

Monitoring EU convergence

Upward convergence in employment and socioeconomic factors



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Authors: Massimiliano Mascherini and Martina Bisello (Eurofound); Manuela Samek Lodovici, Nicoletta Torchio and Flavia Pesce (Istituto per la Ricerca Sociale, IRS); Annalisa Cristini, Federica Origo and Giulio Bosio (Università degli Studi di Bergamo)

Contributors: Ruben Carrandi Cortina and Serena Drufuca (Istituto per la Ricerca Sociale, IRS); Caterina Sturaro (Università degli Studi di Bergamo)

Research managers: Massimiliano Mascherini and Martina Bisello

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European Foundation for the Improvement of Living and Working Conditions

Telephone: (+353 1) 204 31 00

Email: information@eurofound.europa.eu

Web: www.eurofound.europa.eu

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Country codes

EU28

AT	Austria	FI	Finland	NL	Netherlands
BE	Belgium	FR	France	PL	Poland
BG	Bulgaria	HR	Croatia	PT	Portugal
CY	Cyprus	HU	Hungary	RO	Romania
CZ	Czechia	IE	Ireland	SE	Sweden
DE	Germany	IT	Italy	SI	Slovenia
DK	Denmark	LT	Lithuania	SK	Slovakia
EE	Estonia	LU	Luxembourg	UK	United Kingdom
EL	Greece	LV	Latvia		
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Non-EU countries

CH	Switzerland	NO	Norway
IS	Iceland	RS	Serbia
MK	North Macedonia	TR	Turkey

Executive summary

Introduction

Against the backdrop of rising concern over disparities in the social progress being made by Member States, Eurofound's work programme for the period 2017–2020 includes a commitment to investigating upward convergence in Europe, with the ultimate aim of determining whether and where socioeconomic trends are converging or diverging across countries.

This report is the first thematic output of the research strand entitled 'Monitoring convergence in the European Union'. Using the conceptual and methodological work carried out by Eurofound in 2018, the report investigates upward socioeconomic and employment-related convergence using a set of 21 indicators, most of which are part of the Social Scoreboard of the European Pillar of Social Rights.

The report is organised in three main parts: first, upward convergence is investigated at the European level, with a distinction made between countries that are in the euro zone and those that are not. Next, some selected indicators are investigated at the regional level, and factors influencing convergence are discussed. Finally, the role of two possible policy initiatives – the European unemployment insurance (EUI) scheme and the European minimum wage (EMW) policy – are discussed and assessed in terms of how well they promote convergence.

Policy context

Upward convergence – a trend whereby EU Member States' performance in a given domain or range of domains improves while the gaps between Member States diminish – has always been seen as a political promise on the part of the EU, particularly in the economic and social spheres. Member States, along with their citizens, join the EU with the expectation that various socioeconomic objectives will be reached and that living and working conditions will ultimately improve.

These expectations were largely met until the 2008 economic crisis, when upward convergence stalled or even reversed, with Member States experiencing downward trends and increased disparities in the economic and social domains.

Diverging performances among Member States and increasing inequalities within them threaten the cohesion of the Union and contradict the expectations of Member States and their citizens. This phenomenon thus warrants serious concern: economic divergence undermines the promise of shared economic prosperity

across Europe, while social divergence poses an obstacle to the European integration project's ultimate goal of improving living and working conditions.

In order to address these concerns, economic and social convergence have moved to the fore of policy discourse. The concept of convergence is the thematic backbone of the European Pillar of Social Rights, which was launched in November 2017 and 'designed as a compass for a renewed process of upward convergence towards better working and living conditions in the European Union'.

Key findings

Despite the negative effects of the economic crisis, the analysis reveals that, since the beginning of the 2000s, Member States have converged towards better employment and socioeconomic conditions overall. Furthermore, though downward trends and divergence were recorded for a few indicators, two different patterns of upward convergence can be identified.

For the first group of indicators – which includes the education and gender gaps, as well as the activity rate – the upward convergence trends found were steady and robust over the entire period considered. The improvement in the levels of these indicators and the reduction of disparities among Member States' performances in them were marked, with only a limited number seeing levels and variability fluctuate due to the business cycle. For this group of indicators, upward convergence progressed at a faster rate in the euro zone than in the non-euro zone.

Conversely, for the second group of indicators – which includes labour market participation and exclusion, as well as poverty – upward convergence exhibits a considerable degree of correlation with the business cycle. A cyclical trend can be observed in terms of both averages and variability, suggesting upward convergence in good times (with improvements and lower dispersion) and downward divergence in bad times (with deterioration in levels and higher dispersion). Interestingly, for these indicators, non-euro zone countries converge more quickly than their euro zone counterparts. Given the correlation with the business cycle, these are the indicators in which Member States should become more resilient in order to avoid future asymmetric shocks.

Downward trends are identified in income inequality and in indicators related to employment conditions, particularly in terms of atypical employment and transitions from temporary to permanent work.

Notwithstanding the upward convergence trends identified, it is important to highlight that, for some indicators, disparities in socioeconomic and labour market indicators are generally greater among EU regions than between countries, which see a more pronounced convergence process. Furthermore, analysis of certain population groups reveals that age and education also impact convergence patterns.

Policy pointers

Sustainable upward economic and social convergence is seen as increasingly fundamental to the stability of the single currency and the integration of Member States and regions.

A number of different initiatives have been explored by various European institutions in the hope of enhancing Member States' resilience and capacity for economic and social convergence. This report investigates the possible effects of two such initiatives: a European unemployment insurance (EUI) scheme and a European minimum wage (EMW) policy.

An EUI scheme would promote both macroeconomic risk reduction and convergence in socioeconomic conditions for the unemployed. Such a scheme could help reduce the asymmetric impact of recessionary periods across Member States, as well as diminish the economic and social consequences of unemployment.

However, moral hazard and distributional effects across countries make implementation difficult.

Notwithstanding design complexities, the need for greater coordination of unemployment benefit systems is now recognised – not only for cycle stabilisation, but also to harmonise the treatment of unemployed persons across Europe.

An EMW policy could potentially support greater convergence in disposable incomes and reduce the number of working poor, as well as prevent social dumping. Increased incomes among workers at the lower end of the income distribution could also support access to basic services where needs are still unmet. The main drawbacks of an EMW policy relate to the potential negative effects of minimum wages on youth and low-skilled employment, and on the autonomy of national and social partners in wage determination.

While the implementation of these two policies has the potential to be long and uncertain, continuous monitoring of the convergence of national policies and greater coordination at the EU level would help ensure that economic and social convergence proceeds at the required rate. Particular effort needs to be made to reduce economic and social disparities, not only among countries but also among regions and different population groups.

Introduction

In 2019, Europe entered its sixth year of uninterrupted growth. Income convergence among Member States finally resumed, with higher growth rates recorded in Member States having lower levels of gross domestic product (GDP) per capita. The variability of growth rates across the euro zone¹ is now the smallest recorded in the history of the Economic and Monetary Union (EMU) (European Commission, 2018a).

This economic expansion has led to strong job creation, with employment rates reaching a record high in the EU. In the first quarter of 2019, more than 220 million individuals aged 20–64 were in employment in Europe – 16 million more than during the height of the economic crisis.² Following the recent recovery of the economy in general and the labour market in particular, the unemployment rate of those aged 15–74 has returned to its pre-crisis level, one of the lowest of the last ten years: 6.8% in the last quarter of 2018, almost five percentage points lower than the peak recorded in the first quarter of 2013 (European Commission, 2018b).

In line with this robust recovery, the share of people at risk of poverty or social exclusion (AROPE) has decreased markedly. Since 2014, almost ten million people have emerged from poverty or social exclusion, with five million doing so in 2017 alone. The total overall AROPE rate – which corresponded to 22.5% of the total population (113 million people) in 2017 – is now below pre-crisis levels.

In this context of improving economic performance, increasing employment and declining poverty, Europe has made very good progress in most areas covered by the Social Scoreboard of the European Pillar of Social Rights, which acts as a compass for upward convergence in economic and social dimensions. In fact, 13 out of the 14 headline indicators of the Social Scoreboard recorded, on average, an improvement over the past five years (European Commission, 2018b).

While these numbers are indicative of positive developments for the European economy and labour market, not all Member States and population groups have benefited from these improved conditions. The labour market participation of young people is still below pre-crisis levels, with youth unemployment remaining particularly high in certain Member States. Furthermore, while the economic recovery has favoured income convergence in the EU, significant variations are still recorded in several areas.

For example, unemployment rates remain particularly high in Croatia, Cyprus, Greece, Italy and Spain, while AROPE levels are still very high in Bulgaria and Greece.

Ensuring more balanced economic growth across all Member States, as well as improving living and working conditions across all population groups, is of the utmost importance for the EU. Economic divergence can undermine the promise of shared economic prosperity – a cornerstone of the foundation of the EU. Furthermore, divergence in living and working conditions between Member States and increasing inequalities within Member States could jeopardise the European integration project's ultimate goal of improving social conditions (Eurofound, 2018a).

While Europe is taking action to foster economic and social convergence through comprehensive growth strategies and the creation of the European Pillar of Social Rights, the current economic upswing provides an opportunity to step up reforms aiming to improve the inclusiveness, resilience and fairness of labour markets and social protection systems. In doing so, it is hoped that convergence towards better economic, living and working conditions in the EU can be fostered (European Commission, 2018b).

In this framework, monitoring convergence is crucial if policymakers are to be provided with the knowledge and information necessary to identify the areas most in need of intervention. Ultimately, the undesirable consequences that a lack of convergence would bring could threaten social cohesion and put the entire European project at risk (Demertzis et al, 2019).

Aim and structure of the report

Against the backdrop of increasing concern over divergence in Member States' progress, Eurofound's work programme for the period 2017–2020 established a new strategic area of intervention entitled 'Monitoring convergence in the European Union' (Eurofound, 2016). Its purpose is to monitor convergence among and within Member States across a range of domains encompassing the social dimensions of the EU: employment, working conditions, living conditions and socioeconomic factors. These domains are considered the most relevant in the debate about social convergence in the EU, and are addressed in the European Pillar of Social Rights. Eurofound research

1 The euro zone includes Austria, Belgium, Cyprus, Estonia, Finland, France, Germany, Greece, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Portugal, Slovakia, Slovenia and Spain.

2 Based on data from Eurostat Labour Force Survey, extracted on 13 April 2019.

contributes to the discourse by providing data-driven exercises detailing the recent and historical trends of Member States' upward convergence in the studied domains.

Combined with its various annexes,³ this report is based on the conceptual and methodological framework developed by Eurofound in its earlier report *Upward convergence in the EU: Concepts, measurements and indicators of convergence* (Eurofound, 2018a). It offers a thematic mapping of upward convergence in the employment and socioeconomic domains. Building on the European Pillar of Social Rights and its accompanying Social Scoreboard, the study focuses on 21 indicators relating to employment (participation in, exclusion from and the dynamics of the labour market) and the socioeconomic sphere (including access to services and gender equality).

The report is organised in four main chapters, plus a conclusion.

Chapter 1 contextualises the concept of upward convergence towards better working and living conditions and presents the methodological tools used in this report.

Chapter 2 provides the main results of the descriptive analysis of recent trends in the upward convergence patterns of the 17 selected employment and socioeconomic indicators at Member State level. The analysis is also provided at the EU level, as well as at the euro zone and non-euro zone levels.⁴ Furthermore, differences among sociodemographic groups are investigated. This chapter is complemented by the more detailed results available in the annexes.

Chapter 3 presents the analysis of selected indicators at the regional level, including the investigation of the speed of regional convergence and the role of structural factors in determining it. The analysis examines the catch-up process of poor regions towards richer ones through the relatively faster growth of the former.

