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# How Poland benefits from the single market

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# Key numbers

**31%**

Poland's GDP per capita (PPP) is this much higher than if it had not joined the EU

**78%**

Poland's GDP per capita in 2021 as a percentage of the EU average

**60%**

Poland's GDP per capita as a percentage of the EU average in 2021 if it had not joined the EU

**EUR 216 billion**

value of Polish exports of goods to the EU in 2021

**EUR 43.5 billion**

value of Polish exports of services to the EU in 2021

**EUR 211 billion**

total sum of FDI flows to Poland from EU countries at the end of 2021

**almost 1/4**

of Polish GDP in 2018 depended directly (final demand in EU countries) or indirectly (exports of Polish value added outside the EU) on the EU

**3.324 million**

jobs in Poland in 2018 existed due to EU countries' demand for goods and services containing Polish value added

**1.15 million**

jobs in Poland were created in 2018 by demand among end customers in Germany

**78%**

of companies exporting to the EU say that EU membership gives them a competitive advantage over non-EU companies

**at least EUR 133 million**

saved by Polish consumers since 2021 due to abolition of roaming charges

**50-fold**

increase in amount of data sent by Poles via international roaming in 2016-2021

# Key findings

**Poland's GDP per capita at purchasing power parity (PPP) is currently around 31% higher than it would have if the country had not joined the European Union, according to the PEI's calculations using the synthetic control method.**

If Poland had not joined the European single market, GDP per capita at PPP in 2021 would have been at its 2014 level. This means that Poland's GDP per capita has increased almost 1.5 pp per year more rapidly than if the country had remained outside the single market and the EU.

**In 2021, Poland's GDP per capita at PPP was 78% of the EU average, compared to 40% in 1990 and 50% in 2004.** Without EU membership and participation in the single market, Poland's GDP per capita at PPP would be 60% of that in the EU. The single market has contributed to the significant acceleration of economic growth in all the member states (Mion, Ponattu, 2019). However, the balance of transfers between the EU budget and national budgets does not reflect the full scale of the economic benefits.

**Nearly a quarter of Polish GDP in 2018 depended directly or indirectly on economic cooperation with EU member states.** Polish companies not only produce final goods (including household appliances, radio and television equipment, furniture and electronics) that meet demand among EU consumers and enterprises; they are also suppliers and sub-suppliers of parts for foreign factories that produce final goods. This enables Polish value added to reach other countries – including ones outside the EU – indirectly, too.

**Being part of the single market has created jobs in Poland.** In 2018, 3.324 million jobs in Poland resulted from demand in EU countries for goods and services with Polish value added. Compared to 2004, the number of employees whose jobs depend on demand in EU countries increased by as much as 1.257 million. The largest number of jobs in Poland, 1.15 million, was generated by the demand from end customers in Germany.

**The benefits of being part of the single market are cited by the exporters of goods surveyed by the PEI in cooperation with Statistics Poland.** As many as 78% of companies that export to the EU say that EU membership gives them a competitive advantage over non-EU companies. This better position

is mainly taken advantage of large companies, where exports account for more than half of revenue, and enterprises with foreign capital.

**When it comes to individual freedoms, the degree of integration of EU markets varies.** Intra-EU trade in goods involves the fewest barriers. This is confirmed by our survey among exporters: only 7% have experienced discrimination or restrictions in doing business on the EU market.

**Asked about how the functioning of the single market could be improved, exporters of goods most often mentioned the need to broaden the operation of common certificates and standards and to simplify administrative procedures in the countries they export to.** They also saw opportunities to make it easier to hire non-EU citizens, extending the validity periods of permits and spreading access to the latest technologies.

**With the development of the Internet and the digital economy, the digital single market has become more important.** It brings measurable financial benefits – especially to consumers – thanks to regulations on roaming and access to online content. However, increasing the single market's digital dimension has not led to the emergence of many European digital champions (for example, of the 22 key online platforms operating on the European market, just four are European).

**The EU institutions are constantly striving to reduce the number of single market barriers.** A European Commission Communication in 2020 highlights 13 main barriers from the user's perspective. The barriers are not just regulatory or administrative issues, but are also practical. Brussels is striving to eliminate them by introducing various types of instruments, such as the Single Market Enforcement Taskforce (SMET), a package of initiatives that seek to solve problems in cross-border trade, and the Mobility Package I, which concerns road transport. Periods of economic instability are not conducive to eliminating barriers in the single market. Rather, this is when protectionist sentiments intensify in member states, which are using a variety of instruments to protect their markets against external competition.

# Introduction

**1 January 2023 marks 30 years since the establishment of the European single market** – an important moment in the process of European integration, which provided it with a new impetus for development. The internal market was established by the Single European Act, which entered into force on 1 July 1987. It was preceded by the Council's adoption of a White Paper on the establishment of the internal market on 14 June 1984, which contained a programme for the adoption of around 300 legal acts (Barcz et al., 2012).

**Map 1. Countries in the single market**



Note: dark blue denotes EU member states, blue denotes other countries in the single market.

Source: prepared by PEI.

Pursuant to the Treaty of Lisbon, since 2009, internal market issues have been regulated by the Treaty on European Union (TEU) and the Treaty on the Functioning of the European Union (TFEU). According to Art. 26 sec. 2 TFEU: “The internal market shall comprise an area without internal frontiers in which the free movement of goods, persons, services and capital is ensured in accordance with the provisions of the Treaties.” The single market’s participants are the EU member states, as well as Norway, Iceland, Liechtenstein and, to some extent, Switzerland.

**According to a recent study by the European Commission, the economic benefits of the single market generate an EU GDP that is 8-9% higher than if EU countries traded with each other based on WTO rules.** It is estimated that a better-functioning single market could yield around EUR 183-269 billion year on year in manufacturing and EUR 297 billion in services markets. This growth alone could increase the economic benefits, which would translate into an additional 12% or so of GDP (Consillium, 2022).

After joining the EU, Poland became a member of the internal market, which encompasses the EU freedoms, common competition rules, and other policies and actions. Poland already benefited indirectly from the internal market during the pre-accession period. As part of the association agreement with the European Communities, customs duties for trade in industrial products were abolished, and clearly reduced in agricultural trade. This fostered the development of mutual trade.

In this report, we discuss the benefits of Poland’s participation in the single market, focusing on the four freedoms: the movement of goods, services, capital and people. These are just some of the benefits of EU membership. For example, we do not take into account the impact of Cohesion Policy or the common agricultural policy.

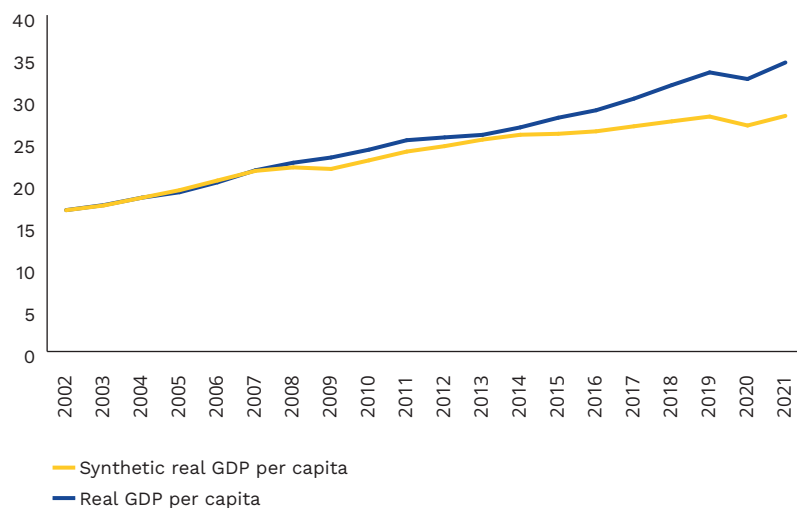
In the first chapter, we show how GDP per capita in Poland at PPP would have developed if the country had not joined the EU. Next, we try to quantify the benefits that Poland gains in the area of the four freedoms. A major part of this report involves assessing the benefits from the perspective of participation in global value chains. From consumers’ point of view, the benefits of being part of the digital single market are important. Despite the high degree of integration, there are still barriers in the internal market, which we write about in the last chapter.



