	EU-28
United States	Canada	EU-28	EU-28	China

Note: based on a selected list of 16 reporting countries and 29 partner countries (see methodological notes in the introduction for more details). Taiwan: not available as a partner.

(¹) Extra-EU trade.

Source: Eurostat (online data code: [ext_lt_intertrd](#)) and United Nations (Comtrade)

Table 1.6: Summary table for tariffs on non-agricultural products, 2016

Import market	Number of tariff lines	Share of bound tariff lines	Share of bound duty-free tariff lines	Share of tariff lines with duties > 15 %
	(units)	(% of all product lines)		
EU-28 ⁽¹⁾	7 338	100.0	28.9	1.0
Australia	5 361	96.6	18.8	14.8
Brazil	8 997	100.0	0.7	96.5
Canada	5 831	99.7	38.1	6.8
China	11 685	100.0	6.6	13.3
Hong Kong	6 499	39.8	39.8	0.0
India	10 048	70.5	2.6	67.5
Japan	7 609	99.6	55.9	0.8
Mexico	11 080	100.0	0.3	99.2
Russia	8 926	100.0	3.4	0.8
Singapore	8 259	67.3	19.5	0.0
South Africa	6 342	95.5	13.4	34.6
South Korea	10 608	94.1	18.3	11.9
Turkey	13 707	42.7	4.0	20.0
United Arab Emirates	6 103	100.0	3.5	0.0
United States	9 544	99.9	49.0	2.3


Note: only duties and imports recorded under HS Chapters 01-97 are taken into account.

(¹) The EU-28 (representing each of the EU Member States) is a member of the WTO.

Source: World Trade Organisation (Tariff profiles)

A similar picture was observed in other developed economies, for example: the highest share of Japanese exported goods was destined for the United States, while China was the main origin of imported goods into Japan; China also became the main origin of imports into the United States (replacing the EU-28), although the EU-28 and Canada remained the principal destinations for American exports.

The EU economy is one of the most 'open', global economies with import tariffs on industrial products among some of the lowest in the world. For example, in 2016 only 1.0 % of non-agricultural products faced import duties in excess of 15 % (see Table 1.6), while the simple average of tariffs applied to non-agricultural products was 4.3%. The EU also has a comprehensive network of arrangements for preferential trade that goes beyond more general WTO rules, for example, giving many developing countries preferential access to its markets for 'everything but arms'.

 Further information on international trade in goods for the EU-28 and its individual Member States is presented in Chapter 2.

1.3 World trade in services

Services are an increasingly important part of the global economy and play a central role in each of the [European Union \(EU\)](#) Member States. The services sector contributes considerably more (than the industrial economy) to GDP and job creation within the [EU-28](#), accounting for approximately three quarters of total economic activity. However, as described above, the global value of international trade in goods is slightly more than three times as high as that for trade in services. This imbalance in levels of international trade may be attributed, among others, to the intangible nature of services, for example:

- some services are non-transportable and can only be consumed at their point-of-sale requiring either producer or consumer to cross a border in order to be exported;
- many countries regulate areas like professional services — for example, the legal profession, tax consultants or accountants — which are bound by national legislation;
- there are a range of services (at least in Europe) which are largely supplied by the public sector, for example, health or education services and trade in these areas is often restricted;
- services cover a heterogeneous range of products/activities that are difficult to encapsulate within a simple definition, often these are tailored specifically to a client's needs and so unlike goods, they have a tendency not to be homogeneous, mass-produced items; as such they are sometimes difficult to separate from the goods with which they may be associated or bundled.

Box 1.1 — Four modes of service supply

An important distinction should be made between international trade in goods and trade in services, insofar as the latter may be provided via different 'modes of supply'. For trade in services to take place, it is often necessary for the service provider and the end-consumer to be within close physical proximity (for example, when an individual goes to get their hair cut, or when a gardener visits someone's house to remove a tree). The [general agreement on trade in services \(GATS\)](#) defines four ways (or modes) for trade in services to take place:

- those services supplied from one country to another (for example, an international telephone call), which are referred to as 'cross-border supply' (mode 1);
- consumers or enterprises making use of a service in another country (for example, tourism), referred to as 'consumption abroad' (mode 2);
- a foreign enterprise setting-up a subsidiary or branch to provide services in another country (for example, a foreign bank), referred to as a 'commercial presence' (mode 3);
- individuals who may travel from their own country to supply services in another (for example, an economic consultant), referred to as the 'presence of natural persons' (mode 4).

By contrast, technological developments have increased the tradability of some services, for example, in areas such as retail trade, finance or entertainment, where digital services have been used to extend the reach of services and improve consumer access.



Statistics on international trade in services

The main methodological reference used for the production of statistics on international trade in services are:

- the **International Monetary Fund's (IMF's) Balance of Payments and International Investment Position Manual (BPM6)**;
- the **IMF's Balance of Payments and International Investment Position Compilation Guide (BPM6 CG)**;
- **Eurostat's BoP Vademecum** reference document for the transmission of data on international trade in services;
- the **United Nations' manual on statistics of international trade in services (MSITS 2010)**;
- the **balance of payments services classification (EBOPS 2010)**.

All of the international trade in services statistics presented in this publication are based upon the BPM6 methodology, adopted by the EU Member States from reference year 2013 onwards. A time series exists starting in 2010 for the EU-28 aggregate as Eurostat have estimated missing values prior to 2013 when they have not been provided by Member States. Less detailed services data, used as components for the quarterly balance of payments are available for the EU-28 since 1999, with even longer time series available from some Member States.

Statistics on international trade in services provide the monetary value of such trade for three different modes of supply identified in the GATS (the first, second and fourth — see Box 1.1 above). As such, the information presented in this section excludes services provided by **foreign affiliates** (mode 3) to other economies, as they are considered non-residents in the compiling country/economic area. The data are produced from transactions recorded under a country's balance of payments (based on the trade that takes place between an economy's residents and non-residents).

In 2016, the EU-28 was the world's largest exporter and importer of services

The EU-28 is the world's largest trader of services: in 2016, it accounted for almost one quarter (23.9 %) of global exports and just over one fifth (20.8 %) of global imports; for comparison, the shares of the United States were 19.8 % for exports and 13.7 % of imports, while those for China were 5.5 % for exports and 12.3 % for imports (see Table 1.7).

The United States ran the largest trade surplus for trade in services among the leading trading nations that are shown in Table 1.8 — some EUR 224 billion in 2016— while the EU-28 had the second largest surplus (EUR 130 billion); there were only three other countries that recorded trade surpluses for international trade in services in 2016, namely, India, Hong Kong and Turkey.

The highest cover ratios — the value of exports divided by the value of imports, expressed as a percentage — for trade in services were recorded for Turkey (169.8 %) and India (168.7 %), suggesting that the relative importance of service exports was particularly high for each of these economies, in particular, transport services and personal, cultural and recreational services in Turkey and telecoms, computer and information services in India.

Table 1.7: International trade in services, selected countries, 2010 and 2016

	Exports		Share of world exports	Imports		Share of world imports
	(billion EUR)		(%)	(billion EUR)		(%)
	2010	2016	2016	2010	2016	2016
World (¹)	2 231.9	3 427.3	100.0	2 133.2	3 321.7	100.0
EU-28 (²)	568.7	819.8	23.9	460.5	689.7	20.8
Australia	35.0	48.1	1.4	38.9	51.4	1.5
Brazil	23.2	30.1	0.9	45.9	57.6	1.7
Canada	58.0	73.3	2.1	74.2	88.3	2.7
China	88.7	188.3	5.5	106.3	408.9	12.3
Hong Kong	60.8	89.3	2.6	53.1	67.2	2.0
India	88.3	146.2	4.3	59.5	86.7	2.6
Japan	101.5	157.0	4.6	124.4	166.9	5.0
Mexico	11.7	22.1	0.6	20.3	30.2	0.9
Russia	37.1	45.7	1.3	56.8	67.2	2.0
Singapore	76.1	135.2	3.9	76.3	140.6	4.2
South Africa	12.1	13.0	0.4	14.8	13.5	0.4
South Korea	62.8	83.9	2.4	73.5	99.8	3.0
Turkey	27.5	34.0	1.0	14.9	20.0	0.6
United States	424.9	679.7	19.8	308.8	455.9	13.7

Note: United Arab Emirates: not available.

(¹) Excludes intra-EU trade.

(²) Extra-EU trade.

Source: Eurostat (online data code: [bop_its6_det](#)) and International Monetary Fund (Balance of Payments and International Investment Position Statistics)

Table 1.8: Derived indicators for international trade in services, selected countries, 2010 and 2016

	Trade balance (billion EUR)		Cover ratio (%)	
	2010	2016	2010	2016
EU-28 (¹)	108.2	130.2	123.5	118.9
Australia	-3.9	-3.3	90.0	93.5
Brazil	-22.7	-27.5	50.6	52.2
Canada	-16.2	-15.0	78.2	83.0
China	-17.7	-220.6	83.4	46.0
Hong Kong	7.7	22.1	114.4	132.8
India	28.8	59.5	148.4	168.7
Japan	-22.9	-9.8	81.6	94.1
Mexico	-8.6	-8.1	57.5	73.3
Russia	-19.7	-21.5	65.3	68.0
Singapore	-0.3	-5.4	99.6	96.2
South Africa	-2.7	-0.5	82.0	96.0
South Korea	-10.7	-15.9	85.4	84.1
Turkey	12.6	14.0	185.0	169.8
United States	116.2	223.8	137.6	149.1

Note: United Arab Emirates: not available.

(¹) Extra-EU trade.

Source: Eurostat (online data code: [bop_its6_det](#)) and International Monetary Fund (Balance of Payments and International Investment Position Statistics)

China had a sizeable trade deficit for services in 2016

By contrast, the biggest deficit for international trade in services was recorded by China (EUR 221 billion in 2016), as the value of its services exports (EUR 188 billion) was less than half the value of its imports (EUR 409 billion); this trade gap was also depicted through the value of the Chinese cover ratio for services (46.0 % in 2016), which was the lowest among the 15 countries for which data are shown.

In 2016, EU-28 international trade in services accounted for 30.7 % of the total value of trade in goods and services — this share has been rising in recent years

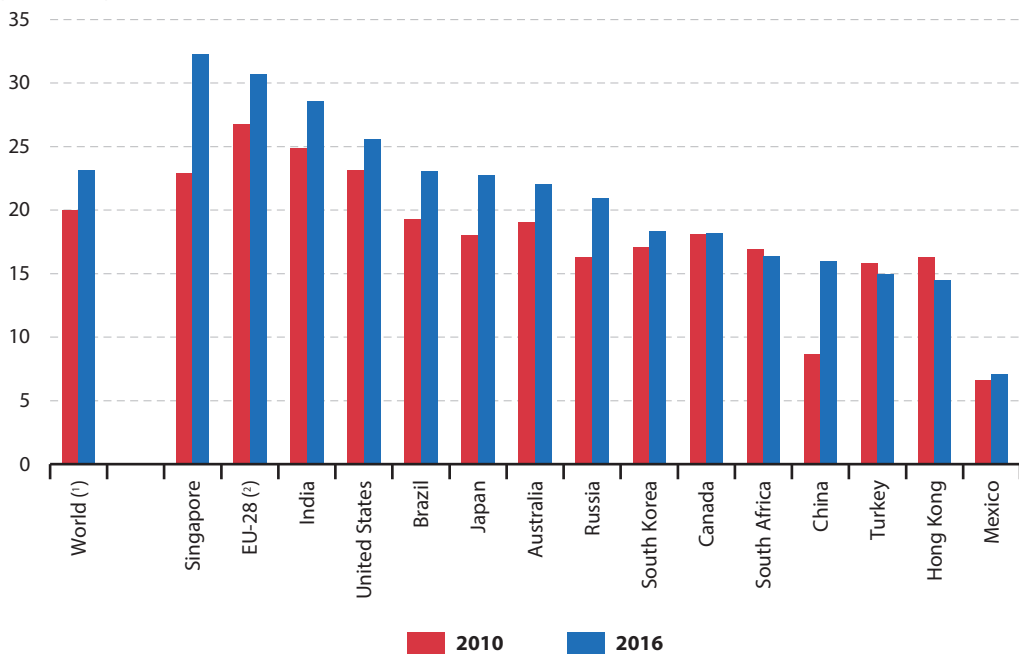
Figure 1.11 provides an alternative analysis of aggregate figures for total services, presenting the relative importance of

international trade in services compared with the overall value of trade in goods and services. In 2016, services accounted for an average share of 23.3 % of the world's trade in goods and services; this could be compared with a share of 20.0 % some six years earlier, confirming that services were a growing part of world trade.

Within the EU-28, the relative share of services in total trade for goods and services also rose between 2010 and 2016, from 26.8 % to 30.7 %, as international transactions for services became increasingly important to the performance of the EU economy. Using this same measure, the relative importance of services in total trade for goods and services grew at a slightly faster pace (than in the EU-28) in Russia and Japan, and at a quicker pace still in China and Singapore. By contrast, the share of services in total trade fell modestly between 2010 and 2016 in South Africa, Turkey and Hong Kong; the only countries to record a contraction.

Figure 1.11: Share of services in total trade for goods and services, selected countries, 2010 and 2016

(% of total)



Note: the figure shows the share of services in total trade of goods and services based on averages for imports and exports. United Arab Emirates: not available.

(¹) Excludes intra-EU trade.

(²) Extra-EU trade. 2016: provisional.

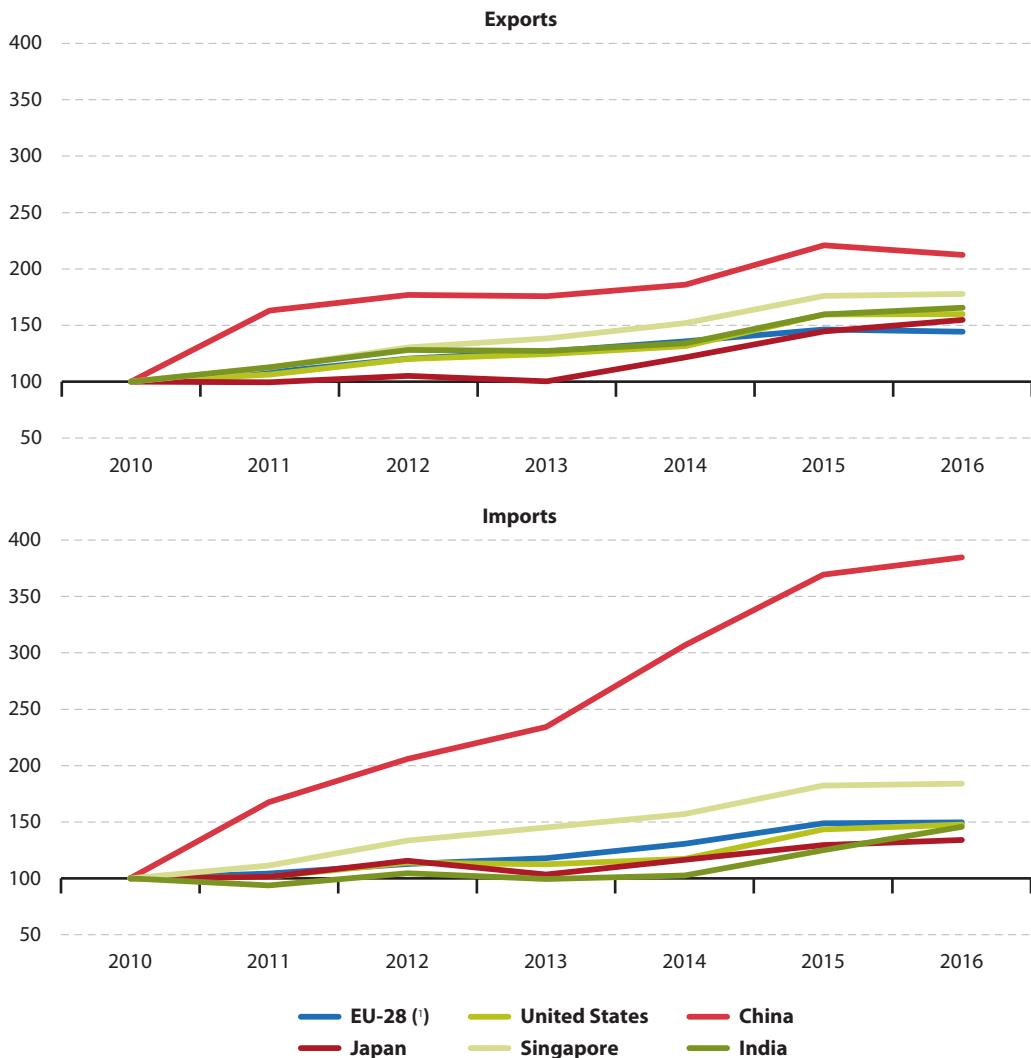
Source: Eurostat (online data code: [bop_eu6_q](#)) and International Monetary Fund (Balance of Payments and International Investment Position Statistics)

Between 2010 and 2016, China recorded the fastest growth for trade in services

During the period 2010-2015, the value of EU-28 exports of services increased every year, rising from EUR 569 billion in 2010 to EUR 832 billion in 2015 (an overall increase of 46.2 %); this pattern ended in 2016, as the value of exports fell slightly (down 1.4 %) to EUR 820 billion.

During the same period, the value of EU-28 imports of services grew each and every year, rising from EUR 461 billion in 2010 to EUR 690 billion in 2016, equivalent to an overall increase of 49.7 % (see Figure 1.12).

Figure 1.12: Developments for international trade in services, selected countries, 2010-2016 (2010 = 100)



Note: the figure shows developments for the top six countries/geographic aggregates with the highest combined values of exports and imports in 2016. United Arab Emirates: not available.

(I) Extra-EU trade. 2016: provisional.

Source: Eurostat (online data code: [bop_its6_det](#)) and International Monetary Fund (Balance of Payments and International Investment Position Statistics)



Some of the EU's global competitors reported even faster rates of growth for the value of their international trade in services. Nowhere was this more apparent than in China, as imports grew almost four-fold between 2010 and 2016, while the value of services exports more than doubled.

INTERNATIONAL TRADE IN SERVICES — BY SERVICE CATEGORY

Statistics on international trade in services by service category

Since the adoption of the sixth edition of the **Balance of Payments and International Investment Position Manual (BPM6)**, international trade statistics for services have been grouped into 12 main categories: manufacturing services on physical inputs owned by others; maintenance and repair services; transport; travel; construction; insurance and pension services; financial services; charges for the use of intellectual property; telecommunications, computer and information services; other business services; personal, cultural and recreational services; government goods and services. Note that more detailed information is collected for 97 different services and that these data are available in Eurostat's [online database](#) for more in-depth analyses.

In 2016, the EU-28 was particularly specialised in exporting other business services ...

Table 1.9 shows the countries which recorded the highest levels of trade across each of the 12 main service categories in 2016. As for international trade in goods, the leading global exporters and importers of services, in absolute terms, are unsurprisingly some of the largest economies. The EU-28 had the highest value of exports for half of the service categories shown (6 out of the 12). However, the size of the export markets for these different services varied considerably: EU-28 exports of other business services (which include, among others, research and development services, legal, accounting, business and management consulting services, advertising, architectural, engineering, scientific and other technical services) were valued at EUR 224 billion (equivalent to 27.3 % of all EU-28 exports of services in 2016), while at the other end of the range, exports of personal, cultural and recreational services were valued at EUR 9.7 billion (1.2 % of the EU-28 total). The four other services where the EU-28 recorded the highest global levels of exports in 2016 were: transport services; telecommunication, computer and information services; insurance and pension services; manufacturing services.

The EU-28 recorded the highest value of imports for 7 out of the 12 service categories shown in Table 1.9 — maintenance and repair services; transport; financial services; the use of intellectual property; telecommunications, computer and information services; other business services; personal, cultural and recreational services — with imports peaking at EUR 222 billion for other business services, which was almost one third (32.2 %) of the total value of services imported into the EU-28 in 2016.

Table 1.9: Highest levels of international trade for selected services, selected countries, 2016
(billion EUR)

Services	Highest level of exports		Highest level of imports	
	EU-28 (!)	819.8	EU-28 (!)	689.7
Manufacturing services	EU-28 (!)	19.0	Hong Kong	10.1
Maintenance & repair services	United States	23.2	EU-28 (!)	10.0
Transport	EU-28 (!)	135.2	EU-28 (!)	118.3
Travel	United States	186.0	China	235.9
Construction	China	11.4	China	7.7
Insurance & pension services	EU-28 (!)	28.5	United States	43.4
Financial services	United States	88.7	EU-28 (!)	43.5
Use of intellectual property	United States	112.4	EU-28 (!)	110.9
Telecoms, computer & info. services	EU-28 (!)	109.4	EU-28 (!)	42.2
Other business services	EU-28 (!)	224.0	EU-28 (!)	222.3
Personal, cultural & recreation. serv.	EU-28 (!)	9.7	EU-28 (!)	9.5
Government goods & services	United States	17.0	United States	19.4

Note: based on available information for a selected list of reporting countries (see methodological notes in the introduction for more details). United Arab Emirates: not available.

(!) Extra-EU trade. Provisional.

Source: Eurostat (online data code: [bop_its6_det](#)) and International Monetary Fund (Balance of Payments and International Investment Position Statistics)

... while emerging economies often recorded the highest export specialisation rates across different service categories

Table 1.10 provides an alternative analysis focusing on relative specialisation ratios. The highest ratios were often recorded for emerging economies and were spread across a broad range of economies. For example, China had the highest specialisation ratio in 2016 for manufacturing services, whereas India was the most specialised country for exporting telecommunication, computer and information services (the relative share of this category in Indian exports was four times as high as the average for the 15 leading trading nations for which this analysis is presented). Turkey (transport services; personal, cultural and recreational services) and Mexico (travel services; insurance and pension services) were the only countries to appear more than once in the ranking of the most specialised exporters for these 12 different service categories.

The information presented in Table 1.11 reverses the focus of the analysis, detailing for each country where its relative trade specialisation (among the 12 service categories which form the basis of this analysis) lies. In 2016, the highest specialisation ratios for the EU-28, for both exports and imports, were recorded for personal, cultural and recreational services. Results for some of the other countries confirm, for example, the relative importance of exports of: travel services from Australia and South Africa; financial services from Hong Kong; telecommunication, computer and information services from India; or charges for the use of intellectual property from the United States.

i Further information on international trade in services for the EU-28 and its individual Member States is presented in Chapter 3.



Table 1.10: Highest relative specialisation ratios for international trade in selected services, selected countries, 2016

(%, average = 100)

Services	Most specialised country for exports		Most specialised country for imports	
	EU-28 (¹)			
Services	EU-28 (¹)	118	Hong Kong	124
Manufacturing services	China	535	Hong Kong	1 451
Maintenance & repair services	Singapore	218	Japan	172
Transport services	Turkey	227	Mexico	202
Travel services	Mexico	411	China	225
Construction services	South Korea	588	Russia	432
Insurance & pension services	Mexico	517	Mexico	341
Financial services	Hong Kong	231	Hong Kong	183
Charges for the use of intellectual property	Japan	224	EU-28 (¹)	185
Telecoms, computer & information services	India	403	South Africa	132
Other business services	Brazil	194	EU-28 (¹)	158
Personal, cultural & recreational services	Turkey	639	Australia	284
Government goods & services	South Africa	200	Turkey	484

Note: these ratios provide information on revealed specialisation and are calculated as the share of a country's trade accounted for by a given service compared with the average share of trade across 16 selected countries (see methodological notes for a list) accounted for by the same service, the result is expressed as a percentage; a value of more than 100 indicates that the country in question is relatively specialised, whereas a value below 100 means that it is relatively unspecialised. United Arab Emirates: not available.

(¹) Extra-EU trade. Provisional.

Source: Eurostat (online data code: [bop_its6_det](#)) and International Monetary Fund (Balance of Payments and International Investment Position Statistics)

Table 1.11: Highest relative specialisation ratios for international trade in selected services, 2016

(%, average = 100)

EU-28 (¹)	Highest relative specialisation for exports		Highest relative specialisation for imports	
EU-28 (¹)	Personal, cultural & recreational services	194	Personal, cultural & recreational services	190
Australia	Travel services	293	Personal, cultural & recreational services	284
Brazil	Personal, cultural & recreational services	209	Government goods & services	197
Canada	Personal, cultural & recreational services	278	Personal, cultural & recreational services	228
China	Manufacturing services	535	Travel services	225
Hong Kong	Financial services	231	Manufacturing services	1 451
India	Telecoms, computer & information services	403	Personal, cultural & recreational services	224
Japan	Construction services	255	Construction services	325
Mexico	Insurance & pension services	517	Insurance & pension services	341
Russia	Construction services	358	Construction services	432
Singapore	Maintenance & repair services	218	Transport services	144
South Africa	Travel services	264	Transport services	183
South Korea	Construction services	588	Manufacturing services	535
Turkey	Personal, cultural & recreational services	639	Government goods & services	484
United States	Charges for the use of intellectual property	169	Government goods & services	242

Note: these ratios provide information on revealed specialisation and are calculated as the share of a country's trade accounted for by a given service compared with the average share of trade across 16 selected countries (see methodological notes for a list) accounted for by the same service, the result is expressed as a percentage; a value of more than 100 indicates that the country in question is relatively specialised, whereas a value below 100 means that it is relatively unspecialised. United Arab Emirates: not available.

(¹) Extra-EU trade. Provisional.

Source: Eurostat (online data code: [bop_its6_det](#)) and International Monetary Fund (Balance of Payments and International Investment Position Statistics)

1.4 Direct investment patterns

In an attempt to remain competitive, modern-day business relationships extend well beyond international trade in goods and services. Indeed, there is a growing reliance upon different forms of industrial organisation, including: foreign affiliates, overseas investment, mergers, joint ventures, subcontracting, offshoring or licensing agreements. [Foreign direct investment \(FDI\)](#) is one such economic strategy and it is the final topic that is considered within this chapter.

Some economists argue that compared with international trade, FDI creates deeper links between economies, thereby stimulating technology transfers and fostering the exchange of know-how, which in turn drives productivity and makes economies more competitive. Governments often use economic arguments as a reason for seeking to attract FDI, based on the premise that it can help generate economic growth and provide jobs.

On the other hand, an increasingly vociferous group of economists provide a range of counter arguments, highlighting the role played by some [multinational enterprises](#) in 'stripping' resources or taking advantage of lower labour and environmental standards in host economies. Furthermore, there is also a considerable volume of literature around corporate responsibility, ethics and tax-avoidance techniques that may be adopted by multinational enterprises. As such, there remains a sizeable debate over the motives and redistributive effects of FDI.

STOCKS OF FOREIGN DIRECT INVESTMENT

In 2015, Europe accounted for more than 40 % of the world's outward investment positions

The [international investment position](#) of a country details its stock of financial assets and liabilities; for the purpose of this publication these stocks are measured at the end of each year (although more detailed statistics are collected at the end of each quarter). FDI stocks reflect the accumulated value held at the end of the reference period, reflecting the value of stocks at the start of the year, adjusted for any transactions (flows) which take place during the year and any changes in the value of positions other than transactions (for example, revaluations due to exchange rates or other price changes).

In 2015, the global stock of FDI was valued at EUR 22.6 trillion, based on an average of inward and outward positions. Europe was the largest source and destination of FDI stocks in the world. According to the United Nations, more than one third (35.0 %) of global inward investment was located in Europe (EUR 7.9 trillion), while it accounted for more than two fifths (41.7 %) of the world's outward investment positions (some EUR 9.4 trillion).

Between 2005 and 2015, Asia emerged as an increasingly attractive location for foreign investment

There was a relatively modest decline between 2005 and 2015 in the share of global FDI stocks that were positioned in Europe; its share of the world total falling by 5.4 percentage points, while the contraction in the share of North America was of a similar magnitude (down 5.1 percentage points). By contrast, the relative importance of Asia as a location for inward investment rose at a relatively fast pace between 2005 and 2015, its share of the global total



Statistics on foreign direct investment

Foreign direct investment (FDI) is an investment made by a resident enterprise in one economy (direct investor or parent enterprise) with the objective of establishing a lasting interest in an enterprise that is resident in another economy (direct investment enterprise). This implies the existence of a long-term relationship between the direct investor and the direct investment enterprise, as well as the ability to exercise some form of control/influence over business decisions. Indeed, this effective voice in the management of the foreign enterprise is one of the principal differences between FDI and other forms of investment, such as portfolio investment (where the investor does not seek control the foreign enterprise) or other assets (for example, intellectual property rights).

FDI data are based on international standards: since 2013, these data have been based on the IMF's *Balance of Payments and International Investment Position Manual, 6th edition (BPM6)* and the OECD's *Benchmark Definition of Foreign Direct Investment, 4th edition (BD4)*. Within the financial account of the balance of payments, a positive sign represents an increase in an asset or a liability to which it relates, while a negative sign represents a decrease. Therefore, a plus sign denotes a net increase in financial assets or liabilities, while a minus sign refers to a net decrease in financial assets or liabilities.

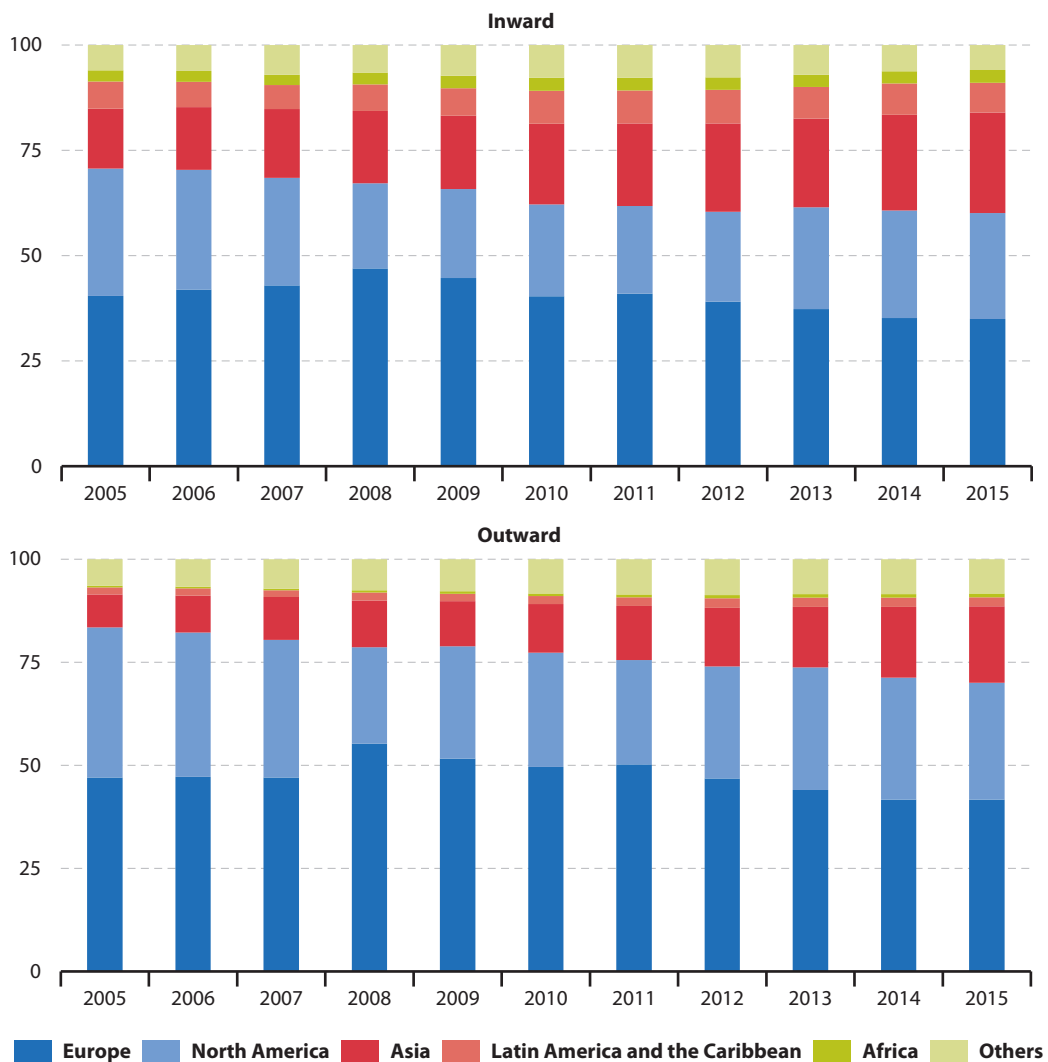
There are four broad types of FDI: i) the creation of productive assets, for example, establishing a new plant/office abroad (so-called 'greenfield investment'); ii) the purchase of existing assets abroad through acquisitions, mergers or takeovers; iii) the extension of capital, which relates to additional investments being made to expand an established business; and iv) financial restructuring, which refers to investments for debt repayment or loss reduction.

Important: note that the data presented for the EU-28 include **special purpose entities (SPEs)**, while those for the rest of the world exclude SPEs (see Box 4.1 in Chapter 4 for more information). Time series for the EU-28 and its Member States excluding SPEs are only available, at the time of writing, for the period 2013-2015 and hence in order to avoid a break in series the information presented systematically include SPEs. From an economic standpoint, the inclusion of SPEs may distort the geographic distribution of FDI statistics as it can appear that countries receive or make investments when in reality the funds are simply being passed through holding companies and other similar structures. For this reason, statistics excluding SPEs should generally be preferred for economic analyses of FDI, as they remove those flows of FDI that have little or no impact on 'real' economies. On the other hand, as part of the balance of payments, the inclusion of SPEs should generally be favoured insofar as the main objective for this type of analyses is to measure all (direct) cross-border monetary transactions, irrespective of whether these are through SPEs or not.

rising by 9.6 percentage points to reach 23.8 % by 2015 (which was almost as high as the share recorded for North America (25.1 %)). The share of the world's inward investment that was located in Africa and in Latin America and the Caribbean also rose between 2005 and 2015, although rates of change were relatively modest when compared with the rapid expansion of investment within Asia.

Europe's outward stocks of FDI were greater than the value of inward FDI stocks held by the rest of the world within Europe; as such, Europe was a net investor. The second part of Figure 1.13 shows there were also relatively large fluctuations concerning Europe's share of the world's outward FDI between 2005 and 2015, this proportion rising to more than half of the global total (55.2 %) at the onset of the global financial and economic crisis in 2008, before falling to 41.7 % by 2015. North America had the second highest share (28.4 %) of the world's outward FDI stocks in 2015, followed by Asia (18.5 %). As with developments for inward FDI, between 2005 and 2015 the relative shares of Europe (-5.4 percentage points) and particularly North America (-8.0 percentage points) in total outward FDI declined; this pattern was counteracted by a sizeable increase in the share of Asia (up 10.6 percentage points).

Figure 1.13: Stocks of foreign direct investment, by continent, 2005-2015
(% of world total)



Note: excludes offshore financial centres in the Caribbean.

Source: UNCTAD (FDI/MNE database)

Stocks of foreign direct investment represent about one third of the world's economic output

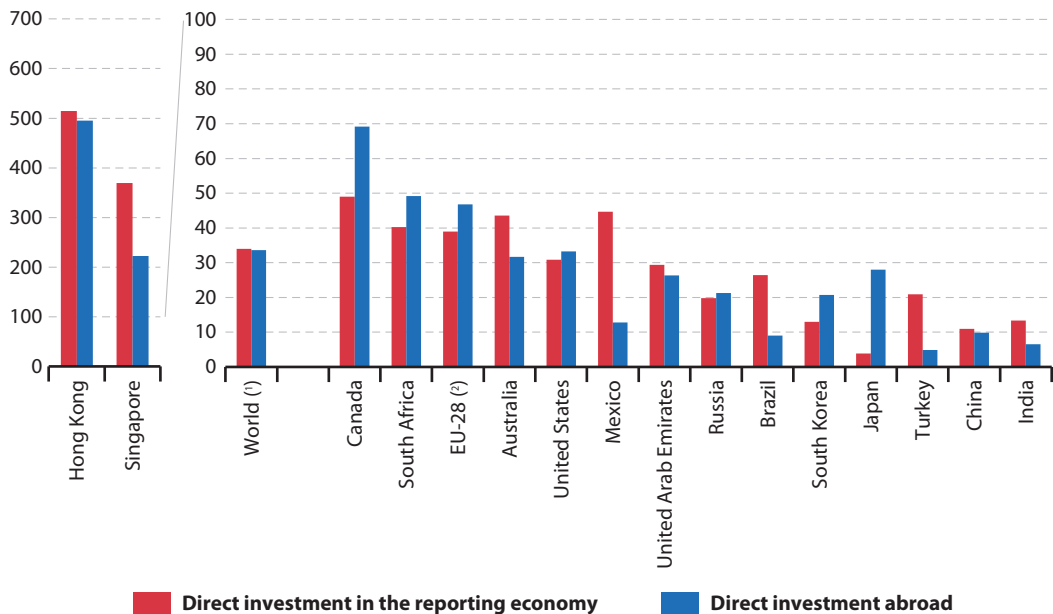
Figure 1.14 presents information on the relative importance of FDI stocks compared with the economic size of each economy (as measured by GDP). The global average in 2015 for the ratio of outward direct investment to GDP was 33.6 %, while the ratio of inward direct investment to GDP was 34.0 %.

In 2015, two Asian economies — Singapore and Hong Kong — reported a high degree of 'openness', insofar as inward FDI stocks in both these reporting economies were valued considerably higher than their levels of GDP; the value of direct investment in Singapore was 3.7 times as high as its GDP, rising to 5.1 times as high for Hong Kong. In all of the remaining economies presented in Figure 1.14 the value of inward FDI stocks was less than the economic output of the country concerned.

Direct investment in the EU-28 was valued at 39.0 % of GDP in 2015, which was slightly higher than the global average. Aside from Hong Kong and Singapore there were four other global competitors that recorded higher ratios than the EU-28: Canada, Mexico, Australia and South Africa. By contrast, stocks of inward FDI relative to GDP were much lower in the Chinese (10.9 %) and, in particular, the Japanese economies (3.9 %). The relatively low overall level of inward FDI in Japan resulted from an absence of foreign investment in most activities, aside from the manufacture of machinery and motor vehicles.

Figure 1.14: Stocks of foreign direct investment, relative to GDP, 2015

(%)



Note: the figure is split into two parts with different scales on the y-axis. Ranked on the average ratio for inward and outward stocks.

(¹) Direct investment excludes offshore financial centres in the Caribbean.

(²) Shown in relation to extra-EU partners. Includes special purpose entities (SPEs).

Source: Eurostat (online data codes: *bop_fdi6_pos*, *bop_fdi_main* and *nama_10_gdp*), UNCTAD (FDI/MNE database) and United Nations Statistics Division (National Accounts Main Aggregates Database)

Most 'open' economies have considerable stocks of both inward and outward investment

Reversing the analysis and considering the relative importance of outward stocks of FDI in each economy, a general pattern emerges whereby many of those countries which were 'open' to a high degree of market penetration in the form of inward FDI were also found to have high ratios of outward FDI relative to GDP — supporting a view that some economies seek to gain a competitive advantage by encouraging free trade and investment opportunities, whereas other countries are more inward-looking.

That said, there were some exceptions: for example, the ratio of direct investment abroad relative to GDP for Japan was 28.0 % (much higher than the ratio of inward FDI relative to GDP) — suggesting that while it was relatively commonplace for Japanese enterprises to invest in foreign plants, it was far less common for foreign enterprises from third countries to invest in Japan. By contrast, the value of direct investment abroad from Mexico and Brazil was relatively low (both in relation to GDP and in relation to the value of inward investment in both of these economies). These differences between ratios for inward and outward stocks of FDI may be used to identify which economies were net investors in 2015; this was the case for Japan, Canada, South Africa, the EU-28, South Korea, the United States and Russia.

Box 1.2 — Multinational enterprises

A wide range of factors may influence an enterprise's decision as to whether to relocate (some) production abroad, including: the size and distance of the foreign market, its growth prospects, wage and productivity levels, or its regulatory and legal regimes — however, for most enterprises, investment decisions ultimately come down to maximising profits. As the relative price of transport and communications has fallen, it has become considerably easier for multinational enterprises to consider moving their production locations across the globe, for example, to benefit from cost savings that may be linked to lower labour costs or local resource endowments of primary goods. In a similar vein, the provision of some services has also been affected, as witnessed by the establishment of call centres/helpdesks abroad. Furthermore, FDI provides enterprises with the possibility of accessing protected and regulated service markets, through the establishment of a commercial presence in the host economy.

Table 1.12 provides details relating to the size of the top 20 non-financial multinational enterprises in the world in terms of their foreign assets; the information comes from the [United Nations Conference on Trade and Development \(UNCTAD\)](#).

Five out of the top six global multinationals had their headquarters in the EU: Royal Dutch Shell plc, BP plc and Total S.A. were all specialised in energy activities, while Anheuser-Busch InBev NV was specialised in the manufacture of beverages and Volkswagen Group in the manufacture of motor vehicles.

Box 1.2 (continued)

Looking more generally across the whole of the top 20 non-financial multinational enterprises, 9 out of the 20 were headquartered in the [European Union \(EU\)](#) (three each in Germany and the United Kingdom, one in each of Belgium, France and Italy), five were Japanese, four were from the United States, leaving a single multinational from each of Australia and Hong Kong.

The share of foreign assets in total assets was generally very high for most multinational enterprises, often accounting for more than three quarters of their total. However, more than half of all assets were in the domestic economy for three of the non-financial multinationals appearing in the table — General Electric Co (51.1 %), Volkswagen Group (54.3 %) and Apple Computer Inc. (60.6 %).

Table 1.12: Top 20 non-financial multinational enterprises ranked by foreign assets, 2016

Name (ISO code of domestic economy)	Assets (billion EUR)		Number of employees (1 000)	
	Foreign	Total	Foreign	Total
Royal Dutch Shell plc (UK) (¹)	315.9	371.6	67.0	92.0
Toyota Motor Corporation (JP)	274.4	393.9	148.9	348.9
BP plc (UK)	212.4	237.9	43.6	74.5
Total SA (FR)	210.7	220.0	70.5	102.2
Anheuser-Busch InBev NV (BE)	187.9	233.4	163.2	206.6
Volkswagen Group (DE)	178.2	390.2	346.7	626.7
Chevron Corporation (US)	170.9	235.0	28.7	55.2
General Electric Co (US)	161.3	329.9	191.0	295.0
Exxon Mobil Corporation (US)	149.9	298.4	35.7	71.1
Softbank Corp (JP)	131.5	199.0	42.0	63.6
Vodafone Group Plc (UK)	129.7	149.4	75.7	105.3
Daimler AG (DE)	125.5	231.4	112.4	282.5
Honda Motor Co Ltd (JP)	117.5	153.2	143.4	208.4
Apple Computer Inc (US)	114.5	290.6	45.7	116.0
BHP Billiton Group Ltd (AU)	107.5	107.5	11.0	26.8
Nissan Motor Co Ltd (JP)	105.3	148.8	87.6	152.4
Siemens AG (DE)	104.1	126.8	136.9	351.0
Enel SpA (IT)	100.5	148.2	30.1	62.1
CK Hutchison Holdings Ltd (HK)	99.8	118.1	263.9	290.0
Mitsubishi Corporation (JP)	97.4	127.3	52.3	68.2

Note: preliminary results based on data from the companies' financial reporting; corresponds to the financial year from 1 April 2016 to 31 March 2017 (converted to euro using average exchange rate for 2016). In some cases foreign employment data were estimated by applying the share of foreign employment in total employment from the previous year to total employment.

(¹) Incorporated in the United Kingdom with headquarters in the Netherlands.

Source: UNCTAD (World Investment Report 2017)

The stock of foreign investment in China more than quadrupled between 2008 and 2015

Developments for both inward and outward stocks of FDI are shown in Table 1.13. The fastest overall growth rate for inward investment between 2008 and 2015 was recorded in China (where the nominal value of inward FDI rose more than fourfold); the next highest growth rates were recorded by Singapore and India.

Table 1.13: Stocks of foreign direct investment, 2008-2015

(billion EUR)

	Direct investment in the reporting economy				
	2008	2010	2012	2014	2015
World⁽¹⁾	10 469	15 271	17 747	18 899	22 704
EU-28⁽²⁾	2 497	3 145	3 906	4 758	5 745
Australia	209	398	479	423	483
Brazil	177	483	526	463	422
Canada	422	742	742	721	686
China	257	443	648	817	1 100
Hong Kong	533	805	969	1 126	1 435
India	85	155	175	191	255
Japan	138	162	160	129	154
Mexico	192	293	354	367	459
Russia	145	350	341	218	237
Singapore	312	477	639	767	975
South Africa	64	102	123	135	162
South Korea	57	135	127	105	114
Turkey	55	142	149	137	135
United Arab Emirates	37	48	62	75	98
United States	1 691	2 581	3 048	4 096	5 021
	Direct investment abroad				
	2008	2010	2012	2014	2015
World⁽¹⁾	10 898	15 795	17 757	18 582	22 465
EU-28⁽²⁾	3 309	4 219	5 112	6 000	6 892
Australia	166	339	371	336	352
Brazil	89	113	159	132	144
Canada	438	753	757	820	968
China	125	239	414	664	990
Hong Kong	522	712	905	1 092	1 380
India	43	73	92	99	125
Japan	463	627	808	867	1 106
Mexico	46	91	116	110	132
Russia	134	254	259	248	255
Singapore	216	352	442	491	587
South Africa	67	109	158	196	258
South Korea	34	63	87	110	139
Turkey	12	17	24	30	31
United Arab Emirates	35	42	47	61	88
United States	2 109	3 628	4 065	4 686	5 413

(¹) Excludes offshore financial centres in the Caribbean.

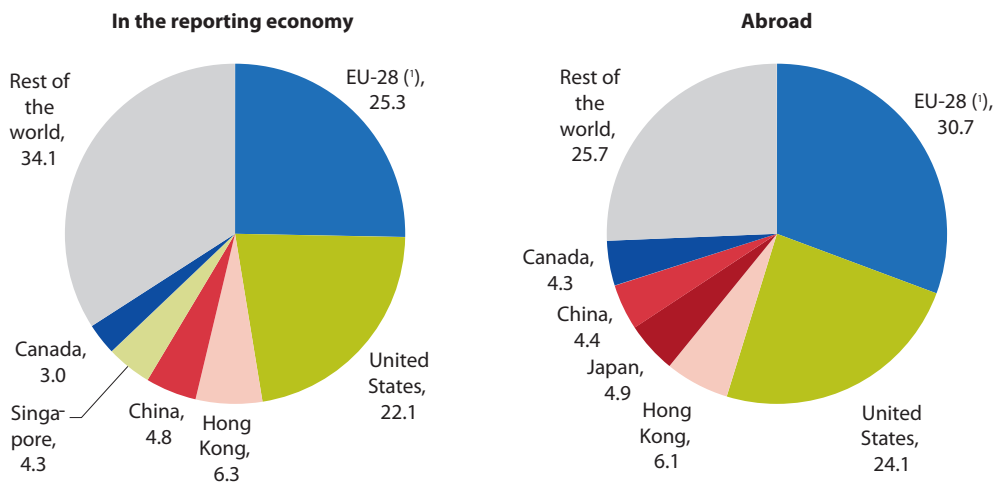
(²) Shown in relation to extra-EU partners. Includes special purpose entities (SPEs). Break in series: 2014.

Source: Eurostat (online data codes: [bop_fdi6_pos](#) and [bop_fdi_main](#)) and UNCTAD (FDI/MNE database)

The pace of change was even more rapid concerning the level of Chinese investment abroad: in 2015, outward FDI from China was valued almost eight times as high as it had been in 2008. It should be noted that the total value of these stocks was, in 2008, still relatively small. The next highest growth rates for outward FDI were recorded for South Korea and South Africa (as with China their stocks of investment abroad grew from a relatively low initial level in 2008).

The final presentation of information concerning inward and outward stocks of FDI describes the share of world stocks between the leading global players (see Figure 1.15). In 2015, just over one quarter (25.3 %) of global inward investment was located in the EU-28; its share of global outward investment was somewhat higher, reaching 30.7 %. The EU-28 recorded the highest share of both inward and outward stocks of FDI in 2015 and was followed in both cases by the United States. It is interesting to note that Hong Kong accounted for the third highest share of global FDI stocks, both for inward and outward investment.

Figure 1.15: World stocks of foreign direct investment, 2015
(% of total)



Note: the figure shows the top six countries/geographic aggregates with the highest values of inward and outward investment. Excludes offshore financial centres in the Caribbean.

(*) Extra-EU trade. Includes special purpose entities (SPEs).

Source: Eurostat (online data code: [bop_fdi6_pos](#)) and UNCTAD (FDI/MNE database)

FOREIGN DIRECT INVESTMENT FLOWS

The global financial and economic crisis was already mentioned at the start of this chapter in relation to its impact on the value of international trade in goods and services. In a similar vein, there was a sharp reduction in the value of global FDI flows between 2008 and 2009: this was most apparent for direct investment flows abroad which fell by 32.3 % (perhaps reflecting the choice of multinational enterprises to reduce their exposure during challenging economic times). FDI flows comprise capital provided by a foreign direct investor to an FDI enterprise, or capital received from an FDI enterprise by a foreign direct investor; they are composed of three components: equity capital, reinvested earnings and intra-company loans.

Post-crisis there was a relatively slow recovery in FDI flows (mirroring the pattern observed for international trade in goods) and a generally sluggish pattern to developments. Indeed, by 2014 the global level of FDI remained lower than it had been in 2008 for both inward and outward flows, a situation that was reversed in 2015 when value of both inflows and outflows rose to be higher than in 2008. Global inflows of FDI were valued at EUR 1.6 trillion in 2015, slightly higher than the value of FDI outflows (EUR 1.4 trillion).

In 2015, Europe was the world's largest source and recipient of foreign direct investment

Figure 1.16 shows the share of global flows of FDI accounted for by each continent during the period 2005-2015. The general pattern for inward investment was a gradual transfer of investment flows from Europe towards Asia, although there was a marked recovery in Europe's share in 2015. This pattern was clearer for outward investment, as Europe's share fell at a much faster pace, from 77.3 % of the world total in 2005 down to just 17.7 % in 2014, before rebounding to 41.8 % in 2015. FDI inflows into Europe were valued at EUR 510 billion in 2015, while Europe's outflows of FDI were somewhat larger (EUR 600 billion).

While the European share of total FDI flows was reduced by a considerable margin during the period 2005-2015, both North America and Asia saw an increase in their respective shares of global investment flows. In 2015, North America provided 23.2 % of the world's outward flows of FDI, just ahead of the share recorded for Asia (21.2 %). By contrast, Asia attracted 29.5 % of global inward investment flows in 2015, which was somewhat higher than the share recorded by North America (22.0 %).

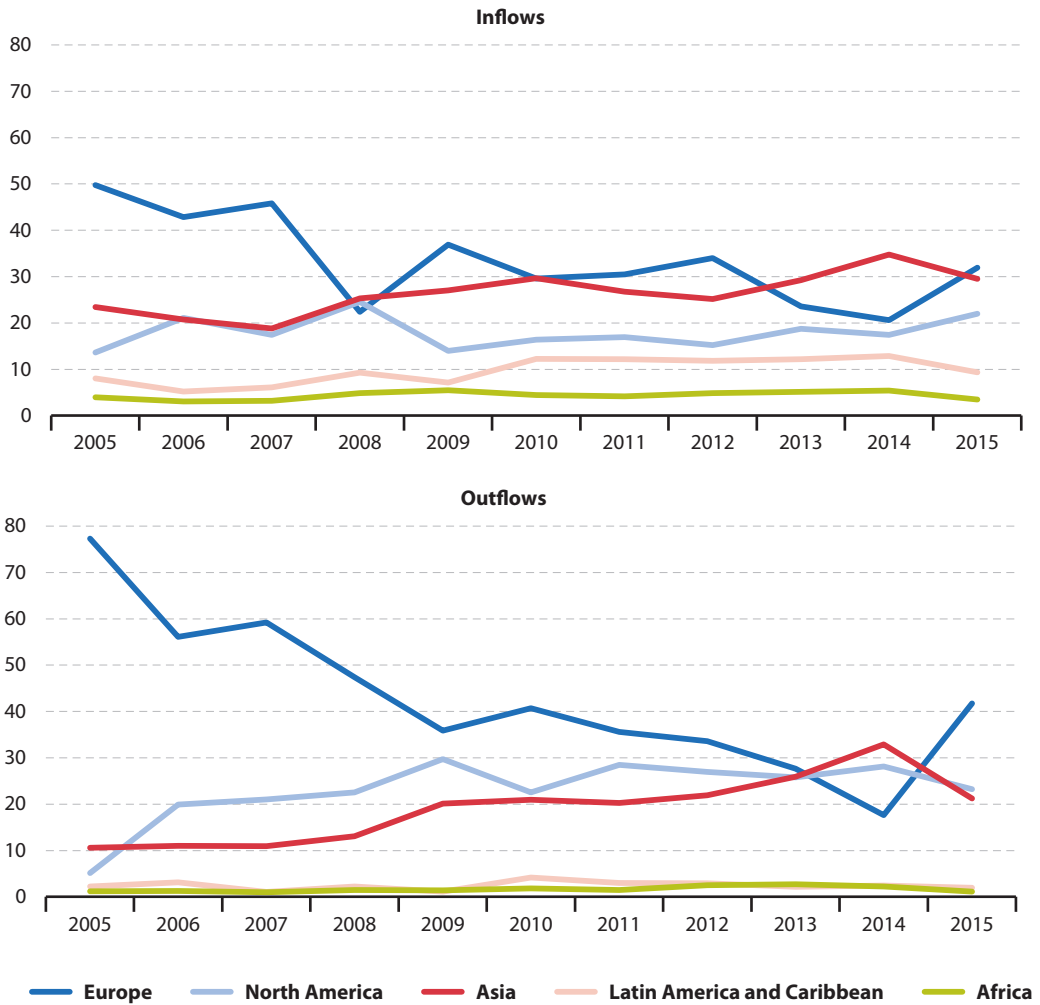
Between 2008 and 2015, there was a rapid increase in FDI flows entering Singapore and Hong Kong

Developments for the value of FDI flows are shown in Table 1.14. The fastest overall growth rates for inward flows of FDI between 2008 and 2015 concerned investment in Singapore (which rose almost eightfold), investment in Hong Kong (which rose fourfold) and investment in the EU-28 (which rose 2.6-fold). By contrast, the fastest growth in the value of outward flows of FDI was recorded for Mexico (up more than 12-fold), while there were also sizeable increases in flows of FDI abroad from Singapore (which rose more than fivefold) and China (which rose threefold).

Looking in more detail at the global developments from one year to the next there was a considerable reduction in both inward and outward investment flows in 2014, followed by a marked rebound in 2015. A closer examination reveals that these changes could be largely attributed to the situation in the EU-28, with large-scale disinvestment in 2014 followed by the re-emergence of European multinationals as major investors in 2015. According to the United Nations, the rapid upturn in FDI flows in 2015 resulted from an increase in the number of cross-border mergers and acquisitions, which were often motivated by 'inversions', whereby an enterprise shifts its corporate headquarters from a relatively high-tax country to a jurisdiction with lower corporate taxes. This pattern was particularly prevalent in Ireland and the Netherlands, where corporate inversion deals led to a considerable rise in outward flows of FDI, as large multinational enterprises (often from the United States) became affiliates of newly-created parent companies, thereby boosting the outward flows of FDI for these host economies.



Figure 1.16: World flows of foreign direct investment, by continent, 2005-2015
(% of total)



Note: excludes offshore financial centres in the Caribbean.

Source: UNCTAD (FDI/MNE database)

Between 2008 and 2015, China became an increasingly important investor in the global economy

Another interesting aspect of the information presented in Table 1.14 is the rapid transformation of inward and outward flows of FDI to/from China: while the level of direct investment in the Chinese economy had been almost twice as high as the value of Chinese FDI flows abroad in 2008, inward

Table 1.14: Flows of foreign direct investment, 2008-2015
(billion EUR)

	Direct investment into the reporting economy				
	2008	2010	2012	2014	2015
World (¹)	1 019.3	1 043.8	1 239.6	996.5	1 598.9
EU-28 (²)	182.2	224.5	309.8	98.7	466.5
Australia	31.9	27.5	46.4	30.4	17.6
Brazil	30.6	63.2	59.2	55.0	57.9
Canada	41.8	21.4	33.6	44.5	37.4
China	73.6	86.5	94.2	96.7	122.2
Hong Kong	39.6	53.2	54.6	85.1	157.1
India	32.0	20.7	18.8	26.0	39.7
Japan	16.6	-0.9	1.3	8.0	-2.0
Mexico	20.0	20.6	16.4	20.7	29.9
Russia	51.6	23.9	23.5	21.9	10.7
Singapore	8.3	41.5	43.8	55.7	63.6
South Africa	6.3	2.7	3.5	4.3	1.6
South Korea	7.6	7.2	7.4	7.0	3.7
Turkey	13.5	6.9	10.6	9.4	15.6
United Arab Emirates	3.4	6.6	6.9	8.1	7.9
United States	208.3	149.4	154.9	129.2	314.0
	Direct investment abroad				
	2008	2010	2012	2014	2015
World (¹)	1 167.7	1 045.5	1 080.7	943.3	1 437.0
EU-28 (²)	379.0	303.4	317.4	58.3	537.2
Australia	20.7	14.9	6.1	0.2	-1.5
Brazil	13.9	16.6	-4.1	1.7	2.8
Canada	53.9	26.2	43.5	45.5	60.4
China	38.0	51.9	68.3	92.7	115.0
Hong Kong	32.9	65.1	64.9	93.4	64.7
India	14.4	12.0	6.6	8.9	6.8
Japan	87.0	42.4	95.4	97.1	116.0
Mexico	0.8	11.4	18.0	5.3	9.7
Russia	38.6	31.0	22.1	48.3	24.4
Singapore	5.4	26.7	15.1	39.3	28.3
South Africa	-2.1	-0.1	2.3	5.8	5.2
South Korea	13.3	21.3	23.8	21.1	21.4
Turkey	1.7	1.1	3.2	5.0	4.3
United Arab Emirates	10.8	1.5	2.0	8.8	15.0
United States	209.6	209.5	247.7	220.0	273.3

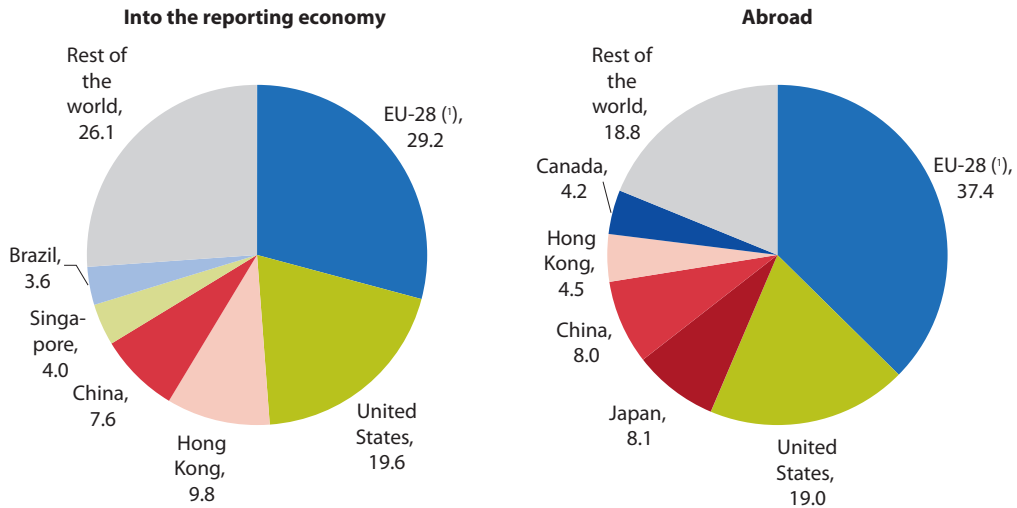
(¹) Excludes offshore financial centres in the Caribbean.

(²) Shown in relation to extra-EU partners. Includes special purpose entities (SPEs). Break in series: 2014.

Source: Eurostat (online data codes: [bop_fdi6_flow](#) and [bop_fdi_main](#)) and UNCTAD (FDI/MNE database)

Figure 1.17: World flows of foreign direct investment, 2015

(% of total)



Note: the figure shows the top six countries/geographic aggregates with the highest values of inward and outward investment. Excludes offshore financial centres in the Caribbean.

(*) Extra-EU trade. Includes special purpose entities (SPEs).

Source: Eurostat (online data code: [bop_fdi6_flow](#)) and UNCTAD (FDI/MNE database)

and outward flows were almost balanced by 2015. As a sign of its growing global importance, outward Chinese investment reached a similar level to that recorded for Japan in 2015.

Geopolitical concerns may also impact on the development of investment flows. For example, there was a considerable reduction in flows of inward and outward investment with Russia between 2014 and 2015, reflecting the introduction of economic sanctions and restrictions on access to capital markets for the Russian banking sector (which may have impacted this sector in the form of capital flight).

In 2015, the EU-28 was the world's leading outward investor

In 2015, the EU-28 was the leading outward investor, accounting for more than one third (37.4 %) of the world's FDI flows, while the share of the United States was just less than one fifth (19.0 %); Japan (8.1 %) and China (8.0 %) had similar shares.

The EU-28 was also the host economy that received the highest value of inward FDI in 2015, with a 29.2 % share of the total (see Figure 1.17). Around one fifth (19.6 %) of the world's FDI flowed into the United States, while Hong Kong (9.8 %) and China (7.6 %) accounted for the next highest shares. When compared with outward flows of FDI, Japan was conspicuous by its absence within the ranking of main host economies.

i Further information on foreign direct investment for the EU-28 and its individual Member States is presented in Chapter 4.

i Further information on foreign affiliates for the EU-28 and its individual Member States is presented in Chapter 5.

2

International trade in goods for the EU



While the first chapter of this publication provided a set of international comparisons for trade and investment flows, the focus of subsequent chapters is the [European Union \(EU\)](#) and its individual Member States.

This chapter provides information on international trade in goods: at its most basic level international trade in goods may be viewed as being beneficial, without it only the French could drive a Renault and the Germans a BMW, while only the Italians could drink a glass of prosecco and the Scots a dram of single malt whisky. There are nevertheless contrasting views between those who adhere to the belief that higher levels of international trade in goods should be advantageous for all (a so-called 'win-win' situation) and those who feel that increased levels of international trade in goods may 'crowd-out' domestic production and lead to the closure of certain industries, as these are unable to remain profitable in the face of global competition.

Main statistical findings

- In 2016, the main three destinations for goods exported from the EU-28 were the United States, China and Switzerland.
- China was the origin of more than one fifth (20.2 %) of the goods imported into the EU-28 in 2016.
- Since the global financial and economic crisis, the value of the exported goods leaving the EU-28 has risen at a faster pace than the value of EU-28 imported goods.
- Machinery and transport equipment accounted for more than two fifths of all goods exported from the EU-28 in 2016 and for the EU-28's highest trade surplus (EUR 192 billion), while the EU-28's biggest trade deficit was recorded for mineral fuels (EUR 190 billion).
- In 2016, Germany had the highest trade surplus for goods (EUR 257 billion) among the EU Member States.
- Malta and the United Kingdom were the only EU Member States that had a slight majority of their trade in goods with non-member countries in 2016.
- Sea transport accounted for just over half of the total value of goods imported into the EU-28 in 2016.
- Around 70 % of the imports that entered the EU-28 did so at zero or reduced tariff.
- There were 17 EU Member States that invoiced a majority of their exports to non-member countries in euros, while 20 EU Member States reported more than half of their imports from non-member countries were denominated in US dollars.

2.1 International trade in goods: an overview

The [European Union \(EU\)](#) has a relatively open trade regime, which has provided a stimulus for developing relationships with a wide range of trading partners. Indeed, the EU is deeply integrated into global markets and this pattern may be expected to continue, as modern transport and communication developments provide a further stimulus for producers to exchange goods (and services) around the world.

This subchapter provides an overview of trade developments across the EU, detailing patterns of growth (in value and volume terms), the split between intra- and extra-EU trade, the performance of individual EU Member States, and developments for the terms of trade.

EU policymakers see the promotion of international trade (and investment) with the rest of the world as a key driver of economic growth and job creation. The EU is one of the world's biggest players in global trade: in 2016, it was the second largest exporter and importer of



Statistics on international trade in goods

Statistics on international trade in goods distinguish between **intra-EU and extra-EU trade**.

Intra-EU statistics concern transactions that occur within the EU, in other words, exports of goods leaving one EU Member State that are destined to arrive in another. The advent of the **single market** on 1 January 1993 and its removal of customs formalities between EU Member States resulted in a loss of information and required the establishment of a new data collection system — **Intrastat** — which is closely linked to VAT systems and is based on collecting data directly from taxable persons (traders).

Extra-EU statistics record flows of goods exported and imported between the EU-28 and non-member countries; note that goods ‘in transit’ through an EU Member State are excluded. Extra-EU trade statistics are collected through a different system — **Extrastat** — which uses records of trade transactions for customs declarations that are gathered by customs authorities.

The trade balance is the difference between exports and imports. When exports exceed imports then the balance is positive and this is generally referred to as a trade surplus. In contrast, if imports are valued at more than exports, then the balance is negative and this is generally referred to as a deficit.

goods in the world, as extra-EU trade accounted for 15.7 % of global exports and 14.8 % of global imports. China exported more goods (17.0 % of the world total) than the EU-28, while the United States imported more goods (17.6 % of the world total) — see Subchapter 1.2 for more details. The EU has achieved this position, at least in part, by acting in a united way with a single voice, rather than having 28 national trade strategies: the EU Member States share a single market, a single external border and a single external trade policy within the **World Trade Organisation (WTO)**, where the rules of international trade are agreed and enforced.

