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Accompanying the document

Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions

on the 9th Cohesion Report

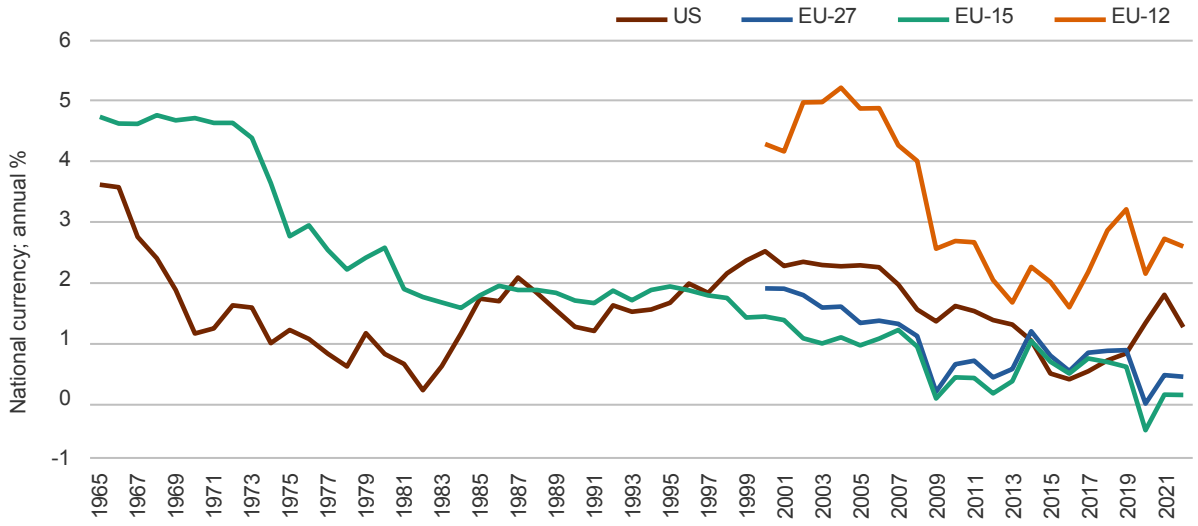
{COM(2024) 149 final}

identify pairs of EU regions that exhibit similar growth dynamics over the period 1980–2018[16]. In broad terms, their results suggest that geogra- phy matters. In the EU, there is consistent evidence of convergence between regions that share similar geographical features, such as being metropolitan, coastal or mountainous (club convergence). Re- sults for urban and rural areas, however, are mixed as no common pattern is identifiable[17]. As regards economic structure, there is consistent evidence of similarity in sectoral specialisation having a sizea- ble negative effect on club convergence dynamics.

1 Arvanitopoulos and Lazarou (2023).

2 As analysed in more detail in Chapter 3, remote rural regions are falling behind compared with other type of regions.

Figure 1.10 Productivity slowdown in the US, EU-27, EU-15 and EU-12, 1965–2021



Note: Five-year averages of the growth rate of real GDP per worker.
Source: Ameco.

Regions with similar sectoral specialisation tend to diverge, while the opposite is the case for regions with different specialisations[18]. This result is con- sistent with the growing interdependence of econ- omies across the world having a differentiated regional impact within the Single Market[19]. While some regions have been well positioned to take advantage of the new opportunities offered, others have suffered shrinking market shares, job losses, and stagnating wages (see also Section 4 on the development traps).

2.1 Productivity and economic cohesion in the EU

Productivity dynamics play a prominent role in de- termining economic, social and territorial cohesion patterns across regions. Productivity is a major determinant of economic growth and prosperity. As countries and regions become more produc- tive, they generate higher income, which can be redistributed both spatially and between people to improve infrastructure, education, healthcare and other public and social services. Higher produc- tivity, indeed, is positively correlated with higher educational attainment and increased life expec- tancy[20] and can contribute to social cohesion and equity. While uneven productivity growth can lead to increased territorial inequality[21], there is also evidence of it having positive spatial spill-overs. Indeed, the latest regional competitiveness index (RCI) shows strong performance of large metropol- itan areas but also an improvement of less devel- oped regions (see Section 5).