# 1. Faster economic growth

It is difficult to assess the full impact of Poland's participation in the European single market – this market's basic assumption is not only the free movement of goods, services, capital and employees, but also the rules and regulations that create it. This affects not only the size of Polish exports, but also institutions and the quality of regulations in Poland, which has a positive impact on the Polish economy, too. To assess the impact of Poland's participation in the common market, it is necessary to create a counterfactual scenario looking at Poland's GDP growth if the country had not joined the EU. We did this using the synthetic control method; the methodology is outlined in the Appendix at the end of this report.

**Chart 1. Real GDP per capita in Poland compared to counterfactual real GDP per capita in Poland if it had not joined the EU (in thousands of USD)**

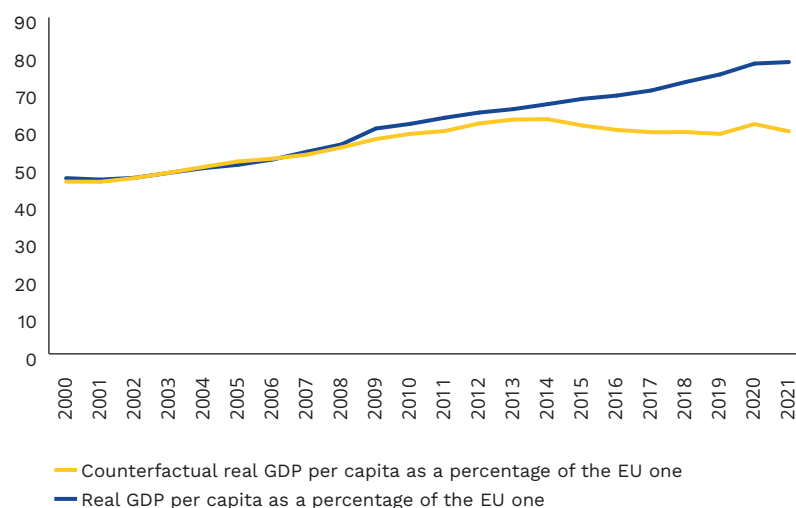


Note: synthetic control method; real GDP per capita at PPP.

Source: prepared by PEI based on World Bank data.

**Poland's GDP at PPP is currently around 31% higher than it would have been if the country had not joined the EU.** Until 2009, Poland's actual development did not differ significantly from that projected for the counterfactual Poland that did not join the EU, but after the financial crisis the discrepancy became very noticeable. The difference was already 11% in 2015, and 20% in 2018. Similar studies using the synthetic control method point to a 20% higher increase in GDP per capita in 2004-2017 (Czernicki et al., 2019), 22-53% in 2004-2019 (Hagemejer, Michałek, Svatko, 2021), or 6% in 2004-2018 (Campos, Corcicelii, Moretti, 2019). A different type of analysis was carried out by Felbermayr, Gröschl and Heiland (2022). The results of their input-output analysis suggest that, if the common market ceased to function, we could expect the GDP of the countries that joined the EU in 2004 and 2007 to decline by 5.3%, and as much as 12% if the EU were to completely fall apart. In the case of the EU's founding members, these effects are smaller, but still significant.

**Chart 2. Real GDP per capita in Poland as a percentage of GDP per capita in the EU (EEC prior to 1993) and in the counterfactual scenario in which Poland did not join the EU (%)**



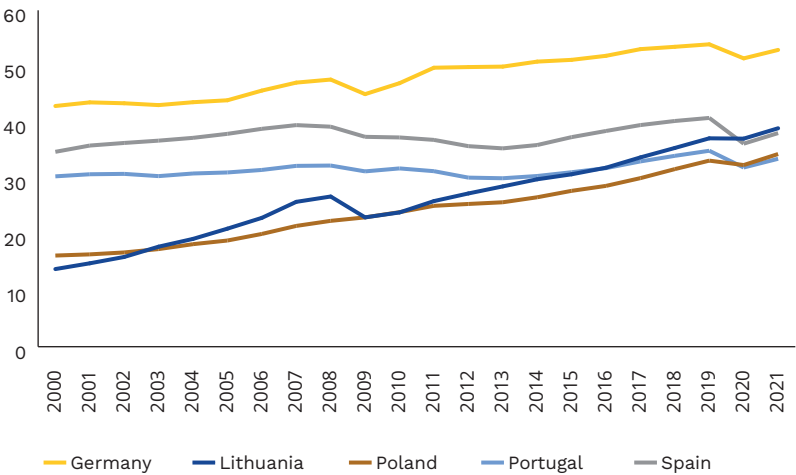
Note: synthetic control method; real GDP per capita at PPP.  
Source: prepared by PEI based on World Bank data.

**If Poland had not participated in the single market and not been a member of the EU, its GDP per capita in 2021 would have been at its 2014 level.** Poland's GDP per capita therefore grew almost 1.5 pp faster than if it had remained outside the single market and the EU. While GDP per capita is not an

exhaustive measure of quality of life, it translates into very tangible things: higher wages, company revenue and state budget revenue and, as a result, Poles' greater prosperity in the EU.

**In 2021, Poland's GDP per capita was 78% of the EU average, compared to 40% in 1990 and 50% in 2004.** This process can be observed by looking at the ratio between Poland's GDP per capita and the EU average. While the distance between them was already narrowing before 2004, the process definitely accelerated after Poland joined the EU. Chart 2 shows the development path of Polish GDP per capita as a percentage of GDP per capita in EU countries, as well as the estimated alternative path if Poland had not joined the EU. Since Poland joined the EU, it has been reducing this distance by 1.64% per year, on average. According to estimates using the synthetic control method, if Poland had not joined the EU, the rate would be just 0.61%, and Poland's current GDP per capita would be 60% of the EU's.

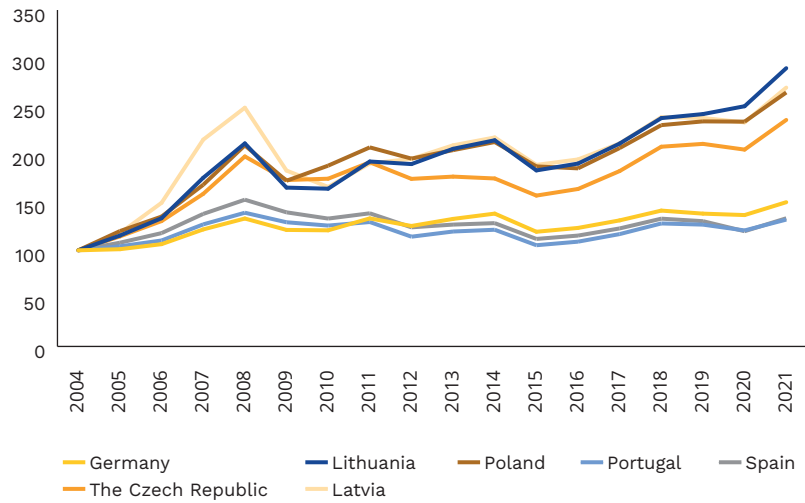
**Chart 3. Real GDP per capita at PPP in selected EU economies  
(in thousands of USD)**



Source: prepared by PEI based on World Bank data.

The total GDP growth since 2004 has amounted to 86% in real terms and as much as 160% in nominal terms, while the population has decreased by around 200,000. In 2020, Poland overtook Portugal in terms of GDP per capita at PPP, and is now catching up with Spain.

**Chart 4. Growth in Poland's nominal GDP compared to selected EU economies**



Note: 2004 = 100.