Since 2008 the value of goods exported outside the EU has risen at a faster pace than the value of goods imported into the EU

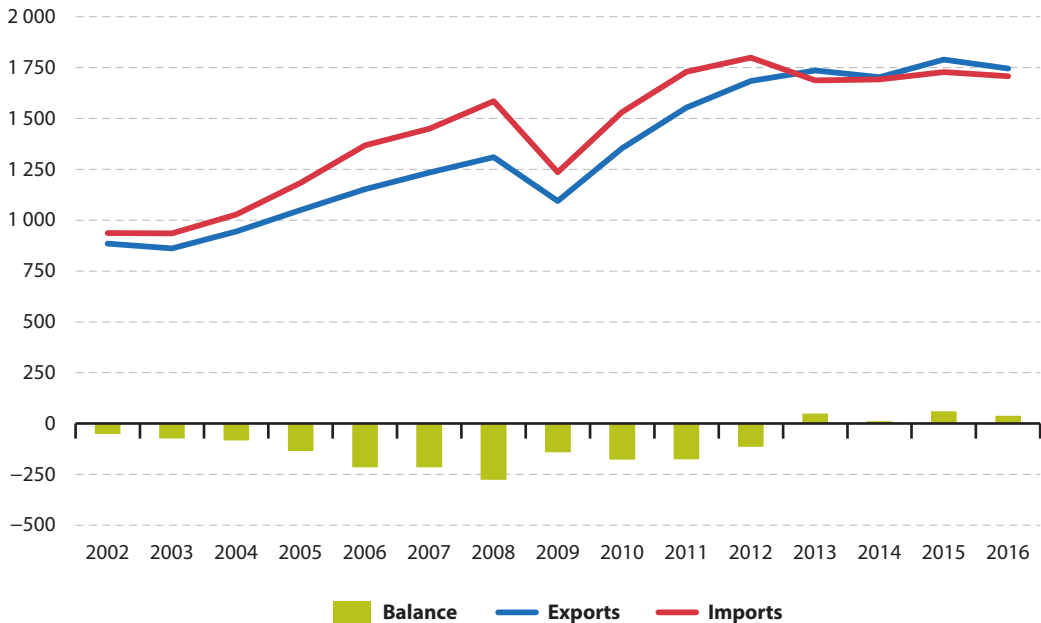
EU-28 international trade in goods reached a relative peak in 2008 (see Figure 2.1), when exports were valued at EUR 1 309 billion and the value of imports was somewhat higher, reaching EUR 1 585 billion; as such the EU-28 had a trade deficit of EUR 276 billion. The impact of the global financial and economic crisis resulted in a rapid decline of the EU-28’s international trade in goods; the value of extra-EU exports fell by 16.4 % in 2009, while there was an even greater reduction (-22.1 %) in the value of extra-EU imports. However, there was a swift recovery in trade activity, as EU-28 exports had already risen above their pre-crisis value in 2010, while the same pattern was observed for EU-28 imports by 2011; both EU-28 imports and exports continued to grow in 2012.

The downturn in the value of EU-28 imports may be linked to the fall in the price of oil

Thereafter, somewhat different patterns of development were observed for EU-28 exports and imports — reflecting, at least in part, the development of oil prices. The value of extra-EU imports fell by 6.2 % in 2013, and despite modest increases in 2014 and 2015, fell again in 2016; as a result, EU-28 imports from non-member countries were valued at EUR 1 708 billion in 2016, which was 5.1 % lower than their relative peak of 2012. The value of EU-28 exports

Figure 2.1: Extra-EU trade in goods, EU-28, 2002-2016

(billion EUR)

Source: Eurostat (online data code: [ext_lt_intratrd](#))

continued to grow in 2013, although this was followed by an alternating pattern of rising and falling export values during the three subsequent years, such that EU-28 exports were valued at EUR 1 745 billion by 2016.

Since 2008, the value of EU-28 exports of goods has generally expanded at a faster pace than the value of EU-28 imports; this has led to a significant change in the EU-28's trade balance for goods (the difference between exports and imports). The EU-28 had a trade deficit for goods of EUR 276 billion in 2008, although this was reversed by 2013 when a surplus of EUR 49 billion was recorded. Thereafter, there was no discernible pattern to the development of the trade balance, as the trade surplus in goods fluctuated: by 2016, the EU-28's overall surplus with extra-EU partners was valued at EUR 38 billion.

During the period 2002-2016, some of the fastest growth rates for trade in goods were recorded among those Member States that joined the EU in 2004 or more recently

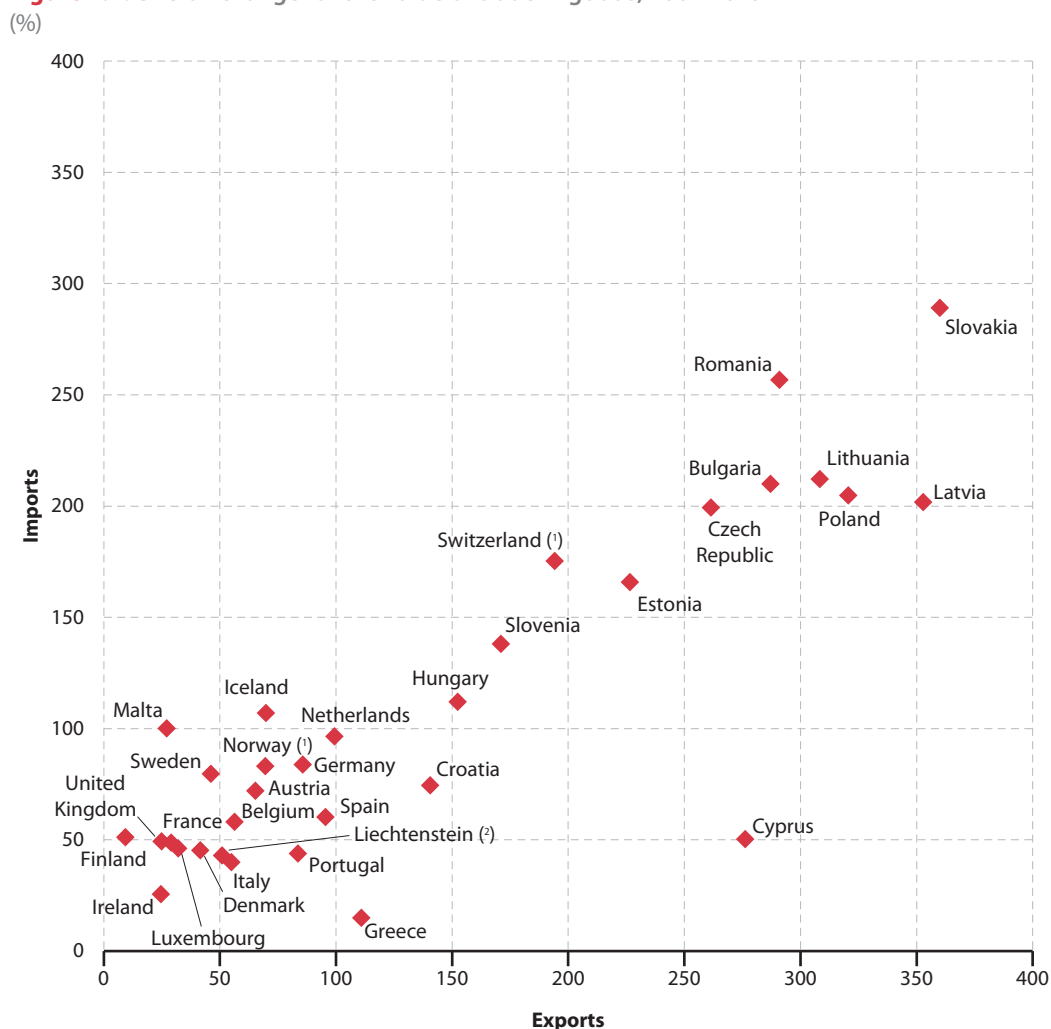
Looking at developments within the individual EU Member States, Figure 2.2 shows the overall rate of change in the value of imports and exports between 2002 and 2016; note that these statistics relate to total trade flows (in other words, both intra-EU and extra-EU trade). It is interesting to note that those Member States with the highest overall growth in total trade (the sum of imports and exports) tended to be characterised by higher rates of export growth (when compared with import growth rates), while those Member States with relatively low overall growth in total trade tended to report higher rates of import growth.

The fastest expansions in total trade between 2002 and 2016 were recorded in those Member States that joined the EU in 2004 or more recently (Slovakia, Latvia, Romania, Poland, Lithuania, Bulgaria, the Czech Republic, Estonia, Cyprus, Slovenia, Hungary and Croatia; the

only exception being Malta), which may, at least in part, be explained by their process of integration into both global markets and (in particular) the European single market, following reforms which led to switching from centrally-planned to market-based economic models. Among those EU Member States that were members prior to 2004, the fastest expansions in total trade between 2002 and 2016 were recorded in the Netherlands and Germany.

Slovakia recorded the highest overall growth in its value of exported goods between 2002 and 2016 (an increase of 360 %), closely followed by Latvia (353 %), while Poland and Lithuania also recorded increases of more than 300 %. By contrast, there was only a modest increase (9 %) in the value of goods exported from Finland between 2002 and 2016, while Ireland, the United Kingdom, Malta and France also recorded relatively low growth rates — within the range of 25-30 %.

Figure 2.2: Overall change for the value of trade in goods, 2002-2016



(¹) 2002-2014.

(²) 2008-2016.

Source: Eurostat (online data codes: [ext_lt_intratrd](#) and [ext_lt_intercc](#))

Slovakia also recorded the highest overall growth rate for imported goods, as their value rose by 289 % during the same period. The next highest growth rates for imported goods were registered in Romania (257 %) and Lithuania (212 %). By contrast, the lowest overall growth rates for imports were registered in Greece (15 %) and Ireland (25 %).

In 2016, Germany had the highest trade surplus for goods

Figure 2.3 presents a comparison between 2002 and 2016 for the trade balance for goods. In 2016, Germany had the highest trade surplus in goods (EUR 257 billion). The German surplus was more than four times as high as the next largest among the EU Member States, those recorded in the Netherlands (EUR 59 billion) and Italy (EUR 51 billion). At the other end of the range, the trade deficit for trade in goods in the United Kingdom amounted to EUR 204 billion in 2016, which was more than three times as high as the next largest deficit recorded in France (EUR 65 billion).

Between 2002 and 2016, a group of eastern EU Member States — the Czech Republic, Poland, Hungary, Slovakia and Slovenia — each moved from the position of having a trade deficit for goods to having a trade surplus. By contrast, Austria, Finland, Sweden and France saw the opposite development, namely their trade position for goods moved from a surplus to a deficit.

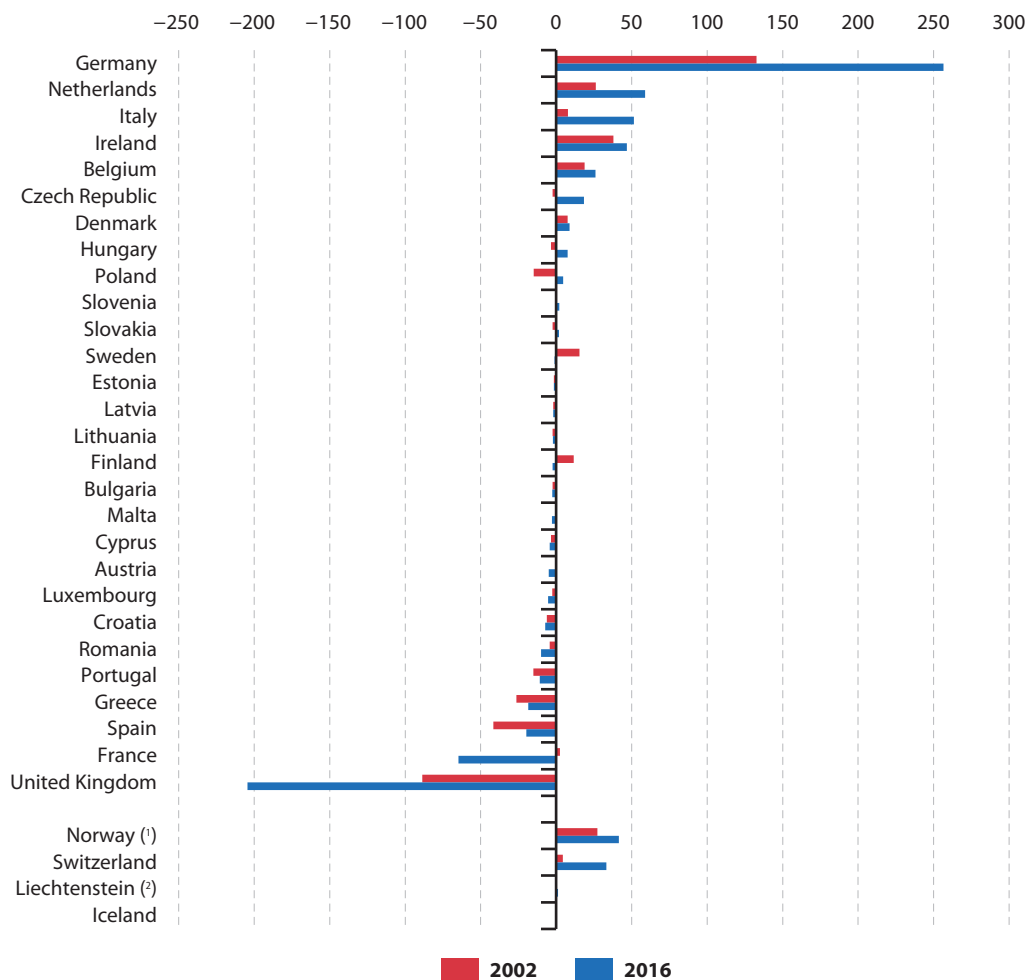
The trade surplus for goods in Germany grew overall by EUR 124 billion between 2002 and 2016, while the next highest absolute increases were reported in Italy (EUR 44 billion), the Netherlands (EUR 33 billion), the Czech Republic (EUR 21 billion) and Poland (EUR 20 billion). The United Kingdom recorded the biggest trade deficit for goods in both 2002 and 2016 and the value of its deficit rose by an additional EUR 116 billion over the period under consideration. The next largest decline was recorded in France, whose trade position for goods deteriorated by EUR 67 billion.

The value of intra-EU trade in goods was 1.8 times as high as the value of extra-EU trade in goods

Although trade flows within the single market may not appear (at first sight) to be particularly 'global' in nature and could be considered by some as 'protectionist' or 'inward-looking', it is important to note that some of these intra-EU flows result from the activities of European or multinational enterprises producing goods on foreign territories; for example, German or Japanese cars manufactured in Slovakia or the United Kingdom, from where they may be exported tariff-free to other parts of the single market.

A comparison between intra-EU trade (that between EU Member States) and extra-EU trade (that between EU Member States and non-member countries) reveals that the former was 2.0 times as high as the latter in 2002; this comparison is made on the basis of total trade (in other words, the sum of imports and exports). By 2016, this ratio was somewhat lower, as the value of intra-EU trade was 1.8 times as high as the value of extra-EU trade; this gradually decreasing ratio suggests that the EU was becoming more integrated within the global economy. Between 2002 and 2016, the value of intra-EU exports rose overall by 63 %, while extra-EU exports almost doubled, increasing by 97 % (see Table 2.1).

Figure 2.3: Trade balance for goods, 2002 and 2016
(billion EUR)



(¹) 2002-2014.

(²) 2008-2016.

Source: Eurostat (online data codes: ext_lt_intratrd and ext_lt_intercc)

A high proportion of the goods imported into the EU-28 are primary goods

Table 2.1 provides more detailed information — based on the [Standard International Trade Classification \(SITC\)](#) — concerning the relative importance of different products within intra-EU and extra-EU trade. The intrinsic nature of different goods means that some are largely restricted to national markets or trade within the single market (intra-EU trade), whereas others are more openly traded on global markets. For example, the perishable nature of some food products may, at least in part, explain why food, drinks and tobacco accounted for just over one tenth (10.4 %) of all intra-EU exports in 2016, while their share of extra-EU exports was much lower, at 6.6 %. On the other hand, the scarcity or a complete lack of natural resource endowments may explain, at least to some degree, why some goods are imported from extra-EU partners; this is the case, for example, in relation to mineral fuels and related materials, which accounted for 15.5 % of all extra-EU imports, compared with a 4.9 % share of intra-EU imports.

In 2016, Malta and the United Kingdom were the only EU Member States that had a higher share of their trade in goods with non-member countries

Figure 2.4 provides an analysis at an aggregate level for total trade in goods showing which EU Member States had a higher propensity to trade within the single market (intra-EU trade) and which had a higher proportion of their total trade with non-member countries (extra-EU trade). The proportion of total trade in goods that was accounted for by intra-EU and extra-EU flows varied considerably across the Member States, reflecting to some degree historical ties and geographical location. In 2016, more than four fifths of the trade conducted by Slovakia (82.8 %) and the Czech Republic (81.7 %) was with intra-EU partners; there were 10 additional Member States where the share of intra-EU trade in total trade was within the range of 70–80 %, while all but two of the remaining Member States reported more intra rather than extra-EU trade — the two exceptions were the United Kingdom (where the share of intra-EU trade in total trade was 49.3 %) and Malta (49.5 %).

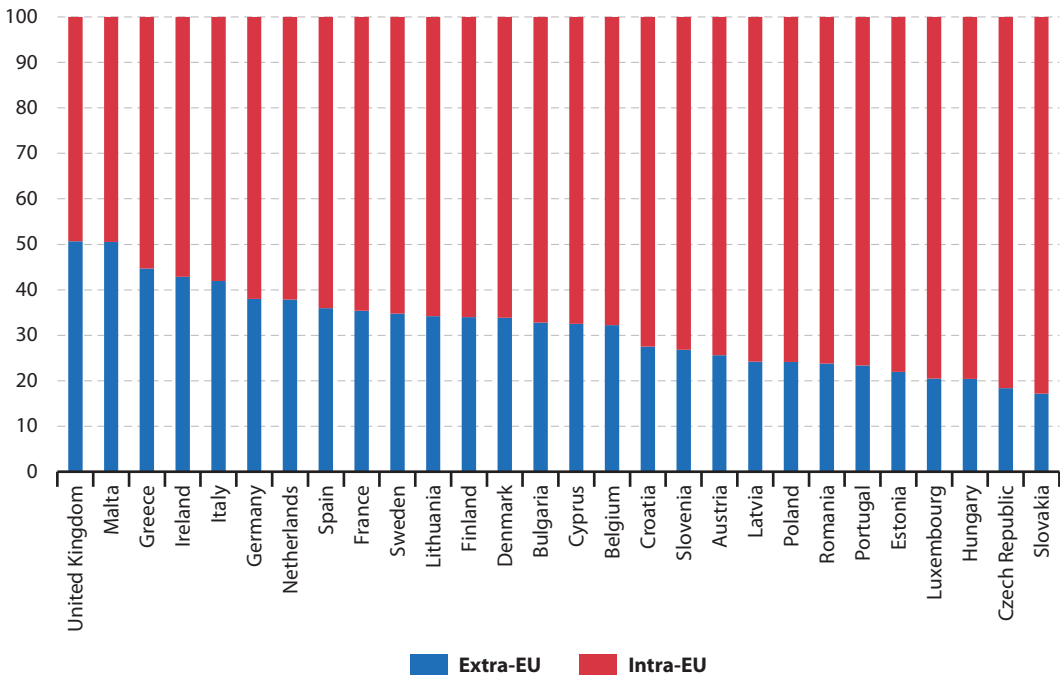
Table 2.1: Structure of international trade in goods, EU-28, 2002 and 2016
(share in total, %)

	2002				2016			
	Intra-EU		Extra-EU		Intra-EU		Extra-EU	
	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports
Total (EUR billion)	1 910	1 818	885	937	3 110	3 029	1 745	1 708
Food, drinks and tobacco	8.6	8.7	5.6	6.2	10.4	10.6	6.6	6.4
Raw materials	2.9	3.1	2.1	4.7	3.2	3.4	2.4	4.0
Mineral fuels, lubricants and related materials	4.0	3.9	3.0	16.0	4.6	4.9	4.2	15.5
Chemicals & related products, n.e.s.	13.7	14.5	15.9	8.6	15.9	16.5	18.0	10.8
Other manufactured goods	27.8	27.3	26.2	26.0	27.1	26.3	22.7	26.3
Machinery and transport equipment	41.2	39.9	45.1	35.1	37.6	37.5	42.7	32.3
Not classified	1.8	2.5	2.2	3.3	1.1	0.8	3.3	4.7

Source: Eurostat (online data code: [ext_lt_intratrd](#))



Figure 2.4: Extra and intra EU-28 trade in goods, 2016
(imports plus exports, % share of total trade)



Source: Eurostat (online data code: [ext_lt_intratrd](#))

The volume of goods imported into the EU-28 stagnated between 2008 and 2015, although it rose by 4.6 percentage points in 2016

Figure 2.5 extends the analysis of international trade developments to cover extra-EU volume indices for trade in goods. The patterns of development for EU-28 trade were broadly similar to those in value terms (see Figure 2.1) during the period 2002-2008. Thereafter, there was a sizeable contraction in the volume of goods traded in 2009, as the global financial and economic crisis impacted on the level of trade with non-member countries; extra-EU imports were reduced by 14.0 percentage points while the corresponding reduction for extra-EU exports was 15.5 percentage points. Having rebounded in 2010, the volume of goods imported into the EU-28 remained relatively unchanged during the following five years; by 2015 the volume of extra-EU imports was 0.8 percentage points lower than its pre-crisis peak of 2008, although this was followed by an increase of 4.6 percentage points in 2016. In contrast, the volume of goods exported from the EU-28 continued to rise throughout the period from 2010-2013, after which there was little or no change reported; in 2015, the volume of exports from the EU-28 to non-member countries was 17.2 percentage points higher than its pre-crisis peak of 2008, although there was a contraction of 1.7 percentage points in 2016.

Figure 2.5: Extra-EU volume indices for trade in goods, EU-28, 2002-2016

(2010 = 100)

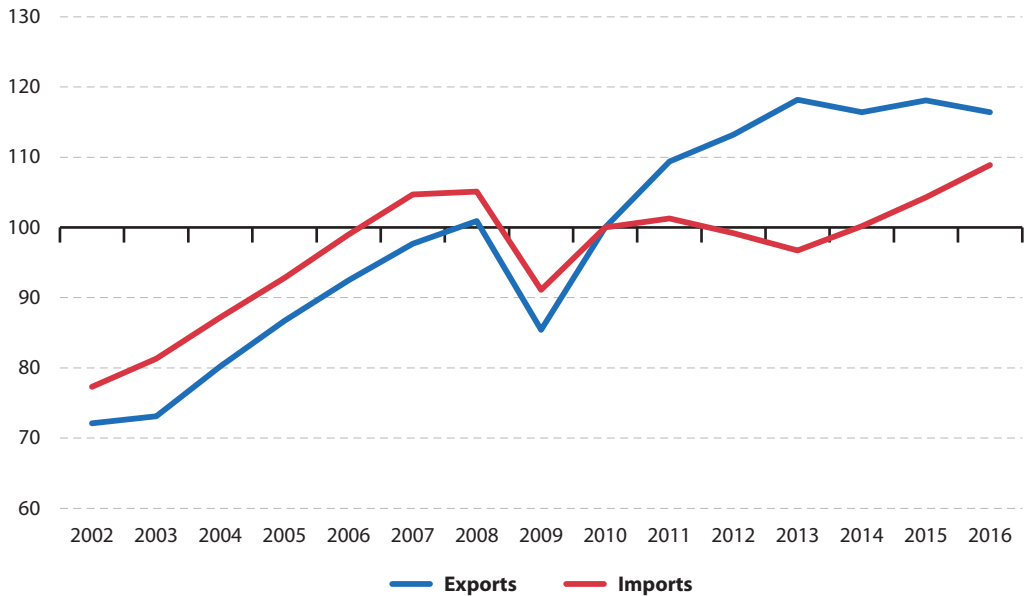
Source: Eurostat (online data code: [ext_lt_intertrd](#))***Between 2002 and 2016 the EU-28's terms of trade declined ...***

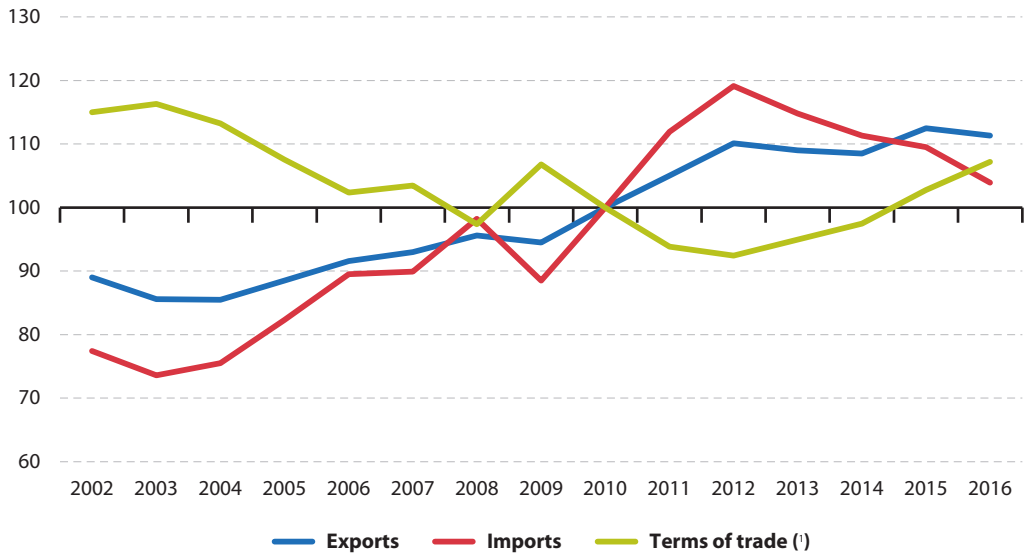
Figure 2.6 shows the development of extra-EU unit value indices during the period 2002-2016. The unit value of EU-28 imports and exports rose during the period under consideration: the overall change for imports was 26.5 percentage points, while that for exports was lower, at 22.3 percentage points. As a result, the EU-28 terms of trade index fell overall by 7.9 percentage points (or 6.8 %) between 2002 and 2016; note however, that there was a considerable improvement between 2012 and 2016 (with growth of 14.8 percentage points or 16.0 %).

The information presented in Figure 2.7 extends the analysis of terms of trade to the individual EU Member States; note the data concerns trade flows with the rest of the world (in other words, both intra-EU and extra-EU trade). In 2016, there were 14 Member States that had terms of trade indices that were above parity (in other words, their unit value indices for exports were higher than their unit value indices for imports); the highest indices were registered in Italy and Malta, while the lowest terms of trade were recorded in Cyprus and Luxembourg. Between 2002 and 2016, Malta and Bulgaria had the biggest improvements in their respective terms of trade (up 26.9 and 14.1 percentage points), followed by Romania, Hungary, Latvia, Italy, Croatia, the Czech Republic, Germany and Lithuania. All of the remaining 18 Member States saw their terms of trade deteriorate between 2002 and 2016, with declines of more than 10.0 percentage points recorded for Luxembourg, Cyprus, Austria, Greece and France.



Figure 2.6: Extra-EU unit value indices for trade in goods, EU-28, 2002-2016

(2010 = 100)

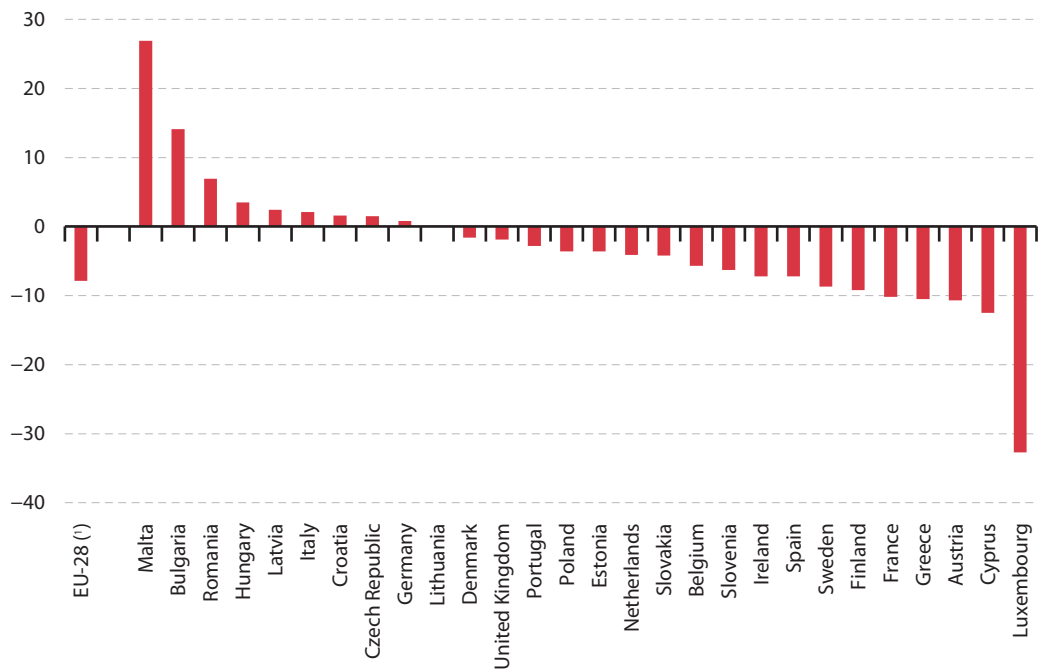


(°) Ratio of the export unit value index to the import unit value index, expressed a percentage.

Source: Eurostat (online data code: [ext_lt_intertrd](#))

Figure 2.7: Overall change in terms of trade, 2002-2016

(percentage points difference)



(°) Extra-EU trade.

Source: Eurostat (online data code: [ext_lt_intertrd](#))

Box 2.1 — Terms of trade

Unit value indices provide a proxy for the price of imports and exports: changes in the (relative) price of specific products/goods can have a major impact on the trade performance and the structure of trade in individual EU Member States. For example, if the price of oil doubles then it is possible that some Member States (with high degrees of energy dependency) may see their trade position move from a surplus to a deficit.

The terms of trade index presents, for an individual country or geographical aggregate, the ratio between the unit value indices for exports and imports; if the terms of trade are

higher than 100 %, then the relative price of exports is greater than the relative price of imports. If a country's terms of trade improve, then for every unit of exports that it sells abroad, it is able to purchase more units of imported goods. That said, an improvement in the terms of trade may also mean that the price of a country's exports becomes relatively more expensive on global markets and depending upon the scarcity of these goods (and the availability of possible substitutes), such an increase may have a direct impact on the volume of goods that are exported and could reduce a country's trade balance.

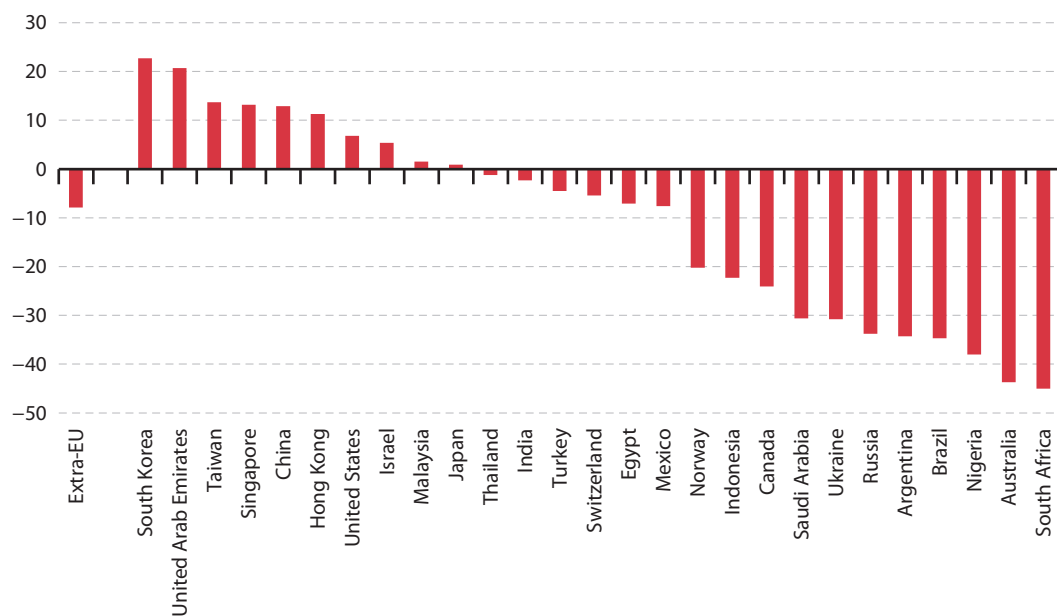
EU-28 terms of trade deteriorated with a number of countries from which it imports a relatively large amount of raw materials, minerals and energy-related goods

EU-28 terms of trade indices can also be analysed on the basis of bilateral indices for selected trade partners. Given that for extra-EU partners as a whole the terms of trade fell by 7.9 percentage points between 2002 and 2016, it is perhaps unsurprising to find that the terms of trade with a majority of the selected partners shown in Figure 2.8 also deteriorated. This was particularly the case for a number of trade partners from which the EU imports a relatively large amount of raw materials, minerals and energy-related goods, for example, South Africa, Australia, Nigeria, Brazil, Russia, Ukraine or Saudi Arabia. By contrast, EU-28 terms of trade with Japan were relatively unchanged, increasing by 0.9 percentage points, while the terms of trade with the United States (up 6.8 points) and China (up 12.9 points) improved. There were also double-digit improvements recorded for the EU's terms of trade with Hong Kong, Singapore, Taiwan and the United Arab Emirates, while the biggest improvement was for the terms of trade with South Korea, a gain of 22.7 percentage points (as a result the EU-28 terms of trade index with South Korea moved to just above parity in 2016, as the index reached 101.6).

The final analysis in this subchapter presents information on the overall change in EU-28 terms of trade for a number of selected products (based on the SITC) between 2002 and 2016. At the start of this period, terms of trade indices were above parity for all but three — machinery and transport equipment, miscellaneous manufactured articles and beverages and tobacco — of the SITC product groupings shown in Figure 2.9. By 2016, this situation had changed and there were only six product groupings — machinery and transport equipment; beverages and tobacco; animal and vegetable oils, fats and waxes; crude materials except fuels; and mineral fuels, lubricants and related materials — where the terms of trade remained above parity. EU-28 terms of trade indices generally deteriorated between 2002 and 2016, with the only improvements recorded for machinery and transport equipment (up 10.5 percentage points), mineral fuels, lubricants and related materials (up 5.6 points), and beverages and tobacco (up 4.7 points).

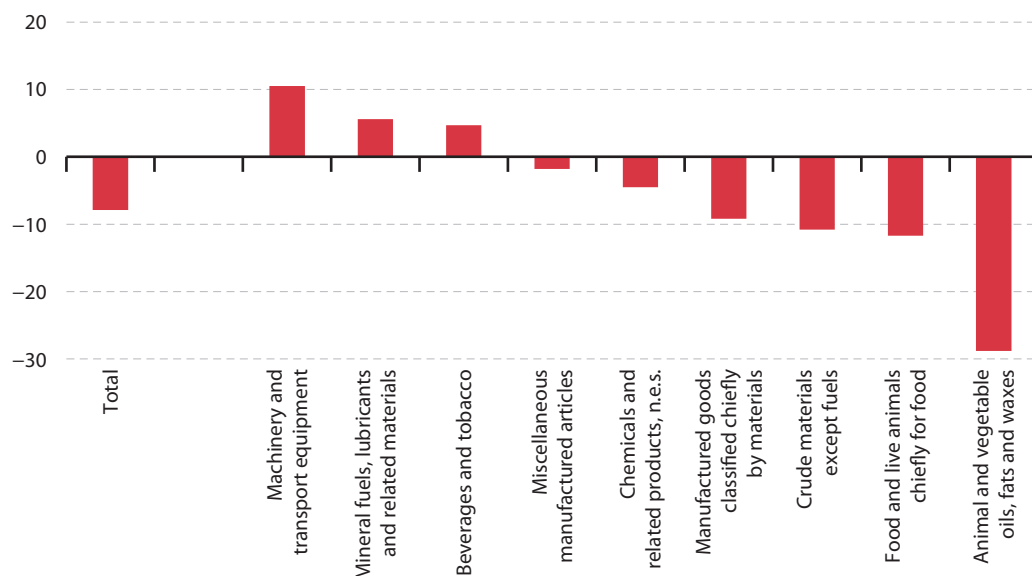


Figure 2.8: Overall change in terms of trade with selected partners, EU-28, 2002-2016 (percentage points difference)



Source: Eurostat (online data code: DS-001722)

Figure 2.9: Overall change in terms of trade for SITC sections, EU-28, 2002-2016 (percentage points difference)



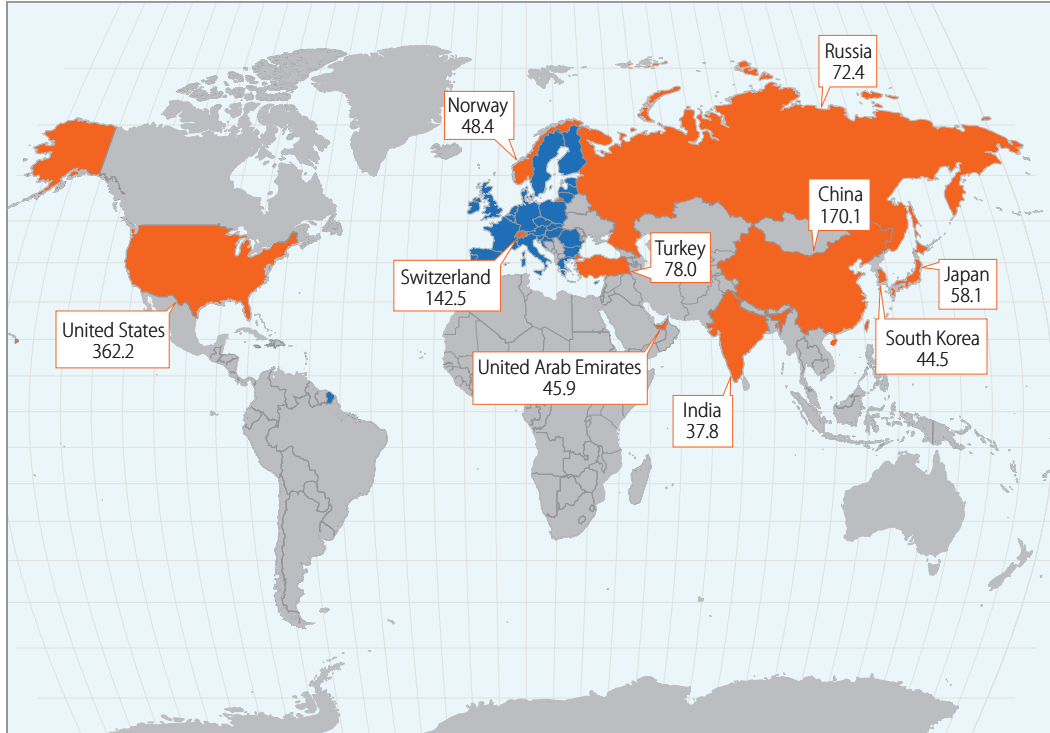
Source: Eurostat (online data code: DS-001722)

2.2 International trade in goods by partner

Shares in world export markets have traditionally been used as a measure of a country's industrial competitiveness. However, with an increasing share of trade in intermediate goods (as a result of integrated supply chains and globalised production), such conventional indicators have become less informative, as high export shares might be simply related to assembly activities, whilst much greater shares of value added may be contained in other stages of production (design, marketing, logistics, after-sales). The increasing reliance on global production chains accelerated around the turn of the millennium and through to the onset of the financial and economic crisis. Nowhere was this more evident than in China, which developed into a 'processing hub' for Asia.

During recent decades, the share of the [European Union \(EU\)](#) in world trade has fallen somewhat: having peaked in 2003 at 18.7 %, the EU-28's share of world exports was subsequently reduced to 15.2 % by 2012, before recovering somewhat to 15.5 % in 2015. Rapid changes in the composition of global trade since the new millennium may be associated, among others, with the [adhesion of China to the World Trade Organisation \(WTO\)](#), which took place in December 2001, as well as the establishment and expansion of a broad range of global trade agreements designed to encourage increased levels of free-trade (for example, ASEAN, COMESA, Mercosur or NAFTA). This subchapter looks at the development of the EU's trading relationships with some of its most important trade partners.

Map 2.1: Principal partners for exports of goods, EU-28, 2016
(billion EUR)



Note: based on a selected list of partners (see methodological notes in the introduction for more details).

Source: Eurostat (online data code: [ext_lt_maineu](#))

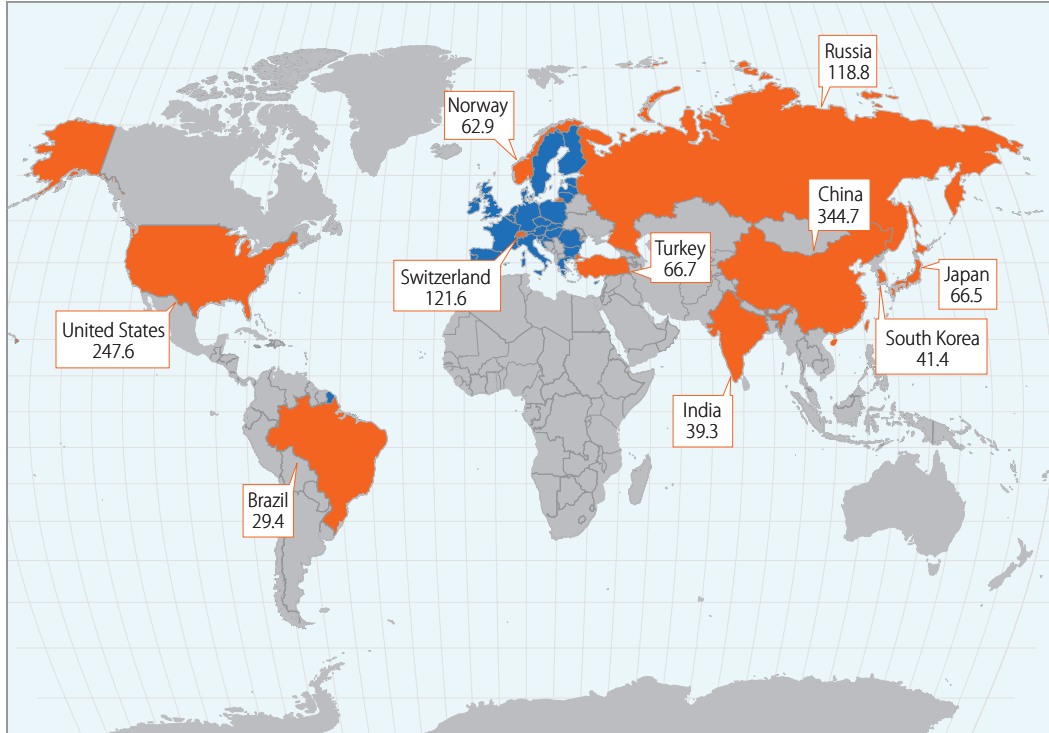
In 2016, the three principal destinations for goods exported from the EU-28 were the United States, China and Switzerland

Extra-EU trade flows (imports plus exports) for the whole of the EU-28 were valued at EUR 3 453 billion in 2016, 1.9 times as high as in 2002. Although a majority of the EU's trade takes place within the single market (in the form of intra-EU trade flows), the share that originates in or is destined for non-member countries has increased over time, rising from 32.8 % of the total in 2002 to 36.0 % by 2016.

In 2016, the principal destinations for goods exported from the EU-28 included the United States, China, Switzerland, Turkey, Russia, Japan and Norway. The list of the EU's top 10 export markets for goods was completed by the United Arab Emirates, South Korea and India (see Map 2.1).

A ranking of the principal origins of goods imported into the EU-28 was composed of a similar list of countries. Indeed, the only partner that was not present (compared with the list for EU-28 exports) was the United Arab Emirates, while Brazil featured among the top 10 import partners (it did not feature among the principal export markets). A closer analysis reveals that China was the EU's principal partner for imported goods in 2016, followed by the United States and Switzerland, while Russia and Turkey swapped positions (compared with the situation for EU-28 exports). The remainder of the ranking for goods imported into the EU-28 was composed of Japan, Norway, South Korea, India and Brazil (see Map 2.2).

Map 2.2: Principal partners for imports of goods, EU-28, 2016
(billion EUR)



Note: based on a selected list of partners (see methodological notes in the introduction for more details).

Source: Eurostat (online data code: [ext_lt_maineu](#))

In 2016, China was the origin for more than one fifth of the EU-28's imported goods

An analysis over time reveals that more than one quarter (28.0 %) of EU-28 exported goods were destined for the United States in 2002, a share that had fallen to just over one fifth (20.8 %) by 2016, although the United States remained the principal export market for EU-28 goods. During the same period, China moved from being the EU's fourth largest export market to become its second largest (see Figure 2.10).

On the import side, the share of EU-28 imports originating in China increased from less than one tenth (9.6 %) of the total in 2002 to more than one fifth (20.2 %) by 2016. By 2005, China had overtaken the United States as the EU's main origin of imports and by 2016 the value of EU-28 imports originating from China was almost two fifths (39.2 %) higher than the value of imports from the United States (see Figure 2.11).

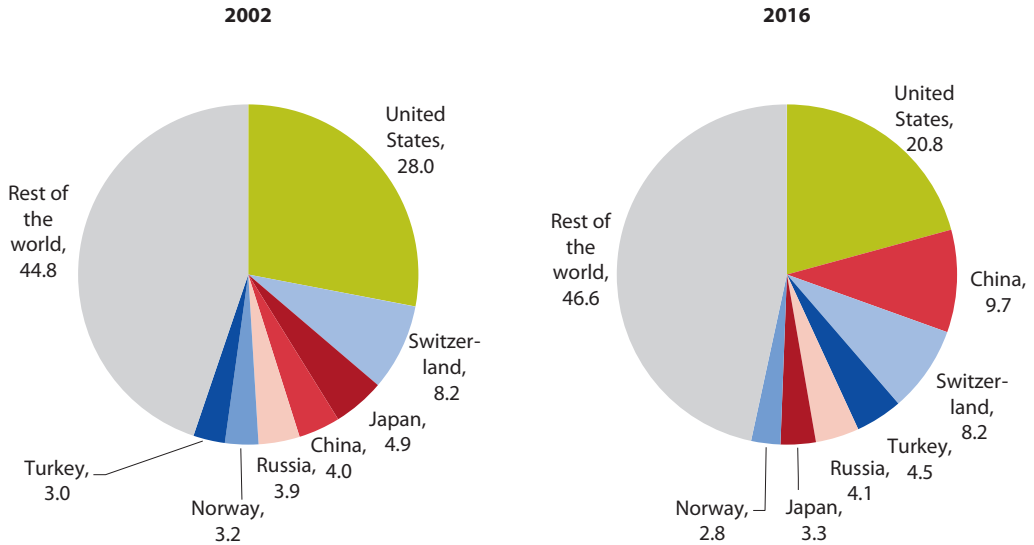
The EU-28 ran a trade deficit for goods with China of EUR 175 billion in 2016 (slightly down from a peak of EUR 180 billion in the previous year); it also had a sizeable trade deficit with Russia (EUR 46 billion) and smaller deficits with Norway (EUR 15 billion) and Japan (EUR 8 billion). By contrast, among some of its principal trading partners, the EU-28 recorded trade surpluses with the United States (EUR 115 billion), the United Arab Emirates (EUR 37 billion), Switzerland (EUR 21 billion) and Turkey (EUR 11 billion).

Realignment of the EU's principal partners for trade in goods towards emerging economies

While absolute figures show that EU-28 trade in goods is relatively concentrated with respect to its principal partners, there has been a considerable realignment of the EU's trading relationships in recent years, with a shift in bilateral trading relationships towards emerging economies, while trade flows with traditional partners tended to develop at a much slower pace. Emerging economies have captured an increasing share of global trade which has often stimulated their domestic economic growth, sometimes leading to the emergence or expansion of a middle class, while removing parts of their populations from the risk of poverty.

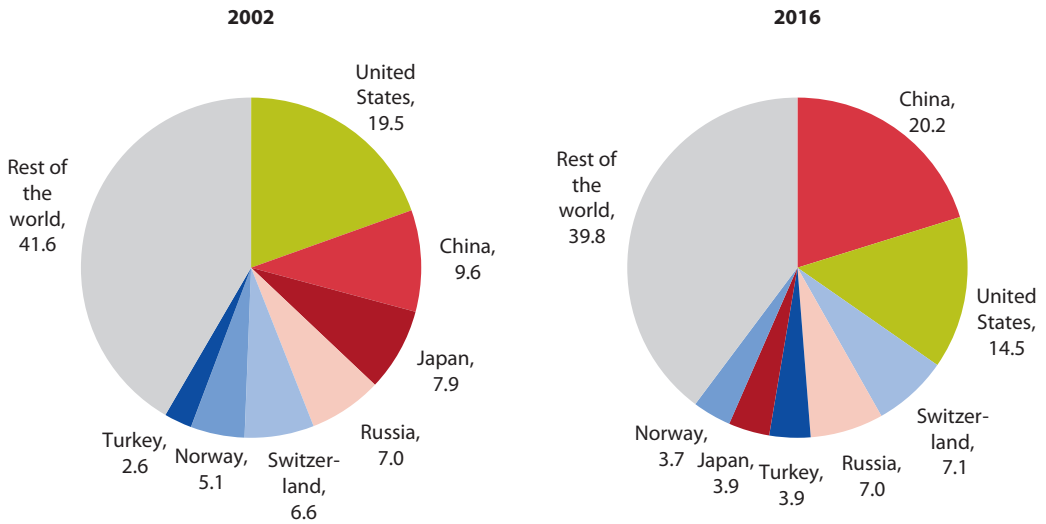
On the export side, the most rapid growth for EU-28 trade concerned an expansion in the value of goods destined for China (which grew almost fivefold between 2002 and 2016), while the value of EU-28 exports to Argentina, the United Arab Emirates and Egypt more than trebled. By contrast, EU-28 imports of goods that originated in China grew by 281 % between 2002 and 2016, while imports from the United Arab Emirates and Mexico also increased more than threefold. There was also a marked increase in the value of trade with a range of other emerging economies, notably, Turkey, Morocco and India.

Figure 2.10: EU-28 exports of goods, 2002 and 2016
(%)



Note: the figure shows the top seven partners with the highest value of exports in 2016.
Source: Eurostat (online data code: [ext_lt_maineu](#))

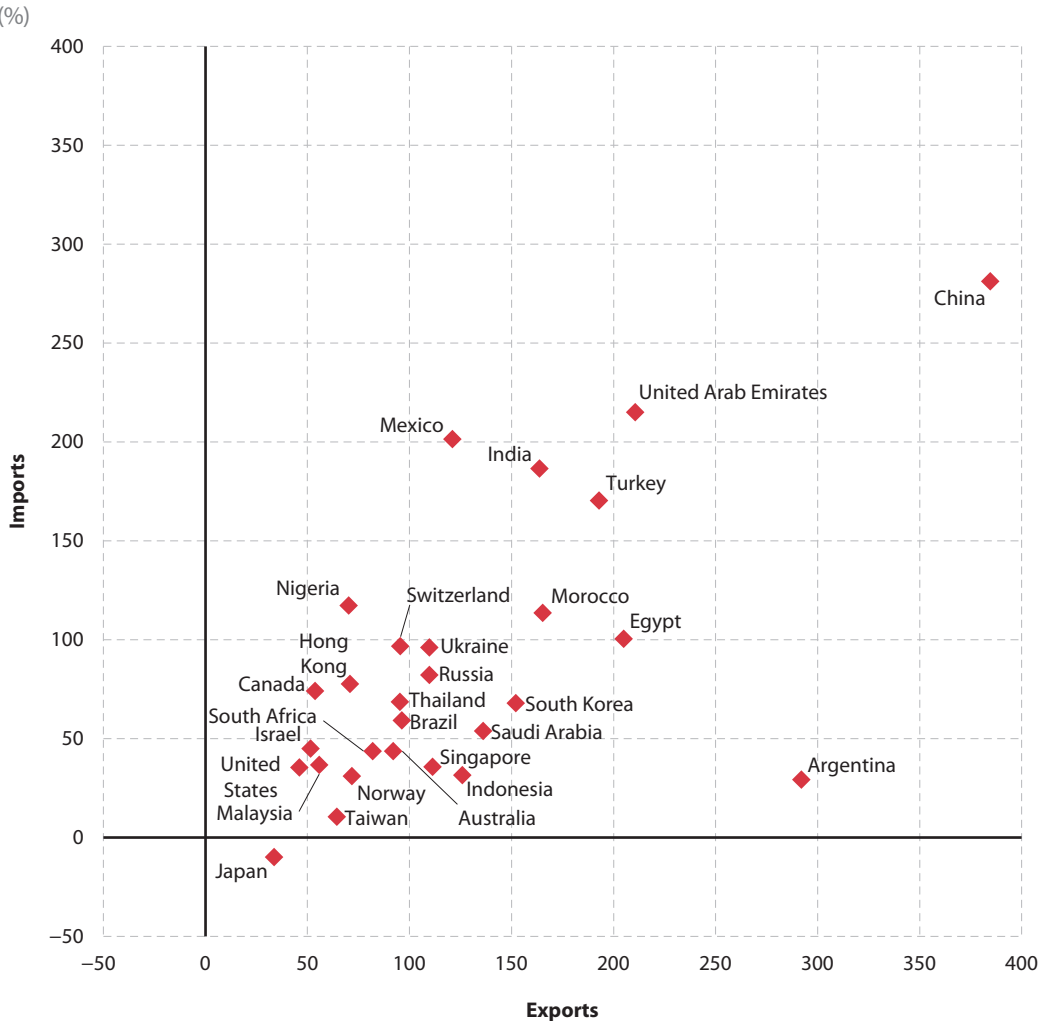
Figure 2.11: EU-28 imports of goods, 2002 and 2016
(%)



Note: the figure shows the top seven partners with the highest value of imports in 2016.
Source: Eurostat (online data code: [ext_lt_maineu](#))

The pace of growth was generally much slower for the EU's more traditional trading partners and developed world economies (see Figure 2.12). This was particularly true for Japan and the United States, which recorded some of the lowest rates of change; indeed, the value of EU-28 goods imported from Japan fell by 10.0 % between 2002 and 2016, the only partner (among those selected) to record a contraction; nevertheless Japan was the origin of the sixth highest level of imports into the EU-28 in 2016.

Figure 2.12: Overall change for the value of extra-EU exports and imports of goods for selected partners, EU-28, 2002-2016 (%)



Source: Eurostat (online data code: [ext_lt_maineu](#))



FOCUS ON EU-28 TRADE IN GOODS FOR SELECTED PARTNERS

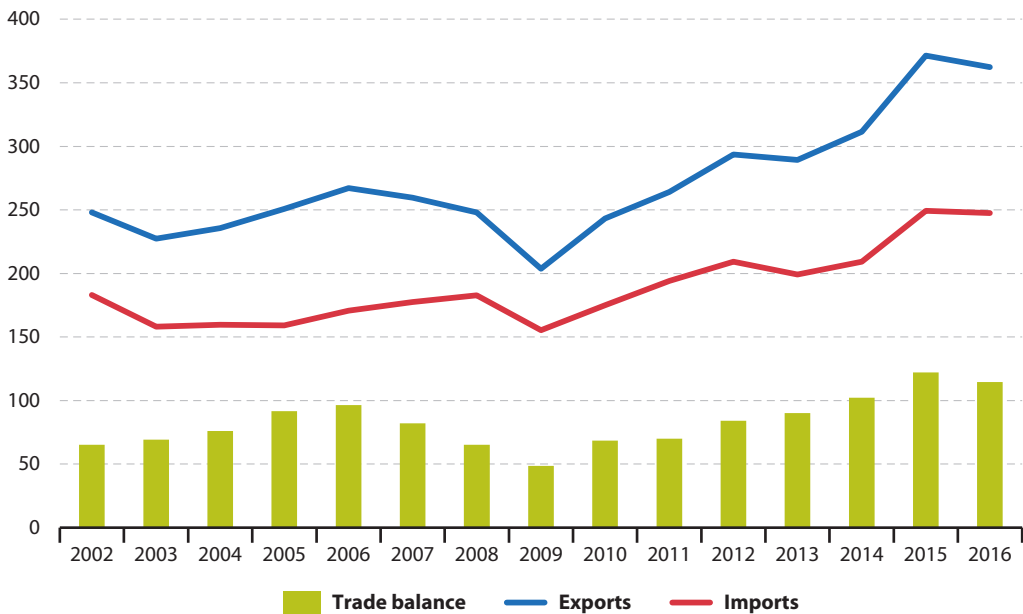
The following section presents information for the EU's three principal trading partners (as of 2016), namely: the United States, China and Switzerland.

The United States has consistently been the EU's leading trade partner

Based on an analysis of the total value of trade in goods (in other words, the sum of exports and imports), the United States is the EU-28's principal trade partner and this pattern has been repeated each year from 2002 onwards (when a complete dataset was first available).

In recent years, EU-28 exports destined for the United States have grown at a faster pace than the value of EU-28 imports that originated from the United States; after the shock of the global financial and economic crisis, the EU-28 trade surplus with the United States expanded from EUR 49 billion in 2009 to reach a peak of EUR 122 billion in 2015, before falling to EUR 115 billion in 2016. More than one fifth (20.8 %) of the EU's exports to non-member countries were destined for the United States in 2016, while EU-28 imports originating in the United States accounted for 14.5 % of all EU-28 imports (see Figures 2.10, 2.11 and 2.13).

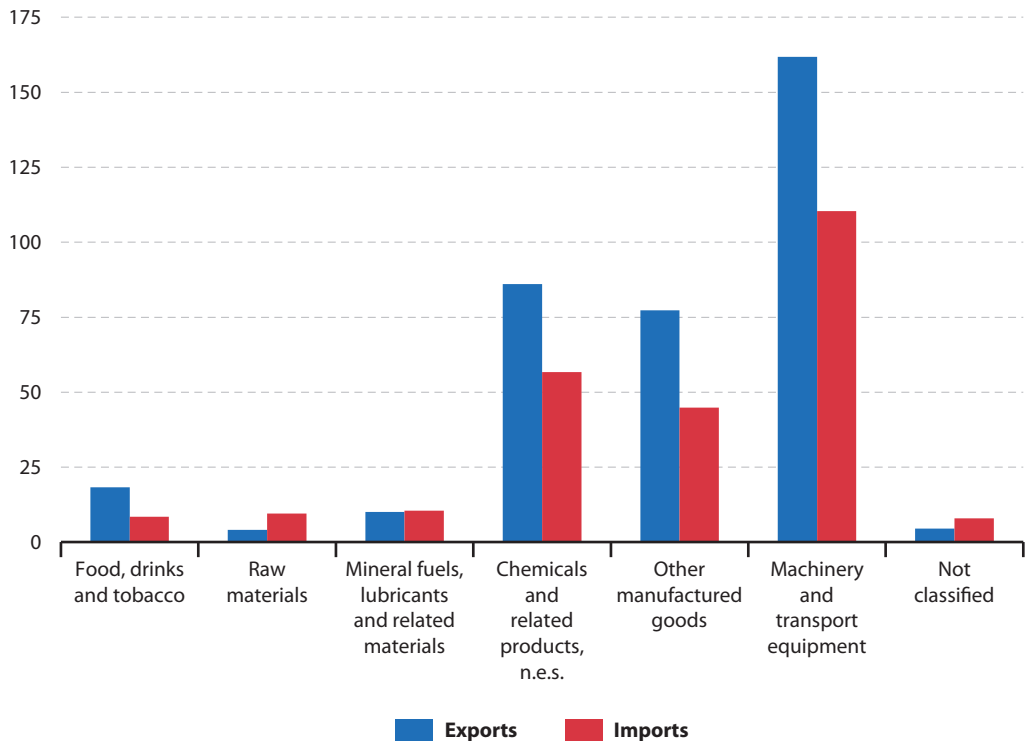
Figure 2.13: EU-28 trade in goods with the United States, 2002-2016
(billion EUR)



Source: Eurostat (online data code: [ext_lt_maineu](#))

Machinery and transport equipment were the most commonly traded products between the EU-28 and the United States, both in terms of export and import flows (see Figure 2.14). These goods made up almost identical shares of the EU-28's total imports and exports: machinery and transport equipment accounted for 44.4 % (EUR 110 billion) of EU-28 goods that were imported from the United States, while their share of EU-28 exports destined for the United States was 44.7 % (EUR 162 billion).

Figure 2.14: EU-28 trade in goods with the United States, 2016
(billion EUR)



Source: Eurostat (online data code: DS-018995)

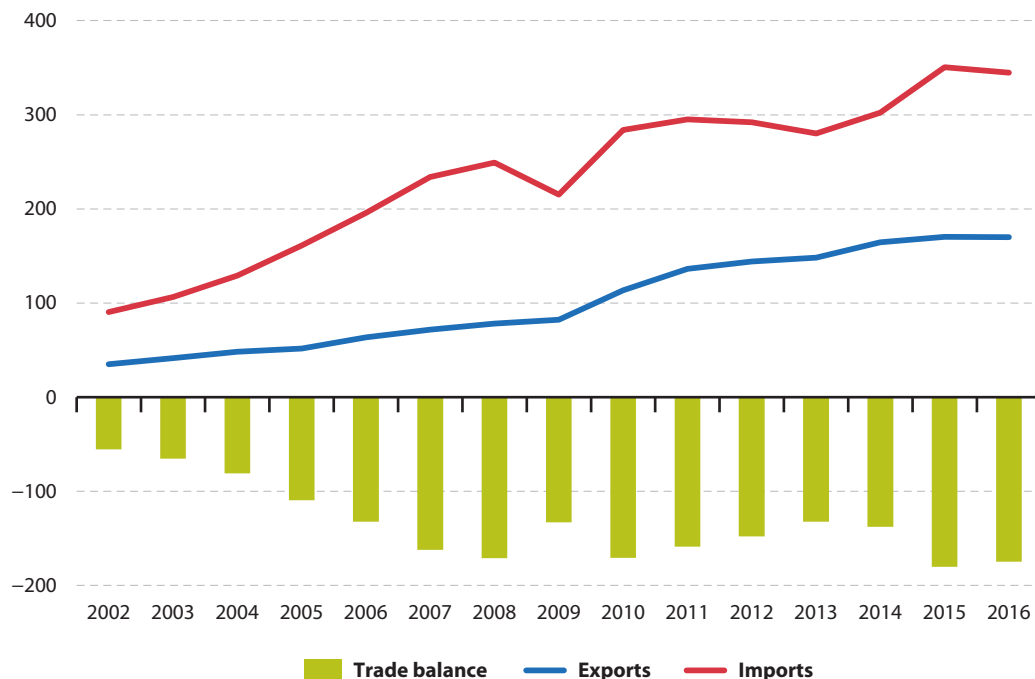
EU-28 trade with China is heavily skewed in favour of Chinese imports

Figure 2.15 shows the EU-28 ran a sizeable trade deficit with China throughout the period from 2002 to 2016. In 2007, the value of EU-28 imported goods that originated from China peaked at 3.3 times as high as the value of EU-28 exports that were destined for China. The trade position with China was rebalanced somewhat thereafter, with faster growth for EU-28 exports. Nevertheless, the EU-28 had a trade deficit with China for goods that amounted to EUR 175 billion in 2016.

Machinery and transport equipment accounted for just over half (50.4 % or EUR 174 billion) of all goods imported into the EU-28 from China in 2016, while the vast majority of the remaining imports were classified as other manufactured goods (42.1 % or EUR 145 billion). Turning

**Figure 2.15:** EU-28 trade in goods with China, 2002-2016

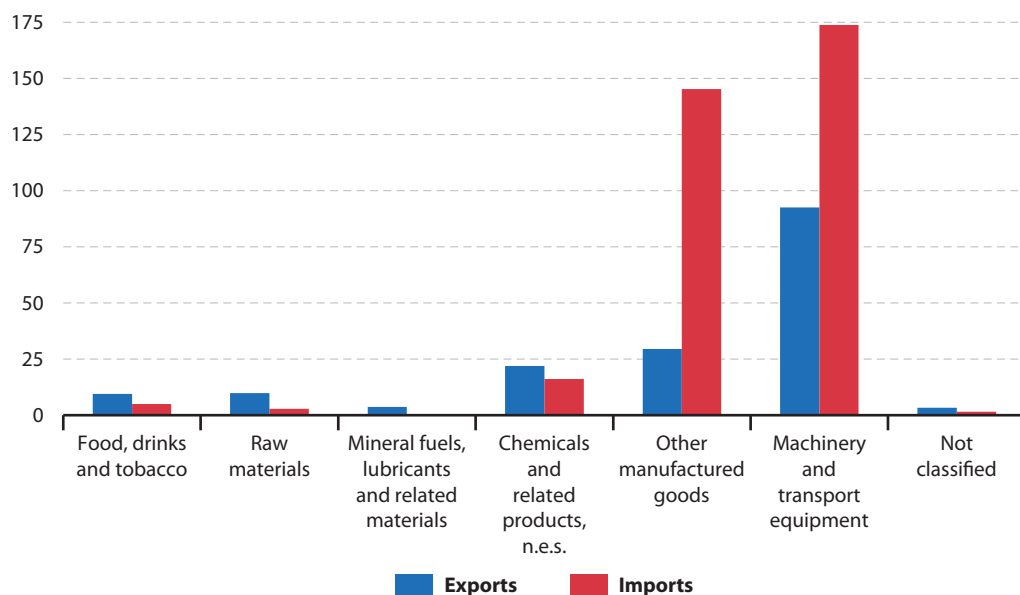
(billion EUR)



Source: Eurostat (online data code: ext_lt_maineu)

Figure 2.16: EU-28 trade in goods with China, 2016

(billion EUR)



Source: Eurostat (online data code: DS-018995)

attention to EU-28 exports destined for China, machinery and equipment also represented more than half (54.5 % or EUR 93 billion) of the total in 2016, while the remaining exports were more evenly spread; other manufactured goods (17.3 % or EUR 29 billion) and chemicals and related products (12.9 % or EUR 22 billion) were the only product groups to record double-digit shares (see Figure 2.16).

The EU-28 imports a high value of chemicals from Switzerland

Switzerland's economic and trade relations with the EU are mainly governed through a series of bilateral agreements. Within these, Switzerland agrees to take on certain aspects of EU legislation in exchange for having access to the EU's single market. As noted above, Switzerland is the EU's third largest trade partner, while the EU-28 is Switzerland's main trading partner.

Between 2003 and 2008, the development of trade between the EU-28 and Switzerland rose at a steady pace for both exports and imports (see Figure 2.17). There was a marked downturn (-11.8 %) in the value of EU-28 exports to Switzerland in 2009, although this was followed by a rapid expansion through to a relative peak in 2013, with irregular developments thereafter. The level of EU-28 imports from Switzerland tended to follow a more regular pattern, although there was an 18.9 % increase in the value of imports in 2016. With falling exports and a sharp rise in the value of imports, the EU-28's trade surplus with Switzerland stood at EUR 21 billion in 2016, which was less than one third of its level (EUR 75 billion) from 2013.

