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# The EU Single Market, a Driver for Economic and Trade Integration

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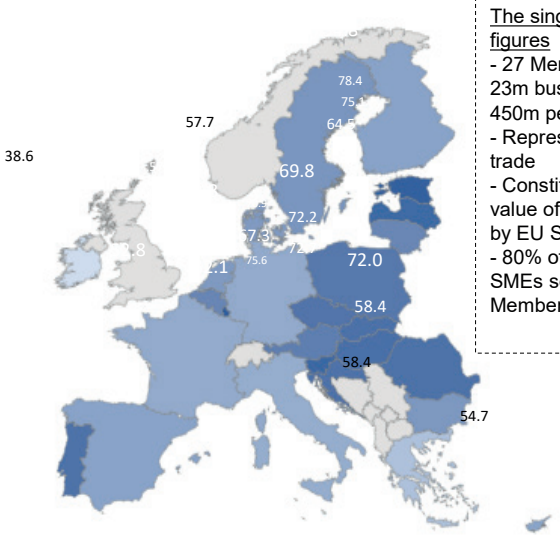
- The single market plays a central role in European integration, and its purpose is to ensure the political stability and economic prosperity of its Member States. As of 2023, the market included 27 countries, 23 million businesses and nearly 450 million people, making it the world's largest developed market. Within this market, economic and financial relations between Member States are very close (see Map on this page).

- The EU single market has met its initial expectations, promoting innovation, boosting productivity and enabling convergence in the European Union (EU). The strengthened internal economic relations and economic convergence made possible by the single market have helped significantly raise incomes and the standards of living in EU Member States.

- Between 1984 and 2019, EU economies' goods export structures have become more similar, most likely reflecting the development of intra-industry trade. The single market has therefore not led to increased relative specialisation within the EU, where each Member State would have specialised in different sectors.

**Share of intra-EU trade in goods in 2022 by Member State (% of total trade)**




The single market in figures
- 27 Member States, 23m businesses and 450m people
- Represents 60% of EU trade
- Constitutes 70% of the value of goods exported by EU SMEs
- 80% of all exporting SMEs sell to other Member States

*Sources: Eurostat, balance of payments; DG Trésor calculations.*

Note: The darker the shade of blue, the larger the share of intra-EU trade in goods.

How to read this map: In 2022, 52.8% of France's total trade in goods (imports and exports) was conducted with other EU countries.

# 1. EU integration and single market development

## 1.1 Building the single market has been an integral part of EU integration since 1952

In May 1950, with a view to helping secure political stability and economic prosperity in Europe[1] by means of economic and trade integration, France made a proposal to pool its coal and steel resources[2] with Germany under an organisation that other European countries could also join. The result was the founding of the European Coal and Steel Community (ECSC) in 1952, formed of six founding members.[3]

In 1958, the Treaty of Rome, which established the European Economic Community (EEC), extended this integration to cover the entire economy with the adoption of the principle of the free movement of goods, services, capital and people (the four fundamental freedoms), the introduction of a customs union (and with it the abolishment of internal customs duties) and of a common commercial policy, that all had to be established during a transitional period of 12 years.[4] The common market of goods, the Customs Union and common commercial policy entered into force in 1968.[5] To establish the common market, European rules also had to be adopted to ensure free and fair competition.[6] In the past, integration has been enabled through regulatory harmonisation.[7]

However, the nature of integration has changed with the extension of the EU's shared powers to certain core State powers.[8]

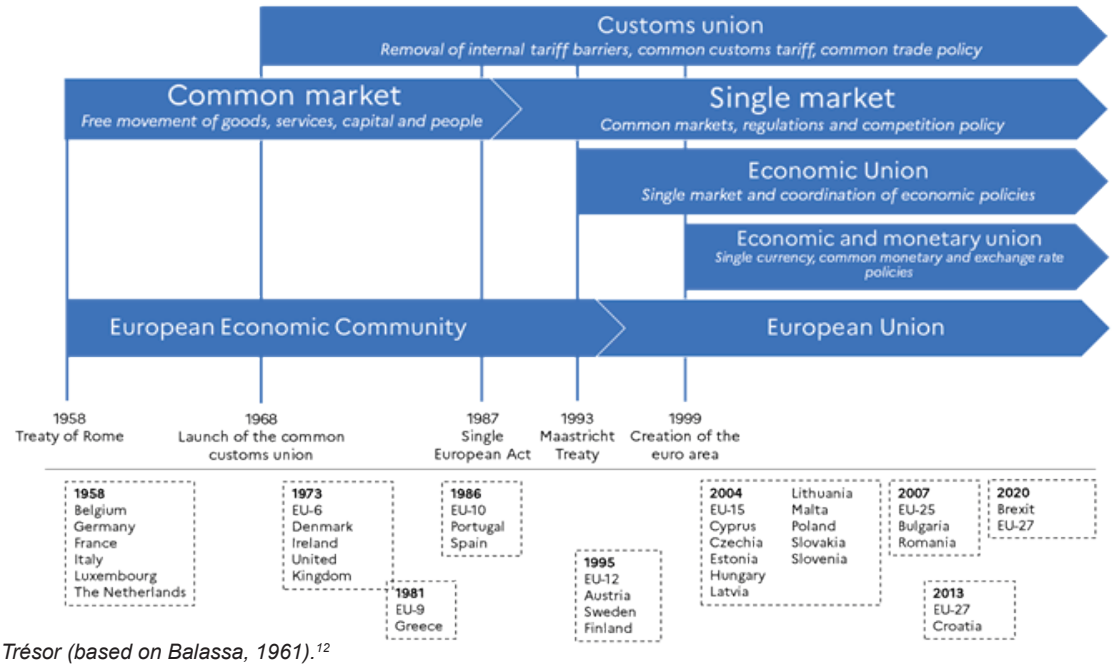
In 1987, the Single European Act overhauled the common market, transforming it into a single market by introducing some 300 measures to remove, by 1992, the physical, technical and tax non-tariff barriers that still obstructed the free movement of goods, services, capital and people.[9]