Chapter 4 illustrates the debate over the policy options available at EU level to support employment and socioeconomic convergence among Member States. Following an overview of the evolution of EU intervention in the employment and social policy domains, the analysis focuses on two measures currently under discussion: a European unemployment insurance (EUI) scheme and a European minimum wage (EMW) policy.

The main conclusions of the study are summarised in **Chapter 5**.

³ The annexes are available in a separate document on the report's webpage at eurofound.link/ef18042.

⁴ The non-euro zone includes Bulgaria, Croatia, Czechia, Denmark, Hungary, Poland, Romania, Sweden and the United Kingdom (UK).

1 Employment and socioeconomic convergence in the EU

One of the fundamental objectives of the EU is to improve the lives of its citizens by promoting convergence towards better working and living conditions (European Commission, 2016a).

The term ‘convergence’ was explicitly used for the first time in EU official documents in the Maastricht Treaty (1992) with respect to the monetary and fiscal indicators required to join the Economic and Monetary Union (EMU). However, for a full history of the social dimension of convergence in the EU, one needs to go back to the very origins of the European project (Eurofound, 2017, 2018a). The Schuman Declaration of 9 May 1950 not only outlined how the production of, and trade in coal and steel should be organised, but also highlighted the need for ‘the equalization and improvement of the living conditions of workers in these industries’.

Furthermore, while the founding fathers of the European project were convinced that ‘social’ convergence would arise spontaneously through ‘economic’ convergence (Vandenbroucke, 2017a), in 1957 the founding Treaty of Rome established the European Social Fund whereby Member States ‘agreed upon the necessity to promote improvement of living and working conditions so as to permit equalization of such conditions in an upward direction’ (Article 117 EEC Treaty). The treaty also includes provisions on the right to free movement of workers, the elimination of discrimination in employment and remuneration based on nationality, and other provisions on working conditions, including equal pay and equal work regardless of gender (Articles 48 and 119).

Importance of convergence

Ensuring ‘upward convergence’ in the economic and social domains is extremely important for the EU for several reasons. Upward convergence is fundamental to sustaining the cohesion and legitimacy of the Union, with the concept of convergence having always been a political promise of the EU; the euro was, rightly or wrongly, seen as a way to accelerate this trend, and failing to deliver on this will continue to drive political discontent (Demertzis et al, 2019). It has been argued that economic divergence undermines the promise of shared economic prosperity, which was central to the creation of the EU in the first place, while social divergence between Member States and increasing inequalities within Member States undermine social cohesion and the EU’s ultimate goal of improving living and working conditions.

In fact, there is concern that divergence could lead to an erosion of what is often referred to as the European model of the welfare state: an economic system where government intervention assures high levels of social protection and limited inequality. Whether or not convergence is achieved may also have an impact on the trust placed in European and national political actors and institutions, as well as affecting the political support for maintaining or deepening economic and political integration across the EU (Calmfors et al, 2008).

Member States and their citizens are right to expect the EU to help them to reach various economic and social objectives, and to attain improvements to their living and working conditions in the hope of closing the gap between the richest and poorest countries. If this does not happen and growth is unevenly distributed among countries, with a small number of countries doing well out of the single market and the EMU while others struggle, both socioeconomic outcomes and support for the EU project will deteriorate as EU membership ceases to be seen as a win–win game. If the single market is seen as preventing low-income countries from catching up and as responsible for slowing down the growth of all Member States, overt or covert efforts will be made to undermine its functional capacity (Andor, 2017). Furthermore, low and/or unevenly distributed growth would make it more difficult to keep public debt sustainable, which, in a currency area of sovereign states, would be challenging to manage. It has also been argued that a lack of convergence would make countries more receptive to the political promises of third countries, thereby affecting the EU’s ability to speak with a single voice on global economic, political and geostrategic matters.

For all these reasons, the EU should embrace the logic of upward convergence and seek to embed the social component of such an approach at the very core of its policy action.

Renewed debate on convergence

From as far back as the 1960s to the end of the 2000s, Member States have made substantial progress regarding convergence, particularly in the wake of progressive EU enlargement processes. In this respect, a crucial role has been played by both the EU policies aimed at favouring convergence – such as the EU’s Cohesion Fund (European Commission, 2013) – and the adoption of the euro (Estrada et al, 2013). According to the World Bank, the EU has become the modern world’s

greatest ‘convergence machine’ – given its capacity to propel poorer, and newer, Member States towards becoming high-income economies, as well as its ability to provide its citizens with some of the highest living standards and lowest income inequality in the world (Gill and Raiser, 2012; Ridao-Cano and Bodewig, 2018).

However, that machine stalled with the outbreak of the 2008 economic crisis, when the degree of socioeconomic heterogeneity among Member States increased. Diverging trends among Member States were seen not only in the economic and financial spheres but also in the social domain, including poverty and labour market conditions (Bongardt et al, 2013; Eurofound, 2018a). The significant diverging social trends recorded within the euro zone highlighted that economic convergence is not sufficient to reduce social inequalities; rather, ‘a stronger focus on employment and social performance is particularly important to increase resilience and deepen the Economic and Monetary Union’ (European Commission, 2017a, 2017b, 2018b).

In light of these trends, promoting convergence returned to the fore of the European agenda, with a greater emphasis on social convergence and its link with the economic domain (Eurofound, 2018a). The renewed debate around convergence began in 2012 with the so-called *Four Presidents’ report*, which discussed economic, as well as social and structural, imbalances. The report recalls that ‘in an economic union, national policies should be oriented towards strong and sustainable economic growth and employment while promoting social cohesion’ (Van Rompuy et al, 2012).

In 2015, the so-called *Five Presidents’ report* highlighted for the first time the need for convergence in the economic and social dimensions of both the EU and the EMU as part of the same agenda. For instance, the report recommends the establishment of a national body in charge of tracking performance and policies in the field of competitiveness in order to prevent economic divergence. It also emphasises that labour markets and welfare systems must function properly and fairly if the EMU is to succeed. Since unemployment – and particularly long-term unemployment – fuels inequality and social exclusion, efficient labour markets that are able to absorb shocks are essential in driving the smooth functioning of the EMU and in building more inclusive societies (Juncker et al, 2015).

The need ‘to complete the Economic and Monetary Union and strengthen the convergence of economic and social performances’ was subsequently highlighted by the *White paper on the future of Europe: Reflections and scenarios for the EU27 by 2025* (European Commission, 2017c). This need is further bolstered by a series of reflection papers, (European Commission, 2017f;

European Commission, 2017j), reiterating that economic and social convergence need to be fully aligned and geared towards higher standards of living and social conditions.

European Pillar of Social Rights and the Social Scoreboard

The concept of convergence is one of the backbones of the European Pillar of Social Rights, launched in November 2017, which was ‘designed as a compass for a renewed process of upward convergence towards better working and living conditions in the European Union’ (European Commission, 2018d). Its aim is thus to promote social protection as a social investment. The pillar represents the latest step towards guaranteeing economic and social convergence in the EU, and it aims to be one of the Union’s major social advances of the last decade.

The pillar offers a reflection of how the changing nature of work is affecting EU countries differently. Growing trends in job outsourcing, automation in production and price competition from large emerging countries, together with demographic changes brought about by increasing migration flows and ageing populations, all play a significant role. These global trends have already manifested their potential in increasing productivity; however, they also have the capacity to widen disparities both between and within Member States.

Twenty principles are enshrined in the pillar in the form of rights, with the aim of ensuring, and increasing the resilience of, upward convergence in terms of sustainable economic and social performance between Member States. The goal of the pillar is not to harmonise welfare systems but rather to improve and make them ready for the new challenges faced by the EU and its Member States.

The pillar builds on principles and rights that had previously been established at different times, in different ways and in different forms, aiming to make them more visible and explicit for citizens and actors at European, national, regional and local levels. These principles are divided into the following three categories.

- **Equal opportunities and access to the labour market:** These include education, training, lifelong learning, gender equality, non-discrimination and active support in finding employment.
- **Dynamic labour markets and fair working conditions:** These include secure and adaptable employment, wages, information about employment conditions and protection in cases of dismissal, social dialogue and involvement of workers, work–life balance, and occupational health and safety.

- Public support/social protection and inclusion:**
 These include childcare and support for children, social protection, unemployment benefits, minimum income, old-age income and pensions, healthcare, inclusion of people with disabilities, long-term care, housing and assistance for the homeless, and access to essential services.

The European Pillar of Social Rights follows the ideas introduced in the 2013 Social Investment Package – which acted as a precursor to a revised focus on social investment, human capital and equal opportunities – and is often said to signal an important paradigm shift (Vandenbroucke, 2017b). In the pillar, economic and social performances are now seen as interdependent – two sides of the same coin – as opposed to the more traditional belief that economic performance is a precondition for social development. With this underlying philosophy at the root of the pillar, social policies are seen as an investment in citizens: a way to generate returns through both social inclusion and economic growth.

In order to monitor the performance of Member States, the pillar includes an online Social Scoreboard. The 14 headline indicators and additional 28 indicators featured on this scoreboard (see Table 1) are used to generate data and analyses of Member States' situations in the three categories detailed above (European Commission, 2017b).

The Social Scoreboard is a central tool for monitoring both social and employment-related performance and convergence towards better living and working conditions. The headline indicators are analysed using the methodology agreed by the Employment Committee and the Social Protection Committee and the findings are presented in the *Joint employment report* (European Commission, 2018b). The Social Scoreboard is intended to feed into the annual European Semester process of economic policy coordination, generating input for country-specific recommendations.

Monitoring upward convergence towards better living and working conditions

While the aim of the European Pillar of Social Rights is to act as a compass towards upward convergence in living and working conditions, it must be emphasised that the investigation of upward convergence in social indicators is still very recent and, to a certain extent, underdeveloped.

In both academic and policy research, convergence is usually defined mainly in economic terms, with the investigation of convergence across economic units remaining a pertinent focus across the literature. Economists and econometricians are interested in knowing whether rich countries are set to remain rich, or whether poor countries will catch up and thus converge, becoming rich themselves (Sala-i-Martin, 1996). While interest in convergence can be traced back many decades, the lack of available data meant that the first academic studies on convergence were not published until the end of the 1980s, when the convergence debate finally captured the attention of the academic community and policymakers.

In this context, scholars following the neoclassical growth theory – such as Solow (1956) – argued that any differentials in investment rates and technical progress between two economies would also imply a certain pattern of convergence between the two, with a negative correlation occurring between the rates of economic growth experienced within a group of countries and their initial levels of economic development. Such a concept implies that poorer countries have the potential to grow faster than richer countries, meaning economic convergence can be achieved (Kuenzel and Székely, 2019).

While the limitation of this approach was highlighted at a later stage in the literature (North, 1990; Romer 1990; Aghion and Howitt 1992; Lucas 1998, Kejak et al, 2004),

Table 1: Headline indicators of the Social Scoreboard

Equal opportunities and access to the labour market	Dynamic labour markets and fair working conditions	Public support/social protection and inclusion
Early leavers from education and training (% of population aged 18–24)	Employment rate (% of population aged 20–64)	Impact of social transfers (other than pensions) on poverty reduction
Gender employment gap	Unemployment rate (% of active population aged 15–74)	Children aged under three years in formal childcare
Income inequality measured by the quintile share ratio (S80/S20)	Long-term unemployment rate (% of active population aged 15–74)	Self-reported unmet need for medical care (% of total population)
People at risk of poverty or social exclusion (AROPE) (% of total population)	Real unadjusted gross disposable income of households (index 2008=100)	Individuals' level of digital skills
Young people neither in employment nor in education or training (NEET) rate (% of population aged 15–24)	Net earnings of a single full-time worker without children earning an average wage (purchasing power standard – PPS)	

Note: Based on European Commission 2018b.

the prominent economic interest in convergence research is also clearly reflected in the number of articles and papers produced over the last 50 years. According to Scopus, the largest abstract and citation database of peer-reviewed literature in the world, of the approximately 1,600 articles investigating or discussing economic convergence, only 56 focus on social convergence, that is, mainly convergence in employment and unemployment (Cuadrado-Roura, 2001; Bongardt et al, 2013). Only 15 of those explore upward convergence. The number of publications on convergence shows that, while the study of economic convergence is well grounded in the literature and based on strong theories, studies on social convergence and on upward convergence are much more recent and data-driven and often subscribe to varying definitions of the phenomena under investigation.