Figure 2.17: EU-28 trade in goods with Switzerland, 2002-2016
(billion EUR)



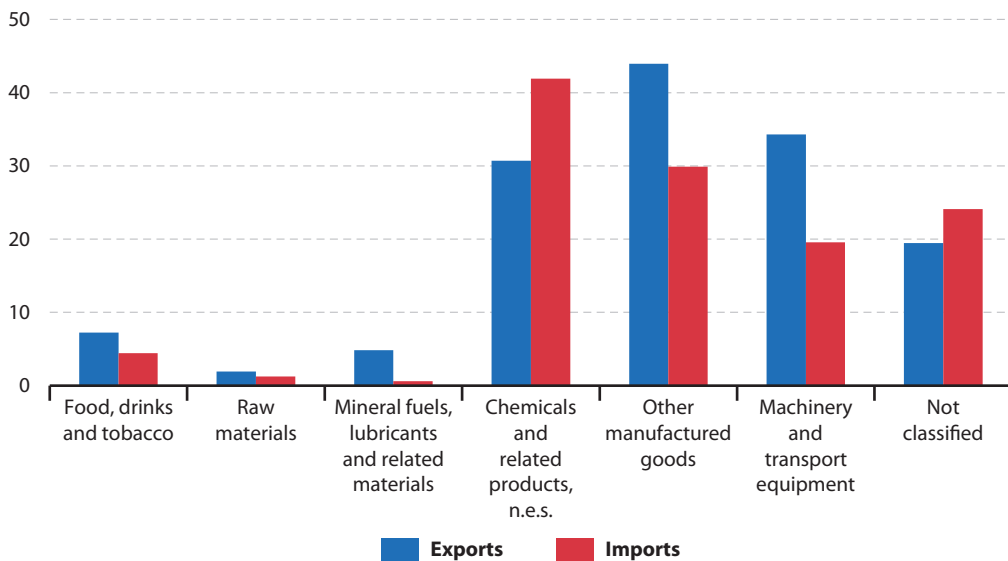
Note: data extracted 09/2017, there may be minor revisions compared with the information shown elsewhere in the publication.

Source: Eurostat (online data code: [ext_lt_maineu](#))



Looking in more detail at the structure of EU-28 trade with Switzerland in 2016, the majority of trade concerned chemicals and related products, machinery and transport equipment, and other manufactured goods. The highest value of EU-28 exports to Switzerland was recorded for other manufactured goods (EUR 44 billion), followed by machinery and transport equipment (EUR 34 billion) and chemicals and related products (EUR 31 billion). On the imports side, the highest value of goods imported into the EU-28 that originated from Switzerland was for chemicals and related products (EUR 42 billion), followed by other manufactured products (EUR 30 billion) and machinery and transport equipment (EUR 20 billion). Combining these latest data for 2016, the EU-28 ran sizeable trade surpluses with Switzerland for machinery and transport equipment (EUR 15 billion) and for other manufactured goods (EUR 14 billion), whereas it had a deficit of EUR 11 billion for chemicals and related products (see Figure 2.18).

Figure 2.18: EU-28 trade in goods with Switzerland, 2016
(billion EUR)



Note: data extracted 09/2017, there may be minor revisions compared with the information shown elsewhere in the publication.

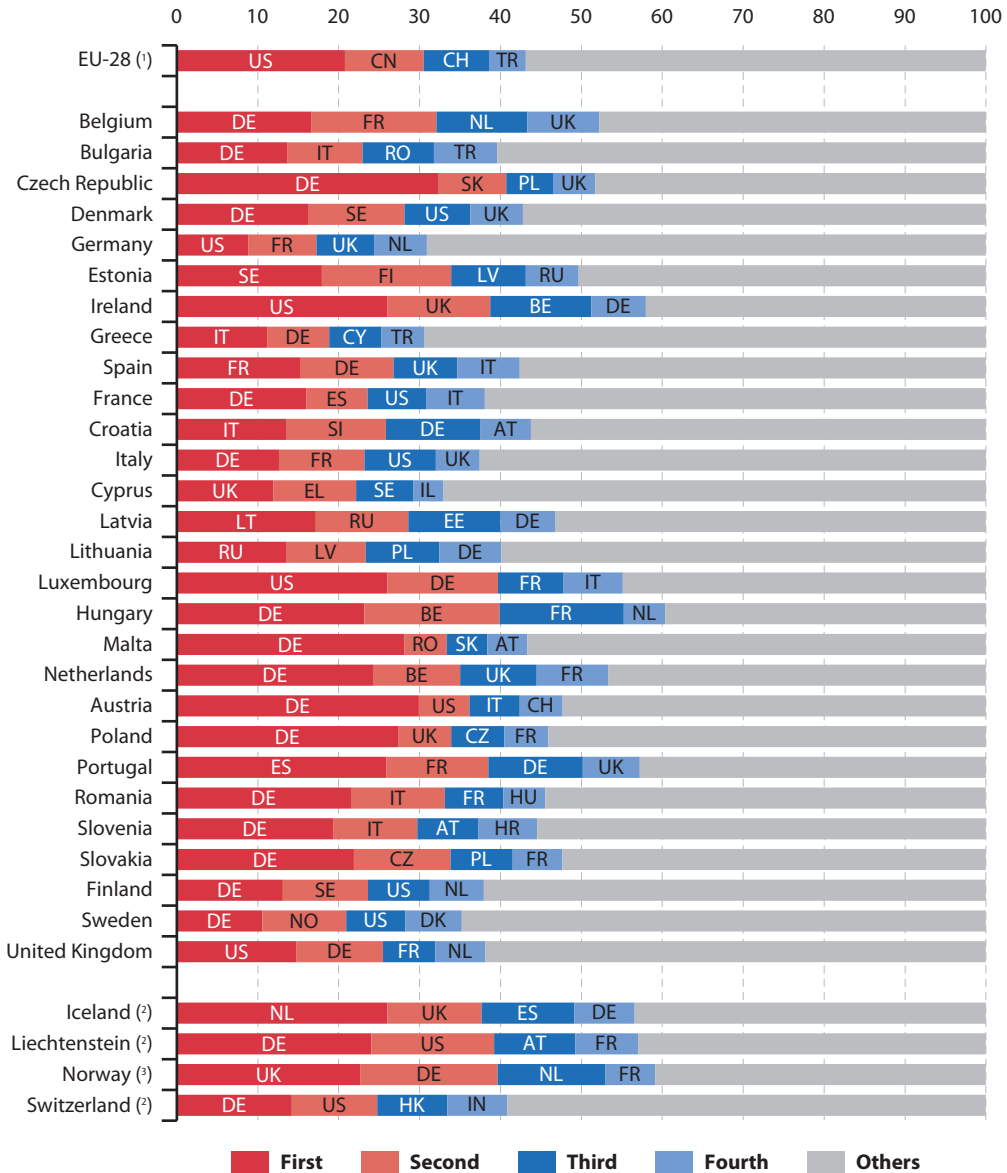
Source: Eurostat (online data code: DS-018995)

FOCUS ON TRADE IN GOODS FOR INDIVIDUAL EU MEMBER STATES

Having analysed extra-EU trade developments for some of the EU-28's main trading partners, this next section identifies the leading trade partners for individual EU Member States (considering both intra-EU and extra-EU partners), detailing the four principal trade partners for both exports (see Figure 2.19) and imports (see Figure 2.20).

Figure 2.19: Top four trading partners for exports of goods, 2016

(%)



Note: based on a selected list of partners (see methodological notes in the introduction for more details). See annex (at the end of the publication) for a list of ISO codes.

(1) Ranking based on extra-EU partners only.

(2) 2014.

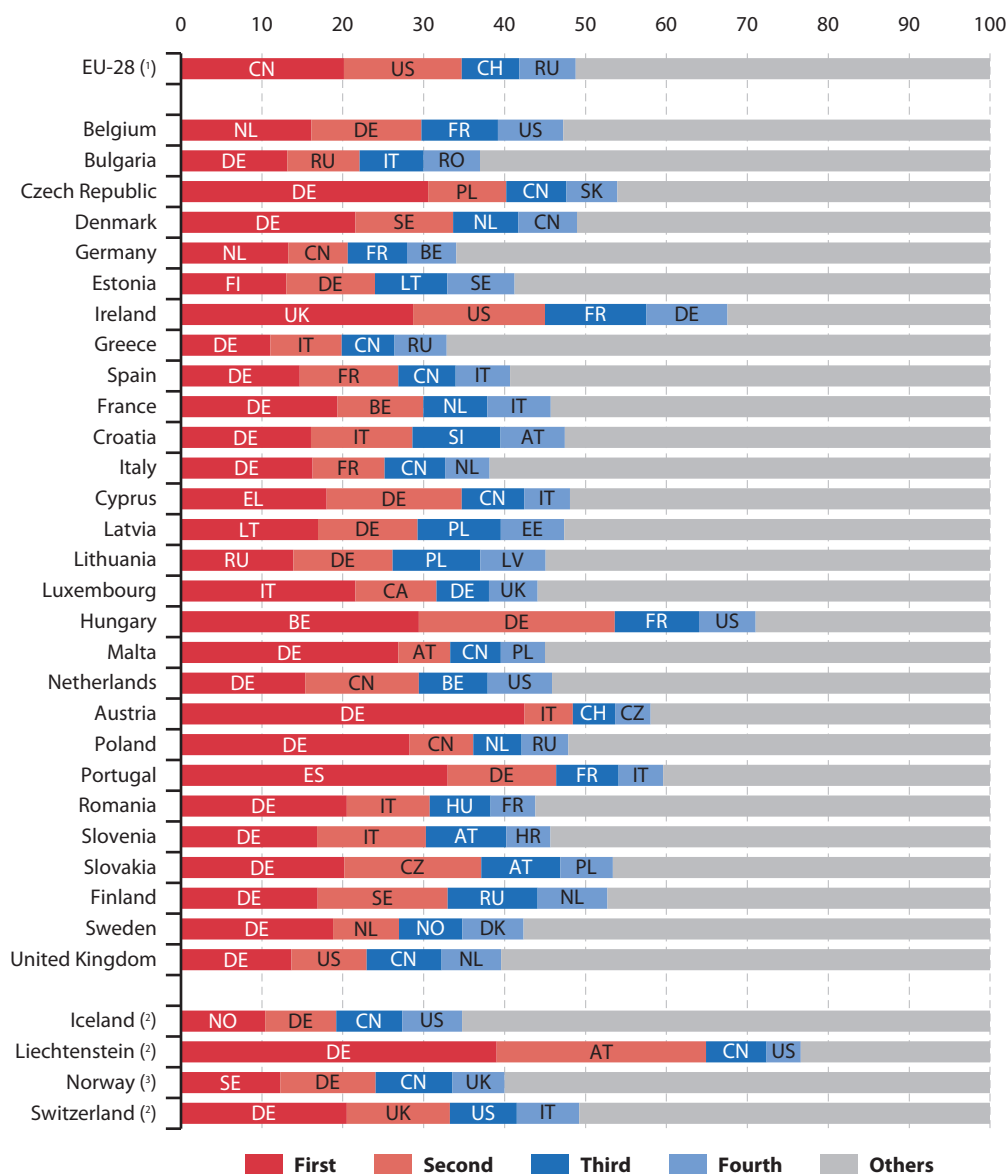
(2) 2015.

Source: Eurostat (online data codes: DS-018995 and DS-043227)



Figure 2.20: Top four trading partners for imports of goods, 2016

(%)



Note: based on a selected list of partners (see methodological notes in the introduction for more details). See annex (at the end of the publication) for a list of ISO codes.

(1) Ranking based on extra-EU partners only.

(2) 2014.

(2) 2015.

Source: Eurostat (online data codes: DS-018995 and DS-043227)

Box 2.2 — The ‘Rotterdam effect’

Extra-EU imports and exports are reported by the EU Member State according to where the customs declaration is lodged, usually this is the place where the goods cross the EU’s external frontier (their point of entry/exit).

The geographical allocation of extra-EU flows is therefore biased insofar as the entry/exit Member State is not the actual importing/exporting Member State. This issue particularly impacts on the transshipment of extra-EU imports into some of the EU’s leading ports such as Rotterdam (in the Netherlands) or Antwerp (in Belgium). As such, the trade flows of some Member States may be over- or underestimated due to the so-called ‘Rotterdam effect’ (quasi-transit trade). For example, goods which arrive in Dutch (or to a lesser degree Belgian) ports, but which are bound for other EU Member States, should according to EU rules be recorded as extra-EU imports in the Netherlands (or Belgium), where they may be released for free circulation around the single market. This phenomenon in turn increases intra-EU trade flows between the Netherlands (and Belgium) and those Member States where the goods ultimately arrive.

among the top four import partners for each of the remaining Member States; note that the highest share of German imported goods originated from the Netherlands. In those cases where Germany was not the leading import partner, this position was usually occupied by a (neighbouring) country within close geographic proximity — for example, the United Kingdom was the main origin of Irish imports, Spain was the main origin of Portuguese imports, or Lithuania was the main origin of Latvian imports.

In 2016, seven EU Member States recorded their largest trade surplus for goods with the United Kingdom

Tables 2.2 and 2.3 provide a similar set of information but focus instead on the largest trade surpluses and trade deficits for each of the EU Member States. In 2016, a small majority (16) of the Member States recorded their largest bilateral trade surpluses for goods with another Member State; in seven of these cases, the United Kingdom was the partner. There were 10 Member States where the largest trade surplus was recorded with the United States as a partner. This left two exceptions, namely, Latvia (whose largest trade surplus was with Russia) and the United Kingdom (whose largest trade surplus was with the United Arab Emirates).

In 2016, 16 of the EU Member States reported that Germany was their largest export market for goods ...

In 2016, Germany was among the four most important export markets (in value terms) for all but two of the (other) EU Member States, the exceptions being Estonia and Cyprus. This is perhaps unsurprising given that Germany has the highest number of inhabitants in the EU and is also located relatively centrally. Germany occupied the position of the leading export partner for 16 of the Member States and when this was not the case, the 11 exceptions were all located around the periphery of the EU — the Baltic Member States; Ireland and the United Kingdom; Spain and Portugal; Greece, Croatia, Cyprus and Malta. The United States was the leading market for goods exported from Germany, Ireland, Malta and the United Kingdom.

... while Germany was the main origin of imported goods into 18 of the EU Member States

Germany was also the main origin of imported goods for 18 of the EU Member States in 2016, while Germany featured



At an aggregate level, the EU-28's largest trade deficit for goods in 2016 was recorded with China. This pattern was repeated in seven of the individual EU Member States, while there were an additional 13 Member States where China occupied either second, third or fourth position in a ranking of trade deficits by bilateral trading partner. There were 11 Member States where the largest trade deficit was recorded with Germany, of these only Denmark,

Table 2.2: Four largest trade surpluses for goods, 2016
(based on values in billion EUR)

	First	Second	Third	Fourth
EU-28 ⁽¹⁾	United States	U.A.E.	Switzerland	Australia
Belgium	France	United Kingdom	Germany	Italy
Bulgaria	Greece	Romania	France	Turkey
Czech Republic	Germany	Slovakia	United Kingdom	France
Denmark	United States	United Kingdom	Japan	Finland
Germany	United States	United Kingdom	France	Austria
Estonia	Sweden	Norway	Mexico	Finland
Ireland	United States	Belgium	Switzerland	Netherlands
Greece	Cyprus	United States	Singapore	Malta
Spain	United Kingdom	Portugal	France	Italy
France	United Kingdom	Hong Kong	Singapore	United States
Croatia	United States	Egypt	Saudi Arabia	Israel
Italy	United States	United Kingdom	France	Switzerland
Cyprus	Sweden	Malta	Slovakia	Singapore
Latvia	Russia	United Kingdom	Estonia	Norway
Lithuania	United States	Ukraine	Estonia	Norway
Luxembourg	United Kingdom	Switzerland	Spain	France
Hungary	Germany	Romania	United Kingdom	Spain
Malta	United States	Singapore	Japan	Hong Kong
Netherlands	Germany	France	United Kingdom	Belgium
Austria	United States	Slovakia	France	United Kingdom
Poland	United Kingdom	Czech Republic	France	Romania
Portugal	United Kingdom	United States	France	Morocco
Romania	United Kingdom	Egypt	France	U.A.E.
Slovenia	Germany	Croatia	Slovakia	Russia
Slovakia	United Kingdom	Germany	United States	France
Finland	United States	United Kingdom	China	Japan
Sweden	United States	Norway	Finland	Australia
United Kingdom	U.A.E.	Ireland	Saudi Arabia	Singapore
Iceland ⁽²⁾	Netherlands	Spain	United Kingdom	France
Liechtenstein ⁽²⁾	United States	France	Singapore	Mexico
Norway ⁽³⁾	United Kingdom	Netherlands	Germany	France
Switzerland ⁽²⁾	Hong Kong	India	United States	China

Note: based on a selected list of partners (see methodological notes in the introduction for more details).

⁽¹⁾ Ranking based on extra-EU partners only.

⁽²⁾ 2014.

⁽³⁾ 2015.

Source: Eurostat (online data codes: DS-018995 and DS-043227)

France and Austria shared a border. The largest deficits in Belgium and Germany were recorded in relation to the trading of goods with the Netherlands, which also featured in second, third or fourth position for an additional 15 Member States; this may at least in part, reflect the dominant position of Rotterdam as the EU's leading maritime port, acting as an entry point into the EU's single market for a wide range of goods from the rest of the world.

Table 2.3: Four largest trade deficits for goods, 2016
(based on values in billion EUR)

	First	Second	Third	Fourth
EU-28 (1)	China	Russia	Norway	Malaysia
Belgium	Netherlands	Ireland	China	United States
Bulgaria	Russia	Hungary	China	Poland
Czech Republic	China	Poland	Netherlands	South Korea
Denmark	Germany	Netherlands	China	Belgium
Germany	Netherlands	Belgium	Czech Republic	Ireland
Estonia	Germany	Poland	Netherlands	Lithuania
Ireland	United Kingdom	France	Norway	India
Greece	Germany	Russia	China	Netherlands
Spain	China	Germany	Netherlands	Nigeria
France	Germany	Netherlands	Belgium	China
Croatia	Germany	Hungary	Italy	Austria
Italy	China	Netherlands	Germany	Belgium
Cyprus	Germany	Greece	China	Italy
Latvia	Germany	Poland	Finland	Italy
Lithuania	Germany	Italy	Poland	China
Luxembourg	Belgium	Germany	United States	China
Hungary	China	Netherlands	Russia	Austria
Malta	Italy	Canada	United Kingdom	Netherlands
Netherlands	China	United States	Russia	Japan
Austria	Germany	Netherlands	China	Czech Republic
Poland	China	Russia	Belgium	Netherlands
Portugal	Spain	Germany	Italy	Netherlands
Romania	China	Hungary	Poland	Germany
Slovenia	Turkey	China	South Korea	Italy
Slovakia	Czech Republic	South Korea	Austria	China
Finland	Sweden	Russia	Germany	Netherlands
Sweden	Germany	Netherlands	China	Russia
United Kingdom	Germany	China	Netherlands	Belgium
Iceland (2)	China	Norway	Brazil	Denmark
Liechtenstein (2)	Austria	China	Hungary	Belgium
Norway (3)	China	Sweden	Canada	Italy
Switzerland (2)	United Kingdom	Germany	Ireland	Italy

Note: based on a selected list of partners (see methodological notes in the introduction for more details).

(1) Ranking based on extra-EU partners only.

(2) 2014.

(3) 2015.

Source: Eurostat (online data codes: DS-018995 and DS-043227)

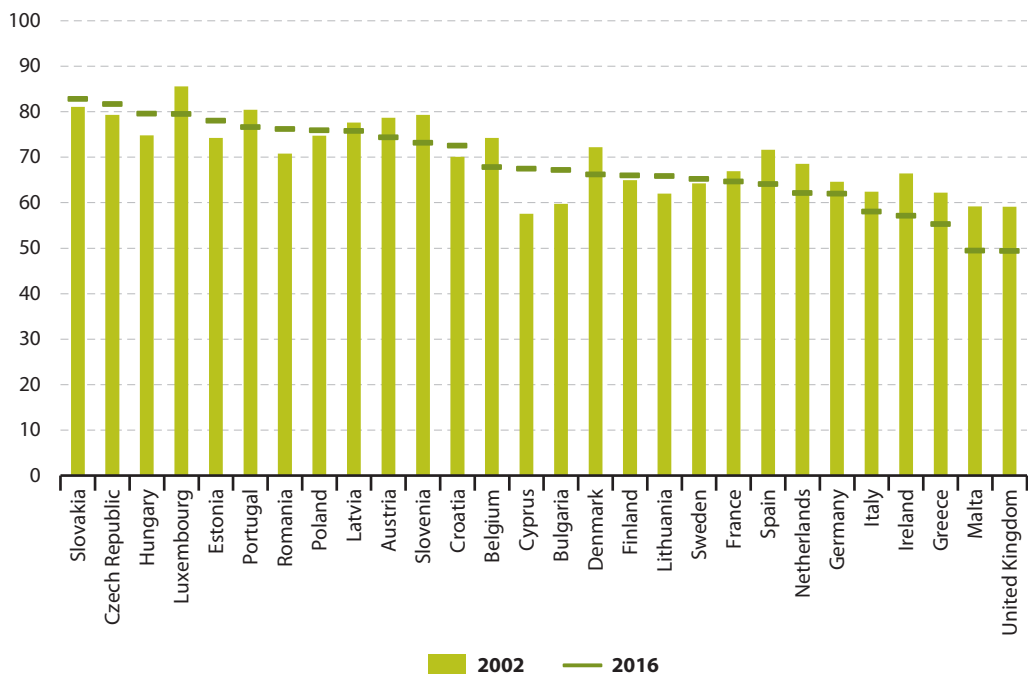


The fastest growth rates for intra-EU trade were recorded among those Member States that joined the EU in 2004 or later ...

The previous subchapter already provided evidence that a majority of the EU-28's trade in goods takes places within the single market, even if the share of intra-EU trade in total trade declined somewhat between 2002 and 2016 to just less than two thirds (64.0 %). As EU membership grew during successive enlargements, the size of the single market increased and with it the stature of the EU as a trading bloc. On the other hand, successive enlargements of the EU also reduced the number of non-member trading partners across the rest of world. Note that the statistics presented in this publication have been standardised to present consistent aggregates for the whole of the EU-28 throughout the time period under consideration (generally from 2002 to 2016).

The highest growth rates for the overall change in the value of intra-EU imports and exports between 2002 and 2016 were almost systematically recorded among those Member States that joined the EU in 2004 or more recently; the only exception was Malta where such growth was subdued. Figure 2.21 provides confirmation that most of these Member States had a relatively high share of their trade with other Member States (compared with non-member partners) and that this share increased between 2002 and 2016.

Figure 2.21: Intra-EU trade in goods as a share of total trade in goods, 2002 and 2016 (%)



Note: based on the sum of exports and imports. Ranked on the shares for 2016.

Source: Eurostat (online data code: [ext_lt_intratrd](#))

2.3 International trade in goods by type of good

This subchapter examines in more detail the different types of goods that are traded between nations. Globalisation, falling trade costs and technological progress are thought to have driven the international fragmentation of production and the development of international production/supply chains. These changes to the way in which goods (and services) are produced has resulted in manufacturing processes being split into different stages so that intermediate inputs may be sourced from the most efficient producers, even if they are spread across disparate locations. As a result, the relative importance of intermediate goods — the inputs which connect different production stages together — as a share of total trade has risen at a rapid pace.

INTERNATIONAL TRADE IN GOODS — DEVELOPMENTS BY BROAD ECONOMIC CATEGORY

The share of intermediate goods in all extra-EU imports peaked in 2012 ...

Figure 2.22 shows the development of the share of intermediate goods in total trade for the EU-28 over the period covering 2002-2016. Prior to the global financial and economic crisis, trade in intermediate goods was an important driver of overall trade, as witnessed through their increasing share of total trade up until 2008. This was particularly true for extra-EU imports, suggesting that European Union (EU) manufacturers had a relatively high propensity to import parts and components from non-member countries; there was also an increase in the relative share of intermediate goods among intra-EU exports.

The crisis had a considerable impact not only on the value of trade in intermediate goods, but also resulted in a declining share of intermediate goods in total trade. Thereafter, there was a relatively swift recovery and the share of intermediate goods in total trade continued to rise, peaking in 2012 at 66.5 % for extra-EU imports and 55.4 % for intra-EU exports.

... but then subsequently fell to 56.9 % by 2016

The value of the EU-28 trade in goods stagnated (or even contracted in the case of imports) from 2013 onwards. Alongside this overall pattern of development, there was a relatively fast decline in the share of intermediate goods in total trade (with a return to shares that had not been seen since just after the turn of the millennium). Some economists believe this may be linked, among others, to manufacturers deciding to produce their own intermediate goods, thereby internalising global value chains. In 2016, the EU-28 share of intermediate goods in extra-EU imports stood at 56.9 %, some 9.6 percentage points below its relative peak of 2012.

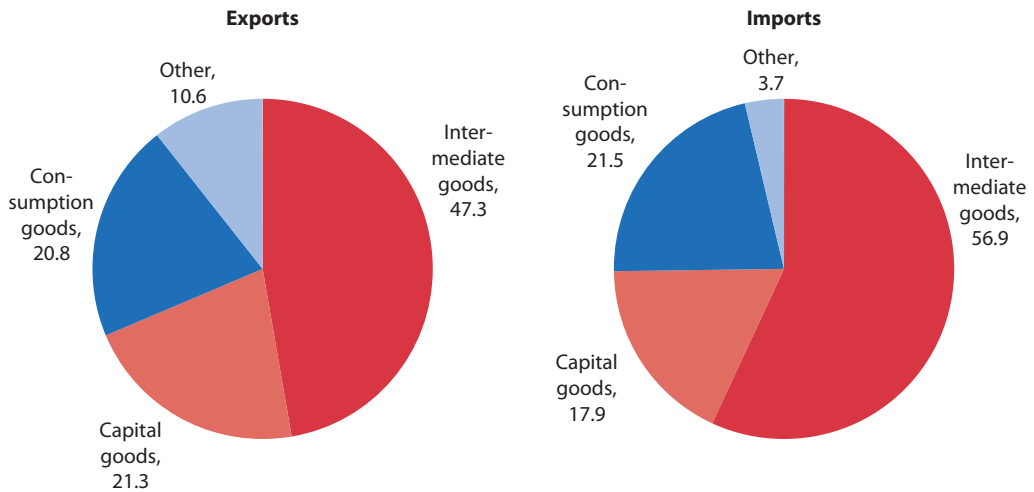
The predominance of intermediate goods in total trade is shown in Figure 2.23. Across the EU-28, intermediate goods accounted for just less than half (47.3 %) of all goods that were exported in 2016; as noted above, the corresponding share for imports was higher, at 56.9 %. For comparison, more than one fifth (21.3 %) of the EU-28's exported goods in 2016 were accounted for by capital goods, while consumption goods made up more than one fifth (21.5 %) of the EU-28's imported goods.

Figure 2.22: Share of intermediate goods in total trade for all goods, EU-28, 2002-2016
(% of total)



Source: Eurostat (online data code: [ext_st_eu28bec](#))

Figure 2.23: Extra-EU trade in goods by broad economic category, EU-28, 2016
(% of total)



Source: Eurostat (online data code: [ext_st_eu28bec](#))

Statistics on international trade in goods by broad economic category (BEC)

As global production chains have developed into complex production networks it has become increasingly difficult, from a statistical perspective, to measure where specific (end) goods are made and by whom. Indeed, an analysis of international trade developments based on gross measures has become less accurate, as intermediate goods (parts and components) may be counted several times as they cross borders to be used at various stages of the manufacturing process.

The classification of international trade statistics by **broad economic category**

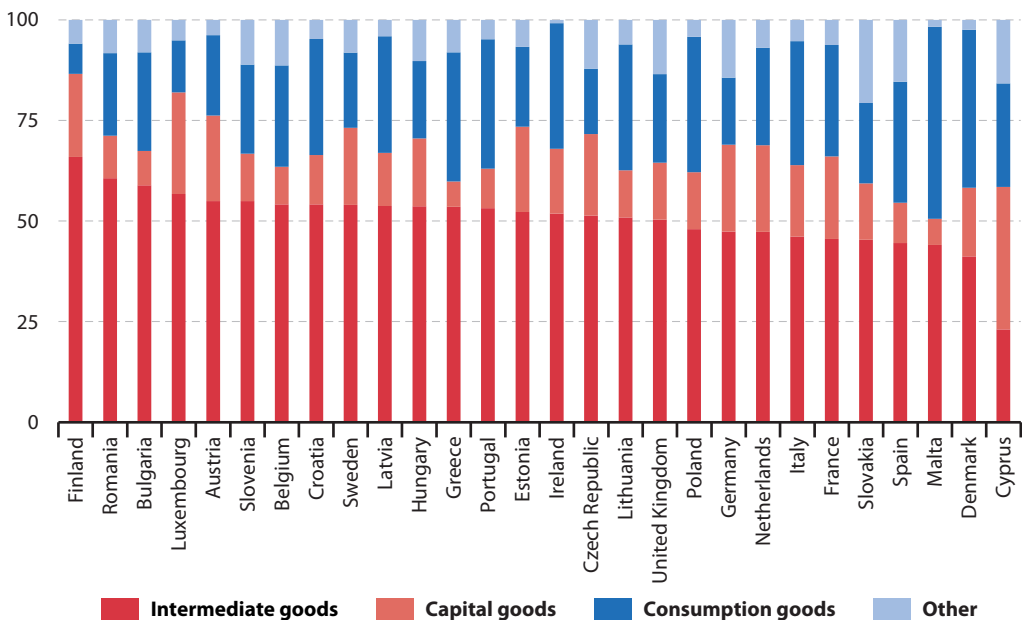
(BEC) is managed by the United Nations. These statistics permit the conversion of international trade data based on the standard international trade classification (SITC) into end-use categories. At its most detailed level, the BEC classification has 19 categories that can be aggregated to approximate the three basic types of goods (capital, intermediate and consumption goods); this makes it easier to analyse international trade statistics alongside other types of general economic statistics, such as national accounts.

Many of the Member States that joined the EU in 2004 or more recently had a relatively high share of their total trade in intermediate products, suggesting that they were more implicated in supply chains

In 2016, a majority (18) of the EU Member States reported that intermediate goods contributed more than half of their total trade in value terms, both for imports and exports; note these were not the same 18 Member States for each trade flow (see Figures 2.24 and 2.25). The share

Figure 2.24: Exports of goods by broad economic category, 2016

(% of total)



Note: intra-EU and extra-EU trade.

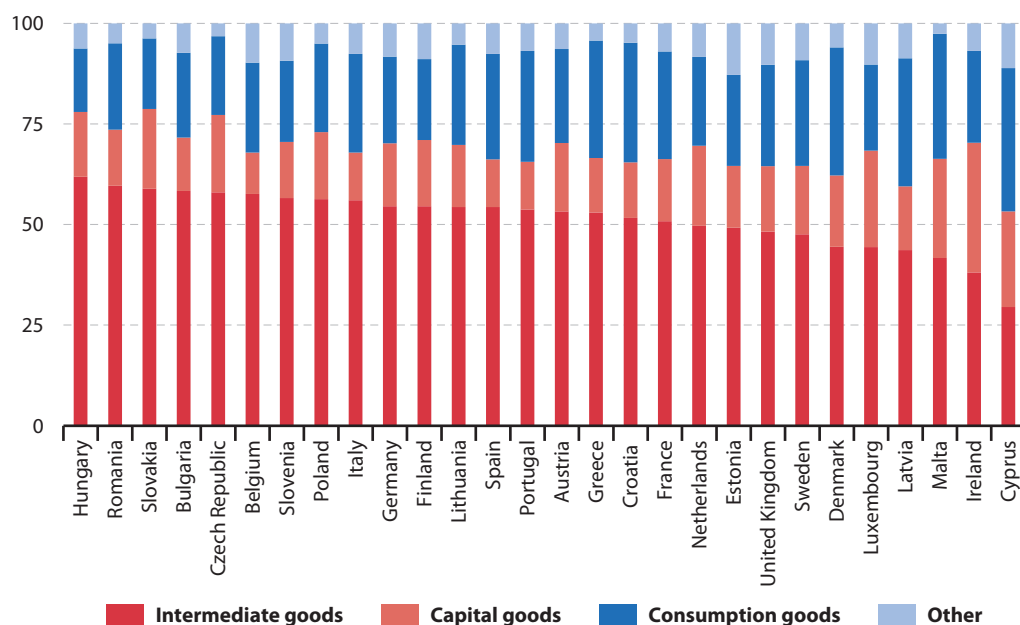
Source: Eurostat (online data code: [ext_st_28msbec](#))



of intermediate goods in total exports rose to almost two thirds (66.0 %) in Finland, while the next highest shares were 60.7 % for Romania and 58.9 % for Bulgaria. By contrast, the share of intermediate goods in total imports peaked in Hungary (61.9 %), while the Czech Republic, Bulgaria, Slovakia and Romania each reported shares within the range of 58.0-60.0 %.

Many of those Member States that joined the EU in 2004 or more recently had a relatively high share of their total trade in intermediate products, suggesting that they were more implicated in supply chains than some other Member States. Indeed, it would appear that the enlargement of the EU has led to some of these Member States becoming important suppliers of intermediate goods to key EU producers, in particular, German manufacturers. This pattern was already alluded to in the previous subchapter, in relation to the growing share of German imports that were sourced from neighbouring eastern Member States, such as the Czech Republic, Poland, Hungary, Slovakia and Slovenia.

Figure 2.25: Imports of goods by broad economic category, 2016
(% of total)



Note: intra-EU and extra-EU trade.

Source: Eurostat (online data code: [ext_st_28msbec](#))

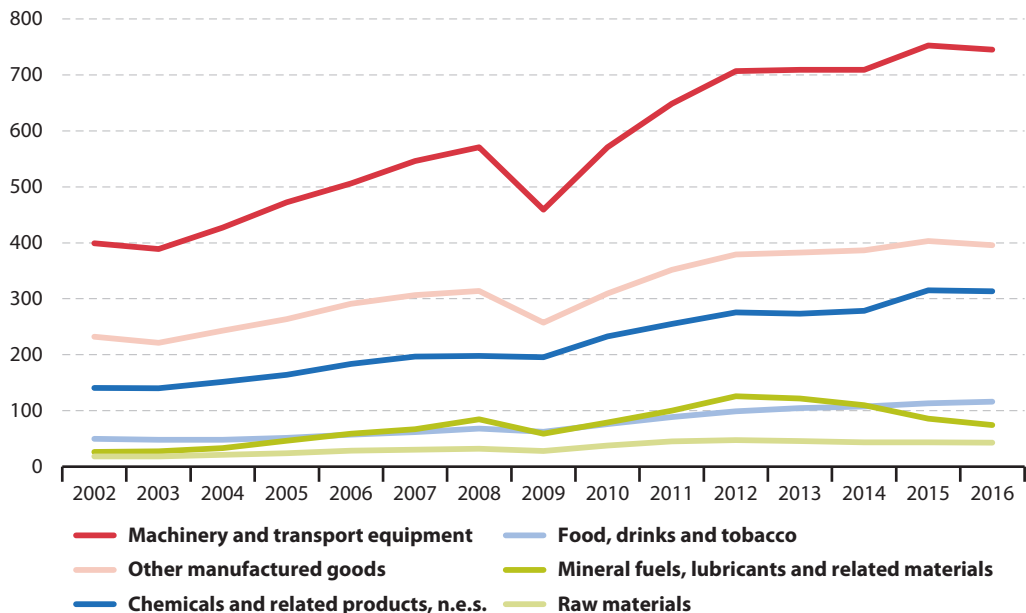
INTERNATIONAL TRADE IN GOODS — DEVELOPMENTS FOR KEY PRODUCT GROUPS

Historically, the biggest shifts in international trade by product resulted in a marked decline in the relative contribution of agricultural products to total trade, while the share of manufactured goods increased. When asked to picture globalisation today, many people are likely to imagine a cargo ship transporting large quantities of manufactured goods to distant markets on the other side of the world. A closer examination reveals that the bulk of international trade in goods is relatively concentrated within some key product groups, while there are many goods where the level of international trade remains quite low. Indeed, as noted in Subchapter 2.1, the intrinsic nature of some goods (for example, those with a limited shelf-life or those that are bulky) means that they are principally consumed within domestic or neighbouring markets.

In 2016, machinery and transport equipment accounted for EUR 746 billion or 42.7 % of all goods exported from the EU-28

Figure 2.26 shows the development of extra-EU exports for the top level headings from the [standard international trade classification \(SITC\)](#). One of the most striking aspects is the relative importance of machinery and transport equipment, which accounted for 42.7 % of all goods exported from the EU-28 in 2016. The next highest shares were recorded for other manufactured goods (22.7 %) and chemicals and related products (18.0 %), while food, drinks and tobacco (6.6 %), mineral fuels, lubricants and related materials (4.3 %) and raw materials (2.4 %) accounted for much lower proportions.

Figure 2.26: Extra-EU exports of goods by SITC sections, EU-28, 2002-2016
(billion EUR)



Note: excluding not classified.

Source: Eurostat (online data code: DS-018995)

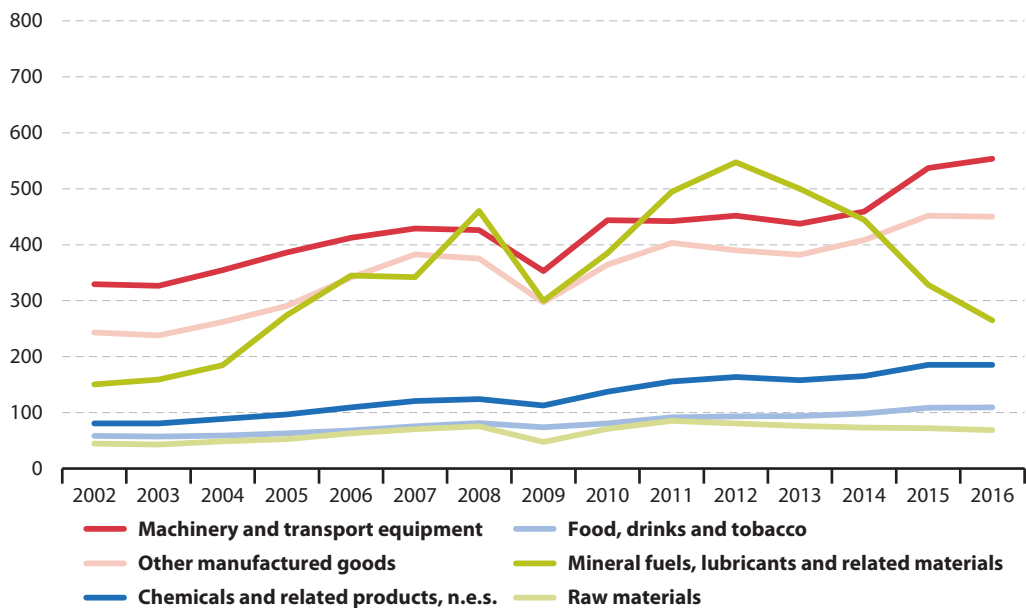


Looking at developments during the period 2002-2016, the impact of the global financial and economic crisis on the different product headings is clearly evident: for example, there was a marked downturn in 2009 in the value of EU-28 exports of machinery and transport equipment and other manufactured goods. EU-28 exports of mineral fuels, lubricants and related materials followed a fluctuating pattern with a considerable downturn from 2012 onwards; note this reduction largely reflects a fall in the spot price of oil, for example, the price of Brent crude declined by more than 50 % between 2012 and 2015. That said, a comparison of developments for EU-28 exports between 2002 and 2016 reveals that the fastest overall growth was recorded for mineral fuels, lubricants and related materials, as their value in 2016 was 2.8 times as high as in 2002; by contrast, the lowest expansion was recorded for other manufactured goods (where EU-28 exports in 2016 were valued 1.7 times as high as in 2002).

The share of mineral fuels, lubricants and related materials in the total value of EU-28 imported goods fell rapidly from 2012 onwards, largely as a result of falling oil prices

Complementary information on developments for EU-28 imports is presented in Figure 2.27 (based on the same product headings). A ranking of the different headings in terms of their share of extra-EU imports shows the relative importance of mineral fuels, lubricants and related materials. Their share of all goods imported into the EU-28 peaked at 30.4 % in 2012 (when crude oil prices were extremely high), but subsequently declined for four consecutive years to 15.5 % by 2016. Machinery and transport equipment accounted for almost one third (32.4 %) of the EU-28's imported goods in 2016, while other manufactured goods represented just over a quarter (26.4 %).

Figure 2.27: Extra-EU imports of goods by SITC sections, EU-28, 2002-2016 (billion EUR)

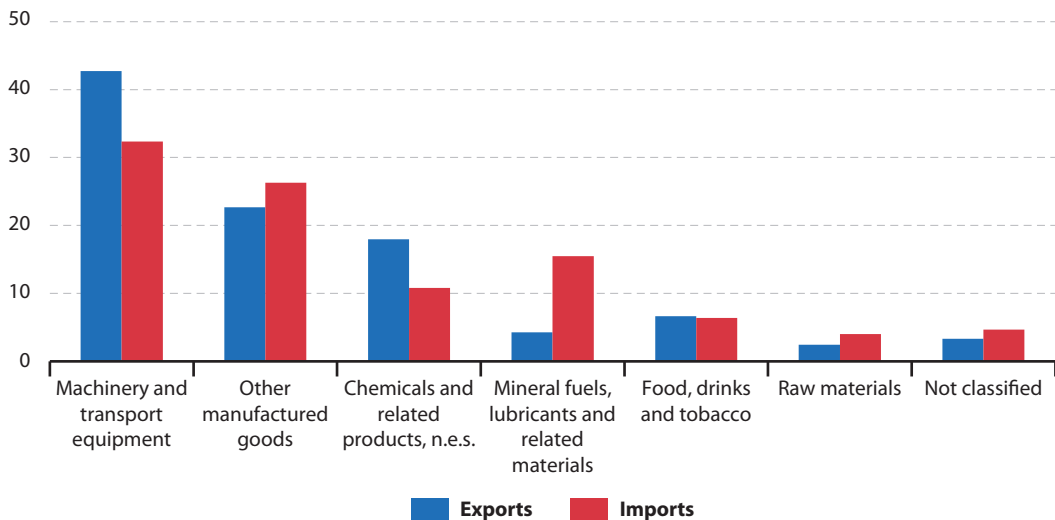


Note: excluding not classified.

Source: Eurostat (online data code: DS-018995)

Figure 2.28 shows information for 2016 pertaining to the different shares of each product heading in extra-EU exports and extra-EU imports. As the total value of EU-28 exports (EUR 1 745 billion) and imports (EUR 1 711 billion) was almost balanced — the surplus of EUR 35 billion represented 1.0 % of total extra-EU trade — Figure 2.28 may also be used to identify those product headings where the EU-28 had a trade surplus with non-member countries, for example, machinery and transport equipment (EUR 192 billion) or a trade deficit, for example, mineral fuels, lubricants and related materials (EUR 190 billion).

Figure 2.28: Extra-EU trade in goods, by SITC sections, EU-28, 2016
(% of EU-28 total)



Note: ranked on the overall share (imports and exports).

Source: Eurostat (online data code: DS-018995)

INTERNATIONAL TRADE IN GOODS — FOCUS ON SELECTED PRODUCT GROUPS

This final section in this subchapter looks in more detail at international trade developments for a selected group of specific products, where globalisation has had a significant impact on industrial structure and conduct:

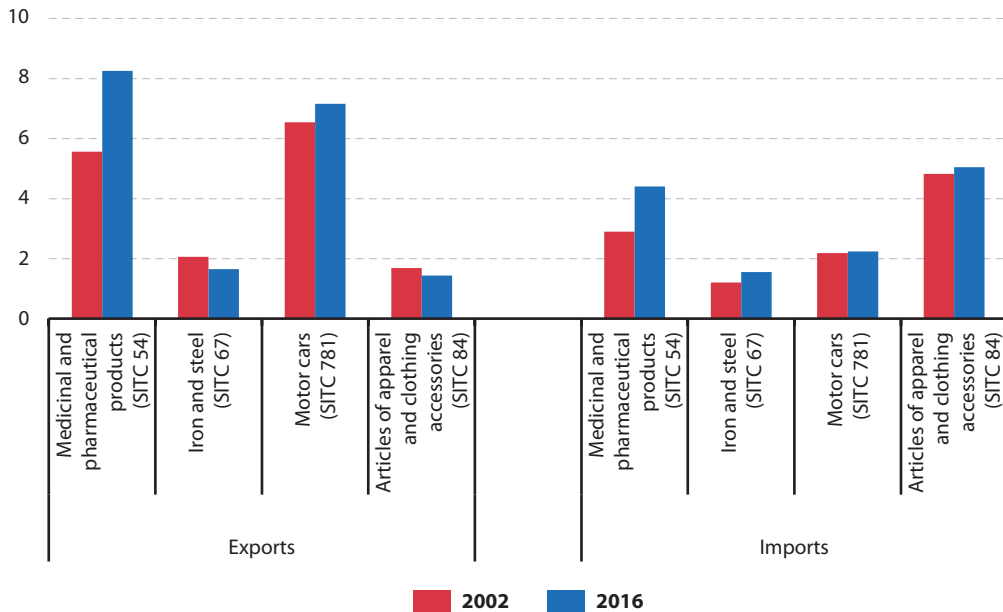
- medicinal and pharmaceutical products (SITC 54);
- iron and steel (SITC 67);
- motor cars (SITC 781);
- articles of apparel and clothing accessories (SITC 84).

The share of these selected product categories in extra-EU trade is presented in Figure 2.29. There was a clear shift in the composition of EU-28 exports between 2002 and 2016 towards higher value products such as medicinal and pharmaceutical products or motor cars. For example, the former saw its share of the EU-28's exported goods rise from 5.6 % in 2002 to 8.3 % by 2016, while the share of motor cars rose from 6.5 % to 7.2 %. During the same period, the relative share of more traditional products such as iron and steel or clothing fell: the former from 2.1 % to 1.7 % of the EU-28's exported goods and the latter from 1.7 % to 1.4 %. By contrast, the share of iron and steel and clothing in the total value of EU-28 imports rose between 2002 and 2016.



Figure 2.29: Extra-EU trade in selected goods, EU-28, 2002 and 2016

(% of EU-28 total)



Source: Eurostat (online data code: DS-018995)

Medicinal and pharmaceutical products

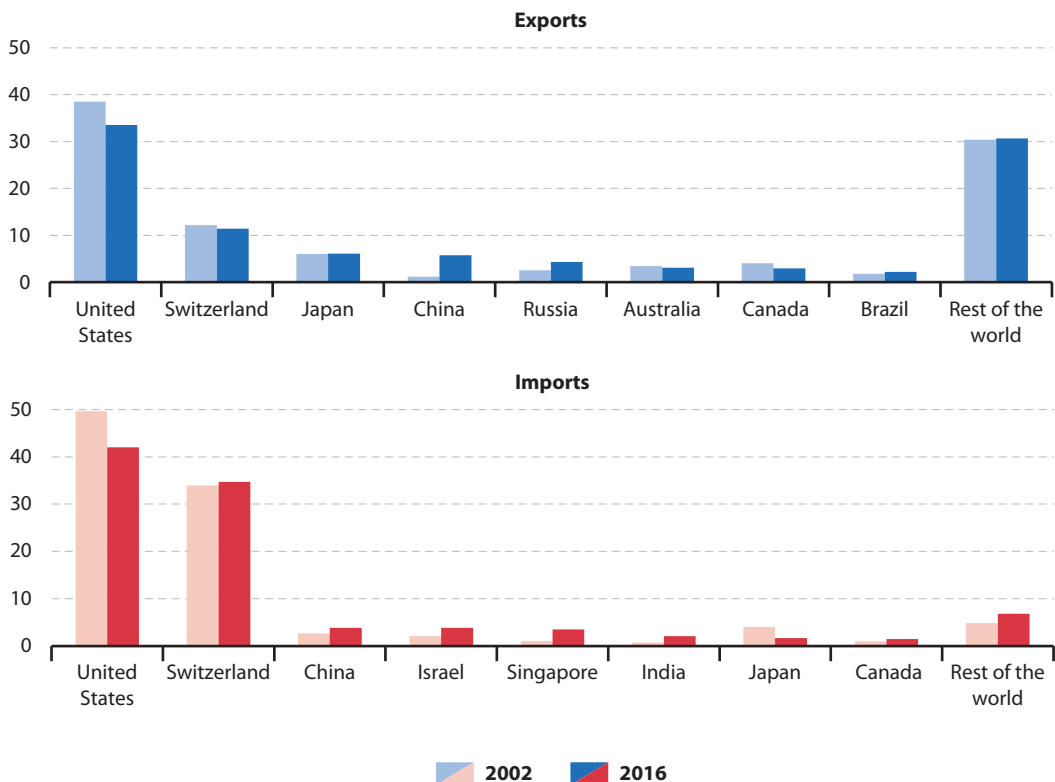
The EU-28 was the world's leading exporter of medicinal and pharmaceutical products in 2016. Extra-EU trade grew rapidly between 2002 and 2016, almost tripling in value, while intra-EU trade more than doubled over the same period. Extra-EU exports of medicinal and pharmaceutical products were valued at EUR 144 billion in 2016, compared with extra-EU imports of EUR 75 billion; as such, the EU-28 had a trade surplus of EUR 69 billion. According to the European Commission's Directorate-General for Trade, the most common trade impediments faced by pharmaceutical exporters are a range of burdensome and costly registration, licensing and certification procedures; the EU aims to redress these through its bilateral trade agreements or by tackling individual barriers as part of its market access partnerships.

The United States was the EU's main trading partner for medicinal and pharmaceutical products, both in terms of imports and exports (see Figure 2.30). Just over one third (33.6 %) of all EU-28 exports in 2016 were destined for the United States; note that this was lower than in 2002, when the United States accounted for a 38.5 % share of the EU's exports of medicinal and pharmaceutical products. The next largest EU export markets were Switzerland, which accounted for just over a tenth (11.4 %) of all exports in 2016, followed by Japan (6.1 %) and China (5.7 %).

Imports of medicinal and pharmaceutical products into the EU-28 were even more dominated by the EU's main trading partners, as more than three quarters of the goods imported in 2016 originated from either the United States (42.0 %) or Switzerland (34.7 %); the next highest share was recorded for imports originating in China (3.9 %).

Between 2002 and 2016 the share of EU-28 exports of medicinal and pharmaceutical products that were destined for China rose from 1.2 % to 5.7 %, their share of total exports increasing 4.9-fold. During the same period, the share of EU-28 imports of medicinal and pharmaceutical products originating in Singapore increased 3.4-fold, while there was also relatively rapid growth for the share of imports originating in India, which increased 2.8-fold.

Figure 2.30: Principal trade partners for medicinal and pharmaceutical products (SITC 54), EU-28, 2002 and 2016
(% of EU-28 total)



Note: based on a selected list of partners (see methodological notes in the introduction for more details).

Source: Eurostat (online data code: DS-018995)



Among the EU Member States in 2016, exports of medicinal and pharmaceutical products were relatively concentrated in Germany (22.8 % of the EU's exports), Belgium (13.3 %), Ireland (9.9 %) and the United Kingdom (also 9.9 %); the main export destination for each of these was the United States (see Table 2.4). According to structural business statistics and research and development statistics, the pharmaceutical industry is particularly important to the Belgian and Irish economies, providing a high number of jobs, considerable investment in research and development, as well as strong export performance.

Table 2.4: Exports of medicinal and pharmaceutical products (SITC 54), 2016

	Value (million EUR)	Share of total goods exported (%)	Share of EU exports (%)	Main export destination
EU-28⁽¹⁾	144 069	8.3	–	United States
Belgium	40 723	11.3	13.3	United States
Bulgaria	771	3.3	0.3	Russia
Czech Republic	2 233	1.5	0.7	Germany
Denmark	12 284	14.3	4.0	United States
Germany	69 729	5.8	22.8	United States
Estonia	76	0.6	0.0	Lithuania
Ireland	30 175	25.9	9.9	United States
Greece	1 059	4.2	0.3	Germany
Spain	10 454	4.0	3.4	Switzerland
France	27 947	6.2	9.1	Germany
Croatia	889	7.1	0.3	United States
Italy	20 444	4.9	6.7	Belgium
Cyprus	261	9.7	0.1	Greece
Latvia	406	0.3	0.1	Lithuania
Lithuania	724	3.2	0.2	Latvia
Luxembourg	324	2.3	0.1	Belgium
Hungary	4 421	4.8	1.4	Germany
Malta	843	30.9	0.3	United States
Netherlands	27 638	5.4	9.0	United Kingdom
Austria	8 502	6.2	2.8	Switzerland
Poland	2 701	1.5	0.9	Germany
Portugal	1 123	2.2	0.4	United States
Romania	701	1.2	0.2	Germany
Slovenia	2 502	8.4	0.8	Russia
Slovakia	522	0.7	0.2	Germany
Finland	841	1.6	0.3	Russia
Sweden	7 308	5.8	2.4	Germany
United Kingdom	30 304	8.2	9.9	United States

Note: main destination of exports is based on a selected list of partners (see methodological notes in the introduction for more details).

(¹) Extra-EU trade only.

Source: Eurostat (online data code: DS-018995)

Germany recorded the highest share (18.6 %) of EU imports of medicinal and pharmaceutical products in 2016, followed by Belgium (13.9 %) and the United Kingdom (12.5 %) as the only other EU Member States with double-digit shares (see Table 2.5).

Table 2.5: Imports of medicinal and pharmaceutical products (SITC 54), 2016

	Value (million EUR)	Share of total goods imported (%)	Share of EU imports (%)	Main origin of imports
EU-28⁽¹⁾	75 407	4.4	–	United States
Belgium	33 506	10.0	13.9	United States
Bulgaria	1 167	4.5	0.5	Hungary
Czech Republic	3 834	3.0	1.6	Germany
Denmark	3 610	4.7	1.5	Germany
Germany	44 642	4.7	18.6	Netherlands
Estonia	385	2.9	0.2	Lithuania
Ireland	6 238	8.8	2.6	United States
Greece	2 854	6.5	1.2	Germany
Spain	13 228	4.7	5.5	United States
France	23 077	4.5	9.6	Belgium
Croatia	1 205	6.1	0.5	South Korea
Italy	22 063	6.0	9.2	United States
Cyprus	233	3.3	0.1	Greece
Latvia	564	0.8	0.2	Lithuania
Lithuania	960	3.9	0.4	Belgium
Luxembourg	441	2.2	0.2	Belgium
Hungary	3 675	4.3	1.5	France
Malta	144	2.6	0.1	India
Netherlands	20 838	4.6	8.7	United States
Austria	8 350	5.9	3.5	Switzerland
Poland	5 326	3.0	2.2	Germany
Portugal	2 434	4.0	1.0	Germany
Romania	2 752	4.1	1.1	Germany
Slovenia	1 148	4.2	0.5	Germany
Slovakia	1 790	2.6	0.7	Netherlands
Finland	1 994	3.6	0.8	Germany
Sweden	3 923	3.1	1.6	Germany
United Kingdom	30 056	5.2	12.5	Germany

Note: main origin of imports is based on a selected list of partners (see methodological notes in the introduction for more details).

(¹) Extra-EU trade only.

Source: Eurostat (online data code: DS-018995)



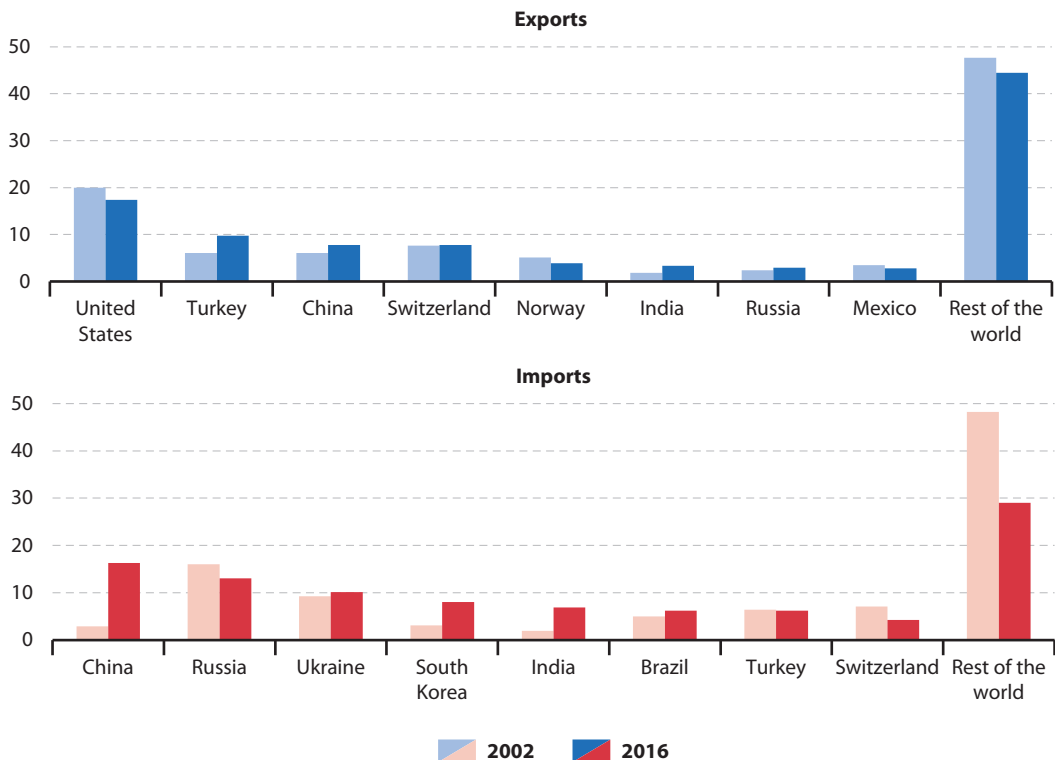
Iron and steel

The iron and steel industry is often seen as being of strategic importance. In the last couple of decades there has been a pattern of industrialised nations relocating some of their iron and steel production facilities to developing countries; this has been driven, at least in part, by a desire to relocate production facilities closer to coal and iron ore supplies.

At the same time as the quantity of iron and steel production was falling in the EU-28 (with output being refocused on high-end products), there was widespread investment in new plant across China; indeed, by 2016 China was producing slightly more than half of the world's steel output. The other leading global producers of steel include the EU, Japan, India, the United States, Russia, South Korea, Turkey, Brazil and Ukraine.

Alongside a rapid shift in global output of iron and steel, there were also major changes to trade patterns. These were particularly evident during the last few years, as Chinese economic growth slowed, resulting in excess Chinese capacity being redirected to foreign markets. In 2002, China accounted for just 2.9 % of the EU-28's imports of iron and steel, yet by 2016 the proportion of EU-28 imports originating from China had jumped to 16.3 %. China was the principal origin of EU-28 imports of iron and steel in 2016, ahead of Russia (13.0 %), while Ukraine (10.1 %) was the only other partner to account for a double-digit share of the EU-28's import market (see Figure 2.31).

Figure 2.31: Principal trade partners for iron and steel (SITC 67), EU-28, 2002 and 2016
(% of EU-28 total)



Note: based on a selected list of partners (see methodological notes in the introduction for more details).

Source: Eurostat (online data code: DS-018995)

Between 2002 and 2016 a growing share of EU-28 exports of iron and steel were destined for Turkey (its share rising to 9.7 % in 2016), China (7.8 %) and India (3.3 %). By contrast, the share of EU-28 exports of iron and steel that were destined for the United States fell by 2.6 percentage points during the same period; nevertheless, the United States remained the EU's largest export destination, accounting for more than one sixth (17.4 %) of its iron and steel exports in 2016.

The EU-28 ran a trade surplus of EUR 2.3 billion for iron and steel in 2016. The leading exporter among the EU Member States was Germany (EUR 22.0 billion), followed by Italy (EUR 14.9 billion), Belgium (EUR 12.2 billion) and France (EUR 11.0 billion). It is interesting to note that iron and steel products accounted for 12.7 % of all goods exported from Luxembourg in 2016, the next highest share being recorded in Finland (6.8 % of total exports) — see Table 2.6.

Table 2.6: Exports of iron and steel (SITC 67), 2016

	Value (million EUR)	Share of total goods exported (%)	Share of EU exports (%)	Main export destination
EU-28⁽¹⁾	28 845	1.7	–	United States
Belgium	12 180	3.4	10.5	Germany
Bulgaria	515	2.2	0.4	Romania
Czech Republic	3 501	2.4	3.0	Germany
Denmark	932	1.1	0.8	Germany
Germany	22 037	1.8	19.0	France
Estonia	136	1.1	0.1	Finland
Ireland	161	0.1	0.1	United Kingdom
Greece	486	1.9	0.4	United States
Spain	6 913	2.6	5.9	France
France	10 987	2.4	9.5	Germany
Croatia	101	0.8	0.1	Turkey
Italy	14 877	3.6	12.8	Germany
Cyprus	3	0.1	0.0	Saudi Arabia
Latvia	286	0.2	0.2	Poland
Lithuania	245	1.1	0.2	Latvia
Luxembourg	1 809	12.7	1.6	Germany
Hungary	795	0.9	0.7	Germany
Malta	1	0.0	0.0	Italy
Netherlands	9 955	1.9	8.6	Germany
Austria	6 474	4.7	5.6	Germany
Poland	3 627	2.0	3.1	Germany
Portugal	1 171	2.3	1.0	Spain
Romania	1 677	2.9	1.4	Turkey
Slovenia	1 074	3.6	0.9	Germany
Slovakia	2 993	4.3	2.6	Czech Republic
Finland	3 546	6.8	3.1	Netherlands
Sweden	5 322	4.2	4.6	Germany
United Kingdom	4 389	1.2	3.8	Germany

Note: main destination of exports is based on a selected list of partners (see methodological notes in the introduction for more details).

(¹) Extra-EU trade only.

Source: Eurostat (online data code: DS-018995)



Extra-EU iron and steel imports into the EU-28 from non-member countries were valued at EUR 26.6 billion in 2016. Table 2.7 shows that Germany had the highest value (EUR 21.6 billion) of iron and steel imports among the EU Member States (based on total trade, in other words, intra-EU and extra-EU flows), followed by Italy (EUR 13.5 billion) and France (EUR 10.3 billion). Belgium was the main origin of iron and steel imports for both Germany and France, with a relatively high number of the Member States reporting that their principal origin of imports was a neighbouring country.

Table 2.7: Imports of iron and steel (SITC 67), 2016

	Value (million EUR)	Share of total goods imported (%)	Share of EU imports (%)	Main origin of imports
EU-28⁽¹⁾	26 570	1.6	–	China
Belgium	8 150	2.4	7.3	France
Bulgaria	1 076	4.1	1.0	Ukraine
Czech Republic	4 894	3.8	4.4	Germany
Denmark	1 962	2.5	1.8	Germany
Germany	21 646	2.3	19.4	Belgium
Estonia	393	2.9	0.4	Finland
Ireland	644	0.9	0.6	United Kingdom
Greece	827	1.9	0.7	Germany
Spain	6 422	2.3	5.8	France
France	10 313	2.0	9.2	Belgium
Croatia	611	3.1	0.5	Italy
Italy	13 450	3.7	12.1	Germany
Cyprus	79	1.1	0.1	Greece
Latvia	439	0.6	0.4	Russia
Lithuania	576	2.3	0.5	Poland
Luxembourg	680	3.5	0.6	France
Hungary	1 923	2.3	1.7	Germany
Malta	27	0.5	0.0	Italy
Netherlands	8 376	1.8	7.5	Germany
Austria	3 673	2.6	3.3	Germany
Poland	7 212	4.0	6.5	Germany
Portugal	1 696	2.8	1.5	Spain
Romania	2 357	3.5	2.1	Italy
Slovenia	1 226	4.4	1.1	Italy
Slovakia	2 194	3.2	2.0	Germany
Finland	1 346	2.5	1.2	Sweden
Sweden	3 625	2.8	3.2	Germany
United Kingdom	5 751	1.0	5.2	Germany

Note: main origin of imports is based on a selected list of partners (see methodological notes in the introduction for more details).

(¹) Extra-EU trade only.

Source: Eurostat (online data code: DS-018995)

Motor cars

The car industry has undergone a considerable change in recent years, with increased production from new producers in emerging markets, while traditional car manufacturers have faced structural issues associated with falling domestic sales and overcapacity. The industry remains dominated by a small number of global players who tend to have a presence on most continents as a result of takeovers, joint ventures, alliances and other forms of collaboration. The car industry is often seen as a pioneer for new methods of industrial organisation and is a leading exponent of global value chains, sourcing intermediate inputs from around the world and delivering these 'just-in-time' for assembly.

While car production has diversified geographically, Europe's automotive industry is concentrated in the hands of a small number of groups, including Volkswagen, Daimler, BMW, Fiat Chrysler, PSA and Renault. It should also be noted that overseas carmakers have a considerable presence manufacturing cars within the single European market, for example: General Motors in Germany and Austria; Ford in Spain and the United Kingdom; or Hyundai in the Czech Republic. It is important to note that the statistics presented below relate to imports and exports of motor cars between national territories, regardless of the ownership of the production facilities where these cars are made.

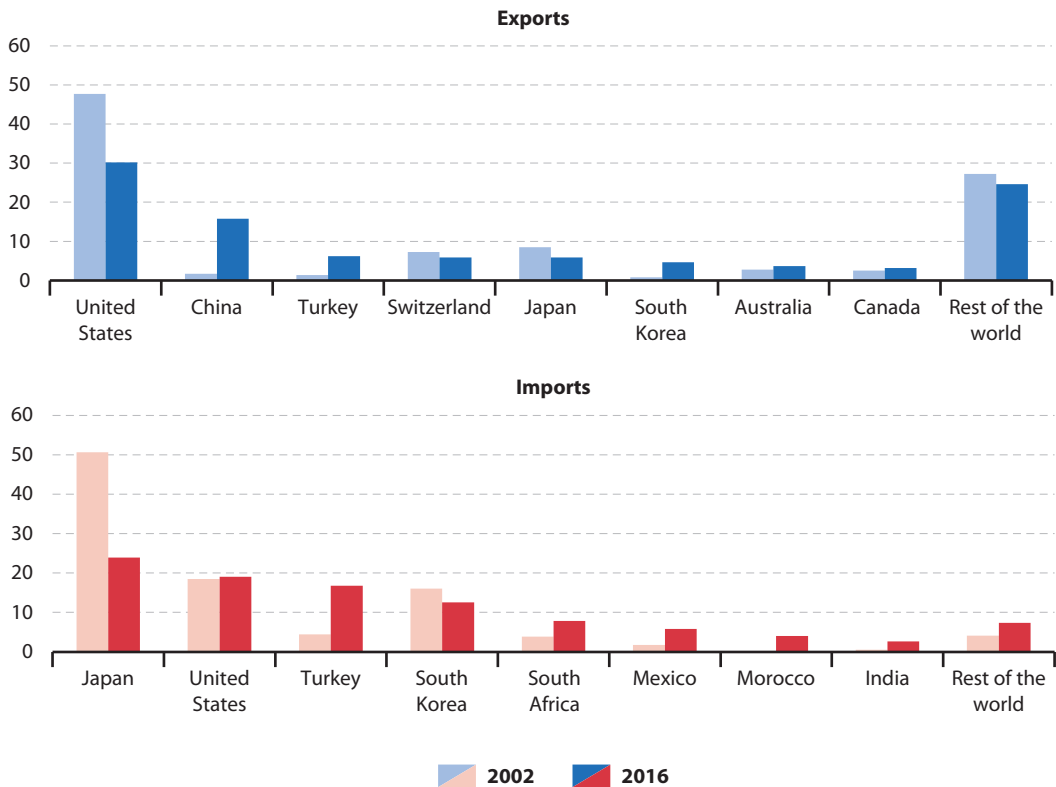
The EU-28 is the world's largest car exporter, and the industry's export orientation is underscored by its growing trade surplus, which reached EUR 87 billion in 2016 (which was more than double the EU-28's trade surplus for all goods). Increasing exports of motor cars to established and emerging markets may be viewed as a response by Europe's carmakers to address the issue of falling domestic demand.