Source: prepared by PEI based on World Bank data.

Few economies of the countries that joined the EU in 2004 can compare with Poland in terms of their pace of development. Only smaller economies such as Latvia and Lithuania grew faster than Poland. The reasons for its rapid development include its highly-educated and generally competent society, combined with relatively low wages. Of course, there is also a catch-up effect: countries with a lower level of economic development grow more rapidly.

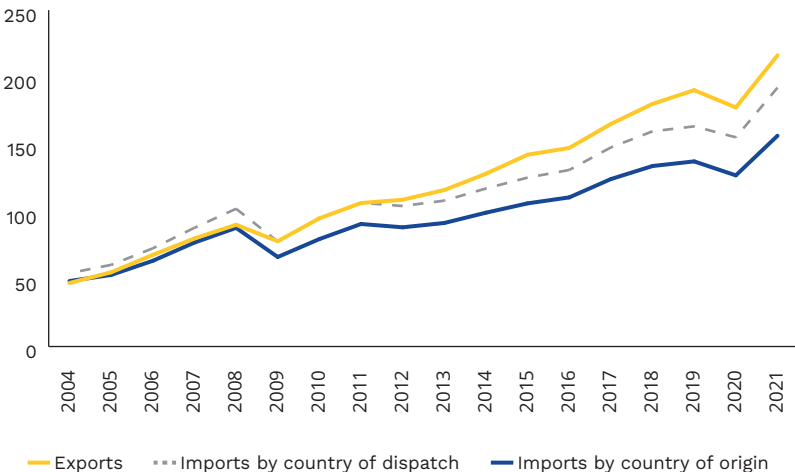
# 2. The four freedoms

**Poland has a high surplus in trade in goods with other EU member states. In 2021, it amounted to EUR 24 billion (imports by country of dispatch) or EUR 60 billion (imports by country of origin), depending on how imports are treated.** In 2004, Poland began its membership in the EU and the single market with a deficit in trade in goods, regardless of how data on imports is presented. However, exports grew more rapidly: between 2004 and 2021, it increased 4.5 times, while imports by country of dispatch increased 3.2 times, and imports by country of origin 3.5 times. As in the case of GDP, the estimated value of trade without single market membership indicates that Polish exports would have developed more slowly (Czernicki et al., 2019) than if Poland had joined the EU.

**216 billion EUR**

Polish exports of goods to the EU  
in 2021 (75% of total exports)

**Chart 5. Value of Polish trade in goods with the EU (in billions of EUR)**

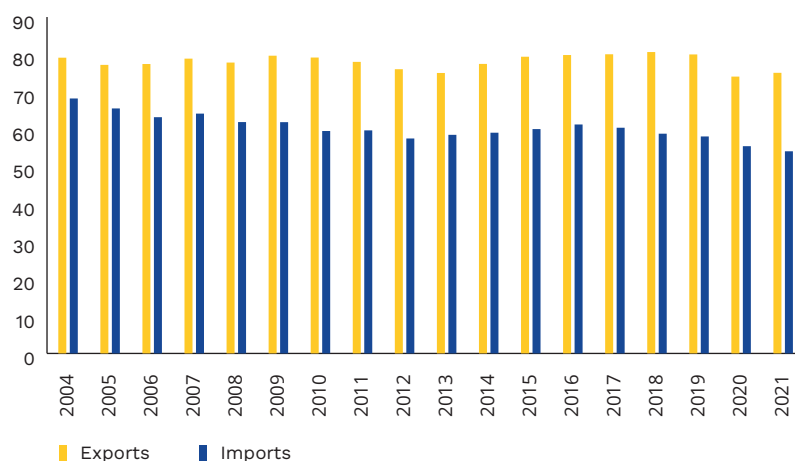


Source: prepared by PEI based on Statistics Poland data.

**Close trade cooperation with the EU made Poland's economic success – as well as that of Central Europe as a whole – possible.** According to previous research results, exports were the main factor that contributed to Poland's GDP growth after it joined the EU. Poland owed two-thirds of its economic growth to exports (Mućk, Hagemeyer, 2019).

**The EU is the largest market for Polish goods, corresponding to 75% of exports.** Since Poland's EU accession, single market significance for Polish exports have been relatively stable, with only a few fluctuations (a drop of 4 pp during the financial crisis). It was not until United Kingdom left the EU that the bloc's share in Polish trade fell permanently, to 75% of exports and 54% of imports. In the result of Brexit the size of the single market, on which Polish entrepreneurs could operate, decreased.

**Chart 6. EU's share in Polish trade in goods (%)**



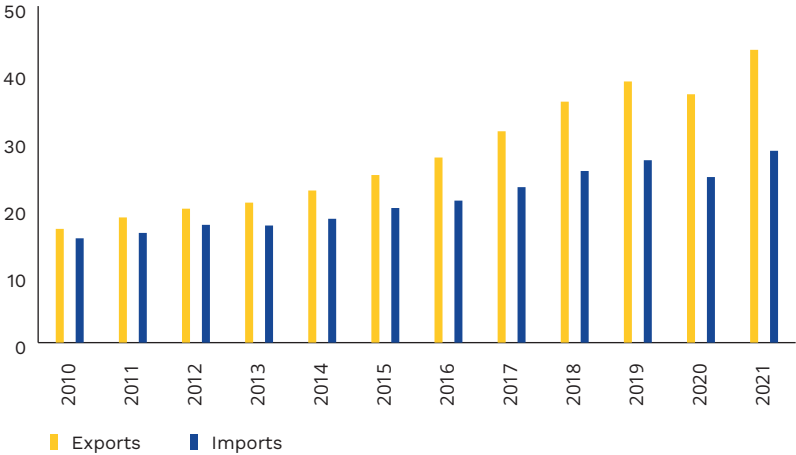
Source: prepared by PEI based on Statistics Poland data.

**EUR 43.5 billion**

Polish exports of services to the EU  
in 2020 (63.8% of total exports)

The single market ensures the free movement of not only goods, but also services. The EU also accounts for the largest share of Polish exports and imports of services, though it is slightly lower than that for trade in goods. Interestingly, the share of services purchased from the EU (68% of Polish imports of services) is higher than the share of services sold there (62-63%), which may also be linked to tax evasion activities by international corporations (Sawulski, 2020; Tørsløv, Wier, Zucman, 2022). When it comes to services, Poland also notes a positive trade balance. In 2021, it exceeded EUR 15 billion.

Chart 7. Value of Poland's trade in services with the EU (in billions of EUR)



Source: prepared by PEI based on Eurostat and Statistics Poland data.

**Poland specialises in transport services, which accounted for 36% of services delivered to the EU in 2020. The importance of professional services is also growing; this sector accounts for 13% of all Polish exports of services to the EU.** Accounting, auditing and tax services, business consulting, PR services, marketing and opinion polls are equally important. IT and retail services, as well as other business services, account for 10%.

**Poland's success in trade would not have been possible without the huge inflow of foreign direct investment (FDI).** FDI's were incremental to the creation of a network of supply chains in Central Europe that the data on trade in value added shows. EU countries are main investors. Their share in the total sum of FDI in Poland at the end of 2021 amounted to 92%, up from 85% at the end of 2004.

Polish outward FDI stock in the single market countries increased as well. However, its scale is incomparably smaller than the inward FDI stock by EU countries in Poland. At the end of 2021, Polish companies invested EUR 15.5 billion in the EU , which accounted for 65% of the total sum of Polish investments outside the country.

