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An EU of convergence or divisions? The European economy 30 years after the Treaty of Maastricht

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Key numbers

3.1% per year	growth rate of countries in Central and Eastern Europe (CEE) in 1995-2020. Over threefold faster than the countries in the so-called EU centre (1% per year).
4-fold	decrease in the differences in the quality of the law between CEE and Western Europe in recent decades. For economic freedom, the decrease was seven-fold. European integration has led to an institutional revolution in the CEE countries.
0.2% per year	rate of the decrease in the difference in the structure of the CEE and EU Centre economies. Despite convergence in terms of development, the structural differences between EU countries are almost as large today as they were in 1995.
20%	increase in differences in GDP per capita level in the EU-15 countries compared to 1995. Convergence within the “old” member states was reversed by the financial crisis of 2008 and the COVID-19 pandemic, in particular.
More than 2 times smaller	spending on R&D as a percentage of GDP in the countries of Southern Europe, compared to Germany.
9%	share of GDP generated by industry in Greece. In the other countries in the South – Italy, Spain and Portugal – it is not much higher. For comparison, it is almost 20% in the CEE countries.

Key findings

- This report considers economic convergence – one of the foundations of the Maastricht Treaty – in terms of three dimensions: developmental, institutional and structural.
- **Development convergence is taking place in the European Union (EU-28), mainly due to the Central and Eastern European (CEE) countries' accession to the EU.** In recent decades, the CEE countries have developed several times faster than the rich countries in the West. However, the differences in terms of development within the EU-15 are higher than before European integration and still deepening. A turning point in the "old" member states' recent history was the financial crisis of 2008, when the countries of Southern Europe fell into a prolonged recession and the differences between them and Western Europe increased significantly.
- **A success of the Maastricht Treaty is the institutional convergence between the member states.** EU countries are alike in terms of the quality of the law and the scope of economic freedom. This is especially true for the CEE countries. The reforms carried out after the collapse of the Eastern bloc and in connection with EU accession brought the state of the administration and the law in the CEE countries closer to that in Western Europe.
- **The EU countries are not becoming more alike in terms of the structure of their economies.** Economic specialisation is progressing, with different regions of the EU develop different branches of the economy. The EU Centre dominates when it comes to high-tech industry. CEE is developing a simpler industry, but it is also starting to develop modern business services. The South is characterised by an above-average dependence on simple tourist services. Only the Scandinavian countries are structurally closer to the EU Centre.
- **The interpretation of these conclusions differs greatly depending on the perspective adopted: national or federalist.** In national terms, overly large differences in the economies; structure may threaten the main economic goal of European integration – convergence. From the federalist perspective, progressive specialization, combined with an increase in intra-European mobility, are the way to further EU integration and greater economic efficiency.

Introduction

European integration has changed the political and geographical face of Europe forever. The Treaty of Maastricht, or the Treaty on European Union, was a key event in post-war Europe. Its signing in 1992 established the European Union and opened a completely new chapter in the continent's history, leaving European societies and economies forever transformed.

In this report, we summarise the economic convergence between the EU countries after three decades of integration. We show how the economies in Europe have changed, considering questions such as whether the level of affluence between member states has been evened out, whether legal barriers have decreased, and whether the structure of production has become similar – or whether the differences between European economies are even greater than before? In the report, we give this discussion structure and present an outlook for the future.

In the first chapter, we present the importance of economic convergence for European integration and examine the Treaty's role in convergence. We describe the Treaty's formal provisions, spirit and the economic debate that surrounded it. **In the second chapter,** we consider the process of European convergence in three dimensions: developmental, institutional and structural. We examine the convergence between the EU economies in terms of GDP per capita, law and the public administration's effectiveness, and whether member states are developing the same sectors in industry and services. **In the third chapter,** we consider the problem of structural convergence in further detail. We analyse what is happening within the EU – structural convergence or regions' increasing specialisation – and the implications for its future.

To sum up, we present two possible interpretations of our analysis. We show that the same data can lead us to opposite conclusions, depending on whether we consider the process of European integration from a national or a federalist perspective.

↘ Box 1. **What is convergence?**

Convergence is the process of becoming more alike. In economic terms, we mostly consider **convergence in terms of development** – when poorer countries develop more rapidly and catch up with richer ones in terms of GDP per capita. The report also analyses **institutional convergence,** which involves developing a similar legal system and public administration, and **structural convergence,** which involves developing branches of the economy with the same level of technological advancement.

Chapter 1. The role of the Treaty of Maastricht in the pursuit of economic convergence in the EU

Economic convergence is one of the main goals of European integration. This was already the case in the Treaty of Rome of 1957, which stated that the community should strive for the harmonious development of economic activity, sustainable growth and building stronger economic ties between countries (Article 2). It also stated that countries should pursue economic policies not only in the context of their own interests, but that of the entire community (Article 103).

From the start of integration, Europe's political elites were convinced that stronger economic convergence was needed for the further development of the European community. The deepening of existing economic differences – and the emergence of new ones – would not only threaten the economic community's survival, but also undermine the profitability of the monetary union and weaken the social legitimacy of integration (Delors, 1989). The proposed solution was to coordinate economic policies more closely and effectively. In addition to voluntary cooperation, binding regulations were needed. These would enable a more balanced economic structure to be built in the Community as a whole, including by correcting economic imbalances in production and employment (Borsi, Metiu, 2013).

However, prior to 1992, the European Communities' legal system did not provide specific tools that would make this "great integration leap forward" possible. For this reason, a new treaty was needed (Delors, 1989). An additional impetus for the reforms of the economic union introduced by the Maastricht Treaty were the changes in the global economic order in the 1970s and 1980s, such as the collapse of the Bretton Woods system and the liberalisation of world trade and international financial flows. Historians of economic thought also note that discussions between experts and political negotiations concerning the Treaty's provisions took place at a time when the Keynesian paradigm in economic policy was being abandoned and neoliberal solutions were gaining popularity. These were based on the idea that central banks' independence and fiscal discipline are a solution to the problems of inflation and unemployment, and would support stronger economic growth (Dyson, 1994; Cameron, 1995; Marcussen, 1997; Verdun, 2000).

The main conditions for joining the monetary union as part of the Maastricht Treaty were the so-called convergence criteria: inflation, the interest rate, the exchange rate and the deficit. Apart from these criteria, the Treaty's provisions refer to convergence in a very general manner. The preamble states that the EU will support the promotion of balanced and sustainable economic and social progress, in particular by strengthening economic and social cohesion and establishing an economic and monetary union, which would ultimately include a single currency. Article 2 specifies that the Community's task is to promote a harmonious and sustainable development of economic activities, sustainable and non-inflationary growth that takes the environment into account, a high degree of convergence in economic performance, a high level of employment and social protection, increase the standard and quality of life, economic and social cohesion, and solidarity between member states. The Treaty also introduced several detailed operational solutions to support convergence (such as tools enabling the European Commission to monitor and assess convergence processes, and make recommendations in this regard) (Article 103 of the Treaty).

↘ Box 1.1. The convergence criteria in the Treaty of Maastricht

The most important solution introduced by the Maastricht Treaty were the so-called convergence criteria. They specified the economic indicators that countries that aspired to join the EU had to meet. The convergence criteria were of a nominal nature; that is, they related to current economic performance. Real convergence – an equal level of prosperity and economic development – was not required.

↘ Table 1.1. Description of the convergence criteria

Criterion	Description
Inflation	Inflation must not be more than 1.5 pp higher than the average of the three countries with the lowest price growth.
Interest rate	The long-term interest rate must not be more than 2 pp above the average in the three countries with the lowest price growth.
Exchange rate	The exchange rate must be stable against the euro for at least two years. The national currency must not be subject to strong tensions or be devalued.
Deficit	The deficit must not exceed 3% of GDP per year.
Debt	Debt cannot exceed 60% of GDP, unless the country is rapidly reducing its debt.

Source: prepared by PEI.

The introduction of the criteria was accompanied by a stormy discussion as to whether real convergence should precede closer integration, or should result from it. The discussion encompassed whether the deepening of integration between more balanced economic actors could take place, or whether integration processes are meant to balance the levels of development of the countries in the community. It was in fact a conversation about whether economic integration and the creation of a monetary union should mean "sharing the risk" or "reducing the risk" to the economy from integration. Ultimately, an intermediate solution was chosen: the obligation to meet certain conditions before joining the monetary union, while taking further steps towards real convergence as a result of membership and deepened integration (De Grauwe, 1996). Germany, the Netherlands and the United Kingdom were in favour of a hard option, according to which the creation of a monetary union would only be possible once enough countries had met the real convergence criteria. France, Greece and Italy were in favour of a milder option, arguing that Economic and Monetary Union membership would accelerate convergence.