In 1993, the Maastricht Treaty formally established the coordination of economic policies within what is now the European Union (EU) and set forth the founding of the Economic and Monetary Union (EMU or the euro zone), in force since 1999. The EMU was set up to bolster the single market by cutting transaction costs and minimising uncertainty by removing exchange rate risk. In this respect, the creation of the euro was at least partly considered to complement the single market.[10]

The single market and the EU have expanded with various waves of enlargement bringing in new Member States (see Chart 1 for a presentation of the various stages of integration from an economic standpoint, as well as the dates of each wave of enlargement).[11]

(1) "Anxious to help, by expanding their basic production, to raise the standard of living and further the works of peace" (Preamble to the Treaty of Paris, also known as the ECSC Treaty).
(2) At the time, coal and steel were essential raw materials for industrial and energy production.
(3) Belgium, France, Germany, Italy, Luxembourg and the Netherlands.
(4) The Treaty of Rome also set out the establishment of the Common Agricultural Policy (CAP) in 1962, the launch of the common social policy with the European Social Fund (ESF) and the creation of the European Investment Bank (EIB).
(5) Several Treaty of Rome objectives (e.g. the free movement of people and capital, the transport policy) were not attained until the integration leaps of the 1980s.
(6) La politique de la concurrence de l'Union européenne (UE) | vie-publique.fr (in French only).
(7) National regulations which hinder trade are thereby harmonised under EU law and the case-law of the Court of Justice of the European Union (CJEU).
(8) E.g. currency, borders.
(9) The Single European Act (SEA) also introduced qualified majority voting in the Council of the EU for certain areas, making the decision-making process more straightforward. However, for other areas, such as taxation and the EU budget, decisions are made on a unanimous basis, thereby hampering the deepening of the single market in such fields. .
(10) European Commission (1990), "One Market, One Money: An Evaluation of the Potential Benefits and Costs of Forming a Monetary Union", *European Economy*, 44.
(11) The Treaties of Amsterdam (1997), Nice (2003) and Lisbon (2009) did not directly affect single market development: they instead were intended to simplify and make the EU's institutional architecture more effective in order to factor in the major waves of enlargement in the 2000s.

**Chart 1: The stages of European economic integration**




*Source: DG Trésor (based on Balassa, 1961).*[12]

## 1.2 Strong trade relations within the world's largest developed market

The single market currently covers 27 countries, 23 million businesses and nearly 450 million people,[13] making it the largest developed market in the world. In comparison, the United States has 32 million businesses and almost 340 million people. The EU, which is home to just one-tenth of the world population, accounts for roughly 15% of global GDP and a third of world trade, a large portion of which is conducted within its borders.

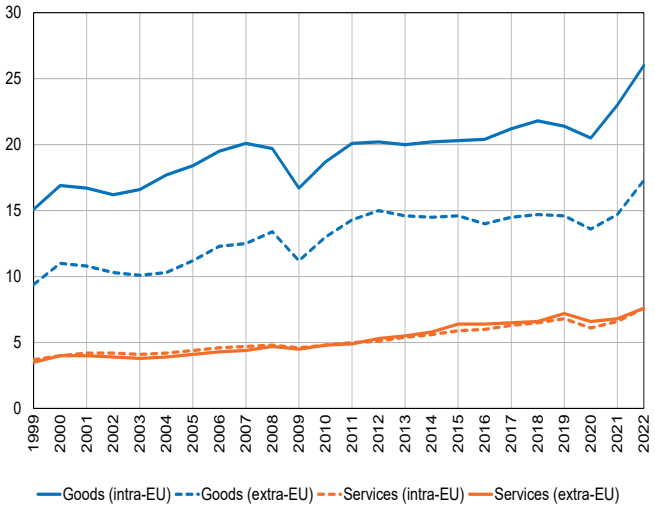
Economic relations between Member States are very close.[14] The single market continues to be the main goods trade area for EU countries. Intra-EU trade in goods represented 60% of total EU trade in 2022, versus 54% in 1995, and accounted for 26% of EU GDP in 2022[15] (compared to 17.3% of GDP for extra-EU trade) (see Chart 2). The services market is less integrated, reflecting the less tradable nature of services and a lesser degree of regulatory harmonisation (7.6% of EU GDP in 2022 for intra- and extra-EU trade in services).