Productivity growth has consistently slowed down in all advanced economies since the late 1960s, raising concerns about the possibility of having entered a period of secular stagnation[22]. Despite tumultuous events and wars, industrialised econ- omies witnessed a significant increase in out- put and productivity during the first half of the

3 This result is also found by Cavallaro and Villani (2021).

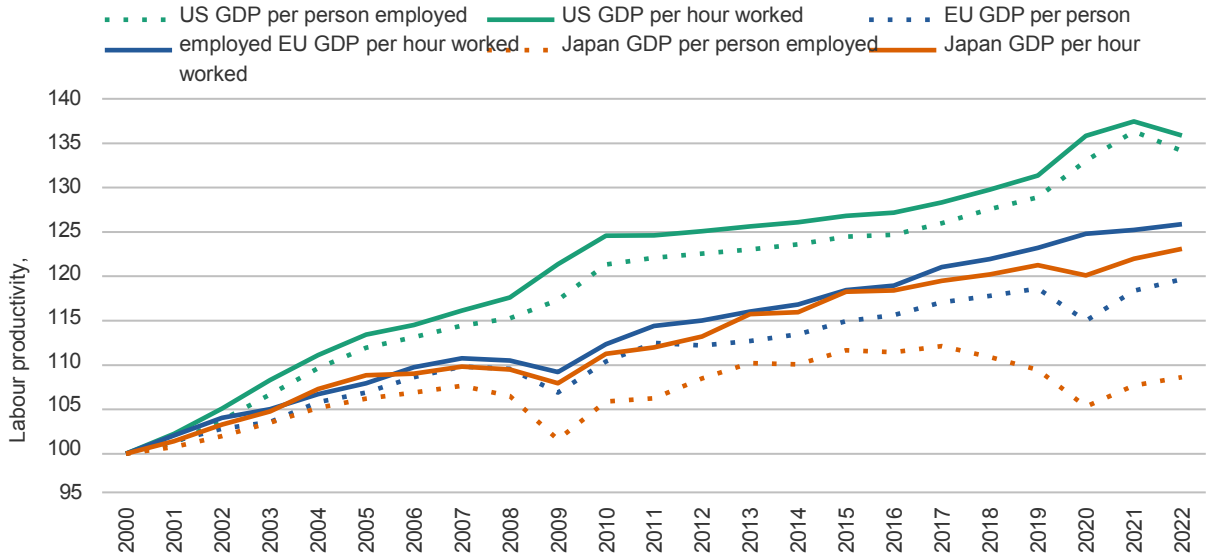
4 European Commission (2017).

5 Barro (2001); Cervellati and Sunde (2013).

6 Krugman (1991).

7 Gordon (2015) has made a strong case for the 'secular stagnation' hypothesis. This view, however, is countered by those who point to the opportunities that may lie ahead in terms of new disruptive technologies such as artificial intelligence, robotics and ever increasing comput- ing capacity. According to this more optimistic view, these innovations may be able to reverse the long-run slowdown in productivity growth by extending the technological frontier (Brynjolfsson and McAfee, 2014).

Figure 1.11 Labour productivity in the EU, US and Japan, 2000–2022 (2000=100)



Note: Index of real GDP per person employed and of real GDP per hour worked. Source: Ameco.

20th century[23]. The post-World War II period saw an even more rapid acceleration, marked by an- nual growth rates of 3 % to 5 %[24]. However, since the late 1960s, productivity growth has steadily declined, and today the norm is an annual growth rate of around 1 % or below (Figure 1.10). In a context of declining productivity growth, the gap between the EU and the US also widened in the period 1995–2005[25], as well as in the immediate aftermath of the 2009 recession[26] (Figure 1.11).