Eurofound approach to upward convergence

Eurofound (2018a) provided the first formal mathematical definition of upward convergence. In its pioneering and data-driven work, Eurofound defines upward convergence as the condition realised when a Member State's performance improves to the point that it draws closer to an ideal policy target while at the same time narrowing the gap between itself and other countries. Upward convergence, or moving closer together in an upward trajectory, is therefore the union of two concepts: an improvement in performance and convergence itself, that is to say the reduction of disparities. As such, measuring upward convergence inherently involves the measurement of these two concepts.

The concept of performance improvement is ultimately related to a policy target: in other words, the desirable orientation of the indicator towards, for example, better living and working conditions. This implies a normative interpretation of the 'improvement' of an indicator, which can technically occur if the indicator's level increases or decreases. For example, in the case of employment rates, upward convergence is observed when the indicator increases and disparities among countries decline, while for unemployment rates, upward convergence is observed when the indicator falls and disparities among countries decrease. As such, the concept of upward convergence is a normative concept strictly related to the policy target.

As evidenced by Eurofound in 2018, average levels may hide patterns in individual countries, implying that the investigation of upward convergence should also consider the situation in all countries. Indeed, the improvement of an indicator at the EU level does not necessarily imply that levels are improving for all the Member States. In order to take account of these aspects, Eurofound distinguishes between two types of upward convergence.

- Upward convergence occurs if the EU as a whole records an improvement in its performance (towards the policy target), while reducing its disparities. Here, not every Member State (or region) needs to show an improvement.
- Strict upward convergence occurs if all countries (and regions) improve their performance (towards the policy target) while reducing the disparities between them.

In addition to these two cases, and following the same logic, Eurofound (2018a) defines three other possible situations: upward divergence, downward divergence and downward convergence.

Moving from the assumption that a country with a weaker performance in social variables, and especially employment, is more likely to grow faster than a country with a stronger one, Eurofound adopts the following three statistical measures to monitor upward convergence towards better working and living conditions.

- **Beta-convergence** refers to the empirical definition of convergence postulated by growth models and is used to measure whether countries starting from initially low levels of GDP per capita (or any other employment and socioeconomic indicator) grow faster than richer countries. Beyond the purpose of testing this classical hypothesis of income convergence, this definition of convergence is adapted to other variables of interest to assess whether worse-performing countries or regions catch up with better-performing ones (see, for instance, Signorelli (2005) for an analysis of convergence of employment rates). Technically, to calculate the unconditional beta-convergence, the following regression should be estimated:

$$\ln(\Delta y_{i,t}) = \alpha + \beta \ln(y_{i,t-1}) + \varepsilon_{i,t}$$

Here, $y_{i,t}$ is the level of indicator y in country i at time t ; $\Delta y_{i,t}$ is the growth rate of indicator y in country i at time t ; α and β are the parameters to be estimated; and $\varepsilon_{i,t}$ is the error term. This equation analyses the relationship between the growth of an indicator over a certain period of time and its initial value. Beta-convergence exists if the relationship is statistically significant and negative; as such, countries in which the initial level is higher see a slower pace of growth. The magnitude of the parameter β gives an indication of the speed of the convergence process.

- Sigma-convergence** refers to a reduction in disparities among countries or regions over time and is measured by the evolution of the statistical measures of dispersion or inequalities (for example, standard deviation, the coefficient of variation and the Theil index). The standard deviation is a measure of the dispersion of a set of data values. In the present case, a low standard deviation in an indicator signals that the values recorded by Member States are close to the EU mean, while a high standard deviation indicates that they are spread out over a wider range. The coefficient of variation is a standardised measure of dispersion. It is defined as the ratio of the standard deviation to the mean and is often expressed as a percentage. The Theil index is used in this case as a measure of regional inequality, which can be broken down into two components: one captures the extent of disparities between regions within the Member States, and the other captures the extent of the disparities among them.
- Delta-convergence** was coined by Heichel et al (2005) to describe the analysis of countries' distance from an exemplary model, for example when defining the best performer. Delta-convergence is measured through the sum of the distances between the top performers.

$$\delta_t = \sum_{i=1}^N (\text{MAX}(x_{i,t}) - x_{i,t})$$

The minimisation of distance from the frontrunner over time implies convergence. In particular, if the sum of the distances decreases over time, delta-convergence can be identified, while an increase in the sum of the distances suggests that countries are diverging. Delta-convergence is a measure of how countries, or other units, are becoming similar to the top performer. While the presence of outliers can skew the data, it is a good quantitative measure of whether convergence towards a certain policy target is in fact occurring.

In this report, Eurofound's definition of upward convergence is used in the descriptive analysis of Chapter 3, while Chapter 4 focuses on beta-convergence to estimate the speed of convergence and to analyse the role of structural factors and policies in affecting it. In addition, graphical representations of unconditional beta-convergence and sigma-convergence are available for all the indicators in the annexes.

Summary

The concept of economic and social convergence has been central to the European project since its creation. However, for decades, convergence was perceived as relating solely to the economic domain, and it came up almost exclusively in discussions on accession to the common currency.

Economic and social convergence is of the utmost importance to the legitimacy of the EU. If Member States' economic growth and social performances are unevenly distributed, membership of the EU will cease to be seen as a win-win game and an inclination towards disintegration will set in, accompanied by increasing levels of political discontent.

Since the inception of the EU, European countries have experienced strong upward economic and social convergence: first between northern and southern countries, then between eastern and western ones. The progressive enlargement process and the adoption of the single currency have influenced the development of this convergence.

As a result of the economic crisis, a renewed debate on the importance of social convergence was initiated. In this regard, the European Pillar of Social Rights represents a paradigm shift by attributing the same level of importance to economic and social convergence.

While the study of economic convergence is well grounded in the literature, monitoring upward convergence is uncharted territory. In 2018, Eurofound provided a formal and mathematical definition of upward convergence, as well as a methodological approach with which to measure it. The methodology put forward in Eurofound's groundbreaking report (2018a) is applied fully throughout this present report.

2 Main trends in upward convergence patterns in the EU

The existing literature on convergence focuses mainly on socioeconomic convergence and considers only a limited number of indicators: GDP per capita, household income, labour productivity and wages, and employment and unemployment rates.

A comprehensive analysis of employment and socioeconomic convergence is therefore lacking, while other dimensions – for example, employment conditions and gender and youth inequality – have not generally been taken into account.

The overall aim of this chapter is to fill that gap and to provide a comprehensive and up-to-date picture of the most recent upward convergence trends in the employment and socioeconomic dimensions of the EU Member States. To this end, the chapter:

- analyses and compares convergence trends among EU Member States, both overall and between the euro zone and the non-euro zone
- highlights differences in employment convergence patterns across sociodemographic groups

As mentioned earlier, the descriptive analysis presented in this chapter uses the methodological toolbox developed by Eurofound. Evidence will be provided on the degree of disparities among EU countries and regions, and on the evolution of the analysed indicators towards desirable policy targets or social consensus.

In order to assess the presence of upward or downward convergence or divergence patterns, the absolute change in standard deviation (a measure of disparity) over time is applied to each indicator, while the absolute change in the unweighted EU average over time is used to assess improvements (upward pattern) or deteriorations (downward pattern). The reason for using unweighted averages is explained in Eurofound's 2018 convergence report:

The use of the unweighted average of Member States' performance assigns equal weights to all Member States in order to monitor the process of convergence among countries. Conversely, if weighted averages were used, convergence of the European population, and not of Member States, would have been

measured. In this case, the results would have been driven mainly by large Member States that account for the large part of the European population, while performances and trends of small size Member States would have been hidden behind them.

(Eurofound, 2018a)

The analysis is carried out at Member State level in order to determine whether the upward or downward convergence or divergence pattern is strict (meaning all Member States are going in the same direction) or weak (meaning some Member States are going in different directions). The assessment of the overall pattern of convergence or divergence for the indicators analysed takes as reference points the indicators' values in the first and final years of the period of observation. This applies to both the disparities (the standard deviation) and the improvements (the unweighted EU average).⁵

The research also analyses the patterns of convergence or divergence using complementary measures of convergence, such as unconditional beta-convergence and the Theil index. The indicator fiches in the annex provide additional details and graphs illustrating the analysis of convergence for each indicator.

The analysis involves 21 indicators: nine relating to the employment dimension and 12 to the socioeconomic dimension. Employment is split into three sub-dimensions, participation, exclusion and labour market dynamics, while the socioeconomic dimension is split into the following three sub-dimensions: income and poverty, access to services, and gender equality. Selected following consultation with experts, most of these indicators are headline indicators in the Social Scoreboard (see Table 1 in the previous chapter).

The data cover the longest period for which information is available for all EU28 countries, according to the indicators considered: for most indicators, this is 2000–2017 at the country level and 2004–2016 at the regional (NUTS 2)⁶ level. Details of the indicators analysed are provided in Table 2 and Box 1 below, while the annexes present the indicator metadata fiches, along with information on data availability and the construction of the national and regional databases.

5 The period of observation for the indicators analysed in this study varies according to the availability of data for all EU Member States. This is to ensure that the longest possible time series is used for each indicator.

6 Nomenclature of Territorial Units for Statistics.

Table 2: Selected indicators in the employment and socioeconomic areas

Area	Dimension	Indicator	Indicator type*	Desirable direction of indicator	Period	Area	Dimension	Indicator	Indicator type*	Desirable direction of indicator	Period
Employment	Participation	Activity rate	X	↑	2000–2017	Socioeconomic	Income and poverty	Monthly minimum wage in PPS**		↑	2000–2017
		Employment rate	H	↑	2000–2017			Disposable household income in PPS	X	↑	2005–2015
		Weekly hours worked		↑	2000–2017			AROPE rate	H	↓	
	Exclusion	NEET rate	H	↓	2002–2017			Income inequality – income quintile share ratio	X	↓	2006–2016
		Unemployment rate	H	↓	2000–2017			Access to services	Early school-leavers	H	↓
		Long-term unemployment rate	H	↓	2000–2017		Tertiary educational attainment		X	↑	2002–2017
	Labour market dynamics	Involuntary temporary work rate		↓	2002–2017		Unmet need for medical care		H	↓	2008–2016
		Involuntary part-time work rate		↓	2001–2017		Children aged under three in formal childcare		H	↑	2010–2016
		Transition rate from temporary to permanent jobs	X	↑	2010–2016		Gender equality	Gender employment gap	H	↓	2000–2017
					Gender gap in national parliaments				↓	2005–2018	
					Gender gap in early school-leavers				↓	2002–2017	
					Gender gap in AROPE rate				↓	2005–2016	

Note: * Indicator type (European Pillar of Social Rights): H = headline indicator; X = secondary indicator. ** PPS = purchasing power standard.

Box 1: Description of the selected set of indicators for monitoring progress in convergence

Employment indicators

All the employment-related data used in this report were extracted from the Eurostat database in June and July 2018. They are taken mainly from the European Labour Force Survey (EU-LFS) and from the European Union Statistics on Income and Living Conditions (EU-SILC). The indicators analysed for each dimension are presented below.