European small- and medium-sized enterprises (SMEs) and very small enterprises (VSEs), which form a large portion of the production base of Member States,[16] trade primarily within the EU. According to the European Commission, goods exported by European SMEs within the single market account for 70% of the value of their total exports, and 80% of all exporting EU SMEs make sales to other Member States. What is more, there are almost twice as many VSEs exporting goods within the single market, compared to those exporting goods outside the EU.[17]

(12) B. Balassa (1961), *The Theory of Economic Integration,* Routledge Revivals.
(13) Excluding European Free Trade Association (EFTA) countries that are also European Economic Area (EEA) members, i.e. Norway, Iceland and Liechtenstein. Switzerland is part of the EFTA but not the EEA.
(14) All else being equal, trade between two EU Member States in 2012 was 3.2 times greater than between two equivalent non-EU countries according to T. Mayer, V. Vicard and S. Zignago (2018), "The Cost of Non-Europe, Revisited", *Economic Policy* 34(98), pp. 145-199.
(15) By comparison, in 2019, intra-NAFTA (North American Free Trade Agreement) and intra-ASEAN (Association of Southeast Asian Nations) trade in goods stood at 5% and 10% of their GDP respectively.
(16) According to Eurostat, VSEs and SMEs account for just over half of the value added created within the EU and almost two-thirds of EU jobs.
(17) European Commission (2023), "Annual Single Market Report 2023".

Investment relations between Member States are also very strong. In the last 20 years, foreign direct investment (FDI) and intra-EU-27 portfolio investment have continued to increase and respectively stood at nearly five and four times higher in early 2021 than the early 2002 figure.[18] The EU is also the area with the most inward direct investment in the world.[19]

**Chart 2: Intra- and extra-EU trade in goods and services (as a percentage of GDP, average of imports and exports)**




*Source: Eurostat, balance of payments; DG Trésor calculations.*

## 2. The single market's role in European prosperity

### 2.1 The expected economic gains of the single market

The single market was set up to remove tariff and non-tariff barriers hampering trade and factor mobility within the EU in order to realise the free movement of goods, services, capital and people (the four "fundamental freedoms"), a goal dating back to the Treaty of Rome. To this end, regulations on State aid[20] and a stringent competition policy[21] are required to prevent a reversion to market segmentation and allow the expected benefits of economic integration to be reaped.

The 1988 Cecchini Report[22] identified the various channels through which the single market would yield microeconomic gains. Firstly, reducing trade barriers and enlarging markets were intended to bring down costs and prices thanks to the resulting economies of scale generated. Boosting competition intensity was then supposed to accelerate the reallocation of production factors to the most productive businesses and to bolster incentives for innovation, eventually improving productivity.

Lastly, reducing tariff barriers would lead to the generation of aggregate productivity gains through the specialisation of each country and to a reallocation of production factors based on the comparative advantages of European economies. This channel raised some particularly salient issues as specialisation,[23] a possible side-effect of the deepening of the single market (and the euro), could have established winners and losers within the EU. In particular, increased inter-sectoral trade specialisation

(18) European Commission (2023), "Annual Single Market Report 2023".
(19) According to the UNCTAD, since 1980, the EU has accounted on average for 27.8% of global FDI inward stock and 30.6% of global FDI outward stock. In 2022, the EU accounted for 25.2% of global FDI inward stock and 31.9% of global FDI outward stock.
(20) Article 107(1) of the TFEU establishes a general principle of prohibiting State aid. With this prohibition, endorsed by the Commission's review of national support schemes, fair competition on the EU market is protected and inefficient expenditures are controlled which could, for example, result in a subsidy race between Member States. This general principle permits a number of exemptions for certain market failures (R&D, SMEs, environment, services of general economic interest – SGEIs) and may be adjusted on a temporary basis to give States more leeway to cope with economic conditions (see the Temporary Crisis and Transition Framework).
(21) Gutiérrez and Philippon (2020) explain that when countries decide to centralise their competition policies, the independence of the central regulator is greater than that of national regulators. They noted that European anti-trust institutions are indeed more independent and more effectively enforce fair competition than those in the United States. G. Gutiérrez & T. Philippon (2020), "How EU Markets Became More Competitive Than US Markets: A Study of Institutional Drift", *National Bureau of Economic Research*.
(22) P. Cecchini (1988), *The European Challenge. 1992: The Benefits of a Single Market*, Aldershot.
(23) "Absolute" specialisation is the extent to which an economic unit is dominated by one or more sectors. "Relative" specialisation is measured relative to another unit or group of benchmark economic units.

between Member States could have concentrated high-productivity activities (especially manufacturing industries) in certain countries, and lower value-added activities in other countries.[24]