The general downward trend in productivity growth conceals significant differences across the EU. The largest decline in productivity growth in the EU-15, measured in terms of GDP per person employed, seems to have taken place around the turn of the century. Over the period 1980–2000, it averaged around 1.5 % a year, but fell to 0.5 % a year in the period 2001–2021. In the 1980s, less devel- oped regions had higher productivity growth, on average, than other types of regions, whereas since the 1990s more developed regions have had the higher growth.

The picture is more positive for the EU-27. Over the 2001–2021 period, the increase in GDP per head in the wider EU was largely associated with growth of both productivity and employment (Table 1.1 and Map 1.3)[27]. Many less developed regions, especially those in the eastern Member States, had above-average productivity and em- ployment growth, offset only slightly by a decline in the working-age population as a share of the to- tal, so that growth of GDP per head was above the EU average[28]. The overall picture, however, masks the fact that in a number of regions, especially in the south, GDP per head fell over this period, with productivity declining or increasing very little.

8 Maddison (2007).

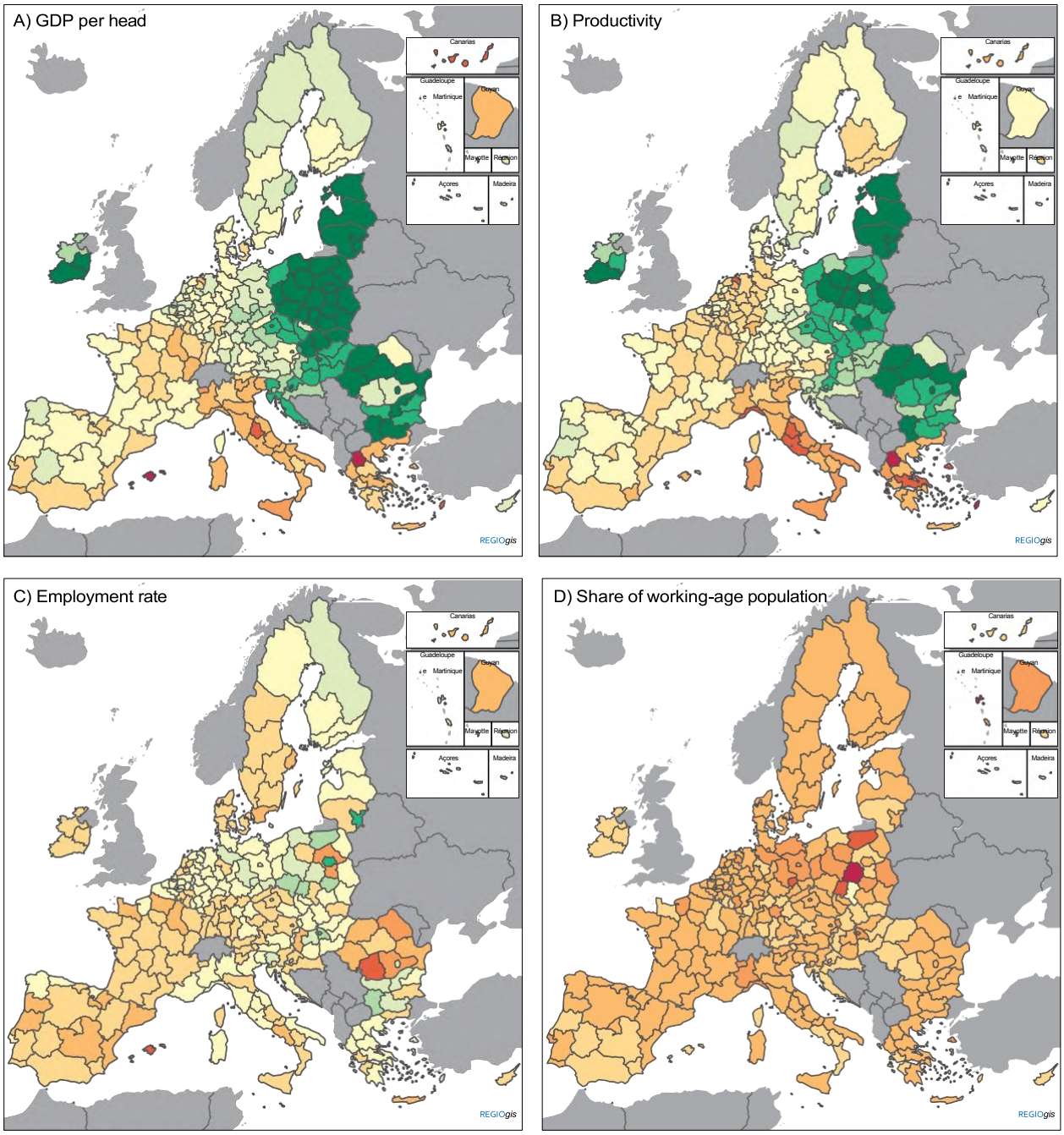
9 Eichengreen (2007).