From the outset, the Maastricht criteria have been accused of being "convergent" in name only. It was pointed out that they focus too much on price and fiscal stabilisation and too little on the challenges of real economic convergence, including the structural challenges of individual national economies and the monetary union as a whole (Loon, 2018). In this sense, the criteria laid the foundations for a strong monetary union but, at the same time, an underdeveloped economic union. In the 1990s, concerns were also expressed as to whether national governments' strict adherence to such restrictively-defined fiscal criteria could be reconciled with most EU countries' development needs. It was emphasised that, in practice, the unconditional fulfilment of the criteria would mean years of budget cuts and tax increases, or an increase in unemployment during crises (Buiter et al., 1993; Obstfeld, 1997).

The Maastricht Treaty's disadvantage was the introduction of convergence criteria without the addition of significant fiscal instruments that could support convergence processes. The Treaty initiated reforms of the so-called structural policies, and introduced a new Cohesion Fund (which guaranteed investment aid to less developed EU countries where the gross national income per capita does not exceed 90% of the EU average), but the condition for receiving these funds was the implementation of the convergence programme, and lack of progress could be the basis for withholding the payment of funds. However, these funds were definitely too small – whether in relation to the GDP of the monetary union countries or, more broadly, the entire EU – to finance large, ambitious convergence programmes counteracting or at least reducing the effects of asymmetry in member states' development cycles.

Despite this, a benefit of the Maastricht Treaty was how it initiated solutions that would integrate the member states more closely. In particular, monetary union membership unified states' economic policies much more than merely being part of the common market. Membership in the monetary union – but also, more broadly, the economic one – has also changed the way national economic interests are defined; it has become one of the important elements shaping these interests. In other words, member states could not define their interests in isolation from EC membership and then agree on a common denominator in the European arena. After Maastricht, membership had to be taken into account from the very start when defining a country's economic interest.

Chapter 2. Convergence between EU countries in 1995-2020

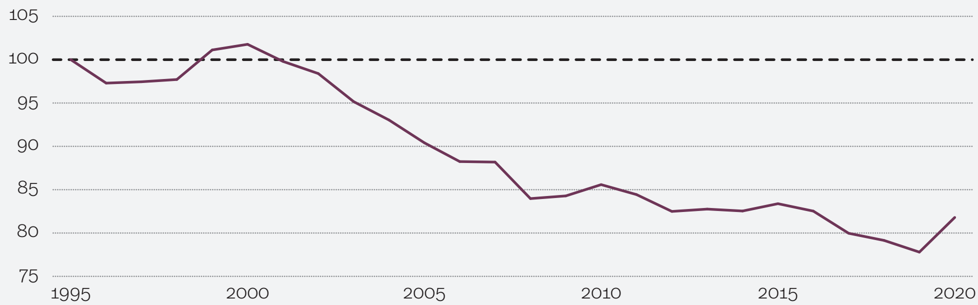
Our key research question is: did the EU countries become increasingly alike after the Maastricht Treaty was signed? We analyse convergence in the EU in three dimensions: (i) development – are EU countries getting closer to each other in terms of their level of development? (ii) institutional – are EU countries becoming a single organism in terms of their legal and institutional system?; and (iii) structural – are hi-tech industries starting to emerge in the less-developed EU economies, too?

Developmental convergence

Economic convergence is advancing within the EU. Over the past 25 years, the gap in GDP per capita between EU countries has decreased by an average of 18% (Chart 2.1). However, convergence slowed down after the financial crisis. In 1995-2010, differences in development within the EU were declining 2.5 times faster than today. Economic crises slowed down convergence: differences in development temporarily increased following crises: the financial crises in 2008, the debt crises in 2013 and the COVID-19 crisis in 2020.

↘ Chart 2.1. Inequality between EU countries in terms of development is decreasing

Sigma convergence in the EU-28 (as a percentage, 1995 = 100)



Note: sigma convergence is a measure of the variation in GDP per capita between the EU-28 countries. We took differences in development in 1995 as the point of reference (100%). The index fell to 82% in 2020, which means that the average variation in the level of GDP per capita between the EU-28 countries was 18% lower than in 1995. In other words, inequality in the level of development between the EU countries has decreased.

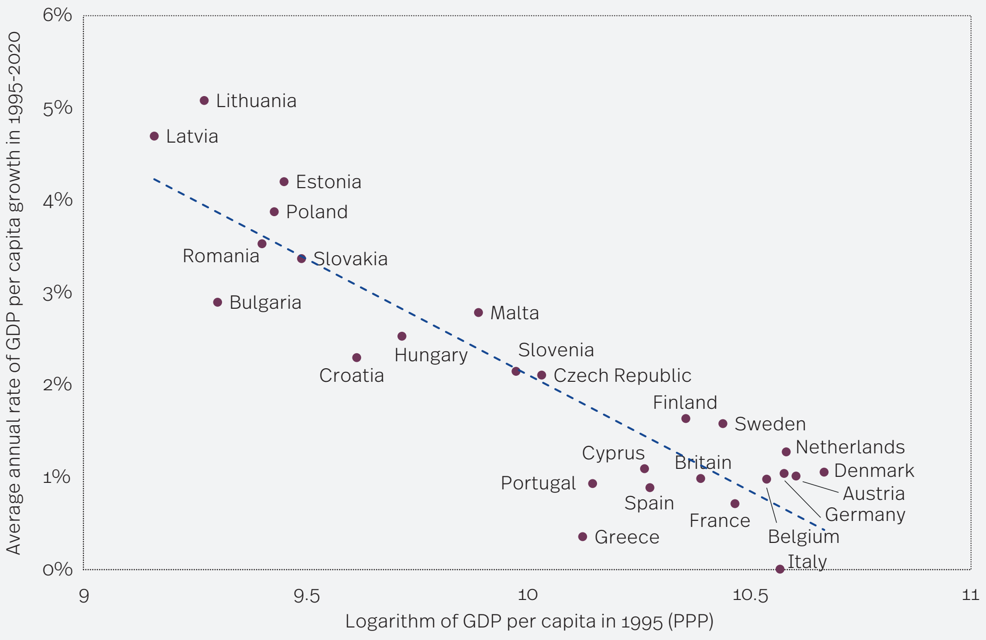
Source: prepared by PEI based on World Bank data.

The blurring of differences in the level development results from rapid growth in Central and Eastern Europe (CEE). In 1995-2020, the CEE countries grew at a rate of 3.1% per year, more than three times faster than the EU Centre (Chart 2.2). The most impressive growth occurred in the Baltic States. In 1995, GDP per capita in Lithuania was 27% of that in Germany. By 2020, this had increased to 72%. In Poland and Romania, GDP per capita increased from 33% and 31% of Germany's in 1995 to 63 and 56% a quarter of a century later. As a result, the standard of living in the CEE countries is rapidly approaching that in Western Europe (Chart 2.3).

The CEE countries' rapid growth has reduced the differences in the level of development within the EU. At the time of accession, CEE was the poorest part of the EU. However, the region's economies have grown dynamically; for example, Lithuania (where GDP per capita grew by an average of 5.1% per year in 1995-2020), Poland (3.9%) and Romania (3.5%). As a result, these countries' level of wealth is quickly approaching that in Germany (Chart 2.3). Rapid GDP growth has further reduced the differences in the level of GDP per capita between EU countries (Chart 2.3).

↘ Chart 2.2. Central and Eastern Europe is catching up with the West

Beta convergence in the EU-28



Note: on the OX axis we show the logarithm of GDP. We do so because economic growth is exponential; that is, economic activity grows by a certain (approximately constant) percentage each year. The use of a logarithmic axis enables us to draw a straight trendline. Ireland and Luxembourg were not included in the analysis – we explain why in Box 2.1.

Source: prepared by PEI based on World Bank data.

↘ Box 2.1. Why have we left out Luxembourg and Ireland?