In this respect, theoretical predictions were ambiguous. According to Krugman (1991 and 1993)[25] and Krugman & Venables (1996),[26] using models not factoring in value chain fragmentation and intra-sectoral differentiation, economic and monetary integration would encourage economies to specialise in a limited variety of productions in order to take advantage of economies of scale.[27] In contrast, Melitz (2004)[28] explained that economic integration could reduce specialisation between EU countries since, when living standards (and thus consumer preferences) converge, intra-industry trade should increase.[29] In any case, macroeconomic gains were expected for the EU as a whole since integration and trade openness would increase production and consumption frontiers, resulting in a rise in aggregate GDP.[30]

## 2.2 The single market has fostered innovation and productivity gains

Competition within the single market has exerted downward pressure on prices. Mark-ups – the difference between the sale price of a product and its cost – have remained unchanged or have even slightly fallen in Europe in the last few decades,[31] while they have significantly risen in the United States.[32] The Bundesbank (2017)[33] notes there is no evidence of a long-term increase in mark-ups since the late 1990s in seven EU countries. While globalisation has played a role in this trend, the paper explains that EU integration has counterbalanced rising structural pressures (the emergence of "superstar firms" in the services sector, particularly those specialising in digital technology, rising fixed costs, etc.).

Cavalleri et al. (2019),[34] whose analysis is centred on the four largest EU economies, have made similar findings (see also Bighelli et al. 2023).[35] Their results also reveal that the mark-ups are lower in the manufacturing sector despite a higher concentration level than the rest of the economy, which could be the result of greater competitive pressure on tradable goods. Gutiérrez & Philippon (2020) even note a drop in mark-ups in Europe between 1997 and 2015 as a result of the liberalisation of the goods market across the continent, at both EU and national level.

However, the idea that the single market, through competitive pressures and competition policy, could have curbed concentration is not clear-cut.[36] Nevertheless, concentration cannot be directly

(24) R. Haussmann, J. Hwang and D. Rodrik (2007), "What You Export Matters", *Journal of Economic Growth*, Vol. 12, Issue 1, pp.1-25.
(25) P. Krugman (1991), Geography and Trade. Cambridge, MA: MIT Press; P. Krugman (1993), "Lessons of Massachusetts for EMU". In: F. Torres and F. Giavazzi (eds.), *Adjustment and Growth in the European Monetary Union*, Cambridge: Cambridge University Press, pp. 241-261.
(26) P. Krugman & A. J. Venables (1996), "Integration, Specialization, and Adjustment", *European Economic Review*, 40(3-5), pp. 959-967.
(27) However, the "Krugman hypothesis" predictions may be altered in presence of congestion costs and the development of value chains and complex global production networks. In addition, by facilitating the absorption of asymmetric shocks, financial integration could also encourage economic specialisation (Kalemli-Ozcan, Sørensen & Yosha, 2003). See S. Kalemli-Ozcan, B.E. Sørensen & O. Yosha (2003), "Risk Sharing and Industrial Specialization: Regional and International Evidence", *American Economic Review*, 93(3), pp. 903-918
(28) J. Melitz (2004), "Risk Sharing and EMU", *Journal of Common Market Studies,* Special Issue Nov. 2004, 42(4): pp. 815-40.
(29) See also L. Fontagné and M. Freudenberg (1999), "Marché unique et développement des échanges", *Economie et Statistique*, pp. 31-52 (in French only).
(30) P.A. Samuelson (1939), "The Gains From International Trade", *Canadian Journal of Economics and Political Science,* 5(2), pp. 195-205; P.A. Samuelson (1962), "The Gains From International Trade Once Again", *The Economic Journal,* 72(288), pp. 820-829.
(31) See De Loecker & Eeckhout (2018) for an alternative analysis. J. De Loecker & J. Eeckhout (2018), "Global Market Power", *National Bureau of Economic Research*.
(32) See for example J. De Loecker, J. Eeckhout and G. Unger (2020), "The Rise of Market Power and the Macroeconomic Implications", *The Quarterly Journal of Economics*, 135, pp. 561-644, who explain that this is partly due to the increase in the market power of firms in the United States.
(33) Bundesbank, "Mark-Ups of Firms in Selected European Countries", *Monthly Report December* 2017.
(34) M.C. Cavalleri, A. Eliet, P. McAdam, F. Petroulakis, A. Soares & I. Vansteenkiste (2019), "Concentration, Market Power and Dynamism in the Euro Area", *ECB Working Paper* No. 2253.
(35) T. Bighelli, F. Di Mauro, M.J. Melitz. & M. Mertens (2023), "European Firm Concentration and Aggregate Productivity", *Journal of the European Economic Association*, 21(2), pp. 455-483.
(36) According to some papers, concentration has fallen in the EU (Gutiérrez & Philippon (2020), Gutiérrez et Philippon (2017), Cavalleri et al. (2019)) while for others it has risen (Bajgar et al. (2023), Bighelli et al. (2023), Koltay & Lorincz (2022)). G. Gutiérrez & T. Philippon (2017), "Declining Competition and Investment in the US", *National Bureau of Economic Research*; M. Bajgar, G. Berlingieri, S. Calligaris, C. Criscuolo & J. Timmis (2019), "Industry Concentration in Europe and North America"; G. Koltay, S. Lorincz & T.M. Valletti (2022), "Concentration and Competition: Evidence From Europe and Implications for Policy".