Employment participation

The **activity rate** shows the percentage of the total population aged 15–64 that is economically active. National analysis covers the period 2000–2017. The source is the Eurostat website (EU-LFS); this is a secondary indicator on the Social Scoreboard. An upward direction is denoted by an increase in the indicator.

The **employment rate** is the percentage of people aged 20–64 who are in employment. National analysis covers the period 2000–2017. The source is the Eurostat website (EU-LFS); this is a headline indicator on the Social Scoreboard. An upward direction is denoted by an increase in the indicator in line with the Europe 2020 strategy.

Weekly hours worked is the average number of weekly hours worked by employed persons aged 15 or over, either employees or self-employed, in their main job. National analysis covers the period 2000–2017. The source is the Eurostat website (EU-LFS). What constitutes an upward direction in the indicator is less immediately obvious here, but for the purposes of this study, an overall increase in the number of weekly worked hours is considered as positive.

Employment exclusion

The **NEET rate** is the percentage of young people aged 15–24 who are neither in employment nor in education or training. National analysis covers the period 2002–2017. The source is the Eurostat website (EU-LFS) and this is a headline indicator on the Social Scoreboard. An upward direction is denoted by a decrease in the indicator.

The **unemployment rate** is the percentage of the labour force aged 15–74 that is unemployed. National analysis covers the period 2000–2017. The source is the Eurostat website (EU-LFS); this is a headline indicator on the Social Scoreboard. An upward direction is denoted by a decrease in the indicator.

The **long-term unemployment rate** is the percentage of unemployed persons aged 15–74 who have been unemployed for 12 months or more. National analysis covers the period 2000–2017. The source is the Eurostat website (EU-LFS); this is a headline indicator on the Social Scoreboard. An upward direction is denoted by a decrease in the indicator.

Employment market dynamics

The **rate of involuntary temporary work** shows the percentage of employees aged 20–64 who are in involuntary temporary work because they cannot find a permanent job. National analysis covers the period 2002–2017. The source is the Eurostat website (EU-LFS). An upward direction is denoted by a decrease in the indicator.

The **rate of involuntary part-time work** shows the percentage of total part-time employees who are working part-time involuntarily, meaning they are unable to find full-time work. National analysis covers the period 2001–2017. The source is the Eurostat website (EU-LFS). An upward direction is denoted by a decrease in the indicator.

Labour transition from temporary to permanent contracts represents the percentage of people aged 16–64 who moved from a temporary contract in one year to a permanent contract in the next year. National analysis covers the period 2010–2016 and this is a headline indicator on the Social Scoreboard. An upward direction is denoted by an increase in the indicator.

Socioeconomic indicators

National-level economic analysis generally covers the 2000s for all indicators, which were extracted from the Eurostat database in June and July 2018 and originate mainly from the EU-LFS, the EU-SILC and the European System of Accounts. The exception is the gender gap in national parliaments, for which the source is the European Institute for Gender Equality (EIGE). The indicators analysed for each dimension are presented below.

Income and poverty

Monthly minimum wage in PPS (purchasing power standards) refers to the national minimum wage for employees in all sectors, or at least in a majority of sectors. Minimum wages are constructed as a simple average of data from Semester 1 and Semester 2. National analysis covers the period 2000–2017. The source is the Eurostat website. An upward direction is denoted by an increase in the indicator.

Disposable household income in PPS is the balance of primary income and the redistribution of income cash (including social contributions paid, social benefits in cash received, current taxes on income and wealth paid, as well as other cash transfers). It is based on final consumption. National analysis covers the period 2005–2015. The source is the Eurostat website (European System of Accounts). An upward direction is denoted by an increase in the indicator.

The **AROPE rate** is the number of people who are at risk of poverty, severely materially deprived or living in a household with a very low level of work intensity. Each individual is counted only once even if they are present in several sub-indicators. The AROPE rate is the headline indicator for monitoring poverty targets in the Europe 2020 strategy, and a headline indicator on the Social Scoreboard. The source is the Eurostat website (EU-SILC). An upward direction is denoted by a decrease in the indicator.

The **income quintile share ratio** measures the inequality of income distribution. It is calculated as the ratio between the total income received by the highest-earning 20% of the population (the upper quintile) and the rest of the population. All incomes are compiled as equalised disposable income. National analysis covers the period

2006–2016. The source is the Eurostat website (EU-SILC); this is a secondary indicator on the Social Scoreboard. An upward direction is denoted by a decrease in the indicator.

Access to services

The **early school-leaver rate** is the percentage of people aged 18–24 who had completed, at most, lower secondary education and were not in further education or training during the four weeks preceding the survey. National analysis covers the period 2002–2017, while regional analysis covers the period 2004–2016. The source is the Eurostat website (EU-LFS); this is a headline indicator of the Social Scoreboard. An upward direction is denoted by a decrease in the indicator.

The **tertiary educational attainment rate** shows the percentage of the population aged 30–34 who have successfully completed tertiary studies (Levels 5–8 of International Standard Classification of Education (ISCED) 11 from 2014 onwards, and Levels 5–6 of ISCED 9 up to 2013). National analysis covers the period 2002–2017, while regional analysis covers the period 2004–2016. The source is the Eurostat website (EU-LFS); this is a secondary indicator of the Social Scoreboard. An upward direction is denoted by an increase in the indicator.

Unmet need for medical care represents the percentage of people aged 16 and over who report unmet needs for medical care because it is too expensive, too far to travel to or the waiting list is too long. Medical care refers to individual healthcare services (medical examination or treatment, excluding dental care) provided by or under the direct supervision of medical doctors or equivalent professionals according to the national healthcare system. National analysis covers the period 2008–2016. The source is the Eurostat website (EU-SILC); this is a headline indicator of the Social Scoreboard. An upward direction is denoted by a decrease in the indicator.

Children aged under three in formal childcare is the percentage of all children aged three years or younger who are in formal childcare. National analysis covers the period 2010–2016. The source is the Eurostat website (EU-SILC); this is a headline indicator on the Social Scoreboard. An upward direction is represented by an increase in the indicator.

Gender equality

The **gender employment gap** is the difference in employment rates between men and women aged 20–64. National analysis covers the period 2000–2017. The source is the Eurostat website (EU-LFS); this is a headline indicator on the Social Scoreboard. An upward direction is denoted by a decrease in the indicator.

The **gender gap in national parliaments** is the difference between the percentage of members of the national parliament who are women and the percentage who are men. National analysis covers the period 2005–2018. The source is the EIGE Gender Statistics Database. An upward direction is denoted by a decrease in the indicator, with 0 as the optimal situation.

The **gender gap in early school-leavers** is the difference between the percentage of men and women aged 18–25 who have completed, at most, lower secondary education and were not in further education or training during the four weeks preceding the survey. National analysis covers the period 2002–2017, while regional analysis covers the period 2004–2016. The source is the Eurostat website (EU-LFS). An upward direction is denoted by a decrease in the indicator, with 0 as the optimal situation.

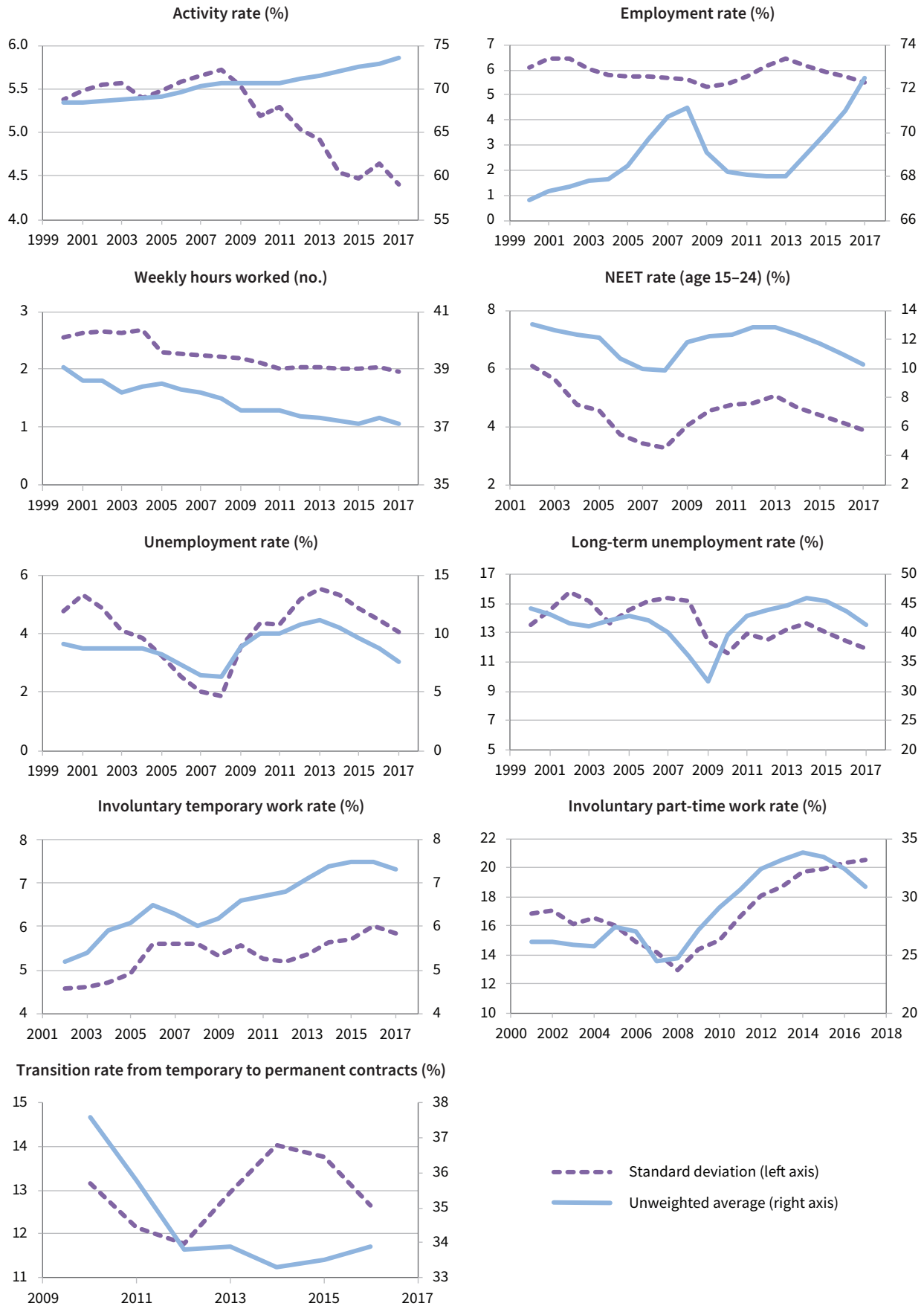
The **gender gap in the AROPE rate** is the difference in the AROPE rates for men and women. National analysis covers the period 2005–2016, while no information is available at NUTS 2 level. The source is the Eurostat website (EU-SILC). An upward direction is denoted by a decrease in the indicator, with 0 as the optimal situation.

Upward convergence in employment

The upward convergence patterns observed for the nine selected labour market indicators are presented in Figure 1. Following Eurofound’s upward convergence approach, the figure shows the evolution of the EU average and the evolution of disparities for each indicator during the study period. Additional information on the convergence patterns of Member States, and on the catch-up processes between countries in the euro and non-euro zones, is presented in the annex.