10 Gordon and Sayed (2019).

11 After a prolonged period of modest productivity growth after the industrial crisis of the 1970s, the US exhibited a substantial increase, surpassing both the EU and Japan. Moreover, in the two years following the 2009 recession, the US experienced a surge in output per hour worked, primarily attributable to a sharper decline in employment offset by a stronger rebound in hours worked per employee (Figure 1.11). However, after the global recession, US productivity growth has closely mirrored that of the EU.

12 Note that productivity growth on this measure does not reflect the reduction in average hours worked per person employed over the period.

13 The working-age population (defined as those aged 20–64) as a share of the total decreased slightly in the EU and in most regions over this period.



Map 1.3 Growth of GDP per head, productivity, employment rate and working-age population, 2001–2021

Average percentage change on the preceding year

- <= -1.0
- -1.0 – -0.75
- -0.75 – -0.5
- -0.5 – 0.0
- 0.0 – 0.5
- 0.5 – 1.0
- 1.0 – 1.5
- 1.5 – 2.0
- 2.0 – 3.0
- > 3.0
- no data

Employment rate defined as workplace-based employment
divided by population aged 20–64.
Source: DG REGIO based on JRC-ARDECO and

2.2 Cohesion shocks and cycles in the 2000s

In terms of the dynamics of economic convergence and productivity examined above, the past two decades can be divided into four sub-periods: the 'convergence years' of 2000–2008, the 'low employment' period of 2009–2013, the 'delayed recovery' of 2014–2019 and the 'quick rebound' of 2020–2021 (Map 1.4).

Between 2001 and 2008, nearly all regions experienced growth in GDP per head, with average rates of over 5 % a year in many eastern regions[29]. Productivity growth in the transition and more de- veloped regions was, however, already below 1 % a year. The five years following the 2009 recession brought a major blow to convergence, signalling the beginning of a phase of divergence for less developed and transition regions in southern Europe and some in eastern Europe, especially those in countries affected by financial and banking insta- bility. Importantly, the 2009–2013 period in south- ern Europe was the only one in which the decline of GDP per head was accompanied by mass unem- ployment, rather than slower productivity growth. In fact, productivity growth in southern Europe was, on average, higher in this recessionary peri- od than in the relatively expansionary 2000–2008 one. The 2014–2019 period finally brought recov- ery from the Great Recession. Almost all regions experienced growth in GDP per head, though at a lower rate than in the pre-recession period. As a result, 10 years after the 2009 recession, over a quarter of the EU population (100+ million) still lived in regions where real GDP per head had not returned to the pre-recession level (see Box 1.3 for further details).