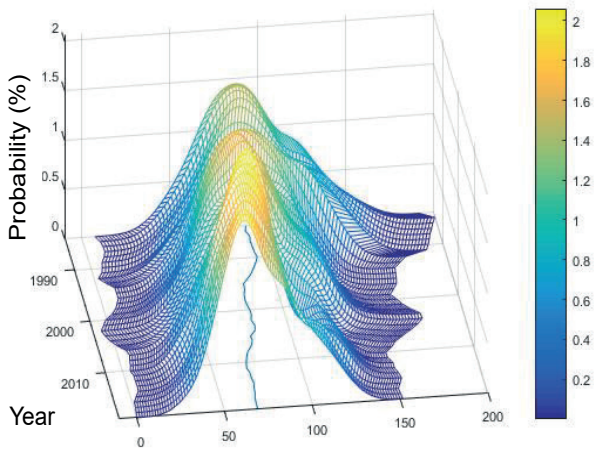
construed as a gauge of economic efficiency. On the one hand, a concentrated market may be competitive if there are no barriers to entry for new businesses. On the other hand, a dominant firm on a concentrated market may either indicate its competitive advantage gained from the process of selecting the most productive businesses,[37] or rents due to a protected status, reflecting the varying degrees of market efficiency.

In any case, the positive impact of the single market on innovation and productivity in Europe has been documented. Several papers show, in line with Bighelli et al. (2023), that the increasing allocative efficiency as a result of market integration (the most productive European businesses drawing in more workers) accounted for nearly 50% of labour productivity growth in Europe in the period from 2009 to 2016 (3.6 percentage points).[38] Griffith et al. (2010)[39] also note that reforms carried out under the Single Market Programme were associated with greater innovation and productivity growth in the manufacturing sector. Campos et al. (2022)[40] demonstrate using a counterfactual scenario that Norway's productivity growth would have been significantly greater if it had joined the EU during the 1995 enlargement phase.

## 2.3 The trade structures of European economies have become more similar

The dynamic of trade specialisation for EU countries can be examined using an indicator measuring the "distance" between the export specialisations of two countries (see Box for an explanation of how this indicator is constructed). An index close to 0 indicates that the export structures of tradable goods in the two countries examined are similar. This can point to a high level of intra-sectoral trade or near-identical structures for exports to non-EU countries. Conversely, a high bilateral indicator value points to differing export structures or a high level of inter-sectoral trade.

**Chart 3: Change in bilateral trade specialisation within the EU-27, 1984-2019**




*Sources: CEPII, CHELEM, DG Trésor calculations.*

Note: The chart shows, from 1984 to 2019, the evolution of density functions of the probability that the distance between the trade specialisations of two randomly selected EU countries – out of the 351 combinations possible from the 27 countries of the EU – equals a certain value. The solid blue line indicates the change in the median of each probability density function over time.

Three conclusions can be drawn from the analysis of the "distances" between the trade specialisations of EU countries. Firstly, since 1984, the trade specialisations of EU countries have tended to converge as their goods' export structures have become more similar despite the deepening of European integration (see Chart 3): the yearly median of bilateral specialisation

(37) Businesses have incentives to innovate, invest and enhance the quality of their products in order to acquire a certain degree of market power (Aghion & Howitt 1997, Motta 2003). In this respect, Autor et al. (2017) explain that an increasing market power (i.e. decreasing competition intensity) can be beneficial from an economic standpoint. Businesses that acquire more market power are ultimately the most innovative and productive ones, surpassing their rivals (the "superstar firm" hypothesis). A drop in competition may therefore arise from a boom in productivity among a small number of businesses or from increasing returns to scale related to technological innovations. Cavalleri et al. (2019) show that businesses in highly concentrated, high-tech sectors generally have the highest rates of overall productivity growth. See P. Aghion & P. Howitt (1997), Endogenous Growth Theory, MIT Press Books, MIT Press; M. Motta (2003), *Competition Policy: Theory and Practice*, Cambridge University Press; D. Autor, D. Dorn, L.F. Katz, C. Patterson & J. Van Reenen (2017), "Concentrating on the Fall of the Labor Share", *American Economic Review*, 107(5), pp. 180-185.

(38) See also Mongelli et al. (2016), Gopinath et al. (2015) and Bartelsman et al. (2013) who show that factor allocation (labour and capital) does not uniformly improve within the EU. See F.P. Mongelli, E. Reinhold & G. Papdopoulos (2016), "What's So Special About Specialisation in the Euro Area?", *ECB Occasional Paper,* (168); G. Gopinath, S. Kalemli-Ozcan, L. Karabarbounis & C. Villegas-Sanchez (2015), "Capital Allocation and Productivity in South Europe", (No. w21453); E. Bartelsman, J. Haltiwanger & S. Scarpetta (2013), "Cross-country Differences in Productivity: The Role of Allocation and Selection", *American Economic Review*, 103(1), pp. 305-334.