The main finding is that three employment participation indicators (activity rate, employment rate and weekly hours worked) and three employment exclusion indicators (unemployment rate, long-term unemployment rate and NEET rate) have exhibited upward convergence trends since the beginning of the 2000s. However, these general trends hide different patterns over time and across countries. At the EU level, a catch-up process is observed on the part of central and eastern European countries, while southern European countries are losing ground compared to central and northern Member States.

Figure 1: Convergence and divergence among EU28 countries in selected employment indicators



Source: Authors' own calculations, based on Eurostat country-level data

Except for the activity rate and weekly hours worked, the 2008 economic crisis has widened the disparities in labour market indicators, especially in the euro zone. Southern European countries with already weak labour markets, such as Cyprus, Greece, Italy and Spain, have experienced a dramatic deterioration in employment rates and a rise in unemployment. The non-euro zone, which presented large disparities at the beginning of the 2000s, has shown significant disparity reductions, especially before the onset of the crisis.

Conversely, indicators in the employment dynamics category show a downward divergence process that started even before the crisis: the shares of involuntary temporary and part-time work grew over the 2000–2007 period, while the percentage of labour transitions from temporary to permanent contracts declined from 37.6% in 2010 to 33.9% in 2016. The economic and financial crisis exacerbated these trends, reducing occupational mobility and increasing involuntary temporary work and part-time work, especially in southern European countries (Cyprus, Italy, Portugal and Spain).

Upward convergence in employment participation and exclusion indicators

During the observed periods, five out of nine of the employment indicators analysed showed upward convergence in the EU28: activity rate, employment rate, unemployment rate, long-term unemployment rate and NEET rate. In 2017, all of these indicators presented an improvement at the EU28 level and showed lower disparities than in 2000. However, each of these indicators presents a slightly different convergence pattern during the period, and not all Member States reported positive trends.

The activity rate increased steadily during the entire period (from 68.4% in 2000 to 73.5% in 2017) while disparities among countries increased slightly up to 2008, before strongly declining after that as the lagging countries (for example, Hungary, Malta and Poland) began catching up with the EU average.

The employment rate exhibited a more cyclical pattern in terms of both level and variability. Variations in the disparities among Member States increased in expansion and recovery periods, while they decreased during the crisis period. Since 2013, a renewed process of upward convergence in employment rates can be seen in the EU.

Overall, during the period 2000–2017, Bulgaria, Hungary and Malta recorded a remarkable improvement in activity and employment rates, reducing the gap between themselves and the EU average as well as the

best-performing countries (Denmark and Sweden), while other countries such as Cyprus, Greece and Romania saw a decrease in employment rates.

The indicators of employment exclusion – unemployment rate, long-term unemployment rate and NEET rate – also show a convergence pattern that correlates strongly with the business cycle: during expansion and recovery periods, the EU28's performance improved overall and disparities among Member States decreased (upward convergence), while during recession periods, average performance worsened and disparities among Member States increased (downward divergence). The economic crisis had negative effects on employment exclusion, reversing and temporarily halting the positive trends observed since the beginning of the 2000s and widening disparities among Member States.

In the period 2000–2017, several countries with higher-than-average initial rates of unemployment, long-term unemployment and NEET rates caught up with the EU average (for example, Bulgaria, Croatia, Latvia, Lithuania, Malta and Romania), while others, such as Greece, Italy, Portugal and Spain, did not. Either these latter countries reported an increase in unemployment and NEET rates or their rates did not decline at the same pace as the other countries.

Weekly hours worked is the only employment indicator among those analysed that presents downward convergence between 2000 and 2017, assuming that a higher number of hours worked is the desirable outcome. At the beginning of the study period, there were large disparities among Member States, with average weekly hours worked ranging from 43 hours in Czechia to fewer than 32 hours in the Netherlands (the latter characterised by a high incidence of part-time work among women: above 70% for women aged 20–64). Many countries with relatively low working hours, such as Belgium, Denmark, the Netherlands and the United Kingdom (UK), recorded an increase, while other countries with higher working hours (for example, Czechia, Latvia and Malta) recorded a reduction.

Downward divergence in employment dynamics indicators

The indicators on the dynamics of employment – involuntary temporary work, involuntary part-time work and the transition rate from temporary to permanent contracts – reveal downward divergence during the study period.⁷

⁷ Please note that for the transition rate from temporary to permanent contracts, the time series is too short (2010–2016) and the standard deviation too volatile to identify a clear process of convergence or divergence.

The average rate of involuntary temporary work and involuntary part-time work for the EU28 increased from the beginning of the 2000s, as did disparities among Member States. However, while the divergence seen in involuntary temporary work presents a clear long-term trend (albeit one that was exacerbated by the economic crisis), that of involuntary part-time work seems to have been triggered by the crisis. As in the case of unemployment and long-term unemployment rates, the involuntary part-time rate correlates strongly with the business cycle, although recent data do not show a reduction of disparities even during the recovery period.

From the beginning of the 2000s, the share of involuntary temporary work increased by several percentage points in many Member States such as Croatia (12pp), Italy (7.10pp) and Poland (7.6pp), and in 2017 disparities among countries remained very high, ranging from about 1% in Austria, the Baltic states and Romania to more than 15% in Croatia, Poland, Portugal and Spain. Meanwhile, the rate of involuntary part-time work increased significantly in Mediterranean Member States (Cyprus and Spain by 47.3 and 39.4 percentage points, respectively, and Italy and Portugal by over 25 percentage points), with the gap between the best performer (Estonia, 7.8%) and the worst-performing country (Greece, 70.7%) reaching almost 63 percentage points in 2017.

Finally, while the time series is shorter in this case, a downward convergence trend can be seen in the case of the transition rate from temporary to permanent contracts. Box 2 provides further information on how these trends vary from one social group to another.

Upward convergence in employment in the euro and non-euro zones

Analysis of convergence in the euro zone reveals several differences between this and the non-euro zone (as shown in Figure 2). The non-euro zone presented larger disparities at the beginning of the study period, then declined over the years (and in particular leading up to the onset of the economic crisis) until it reached the same levels as the euro zone. A convergence process is thus observed in the non-euro zone for all the indicators considered, with the exception of involuntary temporary work, which showed constant increases accompanied by growing disparities among countries.

In contrast, labour market conditions deteriorated in the euro zone, while disparities among countries increased across several employment indicators. The recession led to significantly greater disparities in employment and unemployment rates, as well as in the rates of involuntary part-time work and NEET. Furthermore, although a renewed convergence process was observed on the part of both employment participation and exclusion indicators in 2013, disparities among euro zone countries remain well above those recorded in 2008.

Box 2: Employment convergence and divergence across sociodemographic groups

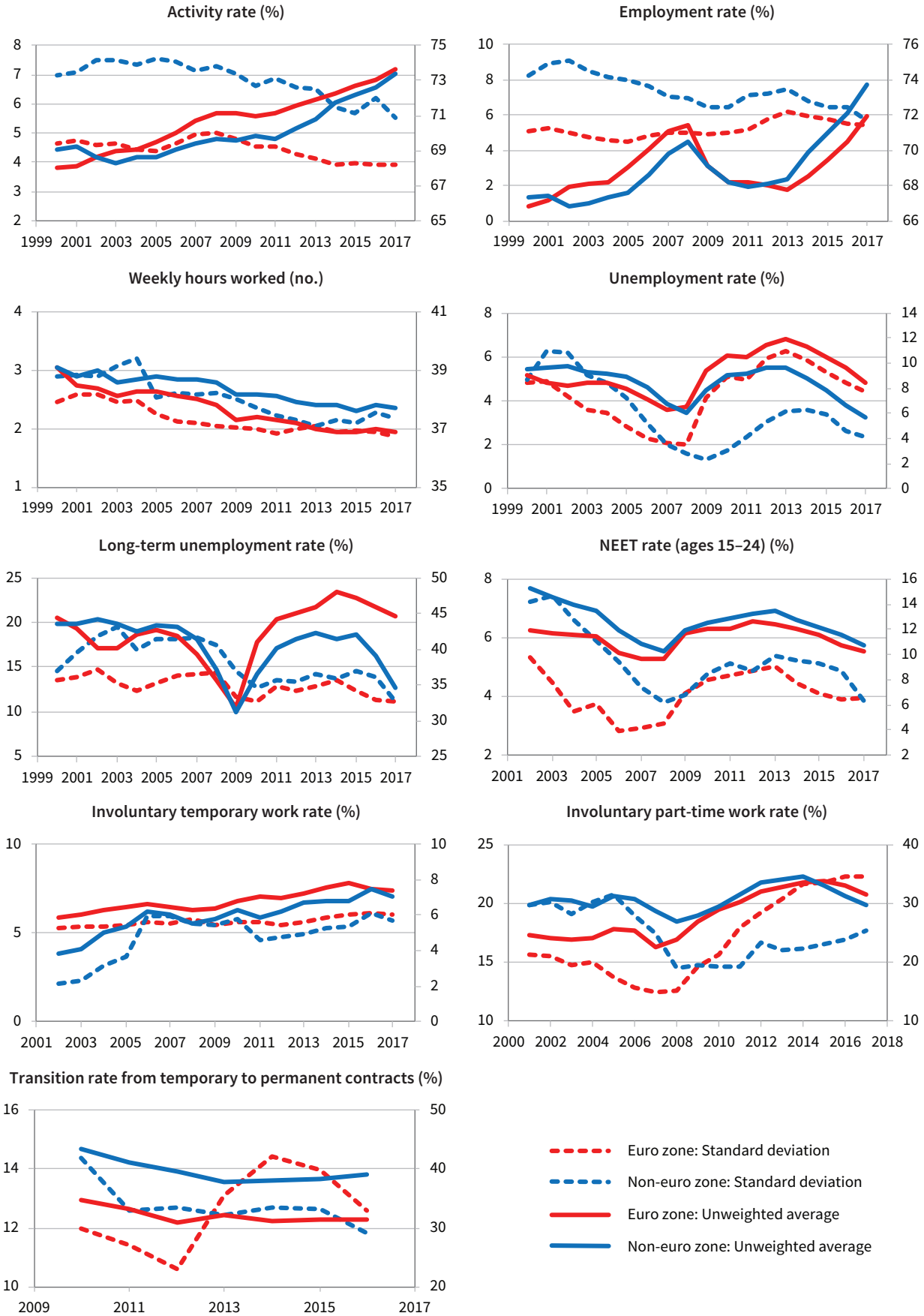
Analysis of the patterns of convergence in the activity and employment rates across sociodemographic groups shows much variation during the period 2000–2017 in terms of gender, age and level of educational attainment. Figures and data can be found in the accompanying annexes.

During the 2000s, women's activity and employment rates show a clear upward convergence pattern. The reduction in disparities among Member States is more marked for women than for men, leading to a reduction in the large cross-country disparities observed in the gender employment gap at the beginning of the century. Women's employment rates were less affected by the economic crisis than those of men. Nevertheless, the impact of the crisis, coupled with women's increased labour market participation (between 2000 and 2017, the activity rates increased in all countries, apart from Romania), resulted in a widening of cross-country disparities in women's unemployment rates.

Differences in employment convergence patterns in the EU28 are also evident for individuals of different age groups. Since the beginning of the 2000s, cross-country disparities in activity and employment rates have declined for people aged 55–64 – possibly driven by pension system reforms in EU countries – while they have increased for those aged 15–24. The economic crisis increased disparities among Member States more for prime-age workers (those aged 25–54) than for younger workers (those aged 15–24).

The convergence process observed in the employment rates of older workers is reflected in the reduction of cross-country disparities in the employment rates of individuals with only a primary education. Since the crisis, disparities among Member States have widened for workers with a secondary or even a tertiary education.