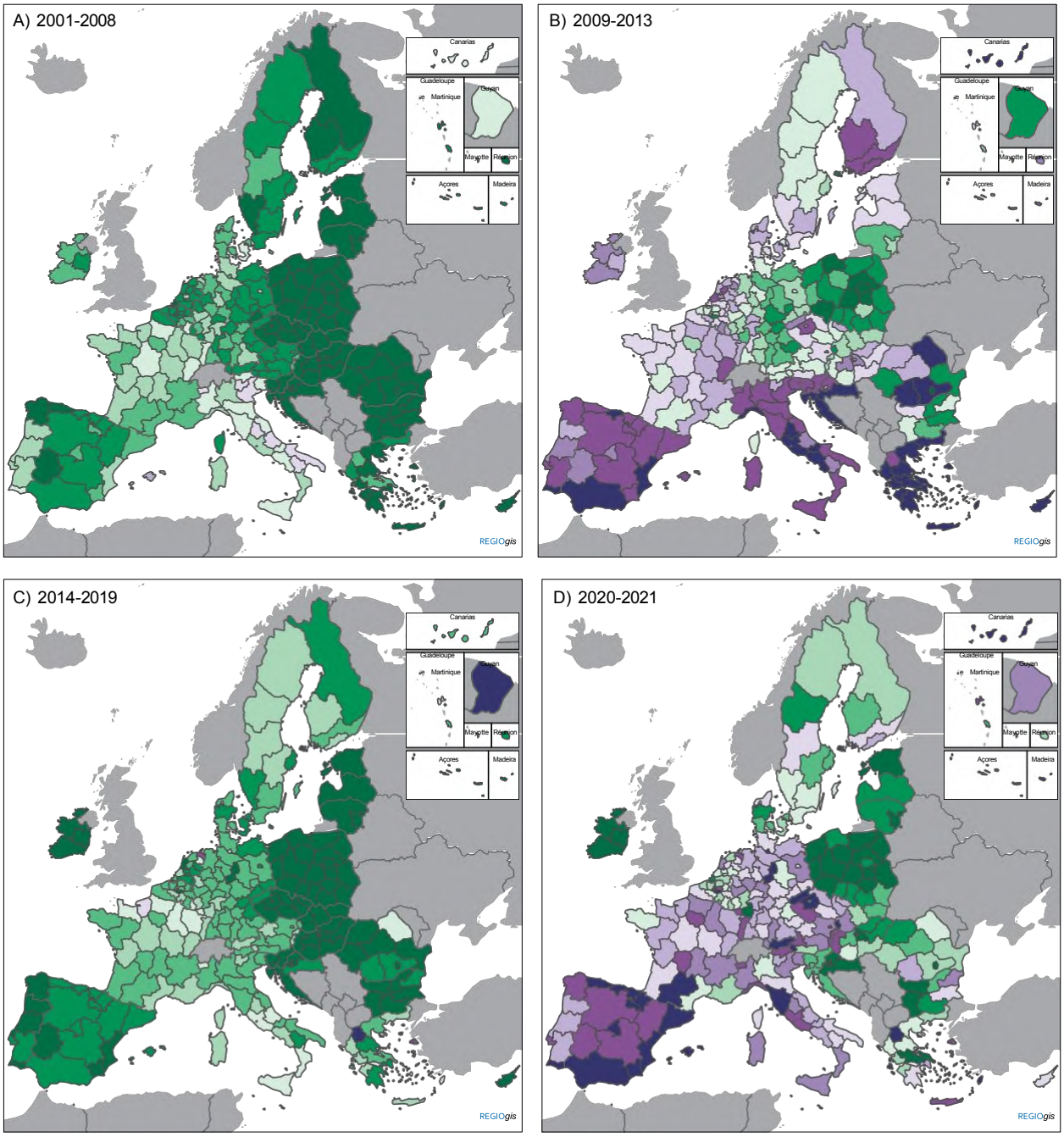
The COVID-19 pandemic in 2020 brought anoth- er major recession in all regions. Although it is too early to assess its structural impact and that of the subsequent Russian war of aggression in Ukraine on economic cohesion, economic recovery in 2021 was quite broad-based from a regional perspective. As shown in the next section, both less developed and transition regions have rebounded much more strongly than after the 2009 recession.