(39) R. Griffith, R. Harrison & H. Simpson (2010), "Product Market Reform and Innovation in the EU", *Scandinavian Journal of Economics*, 112(2), pp. 389-415.

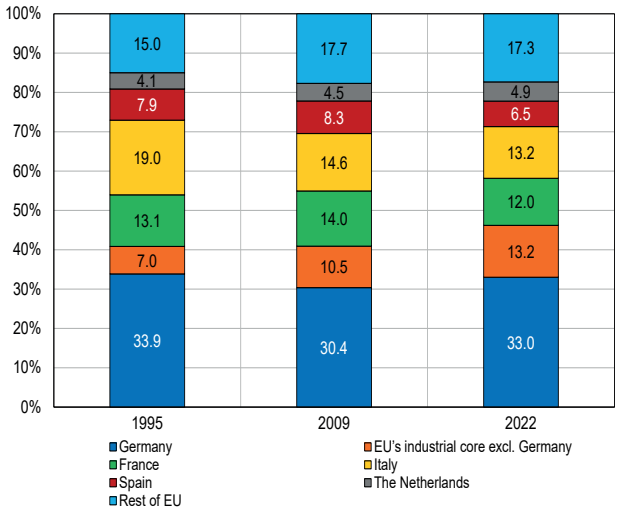
(40) N.F. Campos, F. Coricelli & E. Franceschi (2022), "Institutional Integration and Productivity Growth: Evidence From the 1995 Enlargement of the European Union", *European Economic Review*, 142, 104014.

indicator values – which illustrates how the central specialisation develops over time – has decreased (from 87.5 in 1984 to 61.2 in 2019). Secondly, EU countries whose export structures were the most "distant" were those that had converged the most (the right tails of the probability density functions have retreated over time, from values close to 200 in the 1980s to around 150 in 2019). Thirdly, the "distances" between the export structures of EU countries have concentrated around the modal "distance", indicating increasingly homogeneous export structures (as illustrated by the probability density functions becoming sharper over time).

These distances between the export specialisations of EU countries can be used to analyse the change in the degree of relative specialisation between a given country pair, demonstrating that the goods' export structures of EU countries have become increasingly similar in the period from 1984 to 2019. However, these indicators do not provide insight into specialisation dynamics of EU countries within sectors, particularly along the value chains.

In addition, the distances between the export specialisations of the countries do not factor in the change in each EU country's level of total goods exports, in their market share in a given sector, in the level and structure of their imports and in the share of their manufacturing industry in total value added. Analysing the relative trade specialisation of EU countries therefore cannot account for de-industrialisation processes. Indeed, from 1995 to 2022, the EU's manufacturing value added has progressively concentrated in the industrial core of Europe (Austria, Czechia, Germany, Hungary, Poland and Slovakia), while Italy in particular, as well as France and Spain, saw their share shrink (see Chart 4). While the deepening of the single market was partly responsible for this geographical concentration of industrial activities – even if empirical analysis cannot confirm this – national[41] and global[42] factors and specific positioning strategies within value chains most definitely have played their part too.[43]

**Chart 4: Breakdown of the EU's manufacturing value added by country and country grouping (% of EU total, in volume)**




*Sources: Eurostat, national accounts, DG Trésor calculations.*

Note: EU's industrial core excl. Germany = Austria, Hungary, Poland, Slovakia and Czechia.

(41) Such as "income" effects (domestic demand is distorted in favour of services as living standards rise and the population ages), the structural decline in the prices of industrial products relative to services (particularly due to greater productivity gains in the industry sector, which automatically results in a reduction in the share of industry in nominal GDP), and the blurred line between industry and services (Tregenna (2015) refers to the "statistical artefact" aspect of the de-industrialisation process triggered by the outsourcing of services that were previously performed within manufacturing firms). F. Tregenna (2015), "Deindustrialisation, Structural Change and Sustainable Economic Growth", UNU-MERIT.

(42) The development of global trade and globalisation results in a reallocation of economic activity among the sectors of each country. This sectoral redistribution is largely the result of comparative advantages relating to, most notably, technology and factor endowments specific to different countries. See K. Matsuyama (2009), "Structural Change in an Interdependent World: A Global View of Manufacturing Decline", *Journal of the European Economic Association*, 7(2-3), pp. 478-486; D.H. Autor, D. Dorn & G.H. Hanson (2013), "The China Syndrome: Local Labor Market Effects of Import Competition in the United States", *American Economic Review,* 103(6), pp. 2121-2168.

(43) According to Stöllinger (2016), the impact of the international integration of production within value chains is specific to each country, bolstering the manufacturing industry within the industrial core of Central Europe (particularly the Czech Republic and Hungary), speeding up the de-industrialisation process across the rest of the EU. See R. Stöllinger (2016), "Structural Change and Global Value Chains in the EU", *Empirica*, 43(4), pp. 801-829.