Figure 2: Convergence and divergence among countries in selected employment indicators



Source: Authors' own calculations, based on Eurostat country-level data

Euro zone: Upward convergence in just three indicators

With respect to the labour market indicators considered in this study, the euro zone saw upward convergence only in the activity, unemployment and NEET rates (as shown in Table 3). Between 2000 and 2017, the activity rate showed a clear trend of upward convergence: the rate increased in all countries (except Finland, which saw a decrease of 0.1 percentage points) and the disparities across countries declined, albeit with a slight increase between 2005 and 2008.

The employment rate in the euro zone is characterised by upward divergence. The (unweighted) average increased from 66.8% in 2000 to 71.9% in 2017, even surpassing the pre-crisis peak of 2008 (71.4%); however, the disparities among countries also increased in the period considered, especially during the crisis period, driven by the large declines in employment rates reported by Cyprus, Greece, Ireland, Portugal and Spain.

Meanwhile, the pattern of the unemployment rate closely follows the business cycle, with upward convergence towards a lower unemployment rate before 2008 and after 2013, and strong downward divergence – with an increase in both levels and disparities – during the crisis period. Between 2008 and 2013, unemployment rates increased in Greece, Spain and Cyprus by 19.7, 14.8 and 12.2 percentage points, respectively, while Germany saw a drop of 2.3 percentage points. In addition, the NEET rate shows a strong correlation with the business cycle, displaying a trend of downward divergence during the period 2008–2013 and upward convergence overall.

Table 3: Types of convergence between first and final year of observation by area and indicator

	Euro zone	Non-euro zone
Upward convergence	Activity rate; NEET rate; unemployment rate	Activity rate; employment rate; unemployment rate; long-term unemployment rate; NEET rate
Upward divergence	Employment rate	
Downward convergence	Weekly hours worked; long-term unemployment rate	Weekly hours worked; involuntary part-time work rate; transition rate from temporary to permanent contracts
Downward divergence	Involuntary temporary work rate; involuntary part-time work rate; transition rate from temporary to permanent contracts	Involuntary temporary work rate

Between 2000 and 2017, the euro zone registered downward convergence in the long-term unemployment rate and weekly hours worked, showing an overall worsening in these indicators but a simultaneous reduction of disparities across countries. In particular, the long-term unemployment rate exhibited a high degree of sensitivity to the business cycle and particularly to the economic crisis, while convergence is particularly clear in the average weekly hours worked: between 2000 and 2017, all the countries registered a reduction (with the exception of the Netherlands, with +0.3 hours).

The euro zone also showed downward divergence in the employment market dynamics indicators. Similar to other labour market indicators, the rate of involuntary part-time work was very sensitive to the business cycle. However, cross-country disparities continued to increase even after 2013, due to the sharp decline recorded in some countries (for example, Estonia, Ireland and Malta). Conversely, the rate of involuntary temporary work shows a clearer pattern of downward divergence in the euro zone: on average, the rate increased from 5.9% in 2000 to 7.4% in 2017, and disparities among countries increased as well. In line with this trend is the rate of transition from temporary to permanent contracts in the euro zone: between 2005 and 2016 (the period for which data are available), this declined from 34.8% to 31.4% on average, while variability across countries greatly increased between 2012 and 2014. In this period, while Estonia and Latvia's rates increased by more than 10 percentage points, other countries' continued to decrease (for example, by 13.8 percentage points in Malta).

Non-euro zone: Upward convergence in most of the employment participation and exclusion indicators

Conversely, the non-euro zone saw upward convergence between 2000 and 2017 for most of the labour market indicators: activity rate, employment rate, unemployment and long-term unemployment rates and NEET rate. The activity rate has displayed clear upward convergence since 2003, when it started to grow steadily and differences across countries began to reduce. The catch-up process was particularly relevant for Bulgaria and Hungary. Furthermore, the employment rate presents an overall increase and a reduction of disparities between 2000 and 2017. However, for the euro zone, a significant drop in employment rates was recorded during the crisis period (2008–2013), with a less severe decrease in the non-euro zone.

Likewise, the upward convergence seen in the unemployment and long-term unemployment rates between 2000 and 2017 was interrupted by the economic crisis, which brought about a significant rise in unemployment rates accompanied by increasing disparities among non-euro zone countries.

Cross-country disparities increased particularly in the case of the unemployment rate between 2008 and 2013, when Bulgaria and Croatia registered an increase of 7.4 and 8.7 percentage points, respectively. The NEET rate was also influenced by the recession, and in fact divergence took place here between 2008 and 2013, with increasing rates and higher disparities among countries.

Several indicators also display downward convergence patterns for the non-euro zone. In particular, strict downward convergence was recorded between 2000 and 2017 for weekly hours worked: all countries reduced the number of hours worked (in particular Czechia, which saw a reduction of 4.1 hours per week), and disparities among countries decreased. The same is true of involuntary part-time work and the transition rate from temporary to permanent contracts – both these indicators were negatively affected by the effects of the crisis – and for involuntary temporary work, which increased between 2002 and 2017 in all countries but the UK (–0.3 percentage points). On average, the rate of involuntary temporary work increased from 3.8% in 2002 to 7.1% in 2017. At the same time, disparities among countries also increased, driven by consistent increases in Croatia (12 percentage points) and Poland (7.6 percentage points), and almost no changes in Bulgaria, Denmark, Romania and the UK.

Upward convergence in socioeconomic conditions

The majority of the selected socioeconomic indicators demonstrated upward convergence in the period studied. Those in the income and poverty category showed an overall increase in disposable household incomes and minimum wages and a decrease in cross-country disparities, although the income quintile share ratio exhibited downward divergence during the period 2005–2016. Upward convergence trends are also evident in the EU in the access to services dimension. This is particularly true for the indicators related to education: early school-leavers, tertiary educational attainment and access to formal childcare. Interestingly, tertiary educational attainment displayed strict upward convergence, meaning that, during the period considered, all Member States improved while disparities between them decreased. This indicator is the only one among those considered that demonstrated strict upward convergence. Finally, with the exception of the gender gap in the AROPE rate – which has been showing increasing disparities since 2010 – upward convergence is found across all indicators relating to gender equality.

However, the employment and labour market indicators analysed in the previous section mask different convergence and divergence patterns from country to country and over time. The following sections provide

further details on these main trends, with the annex containing additional measures of convergence.

Upward convergence in income- and poverty-related indicators

The national minimum wage (measured in purchasing power standards – PPS) has been showing a decline in disparities since 2007, with different patterns emerging from one country to the next. Countries in central and eastern Europe (for example, Bulgaria, Estonia, Latvia, Poland, Romania and Slovakia), which had low national minimum wages at the beginning of the 2000s, slowly converged towards the EU average, with Poland in particular almost closing the gap entirely in 2017. Other countries with higher initial minimum wages (for example, Belgium, France, Luxembourg and the Netherlands) registered lower-than-average increases. However, to shed further light on this, account should be taken of not only the purchasing power granted by the minimum wage but also its net value (Eurofound, 2018b).

The disposable household income in PPS also followed an upward trajectory in the EU28 during the whole period of observation (2005–2015), and cross-country disparities have decreased since 2007. This is mainly because the countries in eastern Europe (for example, Bulgaria, Estonia, Latvia, Poland and Romania) caught up with the higher income levels of those in western Europe, while incomes in southern Europe (Cyprus, Greece and Italy) fell.

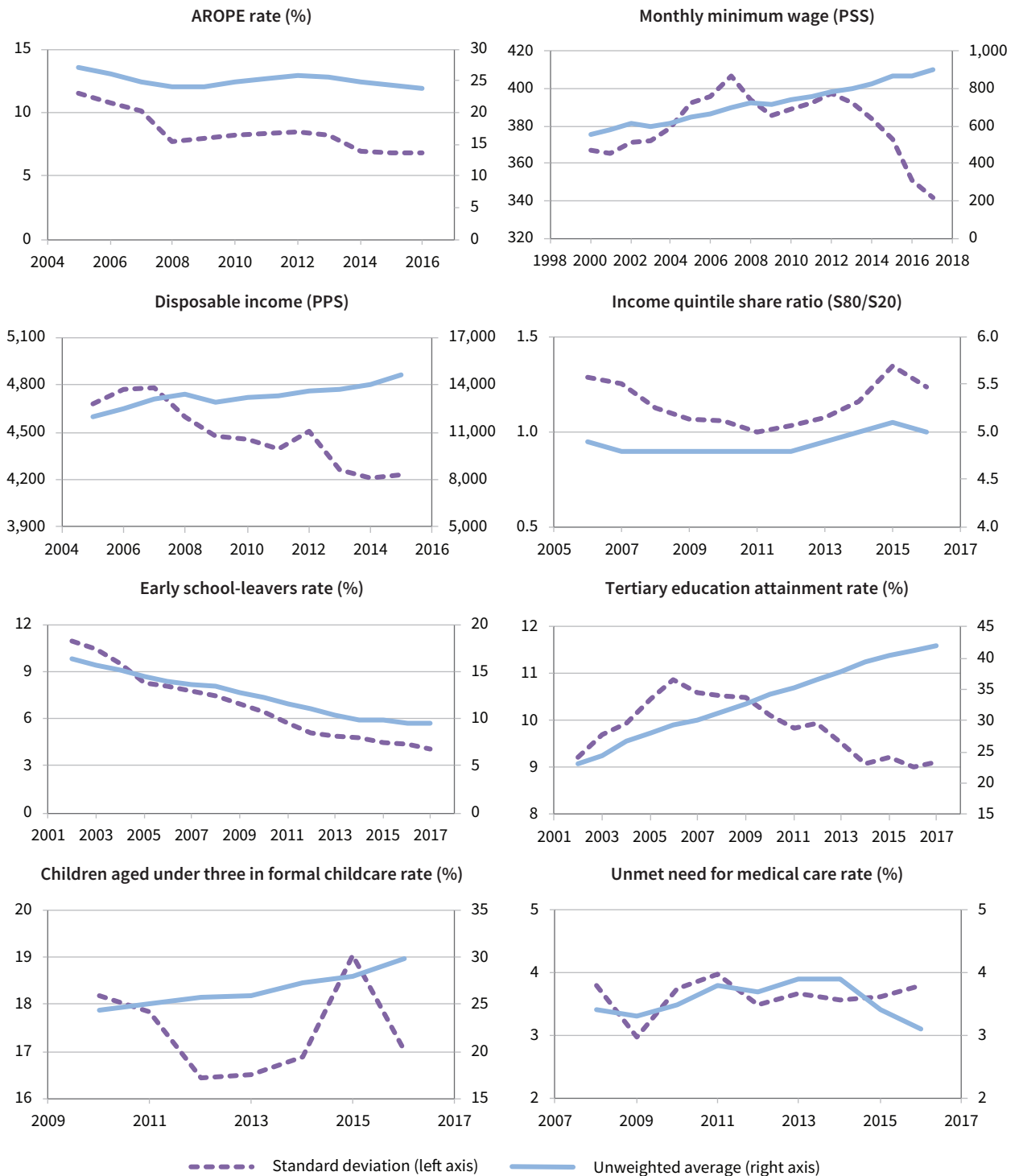
Upward convergence is also seen in the AROPE rate. While this indicator is strongly affected by the business cycle, the average rate nonetheless decreased from 25% to 23.6% during the study period, while an overall decrease in variability was observed.

The income quintile share ratio – a measure of the inequality in income distribution within countries – showed downward divergence during the period 2005–2016. After an initial period of reduction, disparities among countries increased again between 2011 and 2015. On the one hand, Latvia and Romania, which initially had high levels of income inequality among the population, reported the largest reductions. On the other hand, Bulgaria – and, to a lesser extent, Spain – saw significant increases in the levels of income inequality among their populations.