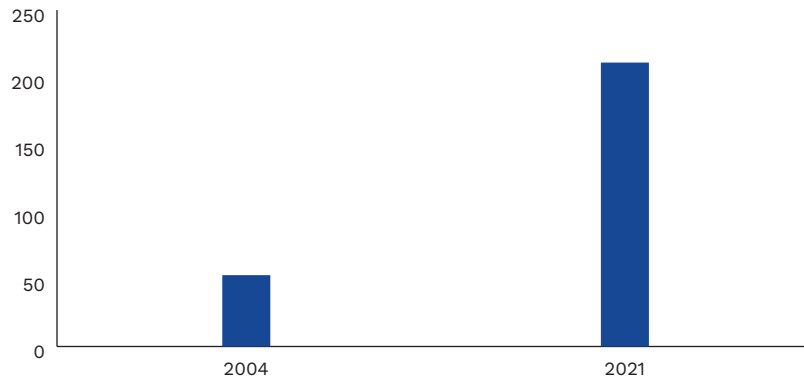
**EUR 211 billion**

total sum of FDI from EU countries to Poland at the end of 2021 (92% of the total sum of FDI)

**EUR 15.5 billion**

total sum of Polish FDI in EU countries (65% of total Polish investment abroad)

Chart 8. EU FDI's (stock) in Poland (in billions of EUR at the end of the year)



Source: prepared by PEI based on NBP data.

## 1.3 million

of Poland's inhabitants were temporarily based in EU member states at the end of 2020 (60% of all Polish residents abroad)

### The single market has also given Poles access to jobs abroad.

According to Statistics Poland, at the end of 2020, 1.336 of Poland's inhabitants were temporarily based in other EU member states. Remittances<sup>1</sup> by Poles working abroad amounted to EUR 2.6 billion; most of this came from EU countries. This peaked at over EUR 3 billion in 2007-2008, but even in 2020, during the pandemic, it did not fall below EUR 2.5 billion.

To this, we must add Poles' remuneration outside Poland,<sup>2</sup> which exceeded EUR 3.2 billion.

<sup>1</sup> This refers to the part of their salary sent to Poland by Poles who have been working abroad for more than a year.

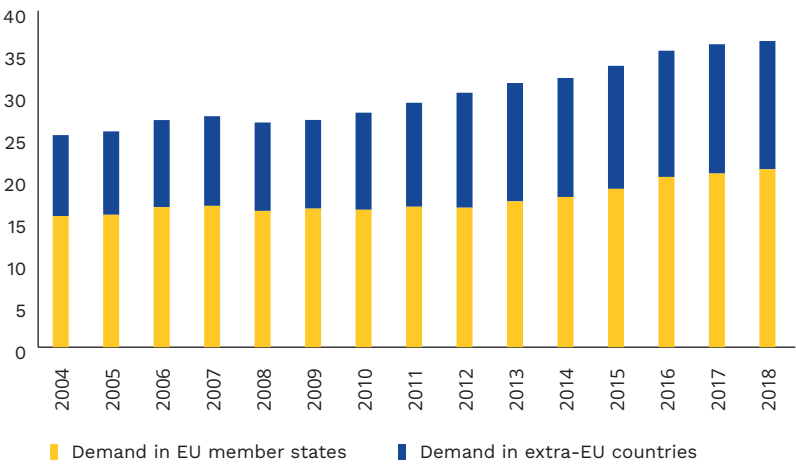
<sup>2</sup> This refers to the remuneration of Poles who have been working abroad for less than a year.



# 3. Participation in the single market in light of statistics on value added

**Demand in EU countries<sup>3</sup> for final goods and services with Polish value added led to the creation of USD 116 billion of value added in Poland in 2018.** In 2004-2018, the percentage of Polish GDP created by demand in EU countries rose from 15.6% to 21.2%. In other words, without end consumers in the EU (consumers, entrepreneurs and the government sector), over 21% of Poland's GDP would not have been generated. These calculations take into account not only Polish value added transferred from Poland to the EU in the form of final goods (such as cars, furniture or food), but also products containing Polish components that reached the EU market from other countries. In 2018, as much as 58% of the value added generated in Poland by foreign demand ended up in EU countries.

**Chart 9. Share of Poland's GDP generated by foreign demand for goods and services that contain Polish value added (%)**

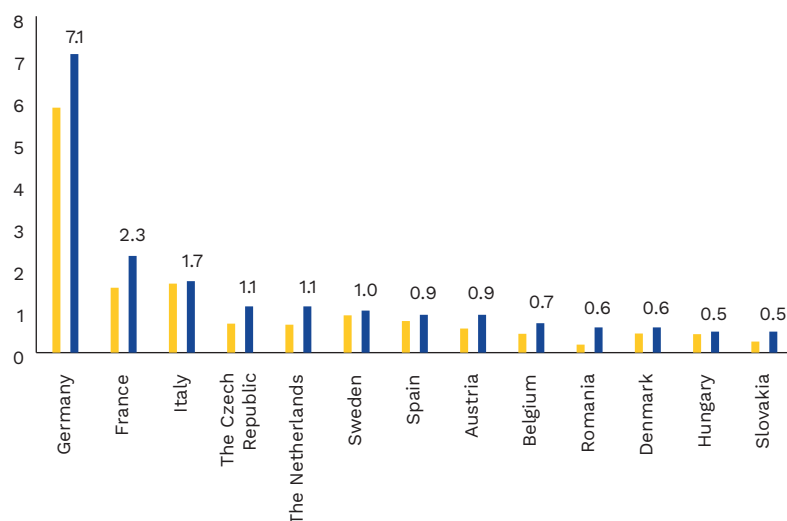


Source: prepared by PEI based on OECD TiVA (2021).

<sup>3</sup> Here, we mean the EU-27, without Britain.

**More than any other country in the EU, final demand in Germany played the most important role in generating Polish GDP.** In 2018, it accounted for 7.1% of the value added generated in Poland, an increase of 1.3 pp compared to 2004. The importance of France, Italy, the Czech Republic and the Netherlands increased, too. Demand in these four countries accounted for 6.2% of Polish GDP. Other EU countries' contribution did not exceed 1%.

**Chart 10. Selected EU countries' contribution to generating Poland's GDP (%)**

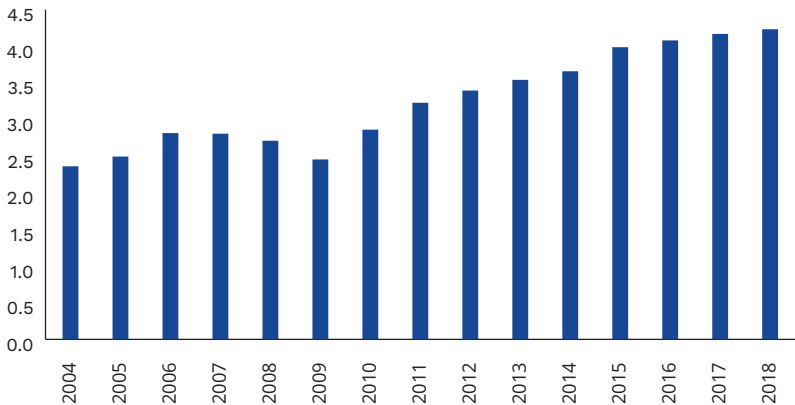


Source: prepared by PEI based on OECD TIVA (2021).

Poland participation in the single market has enabled Polish enterprises to get involved in global value chains (GVC) to a greater extent. These enterprises not only produce final goods mainly intended for export (including household appliances, furniture and electronics), but are also sub-suppliers of parts to foreign plants that produce these types of goods. This has enabled Polish value added to reach other countries – including ones outside the EU – indirectly, too.

**In 2004-2018, Polish value added exported beyond the EU by EU countries increased more than fourfold.** In 2018, USD 23.3 billion worth of Polish value added was transferred outside the EU in this way. This accounted for 4.2% of Poland's GDP and nearly 8% of Polish exports of goods and services (compared to 2.4% and 6.8% in 2004).