In any case, policies have been implemented at EU level to rectify and offset the centripetal forces. European Structural and Investment Funds (ESIFs), comprising the Cohesion Fund, the European Regional Development Fund (ERDF) and the European Social Fund Plus (ESF+), provide the most vulnerable regions with tools to boost their productivity, competitiveness and economic development. Over the 2021-2027 period, the EU allocated over €330.2bn to the Cohesion Policy, of which nearly €200.4bn to the ERDF.

## Box: Construction of the relative trade specialisation indicator

The relative bilateral specialisation indicator is computed as the sum of the "distances" of the average five-year shares of each sector in the total exports between two countries *i* and *j* (see Bower & Guillemineau 2006):[a]

$$Specialisation\ index_{ij} = \sum_{n=1}^{43} \left| \left( \frac{1}{5} \sum_{t=1}^{5} e_{int} \right) - \left( \frac{1}{5} \sum_{t=1}^{5} e_{jnt} \right) \right|$$

where $e_{int}$ represents the percentage of sector *n* in total exports of goods in value (to other EU and non-EU countries) for country *i* for year *t*. For example, the average share of textile sector exports in total exports of goods by France to the rest of the world is calculated over five years, which is then subtracted from the average share of textile sector exports in total exports of goods by Germany to the rest of the world. The sum is the "distance" between the two countries for trade in the textile sector. This calculation is carried out for each sector and added up across all 43 tradable goods sectors as defined by the CHELEM database classification of the international economics research institute CEPII.[b]

For example, in 2019, Hungary and Czechia, which are part of Europe's industrial core and are integrated into German value chains, were the two countries with the most similar export structures (bilateral indicator value of 21), while Ireland and Greece had structures that were the least alike (bilateral indicator value of 131). The country with the most similar export structure to that of France was Germany, with an indicator value of 48, and the least was Greece (indicator value of 101).

**Table 1: Bilateral specialisation indicators, 2019**

| Country pair | Lowest indicator values | Country pair | Highest indicator vales |
|---|---|---|---|
| Hungary-Czechia | 21.0 | Greece-Ireland | 130.6 |
| Slovenia-Austria | 28.0 | Finland-Ireland | 128.7 |
| Poland-Austria | 28.4 | Ireland-Romania | 125.5 |
| Hungary-Germany | 29.4 | Ireland-Slovakia | 123.8 |
| Slovenia-Germany | 29.5 | Greece-Slovakia | 122.0 |
| Austria-Germany | 29.7 | Malta-Romania | 121.2 |
| Slovakia-Czechia | 31.4 | Czechia-Greece | 117.3 |
| Italy-Austria | 33.7 | Hungary-Greece | 117.1 |
| Germany-Czechia | 35.3 | Bulgaria-Ireland | 116.7 |
| Sweden-Austria | 36.3 | Ireland-Czechia | 115.9 |

*Sources: CEPII, CHELEM, DG Trésor calculations.*

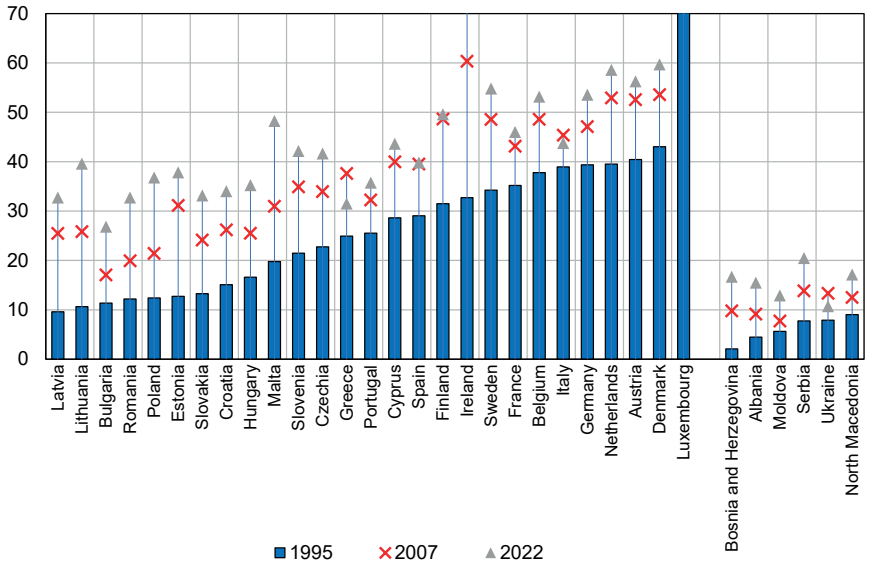
a. U. Böwer & C. Guillemineau (2006), "Determinants of Business Cycle Synchronisation Across Euro Area Countries", *ECB Working Paper* 587.
b. Visit the CEPII - CHELEM site and http://www.cepii.fr/PDF_PUB/wp/2008/wp2008-09.pdf (in French only) for the full classification.