Upward convergence in access to services indicators

As can be seen in Figure 3, overall improvement went hand in hand with convergence in the domain of education. Disparities among Member States in tertiary educational attainment have been in decline since 2007, with all countries showing an upward trend, and a particularly strong catch-up trend observable in Malta, Poland, Romania and Slovakia (all of which started with very low initial rates) and other eastern European countries. The rate of early school-leavers also presents

Figure 3: Convergence and divergence among EU28 countries in macroeconomic and access to services indicators



Note: AROPE refers to people at risk of poverty or social exclusion.
 Source: Authors' own calculations, based on Eurostat country-level data

a clear convergence pattern in the EU28 from the beginning of the observation period (2002): a remarkable improvement and catch-up process is recorded by Malta, Portugal and Spain (the EU average rate dropping from 15.7% in 2002 to 9.5% in 2017), countries which had very high initial rates of early school-leavers. On the contrary, the share of children aged three or under in formal childcare, for which a

shorter time series is available (2010–2016), is subject to disparities but shows upward convergence overall among Member States. Despite the apparent catch-up trend seen in some countries with lower-than-average shares in 2010 (for example, Austria, Latvia, Malta and Romania), other countries with relatively high initial levels grew at a faster pace (for example, Germany, Italy and Luxembourg).

Unlike the previous indicators, the share of people reporting unmet needs for medical care increases in line with disparities during the economic crisis; the indicator does show upward convergence over the observed period (2008–2016), however. In particular, Bulgaria and Romania, both of which registered high initial levels of unmet needs for medical care, caught up to a significant degree, while other countries, such as Estonia and Greece, saw the indicator worsen markedly, reaching very high levels in 2016 (13.1% and 15.3%, respectively, compared to the EU28 average of 3.2%).

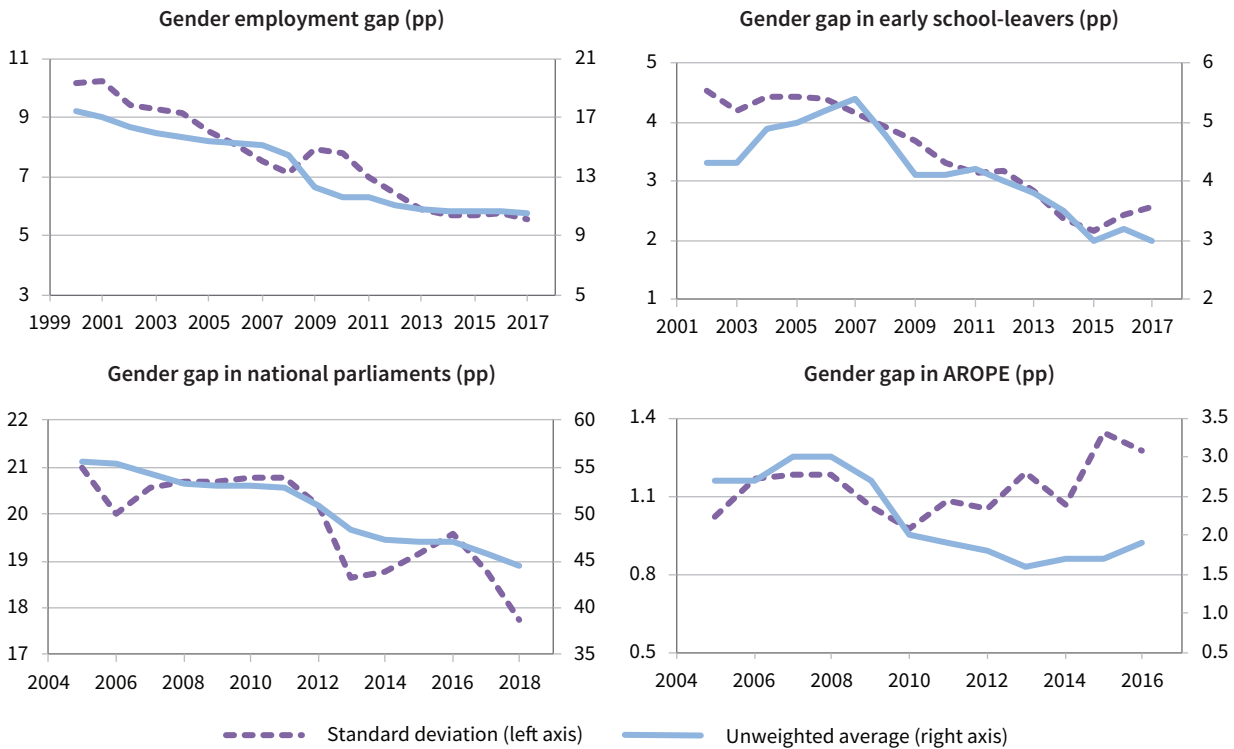
Upward convergence in gender equality indicators

As Figure 4 illustrates, gender equality is another dimension in which an overall improvement was recorded during the study period. Women enjoyed increased participation in the labour market and in the political sphere, while fewer males left school early. On average, the gender employment gap decreased from 17.5 to 10.6 percentage points over the period 2000–2017, the gap in early school-leaver rates decreased from 4.3 to 3 percentage points between 2002 and 2017, and the gender gap in national

parliaments decreased from 55.6 to 44.5 percentage points during the period 2005–2018. However, only the gender employment gap shows evidence of long-term convergence (despite being temporarily interrupted during the crisis).

Between 2000 and 2017, almost all EU countries (with the exceptions of Poland, Romania, Slovakia and Sweden) reduced the gender employment gap. Many countries with higher-than-average gender gaps in 2000 (for example, Cyprus, Greece, Malta and Spain, and, to a lesser extent, Italy) consistently caught up with the EU average over the period observed. The disparity between Member States in terms of the gender gap in early school-leavers also reduced steadily until at least 2015–2016, when a significant increase was recorded in some countries (for example, Austria, Denmark, France and Lithuania). The convergence observed between 2002 and 2015 is accompanied by a catch-up trend for Cyprus, Greece, Ireland, Portugal and Spain. The gender gap in national parliaments also narrowed between 2005 and 2018, with female political representation increasing in many European countries – although disparities among Member States remained very high. Italy showed a remarkable improvement in this regard, as did France, Portugal and Slovenia.

Figure 4: Convergence and divergence among EU28 countries in gender equality indicators



Source: Authors' own calculations, based on Eurostat country-level data and EIGE data

Despite all of the above, an increase in cross-country disparities since the crisis can be seen in the gender gap in AROPE rates. Between 2005 and 2016, this indicator shows upward divergence: the average gender gap decreases over time, while disparities among Member States increase. Over this period, the increase was particularly noticeable for Bulgaria (2 percentage points), Estonia (1.8 percentage points) and Latvia, which, after a positive start, saw the gap increase by 5.2 percentage points.

Upward convergence in socioeconomic conditions in the euro and non-euro zones

Figures 5 and 6 depict the convergence found in the euro zone as opposed to the non-euro zone using the Eurofound upward convergence methodology adopted in this analysis, while Table 4 presents a synthesis of the patterns of convergence observed in the two zones with respect to the first and final year of observation for the selected employment indicators. Additional results on the extent to which lagging countries caught up with the best-performing ones across the two zones are reported in the indicator fiches in Annex 4.

Table 4 shows that the euro and non-euro zones presented different patterns in terms of both convergence and divergence, as well as the levels of the socioeconomic indicators considered.

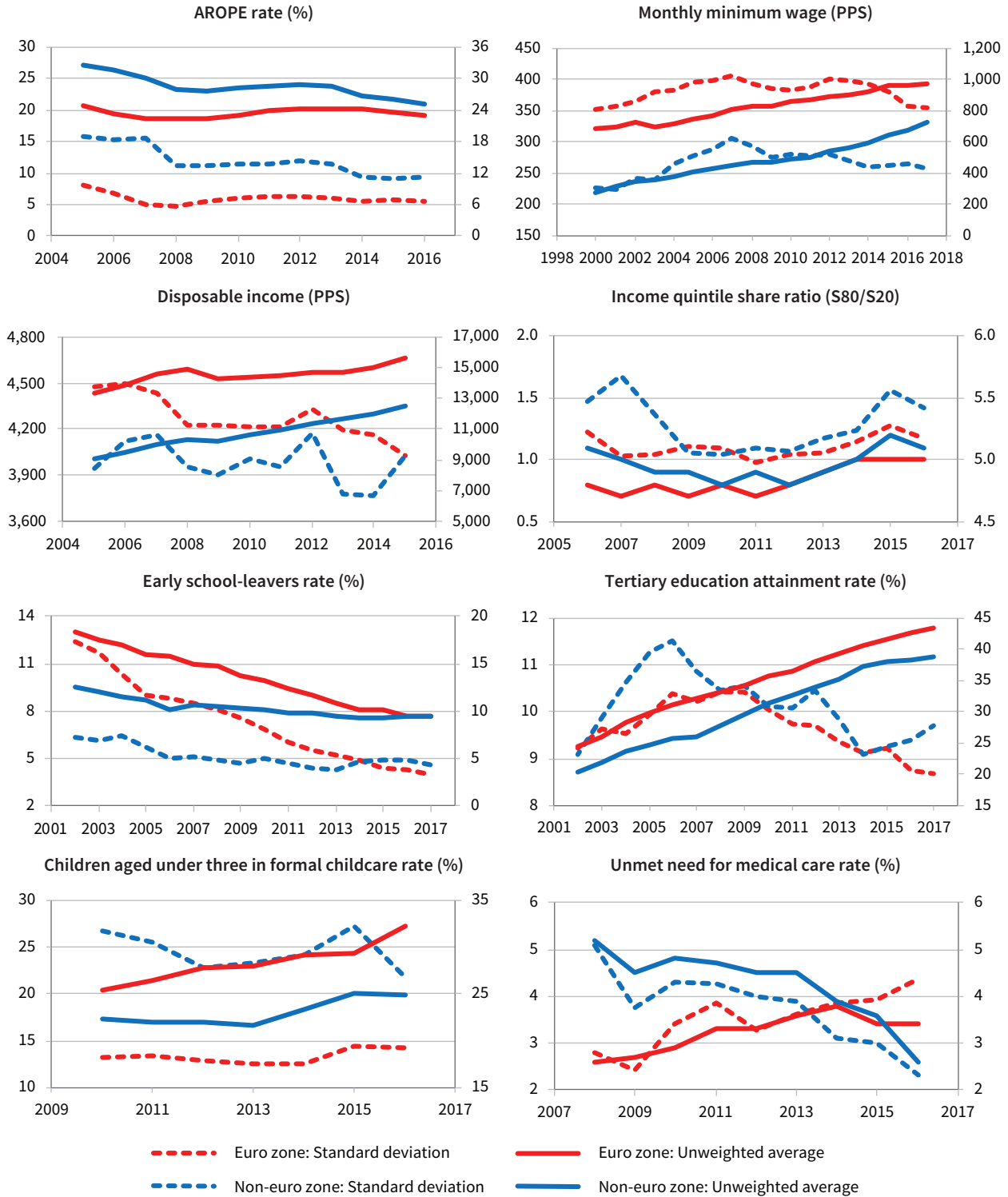
However, unlike in the employment domain, the euro zone showed more signs of convergence towards better socioeconomic conditions than the non-euro zone. In the euro zone, most of the socioeconomic indicators demonstrated upward convergence, while in the latter,

most exhibited upward divergence. Thus, the large internal disparities observed in the euro zone in the early 2000s in several indicators (disposable household income, early school-leavers and gender gaps in employment and parliamentary representation) are declining.