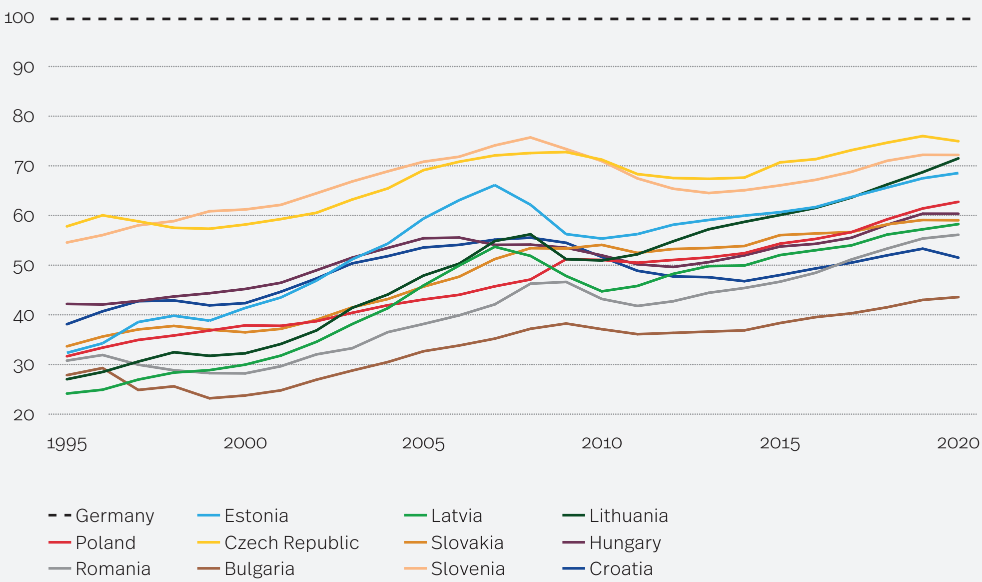
In most of our analyses, we deliberately bypass two EU-28 countries – Luxembourg and Ireland. We do this for two, partly independent reasons.

Luxembourg is a small EU country with an economic performance disconnected from the rest of the EU. In 2020, GDP per capita in Luxembourg was over 2.6 times higher than the EU average and almost 4.3 times higher than that of the poorest EU country. At the same time, it is inhabited by just 0.14% of the EU population. Including such a small country, with characteristics that differ from those in the rest of the EU, in the analysis weighs down the results and blurs trends in the rest of the EU.

Ireland's macroeconomic data does not show the dynamics of the real economy. Following the financial crisis, Ireland based its model on attracting foreign corporations with very low tax rates. As a result, Ireland's GDP per capita grew by 24% in 2015. However, this increase is mostly of an accounting nature and only translates into an improvement in real living standards to a small extent. In Chapter 3, we will demonstrate that the macroeconomic data shows that Ireland's economy is separating from the rest of the EU.

↘ Chart 2.3. The difference in GDP per capita between the CEE countries and Germany is declining

GDP per capita as a percentage of that in Germany



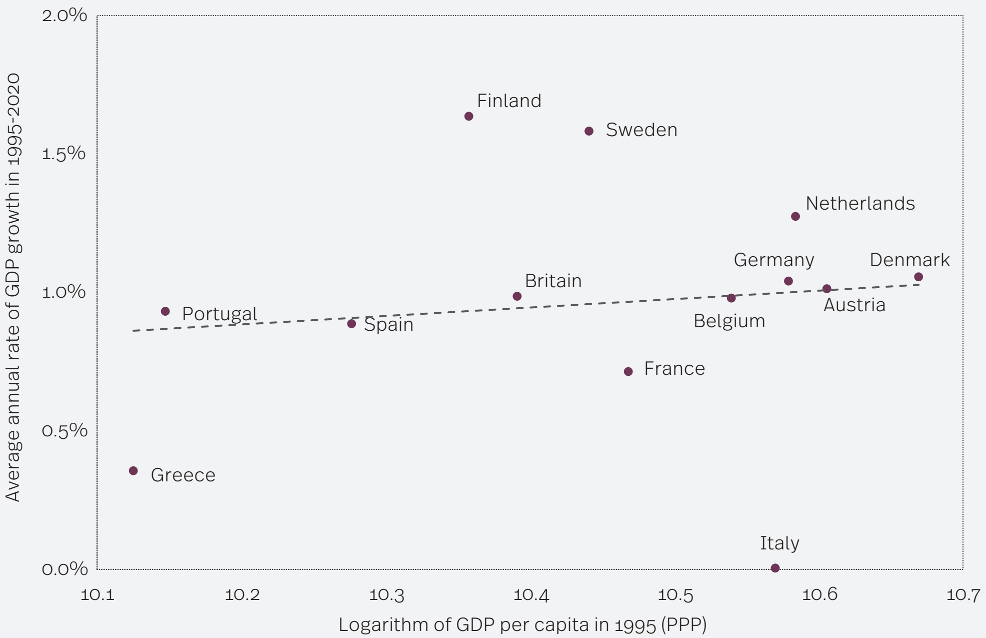
Note: GDP per capita (PPP).

Source: prepared by PEI based on World Bank data.

The EU-15 countries are not converging. In 1995-2020, GDP per capita in Western Europe grew by an average of 1% per year (Chart 2.4). However, the richer countries of the EU's Centre and North grew slightly faster. This is the opposite of the desired outcome – for less wealthy countries to catch up with their richer neighbours, they need to grow more rapidly.

↘ Chart 2.4. Two speeds of growth are emerging in the EU-15 countries

Lack of beta convergence in the EU-15



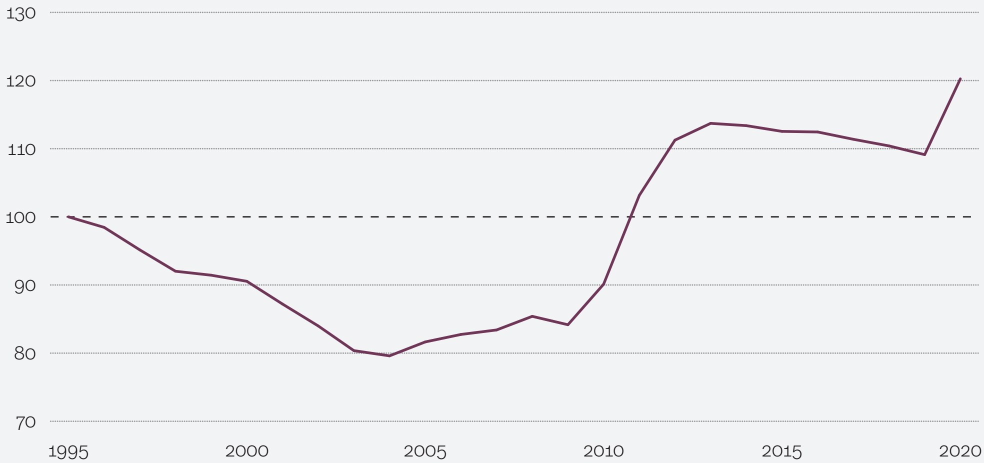
Note: on the OX axis we show the logarithm of GDP. We do so because economic growth is exponential; that is, economic activity grows by a certain (approximately constant) percentage each year. The use of a logarithmic axis enables us to draw a straight trendline. Ireland and Luxembourg were not included in the analysis – we explain why in Box 2.1.

Source: prepared by PEI based on World Bank data.

Differences in development between the EU-15 countries are now greater than in 1995 and continue to increase. Differences in GDP per capita between the EU-15 countries only decreased until 2004 (Chart 2.5). The increase in inequality between these countries is a consequence of the 2008 financial crisis. Between 2008 and 2013, the average difference in GDP per capita in the EU-15 increased by a third. The recession triggered by COVID-19 has further aggravated the problem; the differences in wealth between the countries in the "old" EU are currently over 20% greater than in 1995.

↘ Chart 2.5. **Development inequality between the EU-15 countries is at a record high**

Lack of sigma convergence in the EU-15 (as a percentage, 1995 = 100)



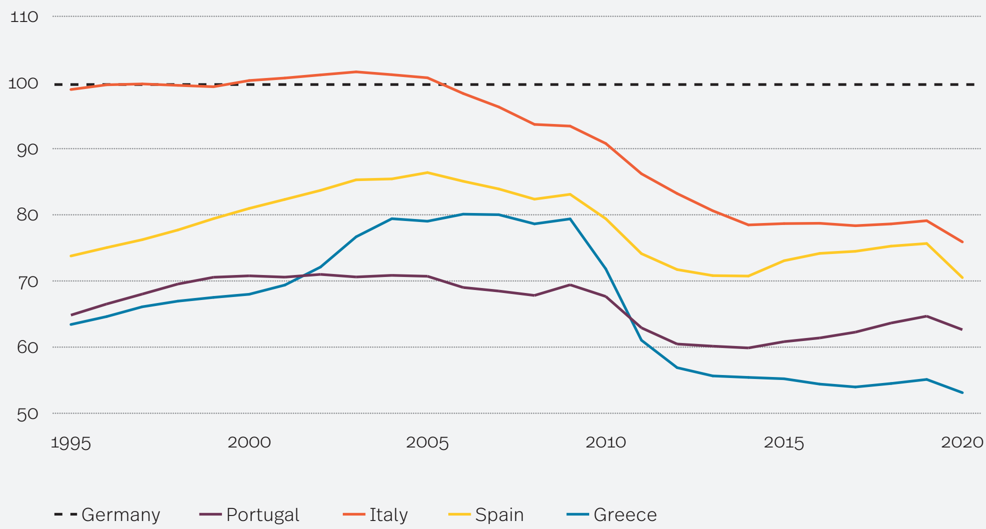
Note: sigma convergence is a measure of the variation in GDP per capita between the EU-15 countries. We took differences in development in 1995 as the point of reference (100%). The indicator's increase to 120% in 2020 means that the average variation in the level of GDP per capita between the EU-15 countries by 20% higher than in 1995. In other words, the inequality in the level of development between the EU-15 countries has increased noticeably. Ireland and Luxembourg are not included in the analysis – we explain why in Box 2.1.