High productivity growth in less developed east- ern regions partly stems from structural changes in their economies and investment dynamics (Ta- ble 1.2). The latter have differed greatly across the EU. In eastern Europe, investment increased at an average rate of 3.5 % a year over the period 2001–2021 – over 3 times the EU average (1.1 %) and over twice that in more developed regions (1.4 %). Eastern regions have also had a larger share of investment in industry, with both indus- try and services generating value-added as employment in agriculture declined[30]. Investment in more developed and transition regions is instead mainly led by the financial sector, which was re- sponsible for 40 % of the total over the five years 2016–2020. Transition and more developed re- gions are also more comparable in terms of the division of employment, with the largest share in services.

Southern Europe, however, stands out in terms of investment dynamics. Investment declined by
0.5 % every year between 2001 and 2021, stag- nating or declining in all sectors except agriculture. Employment in industry declined in all three types of regions, though much less so than in agricul- ture. By contrast, employment and gross value added (GVA) in services increased in all regional groups over the period, particularly in financial ac- tivities, and especially so in less developed regions. (There are large differences in economic structural dynamics at a more detailed territorial level – see Chapter 3.)

14 Some less developed regions, however, did not share this benign economic cycle and actually saw income per capita declining even during these relatively buoyant years (e.g. south of Italy).

15 Regions at different levels of development tend to have different economic structures. Employment in agriculture fell between 2001 and 2020 in the EU, especially in the less developed regions, reflecting their economic restructuring and agricultural modernisation. Nonetheless, less developed regions still tend to have relatively large shares of employment in agriculture. GVA per person employed in agriculture is also lower than in more developed regions, implying untapped potential for productivity increases.



Map 1.4 Growth of GDP per head in real terms 2001–2021, main sub-periods

Average percentage change on the preceding year

< -2.5	0.5 – 1.0
-2.5 – -1.5	1.0 – 1.5
-1.5 – -1.0	1.5 – 2.5
-1.0 – -0.5	>= 2.5
-0.5 – 0.0	no data
0.0 – 0.5	

Source: DG REGIO based on JRC-

Table 1.1 Decomposition of annual average change in GDP per head, 2001-2021 and sub-periods

	GDP per head	Productivity	Employment	Share of working-age population
Average percentage change on the preceding year				
200–2021				
EU-27	1.06	0.74	0.51	-0.19
Less developed regions	1.55	1.32	0.31	-0.08
Transition regions	0.77	0.50	0.53	-0.25
More developed regions	0.88	0.55	0.56	-0.23
2001–2008				
EU-27	1.68	1.08	0.44	0.16
Less developed regions	2.76	2.21	0.00	0.54
Transition regions	1.56	0.89	0.44	0.22
More developed regions	1.34	0.78	0.67	-0.12
2009–2013				
EU-27	-0.41	0.44	-0.53	-0.31
Less developed regions	-1.17	0.39	-1.37	-0.19
Transition regions	-0.69	0.29	-0.57	-0.41
More developed regions	-0.31	0.17	-0.14	-.034
2014–2019				
EU-27	1.91	0.87	1.49	-0.46
Less developed regions	2.69	1.42	1.88	-0.61
Transition regions	1.46	0.58	1.52	-0.63
More developed regions	1.70	0.77	1.19	-0.26
2020–2021				
EU-27	Le	ss	d	eveloped regions Tr an sit ion