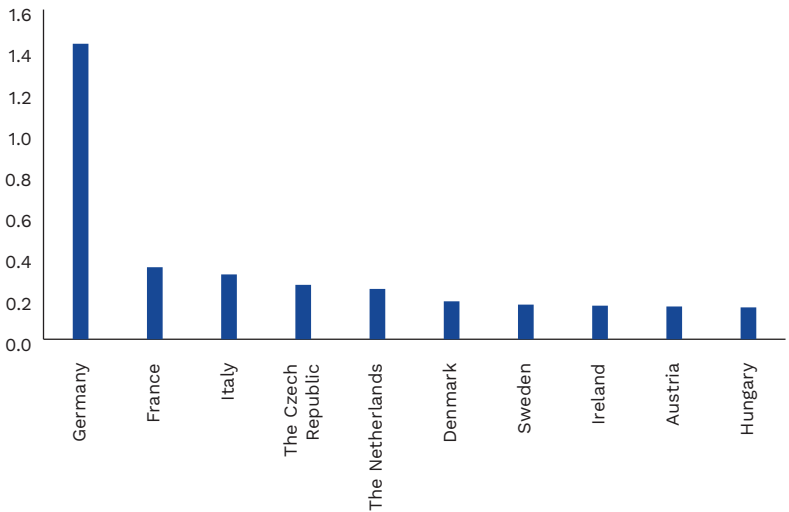
**Chart 11. Share in Polish GDP of Polish value added exported by EU countries beyond the EU (%)**



Source: prepared by PEI based on OECD TiVA (2021).

**The largest exporter of Polish value added is Germany.** In 2018, it exported Polish value added corresponding to 1.4% of Poland’s GDP outside the EU. France, Italy, the Czech Republic and the Netherlands were of much less importance: their total share in generating Polish GDP was 1.2%. Germany’s relatively high importance when it comes to the forward linkage of Polish enterprises in value chain results from the high number of German investments in plants in Poland that manufacture components. The involvement of German investors in the automotive industry was particularly high.

**Chart 12. Largest exporters of Polish value added beyond the EU in 2018 (percentage of Polish GDP)**

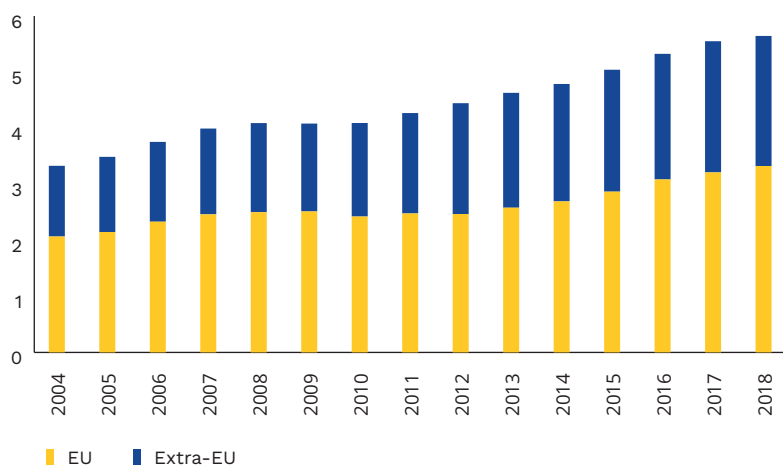


Source: prepared by PEI based on OECD TiVA (2021).

The value added consumed in EU countries translates into jobs in Poland. **In 2018, 3.324 million jobs in Poland were the result of demand in EU countries for goods and services with Polish value added.** Compared to 2004, the number of people working increased by as much as 1.257 million. In 2018, the largest number of jobs in Poland, 1.15 million jobs, was generated by final demand in Germany. France was responsible for 350,000 jobs, Italy for 271,000, the Czech Republic for 168,000 and the Netherlands for 166,000.

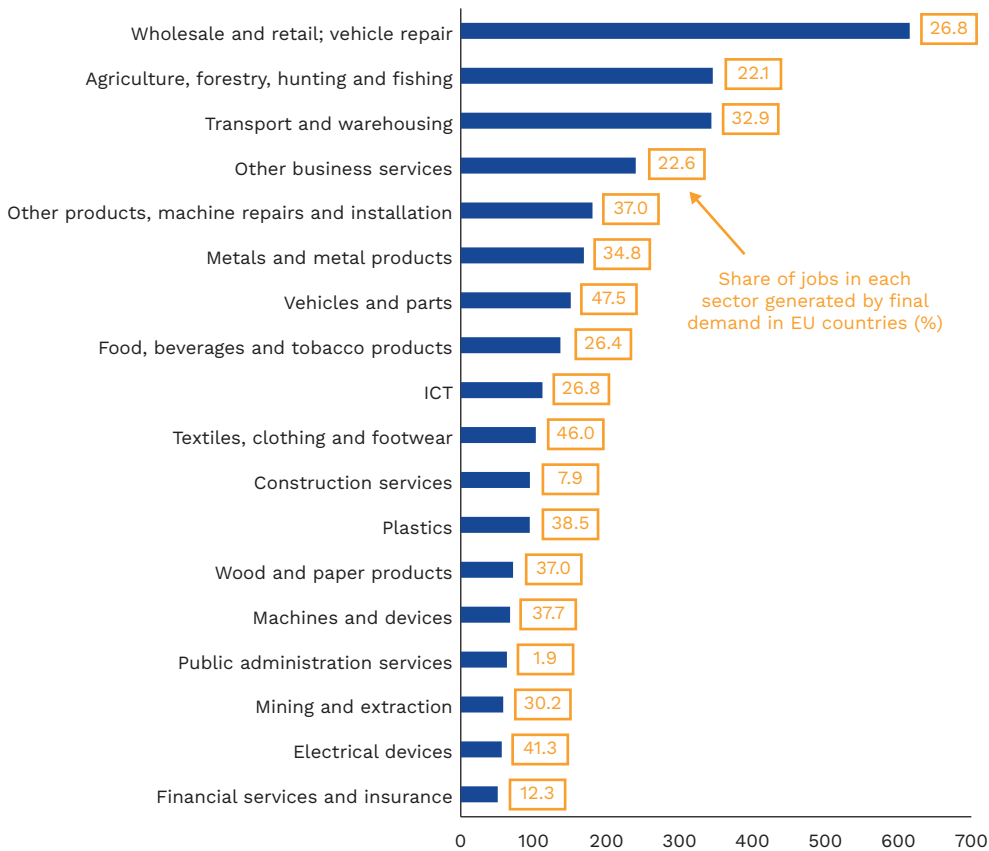
In wholesale, retail and vehicle repairs, there were over 615,000 people working in Poland in 2018 as a result of final demand in EU countries – nearly 19% of jobs created by sales on the EU market. Demand in EU member states played a major role in creating jobs in agriculture, forestry, hunting and fishing, as well as in transport, mainly road transport. In each of these two sectors, there were over 340,000 people that had jobs thanks to the EU. Demand in EU countries also created a relatively high number of jobs in other business services and the production of vehicles and auto parts, foodstuffs, metals and metal products. Sales on the EU market were particularly important for the automotive, textile and clothing industries, generating almost half the jobs in these industries.

**Chart 13. Number of jobs generated by foreign final demand for goods and services containing Polish value added (millions)**



Source: prepared by PEI based on OECD TiVA (2021).

**Chart 14. Number of jobs in Poland generated by final demand in EU countries in 2018 (thousands)**

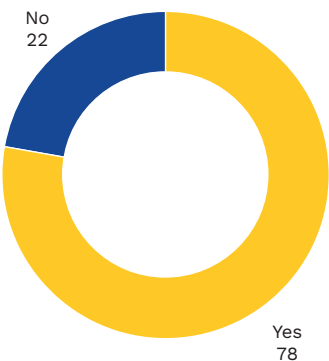


Source: prepared by PEI based on OECD TiVA (2021).