Source: prepared by PEI based on World Bank data.

The Southern countries' economic stagnation has created a two-speed Europe. Between 2010 and 2020, GDP per capita in Spain and Italy decreased by a combined total of 2.9 and 8.6%, respectively. The average Greek was almost 20% poorer in 2020 than a decade earlier. Only Portugal recorded minimal economic growth of 0.1% per year. At the same time, the economies of Germany and Denmark grew by more than 9%. As a result, the disparity in level of prosperity between the EU's South and Centre is growing dramatically. In 1995, Italy was as wealthy as Germany. Today, it is almost 25% poorer (Chart 2.6).

↘ Chart 2.6. Differences in development between Southern Europe and Germany are increasing

GDP per capita as a percentage of that in Germany



Source: prepared by PEI based on World Bank data.

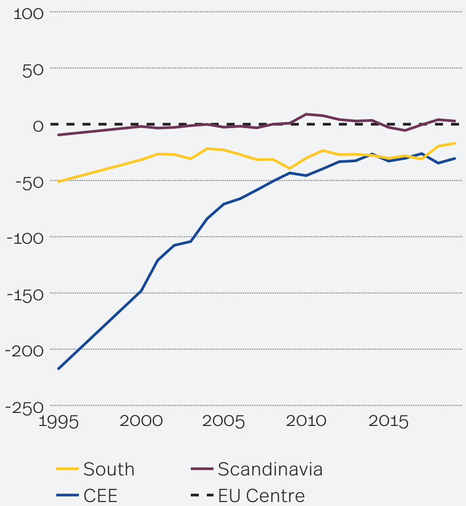
Institutional convergence

Institutional convergence is taking place within the EU. This is indicated by two measures: the economic freedom index and the regulatory system assessment index (Charts 2.7 and 2.8). The first measures economic freedom, broadly understood, while the second only assesses the quality of the law enacted. Both indices show that EU countries' legal and institutional systems are becoming increasingly similar to the solutions applied in the countries in the EU Centre. This process is strengthened by the creation of EU law, among other things.

Central and Eastern Europe has undergone an institutional revolution. The unprecedented scale of changes in the CEE countries in 1995-2019 is the result of the economic transition following the collapse of the Eastern Bloc and legal reforms after EU accession. The indices show that the differences between the EU Centre and CEE in the assessment of the law have decreased almost fourfold, while those in the scope of economic freedom have fallen more than sevenfold. The indicators are currently slightly lower than in the Central and Scandinavian countries. The improvement in economic freedom mainly took place in categories such as reducing the size of the public sector, lowering taxation and increasing international trade.

↘ Chart 2.7. Economic freedom in CEE has moved closer to that in the EU Centre

Economic freedom index (EU Centre = 0)

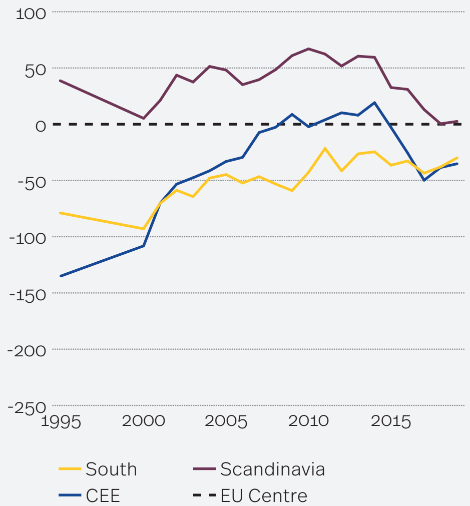


Data for 1996-1999 were unavailable – we supplement the missing values with a linear trend.

Source: prepared by PEI based on Fraser Institute data.

↘ Chart 2.8. EU law is harmonising the regulations in different countries

Regulation assessment index (EU Centre = 0)



Data for 1996-1999 were unavailable – we supplement the missing values with a linear trend.

Source: prepared by PEI based on Fraser Institute data.

Note: charts 2.7 and 2.8 show the differences in economic freedom and the quality of the legal system in different EU regions (Centre, South, Scandinavia, CEE). We took the indicator for the EU Centre as the point of reference (i.e. a value of 0%). A negative value mean a lower rating than for the EU Centre, while a positive value means a higher rating. For example, in 1995, the level of economic freedom in the CEE countries was much lower than in the EU Centre; now the difference is insignificant.

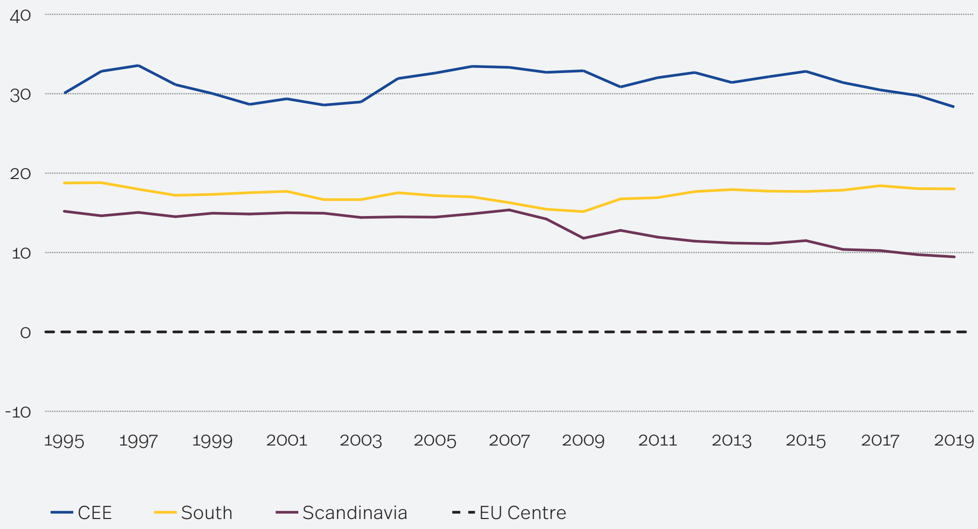
In the Southern countries, institutional convergence is much slower. For years, legal systems and economic freedom in the Southern countries have been deemed worse than in the EU Centre. In 1995-2019, this difference decreased by approximately 2.6-fold. However, the rate of convergence is slower than in the CEE countries; for economic freedom, it was more than two times slower. The Southern countries' performance is weakened by indicators such as the size of government spending, capital control and court impartiality.

Structural convergence

Structural convergence is not taking place within the EU. By "structural convergence", we mean economies becoming more similar in terms of the structure of production; that is, the development of the same sectors in industry and services. Instead, specialisation is persisting; individual EU regions are developing different branches of the economy, and the differences between them are not decreasing (Chart 2.9).

↘ Chart 2.9. **There is no structural convergence in the EU-28**

Similarity in economies' structure, based on the Krugman specialization index (EU Centre = 0)



Note: the Krugman specialization index measures the specialization between regions in the EU. We took the EU Centre as the point of reference (0%). The further a given region is from 0, the more the structure of its economy differs from that in the countries in the EU Centre; in other words, it specialises in the production of other goods and services. However, the lack of structural convergence does not necessarily mean a lower GDP.

Source: prepared by PEI based on Eurostat data.

The CEE countries are the farthest from the EU Centre. The structural differences between the CEE economies and the EU Centre are almost twice as high as in the case of the Southern or Scandinavian countries. Moreover, there has been no convergence. In 1995-2019, the distance between the CEE countries and the EU Centre decreased by a total of 5.8%, which means that the structural gap shrank at a rate of just 0.2% per year.

The financial crisis interrupted the convergence of the South. Structural differences between the economies of the South and the EU Centre decreased by almost 20% in 1995-2008. However, since the start of the financial crisis, they have systematically worsened, along with the growing gap in the level of development between the countries. The structural distance between the EU's South and Centre is now as big as it was in 1995 – the past quarter of a century has not led to convergence.