## 2.4 The single market and the euro helped to boost GDP

European integration (see above) contributed significantly to create major macroeconomic gains for the EU. Firstly, the economic integration of Europe resulted in an increase in intra-EU trade in goods that outpaced the growth of extra-EU trade in goods, and in an increase in FDI flows[44] between Member States, through the reduction in tariff and non-tariff barriers and in transaction costs, and the complementary nature of capital flows with the integration of goods and services markets. According to various papers, the single market has helped increase the trade in goods by between 50% and more than 100%.[45]

The convergence of per capita income within the EU (see Chart 5) also illustrates these gains, with this phenomenon appearing first in Southern European countries and then in Central and Eastern European Countries (CEECs). According to the World Bank (2018),[46] the EU is the world's greatest "convergence machine". While this process of convergence has been partly enabled by the considerable catch-up potential of these countries, several papers point to a clear link between EU membership and converging living standards.[47] Convergence was at its strongest during the first phases of EU integration, during the transition period and following the accession of CEECs, and during periods marked by strong growth. Conversely, in times of crisis there has been a slowdown in convergence in the EU, particularly for Southern European countries.

**Chart 5: GDP per capita (PPP in constant US dollars, thousands of US dollars)**




*Source: World Bank, DG Trésor calculations.*

Note: Kosovo and Montenegro are not included in this chart because there is no available data for 1995. In 2022, the GDP per capita of Luxembourg and Ireland stood respectively at $115,500 and $113,900 in constant PPP.

(44) Stojkov & Warin (2018) show that EU membership raises the intra-EU bilateral FDI of a country by between 22.4% and 28.5%. According to the findings of Bruno et al. (2021), EU membership triggers an approximate 60% increase in FDI from outside the EU for the host economy, and an approximate 50% increase in intra-EU FDI. Petroulas (2007) shows that the Economic and Monetary Union (EMU) of the European Union enables an increase in FDI inflows to the euro area of roughly 16%, an increase in FDI inflows from Member States to non-EU countries of approximately 11%, and a smaller rise in FDI inflows from non-EU countries to Member States of some 8%. See A. Stojkov & T. Warin (2018), "EU Membership and FDI: Is There an Endogenous Credibility Effect?", *Journal of East-West Business*, 24(3), pp. 144-169; R.L. Bruno, N.F. Campos & S. Estrin (2021), "The Effect on Foreign Direct Investment of Membership in the European Union", *Journal of Common Market Studies*, 59(4), pp. 802-821; P. Petroulas (2007), "The Effect of the Euro on Foreign Direct Investment", *European Economic Review*, 51(6), pp. 1468-1491.

(45) Mayer et al. (2018) estimate that, thanks to the single market, intra-EU trade in goods and services has on average risen by 109% and 58% respectively. On the other hand, Felbermayr et al. (2022) show that the single market has a positive impact of 46% and 64% on intra-EU bilateral trade in goods and services respectively. See G. Felbermayr, J. Groeschl & I. Heiland (2022), "Complex Europe: Quantifying the Cost of Disintegration", *Journal of International Economics*, 138, 103647.

(46) C. Ridao-Cano and C. Bodewig (2018), "Growing United: Upgrading Europe's Convergence Machine", *World Bank Working Paper* 123956.

(47) Rapacki & Prochniak (2019), Crespo Cuaresma et al. (2008) and Campos et al. (2019). See R. Rapacki & M. Prochniak (2019), "EU Membership and Economic Growth: Empirical Evidence for the CEE Countries", *The European Journal of Comparative Economics*, 16(1), pp. 3-40; J. Crespo Cuaresma, D. Ritzberger-Grünwald & M.A. Silgoner (2008), "Growth, Convergence and EU Membership", *Applied Economics*, 40(5), pp. 643-656; N.F. Campos, F. Coricelli & L. Moretti (2019), "Institutional Integration and Economic Growth in Europe", *Journal of Monetary Economics,* 103, pp. 88-104.

Lastly, according to Mayer et al. (2019), real GDP gains relating to the EU's trade integration through the single market, compared to a counterfactual scenario – in which instead of EU integration, a standard regional trade agreement or a WTO most favoured nation tariff is in play – stand on average at 6.6% and 8.2% respectively. Real GDP gains resulting from trade are significantly greater for small, more open economies and CEECs than for the EU's major economies. Felbermayr et al. (2022) posit that a complete breakdown of the EU would cause a 5.3% drop in GDP for the old Member States (that joined prior to the 2004 enlargement, see Chart 1) and a 9.1% drop in GDP for the new Member States (post-2004 enlargement). They also argue that most of this drop would be attributed to the disintegration of the single market.[48] Brexit and its effects confirm that leaving the single market leads to income losses: estimates range from a 2% to 10% GDP loss for the United Kingdom, depending on the study and scenario adopted.[49]

(48) See also Campos et al. (2019).
(49) International Relations Committee Brexit Task Force (2020), "A Review of Economic Analyses on the Potential Impact of Brexit", *ECB Occasional Paper Series*, No 249. See also Mayer et al. (2018) and Felbermayr et al. (2022).

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