In 2016, the United States remained the main destination for EU-28 exports of motor cars (30.2 % of the total), well ahead of China (15.8 %) — see Figure 2.32. Together with Turkey (6.2 %), Switzerland and Japan (both 5.9 %) and South Korea (4.6 %), these six trade partners together accounted for more than two thirds (68.6 %) of the EU's exports. It is interesting to note that while the share of EU-28 exports destined for the United States declined by 17.5 percentage points from 47.7 % to 30.2 % between 2002 and 2016, the share of exports destined for China rose by 14.1 percentage points; this may be explained by the rapid growth of the Chinese car market.

Almost three quarters of the EU-28's imports of motor cars in 2016 originated from Japan (23.9 % of the total), the United States (19.1 %), Turkey (16.8 %) or South Korea (12.5 %). It is interesting to note the rapid decline in the share of EU-28 motor car imports that originated from Japan — they were more than halved between 2002 and 2016, falling from a 50.6 % share in 2002. These developments may, at least in part, reflect the establishment of Japanese manufacturing bases within the EU, for example, Nissan facilities in Spain, France and the United Kingdom or Toyota facilities in the Czech Republic, France and the United Kingdom.

By contrast, a growing proportion of EU-28 car imports originated from a number of emerging economies, including: South Africa, Mexico, Morocco and India. However, the most rapid change was recorded for EU motor car imports originating in Turkey, where, among others, Fiat, Ford, Honda, Hyundai, Renault and Toyota assembled vehicles.

Figure 2.32: Principal trade partners for motor cars (SITC 781), EU-28, 2002 and 2016
(% of EU-28 total)



Note: based on a selected list of partners (see methodological notes in the introduction for more details).

Source: Eurostat (online data code: DS-018995)

Germany was, by far, the leading exporter of motor cars among the EU Member States in 2016 (see Table 2.8). More than two fifths (41.1 %) of all cars exported from the EU originated from Germany, while the United Kingdom was the only other Member State to record a double-digit share (10.8 %), just ahead of Spain (9.5 %); none of the remaining Member States accounted for more than 5.0 % of exports. The United States was the main market for cars exported from Germany and the United Kingdom, while Germany was the principal market for cars exported from Spain and the United Kingdom for cars exported from Belgium.

Table 2.8: Exports of motor cars (SITC 781), 2016

	Value (million EUR)	Share of total goods exported (%)	Share of EU exports (%)	Main export destination
EU-28⁽¹⁾	125 012	7.2	–	United States
Belgium	27 402	7.6	8.0	United Kingdom
Bulgaria	259	1.1	0.1	Germany
Czech Republic	16 967	11.5	5.0	Germany
Denmark	688	0.8	0.2	Germany
Germany	140 227	11.6	41.1	United States
Estonia	275	2.3	0.1	Lithuania
Ireland	22	0.0	0.0	United Kingdom
Greece	50	0.2	0.0	Belgium
Spain	32 319	12.4	9.5	Germany
France	16 739	3.7	4.9	Belgium
Croatia	157	1.3	0.0	Germany
Italy	13 708	3.3	4.0	United States
Cyprus	24	0.9	0.0	United Kingdom
Latvia	233	0.2	0.1	Lithuania
Lithuania	211	0.9	0.1	Latvia
Luxembourg	455	3.2	0.1	France
Hungary	7 963	8.6	2.3	Germany
Malta	19	0.7	0.0	United Kingdom
Netherlands	6 671	1.3	2.0	Germany
Austria	3 981	2.9	1.2	Germany
Poland	6 901	3.8	2.0	Germany
Portugal	1 772	3.5	0.5	Germany
Romania	2 868	5.0	0.8	France
Slovenia	3 189	10.7	0.9	Germany
Slovakia	13 807	19.7	4.0	Germany
Finland	1 132	2.2	0.3	Germany
Sweden	6 736	5.3	2.0	United States
United Kingdom	36 788	9.9	10.8	United States

Note: main destination of exports is based on a selected list of partners (see methodological notes in the introduction for more details).

(¹) Extra-EU trade only.

Source: Eurostat (online data code: DS-018995)



Germany was also the largest importer of motor cars among the EU Member States in 2016 (see Table 2.9); it accounted for 18.6 % of total imports, while double-digit shares were also recorded for the United Kingdom (16.3 %), France (11.5 %), Belgium (11.4 %) and Italy (10.0 %). The largest proportion of German imports originated from Spain, while Germany was the main origin of imports for the other four Member States.

Although the overall EU-28 trade surplus for motor cars was sizeable, there were only eight individual EU Member States that ran trade surpluses in 2016. By far the largest of these was recorded in Germany (EUR 94 billion), while exports also surpassed imports by more than EUR 10 billion in Spain, the Czech Republic and Slovakia.

Table 2.9: Imports of motor cars (SITC 781), 2016

	Value (million EUR)	Share of total goods imported (%)	Share of EU imports (%)	Main origin of imports
EU-28⁽¹⁾	38 288	2.2	–	Japan
Belgium	28 410	8.4	11.4	Germany
Bulgaria	782	3.0	0.3	Germany
Czech Republic	3 514	2.7	1.4	Germany
Denmark	3 589	4.6	1.4	Germany
Germany	46 418	4.9	18.6	Spain
Estonia	674	5.0	0.3	Sweden
Ireland	2 488	3.5	1.0	Germany
Greece	1 053	2.4	0.4	Germany
Spain	16 457	5.9	6.6	Germany
France	28 647	5.5	11.5	Germany
Croatia	804	4.1	0.3	Germany
Italy	24 831	6.8	10.0	Germany
Cyprus	332	4.7	0.1	United Kingdom
Latvia	556	0.8	0.2	Germany
Lithuania	770	3.1	0.3	Estonia
Luxembourg	1 722	8.8	0.7	Belgium
Hungary	2 426	2.9	1.0	Germany
Malta	101	1.8	0.0	Germany
Netherlands	9 844	2.2	3.9	Germany
Austria	8 364	5.9	3.4	Germany
Poland	6 539	3.7	2.6	Germany
Portugal	4 060	6.6	1.6	Germany
Romania	1 697	2.5	0.7	Germany
Slovenia	2 320	8.4	0.9	Turkey
Slovakia	2 195	3.2	0.9	Czech Republic
Finland	2 438	4.4	1.0	Germany
Sweden	7 854	6.2	3.1	Germany
United Kingdom	40 591	7.1	16.3	Germany

Note: main origin of imports is based on a selected list of partners (see methodological notes in the introduction for more details).

(¹) Extra-EU trade only.

Source: Eurostat (online data code: DS-018995)

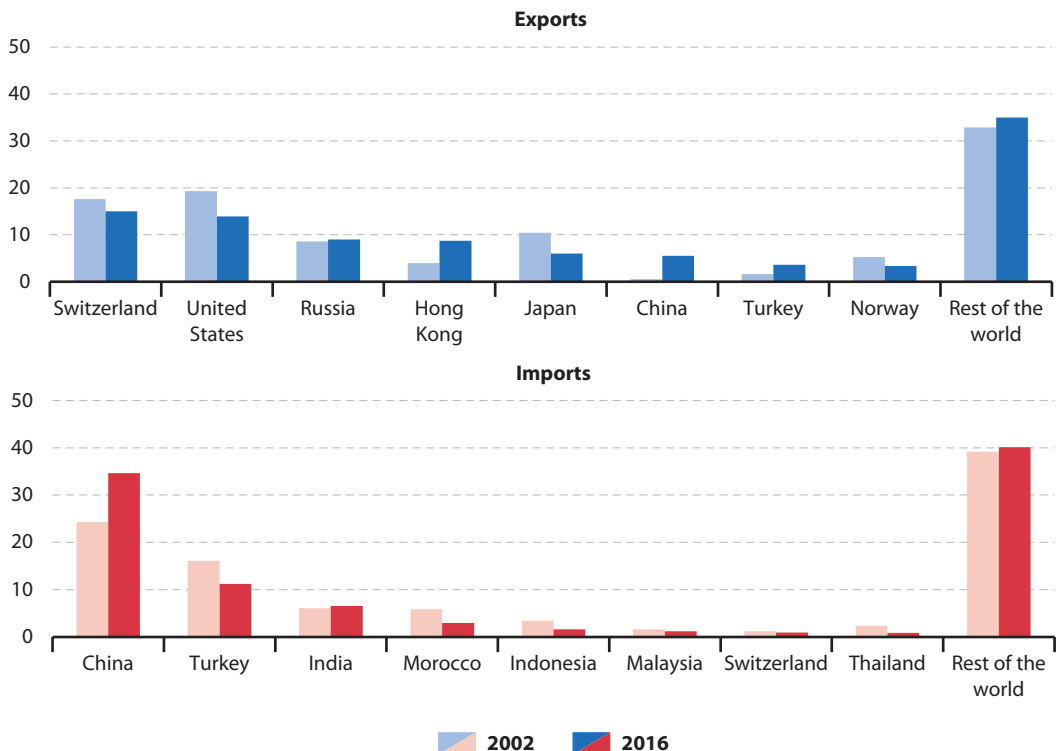
Apparel and clothing accessories

The apparel and clothing accessories industry is another interesting case-study in terms of the impact that globalisation. It is characterised by distant supply chains, with subcontractors manufacturing large quantities of mass-produced clothing (often with very low labour costs); even high-end production, such as designer clothes, are predominantly manufactured away from their country of design, although their manufacture may be closer to the home (for example, in other European countries with lower labour costs).

Consumers are generally considered to have benefitted from the impact of globalisation in the clothing industry, as prices have been kept extremely low and a wide-range of ever-changing fashions are rapidly made available on the high street. On the other hand, the relocation of the clothing industry towards emerging and subsequently developing economies, principally in Asia, led to widespread job losses in Europe (and North America).

As with the iron and steel industry, the clothing sector is also characterised by overcapacity, which some manufacturers may use to their advantage in order to apply downward pressure on prices agreed with subcontractors. While China and India were at the forefront of the initial relocation of the clothing industry, the situation has subsequently evolved, with India specialising in high-end

Figure 2.33: Principal trade partners for articles of apparel and clothing accessories (SITC 84), EU-28, 2002 and 2016
(% of EU-28 total)



Note: based on a selected list of partners (see methodological notes in the introduction for more details).

Source: Eurostat (online data code: DS-018995)



textiles and Chinese investment often being directed towards establishing new manufacturing facilities in countries such as Bangladesh, Sri Lanka, Vietnam, Laos or Cambodia.

China was the main origin of EU-28 imports for articles of apparel and clothing accessories, its share of the EU-28 import market rose from 24.3 % in 2002 to just over one third (34.6 %) in 2016 (see Figure 2.33); Turkey was the only other partner to record a double-digit share (11.2 %), while India (6.6 %) had the third highest share. A relatively high share of EU-28 imports originated from the rest of the world, suggesting that the manufacture of clothing was being relocated to a wide range of developing countries.

In 2016, the EU-28 ran a large trade deficit (EUR 61 billion) for articles of apparel and clothing accessories. The principal export markets for EU Member States were other Member States, the only exceptions being the relatively low value of apparel exports that left Latvia and Lithuania for Russia. The shift of clothing production within the EU towards countries with

Table 2.10: Exports of articles of apparel and clothing accessories (SITC 84), 2016

	Value (million EUR)	Share of total goods exported (%)	Share of EU exports (%)	Main export destination
EU-28⁽¹⁾	25 049	1.4	–	Switzerland
Belgium	8 130	2.3	7.7	France
Bulgaria	1 477	6.3	1.4	Germany
Czech Republic	1 744	1.2	1.6	Germany
Denmark	3 421	4.0	3.2	Germany
Germany	15 610	1.3	14.7	Austria
Estonia	193	1.6	0.2	Sweden
Ireland	348	0.3	0.3	France
Greece	591	2.3	0.6	Germany
Spain	11 588	4.4	10.9	France
France	9 837	2.2	9.3	Italy
Croatia	652	5.2	0.6	Italy
Italy	19 620	4.7	18.5	France
Cyprus	10	0.4	0.0	Greece
Latvia	213	0.2	0.2	Russia
Lithuania	638	2.8	0.6	Russia
Luxembourg	112	0.8	0.1	Belgium
Hungary	591	0.6	0.6	Germany
Malta	7	0.3	0.0	United Kingdom
Netherlands	7 548	1.5	7.1	Germany
Austria	2 413	1.8	2.3	Germany
Poland	4 864	2.7	4.6	Germany
Portugal	3 162	6.3	3.0	Spain
Romania	2 701	4.7	2.5	Italy
Slovenia	282	0.9	0.3	Austria
Slovakia	1 025	1.5	1.0	Poland
Finland	272	0.5	0.3	Sweden
Sweden	1 675	1.3	1.6	Finland
United Kingdom	7 292	2.0	6.9	Germany

Note: main destination of exports is based on a selected list of partners (see methodological notes in the introduction for more details).

(¹) Extra-EU trade only.

Source: Eurostat (online data code: DS-018995)

lower labour costs (principally those in the east or the south) was evident insofar as articles of apparel and clothing accessories accounted for a relatively high share of the total value of exports in Bulgaria, Portugal, Croatia, Italy, Romania and Spain (see Table 2.10).

China was the main origin of apparel and clothing accessory imports for nine of the EU Member States, including the five most populous and the Netherlands — which was the only other Member State to import more than EUR 10 billion of apparel and clothing accessory imports in 2016 (see Table 2.11).

Table 2.11: Imports of articles of apparel and clothing accessories (SITC 84), 2016

	Value (million EUR)	Share of total goods imported (%)	Share of EU imports (%)	Main origin of imports
EU-28⁽¹⁾	86 407	5.1	–	China
Belgium	7 829	2.3	4.9	China
Bulgaria	558	2.1	0.4	Turkey
Czech Republic	2 515	1.9	1.6	Germany
Denmark	3 818	4.9	2.4	China
Germany	31 838	3.3	20.0	China
Estonia	282	2.1	0.2	Latvia
Ireland	1 879	2.7	1.2	United Kingdom
Greece	1 536	3.5	1.0	Spain
Spain	15 910	5.7	10.0	China
France	20 858	4.0	13.1	China
Croatia	936	4.7	0.6	Italy
Italy	13 999	3.8	8.8	China
Cyprus	231	3.3	0.1	Greece
Latvia	311	0.4	0.2	Italy
Lithuania	486	2.0	0.3	Germany
Luxembourg	353	1.8	0.2	Belgium
Hungary	1 045	1.2	0.7	Germany
Malta	81	1.4	0.1	United Kingdom
Netherlands	12 313	2.7	7.7	China
Austria	5 622	3.9	3.5	Germany
Poland	5 595	3.1	3.5	Germany
Portugal	2 113	3.5	1.3	Spain
Romania	1 308	1.9	0.8	Poland
Slovenia	555	2.0	0.3	Germany
Slovakia	1 324	1.9	0.8	Germany
Finland	1 387	2.5	0.9	Sweden
Sweden	3 966	3.1	2.5	China
United Kingdom	20 354	3.5	12.8	China

Note: main origin of imports is based on a selected list of partners (see methodological notes in the introduction for more details).

(¹) Extra-EU trade only.

Source: Eurostat (online data code: DS-018995)



2.4 International trade in goods by mode of transport

This subchapter focuses on developments for international trade in goods analysed by mode of transport. Goods would historically have been stored in a warehouse close to a port until an empty vessel was available, onto which they would typically be loaded by hand (in sacks, crates, barrels); this process was known as break bulk cargo. In 1956, the container ship was invented, while a set of international standards for container sizes was agreed at the end of 1970, including the industry standard for referencing cargo volumes, the Twenty foot Equivalent Unit (TEU). During the 1970's there was a restructuring of the maritime industry, with considerable investment in new vessels and port facilities, after which container ships became the most common and economically viable means of transporting goods over lengthy distances. Their introduction drastically lowered transport freight charges and may be viewed as one of the main drivers behind globalisation; furthermore, shipping containers offer interoperability insofar as they can also be used for further transportation by road or rail.

There are a wide range of factors that may influence the decisions of enterprises as to which type of transport they use when trading goods, among which: the destination country, the size and weight of the goods being transported, the speed of delivery (for example, perishable goods), rules and regulations (for example, concerning the transport of animals), environmental or security considerations (for example, dangerous goods).

In 2016, sea transport accounted for just over half of all goods imported into the EU-28

In 2016, the total value of EU-28 goods transported by sea was EUR 1 701 billion, this figure is for both imports and exports to non-member countries. Figure 2.34 shows the structure of extra-EU trade by mode of transport, with sea transport accounting for around half of goods exported from (47.6 %) and imported into (50.8 %) the EU-28 in 2016. Air accounted for around a quarter of the EU-28's trade in value terms. The value of goods transported by sea was therefore about 1.8 times higher than that recorded for goods transported by air (EUR 925 billion) and almost three times as high as for goods transported by road (EUR 571 billion).

Statistics on international trade in goods by mode of transport

International trade statistics by mode of transport are collected for the 'active means of transport' (for example, road, rail, sea) with which goods are presumed to leave from or arrive in the statistical territory of a European Union (EU) Member State. Such data may be used to formulate transport policy, monitor international transport routes or assess the impact of international trade on the environment.

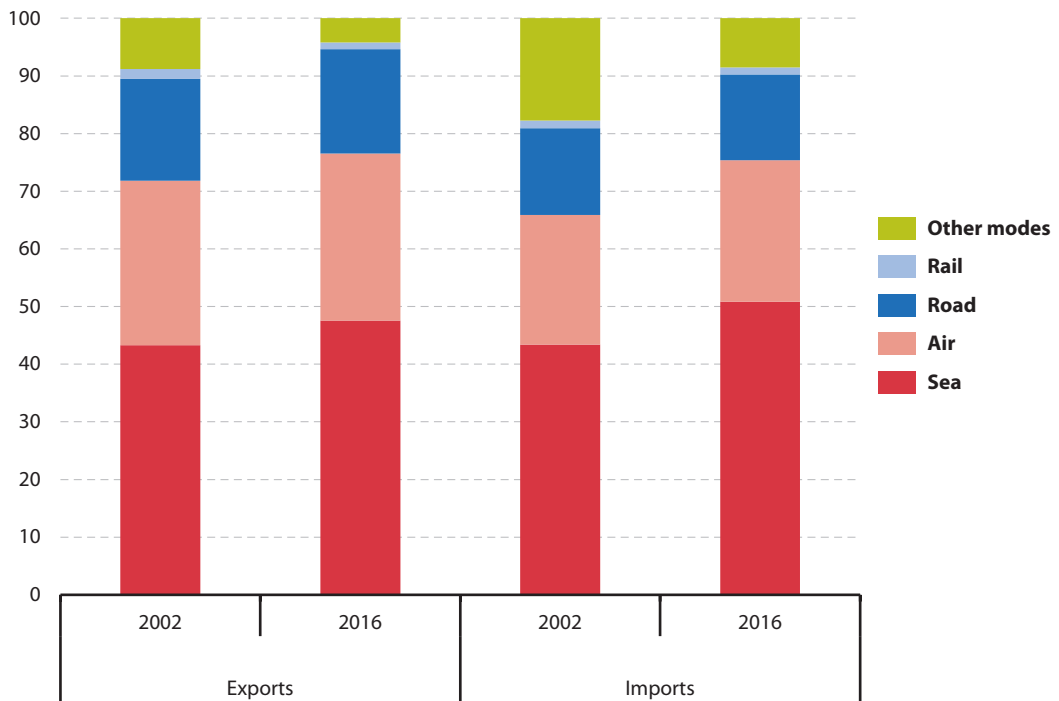
Data by mode of transport are available according to the Standard goods classification for transport statistics, revised (NSTR) which has been used in Eurostat since January 1999; it comprises 99 chapter headings which may be aggregated up to 10 sections.

These statistics are predominantly collected for extra-EU trade flows, although most EU Member States (all except for Denmark, France, Croatia, the Netherlands, Austria, Slovenia, Sweden and the United Kingdom) also collect these data for intra-EU trade.

Note that all of the statistics presented in this subchapter refer to trade in goods for extra-EU flows. By contrast, road transport is often the most flexible and common mode of transporting goods within the EU, as there is an extensive motorway network and the single market provides for a seamless transition when crossing national borders.

The relative share of sea transport in the total value of goods transported into and out of the EU-28 grew during the period from 2002 to 2016. The proportion of imported goods that were transported by sea rose by 7.4 percentage points during the period under consideration, while there was also an expansion in the use of sea transport for EU-28 exports, their share rising by 4.3 points; a growing share of the EU-28's imported goods were also transported by air (up 2.1 points). By contrast, there was a decline in the share of 'other transport modes' as a mode of transport for extra-EU trade; this heading includes postal consignments (which faced competition from other means of communication), fixed installations (such as pipelines or power lines; note that the price of oil and gas has fallen in recent years), or goods under their own propulsion.

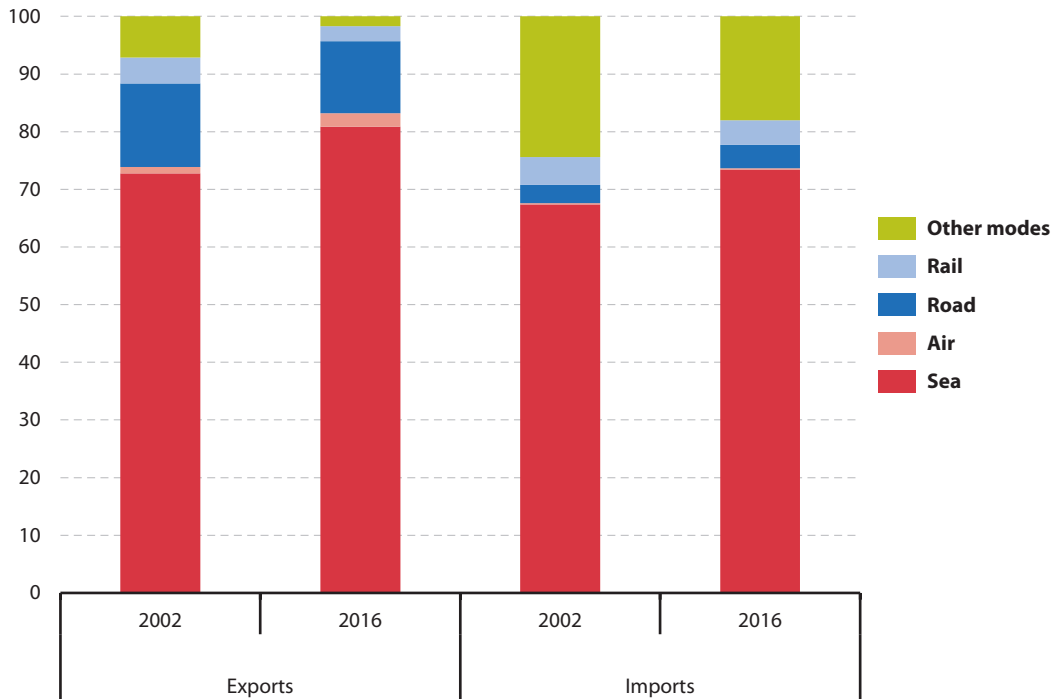
Figure 2.34: Value of extra-EU trade in goods, by mode of transport, EU-28, 2002 and 2016
(% of total)



Source: Eurostat (online data code: DS-022469)

Figure 2.35 shows a similar analysis but in quantity rather than value terms. It shows that the relative importance of sea transport was even greater, accounting for 80.8 % of EU-28 exports and 73.4 % of EU-28 imports in 2016. There was also confirmation that the relative share of sea transport in the total quantity of goods transported to and from the [European Union \(EU\)](#) rose between 2002 and 2016. It is interesting to note that in quantity terms (based on tonnes), air transport accounted for just 2.3 % of the EU-28's exported goods and 0.3 % of its imported goods in 2016; the difference when compared with the shares of air transport in value terms gives an indication as to the high unit value of goods transported by air.

Figure 2.35: Quantity of extra-EU trade in goods, by mode of transport, EU-28, 2002 and 2016
(% of total, based on tonnes)



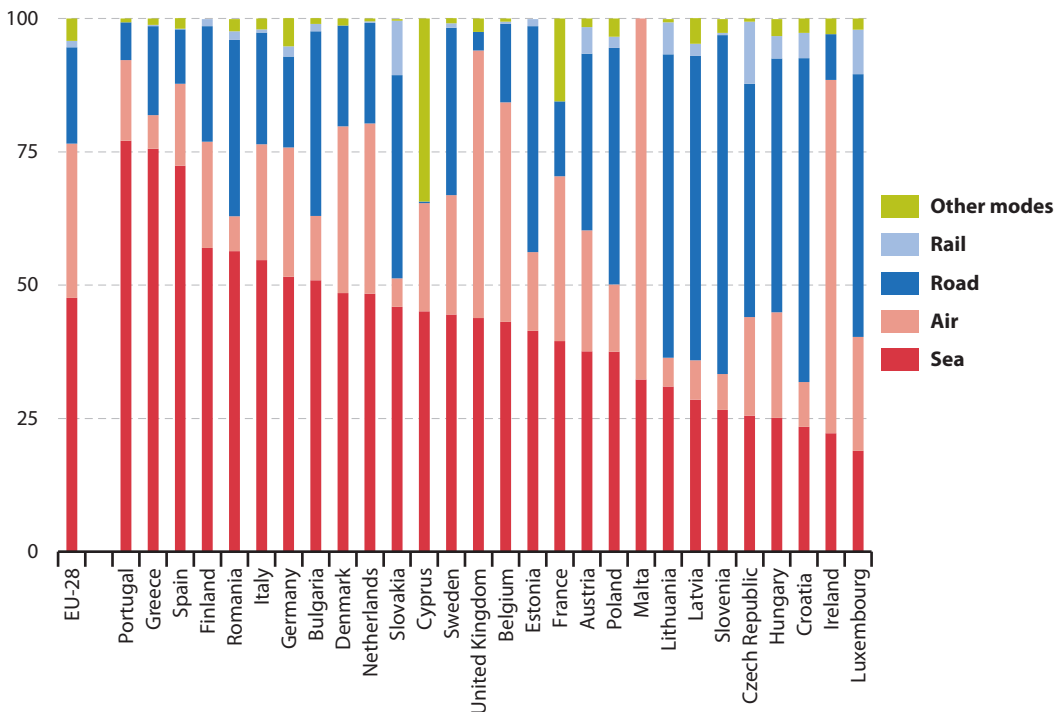
Source: Eurostat (online data code: DS-022469)

Among the EU Member States, Portugal, Greece and Cyprus recorded the highest shares of their extra-EU exports in 2016 carried by sea

As noted above, geographical location may play an important role in determining the relative importance of different modes of transport that are used for transporting goods. For example, Ireland, Cyprus, Malta and the United Kingdom are all islands separated from mainland Europe, while countries such as Greece, Portugal or Finland are found around the periphery of the EU, a relatively long distance away from some of Europe's main transport hubs. That said, infrastructure developments have improved connections (in the form of new roads and rail links, tunnels, bridges and pipelines) so that there are nowadays far greater possibilities for onward transport to these countries.

Figure 2.36 presents information on the preferred mode of transport for each of the EU Member States in 2016; note again that the statistics presented concern only extra-EU trade. The highest proportions of extra-EU exports (in value terms) carried by sea were recorded in Portugal (77.1%), Greece (75.6%) and Spain (72.4%), while sea was the principal mode of transport for extra-EU exports in a majority (16) of the Member States. Air transport accounted for approximately two thirds of the total value of exports made by Malta (67.7%) and Ireland (66.3%) to non-member countries in 2016, while this share was just over half (50.2%) in the United Kingdom. By contrast, the relative importance of road transportation was often much higher among several of the eastern Member States that joined the EU in 2004 or more recently, likely reflecting their geographical location close to a number of neighbouring countries on the Eurasian landmass.

Figure 2.36: Value of extra-EU exports, by mode of transport, 2016
(% of total)



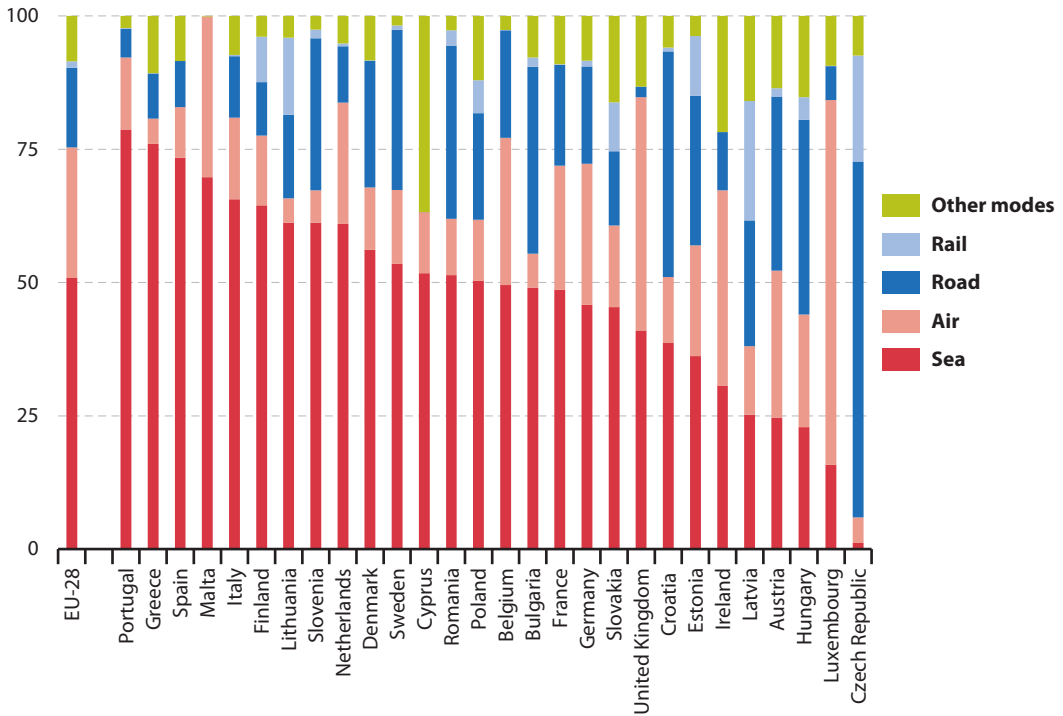
Note: Cyprus and Malta, rail not applicable (neither country has a railway system).

Source: Eurostat (online data code: DS-022469)



As regards goods imported into the EU (as shown in Figure 2.37), the relative importance of sea transport was generally even greater. Indeed, sea was the preferred mode of transport for imports in 21 of the EU Member States in 2016; it accounted for close to three quarters of the total value of trade with non-member countries in Portugal (78.7 %), Greece (76.0 %) and Spain (73.4 %). Ireland and the United Kingdom both reported around two fifths of their extra-EU imports (in value terms) was transported by air, but they were both surpassed by Luxembourg, where air transport accounted for more than two thirds (68.4 %) of the imported goods from non-member countries.

Figure 2.37: Value of extra-EU imports, by mode of transport, 2016
(% of total)



Note: Cyprus and Malta, rail not applicable (neither country has a railway system).

Source: Eurostat (online data code: DS-022469)

2.5 International trade in goods by enterprise characteristic

There has been a rapid expansion in the level of international trade in goods over the last few decades and trade in goods is viewed as one of the most important drivers of globalisation. Yet aside from a range of studies on relatively large, foreign-owned enterprises, little is published as regards the characteristics of those enterprises which trade across international borders; this subject is covered in more detail within this subchapter.

Traditionally, international trade statistics have shown movements of goods between countries and by goods category, they have not provided explicit information as to the characteristics of those enterprises behind such trade flows. In a globalised world, this information is of particular interest to policymakers as they attempt to understand how economies are becoming increasingly interconnected.

Statistics on international trade in goods by enterprise characteristics

Statisticians have looked at using international trade in goods statistics in conjunction with business statistics to provide an enriched analysis of the characteristics of enterprises engaged in international trade, for example, providing information as to their economic activity or their size, the concentration of trade; this can help to identify differences between enterprises that trade internationally and those that do not. This has been made possible by linking microdata concerning international trade with business register information; note that only aggregated results are presented thereby protecting the confidential nature of this information.

The statistics used in this subchapter were initially divided between enterprises which trade internationally and those enterprises which are active only within their domestic market: research has shown that international traders differ considerably from enterprises that operate solely within their domestic market. The group of international traders was then further subdivided into: importers, exporters and two-way traders (in other words, enterprises which both imported and exported).

In 2015, almost three fifths of the EU enterprises engaged in trade were importers only

Figure 2.38 presents aggregated information for the [European Union \(EU\)](#) Member States detailing the composition of those enterprises that were engaged in trade. In 2015, almost three fifths (58.8 %) of EU enterprises engaged in trade were only importers, while just over a quarter (27.7 %) were two-way traders; the residual 13.6 % were only exporters. Importers are of interest to policymakers insofar as they facilitate access to new goods and services that were otherwise not easily available, whereas exporters are of interest due to their potential for job creation (that may be linked to economic growth that results from expanding into new markets).

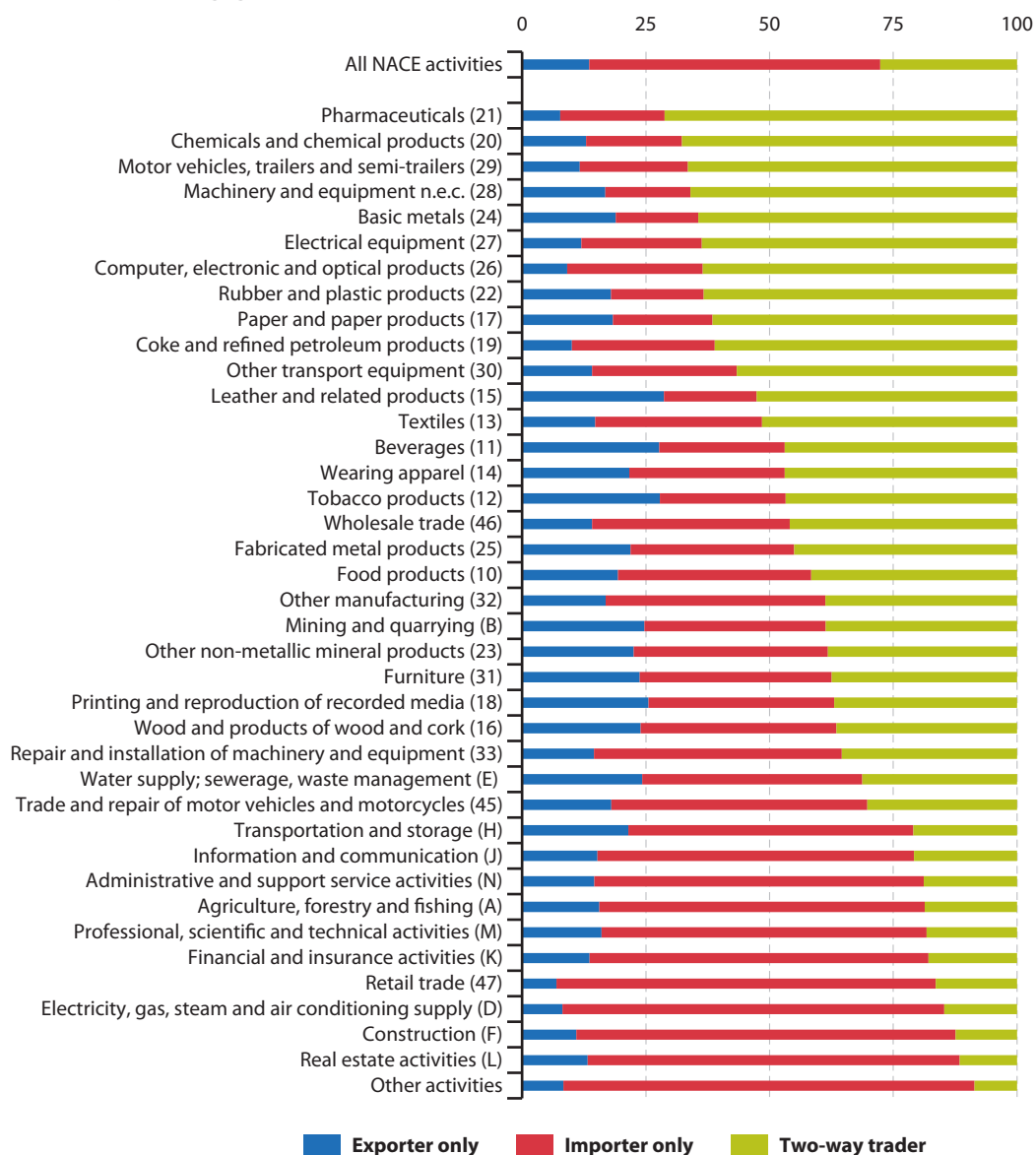
The highest proportions of two-way traders were recorded for a range of different manufacturing activities that were often characterised by their global production chains

An analysis by NACE divisions reveals that there were considerable differences with respect to the make-up of those enterprises engaged in trade across different economic activities. Within the EU, the highest proportions of two-way traders were recorded for a wide range of different manufacturing activities, whereas for most



services it was more commonplace to find that the largest proportion of enterprises engaged in trade were importers only. For example, there was a high share of two-way traders in 2015 within the highly competitive and globalised activities of pharmaceuticals (71.2 % of those enterprises engaged in trade were two-way traders), chemicals and chemical products (67.7 %) and motor vehicles, trailers and semi-trailers (66.5 %).

Figure 2.38: Trade by enterprise characteristic and by economic activity, EU-28, 2015
(% of enterprises engaged in trade)



Note: based on non-confidential data. NACE Rev. 2 codes are provided in brackets after the economic activity labels.

Source: Eurostat (online data code: [ext_tec06](#))

Figure 2.39 provides a similar set of information but for the individual EU Member States. One may imagine that in very small EU Member States, some enterprises may be forced to engage in trade in order to reach a minimum efficient scale of activity. Indeed, the highest share of two-way traders was recorded in Lithuania (where 43.0 % of all enterprises engaged in trade in 2015 were two-way traders), while two-way traders accounted for upwards of one third of all enterprises engaged in trade in Estonia, Slovenia, Luxembourg, the Czech Republic and Latvia; the United Kingdom also recorded a relatively high share (at 36.2 %). In contrast, the island nations of Malta (12.9 %) and Cyprus (13.2 %) recorded the lowest proportions of two-way traders, as around four fifths of their enterprises engaged in trade were importers only.

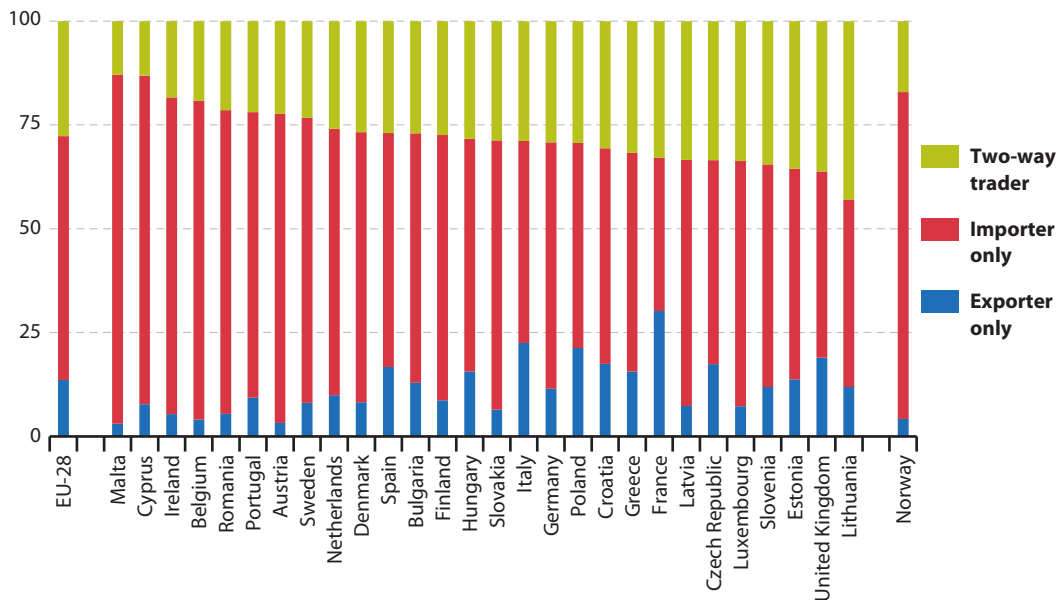
Two-way traders accounted for an overwhelming share of the EU's total trade in value terms

The information presented so far has related to an analysis of the number of enterprises engaged in trade; this is extended in Figure 2.40 to cover an analysis based on the total value of trade. The results are quite different and reveal that two-way traders accounted for the vast majority of total trade in value terms: across the EU, two-way traders accounted for 90.9 % of all goods traded in 2015. This would tend to suggest that a high proportion of importers only and exporters only tend to trade with relatively few countries and/or relatively few (low value) transactions, whereas two-way traders were more inclined to have a larger number of transactions and a wider range of trade partners.

A majority (18) of the individual EU Member States reported that in excess of 85 % of their total trade was accounted for by two-way traders, with the highest shares recorded in Germany (95.4 %) and Slovenia (94.1 %). At the other end of the range, in Cyprus (29.1 %) and Malta (48.0 %) the relative importance of two-way traders was much lower than in the other Member States and, once again, the share of total trade accounted for by importers only was considerably higher.

Figure 2.39: Trade by enterprise characteristic, 2015

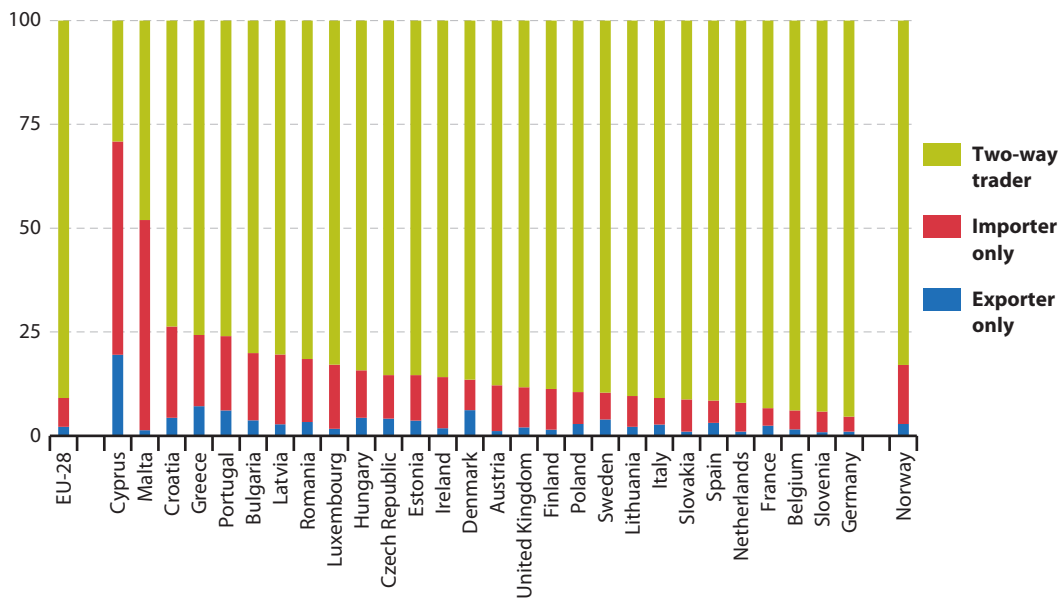
(% of enterprises engaged in trade)



Source: Eurostat (online data code: ext_tec06)

Figure 2.40: Value of trade by enterprise characteristic, 2015

(% of total)



Source: Eurostat (online data code: ext_tec06)

A relatively high proportion of trade was concentrated in relatively few enterprises

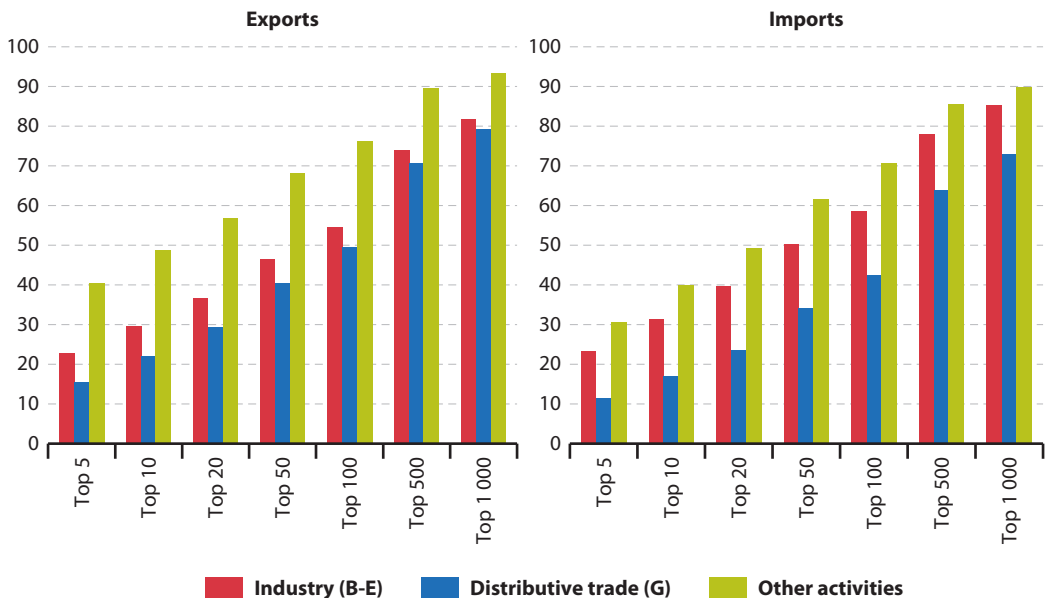
Figure 2.41 examines more closely the proposition that a relatively high share of total trade might be accounted for by a small number of traders. Within this context, trade concentration is measured by the share of the top x traders in the value of total exports or imports. Across the EU Member States, the top five industrial traders accounted for 22.8 % of total exports (in value terms) in 2015, while the corresponding share for enterprises within distributive trades was somewhat lower (15.5 %).

An analysis based on the same concentration measure for imports reveals that trade was slightly more concentrated within the top five industrial enterprises (23.3 % of all imports), whereas there was less concentration for distributive trade, where the top five enterprises accounted for 11.4 % of the value of imported goods. This pattern — a higher concentration of trade for imports (compared with exports) for industrial enterprises and a higher concentration of trade for exports (compared with imports) for distributive trade enterprises — was repeated when analysing the results for different concentration measures (top 10, top 20, top 50 enterprises, etc.).

A similar analysis is presented in Figures 2.42 and 2.43 for the individual EU Member States; the first provides information on the concentration of trade for exports, while the latter provides comparable information for imports. Note that the results are broadly comparable for both exports and imports and hence only the former are described here.

As may be expected for some of the smaller EU Member States, almost the entirety (close to 99 %) of the total value of exports from Malta, Luxembourg and Cyprus could be attributed to

Figure 2.41: Value of trade by economic activity and by enterprise concentration, EU-28, 2015
(% share of total exports/imports accounted for by the top X enterprises)



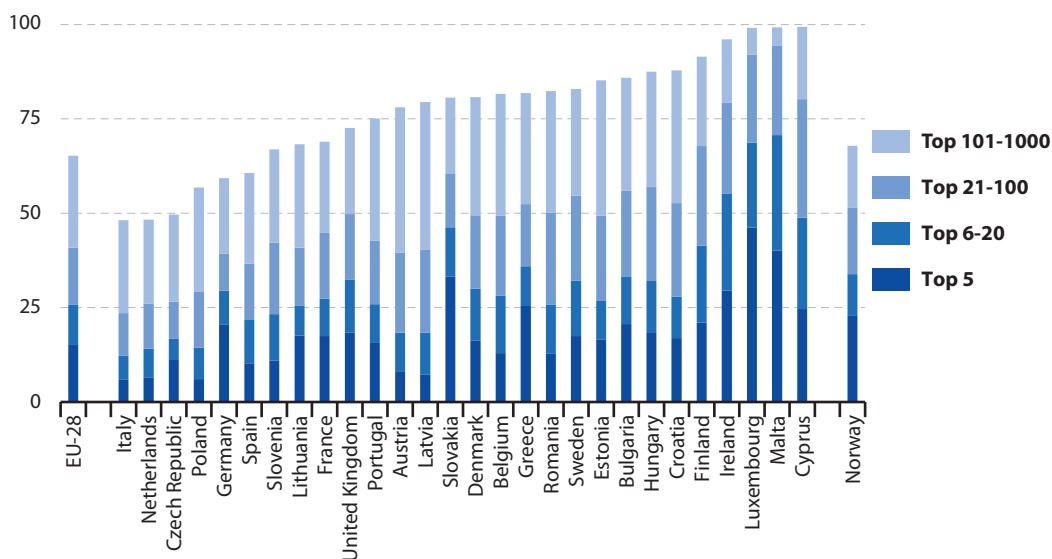
Note: based on non-confidential data. NACE Rev. 2 codes are provided in brackets after the economic activity labels.

Source: Eurostat (online data code: [ext_tec02](#))

the top 1 000 enterprises. By contrast, the concentration of trade was more diluted in several of the larger Member States. For example, the top 1 000 enterprises in Italy, the Netherlands and the Czech Republic accounted for approximately half of the total value of exports; this may reflect, among others, a high number of *small and medium-sized enterprises (SMEs)* within the enterprise population, or a relatively high propensity to trade in goods.

Figure 2.42: Value of exports by enterprise concentration, 2015

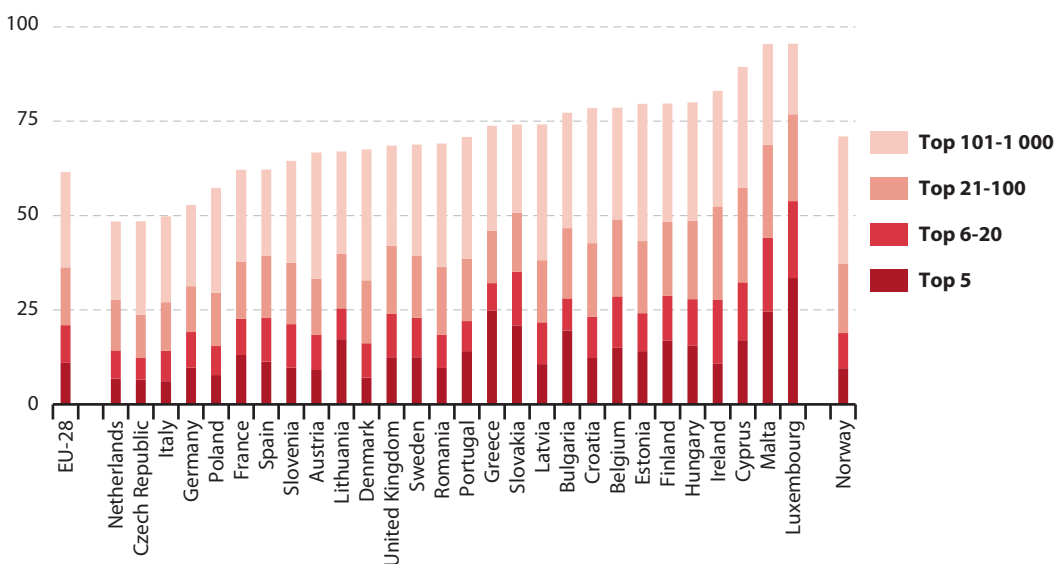
(% of total exports accounted for by the top X enterprises)



Source: Eurostat (online data code: [ext_tec02](#))

Figure 2.43: Value of imports by enterprise concentration, 2015

(% of total imports accounted for by the top X enterprises)



Source: Eurostat (online data code: [ext_tec02](#))

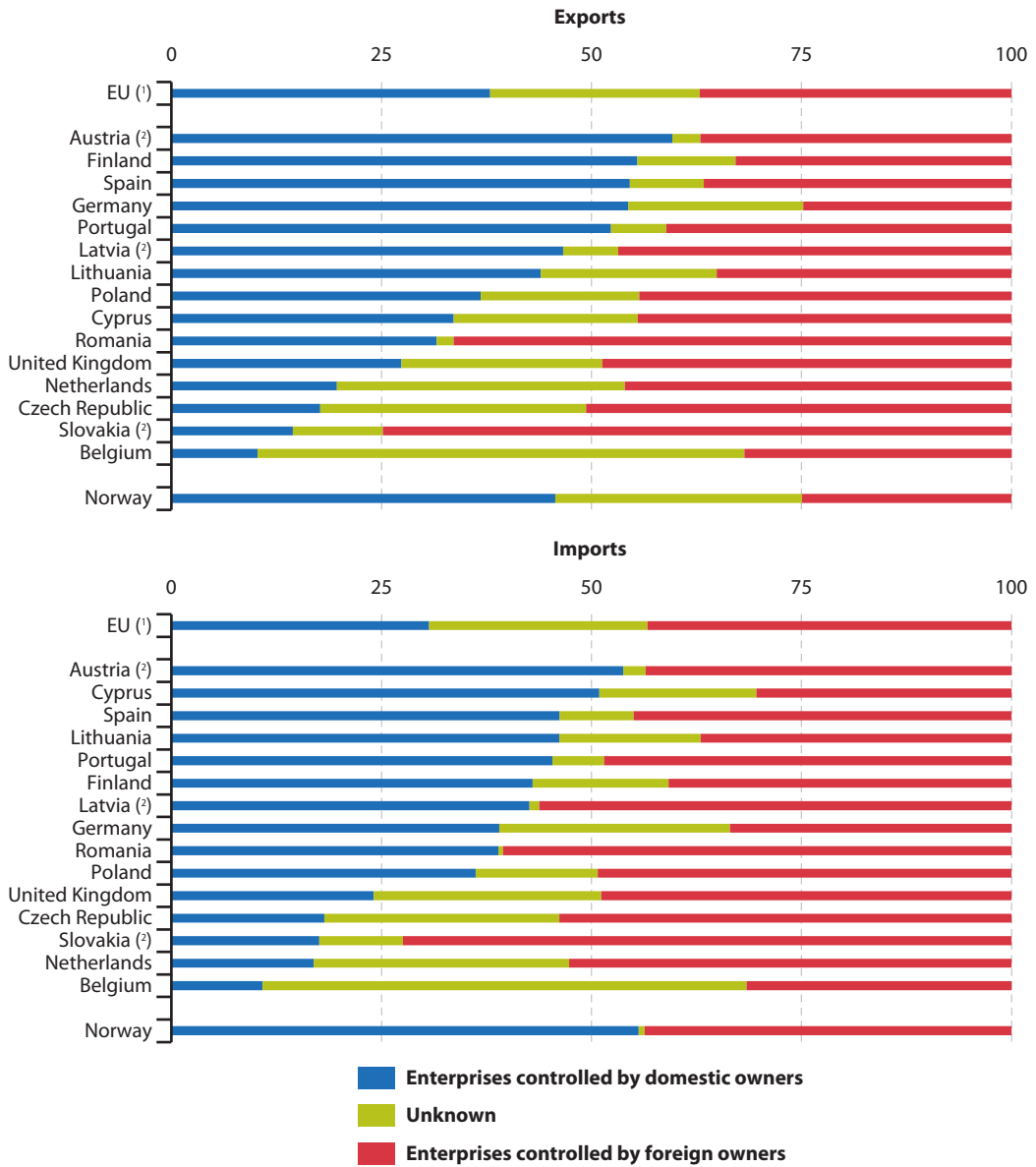
In 2015, foreign-owned enterprises accounted for 43.3 % of all EU imports

The final section of this subchapter analyses the share of international trade by enterprise ownership, an area that is of considerable interest to policymakers when trying to establish the impact of globalisation on economic performance. Across 15 of the EU Member States (see Figure 2.44 for details of data coverage), foreign-owned enterprises accounted for 43.3 % of the total value of imports in 2015, which was approximately 13 percentage points higher than the share accounted for by domestically owned enterprises. The situation was quite different for exports insofar as those enterprises controlled by domestic owners accounted for 38.0 % of the total value of exports, which was less than a single percentage point higher than the share accounted for by foreign-owned enterprises (37.1 %).

In 2015, at least half of all imports in Slovakia (2014 data), Romania, Latvia (2014 data), the Czech Republic and the Netherlands was destined for enterprises controlled by foreign owners, while foreign-owned enterprises accounted for at least half of the total value of exports leaving Slovakia (2014 data), Romania and the Czech Republic.

It is possible to extend this analysis by looking in more detail at those economic activities where foreign-owned enterprises tend to have a higher/lower share of total trade. Figure 2.45 shows some selected results for exports from three of the largest EU Member States — Germany, Spain and the United Kingdom. The most striking aspect is the relatively high share of the total value of exports in Germany and Spain that may be attributed to domestically owned enterprises, in contrast to the results for the United Kingdom, where it was commonplace for more than half of the total value of exports to be accounted for by foreign-owned enterprises. This pattern was particularly evident when comparing the results for the motor vehicles, trailers and semi-trailers industry, where domestically owned enterprises were responsible for 88.2 % of the total value of German exports in 2015, whereas in the United Kingdom this share was only 3.5 % of the total value of exports. The share of domestically owned enterprises was also very low in Spain (5.4 %), although this was atypical, as the electrical equipment industry was the only other activity to report that less than half of the total value of its exports were accounted for by domestically owned enterprises.

Figure 2.44: Value of trade by enterprise ownership, 2015
(% of total)

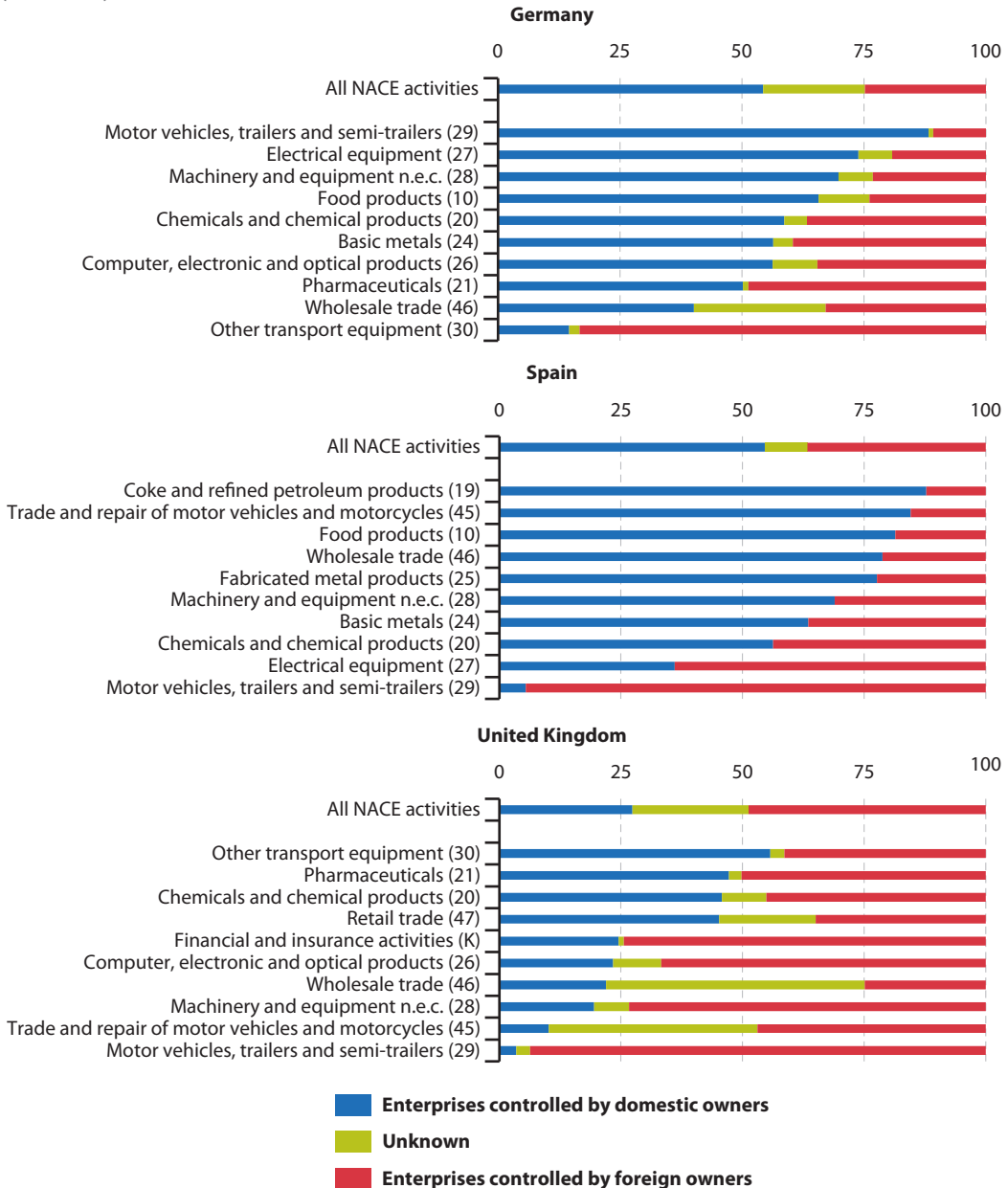


(¹) Average based on non-confidential data for the 15 EU Member States shown.

(²) 2014.

Source: Eurostat (online data code: ext_tec07)

Figure 2.45: Value of exports by enterprise ownership, selected economic activities and EU Member States, 2015
(% of total)



Note: based on non-confidential data. The selected economic activities relate to the top 10 economic activities with the highest levels of trade in each Member State. NACE Rev. 2 codes are provided in brackets after the economic activity labels.

Source: Eurostat (online data code: [ext_tec07](#))



2.6 Tariffs

The **European Union (EU)** has a common trade policy, whereby the **European Commission** negotiates trade agreements and represents the EU's interests on behalf of its 28 Member States. As such, trade policy is an exclusive power of the EU — so only the EU, and not individual Member States, can legislate on trade matters and conclude international trade agreements. This subchapter covers the specific topic of tariffs that may be imposed on traded goods and services.

The benefits of free trade have been alluded to earlier in this publication: when making trade deals, the EU seeks to tackle those things that get in the way of trade when dealing with other countries. Depending on the agreement, such deals may lead to a series of commitments on behalf of the parties concerned, for example:

- removing or cutting customs duties (taxes) on goods;
- scrapping any limits (quotas) on the amounts of goods that can be exported;
- allowing enterprises to provide services and bid for public contracts;
- cutting red tape which makes it harder for enterprises to export.

i For more information, refer to the European Commission's Directorate-General for Trade website, <http://ec.europa.eu/trade/policy/accessing-markets/>.

Box 2.3 — The EU's common trade policy and tariffs

The **European Commission** negotiates trade deals either directly with other countries or regions, or through its membership of the **World Trade Organisation (WTO)**. The WTO is the only international organisation dealing with multinational trade issues — the global rules of trade between nations; its main function is to ensure that trade flows as smoothly, predictably and freely as possible. The **General Agreement on Tariffs and Trade (GATT)** covers international trade in goods.

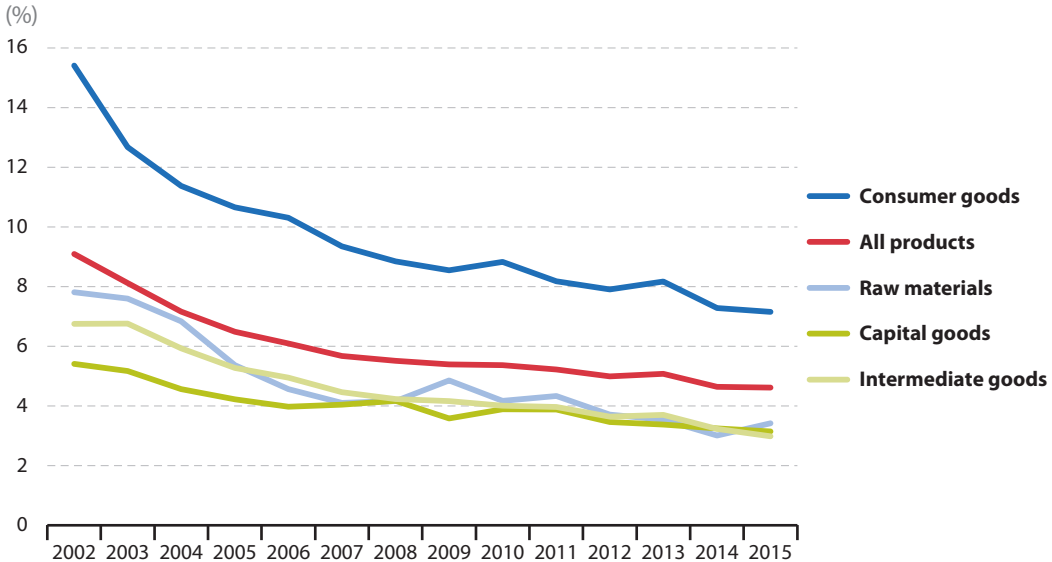
Goods can be imported into the EU under different trade regimes depending on the product and the country of origin. The main trade regime is the **most-favoured nation (MFN)** which applies, in principle, to all countries — it

provides normal non-discriminatory tariffs charged on imports and excludes preferential tariffs under free trade agreements and other schemes or tariffs charged inside quotas. MFN tariffs are what countries promise to impose on imports from other members of the WTO, unless that partner country has a preferential trade agreement or preferential treatment, such as the **Generalised System of Preferences (GSP)** for developing countries or the EU's **Everything But Arms (EBA)** programme. Virtually all countries in the world have joined at least one preferential trade agreement, under which they promise to give another country's products lower tariffs than their MFN rate, for example, through a customs unions or a free trade area, where the preferential tariff rate for essentially all products is zero.

The highest trade tariffs were applied on consumer goods

Alongside increased levels of international trade in goods, there has at the same time been a concerted reduction in tariffs. Figure 2.46 presents information for a world average, which shows that tariffs applied to imports of intermediate goods, capital goods and raw materials were particularly low, in contrast to tariffs for consumer goods which were more than twice as high. During the period from 2002 to 2015, average tariffs applied to imports were reduced approximately by half for each of the different processing stages.

Figure 2.46: Tariffs applied to the value of imports, by processing stage, world average, 2002-2015



Note: trade-weighted average for effectively applied tariffs.

Source: World Bank, WITS (World Integrated Trade Solution)

Box 2.4 — Tariffs on trade for goods

The EU is a customs union, operating a single, uniform trade and tariff policy. As part of this, the European Commission represents the EU Member States at WTO meetings and in negotiations for bilateral trade deals.