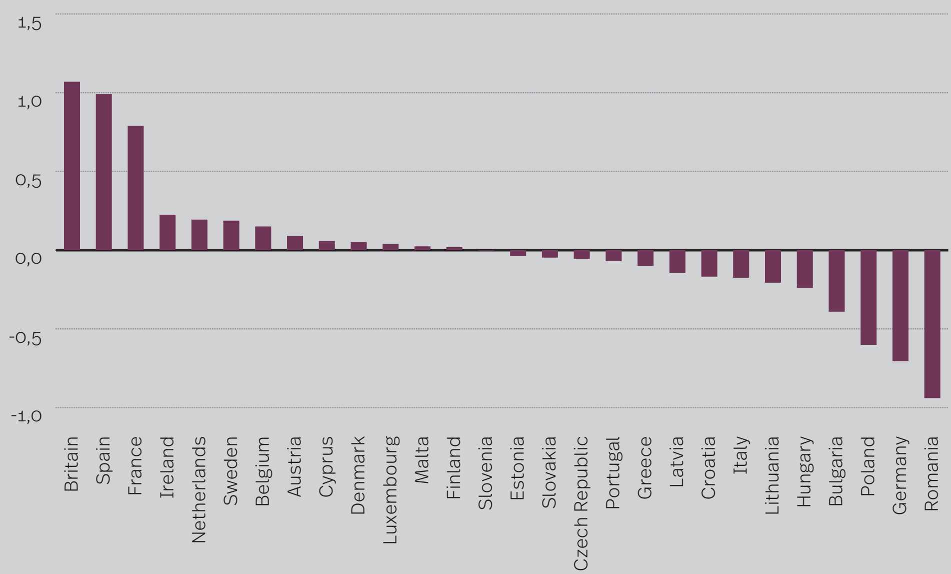
↘ Box 2.2. Population changes within the EU

Differences within the EU strengthen migration. High disparities in wealth between regions create an incentive to migrate in search of better-paid jobs. This is a major phenomenon: British statistical data shows that the number of Poles living in the country increased more than 13-fold in 2001-2017, from 75,000 to around 1 million people (Grapich, 2019). High emigration from the CEE countries made it possible to reduce unemployment in their transitioning economies in the short term, but deprived them of the workers needed for further economic growth. International Monetary Fund analysts indicate that emigration (especially that of skilled workers) in 1995-2012 reduced national income in the CEE countries by an average of 4.8% (Atoyan et al., 2016). Their findings also indicate that mass migration has been beneficial for the EU as a whole.

Structural differences contribute to the migration of skilled workers. The greater share of highly-developed industry (such as robotics or aerospace) and modern services (such as the financial sector) in developed countries strengthens the migration of skilled workers. In this case, the number of migrants is much smaller, but the economic impact can be just as significant, because the most educated workers are leaving emerging economies.

↘ Chart 2.10. The CEE countries' share in the EU population has decreased noticeably

Changes in countries' share in the EU-28 population in 1995-2020 (in percentage points)

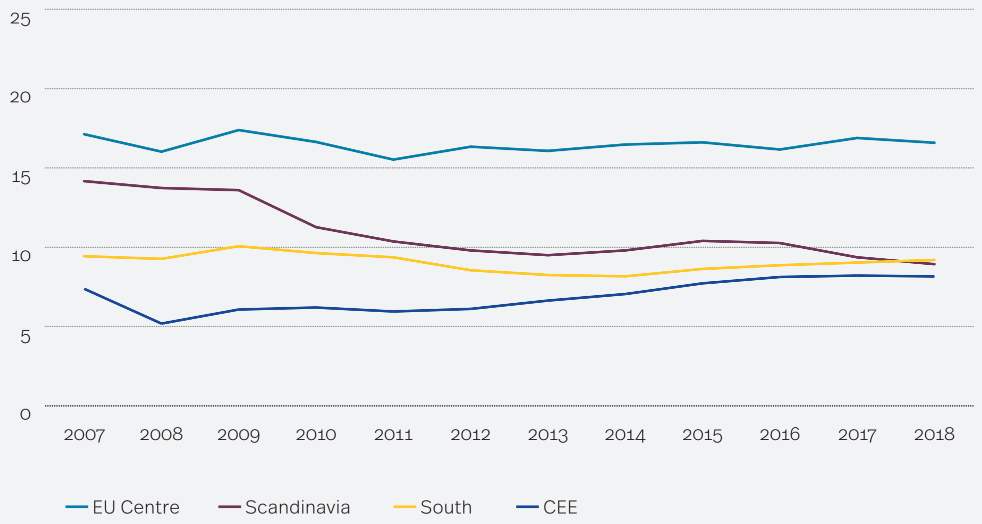


Source: prepared by PEI based on World Bank data.

Only the Scandinavian countries are converging structurally. In 1995-2019, the difference between them and the EU Centre decreased by almost 38%. This rapprochement mainly resulted from the development of the construction industry and the business services sector. At the same time, the importance of industry in the Scandinavian countries decreased: the share of hi-tech goods in their exports fell from 14.2% in 2008 to just 8.9% in 2018 (Chart 2.10). The Scandinavian countries' convergence was supported by a decrease in the share of agriculture and the public sector in the economy.

↘ Chart 2.11. The CEE countries have the smallest share of hi-tech goods in exports

Share of hi-tech goods in exports (as a percentage)



Note: average for each group of countries, after excluding Luxembourg.
Source: prepared by PEI based on Eurostat data.

The persistence of structural differences could prevent full convergence within the EU. The share of hi-tech goods in the EU Centre's export was 16.6% in 2018, around twice that in other EU regions. Although countries outside the EU Centre were included in international supply chains, the development of the most advanced branches of the economy was many times slower than the rate of GDP growth or institutional convergence. The unequal development of hi-tech sectors of the economy will hamper the equalisation of living standards in EU countries – an issue that we examine in detail in the next chapter.

Chapter 3. Is structural convergence taking place within the EU?

Is the EU economies' lack of structural convergence an obstacle to the equalisation of living standards between the countries? EU regions' economic specialisation when it comes to manufactured goods and services – such as the high-tech industry and financial services – persists. The equalisation of living standards between EU member states requires the equal development of innovative branches of the economy, such as robotics and ICT. In this chapter, we analyse in detail which sectors developed in the EU countries in 1995-2019 and whether the lack of structural convergence could hamper economic growth.

↘ Table 3.1. Cluster analysis results

1995-1999				2015-2019			
Group 1. Peripheral states	**Group 2. East and South**	**Group 3. Typical economies in western Europe**	**Group 4. Developed economies and Slovenia**	**Group 1. South**	**Group 2. East and Italy**	**Group 3. Ireland**	**Group 4. West**
Bulgaria Greece Lithuania Romania	Czech Republic Estonia Spain Croatia Italy Cyprus Latvia Hungary Malta Poland Portugal Slovakia	Belgium Dania France Luxembourg Netherlands Austria Britain	Germany Ireland Slovenia Finlandia Sweden	Greece Spain Croatia Cyprus Malta Portugal	Bulgaria Czech Republic Estonia Italy Latvia Lithuania Hungary Poland Romania Slovakia	Ireland	Belgium Dania Germany France Luxembourg Netherlands Austria Finlandia Sweden Britain

Source: prepared by PEI.

↘ Table 3.2. Indicators used and average value in each group

Indicator	1995-1999				2015-2019			
	Group 1. Peripheral states	**Group 2. East and South**	**Group 3. Typical economies in western Europe**	**Group 4. Developed economies and Slovenia**	**Group 1. South**	**Group 2. East and Italy**	**Group 3. Ireland**	**Group 4. West**
Average hourly labour cost (in EUR)	2.7	5.6	21.0	15.4	13.8	10.4	29.0	34.0
Share of labour costs in GDP (%)	34	44	49	47	42	43	29	49
Share of R&D spending in GDP(%)	0.5	0.7	1.8	2.1	1.0	1.2	1.2	2.5
Share of industrial processing in generating gross value added (%)	16.4	19.9	16.8	24.0	9.9	19.3	35.5	14.1
Share of catering, tourism and hospitality in generating gross added value (%)	3.0	3.6	2.6	2.0	6.5	2.3	1.9	2.6
Share of service exports in GDP (%)	8.8	15.5	19.7	7.7	45.2	15.1	54.6	29.6
Share of agriculture, forestry and fishery in generating gross value added (%)	12.2	4.8	2.0	3.3	2.5	3.3	1.0	1.3

Note: a darker color means a “better” value (in a row).

Source: prepared by PEI based on Eurostat data.