	GDP per head	Productivity	Employment	Share of working-age population
Average percentage change on the preceding year				
200–2021				
EU-27	1.06	0.7	0.51	-0.19
Easter	3.46	4	0.65	-0.15
	0.11	2.9		
	0.97	4		
Southern			0.36	-0.17
North- western			0.51	-0.23
2001–2008				
EU-27	1.68	1.08	0.44	0.16
Eastern	5.10	4.30	0.15	0.61
Southern	0.92	-0.01	0.88	0.05
North- western	1.41	1.08	0.34	-0.01
2009–2013				
EU-27	-0.41	0.44	-0.53	-0.31
Eastern	0.68	1.51	-0.48	-0.34
Southern	-2.16	0.14	-2.02	-0.28
North- western	0.07	0.12	0.27	-0.31
2014–2019				
EU-27	1.91	0.87	1.49	-0.46
Eastern	4.23	2.92	2.09	-0.79
Southern	1.62	0.07	1.84	-0.29
North- western	1.49	0.87	1.00	-0.38
2020–2021				

regions	-0.30	-0.28	0.47	-0.48	EU-27	-0.30	-0.28	0.47	-0.48
More developed regions	0.23	-0.14	1.05	-0.68	Eastern	1.70	1.20	1.23	-0.73
	-0.71	-0.79	0.70	-0.62	Southern	-1.90	-1.41	-0.06	-0.44
	-0.41	-0.12	0.02	-0.30	North-western	-0.15	-0.13	0.37	-0.39

Note: Growth in GDP per head can be broken down into three main components: changes in productivity (GDP per person employed), changes in the employment rate (employment relative to population of working age) and changes in the share of the working-age population in the total. Accordingly, the following identity holds:

$$\frac{\text{GDP}}{\text{Total population}} = \frac{\text{GDP}}{\text{Employment}} \times \frac{\text{Employment}}{\text{Working-age population}} \times \frac{\text{Working-age population}}{\text{Total population}}$$

The same identity can be expressed in terms of changes: the change in GDP per head is the sum of the changes in productivity, in the employment rate and in the share of the working-age population.

Green bars indicate positive changes, red bars negative changes. Workplace-based employment is divided by the population aged 20–64. Less developed regions exclude Mayotte.

Source: Eurostat [nama_10r_3empers], ARDECO, Cambridge Econometrics, AMECO, DG REGIO calculations.

Table 1.2 Investment (GFCF) in the EU at the NUTS 2 level, 2001–2021, by economic activity (NACE[1]), category of development and geographical region

Average shares in 2016–2020 (%)	Less developed	Transition	More developed	Eastern	North-western	Southern	EU-27
A: Agriculture, forestry and fishing	5.9	3.3	1.5	4.4	1.8	3.2	2.4
B-E: Industry (except	27.4	22.1	21.8	28.2	21.2	23.6	22.4
construction) F: Construction	4.3	2.8	2.3	5.1	1.6	4.5	2.6
G-J: Wholesale and retail trade, et al.	20.7	15.6	19.9	24.0	17.5	21.5	19.0
K-N Financial and insurance activities, et	25.6	39.5	41.0	24.8	42.8	33.7	39.0
O-U: Public administration, et al.	16.0	16.8	13.6	13.4	15.1	13.5	14.6
Total	100	100	100	100	100	100	100

Average % change on the preceding year, 2001–2020							
A: Agriculture, forestry and	1.7	-0.1	0.7	3.3	0.2	0.2	0.7
B-E: Industry (except	1.2	0.7	1.4	2.8	1.4	0.0	1.2
F: Construction	0.6	0.1	1.2	5.0	1.0	-1.0	0.8
G-J: Wholesale and retail trade, et al.	1.3	1.0	1.5	2.8	2.0	-0.5	1.4
K-N Financial and insurance activities,	-0.3	0.4	1.4	4.1	1.3	-0.7	1.0
et al. O-U: Public administration, et al.	0.8	0.4	1.4	4.3	1.3	-0.8	1.0
Tota	0.7	0.5	1.4	3.5	1.4	-0.5	1.1

Source: DG REGIO calculations on ARDECO data.

1 Nomenclature statistique des activités économiques (statistical classification of economic activities).