Although the emergence of globalised production chains has tended to strengthen the case for multilateral trade negotiations, the relatively limited progress made in recent years in this domain (the slow progress on the Doha Development Agenda) has led the EU to adopt a pragmatic approach. While continuing to actively participate in the WTO, the EU has also negotiated a number of bilateral trade agreements, which cover a broad range of issues, including: trade in goods and services,

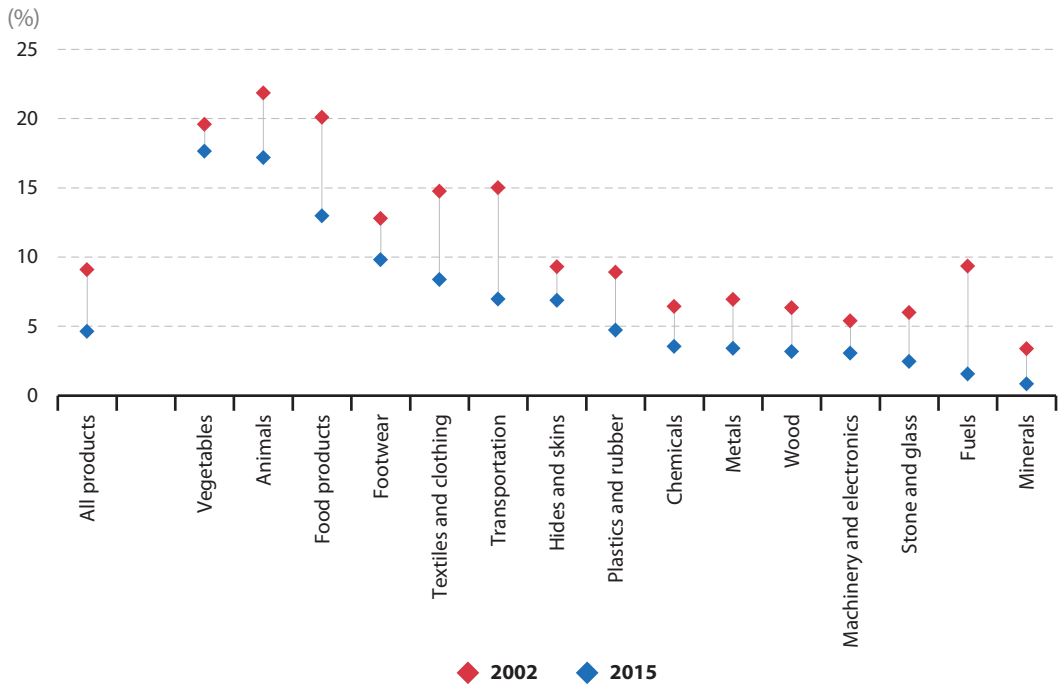
intellectual property, investment, government procurement, access to energy and raw materials, environmental protection, working conditions, or regulatory cooperation.

Comprehensive negotiations have taken place, among others, with China, Japan, Singapore, South Korea and the United States, with varying degrees of success; a Comprehensive Economic and Trade Agreement between the EU and Canada was signed in October 2016. In July 2017, the EU and Japan reached an agreement in principle on the main elements of an EU-Japan Economic Partnership Agreement. This will be the most important bilateral trade agreement ever concluded by the EU.



Figure 2.47 shows average tariffs that were applied globally in 2002 and 2015 to a more detailed list of selected products: there was a considerable reduction in the average tariff applied to each of these selected products during the period under consideration and by 2015 the average tariff applied was usually in single digits. The largest tariff reductions (in percentage terms) were recorded for fuels, minerals, stone and glass, and transportation.

Figure 2.47: Tariffs applied to the value of imports of selected products, world average, 2002 and 2015



Note: trade-weighted average for effectively applied tariffs.

Source: World Bank, WITS (World Integrated Trade Solution)

In 2015, around 70 % of the imports that entered the EU-28 did so at zero or reduced tariff

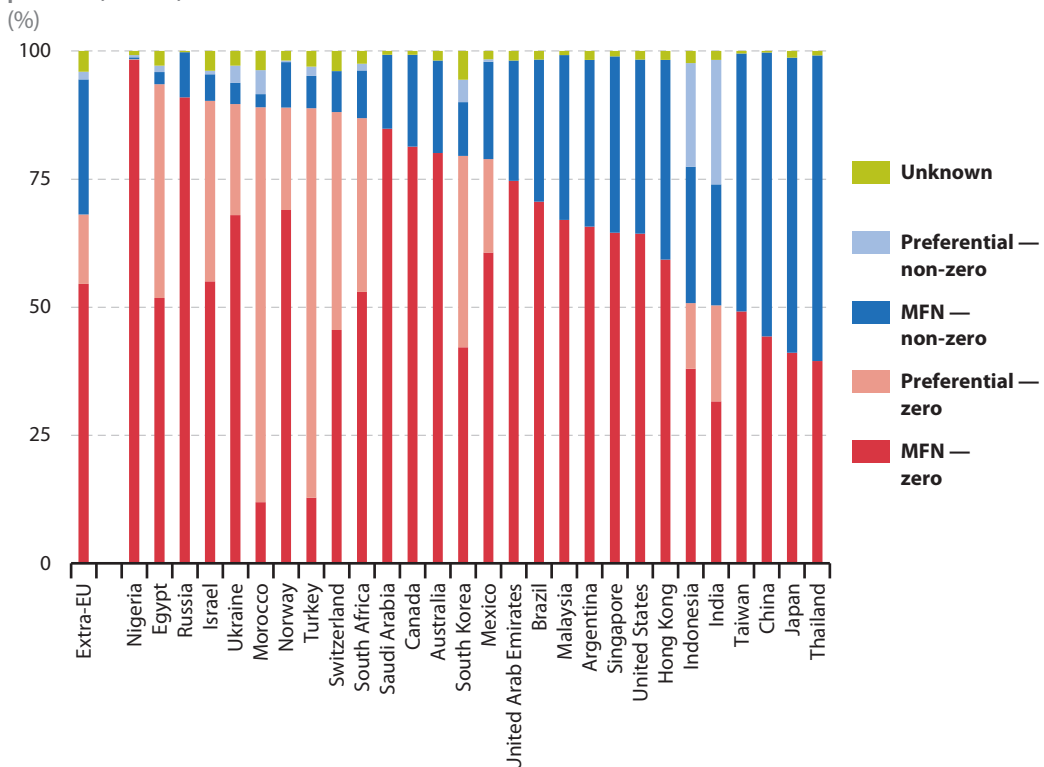
EU trade agreements enable European enterprises to compete more effectively and export more to countries and regions outside the EU; they also give better access to raw materials and vital components for importers residing within the EU, as well as a greater choice of products for consumers. Such trade agreements may also require partner governments to protect human rights, labour rights and the environment, for example, through tackling issues such as safety or gender equality in the workplace.

The EU benefits from being one of the most open economies in the world, as around 70 % of its imports enter the EU at zero or reduced tariffs. Figure 2.48 presents information for 2015 on the share of EU-28 imported goods that originated from selected partners and which were subjected to a range of different tariffs.

In 2015/2016, more than two fifths of all large enterprises in the EU-28 felt they were affected by non-tariff measures

With the considerable reduction in tariffs across most global markets, the focus of policymakers has gradually shifted towards tackling unnecessary costs that may be associated

Figure 2.48: Application of import tariff regimes as a share of the value of imports, selected partners, EU-28, 2015



Note: ranked on the share of imports for which zero tariffs were applied. MFN tariffs: most-favoured nation regime. Preferential tariffs: generalised system of preferences (GSP) for developing countries, bilateral and multilateral regimes.

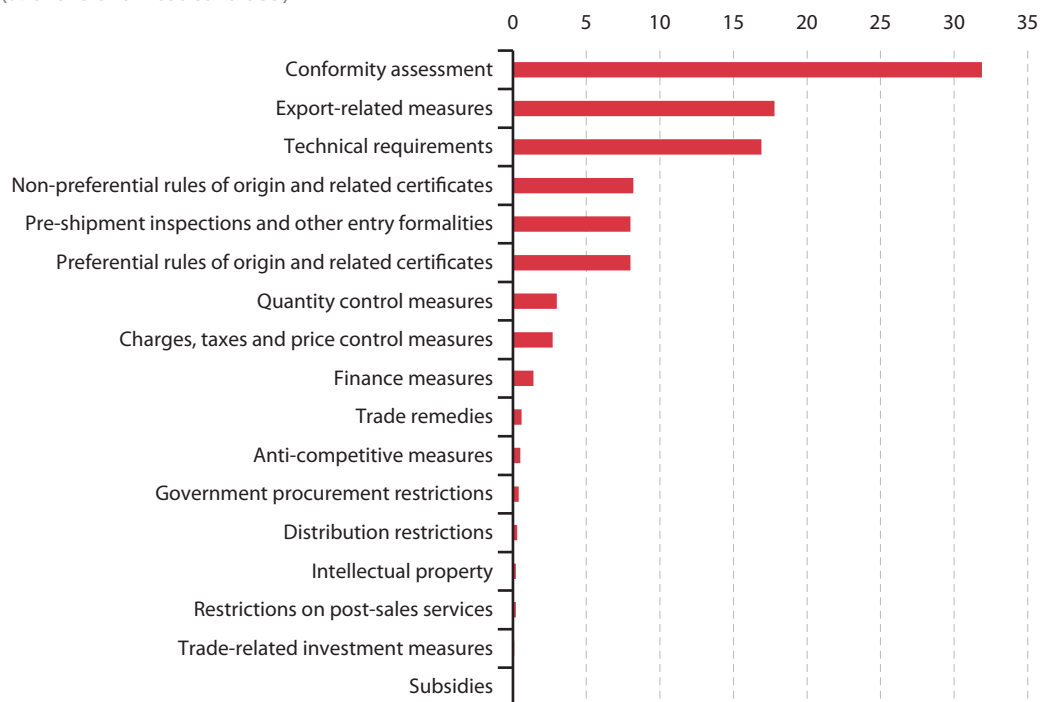
Source: Eurostat (online data code: DS-041719)



with a range of non-tariff measures; a body of evidence suggests that these measures have become increasingly important in recent years. While they may seek to preserve legitimate interests such as protection of the environment or the health of consumers, non-tariff barriers also include those which may be characterised as having protectionist intent.

As larger enterprises generally produce a wider range of goods and may have a larger number of trading partners compared with smaller companies, it is likely that a higher proportion of large enterprises will have faced hurdles in at least one of their export transactions. A survey conducted by the [International Trade Centre \(ITC\)](#) and the European Commission's Directorate-General for Trade in 2015 and 2016 reveals that some 42 % of large enterprises (employing 250 or more persons) in the EU-28 felt that they were affected by non-tariff measures (for example, burdensome regulations including: certification; labelling requirements; rules of origin; customs procedures) when exporting to non-member countries outside of the EU. By contrast, the corresponding share among micro enterprises (employing fewer than 10 employees) was 28 %. Figure 2.49 presents a detailed list of issues raised by EU-28 exporters that were considered as burdensome when exporting to non-member countries. The most common of these was conformity assessment (raised by 31.9 % of respondents), followed by export-related measures (17.8 %) and technical requirements (16.9 %).

Figure 2.49: Issues raised by exporters as burdensome when exporting to extra-EU partners, EU-28, 2015-2016
(% share of all issues raised)



Source: International Trade Centre (ITC) and the European Commission (EC), ITC business survey in the EU, 2015-2016

2.7 International trade in goods by invoicing currency

Economic theory suggests those currencies that are 'liquid' (in other words, the ones which have the highest volume of trade) have low transaction costs and are therefore more likely to be chosen as a preferred (and efficient) means for exchanging goods. Choices over invoicing currencies have the potential to impact on a country's trade balance as a result of exchange rate movements. Note that the start of Chapter 1 provides further information on the development of global commodity prices and exchange rate fluctuations.

In a globalised world, there are a number of factors that may determine the invoicing currency that is used in any trade transaction, the choice may reflect particular standards within specific sectors, for example, the price of oil and petroleum products is almost always denominated in dollar terms, or alternatively it could be related to historical trading relationships between a pair of countries. From an enterprise perspective, the choice is not neutral insofar as traders are exposed to exchange rate risks; indeed, both sides of the trading relationship are usually affected by opposing risks. Importers usually want to limit the share of foreign currency invoicing in order to reduce their risk, whereas an exporter may wish to unilaterally determine the currency of payment so as to maximise export earnings. Some exporters with particular large export markets prefer to limit the price volatility of their goods abroad by opting to use the invoicing currency of their trading partner, in so doing they have greater control over the price of their goods relative to competitors in the foreign market.

When enterprises are forced to invoice in a foreign currency they may try to reduce their risk through the use of different financial products, for example, trading credits or hedging instruments; these facilities tend to be more widely available for large enterprises. It may be particularly important to hedge against exchange rate movements in those industries characterised by lengthy production chains (for example, the manufacture of a ship or an aircraft) or in those cases where a large volume of trade is conducted on futures markets. As such, within the context of globalisation, large [multinational enterprises](#) may have a greater opportunity to benefit from the flexibility of managing their exchange rate exposure through transfer pricing and operational hedging.

In 2016, more than half of all goods imported into the EU-28 were invoiced in US dollars

In 2016, a majority (55.4 %) of the goods originating from non-member countries that were imported into the [EU-28](#) were invoiced in US dollars, while just over one third (34.4%) were invoiced in euros.

As noted above, some primary products that are widely traded on global markets tend to be invoiced exclusively in a single currency, the most well-known examples being the price of oil or gold. Given the EU-28 imports large quantities of crude oil, it is perhaps unsurprising to find that 85.5 % of the EU-28's imports of petroleum, petroleum products and related materials were invoiced in US dollars, compared with just 13.7 % in euro terms. By contrast, for primary goods other than petroleum, the share of imports invoiced in euro (45.5 %) and in US dollars (45.6 %) was almost identical.

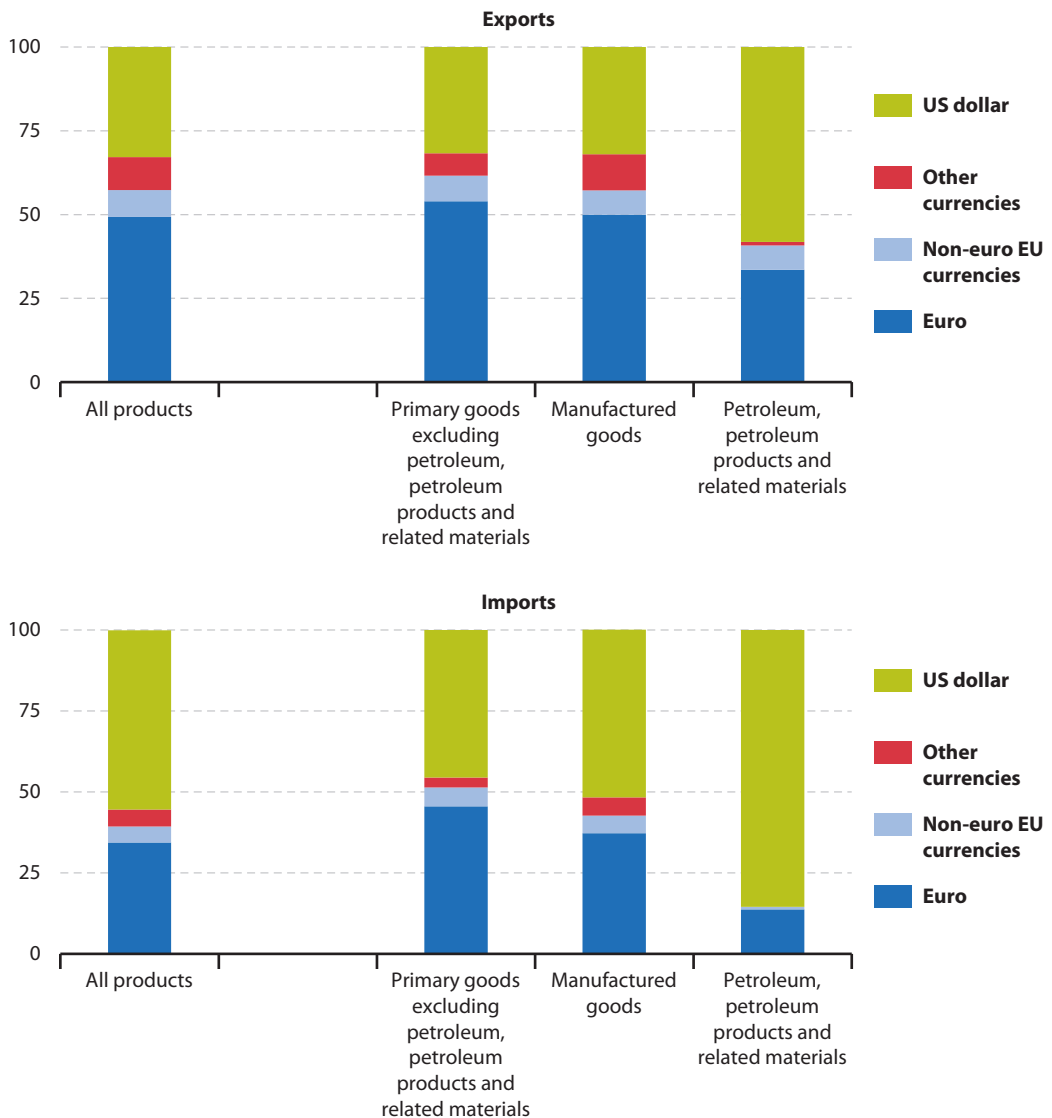
The picture was reversed for exports, as almost half (49.3 %) of goods that left the EU-28 that were destined for non-member countries were invoiced in euros, while just less than one third (32.9 %) were invoiced in US dollars. The share of EU-28 exported goods denominated in euro terms was systematically higher than the share of imports denominated in euro terms for each of the three product groups shown in Figure 2.50. The euro was the preferred currency



for exporters of primary goods excluding petroleum (54.0 % of the EU-28's exports were denominated in euros) and manufactured goods (50.0 %).

A similar pattern was observed concerning the share of EU-28 trade that was denominated in the national currencies of European Union (EU) Member States not belonging to the euro area (Bulgaria, the Czech Republic, Denmark, Croatia, Hungary, Poland, Romania, Sweden and the United Kingdom), as 8.0 % of the EU-28's exports were denominated in these currencies compared with 4.9 % of the EU-28's imports.

Figure 2.50: Extra-EU trade by invoicing currency, EU-28, 2016
(% of total)



Source: Eurostat (online data code: [ext_lt_invcur](#))

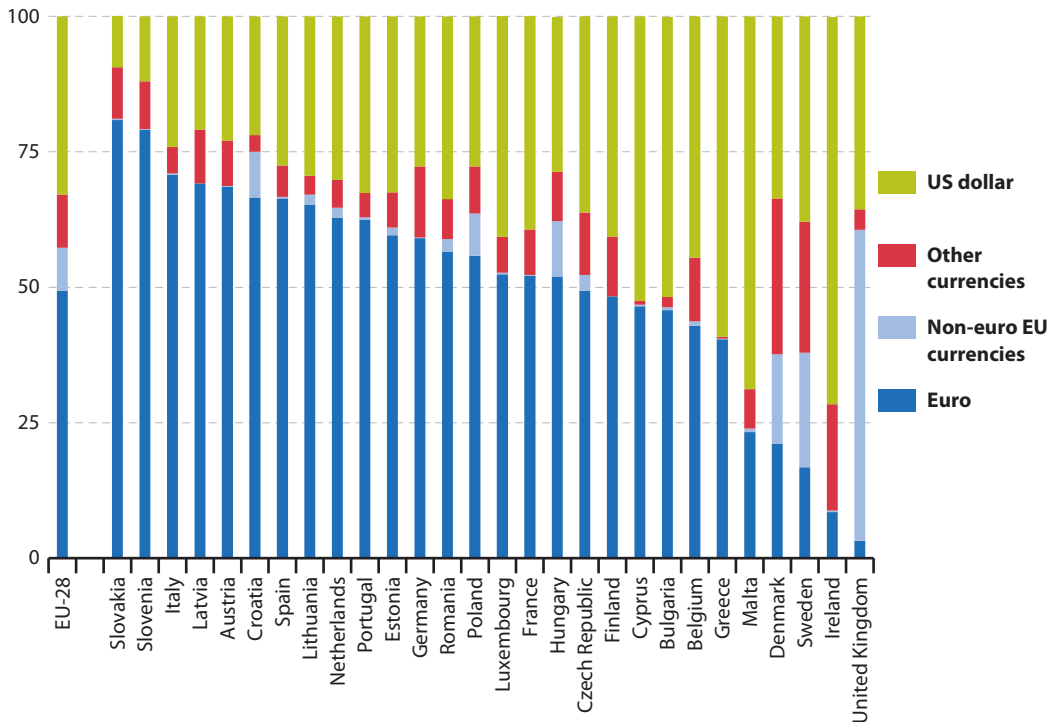
In 2016, a majority of the exports to non-member countries made by 17 of the EU Member States were invoiced in euro terms ...

Figure 2.51 presents similar information for the individual EU Member States, it focuses on the share of extra-EU exports by invoicing currency. In 2016, a majority of the Member States (19 out of 28) invoiced the highest share of their exports to non-member countries in euro terms, with all but two of these reporting that more than half of their exports (in value terms) were denominated in euro. The largest shares were recorded in Slovakia (80.9%) and Slovenia (79.1%), while more than two thirds of the goods exported by Italy (70.8%), Latvia (69.2 %) and Austria (68.6%) to non-member countries were invoiced in euro.

Unsurprisingly, those EU Member States that were not members of the euro area tended to record much lower shares of their exports to non-member countries being invoiced in euro terms: this was particularly the case for the largest of these, the United Kingdom, where just 3.2 % of such goods were euro denominated. It is also interesting to note that a very low share of Irish exports to non-member countries were invoiced in euro (8.5 %), with almost three quarters (71.5 %) of Irish exports to non-member countries invoiced in US dollar terms, likely reflecting, at least to some degree, the high levels of inward investment made by American enterprises in the Irish economy. By contrast, a high proportion of Croatian exports (66.6 %) and imports (49.1 %) were euro-denominated; perhaps reflecting the widespread use of the euro alongside the kuna in Croatia.

Figure 2.51: Extra-EU exports by invoicing currency, 2016

(% of total)



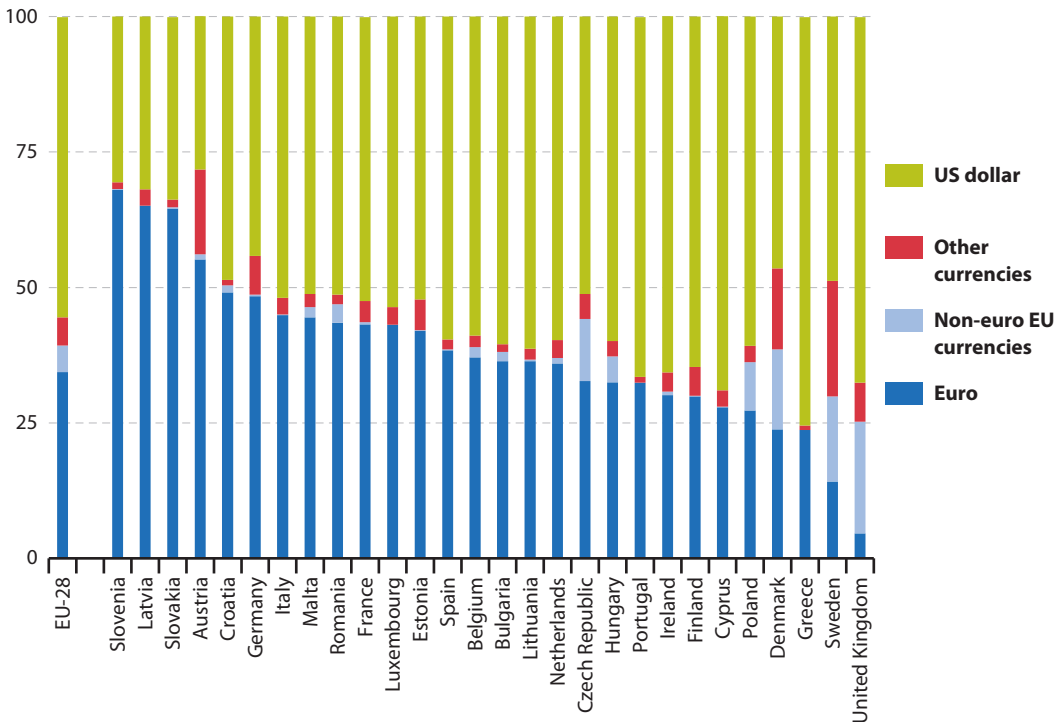
Source: Eurostat (online data code: [ext_lt_invcur](#))

... while 20 of the EU Member States reported that more than half of their imports from non-member countries were denominated in US dollars

In 2016, the US dollar was the predominant invoicing currency among EU Member States concerning extra-EU imports (see Figure 2.52): in 22 of the 28 EU Member States, the US dollar was the most popular invoicing currency and in all but two of these more than half of all imports from non-member countries were denominated in US dollars. The highest share (75.4 %) was recorded in Greece, while more than two thirds of the goods imported into Cyprus (69.1 %) and the United Kingdom (67.5 %) were invoiced in US dollars.

Of the six EU Member States where the euro was the most popular currency for invoicing extra-EU goods that were imported in 2016, there were four which reported more than half of their imports were invoiced in euro terms. The highest share was recorded in Slovenia (68.0 %), followed by Latvia (65.1 %) and Slovakia (64.6 %), while the share in Austria was 55.2 %. At the other end of the range, euro invoicing accounted for less than a quarter of all goods imported from non-member countries into the United Kingdom (4.6%), Sweden (14.2%), Greece (23.7 %) and Denmark (23.8 %); the relatively high exposure of Greece to the maritime transportation sector may explain, at least to some degree, why it has a high share of transactions denominated in dollar terms.

Figure 2.52: Extra-EU imports by invoicing currency, 2016
(% of total)



Source: Eurostat (online data code: [ext_lt_invcnr](#))

3

International trade in services for the EU



Most developed economies have moved along a well-trodden path from a subsistence economy based on agriculture, through an industrial economy, to a post-industrial economy dominated by service activities. According to the [United Nations](#), the share of service activities in the world's [gross domestic product \(GDP\)](#) reached 69.1 % in 2015, while the corresponding figure for the EU-28 was even higher at 73.8 %.

An efficient [tertiary sector](#), as well as the increased availability of services, may boost economic growth and enhance industrial performance, as intricate global production networks increasingly rely on services to help move goods and capital. Indeed, the efficiency of services has become paramount to [multinational enterprises](#) and to the competitiveness of domestic economies, as services including finance, insurance, transport, logistics, communications and a host of business services provide key intermediate inputs to other parts of the economy. As such, the relative weight of services in value added or international trade is likely to be understated when based on an analysis of gross figures, as many services are 'embedded' in other products (goods or other services).

This chapter focuses on trade patterns and developments for the international trade in services; its focus is on the EU-28 and the individual EU Member States (international comparisons may be found in Subchapter 1.3). As with the previous chapter on international trade in goods, the information presented is divided into a general introduction for the main developments before a more profound analysis is presented in relation to trade by partner and trade for different types of services.

Main statistical findings

- Having grown at a rapid pace since the financial and economic crises, EU-28 trade in services stagnated in 2016.
- The EU-28's trade in services with non-member countries rose between 2010 and 2016 at a slightly faster pace than trade in services between EU Member States.
- More than one quarter (27.2 %) of the EU-28's exports of services in 2015 were destined for the United States.
- In 2015, the EU-28's largest trade surplus for services was recorded with Switzerland (EUR 44 billion).
- The highest share of EU-28 trade in services in 2016 was accounted for by other business services (which includes, among others, management consultancy, architectural, engineering and scientific services, or real estate services).
- The EU-28 ran a trade surplus for 11 out of the 12 main service categories in 2016; the exception was charges for the use of intellectual property.
- Among the EU Member States, the United Kingdom had the highest value of services exports in 2016, while Germany had the highest value of services imports.
- Ireland accounted for a high share of the EU-28's services imports in 2016 — a large proportion of this trade was with offshore financial centres ⁽¹⁾ and the United States.

(1) The full list of offshore financial centres includes: Andorra, Antigua and Barbuda, Anguilla, Aruba, Barbados, Bahrain, Bermuda, Bahamas, Belize, Cook Islands, Curaçao, Dominica, Grenada, Guernsey, Gibraltar, Hong Kong, Isle of Man, Jersey, St Kitts and Nevis, Cayman Islands, Lebanon, Saint Lucia, Liechtenstein, Liberia, Marshall Islands, Montserrat, Mauritius, Nauru, Niue, Panama, Philippines, Seychelles, Singapore, Sint Maarten, Turks and Caicos Islands, Saint Vincent and the Grenadines, British Virgin Islands, US Virgin Islands, Vanuatu, Samoa. For the purpose of this publication, information for Hong Kong and Singapore is shown separately and hence these two countries are excluded from the offshore financial centres aggregate.



3.1 International trade in services: an overview

International trade in services has witnessed dynamic growth in recent decades, in contrast to more sluggish growth for international trade in goods, while trade in services has also been more resilient to financial and economic shocks. Developments such as these are examined in more detail within this subchapter.

The global value of international trade in goods remains approximately three times as high as that of services. Part of this imbalance may be due to the nature of some services, for example:

- their intangible nature means that the international trading of services is inherently subject to more constraints. While a tangible good may be produced, stored, moved and consumed at different places and times, the consumption of a non-transportable service requires the close physical proximity of service provider and consumer/customer;
- secondly, services may be regulated in a different manner to goods: for example, some professional services, such as accountancy, may be bound by distinct national legislation, which has the potential to restrict or prevent the supply of services across borders;
- thirdly, international trade in some services is restricted and largely supplied by the public sector (for example, within services such as health or education).

Statistics on international trade in services

The **international trade in services** statistics presented in this chapter form part of the **balance of payments** and are also used within **national accounts**. From the 1990s onwards there was a rapid change in levels of cross-border activity and financial flows, coupled with increasingly mobile individuals. The implications of these changes, in part driven by globalisation, became a major focus for statisticians and formed the basis for a reassessment of the balance of payments, as set out in the sixth revision of the **Balance of Payments and International Investment Position Manual (BPM6)**.

Following the introduction of this new manual, the value of international trade in services grew as a result of the revised criteria for treating outsourced processing (so-called goods for processing). Under the new guidelines inward and outward flows of processed goods that do not change

ownership should no longer be recorded gross within the current account for goods, but instead should be measured in terms of the value of their processing fee within services. The introduction of this new manual and its associated methodological changes means that statistics on the **European Union (EU's)** international trade in services are only available from 2010 onwards.

Eurostat has explored, through a pilot project, the feasibility of estimating international trade in services by mode of supply. This project examined the application of a methodology detailed in the UN's Manual on Statistics of International Trade in Services 2010 which provides a means for modelling the distribution of trade in services by mode of supply. Thereafter, statistics for international trade in services and those for foreign affiliates may be combined with the model to estimate shares of trade in services for modes 1, 2 and 4).

i Further information on the pilot project is available in an article on Statistics Explained (http://ec.europa.eu/eurostat/statistics-explained/index.php/Services_trade_statistics_by_modes_of_supply).

i Further information on international trade through foreign affiliates is presented in Chapter 5.

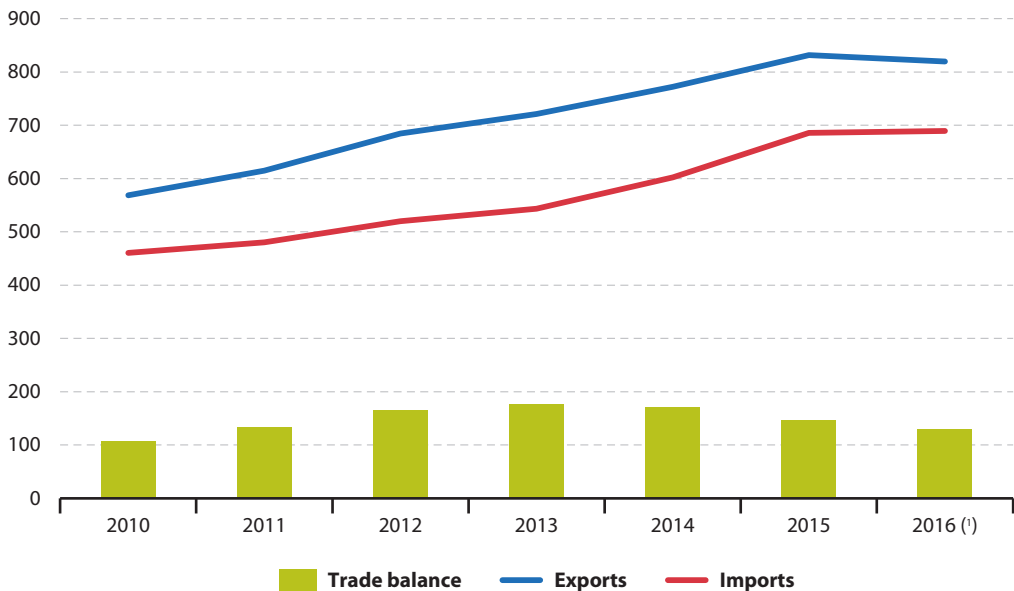
Having grown at a rapid pace post-crisis, EU-28 trade in services stagnated in 2016

In the aftermath of the global financial and economic crisis, the value of EU-28 exports and imports of services (from non-member countries, hereafter referred to as extra-EU trade) grew during the period 2010-2015. The fastest annual growth rate for extra-EU exports — and the only year a double-digit growth rate was recorded — was in 2012 (up 11.3 %); note these data are based on a series in nominal prices. The highest growth rates for extra-EU imports were registered during 2014 (up 10.8 %) and 2015 (13.9 %).

There was a marked change to developments according to provisional data for 2016, as extra-EU imports of services into the EU-28 stagnated (0.6 % growth compared with the year before), while there was a modest contraction in the value of extra-EU exports (–1.4 %). The value of EU-28 exports (EUR 820 billion) was considerably higher in 2016 than the value of imports (EUR 690 billion), resulting in a trade surplus for services of EUR 130 billion (see Figure 3.1). From an initial level of EUR 108 billion in 2010, the EU-28's trade surplus for services grew during three consecutive years to peak at EUR 178 billion in 2013. Thereafter, with the value of services imports growing at a faster pace than the value of services exports, the trade surplus was reduced somewhat thereafter.

Figure 3.1: Extra-EU trade in services, EU-28, 2010-2016

(billion EUR)



(¹) Provisional.

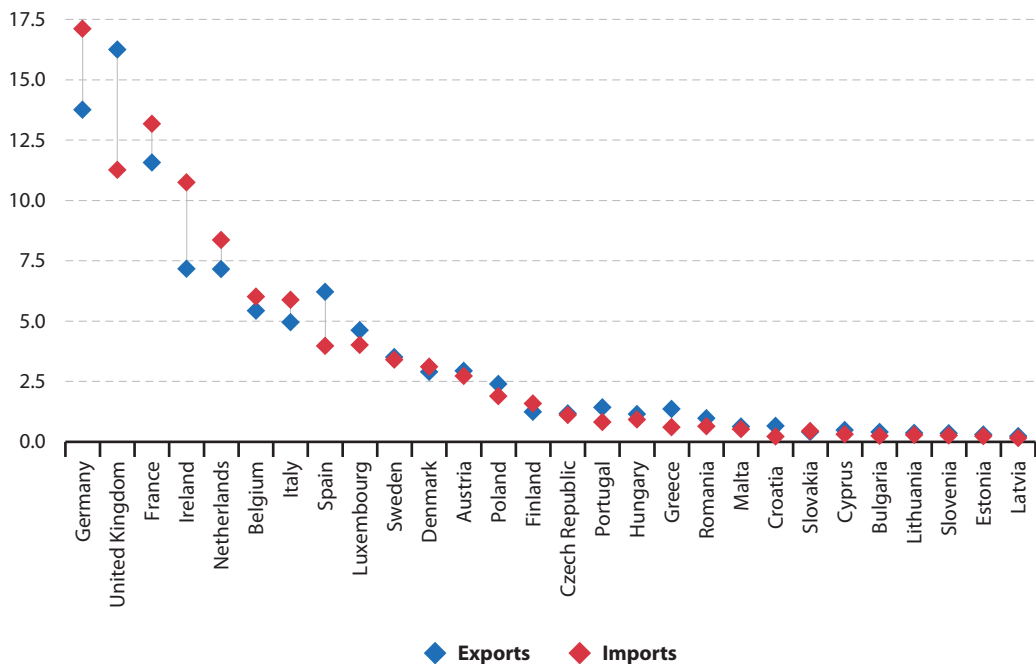
Source: Eurostat (online data code: [bop_its6_det](#))

In 2016, the United Kingdom had the highest value of services exports (EUR 301 billion), while the highest value of imports was recorded in Germany (EUR 277 billion)

In 2016, the United Kingdom recorded the highest share (16.3 %) of European Union (EU) exports of services; note these figures for individual EU Member States are based on world trade flows, in other words, the sum of intra- and extra-EU trade. Germany (13.8 %) and France (11.6 %) were the only other EU Member States to record double-digit shares. In relation to the size of their respective economies, Ireland (7.2 %) and Luxembourg (4.6 %) accounted for relatively large shares of the EU total (see Figure 3.2).

Germany had the highest share (17.1 %) of EU imports of services, followed by France (13.2 %), while the United Kingdom (11.3 %) and Ireland (10.8 %) were the only other EU Member States to record double-digit shares; there was also a relatively high share — relative to the size of its economy — for Luxembourg (4.0 %).

Figure 3.2: EU trade in services, 2016
(% of total)



Note: ranked on the total (intra-EU and extra-EU) value of exports and imports. Provisional.

Source: Eurostat (online data code: [bop_its6_det](#))

Box 3.1 — International trade in services by mode of supply

Trade in services differs from trade in goods in a number of ways. Services often require the physical proximity of a supplier and a customer, for example: if somebody decides to spend a night in a hotel; if they call a tradesman to redecorate their house; or if they have to take their car to the garage for it to be repaired.

The [general agreement on trade in services \(GATS\)](#) defines four different ways — modes of supply — that may be used to deliver services from a supplier to a client/customer. For example, legal services may be supplied by a lawyer to a client as follows:

- the legal advice (service) is provided by phone or via e-mail (cross-border supply; mode 1);
- the client from abroad visits the lawyer's office (consumption abroad; mode 2);
- the lawyer establishes an affiliate abroad to provide legal services to his foreign client (a commercial presence; mode 3);
- the lawyer travels abroad to provide legal services directly to his/her client (the presence of a natural person; mode 4).

Balance of payments statistics reflect international transactions of services that are delivered via three of these four modes of supply identified in the GATS (the first, second and fourth); as such, the information presented in this chapter excludes services that are provided via the commercial presence of foreign affiliates (mode 3); in 2013, this mode of supply was estimated to have the highest share among all modes.

Box 3.2 — Trade in Services Agreement

The [Trade in Services Agreement \(TiSA\)](#) is in the process of being negotiated by 23 [World Trade Organisation \(WTO\)](#) members (one of which is the [European Union \(EU\)](#)); together they account for an estimated 70 % of global trade in services. If additional WTO members join the process, it is hoped that any agreement may be extended into a broader multilateral trade deal.

The TiSA architecture is based on the WTO's general agreement on trade in services (GATS) and all negotiated provisions are compatible with the GATS. TiSA aims to open-up markets and approve common rules in areas such as licensing, financial services, telecommunication services, e-commerce and maritime transport,

as well as for professionals who wish to temporarily move abroad in order to provide services. It aims to remove discriminatory rules that act as barriers to entry, and by doing so foreign enterprises should thereafter have the freedom to establish offices and a business presence across a range of additional services in each of the geographical markets.

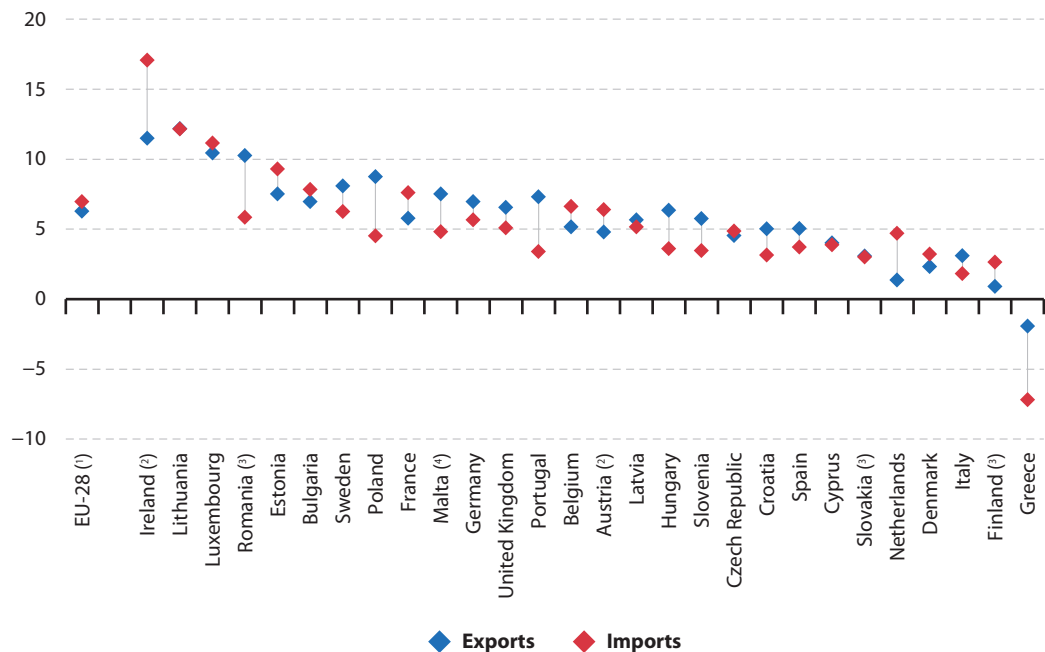
The talks started formally in March 2013, and by the end of 2013 most participants had indicated which of their service markets they were prepared to open and to what extent. After 21 different negotiation rounds, the talks were put on hold in November 2016; there is no formal deadline for ending the negotiations.

During the period 2010-2016, the fastest growth for trade in services was recorded in Ireland

Figure 3.3 presents the average rate of change for international trade in services over the period 2010-2016; note that these growth rates are based on nominal prices. EU-28 exports to non-member countries rose on average by 6.3 % per annum during the period under consideration, while the average growth rate for imports was slightly faster, at 7.0 % per annum.

The expansion in the value of trade in services (for both intra- and extra-EU partners) was considerably higher in some of the EU Member States, with the fastest growth rates — for both imports and exports — being recorded in Ireland (2012-2016 data), Lithuania and Luxembourg. By contrast, Greece was the only Member State to record a reduction in its value of trade in services, with exports falling, on average, by 1.9 % per annum and imports by 7.2 % per annum.

Figure 3.3: Average rate of change for trade in services, 2010-2016
(% per annum)



Note: ranked on the rate of change for the total (intra-EU and extra-EU) value of exports and imports. 2016: provisional.

(¹) Extra-EU trade.

(²) 2013-2016.

(³) 2012-2016.

(⁴) 2011-2016.

Source: Eurostat (online data code: [bop_its6_det](https://ec.europa.eu/eurostat/tgm/table.do?code=bop_its6_det))

In 2016, the United Kingdom had the highest value of extra-EU exports of services ...

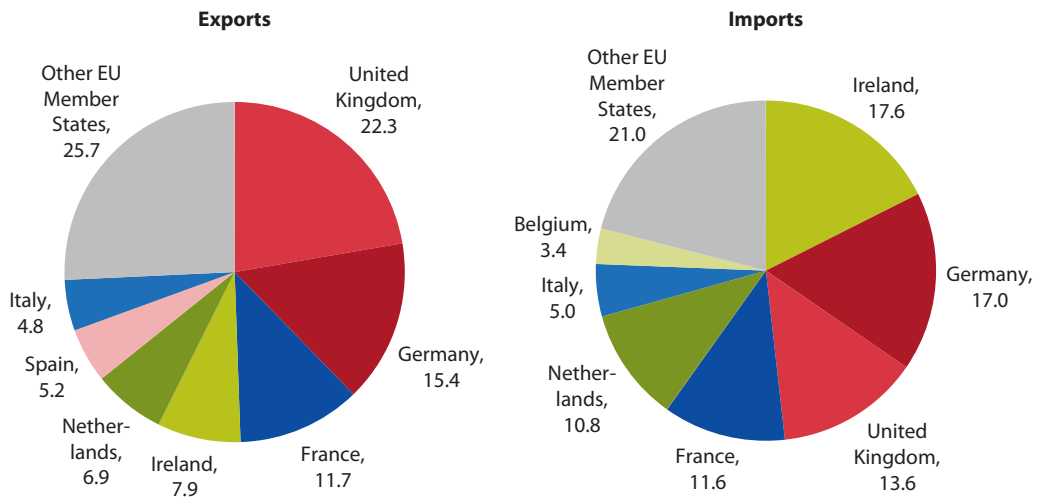
The structure of trade in services may be analysed in more detail, distinguishing between trade flows that are destined for non-member countries (extra-EU trade) on one hand and trade flows with other EU Member States (intra-EU trade) on the other. There are considerable differences between Member States as to the relative importance of intra- and extra-EU trade.

In absolute terms, the United Kingdom had the highest value of extra-EU exports of services (EUR 183 billion in 2016), which equated to more than one fifth (22.3 %) of the EU's exports to non-member countries (see Figure 3.4). The next highest shares were recorded for Germany (15.4 %; EUR 126 billion), France (11.7 %; EUR 96 billion), Ireland (7.9 %; EUR 65 billion) and the Netherlands (6.9 %; EUR 56 billion).

... while Ireland had the highest value of extra-EU imports of services

By contrast, Ireland had the highest value of imports of services from non-member countries (EUR 121 billion); this equated to 17.6 % of the EU's imports from non-member countries. Offshore financial centres were the main origin for imports of services into the Irish economy; these centres are usually small countries/jurisdictions that provide financial services to non-residents on a scale that is incommensurate with the size and the financing of their domestic economy. Germany (17.0 %; EUR 117 billion), the United Kingdom (13.6 %; EUR 94 billion), France (11.6 %; EUR 80 billion) and the Netherlands (10.8 %; EUR 74 billion) had the next highest shares of extra-EU services imports in 2016.

Figure 3.4: Extra-EU trade in services, 2016
(% of EU total)



Note: provisional.

Source: Eurostat (online data code: [bop_its6_tot](#))

In 2016, the highest values of intra-EU imports and exports of services were recorded in Germany

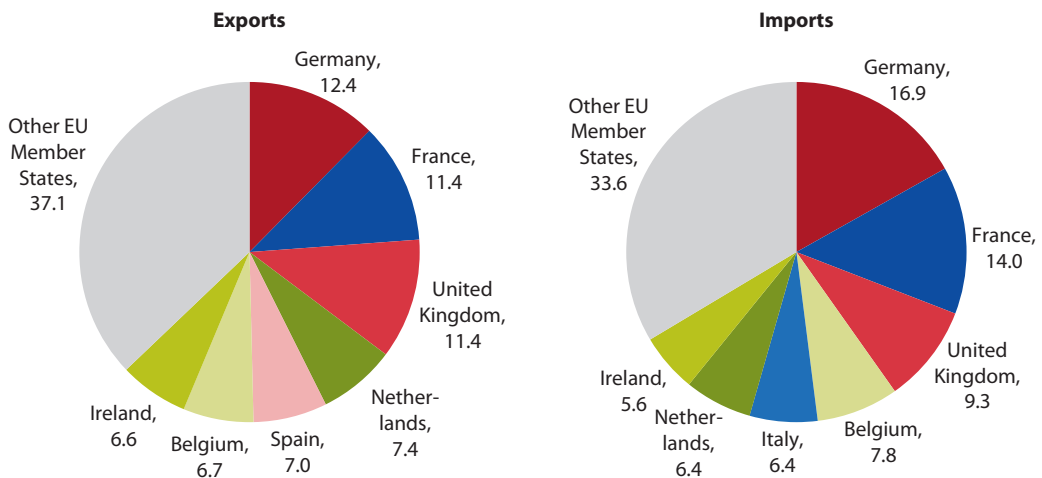
A similar analysis for intra-EU trade is presented in Figure 3.5. It shows that Germany had the highest value of services exports to other EU Member States (EUR 128 billion in 2016), which equated to 12.4 % of the EU total. France and the United Kingdom (both 11.4 %: EUR 118 billion) were the only other EU Member States to account for a double-digit share of intra-EU exports of services in 2016.

Germany was also the largest importer of services from other EU Member States, with imports valued at EUR 159 billion in 2016, some 16.9 % of the EU total. The next highest shares were recorded in France (14.0 %; EUR 133 billion) and the United Kingdom (9.3 %; EUR 88 billion).

It is interesting to note that the cumulative share of the seven EU Member States with the highest values of extra-EU services exports in 2016 was equal to almost three quarters (74.3 %) of the EU total, whereas the cumulative share of the seven EU Member States with the highest values of intra-EU services exports was considerably lower, at 62.9 %. These figures suggest that extra-EU trade in services is more concentrated between principal trading nations, perhaps reflecting the increased presence of global enterprises in some of the EU's main markets.

A closer analysis of intra- and extra-EU trade flows reveals that 25 of the EU Member States reported that a majority of their total trade in services took place with other EU Member States (rather than with non-member countries). In 2016, the highest share of trade in services with other Member States was recorded by Slovakia (81.6 %), while in excess of three quarters of all trade in services in Romania, Slovenia and Austria was also with other EU partners. By contrast, a majority of the trade in services that was conducted by the United Kingdom (57.4 %) and Ireland (60.8 %) was with extra-EU partners and this share peaked in Malta (62.0 %).

Figure 3.5: Intra-EU trade in services, 2016
(% of EU total)



Note: provisional.

Source: Eurostat (online data code: [bop_its6_tot](#))

3.2 International trade in services by partner

Trade intensity is thought to be related to geographic distance: this may be particularly true for some services due to their intangible, non-transportable nature which restricts opportunities for exchange. Alongside geographical distance, there are other barriers which impact/prevent trade in services, for example, linguistic or cultural ‘distance’. On the other hand, digitalisation and new technologies have permitted new business models for delivering services across borders and over larger distances. This subchapter looks in more detail at the European Union’s (EU’s) principal partners for international trade in services.

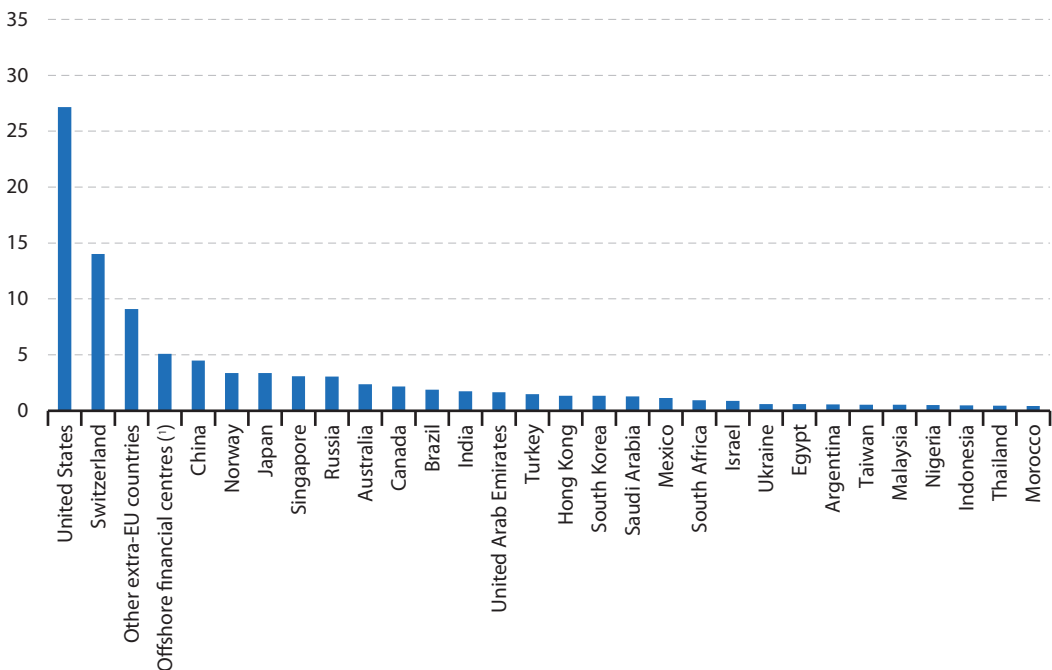
FOCUS ON EU-28 TRADE IN SERVICES BY PARTNER

In 2015, more than one quarter of EU-28 exports of services were destined for the United States ...

The EU-28 exported services to non-member countries that were valued at EUR 832 billion in 2015. Figure 3.6 shows that the EU-28’s main export market was the United States, which accounted for more than one quarter (27.2 %) of the EU’s exports. The next largest shares were recorded for Switzerland (14.0 %), offshore financial centres (5.1 %) and China (4.5 %). The aggregate for offshore financial centres includes European countries such as Andorra, the Isle of Man or Liechtenstein, as well as financial centres that are further afield — principally these are located in and around the Caribbean, for example Bermuda, Panama or the Virgin Islands; note that for the purpose of this publication, data for Hong Kong and Singapore are shown separately and have been systematically removed from the aggregate covering offshore financial centres.

Figure 3.6: Extra-EU exports of services, EU-28, 2015

(% of EU total)



Note: based on a selected list of partners (see methodological notes in the introduction for more details).

(*) Excluding Hong Kong and Singapore that are shown separately.

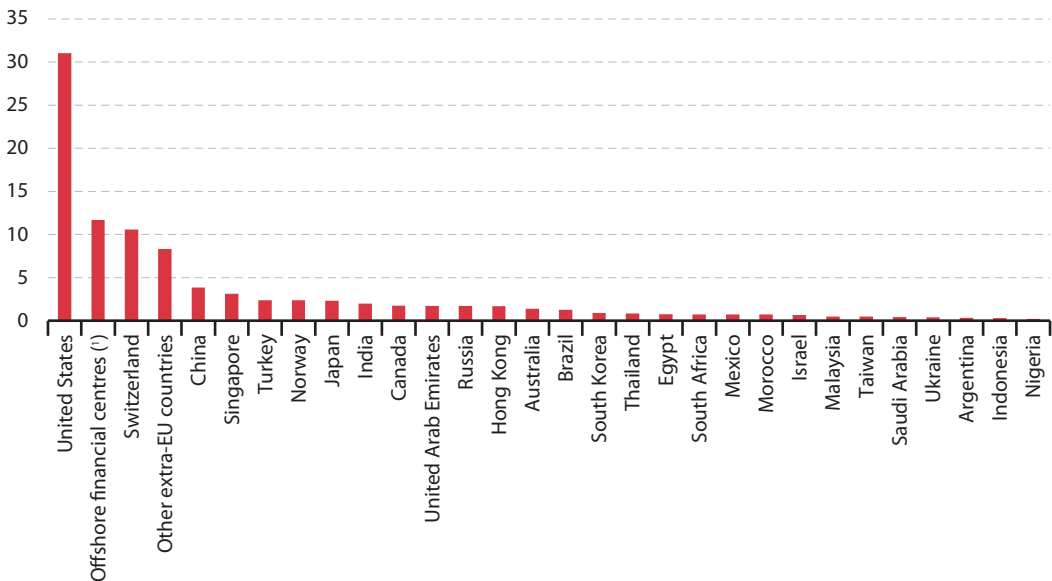
Source: Eurostat (online data code: [bop_its6_tot](#))

... while almost one third of EU-28 imports of services originated in the United States

Imports of services from non-member countries into the EU-28 were valued at EUR 686 billion in 2015. Figure 3.7 shows that the United States was, by far, the principal origin of extra-EU imports, accounting for almost one third (31.0 %; EUR 213 billion) of the EU's imports. The next highest share was recorded for offshore financial centres (11.7 %), while Switzerland (10.6 %) was the only other partner to record a double-digit share of the total.

During the period 2010-2015, a growing proportion of the EU-28's exports of services was destined for the United States, its share of the total rising from 24.6 % to 27.2 % (up by 2.5 percentage points); the relative importance of EU-28 exports to China, Singapore and (other) offshore centres also increased. A comparable analysis for the development of services imports reveals there was a greater shift in the structure of EU-28 trade between 2010 and 2015, as the proportion of EU-28 imports of services that originated in offshore financial centres rose from 7.0 % to 11.7 %. This analysis also confirms a pattern of increasing concentration, insofar as a growing proportion of the EU-28's trade in services was with its principal trading partners (which were predominantly developed world economies). This is an interesting distinction when compared with international trade in goods, where globalisation has resulted in a diversification of trading partners (as emerging and developing countries have captured market shares).

Figure 3.7: Extra-EU imports of services, EU-28, 2015
(% of EU total)



Note: based on a selected list of partners (see methodological notes in the introduction for more details).

(*) Excluding Hong Kong and Singapore that are shown separately.

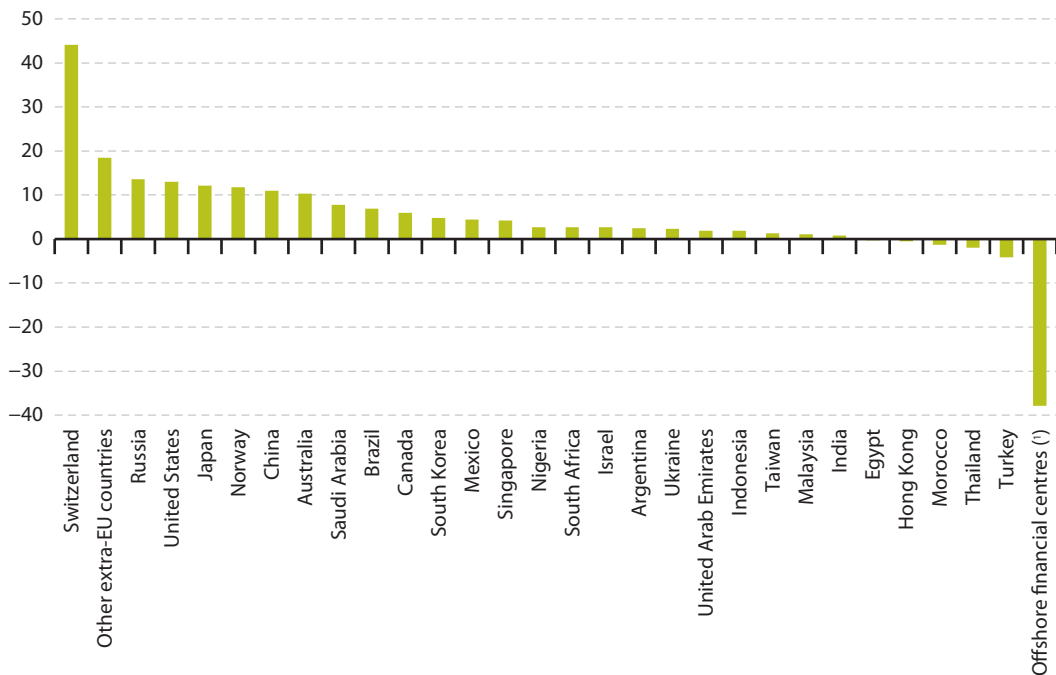
Source: Eurostat (online data code: [bop_its6_tot](#))

The EU-28's largest trade surplus for services in 2015 was recorded with Switzerland

In 2015, the EU-28's largest trade surplus for services was recorded with Switzerland (EUR 44 billion); the EU-28 also ran sizeable surpluses for trade in services — within the range of EUR 10-14 billion — with Russia, the United States, Japan, Norway, China and Australia. Of the 29 trading partners shown in Figure 3.8, the EU-28 ran a deficit for trade in services with just six. By far the largest was recorded for trade with offshore financial centres (EUR 34 billion), while the other principal trading partners that were net exporters of services to the EU-28 included Turkey, Thailand, Morocco, Hong Kong and Egypt.

Figure 3.8: Extra-EU trade balance for services, selected partners, EU-28, 2015

(billion EUR)



Note: based on a selected list of partners (see methodological notes in the introduction for more details).

(*) Excluding Hong Kong and Singapore that are shown separately.

Source: Eurostat (online data code: [bop_its6_tot](#))

FOCUS ON TRADE IN SERVICES FOR INDIVIDUAL EU MEMBER STATES

Having examined extra-EU trade flows for services, this next section presents more detailed information pertaining to individual EU Member States; note that the data presented covers total trade (in other words, intra- and extra-EU trade flows).

A relatively high proportion of the EU-28's trade in services was between neighbouring countries

The top three partners for trade in services for each of the EU Member States are shown in Table 3.1 (for exports) and Table 3.2 (for imports). As the EU's largest economy and with its relatively central location, it is unsurprising to find that Germany was the leading export destination for trade in services among 10 of the EU Member States in 2015; half of these shared a border with Germany.

The United Kingdom was the largest export market for services from seven other EU Member States, while the United States was the biggest market for services exported from Germany, the Netherlands and the United Kingdom. Seven other trade partners (no data for Spain) each appeared once in the ranking of principal export markets; each of these was characterised by their close proximity to the reporting country. Indeed, six out of the seven shared a border, the only exception being Finland, which was the principal export market for services leaving Estonia (they share a maritime border).

Table 3.1: Top three trading partners for total exports of services, 2015

	First	Second	Third
EU-28 (¹)	United States	Switzerland	OFCs (²)
Belgium	Netherlands	France	United States
Bulgaria	Germany	United Kingdom	Russia
Czech Republic	Germany	Slovakia	United Kingdom
Denmark	Germany	United States	Sweden
Germany	United States	United Kingdom	Switzerland
Estonia	Finland	Sweden	Russia
Ireland	United Kingdom	United States	Germany
Greece	United Kingdom	Germany	United States
Spain (³)	:	:	:
France	United Kingdom	Germany	United States
Croatia	Germany	Austria	Italy
Italy	Germany	United States	Switzerland
Cyprus	United Kingdom	Russia	Germany
Latvia	United Kingdom	Russia	Switzerland
Lithuania	Russia	Germany	Latvia
Luxembourg	Germany	United Kingdom	France
Hungary	Germany	Austria	United Kingdom
Malta	United Kingdom	Germany	Italy
Netherlands	United States	Ireland	Germany
Austria	Germany	Switzerland	Italy
Poland	Germany	Switzerland	United Kingdom
Portugal	United Kingdom	France	Spain
Romania	Germany	Italy	France
Slovenia	Italy	Austria	Germany
Slovakia	Czech Republic	Germany	Poland
Finland	Sweden	United States	United Kingdom
Sweden	Norway	United States	United Kingdom
United Kingdom	United States	OFCs (²)	Germany
Iceland	United States	United Kingdom	Germany

Note: based on non-confidential data available for a selected list of partners (see methodological notes in the introduction for more details).

(¹) Ranking based on extra-EU partners only.

(²) Offshore financial centres; excluding Hong Kong and Singapore.

(³) Only partial information available.

Source: Eurostat (online data code: [bop_its6_tot](#))

Table 3.2: Top three trading partners for total imports of services, 2015

	First	Second	Third
EU-28 (1)	United States	OFCs (2)	Switzerland
Belgium	France	Netherlands	Germany
Bulgaria	Germany	United Kingdom	Austria
Czech Republic	Germany	United States	Slovakia
Denmark	United States	Germany	United Kingdom
Germany	United States	United Kingdom	France
Estonia	Finland	Sweden	Latvia
Ireland	OFCs (2)	United States	Netherlands
Greece	United Kingdom	Germany	United States
Spain (4)	:	:	:
France	Germany	United Kingdom	United States
Croatia	Germany	Austria	United Kingdom
Italy	France	Germany	United Kingdom
Cyprus	United Kingdom	Greece	Germany
Latvia	Lithuania	Estonia	United Kingdom
Lithuania	Russia	Poland	Latvia
Luxembourg	United Kingdom	United States	Germany
Hungary	Germany	United States	United Kingdom
Malta	United Kingdom	OFCs (2)	Cyprus
Netherlands	United States	OFCs (2)	United Kingdom
Austria	Germany	Italy	Switzerland
Poland	Germany	United Kingdom	France
Portugal	Spain	United Kingdom	France
Romania	Germany	United Kingdom	Italy
Slovenia	Croatia	Austria	Germany
Slovakia	Czech Republic	Germany	Austria
Finland	Sweden	Germany	United States
Sweden	United States	United Kingdom	Germany
United Kingdom	United States	France	OFCs (2)
Iceland	United States	United Kingdom	Denmark

Note: based on non-confidential data available for a selected list of partners (see methodological notes in the introduction for more details).

(1) Ranking based on extra-EU partners only.

(2) Offshore financial centres; excluding Hong Kong and Singapore.

(3) Offshore financial centres; excluding Hong Kong (date for Singapore are confidential and therefore cannot be excluded).

(4) Only partial information available.

Source: Eurostat (online data code: [bop_its6_tot](#))

Table 3.2 shows a similar set of information for imports. In 2015, Germany was the principal origin of services imports for eight of the EU Member States, followed by the United States (which was the principal origin of imports for five Member States) and the United Kingdom (which was the main origin of imports for four of the EU Member States). As for exports, there were often high levels of trade in services between neighbouring countries and those which were culturally or linguistically aligned, for example, the [Baltic Member States](#). Otherwise, it is interesting to note that offshore financial centres were also relatively important as an origin of services imports in several of the EU Member States; most notably Ireland, Malta, the Netherlands and the United Kingdom.

Box 3.3 — Asymmetries in trade

Bilateral trade asymmetries occur for both international trade in goods and international trade in services: they ensue when the exports reported by country A to country B do not match with the imports reported by country B from country A. These asymmetries may result from a number of issues, including: the classification of goods and services (particularly when bundled together); the use of different survey thresholds or estimation techniques; different practices employed for the first release and subsequent revision of data; the treatment of confidentiality; currency conversions.

In an increasingly globalised world these discrepancies can result in relatively large asymmetries, especially for those services which are characterised by intricate networks of capital and information flowing between several countries. An example of such an asymmetry is shown in Table 3.3, as the Netherlands recorded a trade surplus for services with Ireland valued at EUR 11.9 billion, while the Irish trade deficit for services with the Netherlands was valued at EUR 15.4 billion.

In 2015, some of the largest bilateral surpluses and deficits for trade in services concerned a range of countries considered among the world's leading financial centres

This section closes with an analysis of the largest bilateral trade surpluses and deficits for services (see Table 3.3); it is based on EU Member States as the reporting entity and a fixed list of 29 partner countries. Many of the largest bilateral surpluses and deficits for trade in services concern a range of countries that are considered among the world's leading financial centres — for example, Ireland, Luxembourg, the Netherlands and the United Kingdom, as well as Switzerland and offshore financial centres.

In 2015, the biggest trade surplus for services was recorded between the United Kingdom and the United States (EUR 36.9 billion). This was more than three times the size of the next highest trade surplus, as services exports exceeded services imports by EUR 11.0-12.0 billion for trade between: the United Kingdom and Switzerland; Ireland and the United Kingdom; and the Netherlands and Ireland.

In 2015, the largest bilateral trade deficits for services involved Ireland

As already noted, Ireland accounted for the highest share of the EU's imports of services from non-member countries in 2016; this may be expected to feed through into trade deficits with a range of partners. Detailed information on trade in services by partner is only available for 2015: it confirms that Ireland had the two largest bilateral trade deficits for services — the Irish trade balance with offshore financial centres was EUR –33.3 billion, while that with the United States was EUR –19.5 billion. The next largest deficits for trade in services concerned trade between the Netherlands and offshore financial centres (EUR –16.7 billion), trade between Ireland and the Netherlands (EUR –15.4 billion) and trade between the Netherlands and the United States (EUR –12.6 billion).