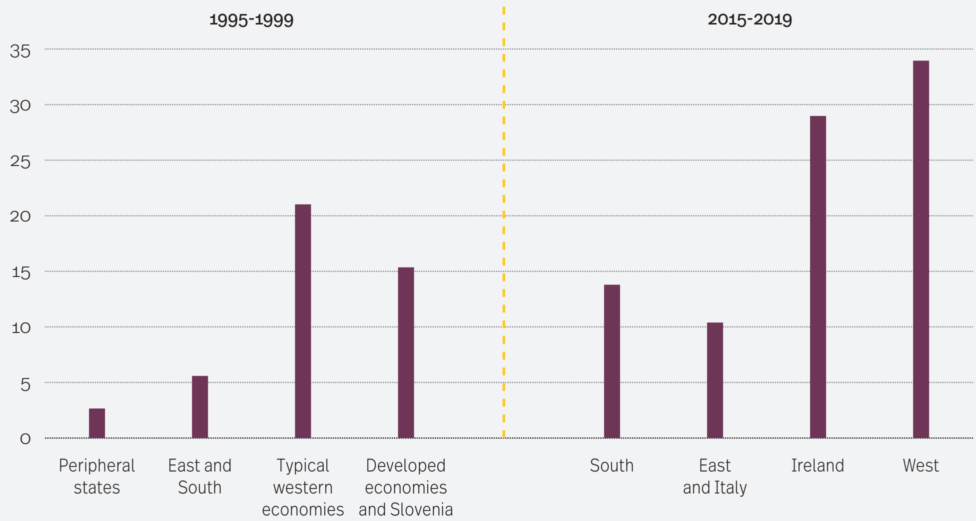
We divide the EU countries into four groups on the basis of innovation, wealth and the structure of their economies. We identified seven indicators of economic development as the criteria of structural similarity (Table 3.2). We collected data for the 28 EU member states. To identify the groups of countries, we use cluster analysis, which selects countries for individual groups so that they are as similar to each other as possible. We performed the calculations twice, using averaged data for 1995-1999 and 2015-2019. The differences between the models point to changes in the economies' structure since the signing of the Maastricht Treaty.

The CEE countries' economic development has been based on an increase in efficiency. In 1995-1999, the economies of the South and East were similar. However, over the past 25 years, these regions have developed in opposite directions. Full structural convergence has taken place in the EU's West and the North. The exception in our analysis is Ireland, which has based its development on attracting multinational corporations with very low taxes. Its macroeconomic indicators differ from those of other countries so much that we classify it as a separate group.

The differences in wages between EU countries are still significant. Labour costs in the South and in CEE averaged EUR 11.5 per hour, three times less than in Germany and France (Chart 3.1). In 1995-1999, the average cost in euros of employing a worker in Bulgaria and Romania was just 8% of the EU-28 average. Over 20 years, this percentage has increased to 26 and 29% of the average, respectively. Despite this, CEE remains the region with the lowest wages in the EU.

↘ Chart 3.1. Differences in average labour costs between the EU countries have only partially disappeared

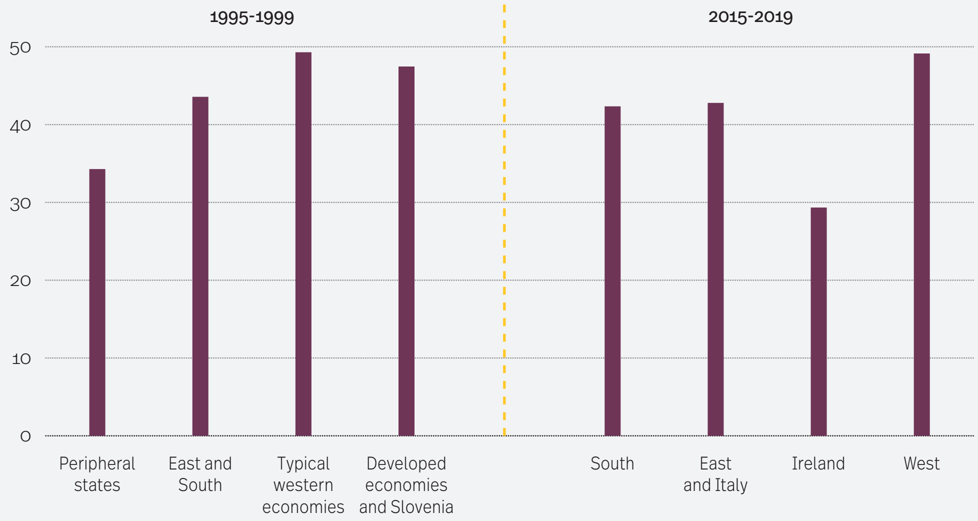
Average hourly labour cost (in EUR)



Source: prepared by PEI based on Eurostat data.

↘ Chart 3.2. Labour costs have risen in the poorest CEE countries

Share of labour costs in GDP (as a percentage)



Source: prepared by PEI based on Eurostat data.

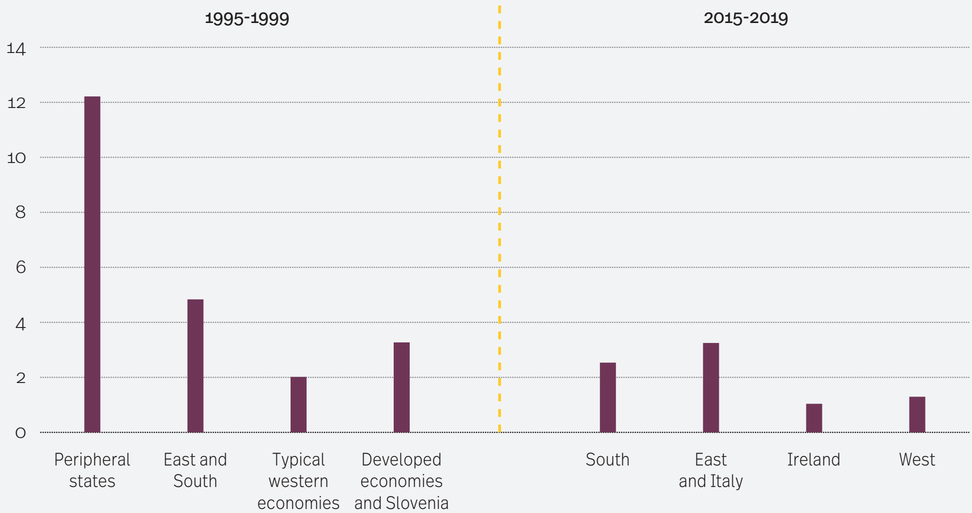
The CEE economies are slowly ceasing to base their economic growth on competing based on cheap labor. On average, labour costs amount to around 45% of the EU countries' GDP, a share that has been stable for years. However, this share is higher in richer countries such as Denmark (51%) and Germany (52%) (Chart 3.2). In the poorest CEE countries, it is less than 43% of GDP, but it has increased noticeably in recent decades: from 40% to 44% in Lithuania, from 43% to 47% in Latvia, and from 33 to 42% in in Bulgaria. The improvement stems from the rapid development of low-tech and intermediate-tech industries, such as the textile and metal industries in Lithuania.

The economic significance of agriculture is decreasing in all the EU member states. As other branches of the economy – such as industry or modern service sectors – develop, the share of agriculture in generating GDP decreases. The fastest reduction has been observed in the transitioning CEE countries (Chart 3.3). In Bulgaria, agriculture's contribution to the creation of GDP decreased from 14.5% to 4.4% in 1995-2019. In Lithuania, it decreased from 10.0% to 3.6%, and in Poland from 5.1% to 2.8%. Despite the rapid decrease, the significance of agriculture in the CEE economies is still the highest in Europe; its contribution to GDP is approximately 2.5 times higher than in the EU's West.

Industry in the EU's South has collapsed. In 1995-2019, the contribution of industrial processing to GDP decreased in all the Southern countries: from 18% to 14% in Portugal, from 18% to 12% in Spain, and from 20% to 8% of GDP in Malta. This is a result of the collapse of industrial production following the financial crisis in 2008; its value fell to 1995-1999 levels and never recovered. **The opposite tendency has been observed in the CEE countries,** where the average share of industry in the economy is currently 35% higher than in the EU's West (Chart 3.4), which is having a positive impact on the growth rate.