# 4. The European single market as seen by Polish exporters

**The vast majority of Polish companies exporting to the EU (78%) say that Poland's EU membership gives them a competitive advantage over non-EU companies.** This advantage is particularly pronounced among large companies, with 85% of companies surveyed that have at least 250 employees benefiting from it. Furthermore, companies where exports account for over half of their revenue (84%) and those with foreign capital (84%) also experience significant advantages from EU membership.

**Chart 15. Does single market membership give your company a competitive advantage over companies from non-EU countries on this market? (%)**

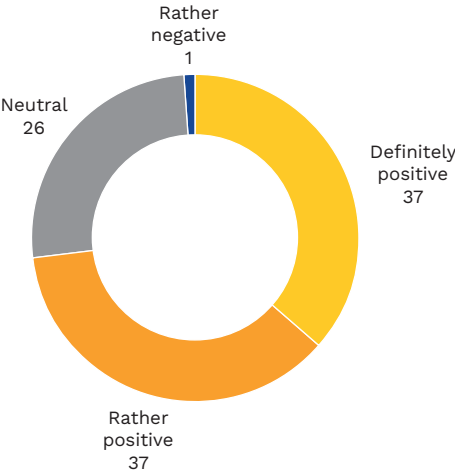


Note: companies that did not respond have been removed.  
Source: prepared by PEI based on PEI's survey among exporters.

73% of companies that export beyond the EU say that EU membership and compliance with EU standards has a positive impact on their export volumes. This applied to small, medium and large companies to a comparable extent. Asked about how the functioning of the single market could be improved, most companies cited the need to extend the operation of common certificates and standards (65%) and simplify administrative procedures in the countries that they export to (51%). They also want it to be easier to hire

foreign citizens (27%), to extend the validity of permits (27%), and to increase access to the latest technologies (27%).

**Chart 16. Impact of Poland's EU membership and compliance with EU standards on the volume of the company's exports to non-EU markets (%)**



Note: companies that did not respond have been removed.  
Source: prepared by PEI based on PEI's survey among exporters.

**Chart 17. How companies would improve the functioning of the European single market (%)**



Note: companies that did not respond have been removed; respondents could choose more than one option.  
Source: prepared by PEI based on PEI's survey among exporters.

Just 7% of the companies surveyed have experienced discrimination or restrictions when doing business on the EU market. This issue was more prevalent among small enterprises (14%) and medium-sized enterprises (9%) compared to larger ones (3%). The low percentage of companies with foreign capital that experienced barriers (2%) could be due to their greater experience in international operations. It is worth noting that these companies were mostly large enterprises as well. Furthermore, the level of discrimination increased as the share of exports in a company's revenue grew.



# 5. The Digital Single Market

With the development of the Internet and the digital economy, the single market's digital dimension started to become more important. Since the Electronic Commerce Directive of 2000, the European Commission has presented regulatory packages that seek to remove barriers to the movement of digital services between EU countries. The rapid development of American and then Chinese digital platforms and the dominance of American services on the Internet has prompted regulatory action, with the market's fragmentation cited as a barrier to the development of European digital giants.

**The Commission's actions have also served to make things easier for consumers, especially in areas such as international roaming and access to online content.** In these areas, it has achieved measurable effects, reduced costs, and made it easier to use services. However, in terms of European digital companies' development, the effects seem less noticeable. Of the 22 key online platforms currently operating on the European market, only four are European (Mariniello, Martins, 2021).

**For consumers, the changes in roaming regulations have had the most tangible effect.** With the gradual lowering of prices (the first regulations came into force as early as 2007), the use of services increased – primarily data transfer and the length of calls. In 2016–2021, the amount of data sent by Poles as part of international roaming increased 57-fold, and the total length of calls almost tripled. The number of text messages sent remained at a similar level as communication shifted to instant messaging platforms.

The fall in the cost of international roaming services for consumers and the massive increase in their use have had significant financial benefits. If roaming charges were still at their 2016 level, Polish consumers could have paid up to EUR 3032 million for roaming services in 2021.<sup>4</sup> More realistically, if the volume of traffic had remained at its 2016 level, the benefits would have amounted to around EUR 133 million.

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<sup>4</sup> Assuming current volumes of data and the application by operators of the maximum surcharges to the domestic price in force before the RLAH rule entered into force, without taking into account the reduction in the prices of incoming calls.

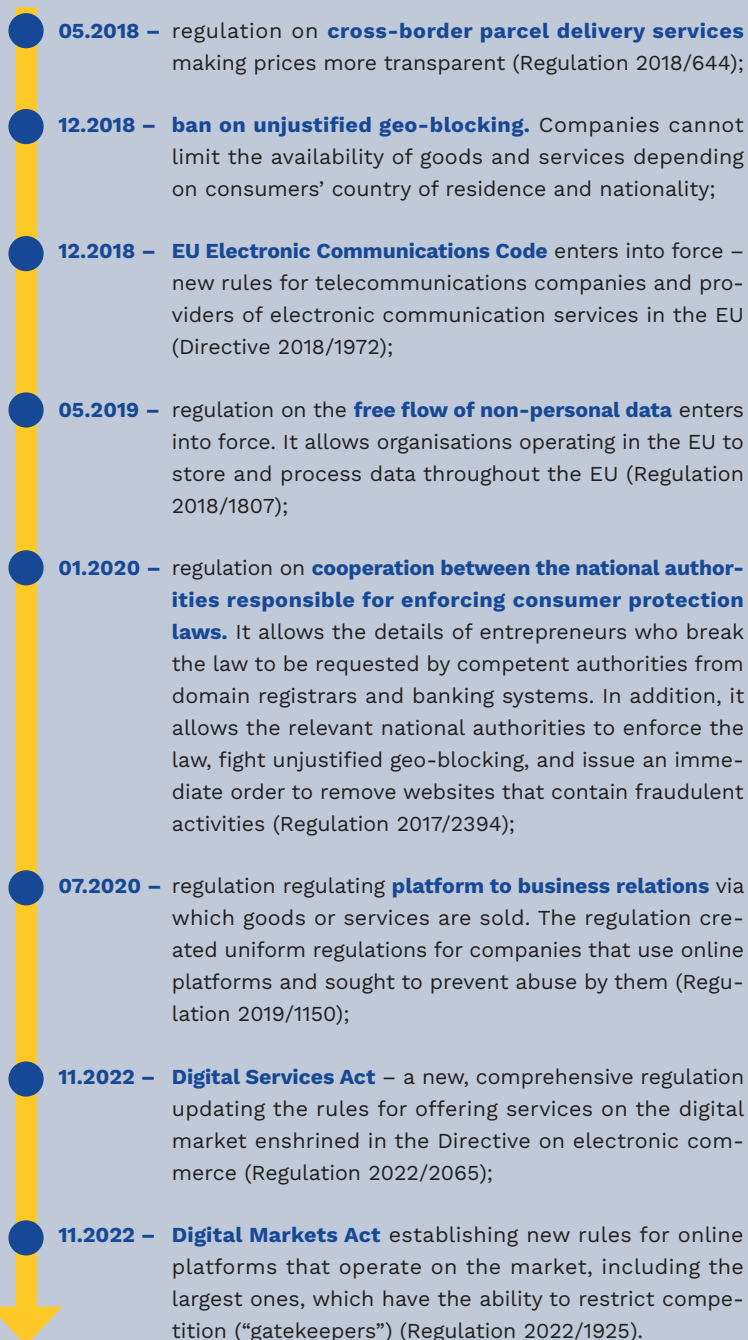
### Selected legislative initiatives in the EU increasing the single market's digital dimension

In May 2015, the European Commission adopted the Digital Single Market Strategy for Europe (COM(2015)192), a response to the global economy's rapid transformation into a digital economy. This was not the first regulation that streamlined the digital market within the EU, but it was the first to contain such a comprehensive set of legislative announcements. The digital single market was one of ten strategies in the agenda for jobs, growth, fairness and democratic change. The strategy listed 16 key actions, based on three pillars:

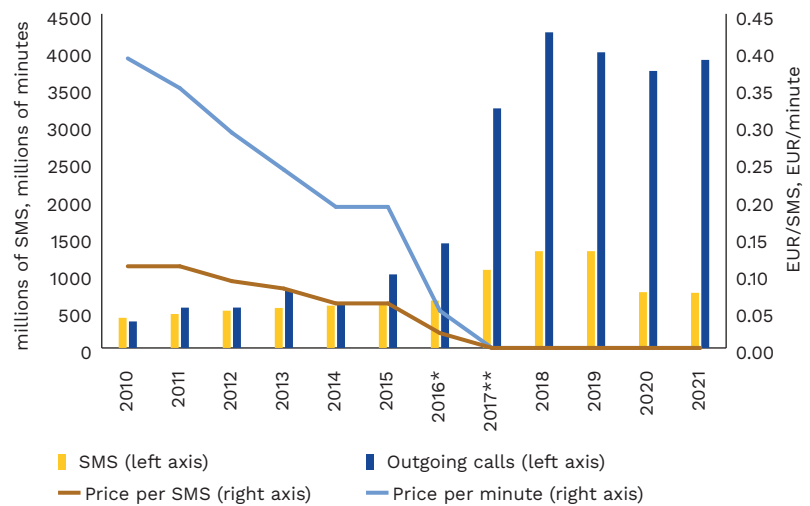
- ▶ Better access to digital goods and services in all of Europe for consumers,
- ▶ creating appropriate conditions and equal opportunities for the development of digital networks and innovative services,
- ▶ maximising the digital economy's growth potential.

### The most important regulations relating to the digital single market:





**Chart 18. Outgoing calls and SMS sent with international roaming by Polish users and change in the regulated costs of these services**



Note: \*until 2016, the European Commission regulated the maximum price per unit of a given service. From 30 April 2016, the price of the roaming service consisted of the price of the domestic service and a surcharge; the size of this surcharge was regulated. \*\* from 15 June 2017, the price of roaming service had to be equal to the price of the domestic service (roam-like-at-home, RLAH), except in three situations: when the limits resulting from the fair use policy are exceeded, consent from the national regulator for the use of additional charges is obtained, or in cases of the user's informed consent to an alternative pricing plan.

Source: prepared by PEI based on UKE and European Commission data.

The increase in international roaming traffic and the equalisation of prices for these services with domestic prices also had an impact on mobile network operators in the EU. Polish users use much larger volumes of services than foreign visitors in Poland (about 1.8-2.4 times more data and a much larger difference when it comes to calls and text messages) (Office of Electronic Communications, 2021). For operators, an increase in traffic at the domestic price, with the model of unlimited calls and text messages and very large data packages dominating in Poland, means an increase in costs, which they are unable to cover using the lower traffic created by foreign visitors in Poland. In 2017 and 2018, revenue from active roaming (a situation where Polish users use the network abroad to make calls, send messages or use data) fell by around 84%, while revenue from passive roaming (foreign users coming to Poland and using telecommunication services) increased by over 50% in total.

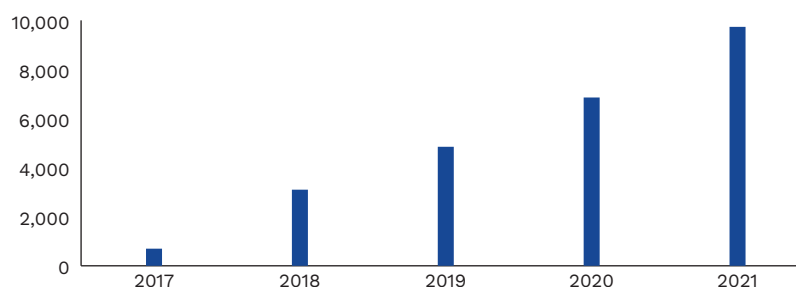
**Chart 19. Use of data in international roaming by Polish users and maximum rate for 1 MB of data**



Note: \*until 2016, the European Commission regulated the maximum price per unit of a given service. From 30/04/2016, the price of the roaming service consisted of the price of the domestic service and a surcharge; the size of this surcharge was regulated. \*\* from 15 June 2017, the price of roaming services had to be equal to the price of the domestic service (roam-like-at-home, RLAH), except in three situations: when the limits resulting from the fair use policy are exceeded, consent from the national regulator for the use of additional charges is obtained, or in cases of the user's informed consent to an alternative pricing plan.

Source: prepared by PEI based on UKE and European Commission data.

**Chart 20. Total sum of maximum benefits from the introduction of the RLAH rule for consumers in Poland (millions of EUR)**



Note: the data takes into account the maximum surcharge above the domestic price applicable until 15 June 2017 and the actual volume of services used since 2017. Due to the way data is reported by UKE, it is not possible to separate roaming traffic in H1 2017 from traffic in H2 2017; for estimation benefit, it was assumed that all traffic in 2017 was carried out based on the RLAH rule. The total sum of benefits resulting from the volume of roaming traffic was deducted from the actually incurred fees paid by consumers under the fair use policy and the possibility of using surcharges for roaming services granted to certain telecommunications operators by the president of UKE. The calculations do not take into account charges based on alternative pricing plans, but they account for around 3% of all traffic.

Source: prepared by PEI based on UKE and European Commission data.

The benefits of other steps taken as part of increasing the single market's digital dimension are difficult to quantify, but research by the European Commission provides some insight into the benefits for citizens.

In the case of geo-blocking, it is estimated that, in 2015, up to 63% of European online stores used it to prevent customers from another country from purchasing their products (EC, 2016). In a report a year after the ban on unjustified geo-blocking came into force, the Commission reported that the change in the use of restrictions was insignificant. Although there was a decrease in the percentage of online stores with restrictions at the registration stage (from 26.9% to 14%) and a slight improvement in price differentiation, the number of websites limiting the number of countries to which deliveries are sent and restrictions on payments increased. Purchases from as many as 63% of the websites surveyed could not be sent to consumers in Poland (a decrease of 5.6% compared to 2015) and the number of websites with price discrimination against users from Poland increased by 12.3 pp (EC, 2020b).

In 2015, 10% of Poles tried to use a subscription service purchased while they were abroad; in 2019, this was 18% (EC, 2015; 2019). This may point to the positive effects of the regulation on access to content, although this effect is probably linked to the fall in roaming costs and easier data transmission.

# 6. Barriers to the European single market

**Protectionist sentiment in the EU increased in 2012-2015.** In northern and western EU member states, this problem mainly concerned the free movement of people and services. In the Visegrad Group countries, Polish entrepreneurs struggled with restrictions on the obligations of food importers and distributors and reported inspections focused on Polish agri-food products.

**The COVID-19 pandemic and the ensuing economic crisis in 2020 have re-intensified the tendency to apply protectionist measures.** Some member states introduced restrictions at the EU's internal borders, which often threatened supply chains in the whole EU. To protect domestic markets, many other restrictions favouring domestic entrepreneurs have been introduced; this is especially visible in the agri-food sector (MRPiT, 2021).

In January 2020, Poland's Ministry of Development published a *Black Book of barriers in the internal market*, the first report with examples of barriers hindering cross-border activity by Polish entrepreneurs on the EU market. Most of them were reported directly by entrepreneurs. The second edition of the report was published in June 2021 (MRPiT, 2021). The main conclusion of both reports is that there are various kinds of barriers – often of a complex nature – which makes it difficult to remove them (MR, 2020). Similar conclusions can be drawn from the European Commission communication in 2020 (EC, 2020a), which highlights 13 main barriers from the user's point of view. The barriers are not only regulatory or administrative, but also practical. In practice, when operating across EU borders, a company or consumer often faces several constraints at the same time. SMEs and specialists are the most affected.