Table 3.3: Top 10 trade surpluses and trade deficits for services, EU Member States and selected partners, 2015
(billion EUR)

Rank	Reporter	Partner	Trade surplus
1	United Kingdom	United States	36.9
2	Netherlands	Ireland	11.9
3	Ireland	United Kingdom	11.5
4	United Kingdom	Switzerland	11.0
5	United Kingdom	Netherlands	9.9
6	Germany	Switzerland	8.3
7	United Kingdom	Germany	8.0
8	Austria	Germany	8.0
9	United Kingdom	Offshore financial centres (1)	7.0
10	Spain	United Kingdom	6.9

Rank	Reporter	Partner	Trade deficit
10	Ireland	Luxembourg	–4.8
9	Germany	Italy	–5.4
8	Germany	Spain	–6.2
7	United Kingdom	Spain	–6.8
6	Germany	Austria	–8.1
5	Netherlands	United States	–12.6
4	Ireland	Netherlands	–15.4
3	Netherlands	Offshore financial centres (1)	–16.7
2	Ireland	United States	–19.5
1	Ireland	Offshore financial centres (2)	–33.3

Note: based on non-confidential data available for a selected list of partners (see methodological notes in the introduction for more details). Spain: only partial information available as a reporter.

(1) Excluding Hong Kong and Singapore.

(2) Excluding Hong Kong (date for Singapore are confidential and therefore cannot be excluded).

Source: Eurostat (online data code: [bop_its6_tot](#))

3.3 International trade in services by type of service

This subchapter examines in more detail developments for international trade in services by type of service. While some services — like transport — have existed as long as there has been commercial activity, trade for many other services has developed relatively recently as a result of market liberalisation and the introduction of new information and communication technologies; these changes often eliminated a range of obstacles and provided new means for supplying services remotely. These changes have seen some services witness considerable structural changes, as **small and medium-sized enterprises (SMEs)** have been replaced by much larger, international enterprises. Illustrations include the retail sector (for example, food and beverages or clothing), accommodation services (for example, global hotel chains) or financial services (for example, retail banks or insurance companies), where it is relatively commonplace to find increased levels of concentration as **multinational enterprises** expand their operations.

Part of the change in the structure and composition of international trade in services may be attributed to a similar pattern of development to that witnessed previously for manufacturing, insofar as a range of (business) services have been outsourced to lower costs centres, for example, computer programming or call centres to service providers in countries like India. By contrast, the delivery of high value, bespoke services, such as those provided by architects, lawyers or management consultants has generally remained close to the point of delivery, reflecting among other issues continued barriers to entry in some professional services and the perceived need to develop and maintain face-to-face business contacts.

INTERNATIONAL TRADE IN SERVICES — OVERALL DEVELOPMENTS

In 2016, other business services accounted for the highest share of EU-28 trade in services

In 2016, the highest values of EU-28 international trade in services — as measured by the sum of exports and imports to/from non-member countries — were recorded for: other business services (this diverse category includes, among others, services in the areas of research and development (R & D), professional and management consultancy, technical and trade-related services, architectural, engineering and scientific services, security and investigative services, real estate and other services to businesses); transport services; travel services; charges for the use of intellectual property (for example, royalties and licences); and telecommunications, computer and information services (see Table 3.4).

The EU-28 exported other business services to the value of EUR 224.0 billion, which was just over one quarter (27.3 %) of all its services exports in 2016. The next highest shares of EU-28 exports were recorded for transport services (16.5 % of all service exports in 2016; EUR 135 billion), travel services (13.9 %; EUR 114 billion), telecommunications, computer and information services (13.3 %; EUR 109 billion) and financial services (10.2 %; EUR 83 billion).

The structure of EU-28 imports was more concentrated: in 2016, other business services accounted for almost one third (32.2 %; EUR 222 billion) of the EU-28's total imports of services, followed by transport services (17.2 %; EUR 118 billion), charges for use of intellectual property (16.1 %; EUR 111 billion) and travel services (14.8 %; EUR 102 billion).

Table 3.4: Value of extra-EU trade in selected services, EU-28, 2010 and 2016
(billion EUR)

	Exports		Imports	
	2010	2016	2010	2016
Services	568.7	819.8	460.5	689.7
Manufacturing services	18.7	19.0	4.5	8.9
Maintenance & repair services	4.6	13.2	2.4	10.0
Transport	124.4	135.2	108.7	118.3
Travel	80.5	114.3	83.7	101.9
Construction	9.4	11.4	5.1	4.7
Insurance & pension services	25.0	28.5	12.1	11.7
Financial services	59.5	83.5	26.3	43.5
Charges for use of intellectual property	29.0	63.7	40.0	110.9
Telecoms, computer & info. services	63.8	109.4	40.0	42.2
Other business services	140.2	224.0	122.2	222.3
Personal, cultural & recreation. services	6.1	9.7	8.2	9.5
Government goods & services	7.2	7.0	6.8	5.6
Services not allocated	0.4	0.8	0.6	0.2

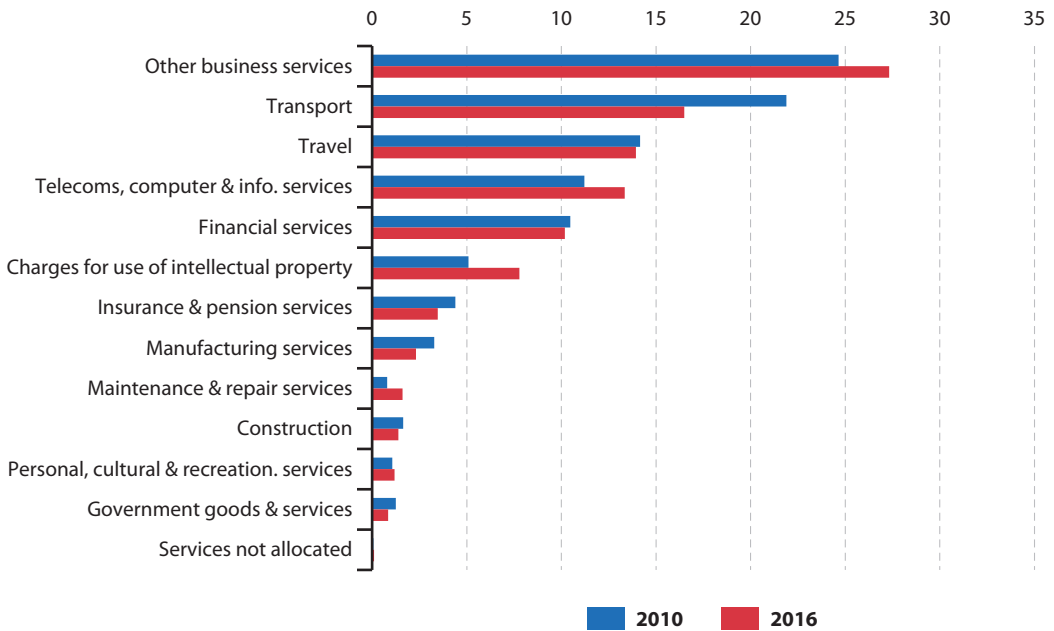
Source: Eurostat (online data code: [bop_its6_det](#))

Between 2010 and 2016, a growing share of the EU-28's trade in services was accounted for by other business services, charges for the use of intellectual property, and telecommunications, computer and information services

The share of other business services in the total value of EU-28 service exports to non-member countries rose by 2.7 percentage points between 2010 and 2016 (see Figure 3.9). The same increase (+2.7 points) was recorded for charges in relation to the use of intellectual property, while the next highest increase (+2.1 points) was for the share of telecommunications, computer and information services. By contrast, the relative importance of transport services within extra-EU exports fell by 5.4 percentage points during the same period; note however that the absolute value of transport service exports to non-member countries continued to grow, albeit at a slower pace than the services average.

A similar analysis relating to changes in the structure of extra-EU services imports reveals that a growing proportion of the EU-28's imports were composed of charges for the use of intellectual property; their share of the EU-28 total increased by 7.4 percentage points between 2010 and 2016, while there was also a relatively fast increase in the share of other business services (+5.7 points). By contrast, the relative contribution of travel services and transport services declined, falling by 3.4 and 6.4 percentage points (note again that the absolute value of imports for both of these categories continued to rise). The figures presented in Figures 3.9 and 3.10 indicate that there has been a relatively rapid expansion in EU-28 trade flows for intellectual property and other business services, suggesting that [multinational enterprises](#) have sought to protect their innovations and brands while expanding into new markets, and have increasingly made use of a range of business services to deliver goods and services as efficiently as possible.

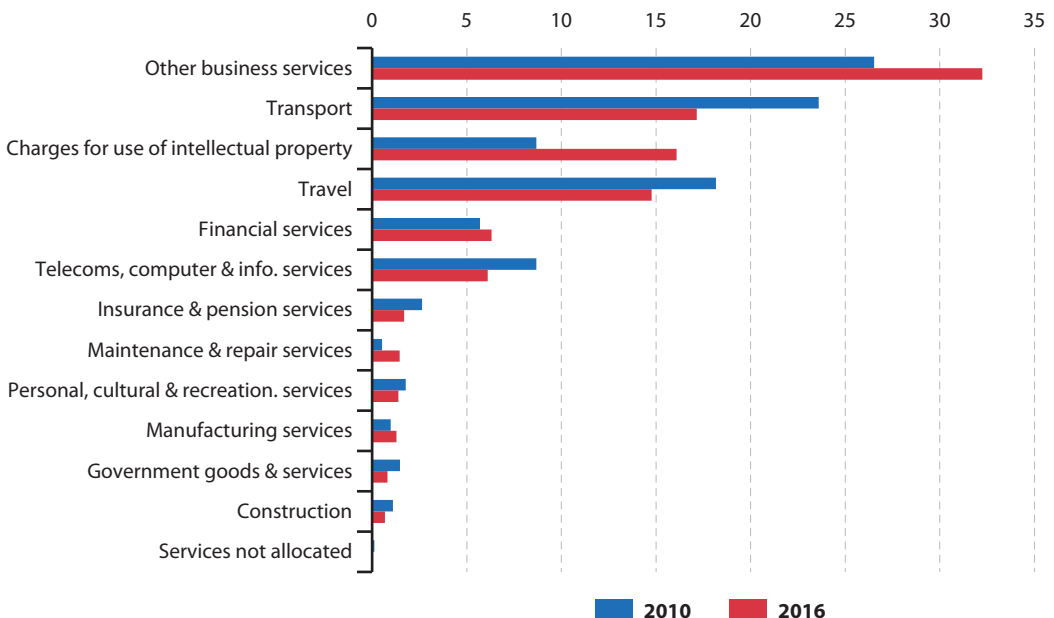
Figure 3.9: Extra-EU exports of services, EU-28, 2010 and 2016
(% of total)



Note: 2016, provisional.

Source: Eurostat (online data code: [bop_its6_det](#))

Figure 3.10: Extra-EU imports of services, EU-28, 2010 and 2016
(% of total)



Note: 2016, provisional.

Source: Eurostat (online data code: [bop_its6_det](#))

In 2016, the EU-28 had a trade surplus for all but one of the 12 main service categories

With the exception of charges for the use of intellectual property (EUR –47.2 billion), the EU-28 ran a trade surplus in 2016 for all 12 of the main service categories detailed in Table 3.5. The largest trade surplus was for telecommunications, computer and information services (EUR 67.3 billion), followed by financial services (EUR 40.0 billion), transport services (EUR 17.0 billion) and insurance and pension services (EUR 16.8 billion).

The cover ratio provides an alternative measure for analysing the relative difference between EU-28 exports and imports; it is calculated as the value of exports divided by the value of imports and expressed as a percentage. In 2016, the value of EU-28 exports of telecommunications, computer and information services was almost 2.6 times as high as the value of EU-28 imports of the same services. The cover ratios for insurance and pension services, construction services and manufacturing services were also higher than 200 %, indicating that the value of EU-28 exports for these services was more than twice that recorded for EU-28 imports.

Table 3.5: Extra-EU trade balance and cover ratio for selected services, EU-28, 2010 and 2016

	Trade balance (billion EUR)		Cover ratio (%)	
	2010	2016	2010	2016
Services	108.2	130.2	123.5	118.9
Manufacturing services	14.1	10.2	410.9	214.8
Maintenance & repair services	2.1	3.2	187.1	132.0
Transport	15.8	17.0	114.5	114.3
Travel	–3.2	12.5	96.2	112.2
Construction	4.3	6.7	184.5	241.2
Insurance & pension services	12.9	16.8	206.4	243.6
Financial services	33.2	40.0	226.4	191.7
Charges for use of intellectual property	–11.0	–47.2	72.4	57.5
Telecoms, computer & info. services	23.8	67.3	159.6	259.5
Other business services	18.0	1.7	114.7	100.7
Personal, cultural & recreation. services	–2.1	0.2	74.4	102.1
Government goods & services	0.4	1.4	105.8	125.2
Services not allocated	–0.2	0.7	69.7	496.7

Source: Eurostat (online data code: [bop_its6_det](#))

INTERNATIONAL TRADE IN SERVICES — FOCUS ON SELECTED SERVICE CATEGORIES

This next section looks in more detail at developments for international trade in services with respect to the three service categories with the highest levels of extra-EU trade, namely:

- transport services (BPM6 category SC);
- travel services (SD);
- other business services (SJ).

Transport services

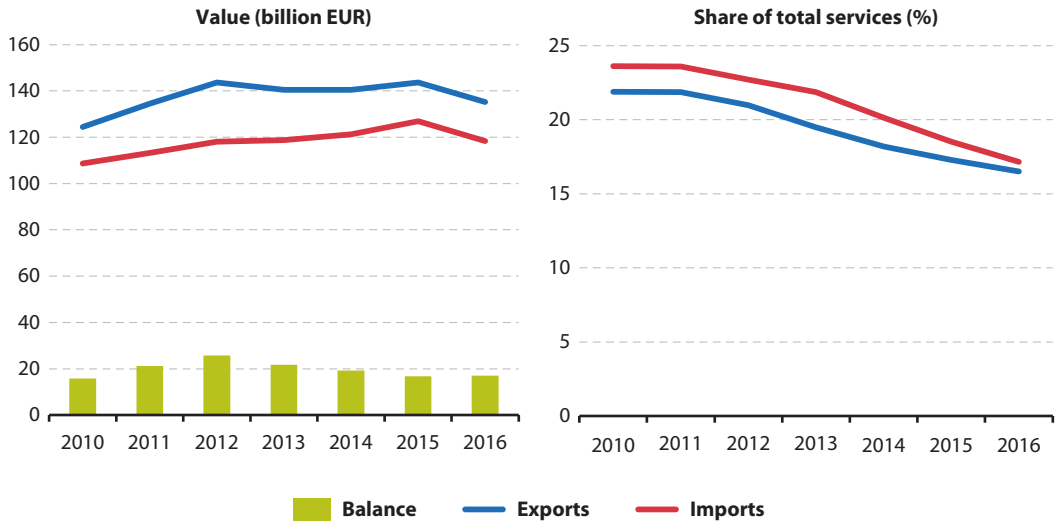
Within the balance of payments, international trade in transport services covers both freight and passenger services. In the case of passenger transport, it includes services provided to non-residents by resident carriers and services provided to residents by *non-resident* carriers. In the case of freight, international trade in transport services covers freight services provided by resident operators within the boundaries of the customs frontier of the partner economy (exports of freight services), as well as freight services provided by non-resident operators in the reporting economy (imports of freight services).

Figure 3.11 shows developments for EU-28 international trade in transport services from 2010 to 2016. EU-28 exports of transport services to non-member countries exceeded the value of imports every year during the period 2010 to 2016, resulting in a persistent trade surplus. That said, while EU-28 imports of transport services steadily increased throughout the first five years of this period, with their largest increase in the value of exports recorded in 2015, exports rose during the period 2010-2012, then fell slightly and stagnated, before modest growth resumed in 2015. The global reduction in price of oil was, at least to some degree, passed through to final consumers in 2016, as the value of EU-28 imports and exports for transport services fell by 6.8 % and 5.8 % respectively.

Figure 3.12 shows the relative importance of the different transport services as regards their contribution to EU-28 exports and imports in 2015. The largest subcategory was sea transport, which accounted for more than half (51.6 %) of the EU's transport services exports and for 43.1 % of the EU's imports. The only other subcategory to record a double-digit share was air transport, with around one third of extra-EU exports (32.4 %) and imports (37.3 %).

In 2015, the United States was the EU's main trading partner for transport services, accounting for 21.6 % of the EU-28's exports to non-member countries and for 19.4 % of its imports (see Figure 3.13). It was followed by Switzerland (12.6 % of exports and 7.4 % of imports), China (5.9 % of exports and 8.2 % of imports) and offshore financial centres (4.0 % of exports and 5.7 % of imports).

Figure 3.11: Developments for extra-EU trade in transport services, EU-28, 2010-2016

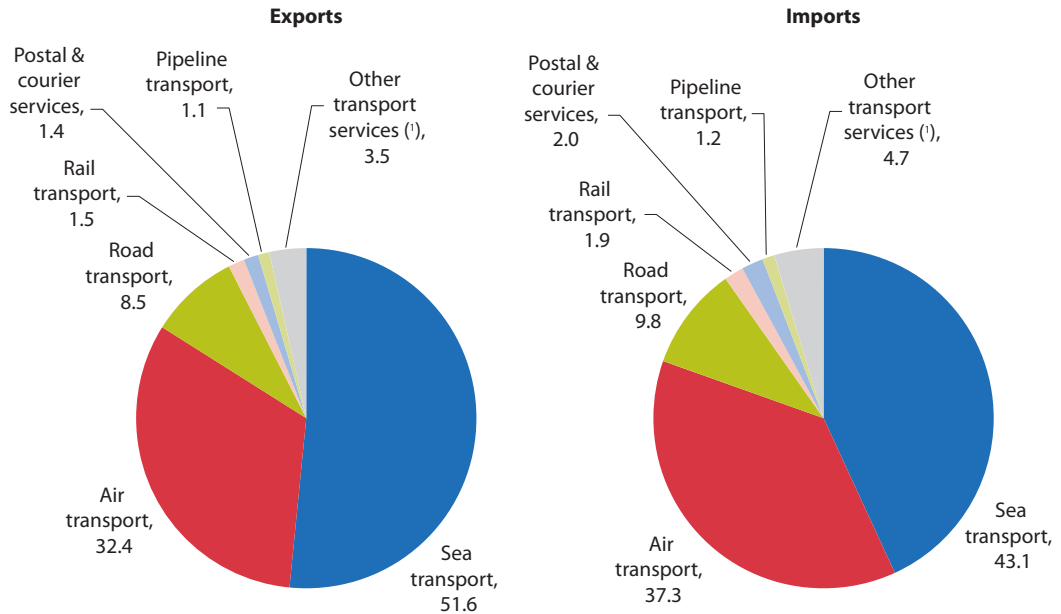


Note: 2016: provisional.

Source: Eurostat (online data code: bop_its6_det)

Figure 3.12: Extra-EU trade in transport services, EU-28, 2015

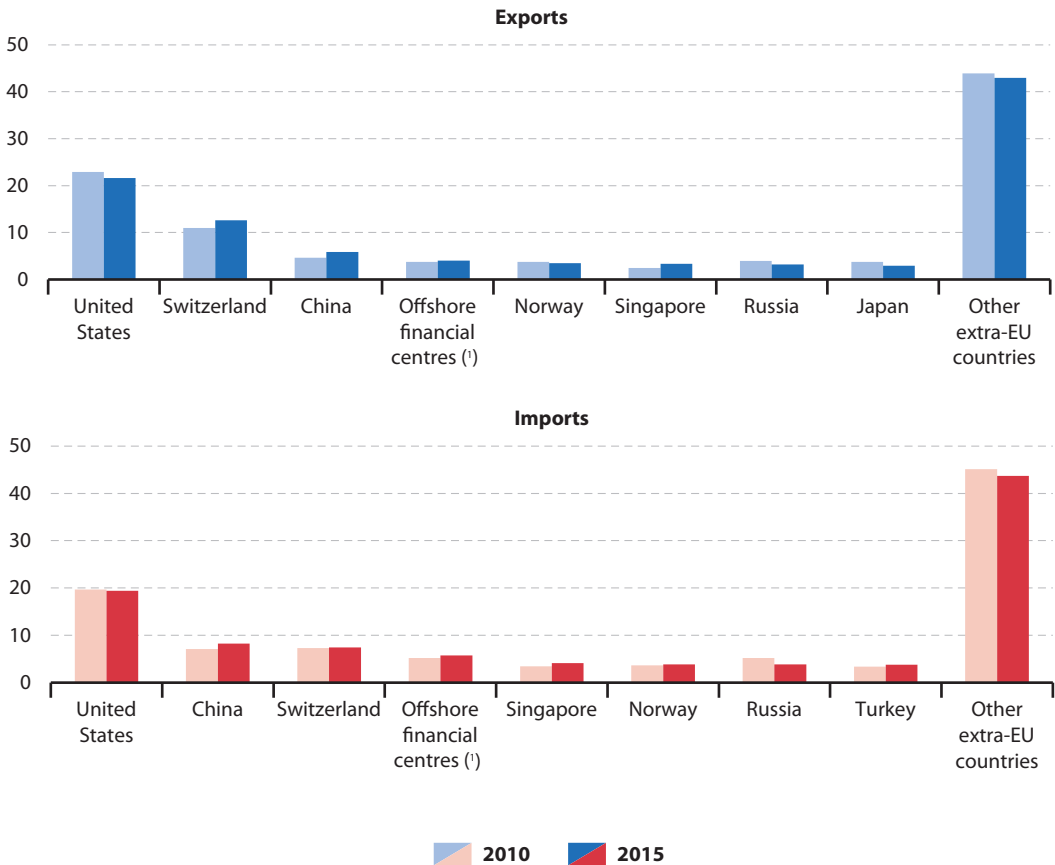
(% share of total for transport services)



(¹) Residual category created for the purpose of this publication.

Source: Eurostat (online data code: bop_its6_det)

Figure 3.13: Principal extra-EU trade partners for transport services, EU-28, 2010 and 2015
(% of extra-EU total)



Note: based on a selected list of partners (see methodological notes in the introduction for more details). Israel, Saudi Arabia, Ukraine and United Arab Emirates: not available.

(*) Excluding Hong Kong and Singapore.

Source: Eurostat (online data code: [bop_its6_det](#))

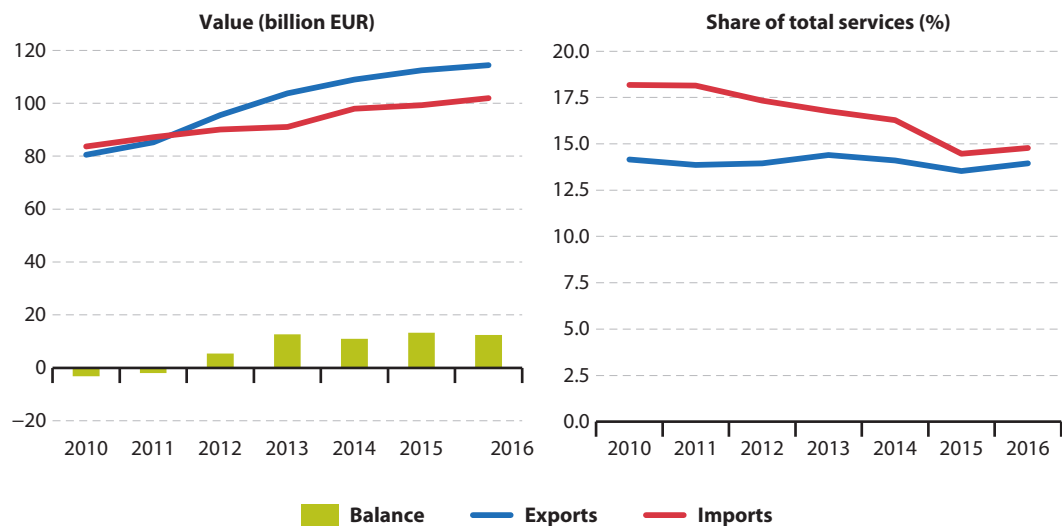
Travel services

Within the balance of payments, the travel category registers 'visitor' expenditure (taking account of persons who stay for less than one year and excluding, for example, expenditures related to cross-border commuters, seasonal workers and students); note also that the figures exclude any expenditure related to transport services. Exports of travel services cover goods and services for own use or to give away that are acquired from an economy by non-residents during visits to that economy. Imports of travel services cover goods and services for own use or to give away acquired from other economies by residents during visits to these other economies. For example, when Chinese tourists visit the [European Union \(EU\)](#) the expenditure they make during their trip contributes towards the EU-28's exports of travel services, whereas citizens from the EU Member States who go on holiday to Beijing contribute towards the value of EU-28 imports of travel services.

The EU-28 exported travel services to non-member countries that were valued at EUR 114 billion in 2016, while imports stood at EUR 102 billion. While the EU-28 ran a trade deficit for travel services in 2010 and 2011 — in other words, the expenditure of EU tourists visiting the rest of the world was higher than the expenditure of foreign tourists visiting the EU — this situation was reversed in 2012 and the EU-28 continued to record a trade surplus for travel services during the period 2013-2016 (see Figure 3.14).

The relative importance of travel services within the total value of extra-EU trade in services declined during the period 2010-2016. This was particularly true for EU-28 imports of travel services: their share of total imports for all services declined from 18.2 % in 2010 to 14.5 % by 2015, before a modest recovery in 2016 (to 14.8 %).

Figure 3.14: Developments for extra-EU trade in travel services, EU-28, 2010-2016



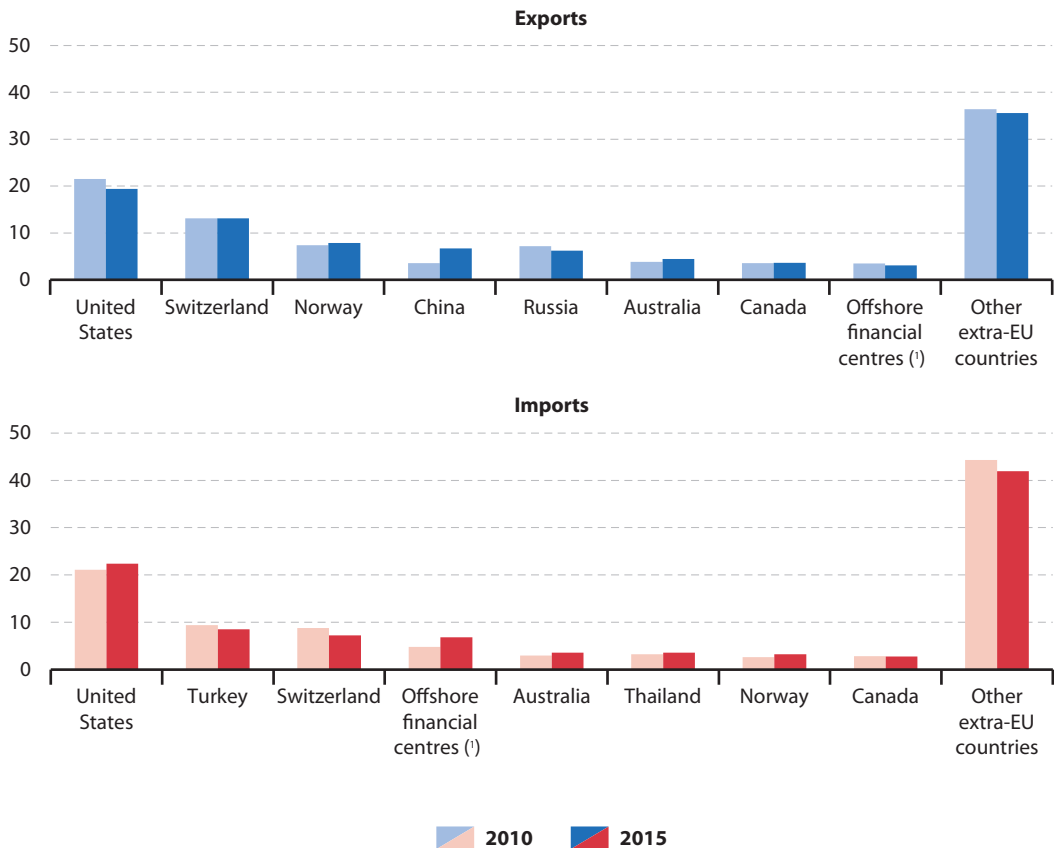
Note: 2016: provisional.

Source: Eurostat (online data code: [bop_its6_det](#))

The EU-28's main trading partner for travel services was the United States, which accounted for almost one quarter (19.4 %) of extra-EU exports in 2015 and for a somewhat higher share of its imports (22.4 %). Given their close geographic proximity, it is perhaps unsurprising to find that Switzerland (13.1 %) and Norway (7.8 %) had the second and third highest shares of extra-EU exports of travel services in 2015. They were followed by China (6.7 %) and Russia (6.2 %); note that the Chinese share of EU-28 exports of travel services almost doubled between 2010 and 2015.

The relative importance of the United States as the EU-28's main origin of travel imports grew slightly between 2010 and 2015. Some 8.5 % of the EU-28's imports of travel services in 2015 originated in Turkey, while it is also interesting to note that Australia and Thailand each accounted for 3.6 % of the EU-28's imports (see Figure 3.15).

Figure 3.15: Principal extra-EU trade partners for travel services, EU-28, 2010 and 2015
(% of extra-EU total)



Note: based on a selected list of partners (see methodological notes in the introduction for more details). Israel, Saudi Arabia, Ukraine and United Arab Emirates: not available.

(*) Excluding Hong Kong and Singapore.

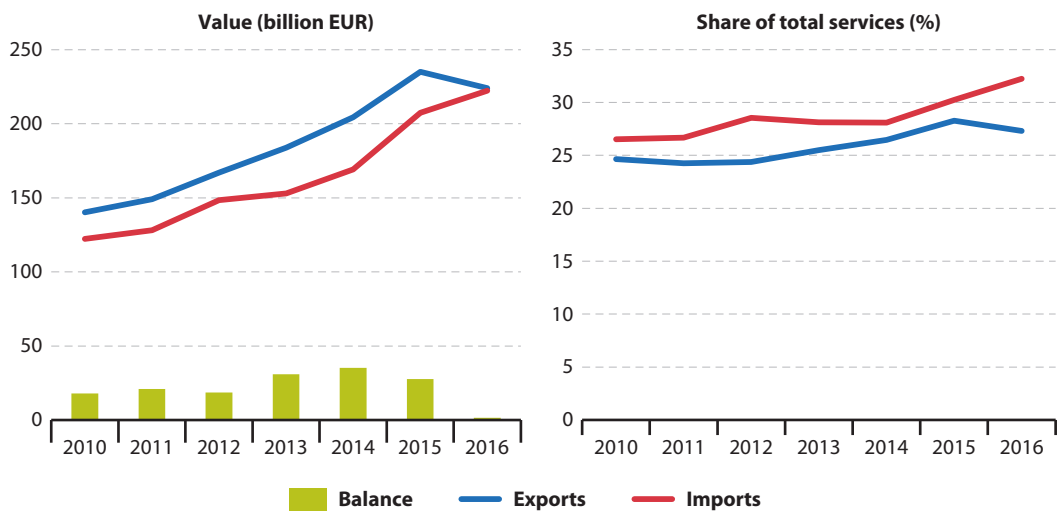
Source: Eurostat (online data code: [bop_its6_det](#))

International trade in travel services within the EU is principally split as a function of geography, as the more southerly EU Member States tend to record a considerable trade surplus for travel services (as they welcome far more visitors and therefore record a higher level of exports). For example, the value of travel service exports from Croatia was more than 10 times as high as the value of its imports of travel services in 2015, while the same ratio for Greece revealed that its exports were valued some 6.6 times as high as its imports. The relative importance of travel services as part of total trade in services was generally quite high in a number of traditional tourist destinations; for example, travel services accounted for 71.0 % of all services exported by Croatia in 2015.

Other business services

As noted above, the category covering 'other business services' includes a diverse range of services, including research and development (R & D), legal services, accountancy and management consultancy, and real estate services. Figure 3.16 shows the development of international trade for the other business services aggregate, with the EU-28 recording a trade surplus throughout the period 2010-2016. Although the value of exports and imports increased steadily between 2010 and 2015, with the highest annual growth rates in 2015 (when exports rose by 15.0 % and imports by 22.5 %), there was a marked change to developments in 2016, as the value of EU-28 exports fell by 4.7 %, while imports continued to grow (up 7.2 %). This resulted in the trade surplus for other business services almost being cancelled out (EUR 1.7 billion in 2016, compared with a relative peak of EUR 35.2 billion in 2014).

Figure 3.16: Developments for extra-EU trade in other business services, EU-28, 2010-2016

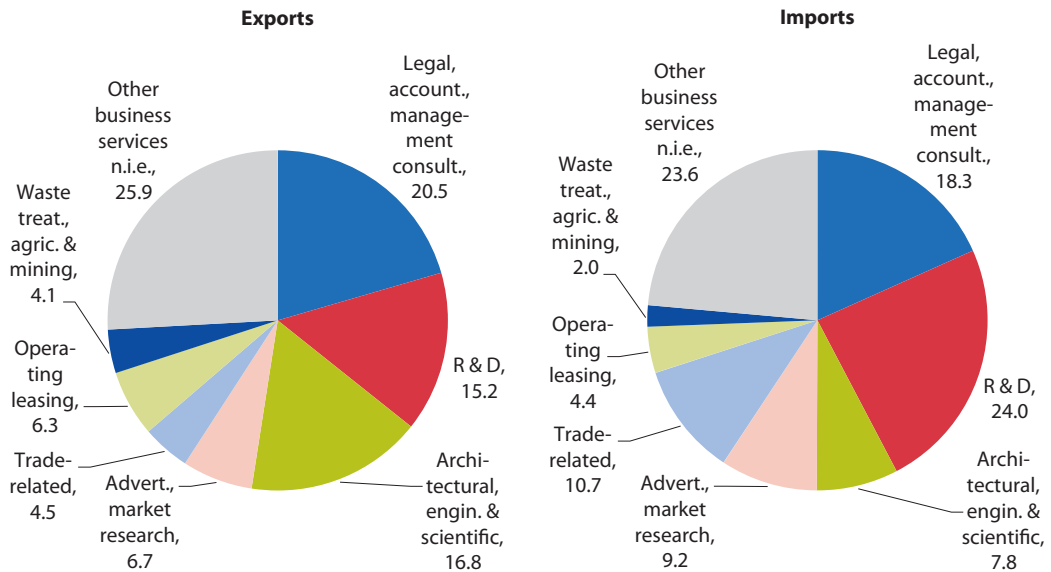


Note: 2016: provisional.

Source: Eurostat (online data code: [bop_its6_det](#))

Figure 3.17 shows the relative importance of the different business services as regards their contribution to EU-28 exports and imports in 2015. The largest subcategory for exports was legal, accounting and management consulting services, which accounted for just over one fifth (20.5 %) of the EU's other business services exports. In contrast, research and development (R & D) was the largest subcategory for imports, accounting for almost one quarter (24.0 %) of the EU's other business services imports.

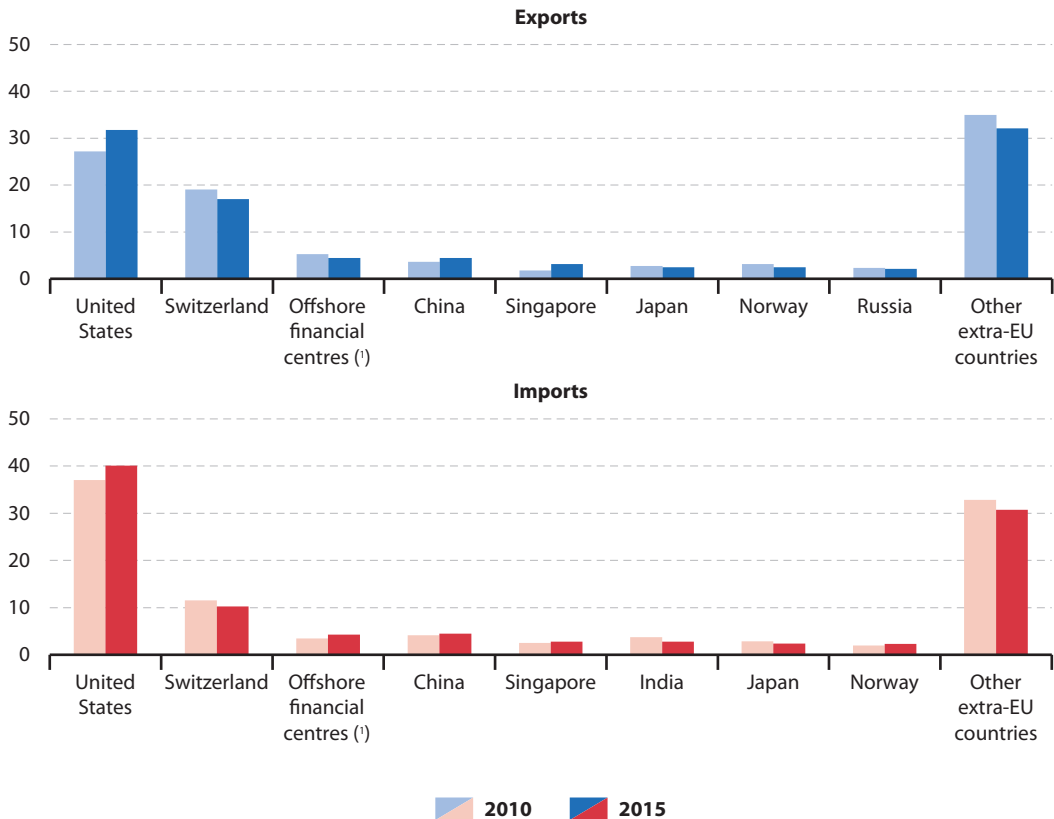
Figure 3.17: Extra-EU trade in other business services, EU-28, 2015
(% share of total for other business services)



Source: Eurostat (online data code: [bop_its6_det](#))

In 2015, the United States was the EU's main trade partner for both imports and exports of other business services; it accounted for 40.1 % of all imports and 31.8 % of all exports; note that the share of the United States, despite already being relatively high, continued to grow between 2010 and 2015. Switzerland was the only other trade partner to record a double-digit share of EU-28 trade in 2015 (17.0 % of the EU's exports and 10.2 % of its imports).

Figure 3.18: Principal extra-EU trade partners for other business services, EU-28, 2010 and 2015
(% of extra-EU total)



Note: based on a selected list of partners (see methodological notes in the introduction for more details). Israel, Saudi Arabia, Ukraine and United Arab Emirates: not available.

(!) Excluding Hong Kong and Singapore.

Source: Eurostat (online data code: [bop_its6_det](#))

Box 3.4 — Development work on services trade by enterprise characteristics (STEC)

Statistics on [services trade by enterprise characteristics \(STEC\)](#) present traditional service trade statistics broken down by the characteristics of the enterprises involved in such trade.

STEC data are produced by combining statistical business register information with data on international trade in services at the enterprise level. This allows data on the value of each enterprise's exports and imports to be linked to the equivalent enterprise's characteristics that are provided in the business register. The resulting dataset makes it possible to analyse the population of traders using the various classifications that are provided by the register (for example, the size of enterprise, the type of ownership of the enterprise, or its main economic activity). By linking these different datasets it is possible to give more value to the data that has been collected without any

additional burden on enterprises and with only modest costs for the compilers of these statistics.

In 2013, Eurostat set up a taskforce that was asked to define a set of STEC tabulations. The main results of the work undertaken by the taskforce during 2015-2016 included the development of a harmonised methodology and its publication in a STEC compilers' guide (a co-publication between Eurostat and the OECD, 2017).

The development of STEC statistics represents a notable step towards integrating statistics on international trade in services into business statistics. This process will be further enhanced when moving from this set of experimental statistics towards a more coherent and complete set of STEC statistics covering all EU Member States.

4

Foreign direct investment



In a world where political, economic and technological barriers are rapidly disappearing, there is increasing competition between countries to attract foreign investment. Modern-day business relationships nowadays extend well beyond the traditional exchange of goods and services, as witnessed by the increasing reliance of enterprises to engage in mergers, partnerships, joint ventures, licensing agreements, and other forms of cooperation.

This chapter focuses on one such alternative economic strategy, namely, **foreign direct investment (FDI)**. FDI is carried out by enterprises that decide to invest abroad by establishing new plant/offices, or alternatively, through purchasing the assets of an existing foreign enterprise. As such, FDI activities may complement international trade flows, as they allow enterprises to produce (and often sell) goods and/or services in countries beyond where they were first established.

Does foreign direct investment benefit all?

FDI can potentially generate a wide range of benefits for both sides of the relationship. Outward investors may, among others: reduce transport costs by locating plant in close proximity of new markets; avoid tariffs and/or quotas by producing directly in foreign markets; employ cheaper and/or skilled labour; spread their risk through diversification; generate income (both as profits and dividends). Those countries receiving inward investment may also benefit, for example, through: an increase in **gross domestic product (GDP)** and productive

capacity; higher employment rates; a transfer of technology; lower levels of imports; a stimulus being given to their domestic economy through foreign investment.

That said, there is a growing volume of literature surrounding the activities of **multinational enterprises** and their motivations for engaging in FDI. Some of the principal concerns centre around the role of offshore financial centres ⁽¹⁾ and **special purpose entities (SPEs)** (see Box 4.1 below for more information) which account for a growing share of global investments. Using entities such as these, multinational enterprises may take advantage of tax rate differentials and legislative differences between different jurisdictions, carrying out a range of intra-firm financial operations and holding activities.

Main statistical findings

- The share of the EU-28's outward and inward stocks of FDI relative to GDP consistently rose during the period 2008-2015.
- There were sizeable disinvestments in the EU-28 during 2014, followed by a sharp rebound in 2015, driven by an upturn in mergers and acquisitions activity.
- In 2015, the United States was the EU-28's principal partner for both inward and outward FDI stocks.
- Financial and insurance activities accounted for almost three quarters of the inward FDI positions held in the EU in 2015.
- The importance of FDI was very high in the relatively small economies of Luxembourg, Cyprus and Ireland, where high capital flows may be linked to the activities of special purpose entities.

(1) The full list of offshore financial centres includes: Andorra, Antigua and Barbuda, Anguilla, Aruba, Barbados, Bahrain, Bermuda, Bahamas, Belize, Cook Islands, Curaçao, Dominica, Grenada, Guernsey, Gibraltar, Hong Kong, Isle of Man, Jersey, St Kitts and Nevis, Cayman Islands, Lebanon, Saint Lucia, Liechtenstein, Liberia, Marshall Islands, Montserrat, Mauritius, Nauru, Niue, Panama, Philippines, Seychelles, Singapore, Sint Maarten, Turks and Caicos Islands, Saint Vincent and the Grenadines, British Virgin Islands, US Virgin Islands, Vanuatu, Samoa. For the purpose of this publication, information for Hong Kong and Singapore is shown separately and hence these two countries are excluded from the offshore financial centres aggregate.



Statistics on foreign direct investment

Foreign direct investment (FDI) is a category of investment that reflects the objective of a resident enterprise (the direct investor) in one economy establishing a lasting interest in another enterprise (the direct investment enterprise) which is resident in a different economy to that of the direct investor. The lasting interest or effective voice implies the existence of a long-term relationship between the direct investor and the direct investment enterprise and a significant degree of influence on the management of the direct investment enterprise, which is deemed to exist if the investor acquires at least 10 % of the ordinary shares/voting rights of the direct investment enterprise.

Definitions for FDI statistics are based on the IMF's [sixth balance of payments and international investment position manual \(BPM6\)](#). Four kinds of FDI are identified: the creation of productive assets (so-called 'greenfield investments'); the purchase of existing assets (for example, through acquisitions, mergers or takeovers); the extension of capital which relates to additional new investments as an expansion of an established business (conceptually and in terms of economic impact, this is similar to greenfield investments); and financial restructuring which refers to investment for debt repayment or loss reduction.

FDI is classified primarily on a directional basis: resident direct investment abroad (or outward direct investment) and non-resident investment in the reporting economy (or inward direct investment). Statistics on FDI include not only the initial flow/acquisition of equity capital, but also subsequent capital transactions between the direct investor and the direct investment enterprise. As such, through flows of FDI, an enterprise/country may build-up its international investment position, or stock of FDI, which may differ

from accumulated flows due to revaluations (changes in prices or exchange rates) and other adjustments like rescheduling, the cancellation of loans or debt-equity swaps.

For the purpose of this publication, the rate of return (as shown at the end of this Chapter) is calculated as: net income on FDI divided by the net investment position (as measured by the stock of FDI).

Future statistical developments

FDI statistics for the [European Union \(EU\)](#) are currently only collected according to the immediate counterpart country, for either the host country (inward FDI) or investing country (outward FDI); this follows the approach adopted for the compilation of balance of payments statistics. However, an investor can, for various reasons, choose to pass investments through a special purpose entity (SPE) located in a third country thereby distorting or skewing FDI statistics based on the immediate counterpart.

To address this issue, the European Parliament and the Council adopted [Regulation \(EU\) 2016/1013](#) in June 2016 amending Regulation (EC) No 184/2005 on Community statistics concerning balance of payments, international trade in services and foreign direct investment. The amendment obliges EU Member States to collect annual FDI statistics based on the ultimate ownership concept. In addition, it also requires Member States to collect statistics distinguishing between the creation of productive assets (greenfield investments) and the purchase of existing assets (takeovers). Together with the Member States, Eurostat is currently working on the development of a framework and methodology for the collection of these FDI statistics — with the aim that they should be published for the first time in 2020.

4.1 Foreign direct investment — intensity ratios

Investors are generally averse to risk: as such, those countries characterised by economic and/or political uncertainty are likely to deter investors. By contrast, those economies with good fundamentals (relatively low inflation and interest rates, a stable currency, respect for intellectual property rights) are more likely to attract international investment.

Although foreign direct investment (FDI) measures — such as financial flows, investment positions, and income flows — are not components of gross domestic product (GDP), a set of normalised ratios may be computed comparing these measures to GDP, thereby permitting a comparison of results between economies of different sizes. As such, FDI intensity ratios provide one means for assessing investment integration within the international economy; they form the basis of this first subchapter.

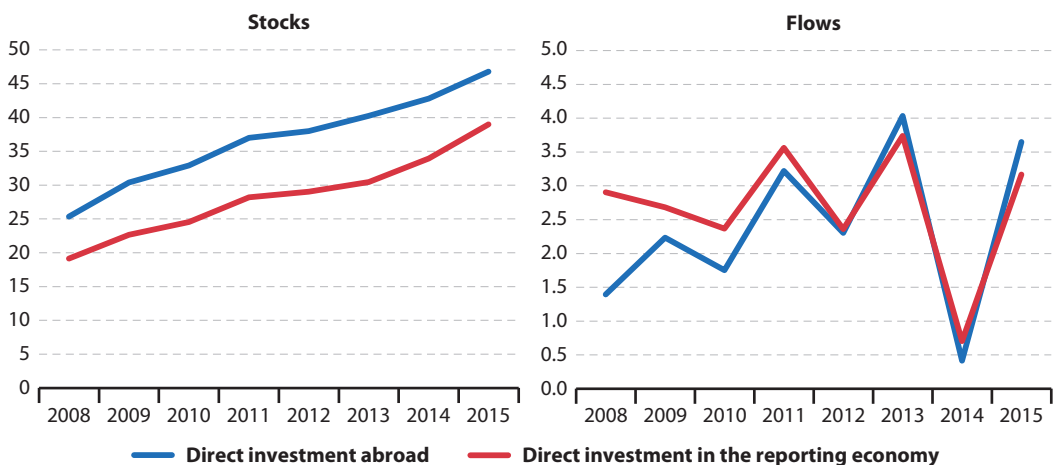
Relative to GDP, EU-28 FDI stocks rose unrelentingly during the period 2008-2015

The most striking feature of Figure 4.1 is the contrast between the intensity ratios for FDI stocks and flows; the former displayed a relatively steady upward progression, whereas developments for the latter were more volatile, with an oscillating pattern (note the different scales in the two parts of the Figure).

Since 2008, the EU-28's outward investment position has been positive — in other words, the value of the EU-28's outward stocks of FDI has exceeded the value of inward stocks. In 2015, the ratio of the EU-28's stock of FDI (relative to GDP) was 46.8 %, while the stock of inward investment in the EU-28 (relative to GDP) was 39.0 %. Between 2008 and 2015 ⁽²⁾, there was a relatively rapid and continuous increase in the EU-28's FDI stocks relative to GDP, as the intensity ratio for outward stocks rose by 21.4 percentage points and that for inward stocks by 19.9 percentage points; note that the implementation of a new methodology as of 2013 did not alter this pattern. As such, the EU-28 economy would appear to be increasingly exposed to the benefits and pressures associated with globalisation.

⁽²⁾ It should be noted that the implementation of a new methodology as from 2013 did not alter the ongoing upward development observed since 2008.

Figure 4.1: Extra-EU foreign direct investment relative to GDP, EU-28, 2008-2015
(%)



Note: break in series, 2013.

Source: Eurostat (online data codes: bop_fdi6_ind, bop_fdi_main and nama_10_gdp)



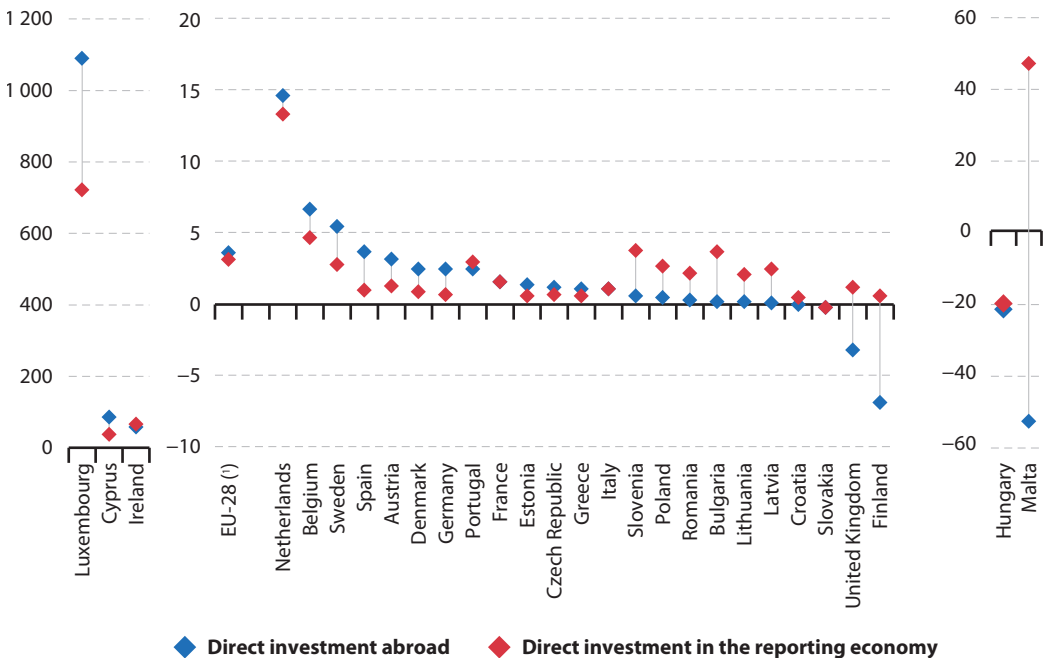
However, the pattern of developments for FDI flows was quite different; note that the time series presented begins in 2008, which marked the onset of the global financial and economic crisis, and that by 2008 flows of FDI both to and from the EU-28 had already fallen considerably compared with their pre-crisis highs. Investment flows relative to GDP followed a widely fluctuating, but broadly upward pattern between 2008 and 2013, suggesting there was continued uncertainty among investors in the aftermath of the crisis. The situation changed abruptly in 2014, as both the intensity ratio for EU-28 investment flows abroad and that for inward investment flows in the EU-28 fell dramatically, followed by a swift rebound for both ratios in 2015. These results reflect, at least to some degree, mergers and acquisitions (M & A) activity, and sizeable disinvestments made in 2014.

Relative to GDP, FDI flows were particularly high in 2015 for EU economies characterised by high exposure to financial markets

Figure 4.2 shows a comparable set of investment intensity ratios based on outward and inward flows of FDI to/from the European Union (EU) Member States; note that negative flows indicate reverse investment or disinvestment — with at least one of equity capital, reinvested earnings or intra-company loans being negative. At an individual country level, it is also important to consider that investment flows can be very 'lumpy', especially if these concern sizeable investment decisions taken by large multinational enterprises.

Figure 4.2: Foreign direct investment flows relative to GDP, 2015

(%)



Note: the figure is split into three parts with different scales on the y-axis. A negative value indicates that divestment was greater than investment.

(*) Extra-EU trade.

Source: Eurostat (online data code: [bop_fdi6_ind](#))

Three of the smaller EU Member States recorded extremely high ratios of outward flows of direct investment in 2015: in Luxembourg these were valued at more than 10 times the size of the national economy, while outward investment represented 86.1 % of GDP in Cyprus and 58.6 % in Ireland. These ratios often reflect significant capital flows that are linked to the activities of special purpose entities (SPEs).

Box 4.1 — Special purpose entities

Special purpose entities (SPEs) are legal entities that are formally registered with a national authority and subject to the legal and tax obligations of the country in which they are resident. They are ultimately controlled by a non-resident group and usually they have very few employees and little (or no) productive capacity or physical presence in the host country. Most of their assets and liabilities represent investments in or from other countries and their core business consists of holding/financing non-resident companies on behalf of their enterprise group, as well as channelling funds between affiliates.

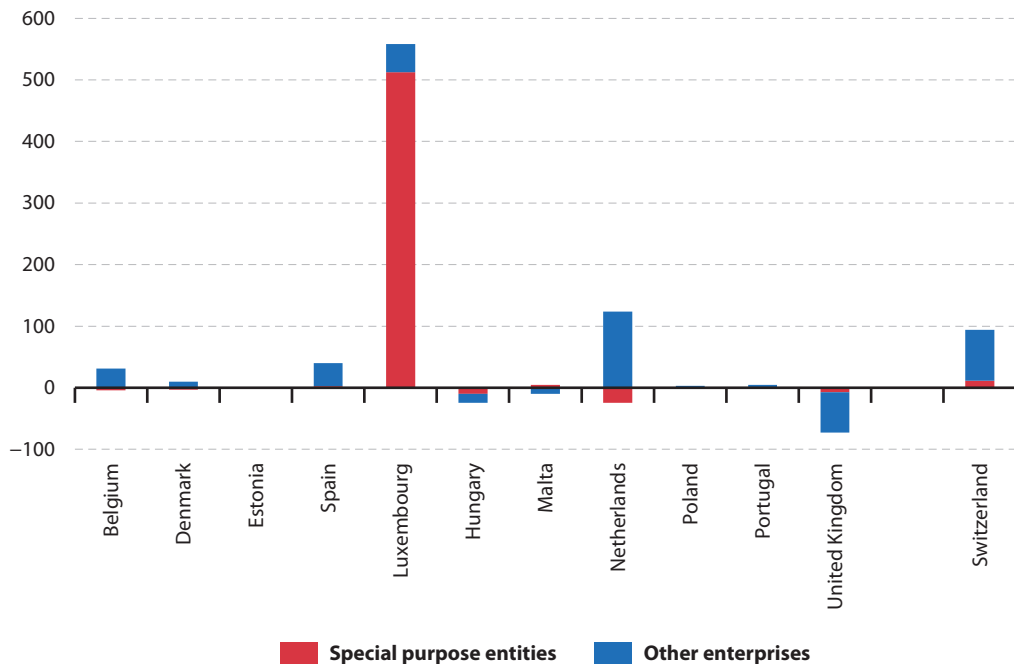
This area is a concern for policymakers insofar as there is potential for a substantial division between the productive investments of multinational enterprises and the income they generate. There are a number of international efforts to stem such flows of capital through tighter controls, for example the [Action Plan on Base Erosion and Profit Shifting \(BEPS\) initiative](#) launched in 2013. By excluding foreign investments of resident SPEs, policymakers may have a better idea as to the probable real impact of FDI on their economies.

Important: note that data presented in this chapter for the EU-28 and its Member States include **special purpose entities (SPEs)** and that this probably results in stocks and flows of FDI in the EU-28 and its Member States being overstated in relation to the 'real' world, economic impact of such investments. Indeed, the [OECD Benchmark Definition of Foreign Direct Investment \(2008\)](#) recommends publishing data for SPEs separately, in order to permit a more representative analysis of the productive impact of foreign investment on national economies. By doing so, it is likely (but not always the case) that stocks and flows of inward and outward FDI will be smaller. Furthermore, if information on SPEs is removed from FDI statistics, the geographical distribution of FDI will also be impacted (those countries where SPEs play an important role will generally see their shares fall). In a similar vein, such changes may also impact upon information analysed by economic activity — for example, the relative weight of the business services sector may be reduced, as it includes holding companies.



Luxembourg is a leading example of an economy where SPEs play a considerable role as many of its FDI transactions are made by investment funds and holding companies. In 2015, the flow of outward FDI from Luxembourg shrunk from EUR 558.0 billion to just EUR 45.5 billion if SPEs are excluded from the analysis (see Figure 4.3). The presence of SPEs may also explain the relatively high share of FDI flows relative to GDP in the Netherlands. Otherwise, the level of investment in each of the EU Member States reflects, to some degree, the relative attractiveness of each country to investors, and may be influenced by a wide range of factors: such as economic fundamentals, natural resource endowments, the price and quality of labour or corporate tax policy.

Figure 4.3: Foreign direct investment flows abroad, by type of entity, 2015
(billion EUR)



Note: a negative value indicates that divestment was greater than investment. Cyprus, Austria and Sweden: confidential. Data for the other EU Member States are either not available or values are negligible.

Source: Eurostat (online data code: [bop_fdi6_flow](#))

4.2 Foreign direct investment — stocks

In a globalised economy, enterprises can make investments abroad to establish a commercial/territorial presence in foreign markets, for example, by founding hotel chains or retail banks. Within the [General Agreement on Trade in Services \(GATS\)](#), this type of trade in services is referred to as mode 3 (the supply of international services).

[Foreign direct investment \(FDI\)](#) stocks (or positions) measure the total value of direct investment at a given point in time; the statistics presented in this subchapter focus on stocks as measured at the end of the year.

FDI stocks were concentrated in the services sector

An analysis of the EU-28's international investment position at the end of 2014 reveals that the services sector — defined here as financial and insurance activities; professional, scientific and technical activities; distributive trades; information and communication; administrative and support service activities; real estate activities; transportation and storage; accommodation and food service activities — accounted for 59.0 % of outward investment positions and for 87.4 % of its inward investment.

At the end of 2014, the United States was the main location for the EU-28's outward FDI stocks ...

Comparing the EU-28's positions for inward and outward investment, it is apparent that inward investment appears to be more concentrated in the hands of relatively few, developed economies, while the EU-28's outward stock of FDI was more widely distributed across a broader range of developed and emerging economies (see Figure 4.4). For example, while China accounted for a 0.6 % share of inward FDI positions in the EU-28 economy, about 2.4 % of the EU-28's outward stocks of FDI were held in China.

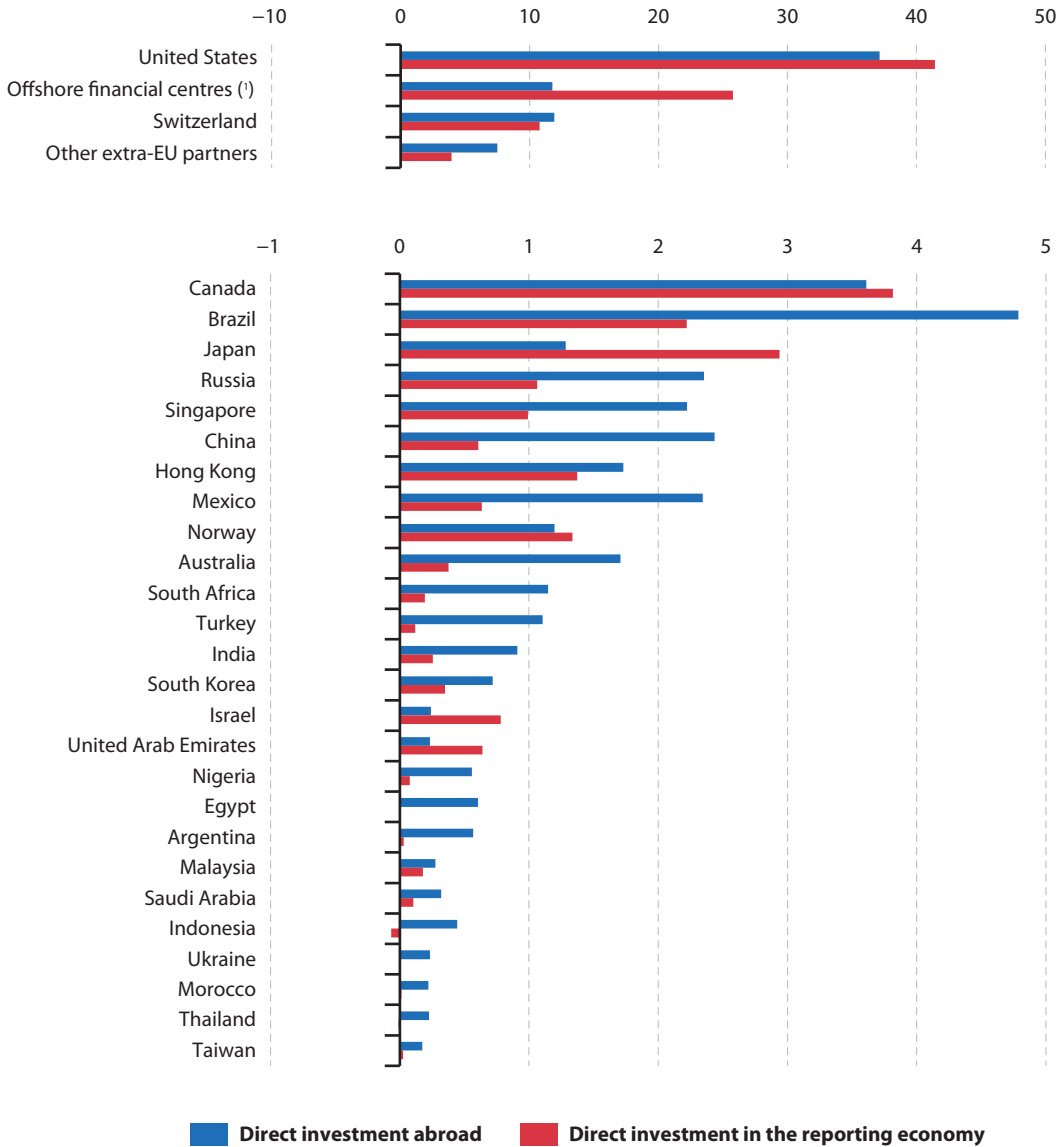
At the end of 2015, the United States had the biggest share (37.1 %) of the EU-28's FDI stocks abroad, valued at EUR 2.6 trillion; the second largest partner was Switzerland (11.9 %). Otherwise, offshore financial centres had the third largest share (11.8 %) of the EU-28's outward stock of FDI at the end of 2015, followed by Brazil (4.8 %) and Canada (3.8 %), while Asian countries together accounted for more than one tenth of the EU-28 total (principally China, Singapore, Hong Kong, Japan and South Korea).

... and was also the principal inward investor in the EU-28

At the end of 2015, the United States held more than two fifths (41.4 %) of the inward investment in the EU-28 from the rest of the world. The United States therefore maintained its position as the major holder of FDI stock in the EU-28 (in 2014, most of the US stock of FDI held in the EU concerned investments in financial services, followed by manufacturing — in particular, food, beverages and tobacco, petroleum, chemicals, pharmaceuticals, rubber and plastics). Offshore financial centres (25.8 %) and Switzerland (10.8 %) were the second and third largest holders of inward FDI stock in the EU-28; the majority of the inward stock held by offshore financial centres was located in Bermuda, Jersey, the Cayman Islands and Gibraltar.



Figure 4.4: Extra-EU foreign direct investment positions, by partner, EU-28, 2015
(% of extra-EU total)



Note: the figure is split into two parts with different scales on the x-axis. A negative value indicates that divestment was greater than investment. Ranked on the average share of each partner based on direct investment abroad and direct investment in the reporting economy.

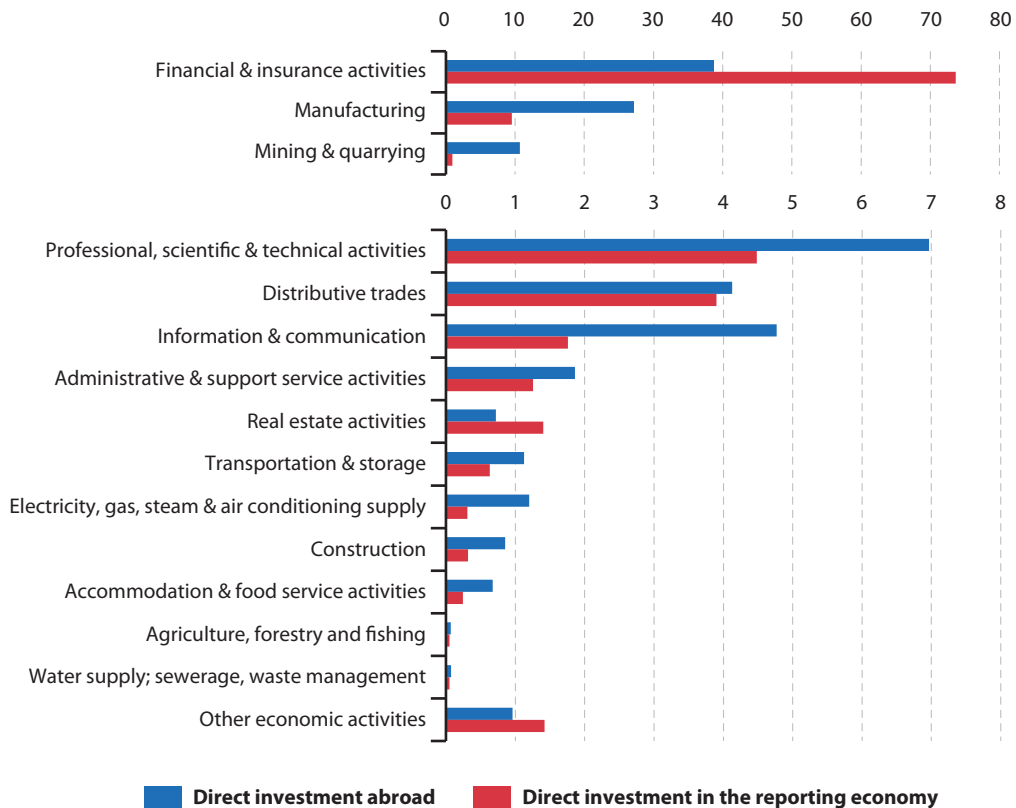
(*) Excluding Hong Kong and Singapore that are shown separately.