↘ Chart 3.3. **The significance of agriculture has decreased, especially in the poorer CEE countries**

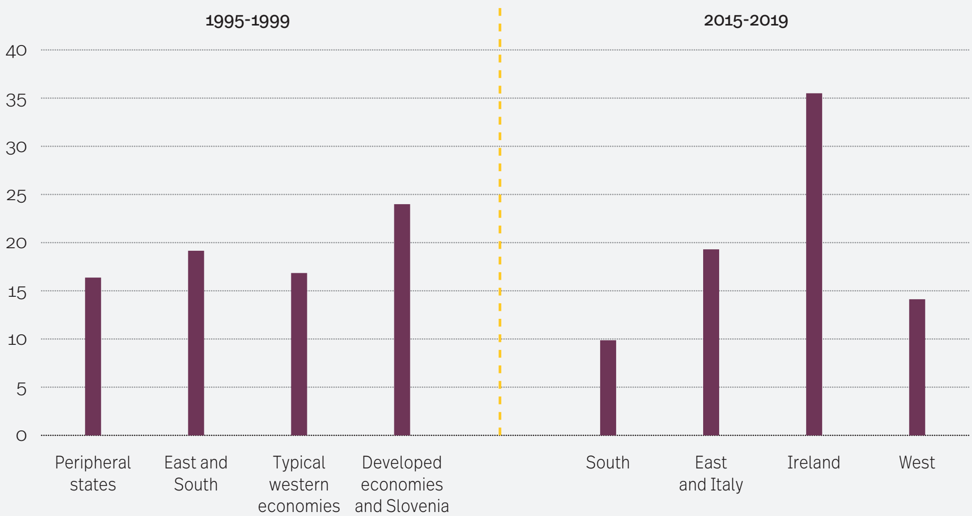
Share of agriculture in generating gross value added



Source: prepared by PEI based on Eurostat data.

↘ Chart 3.4. **The importance of industry in the Southern economies is declining**

Industrial processing in the creation of gross value added (as a percentage)

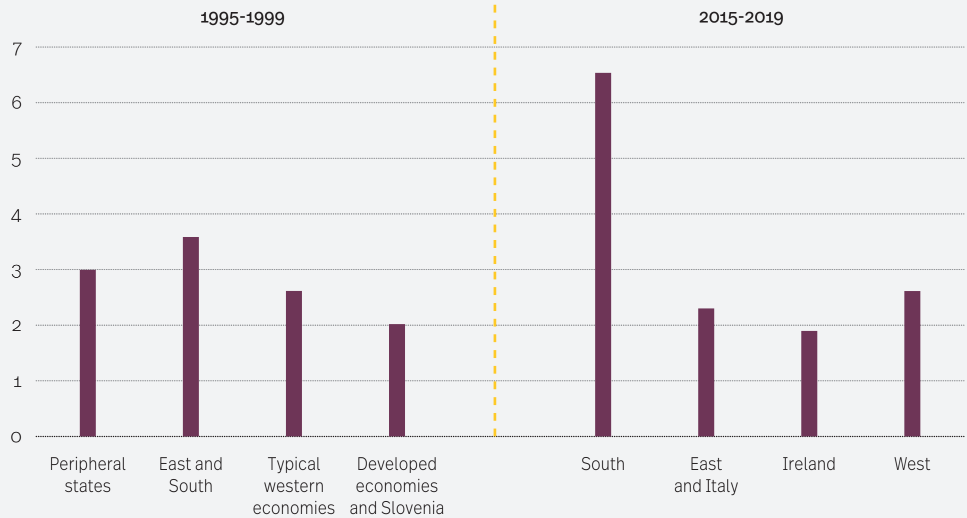


Source: prepared by PEI based on Eurostat data.

The Southern countries' economies are based on tourism. In that region, its contribution to GDP in this region is 6.5%, on average (Chart 3.5). This is 2.5 times more than in the EU's West. The much higher share of tourism in the Southern economies' structure is making it more difficult for them to converge in other areas. The development of tourism infrastructure is taking place at the expense of more innovative industries with higher productivity, such as modern industry or digital technologies.

↘ Chart 3.5. **Southern Europe is increasingly specialising in tourism**

Share of catering, tourism and hospitality in generating gross value added (as a percentage)

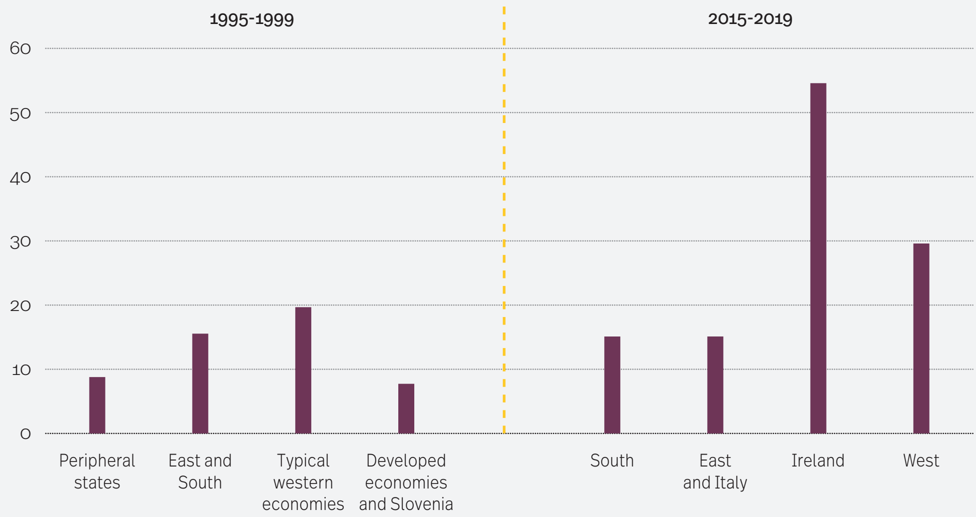


Source: prepared by PEI based on Eurostat data.

Modern economies are placing increasing emphasis on the export of services. Services are developing the fastest in the EU's West: the ratio of their exports to GDP in 2015-2019 amounted to 30%, on average. These are primarily innovative products with high value added; for example, Britain specialises in financial services and specialised support for enterprises (ONS, 2020). The CEE and Southern countries not only export half the amount of services, but are also developing innovative sectors to a lesser extent. For example, in Poland – despite the development of a modern IT and business services sector – low-tech transport accounts for almost 30% of the export of services (NBP, 2020). The unequal development of the innovative services sector could hamper full economic convergence.

↘ Chart 3.6. The modern services sector is creating new differences within the EU

Export of services as a share of GDP (as a percentage)



Source: prepared by PEI based on Eurostat data.

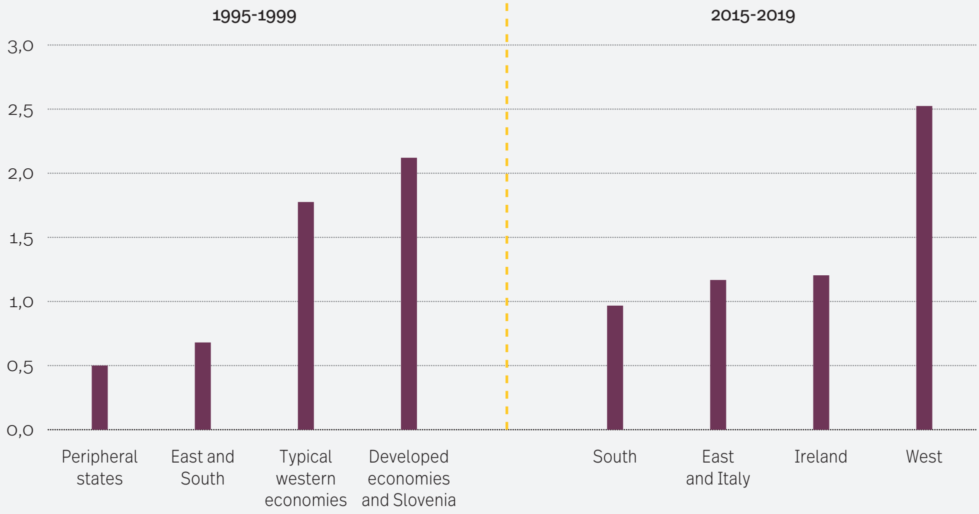
Central and Eastern Europe is catching up when it comes to scientific research. The CEE countries are rapidly increasing their spending on research and development (R&D) as a share of GDP (Chart 3.7). Over the years analysed, it increased from 0.6% to 1.3% in Romania, from 0.5% to 1.4% in Estonia, and from 1.3% to 2.0% of GDP in the Czech Republic. These values are close to the EU average (1.6%). In contrast, the Southern countries' results are disappointing: on average, they are over 60% lower than those of the Western countries. Low spending on research limits the development of the innovation economy (Miyagawa, Ishikawa, 2019; Hammar, Belarbi, 2021).

The countries of the EU's East and South have taken opposite paths of development. We have shown that these regions were structurally close in 1995-1999. They were characterised by poorly-developed industry and low wages, compared to rich countries. Their economies were strongly dependent on agriculture and not technologically advanced. However, in 1995-2019, far-reaching specialisation of the regions took place, and the roads of the EU's South and East diverged.