The EU institutions are constantly monitoring the functioning of the European single market and trying to improve it using a variety of instruments. This include the Single Market Enforcement Task Force (SMET) launched by the Commission. SMET is a formation composed of representatives of the member states and the Commission, which primarily will assess whether national law complies with the provisions concerning the single market, prioritise action concerning the most urgent (most serious) barriers, deal with horizontal issues related to enforcing EU law, and monitor the implementation of the action plan.

### Thirteen barriers to the European single market

The European Commission communication lists 13 barriers reported by entrepreneurs and consumers:

1. Difficulty obtaining information.
2. Complicated administrative procedures relating to the sale of goods or services abroad.
3. Unequal access to public procurement.
4. Inefficiency related to additional technical requirements, standards and other regulations in certain sectors at the national level.
5. Issues related to market entry and establishment requirements for certain activities or professions.
6. Cross-border shopping orders are rejected or redirected.
7. Lower trust in cross-border online shopping.
8. Targets of cross-border fraud.
9. Cumbersome procedures resulting from differences in tax systems and administrations.
10. Problems with resolving commercial/civil disputes and collecting payments.
11. Problems with registering a business in another member state.
12. Problems with the shortage and mismatch of qualifications.
13. Language as a barrier.

Source: EC (2020a).

In April 2021, the Council and Parliament adopted the Single Market Programme for 2021-2027. It primarily aims to increase the single market's efficiency, support the competitiveness of EU companies, especially SMEs, facilitate the creation of high-quality European standards, empower and protect consumers, promote human, animal and plant health and animal welfare, and establish a framework for financing high-quality statistics. The new programme brings together a number of activities previously funded separately. Its total budget is EUR 4.2 billion (Consillium, 2022).

Despite the actions that have been taken, entrepreneurs and consumers still report the existence of barriers in the single market. This mainly intensifies during periods of economic slowdown, when protectionist sentiment is rekindled. For example, some countries have tried to erect barriers within the single market under the pretext of raising social standards. Although it requires a one-off cost, removing barriers paves the way to additional benefits – in the tens or even hundreds of billions of euros – in the long run.



# Summary and discussion

The benefits that the Polish economy derives from participation in the European single market are not limited to direct subsidies or structural funds; they also include indirect benefits. To become aware of the scale of the changes, consider what the economy would look like if Poland had not joined the European single market.

Without the single market, there would still be border checks on the transport of goods, which would extend the time of delivery abroad and result in higher transaction costs. Exports of goods would be much lower, as Polish producers and exporters would not achieve the growing economies of scale of production without free access to a market of nearly half a billion inhabitants. This access has become the basis for the development of exports in many industries, including food, furniture, household appliances and electronics.

Without the single market, trade in goods with other countries in the Visegrad Group would not have developed so rapidly. Borders have disappeared and export-related documents (such as certificates of compliance with specific standards) are not required for each market. Although tariffs on industrial goods were already zero before the EU enlargement of 2004, non-tariff barriers were a significant obstacle to mutual trade.

Without the free movement of workers, there would be no wave of emigration to countries that opened their labour markets to workers from Central Europe as early as 2004, such as Britain. This has had several economic consequences, both positive and negative. Above all, economic emigration has improved Poland's balance of payments, as emigrants transfer a large share of their wages to the country. The outflow of employees led to streams of exports, including exports of Polish food. Unemployment in Poland, which was relatively high before EU accession, has decreased, although many specialists have left.

Without the European single market, Poland would not receive so much foreign direct investment. Merely being a member of the EU has made Poland much more attractive to investors, as a country that is politically, legally and financially stable. Without foreign investments, Poland would not benefit

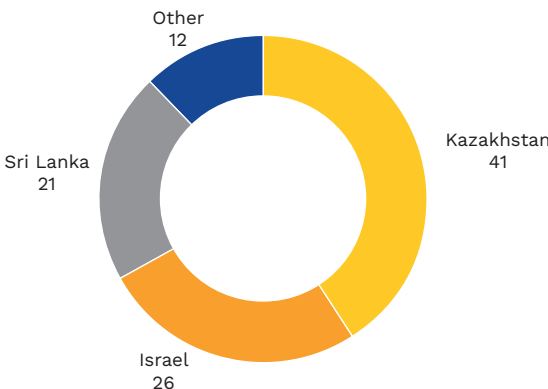
from participation in global value chains to the extent it does today. It would not be such an important sub-supplier of automotive parts to many European factories, including in Germany.

It is in Poland's interest to strive to eliminate the remaining barriers to the single market. However, this is not easy during a period of growing protectionist tendencies, which became apparent during the COVID-19 pandemic and Russia's invasion of Ukraine.

# Methodological appendix

The synthetic control method involves constructing a model featuring a counterfactual Poland that did not join the EU. Its economy is made up of other economies that did not join the EU, and whose structure and level of development in the base year showed similarities to the Polish economy. This means that the estimated development of Polish GDP without EU accession is calculated based on actual data from a number of countries. In our case, the measure is GDP per capita. The synthetic Poland is made up of countries that have not joined the EU, with appropriate weightings that ensure that Poland's GDP per capita in 2004 is equal to the synthetic Poland's GDP per capita that year, and that minimise the error function; that is, the squared difference between the weighted average of several variables that reflect their society, economy, and level of development, and these variables' average values in Poland in the years before EU accession. This means that we can expect these countries' weighted average GDP per capita to develop similarly to Poland's if it had not joined the EU. In our analysis, we took into account the following variables (1): the aforementioned GDP per capita (USD at PPP in 2017), (2) the share of the working population working in agriculture, (3) the share of the working population employed in industry, (4) GDP (USD 2017 at PPP), (5) the population and its growth.

**Chart 21. Weights of countries used to create the synthetic Poland for the synthetic control method**



Source: prepared by PEI based on World Bank and International Labour Organization data.

The method was proposed by Abadie and Gardeazabal (2003). Originally, it estimated the impact of terrorist attacks in Spain's Basque Country on its development. The main drawback of this method is the assumption that the development of the countries used to approximate Poland's potential development path after 2004 was not affected by any significant factors. In addition, it does not enable us to separate the effect of Poland's participation in the common market from the other benefits of EU membership; above all, EU subsidies.

In Chapter 3, we used the method of measuring the benefits of Poland's participation in the European single market in the flow of value added, which is included in trade flows between countries. This became possible after world input-output tables, which illustrate the flow of goods and services in the global economy, were made available nearly a decade ago. Using the data in the tables, it is possible to calculate the direct effects of Poland's participation in the European single market. They determine how much value added from one country is consumed in another country. The value added may reach the destination country directly in the form of a final good or an intermediate good (after appropriate processing, it is consumed in this country), or indirectly via other countries. The world input-output tables also make it possible to calculate how much value added from one country is transferred to another via other countries. The Polish value added in EU countries' exports to third countries calculated in this way is an indirect effect of Poland's participation in the European single market.

In Chapter 4, we used the results from the most recent edition of the survey among exporters conducted by the Polish Economic Institute in cooperation with Statistics Poland (October 2022). We conduct the survey every year among exporting companies in the industrial processing sector. This year, 167 companies took part. They varied in terms of size (44% are large companies, based on the number of employees, 31% small and 25% medium-sized), origin of capital (66% are companies without foreign capital, while 34% have foreign capital) and type of activity (15% operated in the production of finished metal products, 12% in the food industry, and 8% in the production of furniture and electrical appliances). In the survey, we asked them about the benefits for companies of Poland's participation in the single market.

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# The Polish Economic Institute

The Polish Economic Institute is a public economic think tank dating back to 1928. Its research primarily spans macroeconomics, energy and climate, foreign trade, economic foresight, the digital economy and behavioural economics. The Institute provides reports, analyses and recommendations for key areas of the economy and social life in Poland, taking into account the international situation.