Source: Eurostat (online data code: [bop_fdi6_pos](#))

Financial and insurance activities accounted for almost three quarters of the inward FDI positions held in the EU at the end of 2014

The activity structure of the EU-28's FDI stock was dominated by financial and insurance activities (for which it ran a deficit), while most other service and non-service activities registered a positive balance. Financial and insurance activities held more than one third (38.7 %) of the EU-28's outward positions and almost three quarters (73.7 %) of the EU-28's inward positions. Manufacturing was the second largest activity, with 27.2 % of the EU-28's outward stocks and 9.5 % of its inward stocks (see Figure 4.5).

Figure 4.5: Extra-EU foreign direct investment positions, by economic activity, EU-28, 2014
(% of all economic activities)



Note: the figure is split into two parts with different scales on the x-axis. Ranked on the average share of direct investment abroad and direct investment in the reporting economy.

Source: Eurostat (online data code: [bop_fdi6_pos](#))

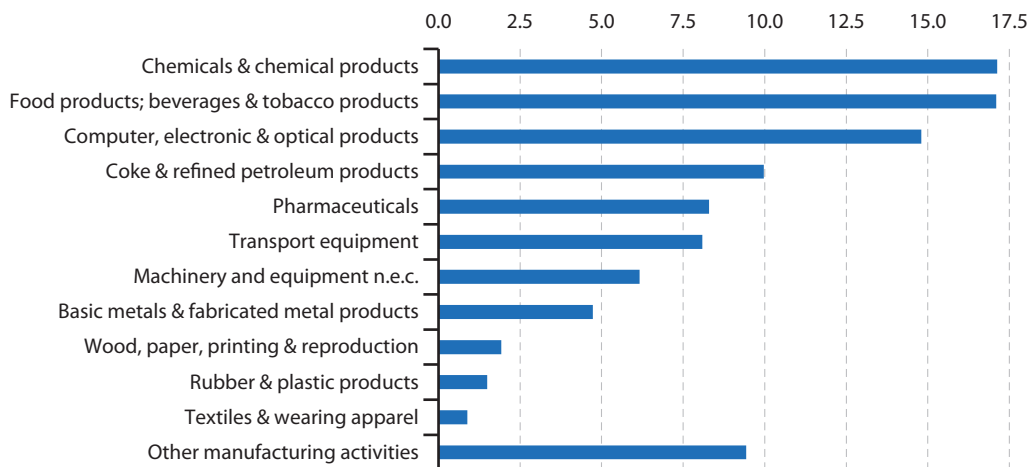


Figure 4.6 presents a detailed analysis of the FDI positions abroad, by manufacturing activity. It shows that at the end of 2014, a majority of the EU-28's outward stocks of FDI within manufacturing were held in the following activities: chemicals; food, beverages and tobacco; computer, electronic and optical products; coke and refined petroleum ^(*). It is also interesting to note that textiles and clothing accounted for the lowest share of the EU-28's outward stock of FDI in manufacturing activities (0.9 %); this may suggest that enterprises involved in the manufacture of these goods resorted to alternative forms of industrial organisation (for example, outsourcing or subcontracting).

(*) Note that the ranking by activity for stocks of direct investment abroad is of lower quality than comparable information pertaining to inward stocks as not all of the EU Member States are able to provide a breakdown of their FDI according to the activity of non-resident enterprises.

Figure 4.6: Extra-EU foreign direct investment positions abroad, by manufacturing activity, EU-28, 2014

(% of total for manufacturing activities)



Source: Eurostat (online data code: [bop_fdi6_pos](#))

The Netherlands and Luxembourg together held approximately half of all the EU's FDI stocks at the end of 2015

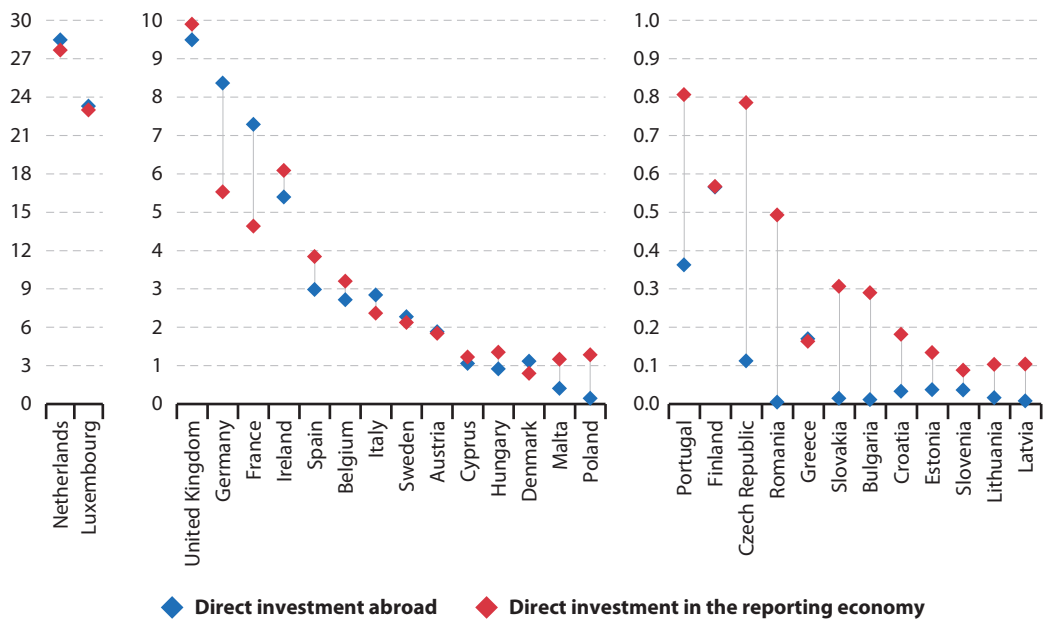
Figure 4.7 presents inward and outward FDI positions in the European Union (EU) Member States; note the information presented includes stocks of FDI held in other Member States. At the end of 2015, the Netherlands and Luxembourg both accounted for very high shares of the EU's inward and outward investment positions — indeed, the Netherlands (28.5 %) and Luxembourg (23.3 %) held more than half of the EU's outward stock of FDI; they were followed by the United Kingdom (9.5 %).

The pattern for inward investment positions was quite similar, as the Netherlands (27.7 %) and Luxembourg (23.0 %) again held a majority of the EU's inward FDI positions at the end of 2015, followed by the United Kingdom (9.9 %). These high shares for the Netherlands and Luxembourg likely reflect the considerable stock of investment that is held in investment funds and holding companies in both of these jurisdictions.

Germany had 8.4 % of the EU's outward FDI positions at the end of 2015, which could be contrasted with its 5.5 % share of inward investment positions in the EU; it was a net investor as it had a higher stock of FDI abroad compared with the level of inward FDI that was held in the German economy. A similar pattern was observed for France, which held 7.3 % of the EU's outward positions, some 2.7 percentage points higher than its share of inward investment.

Figure 4.7: Foreign direct investment positions, 2015

(contribution to EU total, in %)



Note: the figure is split into three parts with different scales on the y-axis. Ranked on the total share of direct investment abroad and in the reporting economy.

Source: Eurostat (online data code: [bop_fdi6_pos](#))



4.3 Foreign direct investment — flows

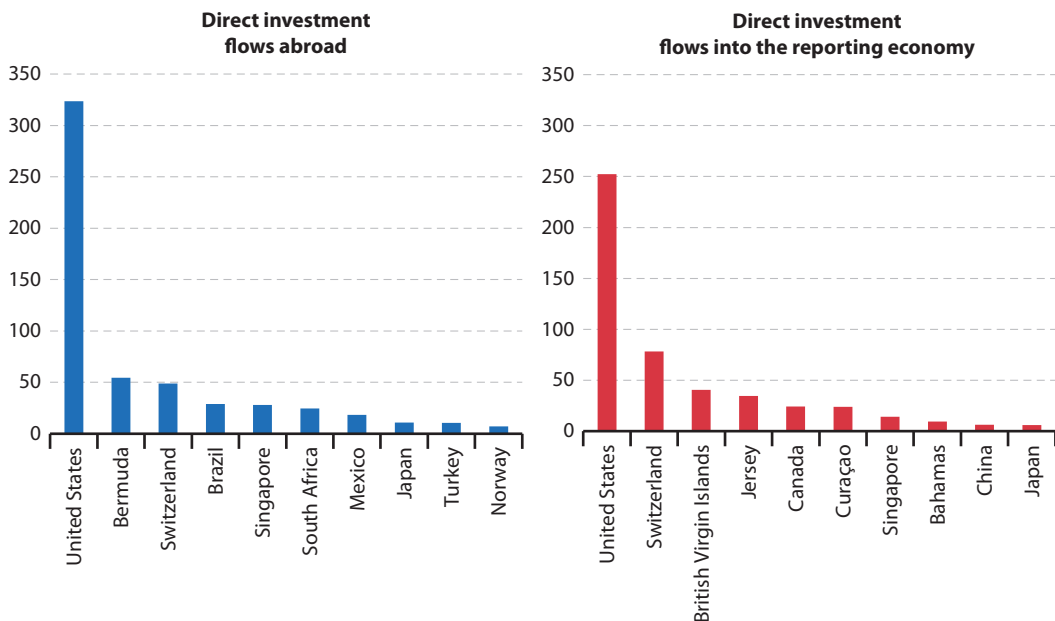
As with domestic investment, flows of **foreign direct investment (FDI)** can exhibit a very high degree of volatility from one year to the next. These changes may be linked to global economic fortunes, sector-specific developments, or the individual situations of enterprises considering foreign investments. The information presented in this subchapter examines flows of FDI between the **EU-28** and non-member countries.

The rebound in FDI flows in 2015 was most apparent with the EU's principal investment partner

The EU-28's flows of direct investment declined sharply in 2014 and rebounded the following year. This development was observed for both flows of EU-28 FDI that were destined for abroad, as well as direct investment flows coming into the EU-28. The reductions in 2014 could be largely attributed to large-scale disinvestments, while the upturn in FDI flows in 2015 could be mainly attributed to stronger mergers and acquisition (M & A) activity.

In 2015, a sizeable proportion of the EU-28's outward flows of FDI were destined for the United States (EUR 323.5 billion), while the levels of FDI destined for Bermuda (EUR 54.6 billion) and Switzerland (EUR 48.8 billion) were relatively similar. The value of the EU-28's direct investment flows to Brazil, Singapore and South Africa stood within the range of EUR 24-29 billion, while Mexico, Japan and Turkey were the only other partners to receive at least EUR 10 billion of FDI from the EU-28 in 2015 (see Figure 4.8).

Figure 4.8: Top 10 flows of extra-EU foreign direct investment, EU-28, 2015
(billion EUR)



Note: the sum of FDI flows to the top 10 partners may be greater than the total value of extra-EU flows due to divestment being greater than investment for some partners that are not shown.

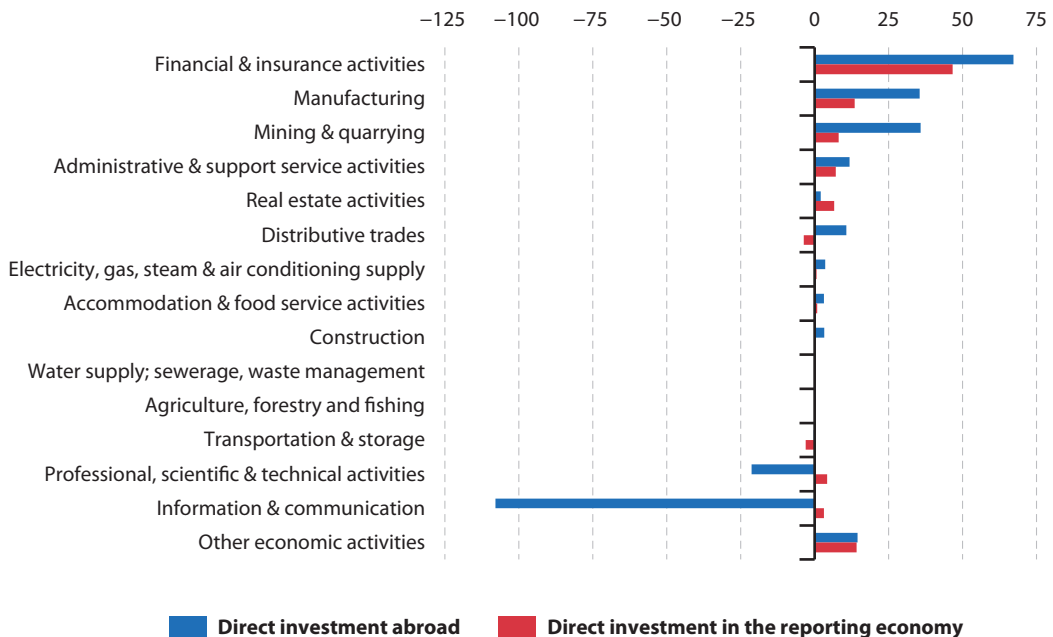
Source: Eurostat (online data code: [bop_fdi6_geo](#))

In 2015, the United States was, by far, the biggest origin of inward investment in the EU-28. The value of its FDI flows into the EU-28 was EUR 252.4 billion; as such, the EU-28 was a net investor with its principal partner in 2015, with a surplus of EUR 71.1 billion. Switzerland was the second largest investor in the EU-28, its flows of FDI were valued at EUR 78.3 billion; this meant that Switzerland was a net investor in the EU-28 to the value of EUR 29.5 billion in 2015. Two offshore financial centres — the British Virgin Islands and Jersey — had the third and fourth highest flows of FDI into the EU-28, while Canada, Curaçao and Singapore were the only other partners that provided at least EUR 10 billion of FDI into the EU-28 during 2015.

In 2014, financial and insurance activities accounted for the highest share of both inward and outward flows of EU-28 FDI

In 2014, the largest flows of outward FDI from the EU-28 to non-member countries were recorded for financial and insurance activities (EUR 67.2 billion), mining and quarrying (EUR 35.9 billion) and manufacturing (EUR 35.5 billion). Financial and insurance activities also recorded the highest value of inward investment flows into the EU-28 (EUR 46.7 billion in 2014), while manufacturing was the only other activity — apart from the residual category of other economic activities — to record inward investment valued at more than EUR 10 billion (see Figure 4.9).

Figure 4.9: Extra-EU foreign direct investment flows, by economic activity, EU-28, 2014
(billion EUR)



Note: ranked on the average value of direct investment abroad and direct investment in the reporting economy. A negative value indicates that divestment was greater than investment.

Source: Eurostat (online data code: [bop_fdi6_flow](#))



4.4 Foreign direct investment — rates of return

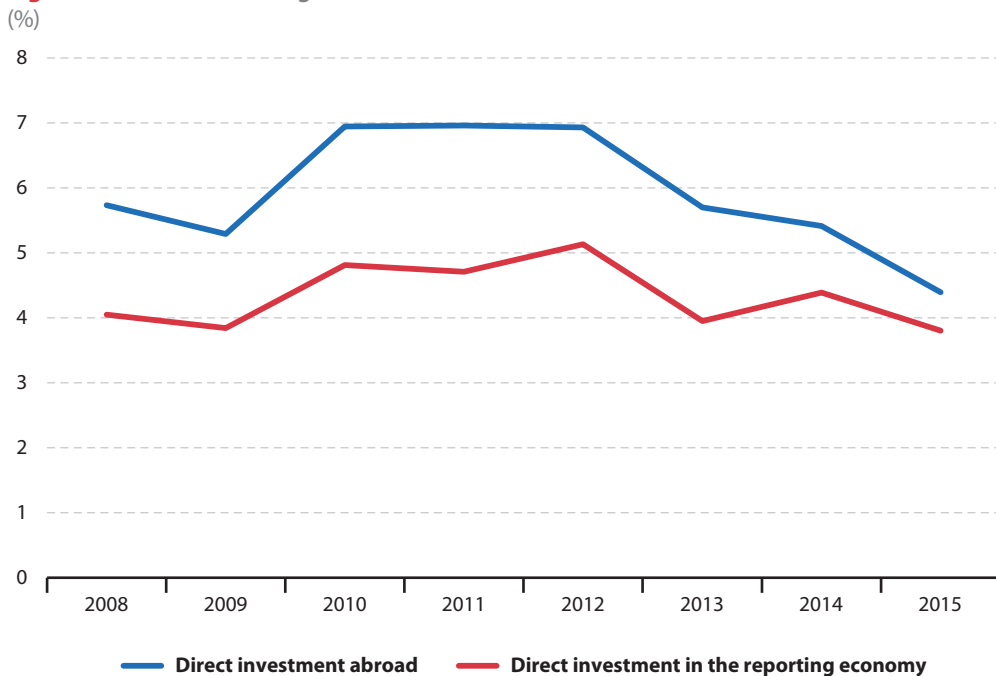
While the first three subchapters have provided information on the levels and shares of [foreign direct investment \(FDI\)](#) flows and stocks, this final subchapter analyses the returns that investors obtain from their foreign investments.

As with all enterprises, economic theory suggests that enterprises which invest abroad will seek to maximise their profits. However, if they are based in more than one country then [multinational enterprises](#) have a degree of flexibility that may allow them to adapt their global strategy to reflect the economic conditions in different markets. Their behaviour is further complicated by an opportunity to engage in complex financial flows and transfers between different cost centres (often designed to lower their exposure to, among other things, corporate taxation).

The rate of return on EU-28 direct investment abroad fell from 7.0 % in 2011 to 4.4 % in 2015

With the EU-28's stock of outward FDI growing continuously in recent years, levels of investment income also needed to increase if the rate of return on FDI was to remain unchanged. The level of net income received from non-member countries on outward stocks of FDI decreased in 2015 to EUR 302.9 billion. Figure 4.10 reveals that the rate of return on EU-28 investment abroad stood at 4.4 % in 2015. As such, the rate of return on the EU-28's outward investment fell for the fourth consecutive year, down from a peak of 7.0 % in 2011.

Figure 4.10: Extra-EU foreign direct investment, rates of return, EU-28, 2008-2015



Note: the rate of return is calculated as net income on investment / net investment position. Break in series: 2013.

Source: Eurostat (online data codes: [bop_fdi6_pos](#), [bop_fdi6_inc](#) and [bop_fdi_main](#))

Net income paid to non-member countries on their FDI positions in the EU-28 increased to EUR 218.6 billion in 2015. However, as this income grew at a slower pace than the stock of inward FDI it did not prevent the rate of return on inward FDI falling to 3.8 % in 2015 (having stood at 4.4 % a year before).

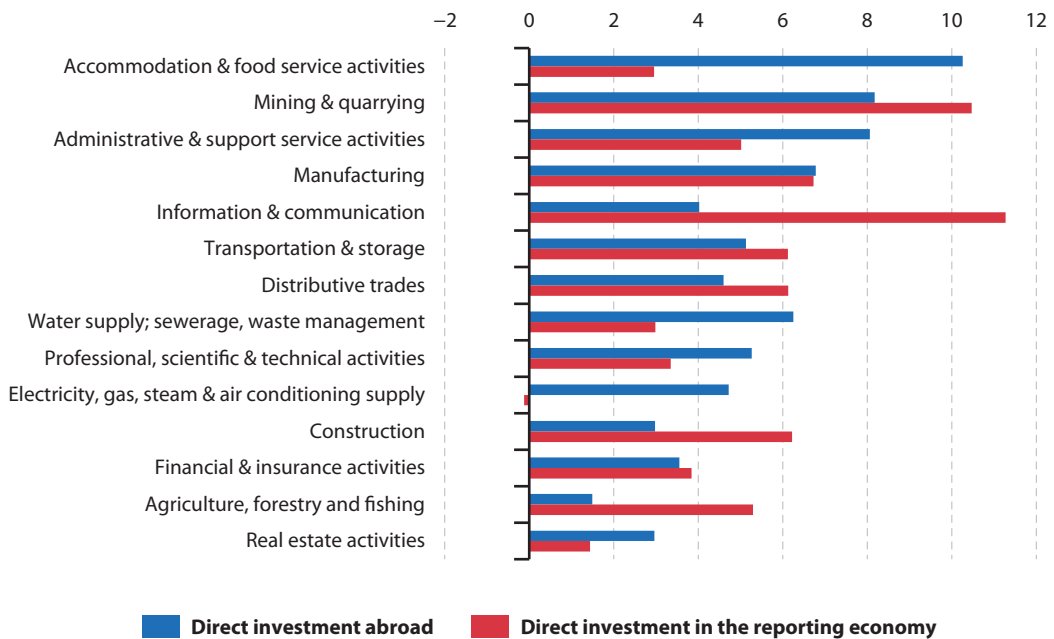
In 2014, the highest rate of return for EU-28 investment abroad was for accommodation and food services

In 2014, the EU-28's highest rates of return for outward FDI ⁽⁴⁾ were recorded for accommodation and food service activities (10.3 %), mining and quarrying (8.2 %) and administrative and support service activities (8.1 %) — see Figure 4.11. Positive rates of return were recorded for each of the remaining activities, with the lowest rate of return for agriculture, forestry and fishing (1.5 %).

The highest rates of return for foreign investors in the EU-28 were recorded by those having invested in information and communication services (11.3 %) and mining and quarrying activities (10.5 %). Electricity, gas, steam and air conditioning supply was the only activity where foreign investors faced a negative rate of return in 2014, albeit very small (–0.1 %).

(⁴) As for FDI stocks, the ranking of rates of return by activity may be of lower quality for outward investment than comparable information pertaining to inward investment, as not all of the EU Member States are able to provide a breakdown according to the activity of non-resident enterprises.

Figure 4.11: Extra-EU foreign direct investment, rates of return by economic activity, EU-28, 2014 (%)



Note: the rate of return is calculated as net income on investment / net investment position. Ranked on the average rate of return for direct investment abroad and direct investment in the reporting economy.

Source: Eurostat (online data codes: [bop_fdi6_pos](#) and [bop_fdi6_inc](#))



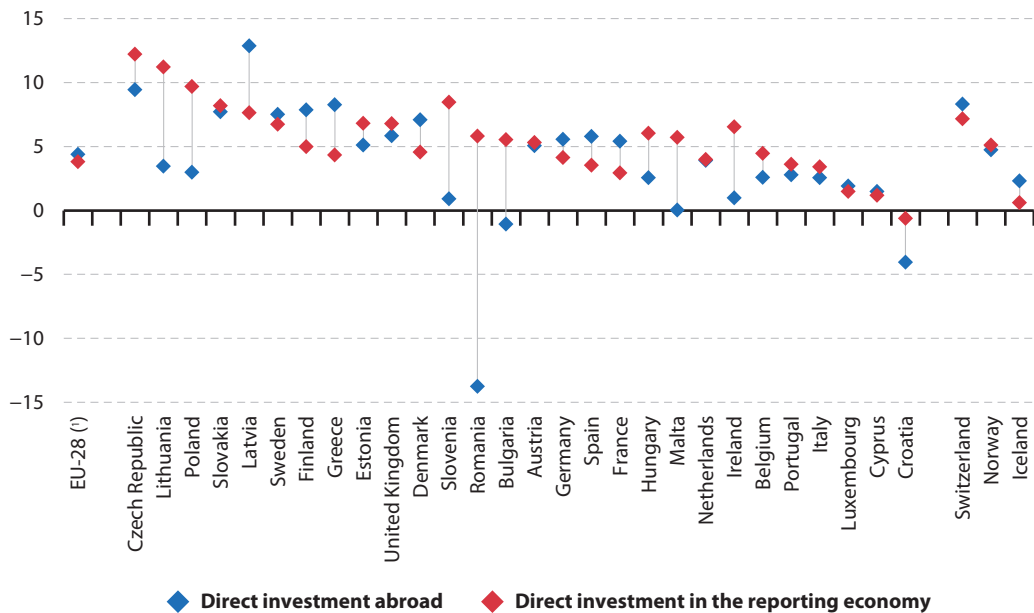
Among the EU Member States, the Czech Republic and Lithuania provided the highest rates of return for foreign investors in 2015

While the average rate of return for the EU-28 on investment abroad was 4.4 % in 2015, this ratio rose to 12.9 % for outward investment from Latvia and was also relatively high for outward FDI from the Czech Republic, Greece, Finland, Slovakia, Sweden and Denmark; note these figures for the individual European Union (EU) Member States are based on both foreign investment with non-member countries and with other Member States. By contrast, in Bulgaria, Croatia and particularly Romania, the rate of return on outward FDI was negative (see Figure 4.12; note that the information presented may be subject to revisions).

In 2015, the highest rates of return for foreign investors (made by extra-EU investors and investors from other EU Member States) were recorded in relation to inward investment in the Czech Republic (12.2 %) and Lithuania (11.2 %). Foreign investors in 21 of the Member States recorded a rate of return for their inward investment that was higher than the EU-28 average (3.8 %), suggesting that the returns enjoyed by investors from other Member States outperformed those for extra-EU investors.

Figure 4.12: Foreign direct investment, rates of return, 2015

(%)



Note: the rate of return is calculated as net income on investment / net investment position. Ranked on the average rate of return for direct investment abroad and direct investment in the reporting economy.

(*) Extra-EU trade.

Source: Eurostat (online data codes: [bop_fdi6_pos](#) and [bop_fdi6_inc](#))

5

Foreign affiliates



Main statistical findings

- In 2014, foreign-controlled enterprises accounted for just 1.2 % of the total enterprise population in the EU-28's non-financial business economy.
- More than half of the total value added by tobacco products and pharmaceuticals manufacturing in the EU-28 was generated by foreign-controlled enterprises in 2014.
- Slovenia and the United Kingdom were the only EU Member States in 2014 where more than half of all foreign-controlled enterprises were controlled by non-member countries.
- Manufacturing activities accounted for a high share (almost 40 %) of the total sales made by EU affiliates in the rest of the world in 2014.
- Almost 60 % of persons employed in EU foreign affiliates abroad in 2014 were located in countries outside the EU.

The previous chapter on [foreign direct investment \(FDI\)](#) provided information relating to the total amount of capital that was invested abroad by [EU-28 enterprises](#), as well as the value of inward investment that was made in the [European Union \(EU\)](#). This chapter looks in more detail at the impact of these foreign investments through an analysis of the establishment of [foreign affiliates \(FATS\)](#).

[Multinational enterprises](#) contribute to the globalisation process as active rather than passive participants: the potential benefits they may bring to domestic economies lead many governments to make significant efforts in the pursuit of attracting foreign investment, be this generally across the whole economy or more specifically in strategic sectors or specific regions. In the long run, foreign affiliates should normally be expected to improve the economic welfare of both the host and parent economies.

For example, the establishment of foreign affiliates in the EU may lead to, among others: the creation of new jobs; a transfer of technology and skills; higher levels of productivity; an increase in competition; or an increase in international trade. In a similar manner, foreign affiliates that are established abroad by European enterprises may have a considerable impact on the global economy.

 Further information on global value chains is presented at the end of Chapter 6.

Box 5.1 — EuroGroups Register

The [EuroGroups Register](#) is a network of business registers developed for statistical purpose in EU Member States and EFTA countries; it is focused on multinational enterprise groups and is coordinated by Eurostat. It is expected to become a single platform to support the production of statistics on globalisation through an EU-wide register of multinational enterprise groups and their affiliates. It contains microdata on enterprise groups and their constituent enterprises: the register stores information on the structure of each group and its enterprise characteristics,

such as their principal economic activity (based on the statistical classification of economic activities in the European Community, [NACE](#)), employment, turnover or global decision centre.

The EuroGroups Register is designed to provide a unique survey frame for microdata on globalisation and to serve as a tool for improving these statistics. Its data are accessible to the national statistical offices and central banks of the EU Member States and EFTA countries for compiling statistics; they are not available for public use.



5.1 Inward foreign affiliates statistics

Structural business statistics on inward foreign affiliates provide information that may be used to measure the impact of globalisation, for example, through indicators covering **turnover** (sales), **employment**, productivity or innovation performance. The statistics presented in this subchapter concern activities within the **non-financial business economy**, as defined by NACE Sections B-N (except Section K) and Division 95.

One of the most striking aspects concerning foreign-controlled enterprises is their very small absolute number

In 2014, foreign-controlled enterprises accounted for just 1.2 % of the 21.9 million enterprises that were active within the **EU-28's** non-financial business economy. Approximately twice as many of these were ultimately controlled by a unit from one of the other **European Union (EU)** Member States (0.8 % of the total enterprise population), when compared with the 0.4 % that were ultimately controlled by a unit from non-member countries. As such, geographical proximity would appear to be an important determining factor when foreign investors consider their options — perhaps reflecting some caution, to first invest in nearby markets (which may also be culturally and/or linguistically close) before considering investments further afield (both geographically or culturally). Indeed, the attractiveness of different countries can often be linked to proximity, historical, cultural or linguistic ties with, for example, a high proportion of the foreign-controlled enterprises in Ireland and the United Kingdom ultimately controlled by units from the United States.

The contribution of foreign-controlled enterprises to economic performance was much greater, both in terms of employment and, in particular, **value added**, than in terms of the number of enterprises; this may be explained, at least in part, by foreign-controlled enterprises generally being much larger in size than domestic (or nationally-controlled) enterprises. In 2014, foreign-controlled enterprises provided work to almost one in six (15.3 %) persons that were employed within the EU-28's non-financial business economy; their share of total value added was considerably higher, as foreign-controlled enterprises contributed almost one quarter (24.3 %) of the EU-28 total.

Statistics on foreign affiliates

For statistical purposes, foreign affiliates are considered to be enterprises resident in one country which are controlled by a unit resident in another. There are two distinct sources of information: so-called inward FATS which cover the activities of enterprises in the EU that are under foreign control, and outward FATS which cover the activities of EU affiliates abroad.

The globalised economy is increasingly characterised by intricate business networks: as a result, it can be difficult to untangle these complicated and often blurred chains of control. To do so, statistics on foreign affiliates are compiled according to the ultimate controlling institutional unit (UCI) — determined by proceeding up a foreign affiliate's chain of control until there is no further controlling interest; by doing so, potential double-counting of the same affiliates (by several countries) can be avoided. In this context, control refers to the ability to determine the general policy of an enterprise by choosing, for example, appropriate directors. In practice, control is often difficult to determine and so the share of ownership is often used as a proxy; thus, an enterprise is said to be controlled by an institutional unit when the latter (a single investor or group of associated investors acting in concert) owns — directly or indirectly — more than half of its voting power or ordinary shares.

In 2014, non-member countries controlled more than half of the foreign enterprises in Slovenia and the United Kingdom

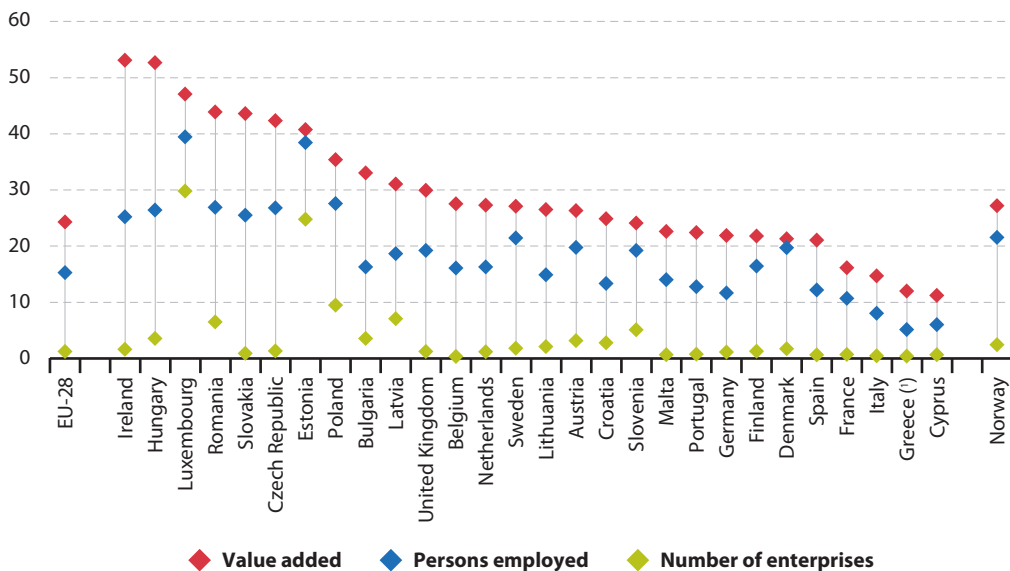
In 2014, almost three tenths (29.8 %) of all enterprises in the non-financial business economy in Luxembourg and nearly a quarter (24.8 %) of the enterprise population in Estonia were foreign-controlled; these shares were considerably higher than in any of the other Member States, as the next highest share was in Poland (9.5 %). At the other end of the range, the share of foreign-controlled enterprises in the total enterprise population was less than 1.0 % in Slovakia, France, Portugal, Cyprus, Malta, Spain, Greece, Italy and Belgium, where the lowest share was recorded (0.2 %).

More than four fifths of the foreign-controlled enterprises in Slovakia (87.9 %), Greece (80.8 %) and Estonia (80.1 %) were ultimately controlled by a unit from one of the other EU Member States in 2014. At the other end of the range, approximately half of the foreign-controlled enterprises in Ireland (48.9 %) and Slovenia (52.1 %) were controlled by a unit from a country outside the EU, a share that rose to almost three fifths (58.5 %) in the United Kingdom.

In 2014, almost two fifths of the non-financial business economy workforces of Luxembourg and Estonia were employed by a foreign-controlled enterprise

As seen for the number of enterprises, Luxembourg recorded the highest share — among the EU Member States in 2014 — of its non-financial business economy workforce employed by foreign-controlled enterprises (39.4 %); note also that there is a sizeable financial services sector in Luxembourg and that this too is characterised by a strong international presence. Estonia also had a high share (38.4 %) of its non-financial business economy workforce employed by foreign-controlled enterprises (see Figure 5.1).

Figure 5.1: Share of foreign-controlled enterprises, non-financial business economy, 2014
(% of total)



Note: the non-financial business economy is defined as NACE Sections B-N (except Section K) and Division 95.

(*) Provisional.

Source: Eurostat (online data code: [fats_g1a_08](#))



Otherwise, there were six EU Member States in 2014 where foreign-controlled enterprises accounted for just over a quarter of the non-financial business economy workforce — Poland, Romania, the Czech Republic, Hungary, Slovakia and Ireland — several of these were often characterised by relatively [low wage costs](#) and high numbers of people working for foreign-controlled enterprises in the manufacturing sector, often controlled by units from other Member States.

Ireland and the United Kingdom were the only EU Member States where a majority of those working for foreign-controlled enterprises in 2014 were employed by an enterprise that was controlled from outside the EU.

Foreign-controlled enterprises generated more than half of the value added in the Irish and Hungarian non-financial business economies in 2014

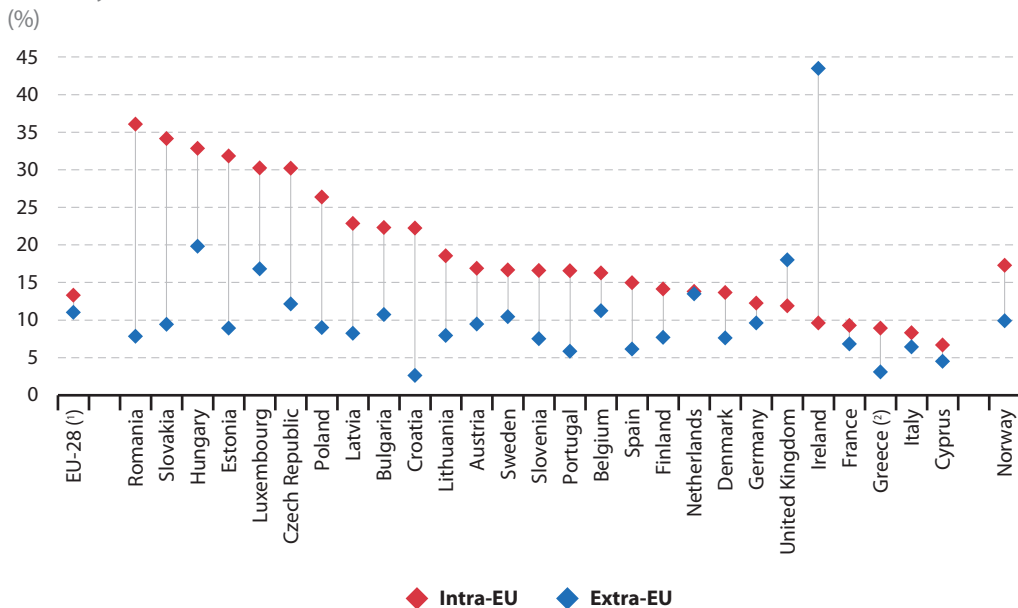
In 2014, at least one tenth of the total value added in the non-financial business economies of each of the EU Member States was generated by foreign-controlled enterprises. Relatively low shares were recorded in Cyprus (11.2 %), Greece (12.0 %), Italy (14.7 %) and France (16.1 %), while half of the Member States had shares within the range of 20-30 %. In Latvia, Bulgaria and Poland around one third of total value added was generated by foreign-controlled enterprises, a share that rose to over two fifths in Estonia, the Czech Republic, Slovakia and Romania. In keeping with the analysis of the number of enterprises and persons employed, foreign-controlled enterprises accounted for a high share (47.0 %) of total value added in the non-financial business economy of Luxembourg, rising to more than half of the total in Hungary (52.7 %) and Ireland (53.1 %).

Some 13.3 % of the total value added generated in the EU-28's non-financial business economy in 2014 could be attributed to enterprises ultimately controlled by units from other EU Member States

Figure 5.2 shows a split between the contributions of foreign-controlled enterprises from other EU Member States (intra-EU) and foreign-controlled enterprises from countries outside the EU (extra-EU) to the generation of total value added in the non-financial business economy. Across the whole of the EU-28, almost one quarter (24.3 %) of total value added was generated by foreign-controlled enterprises; a slightly higher share (13.3 %) came from enterprises whose ultimate control lay in other EU Member States, while the share for enterprises whose ultimate control lay outside the EU was 11.0 %; the remaining 75.7 % of total value added was generated by enterprises controlled from within the domestic economy.

In Croatia, Romania, Slovakia and Estonia, more than three quarters of the value added generated by foreign-controlled enterprises could be attributed to those enterprises whose ultimate control lay in other EU Member States. By contrast, there were only two Member States — Ireland (81.9 %) and the United Kingdom (60.2 %) — where a majority of the value added created by foreign-controlled enterprises was generated by enterprises whose ultimate control lay outside the EU.

Figure 5.2: Share of foreign-controlled enterprises in total value added, non-financial business economy, 2014



Note: the non-financial business economy is defined as NACE Sections B-N (except Section K) and Division 95.

Malta: not available.

(†) Estimates.

(‡) Provisional.

Source: Eurostat (online data code: [fats_g1a_08](#))



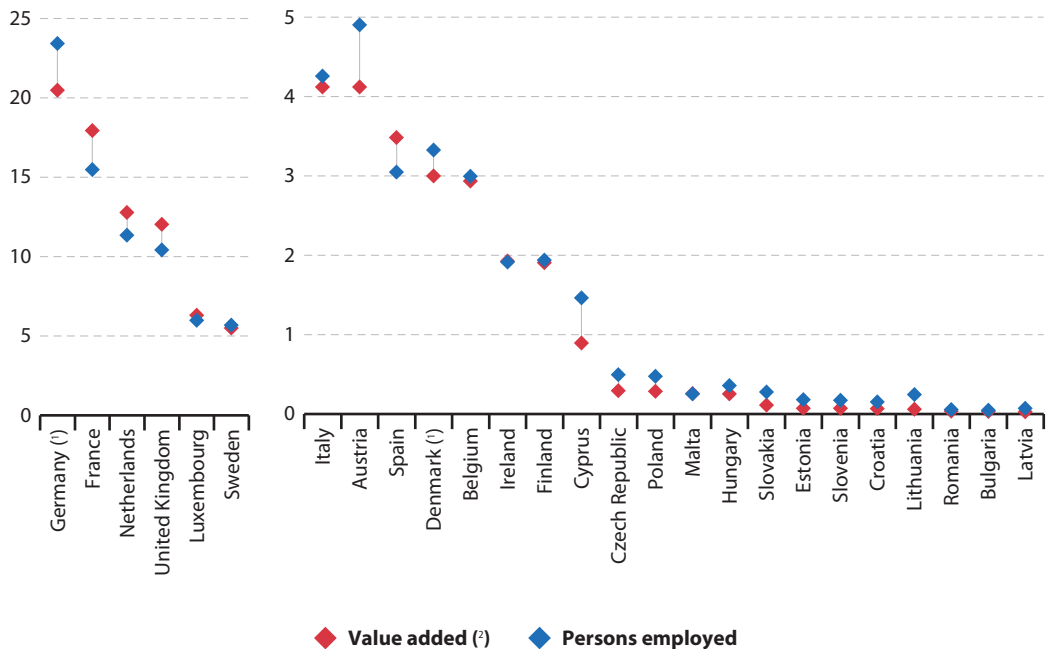
In 2014, German foreign affiliates accounted for more than one fifth of the total value added generated by EU-28 enterprises that were ultimately controlled by units from other EU Member States

The information presented so far has already underlined the relatively strong ties that exist in terms of the establishment of foreign affiliates between EU Member States, in other words, within the single market. In 2014, the total value added generated in the EU-28's non-financial business economy by enterprises that were ultimately controlled by units from other EU Member States was EUR 870 billion (this was EUR 150 billion higher than the value added created by enterprises that were ultimately controlled by units from outside the EU).

More than one fifth (20.5 %) of the total value added generated by enterprises that were ultimately controlled by units from other EU Member States could be attributed to enterprises controlled by units from Germany, while the next highest shares were recorded for affiliates that were ultimately controlled by units from France (17.9 %), the Netherlands (12.8 %) and the United Kingdom (12.0 %). It is interesting to note that these French, Dutch and British foreign affiliates accounted for a higher share of the total value added that was generated than their corresponding shares of employment, while the opposite was true for German foreign affiliates (see Figure 5.3).

Figure 5.3: Intra-EU foreign control of enterprises within the non-financial business economy, EU-28, 2014

(% of intra-EU total)



Note: the figure is split into two parts with different scales on the y-axis. The non-financial business economy is defined as NACE Sections B-N (except Section K) and Division 95. Greece and Portugal: not available.

(*) Persons employed: estimate.

(?) Estimates.

Source: Eurostat (online data code: [fats_g1b_08](https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&plugin=1))

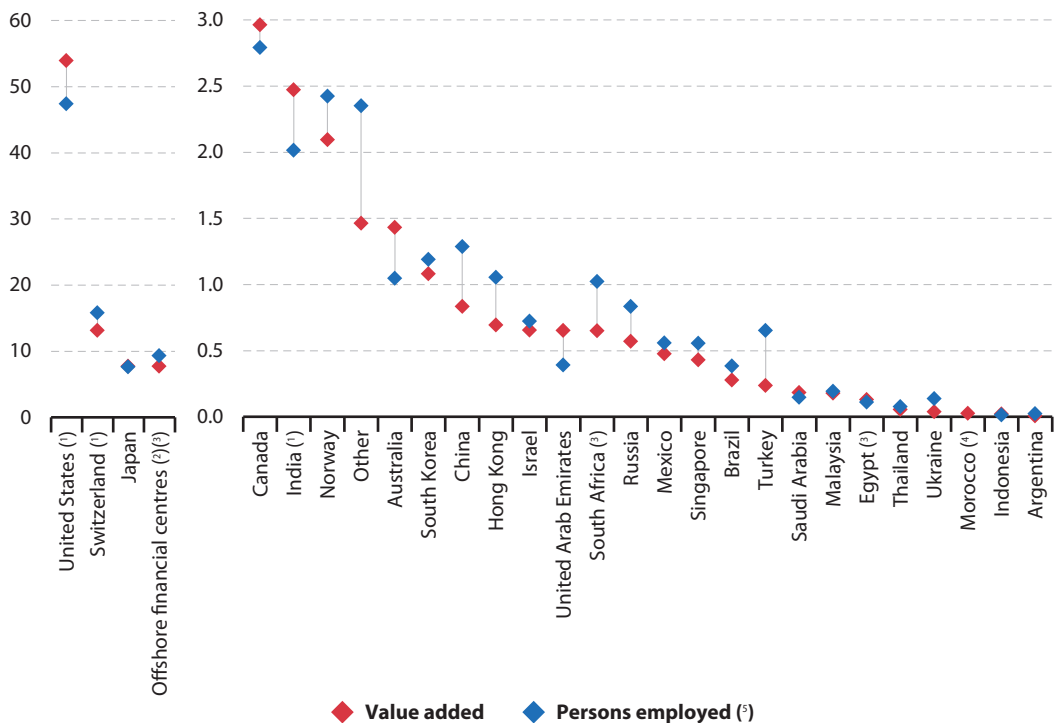
In 2014, the total value added generated in the EU-28's non-financial business economy by enterprises controlled by units from outside the EU was EUR 720 billion. Of this, more than half (53.9 %) could be attributed to enterprises that were ultimately controlled by units located in the United States, while Switzerland (13.1 %) was the only other country to record a double-digit share; the next highest shares (both 7.7 %) were recorded for enterprises whose ultimate control was located in Japan or in offshore financial centres ⁽¹⁾ — see Figure 5.4.

In 2014, American-controlled enterprises accounted for almost half (47.4 %) of the EU-28 workforce employed by enterprises that were ultimately controlled by units from outside the EU. Swiss foreign affiliates accounted for the second highest share (15.8 %) of the EU-28's non-financial business economy workforce employed by foreign-controlled enterprises whose ultimate control lay outside the EU, while the third highest share (9.3 %) was recorded by offshore financial centres.

(1) The full list of offshore financial centres includes: Andorra, Antigua and Barbuda, Anguilla, Aruba, Barbados, Bahrain, Bermuda, Bahamas, Belize, Cook Islands, Curaçao, Dominica, Grenada, Guernsey, Gibraltar, Hong Kong, Isle of Man, Jersey, St Kitts and Nevis, Cayman Islands, Lebanon, Saint Lucia, Liechtenstein, Liberia, Marshall Islands, Montserrat, Mauritius, Nauru, Niue, Panama, Philippines, Seychelles, Singapore, Sint Maarten, Turks and Caicos Islands, Saint Vincent and the Grenadines, British Virgin Islands, US Virgin Islands, Vanuatu, Samoa. For the purpose of this publication, information for Hong Kong and Singapore is shown separately and hence these two countries are generally excluded from the offshore financial centres aggregate (unless otherwise specified — Figure 5.12).

Figure 5.4: Extra-EU foreign control of enterprises within the non-financial business economy, EU-28, 2014

(% of extra-EU total)



Note: the figure is split into two parts with different scales on the y-axis. The non-financial business economy is defined as NACE Sections B-N (except Section K) and Division 95.

(1) Value added: estimate.

(4) Persons employed: not available.

(2) Excluding Hong Kong and Singapore that are shown separately.

(3) Estimates.

(3) Persons employed: 2013.

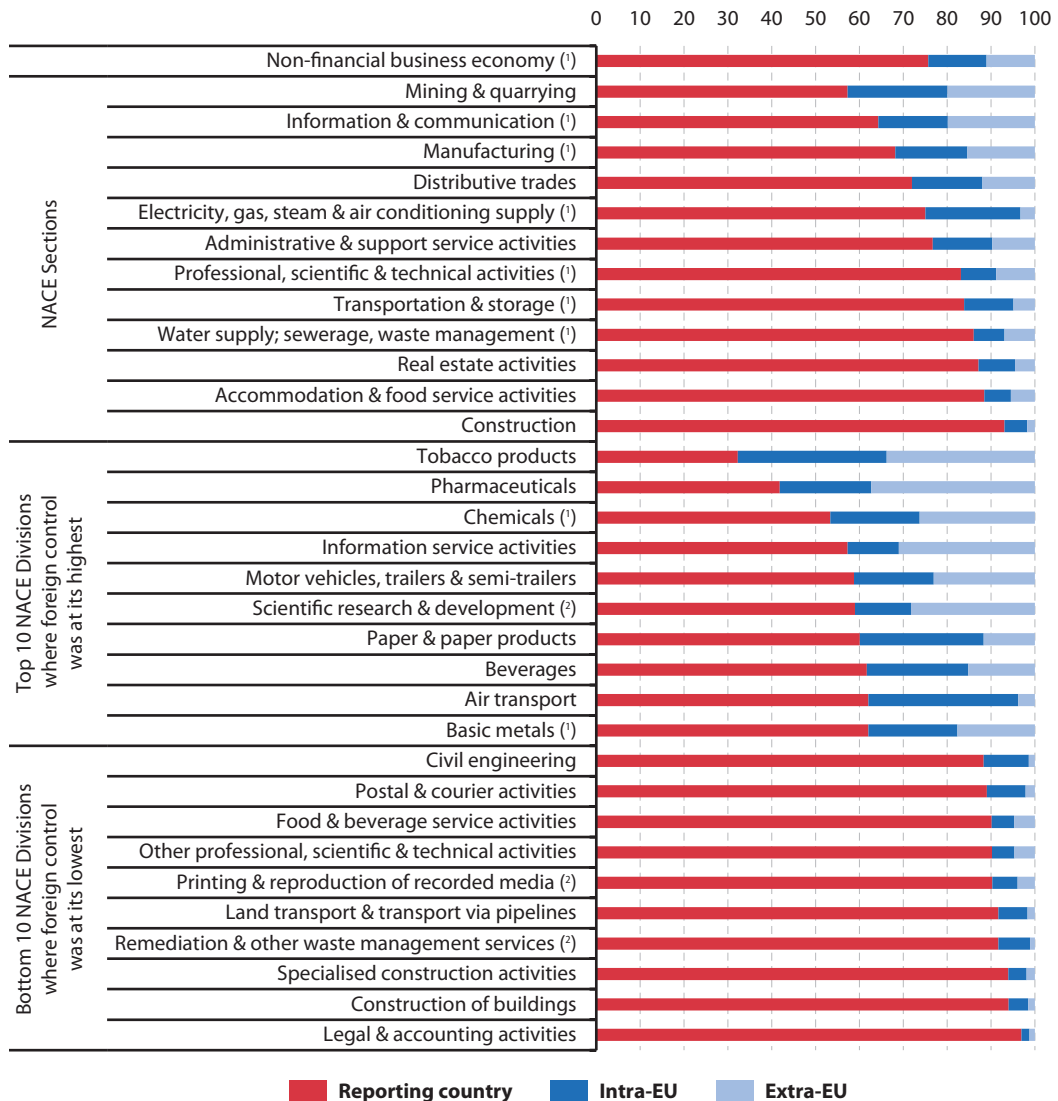
Source: Eurostat (online data code: [fats_g1b_08](https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&plugin=1))



Tobacco products and pharmaceuticals were the only activities where more than half of the EU-28's value added in 2014 was generated by foreign-controlled enterprises

Figure 5.5 analyses the role that foreign affiliates play across different economic activities within the EU-28's non-financial business economy. It shows that in 2014 the presence of foreign affiliates was often relatively high in areas characterised by oligopolies (for example,

Figure 5.5: Value added for selected economic activities, by control of enterprise, EU-28, 2014 (% of total value added)



Note: the non-financial business economy is defined as NACE Sections B-N (except Section K) and Division 95.

(¹) Estimates.

(²) 2013.

Source: Eurostat (online data code: [fats_g1a_08](https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&plugin=1))

tobacco products), or high-technology manufacturing and *knowledge-intensive services*, such as pharmaceuticals, chemicals and motor vehicles or information services, scientific research and development. By contrast, the presence of foreign-controlled enterprises was often much lower in construction and a number of (regulated) services, for example, only 3.1 % of the total value added generated by legal and accounting activities in the EU-28 was attributed to foreign-controlled enterprises.

Table 5.1 presents an analysis for some of the activities where foreign affiliates were most prominent. In 2014, among the foreign-controlled enterprises whose ultimate control was located outside the EU, the highest share of the workforce was almost exclusively accounted for by enterprises that were ultimately controlled by units from the United States; the only exception was for air transport services where a higher share of the workforce was employed by enterprises ultimately controlled by units from offshore financial centres.

EU-28 enterprises that were ultimately controlled by units from Switzerland were often specialised in activities such as chemicals, pharmaceuticals or scientific research and development, while EU-28 enterprises that were ultimately controlled by units from Japan were often relatively specialised in the manufacture of beverages, tobacco products and motor vehicles.

Table 5.1: Share of employment among extra-EU foreign-controlled enterprises for selected economic activities, EU-28, 2014

	Highest share	Second highest share	Third highest share
Non-financial business economy	United States	Switzerland	Offshore financial centres
Manufacture of beverages	United States	Japan	Offshore financial centres
Manufacture of tobacco products	United States	Japan	Switzerland
Paper & paper products	United States	Switzerland	Canada
Manufacture of chemicals	United States	Switzerland	Japan
Manufacture of pharmaceuticals	United States	Switzerland	Israel
Manufacture of basic metals	United States	Switzerland	Russia
Motor vehicles, trailers & semi-trailers	United States	Japan	China
Air transport services	Offshore financial centres	United States	Switzerland
Information service activities	United States	Offshore financial centres	Canada
Scientific research & development	United States	Switzerland	Japan

Note: the non-financial business economy is defined as NACE Sections B-N (except Section K) and Division 95. The selected activities are those with the highest shares of foreign control (see Figure 5.5). Manufacture of basic metals: not available. The information presented is based on non-confidential data.

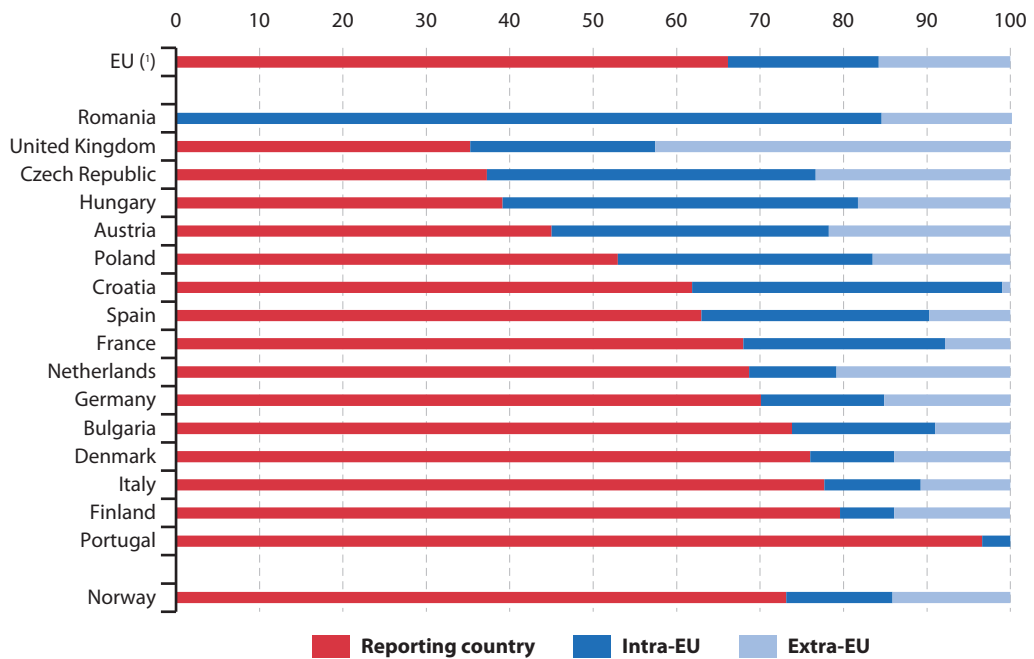
Source: Eurostat (online data code: [fats_g1a_08](#))



More than one third of the expenditure on intra-mural R & D that took place within the EU's industry and construction sectors in 2013 was accounted for by foreign-controlled enterprises

Although corporate **research and development (R & D)** activities often remain highly concentrated close to headquarters of **multinational enterprises**, there is some evidence to suggest that foreign-controlled enterprises in the EU may be more R & D intensive than their nationally-owned competitors. Indeed, foreign-controlled enterprises are seen as an integral part of some national innovation systems, as the research activities of large multinationals can potentially benefit host nations by promoting knowledge and technology transfers.

Figure 5.6: Intra-mural R & D expenditure in industry and construction, by control of enterprise, 2013
(% of total)



Note: industry and construction is defined as NACE Sections B-F. Belgium, Estonia, Ireland, Greece, Cyprus, Latvia, Lithuania, Luxembourg, Malta, Slovenia, Slovakia and Sweden: not available.

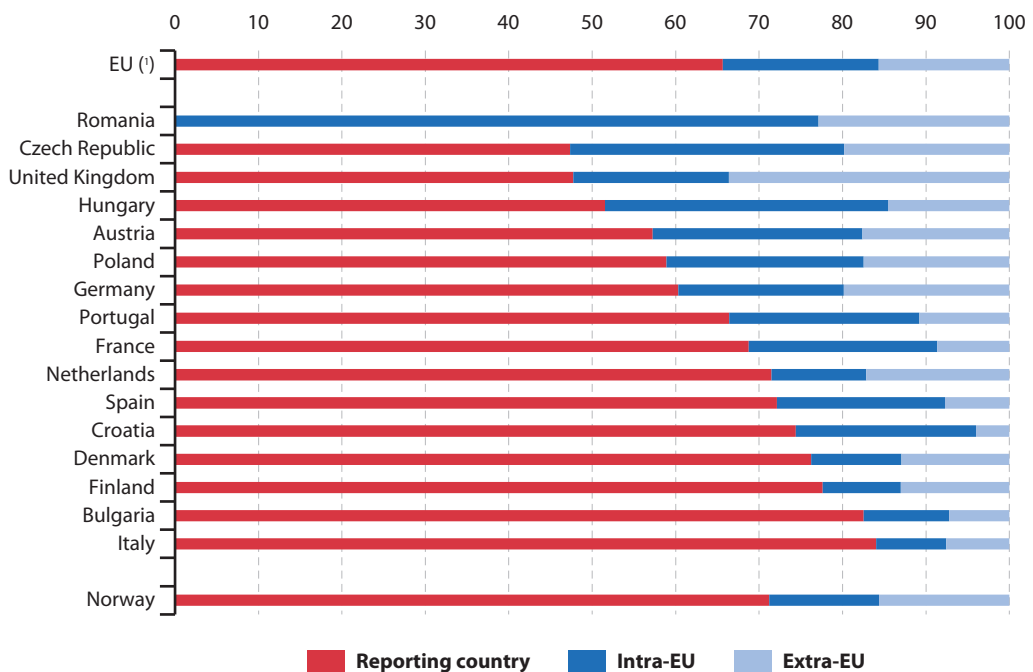
(*) Average based on those EU Member States for which data are presented.

Source: Eurostat (online data code: [fats_g1a_rd](#))

In 2013, foreign-controlled enterprises accounted for just over one third (33.9 %) of intra-mural R & D expenditure within the industrial and construction sectors (NACE Sections B-F) of 16 EU Member States (see Figure 5.6 for data availability), and an almost identical share (34.3 %) of the total number of R & D personnel (see Figure 5.7). To put these figures into context, approximately one quarter of the value added that was generated within industry and construction for the same 16 Member States was attributed to foreign-controlled enterprises, while their share of the industry and construction workforce was approximately 18 %.

In Romania, the United Kingdom, the Czech Republic, Hungary and Austria, more than half of the expenditure on intra-mural R & D that took place in industry and construction in 2013 was accounted for by foreign-controlled enterprises, while in three of these EU Member States — Romania, the Czech Republic and the United Kingdom — a majority of R & D personnel also worked for a foreign-controlled enterprise.

Figure 5.7: R & D personnel in industry and construction, by control of enterprise, 2013
(% of total)



Note: industry and construction is defined as NACE Sections B-F. Belgium, Estonia, Ireland, Greece, Cyprus, Latvia, Lithuania, Luxembourg, Malta, Slovenia, Slovakia and Sweden: not available.

(*) Average based on those EU Member States for which data are presented.

Source: Eurostat (online data code: [fats_g1a_rd](#))



5.2 Outward foreign affiliates statistics

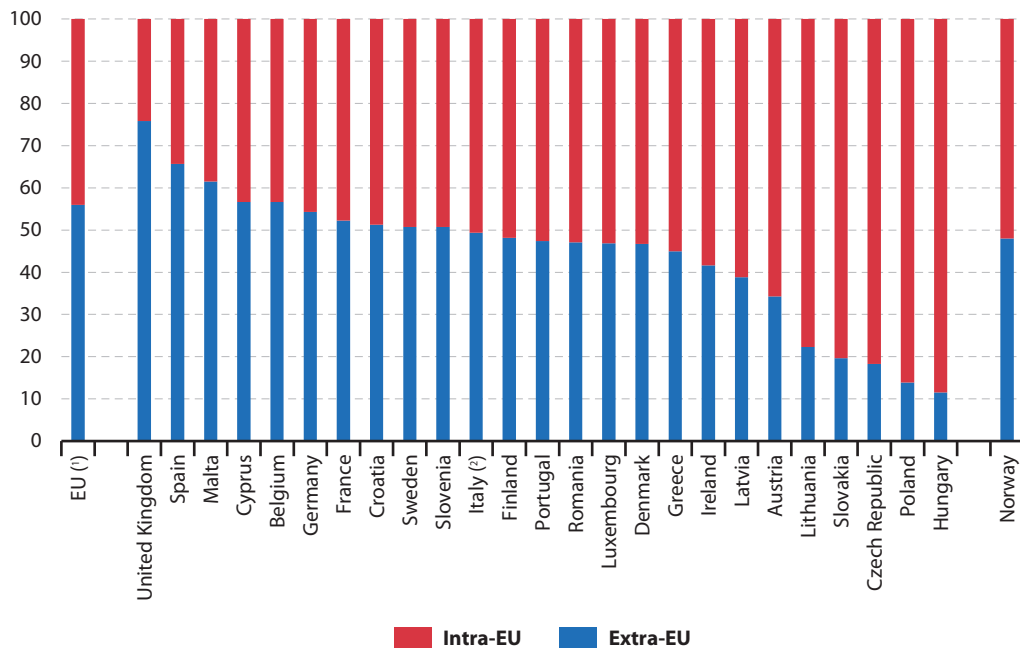
The second half of this chapter is based on outward foreign affiliate statistics. They allow an analysis of the economic impact of investments in [European Union \(EU\)](#) affiliates abroad: for example, how many persons were employed by German affiliates in China, or what was the value of sales made by French affiliates in the United States. Note that the information presented in this subchapter covers the business economy defined as NACE Sections B-N and P-S.

In 2014, the sales made by EU affiliates located outside the EU were greater than those made by EU affiliates located in other EU Member States

In 2014, a majority (56.0 %) of the sales made by EU affiliates abroad were generated outside the EU (in non-member countries), the remaining 44.0 % reflected sales made by EU affiliates in other EU Member States; note these figures are based on an aggregate for 25 Member States (excluding Bulgaria, Estonia and the Netherlands) across the business economy (as defined by NACE Sections B-N and P-S).

British (75.8 %), Spanish (65.7 %) and Maltese (61.5 %) affiliates recorded the highest shares of their total turnover generated outside the EU. By contrast, more than four fifths of the turnover that was generated by Hungarian, Polish, Czech and Slovakian affiliates was realised in other EU Member States (see Figure 5.8).

Figure 5.8: Turnover from foreign affiliates abroad, business economy, 2014
(% of total)



Note: the business economy is defined as NACE Sections B-N and P-S. Bulgaria, Estonia and the Netherlands: not available.

(¹) Excluding Bulgaria, Estonia and the Netherlands.

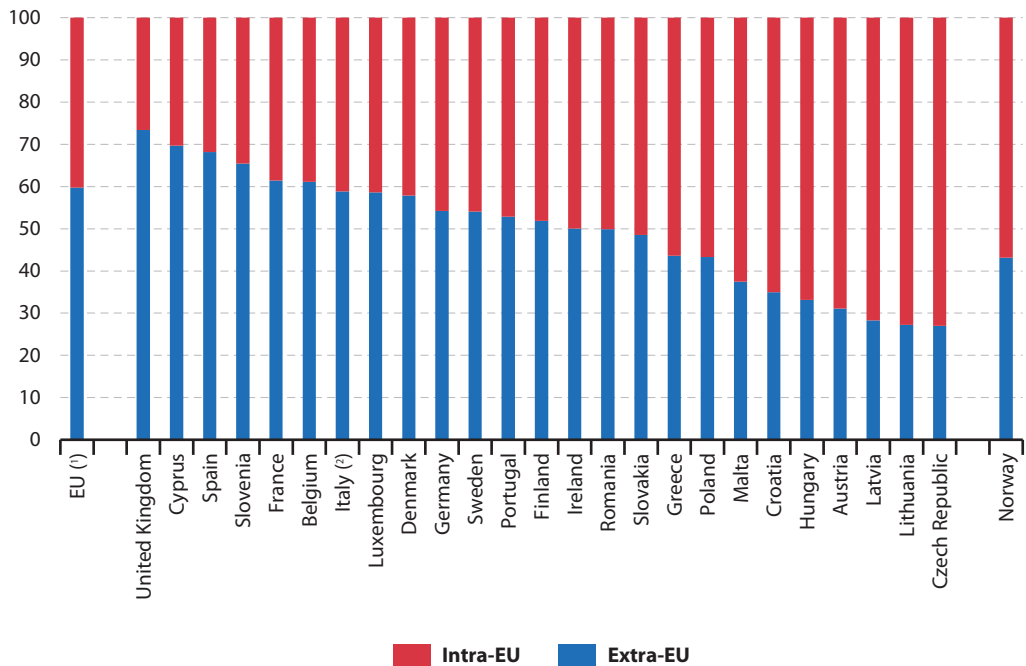
(²) Estimates.

Source: Eurostat (online data code: [fats_out2_r2](#))

Almost three out of every five persons employed by an EU affiliate in 2014 were working outside the EU

A similar analysis is presented in Figure 5.9 with a focus on those people who were working for EU affiliates. In 2014, almost three fifths (59.8 %) of the total number of persons employed by EU affiliates were working outside the EU; once again these figures are based on information available for 25 Member States (excluding Bulgaria, Estonia and the Netherlands) across the business economy. In 14 of these 25, a majority of the foreign affiliate workforce was found to be working outside the EU, with the highest proportions recorded among Spanish (68.2 %), Cypriot (69.7 %) and British (73.4 %) affiliates. In each of the remaining Member States, more than a quarter of their foreign affiliate workforce was employed in non-member countries (see Figure 5.9).

Figure 5.9: Persons employed in foreign affiliates abroad, business economy, 2014
(% of total)



Note: the business economy is defined as NACE Sections B-N and P-S. Bulgaria, Estonia and the Netherlands: not available.

(1) Excluding Bulgaria, Estonia and the Netherlands.

(2) Estimates.