Central and Eastern Europe has made a leap in terms of development. The CEE countries' growth has been based primarily on reducing the economic role of agriculture, which is not very innovative, and transforming industry to export to Western economies. While wages in the region are still low compared to those in the West, rapid economic growth has significantly improved living standards over the past 25 years. However, the development of an innovative knowledge-based economy – in particular, a modern services sector – is becoming a challenge for the CEE countries. However, the progressive increase in spending on R&D suggests that there is a chance of full economic convergence with the EU's Centre.

↘ Chart 3.7. CEE is rapidly increasing spending on R&D

Spending on R&D as a share of GDP (as a percentage)



Source: prepared by PEI based on Eurostat data.

The development of a less innovative economy is compounding the South's economic stagnation. Since the financial crisis, the Southern countries have experience a sluggish rate of development that has exposed the structural weaknesses of their economies: industry's very low contribution to GDP, a strong specialization in tourism and the lowest engagement in research on modern technologies in the EU. For the South to emerge from economic stagnation, an emphasis on structural reforms – such as the development of technologically-advanced industry and modern services – will be key.

Chapter 4. Summary

European convergence can be assessed from two perspectives – national and federalist. In the previous chapters, we showed that, since the signing of the Maastricht Treaty, European economies have only partially converged. On the one hand, institutional convergence has taken place. On the other hand, the structural differences between these economies persist. Living standards in EU member states have become more similar, but the differences remain large. In conclusion, we will present two opposite interpretations of these facts. The findings are summed up in Table 4.1.

↘ Table 4.1. Two contemporary interpretations of European convergence

Description	National interpretation	Federalist interpretation
Objective of the Maastricht Treaty	1. Real convergence. 2. Equalisation of the standard of living between countries.	1. Nominal convergence. 2. Establishment of a monetary union. 3. The monetary union will itself lead to real convergence.
Has this objective been achieved?	Partly: 1. There has been real convergence at the EU level. 2. The real convergence is the result of the CEE countries' growth. 3. Lack of real convergence between the EU-15 countries (stagnation in the South).	Partly: 1. A monetary union was created, but it has not led to real convergence. 2. The banking and capital union should therefore make up for the monetary union's shortcomings.
Approach to developmental convergence	1. The growing disparities between the EU-15 countries in terms of development go against the spirit of the Treaty. 2. CEE's rapid economic growth is the EU's success. 3. The South's economic stagnation is a failure of integration.	1. The lack of convergence within the EU-15 is acceptable, as these are wealthy countries. 2. CEE's rapid economic growth is the EU's success. 3. The South's stagnation is temporary; it is the result of adjustments following the financial crisis in 2008. 4. Deeper integration will enable the EU to avoid these kinds of problems in the future.

Description	National interpretation	Federalist interpretation
Approach to structural convergence	1. The lack of structural convergence could limit certain countries' economic growth. 2. Excessive specialisation increases the risk of economic shocks.	1. Specialization increases the economic efficiency of the federation as a whole. 2. The common budget and the EU debt will reduce the negative effects of specialisation.
Approach to institutional convergence	1. Institutional convergence does not guarantee the equalization of living standards between countries. 2. Emigration from the CEE countries limits their ability to develop.	1. Institutional and legal convergence enables the EU to develop. 2. EU law and freedom of migration increase the efficiency of the EU economy.
Approach to Monetary Union	1. The single currency **can be** economically beneficial. 2. The euro facilitates international trade and reduces the cost of servicing debt. 3. The cost is the inability to control inflation.	1. The single currency **is** economically beneficial. 2. The euro increases specialisation through the easier flow of goods and services. 3. The single currency is a step towards federalization.

Source: prepared by PEI.

The contemporary national perspective

The Maastricht Treaty was supposed to accelerate economic growth. From this perspective, European integration was meant to serve the economic interests of individual states. Wealthy countries gained easy access to foreign markets, which increased their exports and investments. Economic immigrants joined the rapidly-aging workforce in Western Europe. The less prosperous CEE and Southern countries were meant to catch up in terms of development more rapidly through access to foreign capital and modern technologies.

From a national perspective, convergence has been a partial success. The differences in wealth between the EU countries are decreasing, mainly as a result of the rapid growth in Central and Eastern Europe. The harmonisation of EU countries' legal systems has created a common European market that facilitates the development of entrepreneurship. The single European currency stabilises trade between the EU countries and reduces the cost of servicing eurozone countries' debt.

From a national perspective, the main challenge is the lack of structural convergence. Too far-reaching specialisation may limit poorer EU countries' development potential – if they do not start developing technologically-advanced branches of the economy. It also exposes them to a greater risk of economic shocks, such as the collapse of tourism in the Southern countries due to the COVID-19 pandemic (UN WTO, 2022) or the downtime in the Czech automotive industry – which is accounts for around a quarter of the country's industrial production – caused by the shortage of semiconductors (Reuters, 2021).

↘ Box 4. What is a monetary union and an optimal currency area?

A monetary (currency) union is a system in which states give up their national currency and replace it with a single one. The Treaty of Maastricht provided for the introduction of a single currency for the EU – the euro. The European currency was introduced in 1999 and is currently used in 19 out of 27 EU member states.

Benefits	Threats
1. Easier foreign trade through the elimination of exchange rate fluctuations. 2. No currency-exchange costs. 3. Less risk of currency speculation. 4. Easier for companies to expand to foreign markets. 5. A fixed exchange rate means less volatility in the prices of imported goods and inflation. 6. Lower cost of servicing debt.	1. Inability to conduct an independent monetary policy. 2. This makes it impossible to support the economy during a recession and to control inflation using interest rates when the business climate is good. 3. Specialisation of EU regions may increase the risk of regional shocks. 4. In this situation, the European Central Bank has to choose between the regions' economic interests.

An optimal currency area is a group of countries for which the benefits of introducing the single currency outweigh the threats. This happens if the countries' economies are interconnected, structurally similar, and workers and capital can move freely between them.

The EU is not an optimal currency area – mainly due to structural differences between its members states' economies, and linguistic and cultural barriers that limit workers' mobility (Karras, 1996; Geza, Vasilescu, 2011; Krugman, 2012). However, from a federalist perspective, this is not an argument against the introduction of the euro, for the following reasons:

1. A monetary union is also an integration tool; that is, it aims to increase economies' convergence.
2. As European integration progresses, language barriers will disappear and worker mobility between EU countries will increase.
3. A common fiscal policy and a larger EU budget will make it possible to reduce potential shocks resulting from regional specialisation.

The contemporary federalist perspective

The Maastricht Treaty was the first step towards the creation of a European Federation. Contemporary federalists see European integration as a gradual process towards the creation of a common European state. The emphasis is primarily on harmonising law and economic rules – in other words, institutional convergence. Equalising the standard of living between countries is slightly less important. Member states' specialisation does not constitute an obstacle to federalisation, so – from this perspective – the lack of structural convergence is not a problem.

From a federalist perspective, the greatest success has been the deepening of European integration. The EU has achieved the main goal of the Maastricht Treaty – the introduction of a single currency – and integration is being further deepened by the banking and capital union. As a result, a common European market has been created, which makes it easier to equalise levels of wealth between member states (i.e. real convergence) and increase regions' specialisation (i.e. the opposite of structural convergence), further strengthened by free migration; for example, from CEE to the EU Centre. Greater specialisation improves the efficiency of the European economy as a whole.

For the federation, the pace of integration is a problem. The EU's transition from a community of states to a federation is a slow process. From this perspective, the Southern countries' poor performance is a temporary adjustment; they should return to the path of growth in coming decades. However, countering these difficulties requires fiscal policy at the EU level and greater worker mobility between member states. The federalist perspective therefore requires the systematic deepening of European integration – both political and economic.

The EU has begun to develop a common fiscal policy. The creation of efficient European federation requires fiscal policy at the EU level. This will be the next stage of integration – the EU recovery plan has begun the issuance of common European debt (European Commission, 2021) and the introduction of European taxes is increasingly discussed (Politico, 2021). A common fiscal policy is meant to make it possible to support regions with worse economic results, such as the EU South, without burdening them with an increase in debt.

The challenge for the federation will be to increase worker mobility. The success of the European federation depends on high worker mobility in the EU. It will improve the European economy's efficiency through specialisation and increase the benefits of the single currency. However, workers in the EU are currently not mobile – the unemployment rate in recession-hit Spain and Greece was twice as high as in the eurozone and as much as five times as high as in Germany. Linguistic and cultural barriers will limit migration within the eurozone for generations, which will hamper further economic integration and federalisation.

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The Polish Economic Institute

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