Source: Eurostat (online data code: [fats_out2_r2](#))

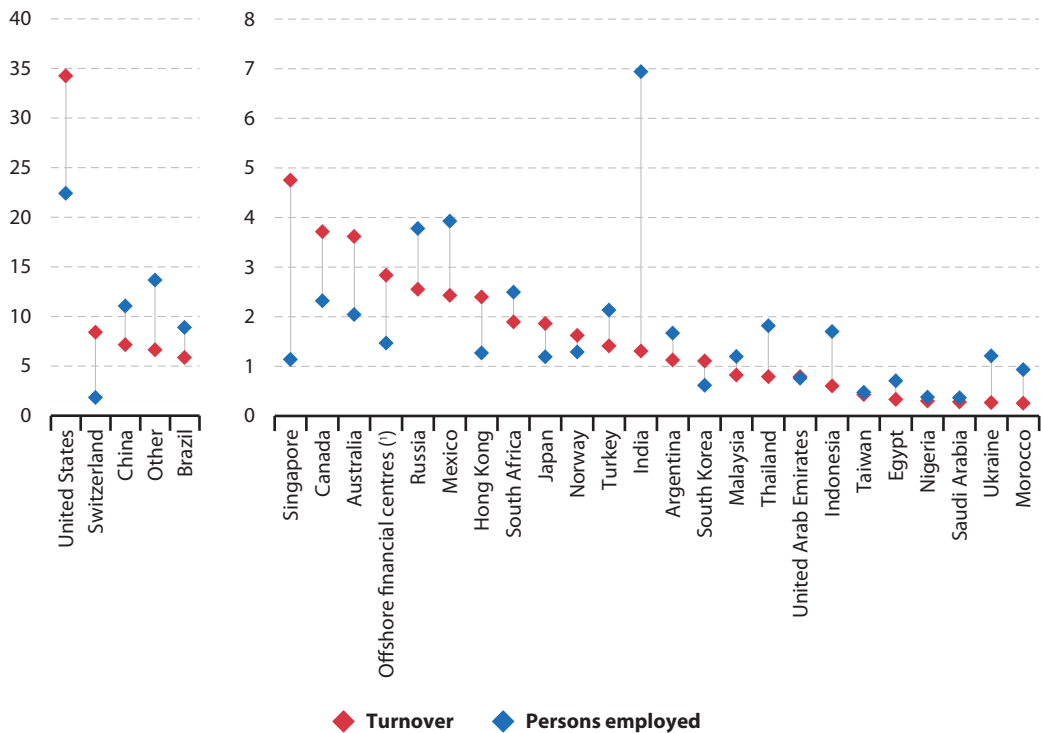


In 2014, the United States accounted for more than one third of the total sales of EU affiliates in non-member countries

In 2014, the United States accounted for just over one third (34.2 %) of the total turnover that was generated by EU affiliates in non-member countries; the next highest share was for Switzerland (8.4 %), followed by China (7.2 %), Brazil (5.9 %) and Singapore (4.8 %).

The picture was quite different when looking at the foreign workforce employed by EU affiliates: the United States accounted for more than one fifth (22.4 %) of the total number of persons employed in non-member countries (which was 11.8 percentage points less than its share of turnover), while the emerging, lower labour cost economies of China (11.1 %), Brazil (8.9 %), India (6.9 %) and Mexico (3.9 %) accounted for relatively high shares of the workforce employed by EU foreign affiliates (see Figure 5.10).

Figure 5.10: Turnover and persons employed in foreign affiliates abroad, business economy, EU-28, 2014
(% of extra-EU total)



Note: the figure is split into two parts with different scales on the y-axis. The business economy is defined as NACE Sections B-N and P-S.

(*) Excluding Hong Kong and Singapore that are shown separately.

Source: Eurostat (online data code: [fats_out2_r2](#))

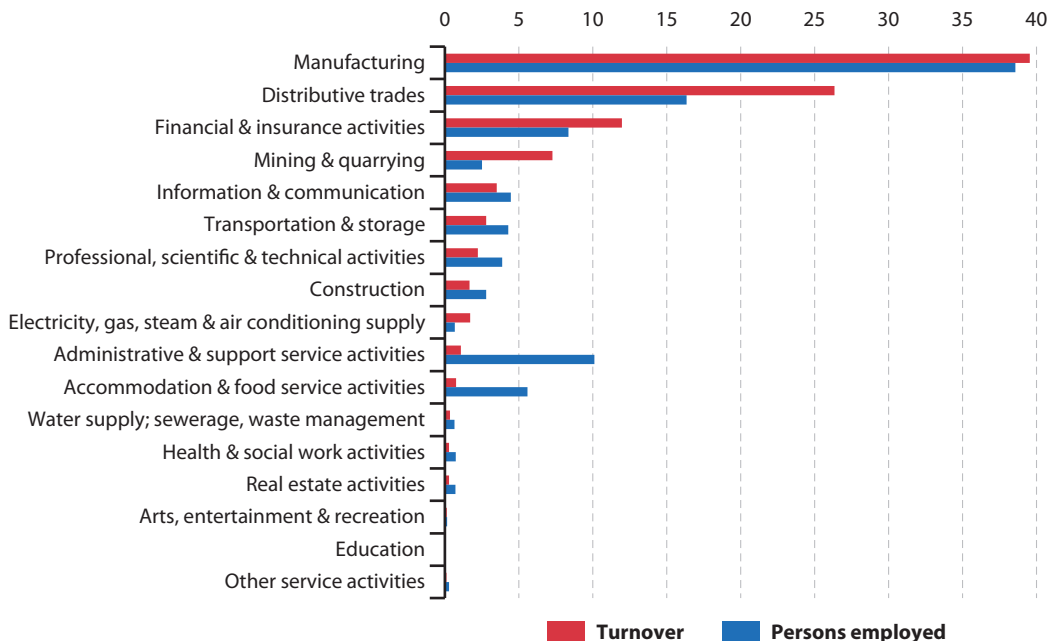
In 2014, manufacturing activities accounted for almost 40 % of the extra-EU turnover generated by EU affiliates

Figure 5.11 shows that in 2014, extra-EU turnover generated by EU affiliates was relatively evenly split between industrial and service activities; note that the Figure does not specifically show either of these aggregates — the former is here composed of mining and quarrying; manufacturing; electricity, gas, steam and air conditioning; water supply, sewerage, waste management; and construction; while the latter is composed of distributive trades; transportation and storage; accommodation and food service activities; information and communication; financial and insurance activities; real estate activities; professional, scientific and technical activities; administrative and support service activities; education; health and social work activities; arts, entertainment and recreation; other service activities.

Looking in more detail, manufacturing accounted for 39.5 % of the turnover generated in the business economy by EU affiliates, while more than a quarter (26.3 %) of these sales were made in distributive trades.

In 2014, manufacturing also accounted for the highest share (38.6 %) of the extra-EU workforce employed by EU affiliates, followed by distributive trades (16.3 %). Compared with their shares of total turnover, administrative and support service activities (10.1 %) and accommodation and food service activities (5.6 %) were relatively labour-intensive, accounting for a much higher share of the workforce employed by EU foreign affiliates (compared with their shares of turnover).

Figure 5.11: Turnover and persons employed in foreign affiliates abroad, by economic activity, EU-28, 2014
(% of extra-EU total)



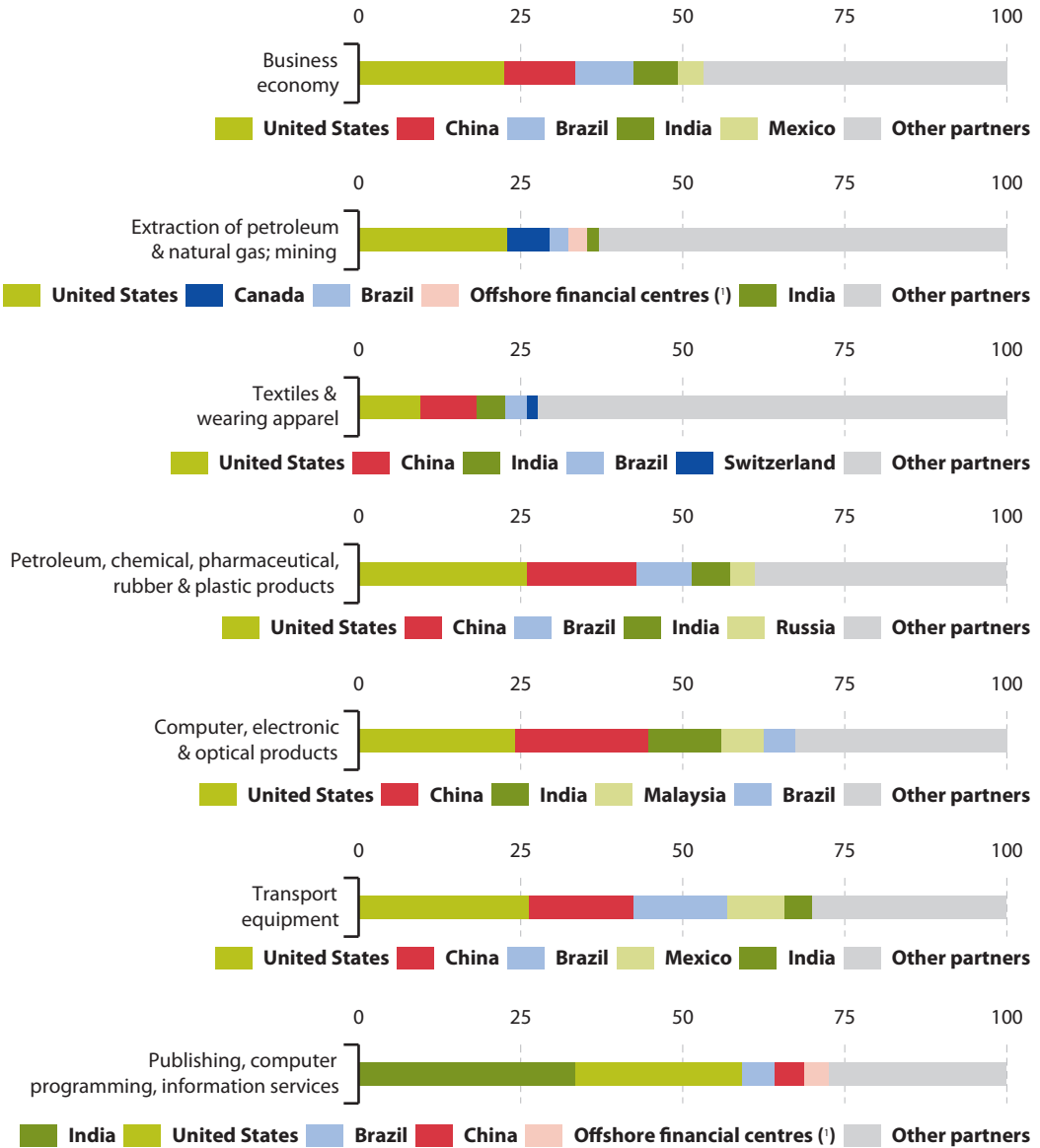
Note: information shown for NACE sections. Electricity, gas, steam & air conditioning supply: not available.

Source: Eurostat (online data code: [fats_out2_r2](#))



Figure 5.12: Persons employed in foreign affiliates abroad, by selected economic activity and partner, EU-28, 2014

(% of extra-EU employment)



Note: the information presented is based on non-confidential data for a selected list of partners (see methodological notes in the introduction for more details).

(!) Excluding Hong Kong (data for Singapore are confidential and therefore cannot be excluded).

Source: Eurostat (online data code: *fats_out2_r2*)

Most of the people working for EU affiliates in 2014 were located in the United States

Figure 5.12 shows the share of people employed by EU affiliates across a selection of different economic activities ⁽²⁾. The United States was the principal location for people working for EU affiliates in 2014 — it often accounted for approximately one quarter of the total number of people working for EU affiliates, although its share was considerably lower for the manufacture of textiles and wearing apparel. Among the activities shown, publishing, computer programming and information services was the only one where the United States did not account for the highest number of persons employed by EU affiliates, as just over one third (33.5 %) of this workforce was employed by EU affiliates located in India. More generally, outside of the United States, the most common locations for people to be working for EU affiliates included China, India and Brazil.

The activities of EU affiliates were often quite concentrated across a small number of foreign economies: for example, just five partners accounted for at least 7 out of every 10 persons employed by EU affiliates outside the EU in the manufacture of transport equipment and in publishing, computer programming and information services. By contrast, the five largest partners accounted for no more than 27.6 % of the total workforce employed by affiliates outside the EU for the manufacture of textiles and wearing apparel.

⁽²⁾ Note: information for Singapore is included in the aggregate covering offshore financial centres for Figure 5.12 (contrary to the remainder of this publication where data for Singapore is shown separately and therefore excluded from the aggregate covering offshore financial centres).

6

Enterprise statistics — pilot surveys and future statistical developments



Main statistical findings

- A higher proportion of the EU's industrial (rather than services) enterprises made use of international sourcing.
- EU enterprises tend to outsource support (rather than core) business functions.
- Apart from other EU Member States, China and India were the most common destinations for EU enterprises with international sourcing relationships.
- More than half the world's trade was accounted for by trade in intermediate products.
- A growing share of the EU's value added may be attributed to imports of intermediate goods.

Over the last few decades there has been a rapid change in how enterprises operate. One of the main changes has been the introduction of production systems that are based on complex networks of suppliers and service providers. These changes in business models have led to increasing demands for new statistical measures in order to promote a better understanding of such developments. This final chapter provides information on a number of statistical pilot studies that have been designed to measure changes in the behaviour of enterprises that participate in globalised markets.

6.1 International sourcing and relocation of business functions

Business functions are a set of generic, easy-to-understand categories that describe the various production processes carried out by enterprises, irrespective of their main economic activity. In addition to producing the goods or services from which they earn their revenues, enterprises typically require a variety of service functions to support their core business. In an effort to gain efficiency, scale economies and/or new markets enterprises move various core and support business functions around the world. This form of industrial organisation, based upon breaking up global value chains into specialised parts, is a key feature of many global businesses.

A widespread business model in which domestic enterprises move abroad their core and support business functions that were previously performed in-house is called **international sourcing**. It can be motivated by a variety of factors, although the overriding goal is usually to increase efficiency by sourcing more cost efficient inputs, whether of labour, capital, goods or services. It concerns the reallocation of productive capacity, through the total or partial movement of (core or support) business functions currently performed in-house (or domestically sourced) to foreign affiliates (or non-affiliated external suppliers) located abroad.

In relatively recent times, international sourcing in the **European Union (EU)** was based around moving core manufacturing functions to southern EU Member States. Subsequently there was a new development following the end of communism, as international sourcing within the EU was increasingly focused on eastern Member States and this was followed by international

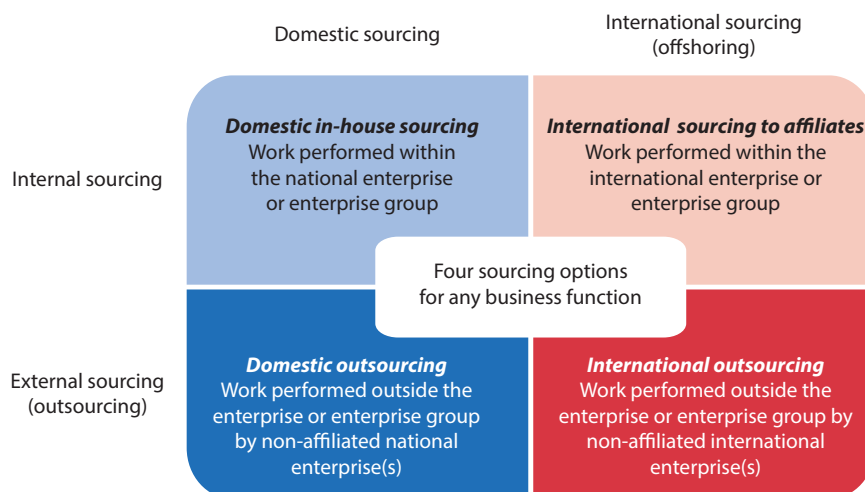
Statistics on international sourcing

Eurostat conducted a survey on international sourcing covering the period 2009-2011. It gathered data for nearly 40 000 enterprises (each with more than 100 persons employed) that were spread

across 15 different European countries: Belgium, Bulgaria, Denmark, Estonia, Ireland, France, Latvia, Lithuania, the Netherlands, Portugal, Romania, Finland, Slovakia, Sweden and Norway.



Sourcing options for business functions



Source: Eurostat, based on [Global value chains and economic globalisation: towards a new measurement framework — a special report to Eurostat](#); Sturgeon, Timothy — European Commission — February, 2013

sourcing spreading further afield to a number of emerging markets outside of the EU. These changes in how enterprises operate have been further reinforced by the introduction of new information and communication technologies which have extended international sourcing to (some) services too; such patterns of development form the basis for this subchapter.

International sourcing was used by a higher proportion of the EU's industrial enterprises

One of the principal findings of the survey was that it is important to note that while European businesses make use of international sourcing, they are more likely to source core or support functions from within their own domestic economy, rather than from international partners.

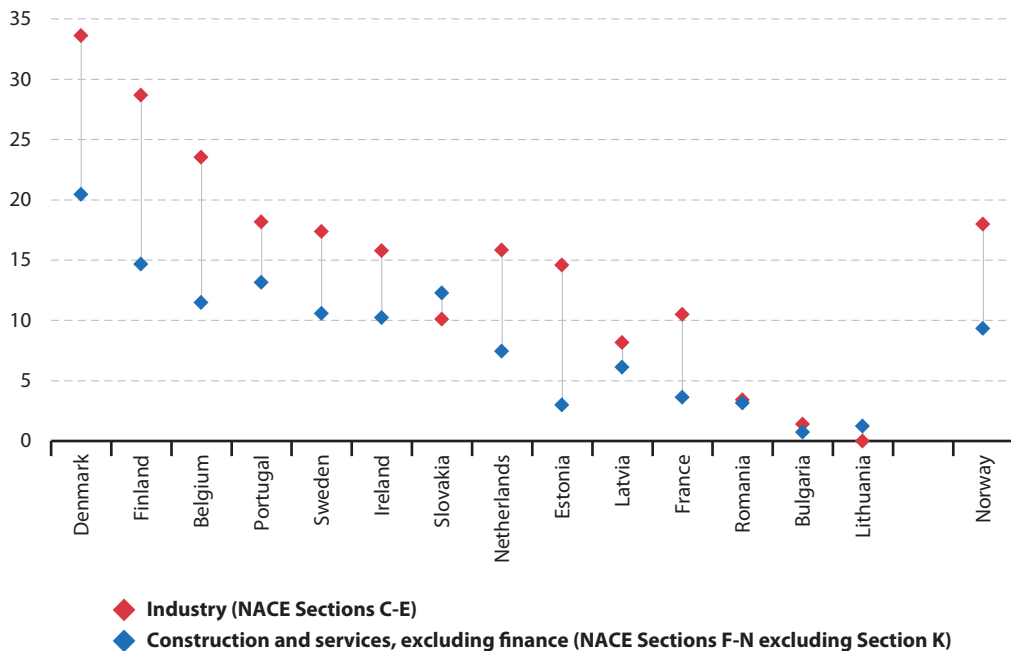
During the period 2009-2011 international sourcing for selected EU Member States was concentrated among industrial enterprises (defined here for this source as NACE Sections C-E). Figure 6.1 shows that across the 15 countries for which data are presented, there were 13 where the proportion of industrial enterprises making use of international sourcing was higher than the corresponding share for construction and services excluding financial services (as defined by NACE Sections F-N excluding Section K). Lithuania and Slovakia were the only exceptions and in both cases their shares of industrial enterprises making use of international sourcing were almost as high as for other enterprises in the remainder of the economy.

The highest propensity for using international sourcing was recorded in Denmark and Finland

The highest use made of international sourcing was often recorded in relatively small economies characterised by high labour costs. The proportion of industrial enterprises making use of international sourcing peaked in 2009-2011 in Denmark (33.6 %), while shares for Finland (28.7 %) and Belgium (23.5 %) were also relatively high. At the other end of the range, less than 1 in 20 industrial enterprises made use of international sourcing in Romania (3.4 %), Bulgaria (1.4 %) or Lithuania (0.0 %).

Figure 6.1: Enterprises which made use of international sourcing, by broad economic activity, 2009-2011

(% of all enterprises)

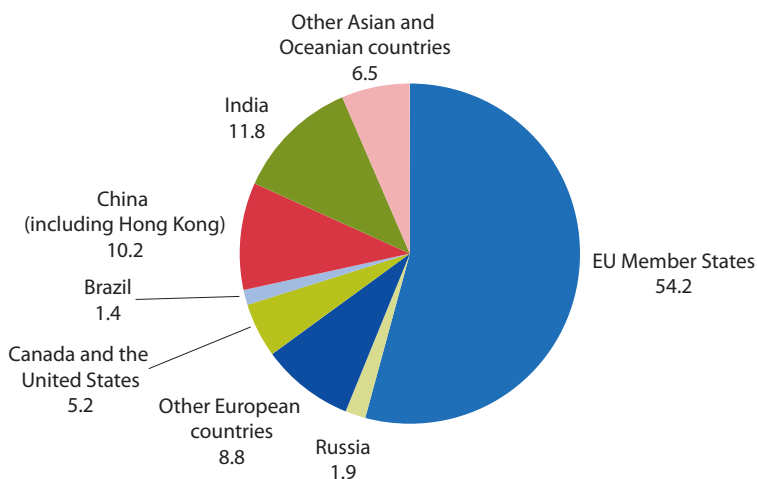


Note: ranked on the share of enterprises (all activities) which make use of international sourcing.

Source: Eurostat (online data code: [iss_11sfsour](#))

Figure 6.2: Enterprises which made use of international sourcing, by partner, EU, 2009-2011

(% of enterprises sourcing internationally)



Note: EU data includes only data reported by Bulgaria, Denmark, Estonia, Ireland, France, Latvia (no partner information for Canada and the United States or other Asian and Oceanian countries), Lithuania, the Netherlands, Portugal, Romania (no partner information for Russia or China (including Hong Kong)), Slovakia, Finland (no partner information for Brazil) and Sweden. As for partner countries, the EU Member States aggregate does not include Croatia.

Source: Eurostat (online data code: [iss_11sfdest](#))



Denmark also recorded the highest proportion of construction and non-financial business economy enterprises that made use of international sourcing (20.5 % in 2009-2011), while six other EU Member States recorded shares within the range of 10-15 %. At the other end of the range, less than 1 in 20 construction and non-financial business economy enterprises made use of international sourcing in France (3.6 %), Romania (3.1 %), Estonia (3.0 %), Lithuania (1.2 %) and Bulgaria (0.7 %).

Proximity appears to be an important criteria when enterprises choose to outsource

An average of 8.3 % of all enterprises across 13 EU Member States made use of international sourcing in 2009-2011 (see Figure 6.2 for details of coverage). The most common destination for their international sourcing was other EU Member States (54.2 %), followed by India (11.8 %), China including Hong Kong (10.2 %) and other European countries outside the EU (8.8 %).

Global decision-making and cost-cutting measures drove international sourcing

Multinational enterprises organise their global value chains in order to achieve efficiency. Strategic decisions on international sourcing are often taken by head offices of global groups: for 11 out of the 15 countries taking part in the survey, the principal motivation for making use of international sourcing was as a result of a decision taken by the group head.

The next most common reasons for international sourcing were to reduce labour costs and/or other (non-labour) costs — see Table 6.1. This was particularly evident in some of the EU Member States that are characterised by relatively high domestic labour costs, for example, the Nordic Member States, Belgium and the Netherlands; for example, almost two thirds (61.7 %) of the Danish enterprises using international sourcing in 2009-2011, cited reducing labour costs as a motivating factor, while 41.8 % replied that reducing other (non-labour) costs were a motivating factor.

Table 6.1: Selected motivation factors for enterprises which made use of international sourcing, 2009-2011

(% of enterprises sourcing internationally)

	Strategic decisions taken by the group head	Reduction of labour costs	Access to new markets	Reduction of costs other than labour costs	Focus on core business
Belgium	60.9	58.0	23.0	28.3	19.3
Bulgaria	70.0	0.0	56.0	12.0	12.0
Denmark	44.6	61.7	19.4	41.8	16.1
Estonia	82.1	25.0	33.3	28.6	34.6
Ireland	57.2	43.4	21.5	30.3	32.1
France	47.0	43.8	23.5	27.9	20.2
Latvia	40.6	27.6	27.3	:	14.3
Lithuania	100.0	0.0	33.3	33.3	75.0
Netherlands	35.3	47.5	11.6	13.4	6.6
Portugal	55.3	17.4	56.4	28.6	30.7
Romania	74.7	16.4	38.8	21.3	39.1
Slovakia	58.9	38.3	14.2	24.8	21.3
Finland	49.5	61.5	20.3	25.9	12.0
Sweden	57.0	56.2	9.1	35.9	12.0
Norway	62.6	45.6	15.7	26.6	14.2

Note: multiple answers were allowed; the top five factors shown are based on average results across those EU Member States for which data are available.

Source: Eurostat (online data code: [iss_11sbmot](#))

European enterprises tended to outsource support (rather than core) business functions

Core business functions are defined as the production of final goods or services that are intended for market — in most cases, these are covered by the primary activity of the enterprise. In contrast, support business functions (ancillary activities) are carried out in order to permit or facilitate the production of final goods and/or services; the outputs of these support business functions are not themselves intended directly for market.

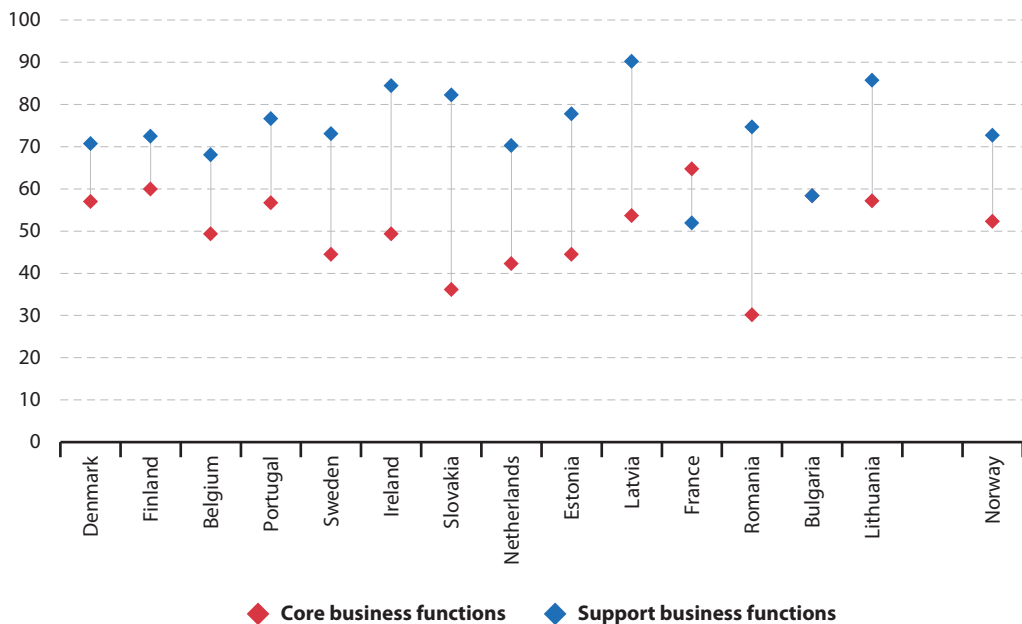
Although international outsourcing may have initially developed around core industrial activities, this pattern appears to have changed over time. Figure 6.3 shows that in the vast majority of the 15 countries for which data are presented, a higher proportion of those enterprises making use of international sourcing did so for support business functions (rather than for core business functions); the only exceptions to this pattern were France (where a higher proportion of enterprises made use of international sourcing for core business functions) and Bulgaria (where the same proportion of enterprises made use of international sourcing for core and support business functions).

China and India were the two most common destinations for international sourcing relationships

As noted above, outside of other EU Member States, China and India were the two most common destinations for European enterprises to develop international sourcing relationships. Figures 6.4 and 6.5 present more detailed information on the types of international sourcing that took place in both of these emerging economies during 2009-2011. There is a clear contrast between the different types of business functions sourced to

Figure 6.3: Enterprises which made use of international sourcing, by type of business function, 2009-2011

(% of enterprises sourcing internationally)



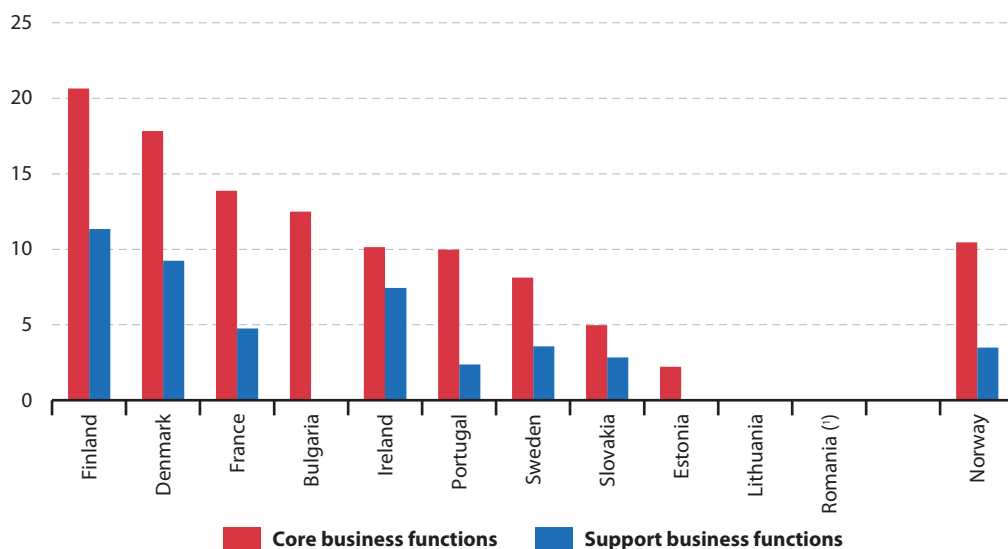
Note: ranked on the share of all enterprises which make use of international sourcing.

Source: Eurostat (online data code: [iss_11sfsour](#))



each country: a higher share of international sourcing arrangements with China tended to be for core business functions (often in industrial activities), whereas a higher proportion of outsourcing relations with India concerned support functions.

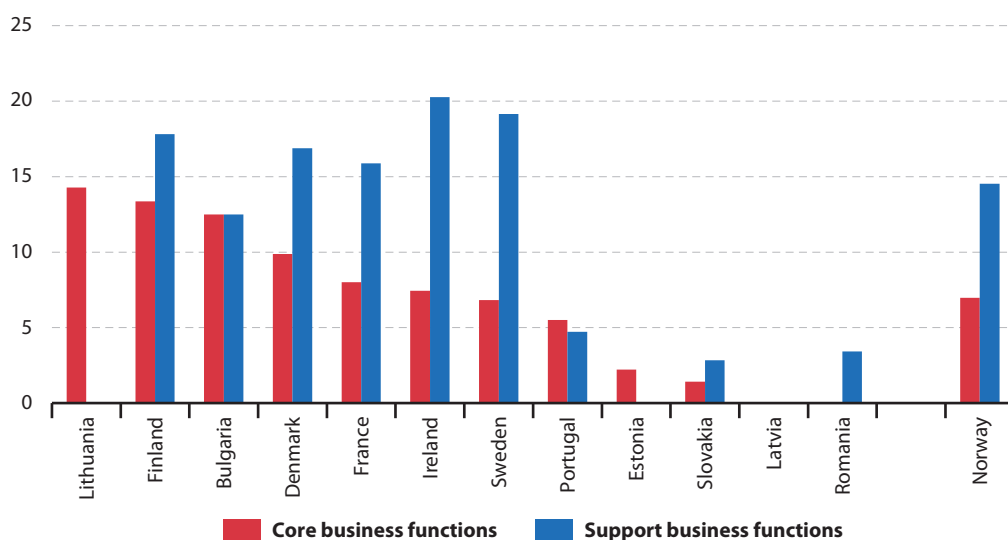
Figure 6.4: Enterprises which made use of international sourcing with China, by type of business function, 2009-2011
(% of enterprises sourcing internationally)



(*) Support business functions: not available.

Source: Eurostat (online data code: [iss_11sfdest](#))

Figure 6.5: Enterprises which made use of international sourcing with India, by type of business function, 2009-2011
(% of enterprises sourcing internationally)



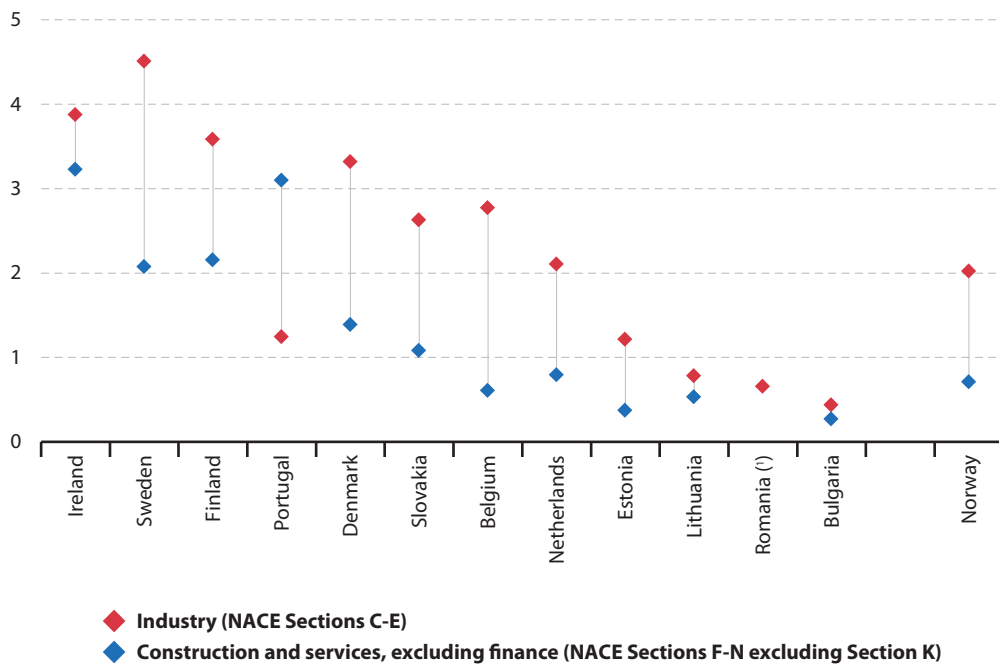
Source: Eurostat (online data code: [iss_11sfdest](#))

A relatively small proportion of European enterprises resorted to 'backsourcing'

In recent years there has been an increase in political and social movements that openly criticise the impact of global competition on domestic markets. These critiques are often supported by the development of protectionist policy agendas, designed to reduce voter concerns over a range of issues, such as: jobs being offshored; domestic producers facing competitive pressures that are perceived as being unfair; or the arrival of migrant workers. Eurostat's survey on international sourcing asked respondents about the use being made of 'backsourcing', in other words, enterprises that chose to move the production of business functions that had previously been internationally sourced back to their host economy.

Figure 6.6 shows that there were relatively few European enterprises that resorted to use of backsourcing in 2009-2011; note that the results are presented in relation to the whole enterprise population and that only those enterprises that had already outsourced could engage in backsourcing. As with international sourcing in general, a somewhat higher share of industrial enterprises made use of backsourcing when contrasted with the share of construction and non-financial services enterprises.

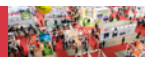
Figure 6.6: Enterprises which made use of backsourcing, by broad economic activity, 2009-2011 (%)



Note: ranked on the share of enterprises (all activities) which make use of backsourcing.

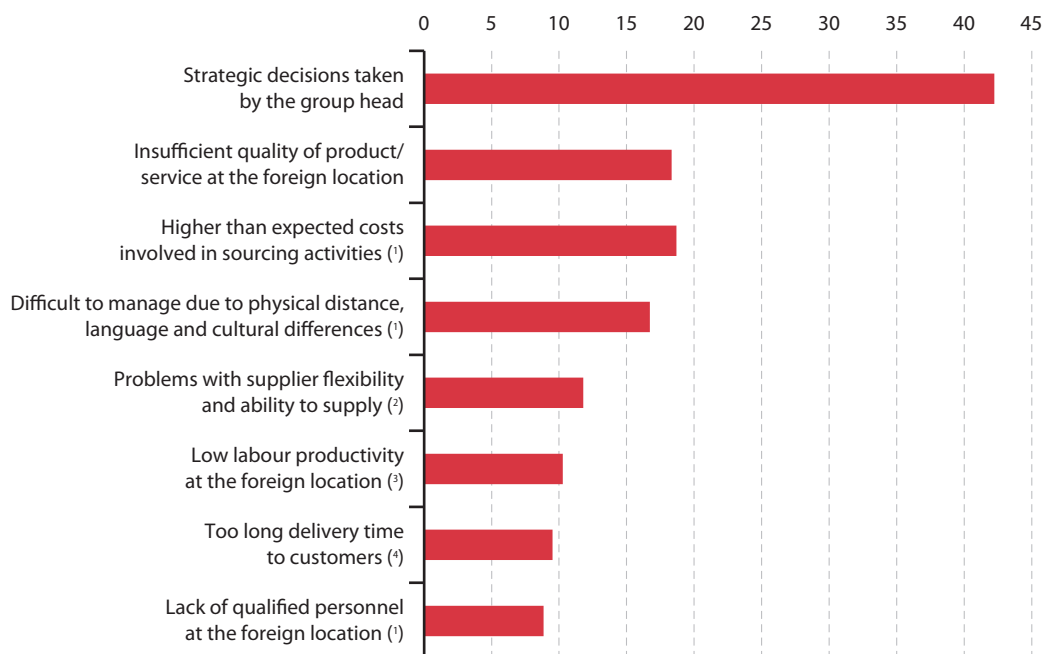
(*) Construction and other services: not available.

Source: Eurostat (online data code: iss_11srentbck)



On the basis of results for 11 of the EU Member States, strategic decisions taken by the group head were given as the most common motivation for making use of back sourcing in 2009-2011 (some 42.2 % of all enterprises that back sourced; see Figure 6.7). The other principal reasons for resorting to back sourcing included: concerns over the quality of outsourced products/services; higher than expected costs; and difficulties in managing relationship that were linked to physical distance, language or cultural differences.

Figure 6.7: Motivation factors for enterprises which made use of back sourcing, EU, 2009-2011
(% of enterprises back sourcing)



Note: multiple answers were allowed; EU aggregate is based on data for Belgium, Bulgaria, Denmark, Estonia, Ireland, Lithuania, Portugal, Romania, Slovakia, Finland and Sweden.

(1) Also excluding Romania.

(2) Also excluding Ireland and Finland.

(3) Also excluding Sweden.

(4) Also excluding Ireland and Sweden.

Source: Eurostat (online data code: [iss_11srmot](#) and [iss_11srentbck](#))

6.2 Trade in business services

The **business services sector** can be viewed as providing key inputs in the production of other goods and services. As such, it makes an important contribution to the fortunes of the whole **EU-28** economy, promoting competitiveness and growth. The business services sector has expanded in recent years: this growth has been underpinned by the development of new services and more specialised tasks (including the management of supply chains and international production networks), but also reflects increased levels of outsourcing to external suppliers. These changes have provided a stimulus for the business services sector to become increasingly global in nature. Furthermore, technological changes have allowed smaller businesses to enter niche markets where previously they may have lacked the scale to trade internationally.

This subchapter provides an analysis of the **turnover** (sales) of EU-28 enterprises in the business services sector, according to the residence of their clients — information is presented for clients residing in the reporting country, for clients residing in another **European Union (EU)** Member State, and for clients residing in a non-member country, in other words, outside the EU.

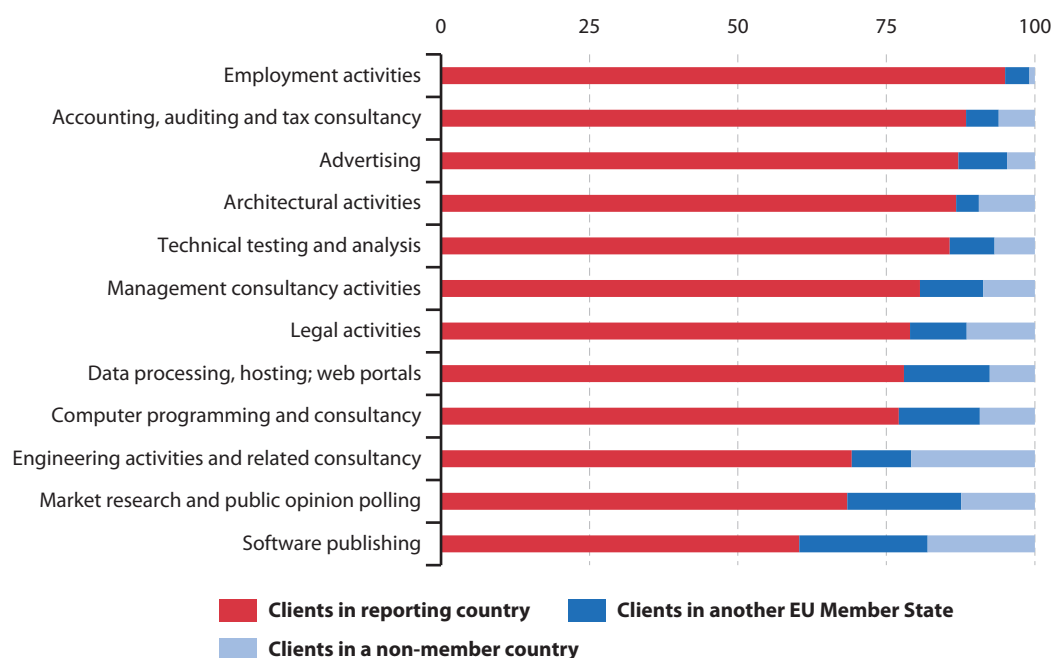
In 2014, almost two fifths of EU-28 sales by the software publishing sector were generated from clients residing in other countries

Figure 6.8 shows the proportion of business services turnover in 2014 that was accounted for by these three different sets of clients. For each of the business services shown, a majority of the EU-28's turnover was realised by sales to clients from the reporting country (in other words, from clients residing in the domestic economy). This pattern was particularly evident for employment services and some specific professional services, whereas clients resident in other countries accounted for a higher share of total sales for activities such as computer services. Such disparities may be linked to the tradability of various services, the different modes for trading services, or barriers to entry which prevent/restrict trade in some business services.

In 2014, 95.0 % of the sales made by EU-28 employment activities were to clients from the reporting country; by contrast, the proportion of total turnover accounted for by domestic clients fell to 60.4 % for software publishing activities. Among those activities recording relatively high shares of EU-28 sales being derived from clients residing abroad, the share of turnover that was attributed to clients from other EU Member States was generally higher than that from clients residing in non-member countries. For example, close to one fifth of the total turnover generated in software publishing (21.6 %) and in market research and public opinion polling (19.2 %) was accounted for by clients residing in other EU Member States. The highest shares of turnover being realised among clients residing outside the EU-28 were recorded for engineering activities and related consultancy (20.8 %) and software publishing (18.1 %).



Figure 6.8: Analysis of turnover for selected business services, by residence of client, EU-28, 2014
(% of turnover)



Note: based on available non-confidential data (some information relates to 2013 or 2012).

Source: Eurostat (online data code: [bs_bs8bdf_r2](#))

In 2014, the EU-28 computer programming and consultancy services sector recorded highest levels of sales generated from clients residing in other EU Member States

Looking in more detail at developments across the individual EU Member States, Table 6.2 shows a ranking of the turnover generated by selected business services, according to the residence of clients. In 2014, German computer programming and consultancy enterprises recorded the highest value of business services sales to clients residing in another EU Member State (EUR 10.1 billion). The same activity — computer programming and consultancy — also accounted for the second to fifth highest value of sales, as made by British, French, Spanish and Italian enterprises.

Concerning sales to clients residing outside the EU, the highest level of turnover was generated once again by German computer programming and consultancy services (EUR 10.2 billion), while British computer programming and consultancy enterprises had the fourth highest level of sales to non-member countries. Aside from these, the top five ranking featured a wider range of activities, with a high value of sales to clients residing outside the EU among British enterprises engaged in engineering activities and related consultancy and legal activities and French enterprises engaged in engineering activities and related consultancy.

While the rankings of overall turnover are unsurprisingly dominated by some of the largest EU Member States, the second half of the table presents relative measures based on the proportion of national turnover that was generated by clients from abroad. In 2014, more than two thirds (68.7 %) of all sales made in Lithuania by market research and public opinion polling enterprises was derived from clients residing in other EU Member States; an identical share was recorded for Dutch software publishing enterprises.

The share of total turnover that was generated from clients residing in non-member countries peaked at 92.5 % for Cypriot market research and public opinion polling enterprises; the only time a majority of sales were generated from clients residing outside the EU-28. The next highest shares were recorded for accounting, auditing and tax consultancy services in Cyprus (43.3 % of their turnover was generated from clients resident in a non-member country) and architectural activities in Portugal (where clients resident in a non-member country accounted for 41.1 % of sales).

Table 6.2: Top five rankings of turnover for selected business services, by residence of client, 2014

Value of turnover for clients resident in another EU Member State		
		(EUR million)
Germany	Computer programming and consultancy	10 073
United Kingdom	Computer programming and consultancy	8 243
France	Computer programming and consultancy	4 931
Spain	Computer programming and consultancy	4 304
Italy	Computer programming and consultancy	4 221
Value of turnover for clients resident in a non-member country		
		(EUR million)
Germany	Computer programming and consultancy	10 201
United Kingdom	Engineering activities and related consultancy	8 724
France	Engineering activities and related consultancy	7 486
United Kingdom	Computer programming and consultancy	6 316
United Kingdom	Legal activities	4 316
Share of turnover for clients resident in another EU Member State		
		(%)
Lithuania	Market research and public opinion polling	68.7
Netherlands	Software publishing	68.7
Latvia	Data processing, hosting; web portals	65.6
Croatia	Market research and public opinion polling	65.0
Estonia	Management consultancy activities	53.0
Share of turnover for clients resident in a non-member country		
		(%)
Cyprus	Market research and public opinion polling	92.5
Cyprus	Accounting, auditing and tax consultancy	43.3
Portugal	Architectural activities	41.1
Cyprus	Computer programming and consultancy	36.8
Hungary	Data processing, hosting; web portals	36.6

Note: top five rankings based on available non-confidential data (some information relates to 2013 or 2012) for the following business services — software publishing; computer programming and consultancy; data processing, hosting and web portals; legal activities; accounting, auditing and tax consultancy; management consultancy; architectural activities; engineering activities and related consultancy; technical testing and analysis; advertising; market research and public opinion polling; employment activities.

Source: Eurostat (online data code: [bs_bs8bdf_r2](#))



6.3 Global value chains and trade in value added

This final subchapter provides information relating to global value chains, a term used to describe the full range of activities undertaken to bring a product or service to market, in other words, the journey from its conception to final use, including research and design, production, marketing, logistics and distribution. These steps in the production chain may be performed by the same enterprise, or alternatively can be carried out by different enterprises which in turn may be located in a number of different countries, potentially leading to the development of intricate networks of globalised activity, with an increasing share of products being ‘made in the world’.

Enterprises have been producing items with intermediate inputs sourced from around the world since the industrial revolution. However, as global value chains developed they accentuated the speed, scale, depth and breadth of such global interactions. These chains are often viewed as powerful drivers of productivity growth and efficiency gains, although they also have the potential to impact upon jobs — threatening them in countries which see parts of their production chain outsourced, and creating them in countries which receive the reallocated productive capacity. The scale of complex international production networks may be measured insofar as the [United Nations](#) estimates that around half of world’s trade in goods and services takes place between affiliates of [multinational enterprises](#).

Box 6.1 — Measuring the value of global production chains

There are a range of measurement issues concerning the accurate compilation of statistics on global value chains. For example, a bias may be introduced if attributing the full value of imports to the last country of origin, as the product/service being imported is composed of intermediate goods that were sourced from other countries. As such, international trade analyses based on gross measures may struggle to provide an accurate measure of the complexities involved in global production chains, as intermediate goods (parts and components) may cross borders several times and each time this occurs their value is counted, thereby potentially inflating trade statistics.

Statisticians are facing these challenges by developing more robust and reliable measures — for example, combining enterprise-level microdata with the results of existing international trade and business surveys — so as to facilitate the compilation of more accurate information which may then be used for a broader understanding of the globalised economy. This work has been coordinated at a

global level by the [OECD](#) through its [Trade in Value Added \(TiVA\)](#) initiative. It takes on board regional initiatives including, Eurostat’s Full International and Global Accounts for Research in Input-Output Analysis (FIGARO) project, North American TiVA, Asia-Pacific Economic Cooperation (APEC) TiVA, or regional input-output tables for Latin America coordinated by the Economic Commission for Latin America and the Caribbean (ECLAC). These initiatives provide a means to factor out the multiple counting that is implicit in gross flows of international trade and instead measure specifically the value that is added at each stage of the production process to any goods/services that are exported.

One of the key pillars underlying the development of TiVA initiatives is the creation of a global set of multi-partner supply, use and input-output tables. These should allow a better understanding of global value chains, extending traditional statistics — such as economic accounts — so that inter-dependencies and linkages between different economies may be studied in more detail.

Globalisation has led to a fragmentation of global value chains: this pattern has been particularly apparent within the manufacturing sector, for example, in relation to activities involving assembly, as multinationals seek to benefit from lower labour costs. More recently, a similar pattern of developments has emerged in relation to the remote provision of some technology, communications and support services, such as computer programming, call centres or helpdesks.

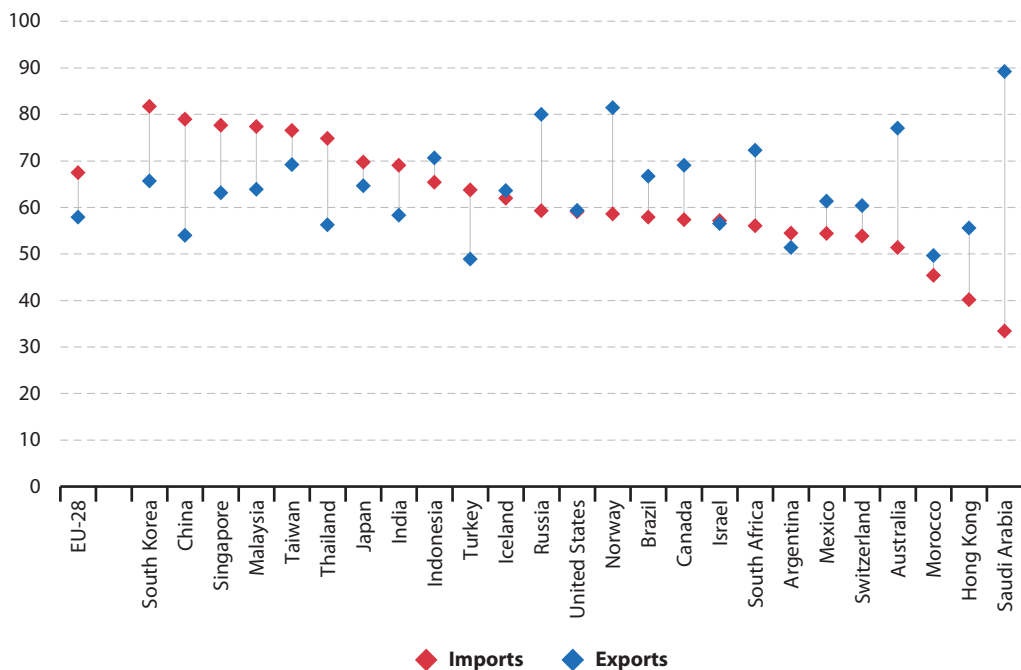
In 2011, intermediate products accounted for more than half of the world's trade

According to the United Nations, more than half of the world's trade concerns intermediate products (for example, parts and components that are used as part of the manufacturing process when producing final goods for end-consumers). Within the EU-28, there has been a relatively slow and stable development concerning the proportion of trade that may be attributed to intermediate products. In 2011, intermediate goods accounted for 67.4 % of the EU-28's imports and 57.8 % of its exports (see Figure 6.9).

The situation in the EU-28 may be contrasted with that in South Korea or China, where there the share of intermediate goods in total imports was much higher: 81.6 % of South Korean imports were intermediate goods, while 78.9 % of Chinese imports were intermediate goods which would suggest that these countries (along with other Asian economies) operated as 'production hubs'.

Figure 6.9: Share of intermediate products in gross imports and exports, 2011

(% of total)



Source: OECD, Inter-Country Input-Output (ICIO) Database, Trade in Value Added (TiVA), December 2016



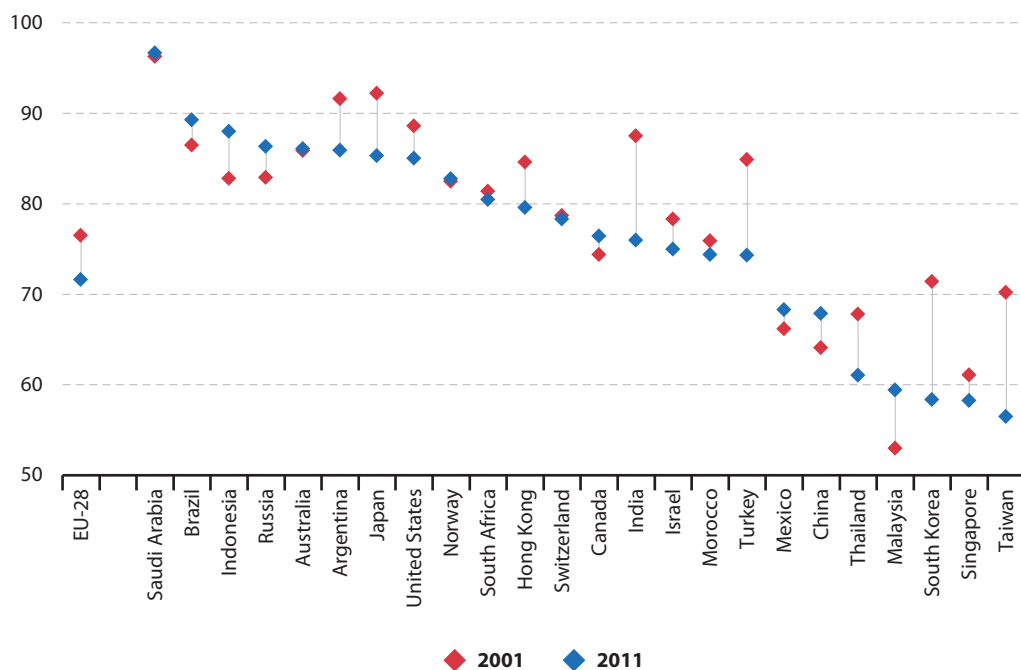
While some studies on global value chains focus on the role of emerging economies as low-cost production hubs, such value chains could not exist without the development of a wide range of support services (such as transport networks, logistics, finance, communications or business/professional services) too. Indeed, when measured in **value added** terms, the role of these services in the global economy is generally considered to be much greater than might be suggested by analysing gross international trade statistics.

Between 2001 and 2011, a growing share of the EU-28's value added was attributed to imports of intermediate goods

Figure 6.10 extends the analysis by providing details about the share of domestic value added in total gross exports. In 2011, some 71.6 % of the value added contained in EU-28 gross exports was generated within the single market; the remainder was contained in intermediate goods that were imported from non-member countries. The share of EU-28 domestic value added in gross exports fell between 2001 and 2011, suggesting that the **European Union (EU)** was becoming increasingly open, importing a higher share of intermediate goods/services to feed into its production chains.

Those economies which were relatively specialised in raw material and minerals production — for example, Saudi Arabia, Brazil, Indonesia, Russia or Australia — tended to record a high share of domestic value added in their gross exports. By contrast, economies characterised as low-cost production centres for manufacturing — for example, many of the Asian countries, Mexico, Turkey or Morocco — reported relatively low shares of domestic value added in gross exports (shares below 75 %).

Figure 6.10: Share of domestic value added in gross exports, 2001 and 2011
(% of total)

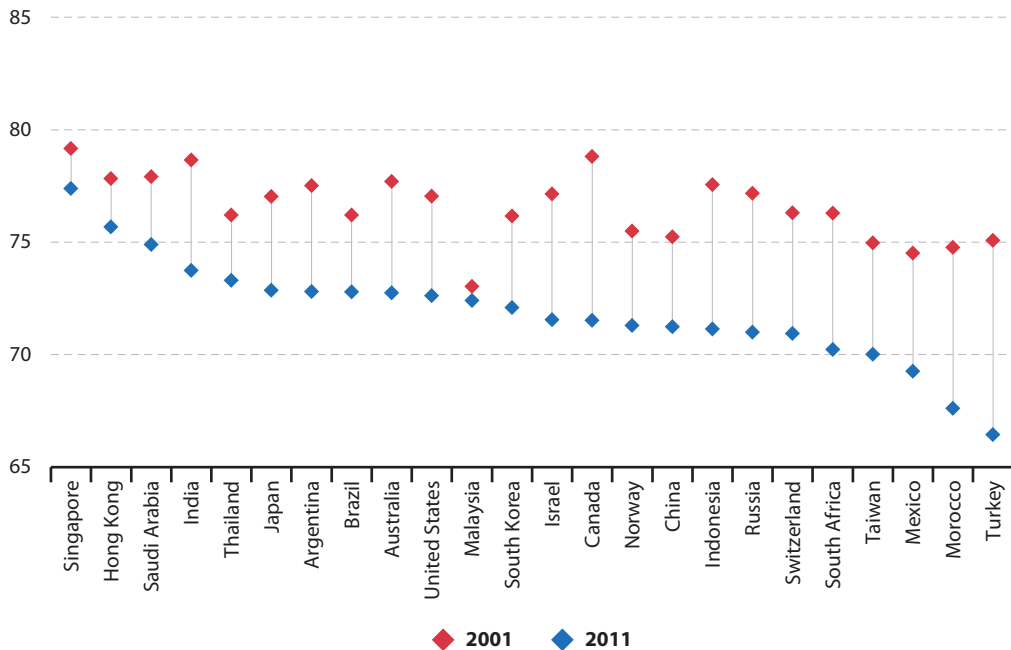


Source: OECD, Inter-Country Input-Output (ICIO) Database, Trade in Value Added (TiVA), December 2016

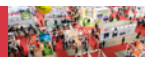
These patterns may arise because the bulk of the added value that is embedded in products/ services tends to reside at either end of the production chain, for example, within [research and development \(R & D\)](#) activities at the start of the chain or within branding/marketing activities at the end of the chain, whereas activities such as assembly generally have a relatively low added value. As an example, a smartphone might have its R & D, design, intellectual property, advertising and sales functions based in the United States, component suppliers in Japan and South Korea, while it is assembled in China or Vietnam. While the bulk of the added value may reside at either end of the production chain, the creation of products/services through multi-enterprise production chains spreads some of the economic value away from the enterprise whose brand appears on the product packaging to other participants in the chain.

Figure 6.11: Share of domestic value added in gross exports to selected partners, EU-28, 2001 and 2011

(%)




Source: OECD, Inter-Country Input-Output (ICIO) Database, Trade in Value Added (TiVA), December 2016



The share of domestic value added in gross exports declined in most countries between 2001 and 2011, probably reflecting advances in the scope and reach of global value chains. However, this pattern was not repeated in those economies which specialised in exporting raw materials and minerals, nor in China and Malaysia, where the share of domestic value added in gross exports rose, albeit from a relatively low initial level, suggesting that they were moving away from being manufacturing hubs and diversifying into other parts of the production chain.

The share of the EU-28's domestic value added in its gross exports to a range of bilateral trading partners is shown in Figure 6.11. The most striking aspect is that the share of domestic value added in gross exports declined for each of the EU's main trading partners between 2001 and 2011, providing further support to economic views that emphasise the increasing fragmentation of production to all corners of the world and the spread of globalisation.

 Further information on international trade in goods by enterprise characteristics is presented in Subchapter 2.5 and on international trade in services by enterprise characteristics at the end of Subchapter 3.3.

Annex: main data sources

BALANCE OF PAYMENTS AND INTERNATIONAL TRADE IN SERVICES

The [balance of payments](#) summarises economic transactions between residents and non-residents of an individual country (for example, an EU Member State) or economic area (for example, the EU-28). It provides harmonised information on international transactions which are part of the current account (trade in goods, [trade in services](#), primary and secondary income), as well as on transactions which fall in the capital and financial accounts.

The balance of payments provides information on: i) the total value of exports (sometimes referred to as credits), imports (sometimes referred to as debits), and the balance (exports minus imports) of transactions; ii) the net acquisition of financial assets and net incurrence of liabilities for each balancing item, as well as the net transactions (net acquisition of financial assets minus net incurrence of liabilities). These are presented for a range of partner countries or economic areas. The balance of payments also provides information pertaining to [international investment positions](#), in other words, the value of financial assets owned outside an economy and indebtedness of that economy to the rest of the world.

The methodological framework for balance of payments statistics and for data on international trade in services includes:

- the International Monetary Fund's (IMF's) Balance of Payments and International Investment Position Manual (BPM6);
- the IMF's Balance of Payments and International Investment Position Compilation Guide (BPM6 CG);
- the [balance of payments services classification \(EBOPS 2010\)](#).

In the EU, changes to international statistical standards have been translated into new data requirements via the adoption of new EU legal acts regarding statistical reporting requirements for [external statistics](#) as well as [balance of payments](#), [international trade in services](#) and [foreign direct investment](#) statistics.

The concept of [residence](#) in the BPM6 is identical to that used in the [United Nations' system of national accounts \(SNA\)](#) and the [European system of national and regional accounts \(ESA2010\)](#). It is not based on nationality or legal criteria; rather, on the notion of a centre of economic interest. More specifically, an institutional unit (such as a company) is a resident unit when it has a centre of economic interest in the economic territory of a country for a period of at least one year.

INTERNATIONAL TRADE IN GOODS

According to the United Nations (2010), the aim of statistics on international trade in goods is 'to record all goods which add to or subtract from the stock of material resources of a country by entering (imports) or leaving (exports) its economic territory'. International trade in goods statistics are an important source of information for many public and private sector decision-makers nationally and internationally; they also constitute an essential source for the compilation of balance of payments and national accounts statistics.

[International trade in goods statistics](#) cover both extra- and intra-EU trade: the former covers the trading of goods between EU Member States on one hand and non-member countries on the other, while the latter concerns trade that is exclusively between EU Member States. Extra-EU imports and exports are recorded in the Member State where the goods are placed under customs procedures; as such, these statistics do not record goods in transit, goods placed into customs warehouses, or goods for temporary admission. These statistics are provided by traders on the basis of their customs (extra-EU) and Intrastat (intra-EU) declarations. They are compiled for a variety of different product classifications, among which, the fourth version of the [standard international trade classification \(SITC\)](#) of the United Nations, which allows for comparisons on a worldwide basis.

i For more information, refer to: User guide on European statistics on international trade in goods and Compilers guide on European statistics on international trade in goods, available from a [dedicated section](#) on the Eurostat website, under the heading of [Manuals and guidelines](#).

FOREIGN DIRECT INVESTMENT

[Foreign direct investment \(FDI\)](#) is an international investment recorded within the balance of payments. It concerns an investment whereby a resident entity in one economy seeks to obtain a lasting interest in an enterprise that is resident in another; this implies the existence of a long-term relationship between the direct investor and the enterprise. A direct investment enterprise is one in which a direct investor owns 10 % or more of the ordinary shares or voting rights (for an incorporated enterprise) or the equivalent (for an unincorporated enterprise). Through FDI flows, an investor may build up FDI stocks (also known as FDI positions) that have an impact on an economy's international investment position. FDI stocks differ from accumulated flows because of revaluations (changes in prices or exchange rates) and other adjustments.

The methodological framework for defining FDI statistics is provided by the fourth edition of the OECD's [Benchmark definition of foreign direct investment \(BD4\)](#). Eurostat's data requirements within this domain are aligned with international standards (BPM6 and BD4), as stipulated in [Commission Regulation \(EU\) No 555/2012](#) amending [Regulation \(EC\) No 184/2005](#) of the European Parliament and of the Council, which establishes a common framework for reporting of balance of payments, international trade in services and foreign direct investment data.

FDI statistics in the EU are currently collected according to the immediate direct investor or immediate direct investment company (immediate counterparts). [Regulation \(EU\) 2016/1013](#) aims at developing FDI statistics based on the ultimate ownership concept and FDI statistics distinguishing between the creation of new, productive assets by foreigners (so-called greenfield investments) and the purchase of existing assets by foreigners (FDI resulting from takeovers). FDI statistics include all types of enterprise, including those enterprises with very little or no economic activity, whose core business function is to finance group activities or to hold assets/liabilities — these may be referred to as holding companies, shell companies, financing subsidiaries or conduits.

The switch to BPM6 brought about a number of important methodological changes to FDI statistics, such that data from 2013 onwards are not directly comparable with those published for earlier reference periods other than for some major aggregates, most notably in relation to reverse investment and the introduction of a 'gross' assets/liabilities concept.

FOREIGN AFFILIATE STATISTICS

Foreign affiliate statistics (FATS) measure the commercial presence of affiliates in foreign markets, as defined by the [General Agreement on Trade in Services \(GATS\)](#). Foreign affiliate statistics deal with enterprises that control enterprises abroad (outward FATS) or enterprises that are controlled by foreign enterprises (inward FATS).

The [FATS recommendations manual](#) lays down Eurostat's detailed guidelines for the methodology, collection and compilation of statistics within the EU. FATS data should be compiled according to the ultimate controlling institutional (UCI) unit concept; the ultimate controlling institutional unit is the unit which, proceeding up a foreign affiliate's chain of control, is not controlled by another institutional unit. Control is defined as the ability to determine the general policy of the affiliate, if necessary, by appointing appropriate managers. It is often difficult to determine the ultimate controlling institutional unit and, in practice, share ownership is sometimes used as a proxy for control. Thus, FATS focus on affiliates that are majority-owned (more than 50 % of the ordinary shares or voting power) by a single investor or by a group of associated investors who act together.

INTERNATIONAL SOURCING

Statistics on international sourcing are designed to measure the relocation of domestic production of goods/services to producers who are located abroad as a result of a decision taken by a resident producer to stop production or the use of core and/or business support functions. One example is the potential outsourcing of business functions that are currently performed in-house by a resident enterprise to an external supplier who is located either domestically (national sourcing) or abroad (international sourcing). By contrast, back-sourcing and reshoring occurs when an enterprise decides to move its business functions (core or support) back into the domestic economy, after they had been previously been moved out of the country. These statistics on international sourcing were collected by means of a statistical survey.

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Globalisation patterns in EU trade and investment

This Eurostat publication provides information to describe patterns of 'economic globalisation': it focuses on developments for international trade and investment in the European Union (EU) and its 28 Member States from a business perspective, analysing exchanges between traders and patterns of behaviour within and between enterprises.

The publication provides a starting point for those who wish to explore the wide range of data covering the globalisation phenomenon that are freely available on Eurostat's website.

For more information
<http://ec.europa.eu/eurostat/>