Table 4: Types of convergence between first and final year of observation, by zone and indicator

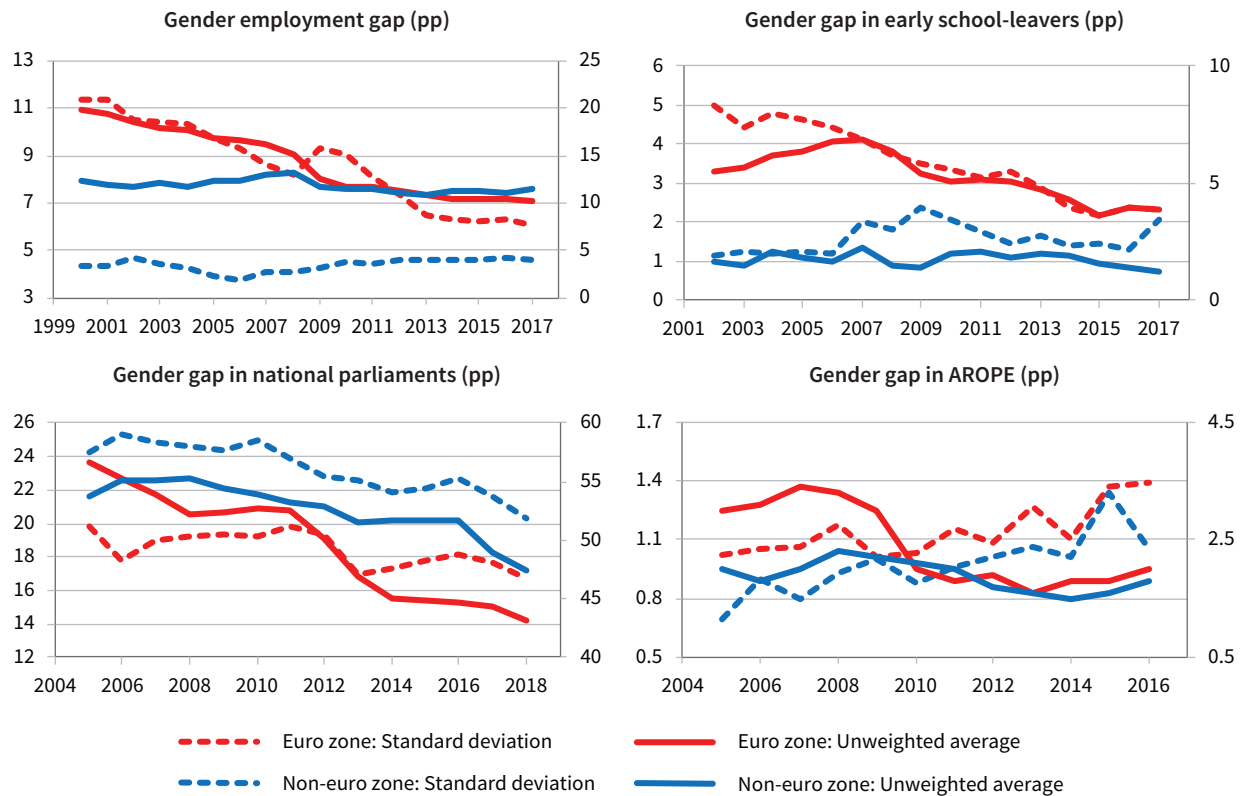
	Euro zone	Non-euro zone
Upward convergence	Disposable household income; early school-leavers; tertiary educational attainment; AROPE; gender employment gap; gender gap in early school-leavers; gender gap in national parliament	Early school-leavers; children aged under three in formal childcare; unmet need for medical care; AROPE; gender gap in national parliament
Upward divergence	Monthly minimum wage; children aged under three in formal childcare; gender gap in AROPE rate	Monthly minimum wage; disposable household income; tertiary educational attainment; gender employment gap; gender gap in early school-leavers; gender gap in AROPE rate
Downward convergence	Income inequality – income quintile share ratio	
Downward divergence	Unmet need for medical care	Income inequality – income quintile share ratio

Figure 5: Convergence and divergence among countries in macroeconomic and access to services indicators



Source: Authors' own calculations, based on Eurostat country-level data

Figure 6: Convergence and divergence among countries in gender equality indicators



Note: PP = percentage points.

Source: Authors' own calculations, based on Eurostat country-level data and EIGE data.

Euro zone: upward convergence in education and gender equality

The euro zone demonstrated upward convergence in the following socioeconomic indicators: disposable household income in PPS, AROPE rate, early school-leavers rate, gender gap in national parliaments and gender gap in early school-leavers. Between 2005 and 2015, disposable household income increased in almost all the euro zone countries (except for Greece, where a significant drop was recorded, and Cyprus), and disparities among countries diminished. In the same vein, a decrease in the level and variability of the AROPE indicator was observed. The early school-leavers rate also decreased between 2002 and 2017 in all countries except Slovakia, where the initial level had been very low compared to the euro zone average. The most remarkable reductions were seen in Malta and Portugal: 30 percentage points in both cases. At the same time, the average gender gap in early school-leavers also decreased, with declining disparities among countries. Between 2005 and 2018, the euro zone also reported an overall narrowing of the gender gap in national parliaments, with notable reductions in countries presenting high initial levels (for example, France, Greece and Italy).

Since 2000, the euro zone has displayed strict upward convergence in the rate of tertiary educational attainment of people aged 30–34 and in the gender

employment gap, with improvements in all countries and an overall reduction in cross-country disparities. However, while the employment gender gap resulted in a continual decline in cross-country disparities (apart from a slight increase at the onset of the economic crisis), the first signs of convergence in the tertiary educational attainment rate did not present themselves until 2010.

Between 2010 and 2016, the share of children aged under three in formal childcare increased in all countries except Slovakia, with an increase in disparities from 2014 onwards due to significant increases in Estonia, France, Italy and Malta. Interestingly, since the beginning of the crisis, the gender gap in AROPE has seen a general reduction accompanied by increasing disparities among countries. This was due to marked reductions in Cyprus and Slovakia, coupled with marked increases in Latvia.

Conversely, a deterioration in the socioeconomic situation in the euro zone was observed in the income inequality indicator and the share of population with unmet needs for medical care. In particular, downward convergence was found in the income quintile share ratio: on average, income inequality increased, particularly from 2011 onwards, and cross-country disparities in 2016 surpassed those experienced before the crisis. The indicator of unmet need for medical care showed downward divergence in the period 2008–2016:

on average, the euro zone saw these needs, as well as cross-country disparities, increase until 2014.

In fact, some countries, such as Estonia and Greece, recorded a notable increase of around 8 percentage points during the crisis, while for some countries with low initial levels, such as Cyprus and Germany, this indicator reduced further.

Non-euro zone: upward divergence in macroeconomic indicators and gender equality

The non-euro zone sees upward divergence in most of the socioeconomic indicators considered (6 out of 12). Indeed, increased disparities among countries were recorded in the economic indicators (disposable household income and monthly minimum wage), gender equality indicators (gender gaps in employment rate, national parliaments and early school-leavers rate) and tertiary educational attainment. However, each indicator followed a different pattern during the period. In particular, the monthly minimum wage (which increased in all non-euro zone countries) was subject to growing disparities in the period before the crisis, but after 2008, those disparities reduced, though they still remained higher than their levels at the beginning of the 2000s. In contrast, disposable household income did not present a clear convergence pattern at any point in the period 2005–2015: disparities increased and reduced several times. The rate of tertiary educational attainment (which increased in all non-euro zone countries) underwent several changes in the period 2002–2017 in terms of cross-country disparities. The gender employment gap and the gender gap in early school-leavers showed a small reduction (on average, –1 and –0.5 percentage points, respectively). That said, the gender gap in early school-leavers is relatively low in the non-euro zone compared to the euro zone. Finally, the gender gap in AROPE rates was subject to growing disparities among non-euro zone countries during the whole period of observation (2005–2016).

The non-euro zone showed downward divergence in the income quintile share ratio. The initial reduction of disparities observable between 2006 and 2008 (driven by Hungary and Romania catching up) was replaced by a more consistent increase in the level of the indicator and in disparities among countries (driven by Bulgaria and Romania).

Meanwhile, upward convergence was observed in the AROPE indicator, the rate of early school-leavers, the share of children aged under three in formal childcare and the perceived unmet need for medical care, as well as in the gender gap in national parliaments. In particular, between 2002 and 2017, the rate of early school-leavers decreased from 12.6% to 9.6% and disparities among non-euro zone countries reduced, with Bulgaria and the UK, which had presented relatively high rates in 2002 (20.7% and 17.6%,

respectively), seeing marked drops. The average share of children aged under three in formal childcare started to increase only after 2014, partly due to Romania catching up. On the contrary, the share of people with unmet needs for medical care declined from 2008 (the first year of observation) onwards, as did cross-country disparities for this indicator, with Bulgaria and Romania in particular catching up to the average values. In a similar vein to what happened in the euro zone, the gender gap in national parliaments and disparities among countries also decreased in the non-euro zone between 2005 and 2018, with Czechia, Poland and the UK showing the largest reductions. Finally, the AROPE rate showed a marked reduction in terms of both levels and disparities among the non-euro zone countries, and this reduction was much more consistent than that observed in the euro zone.

Summary of key findings

The empirical evidence provided here reveals that EU Member States are converging towards better employment and socioeconomic conditions, notwithstanding the negative effects of the economic crisis. During the 2000s, Member States showed upward convergence in several employment participation and exclusion indicators (for example, the activity, employment, unemployment and NEET rates). There is also evidence of upward convergence among Member States in gender equality, access to education, disposable incomes and minimum wages.

However, downward divergence has been observed since the beginning of the 2000s in labour market dynamic indicators, such as involuntary part-time and temporary work.

Differences in convergence and divergence patterns in employment and socioeconomic indicators have emerged across zones and countries. While the euro zone showed increasing disparities in employment rates and unmet need for medical care during the study period, the non-euro zone presented higher initial disparities in most of the employment and socioeconomic indicators and underwent the fastest process of upward convergence, especially in the period before the crisis and with regard to employment.

Moreover, the indicators analysed showed different sensitivities to the business cycle and, in particular, to the crisis. Evidence of structural long-term upward convergence among Member States was observed in activity rates, early school-leaver rates and gender equality (in relation to employment, early school-leavers and national parliament representation). Other indicators proved to be very sensitive to the disruptive effects of the crisis. This suggests that stronger resilience should be built in to the employment and poverty dimensions.

In some cases, the economic and financial crisis interrupted the upward convergence process, and was instrumental in increasing levels and disparities in the inequality-related indicators. This can be seen most clearly in the income quintile share ratio, which shows increasing inequality in the income distribution of the population.

In other cases, the crisis halted or reversed the pattern of upward convergence only temporarily. This is the case with most of the employment indicators

(employment, unemployment, long-term unemployment and NEET rates), which showed signs of restored upward convergence from 2013 onwards, when the economy started to recover.

Nonetheless, differences can be seen in the recovery patterns and convergence processes for different sociodemographic groups. In many ways, the crisis set in motion a process through which disparities in the activity and employment rates of young people grew.

3 Regional perspective on convergence trends

This chapter presents an empirical investigation of the main trends of convergence at the regional level. Since reducing regional disparities is central to improving socioeconomic cohesion in the EU, it is crucial to examine the extent to which the regions of the EU are converging in socioeconomic and employment-related matters. The Treaty establishing the European Community indicates that economic prosperity and improved living and working conditions among and within Member States are some of the main priorities of the EU. Article 130a of the Single European Act states that ‘the Community shall aim at reducing disparities between the levels of development of the various regions and the backwardness of the least favoured regions’. These goals are to be achieved by promoting growth-enhancing conditions and reducing disparities between the levels of development of EU regions and Member States, and indeed these are the key targets of European cohesion policy.

The notion of EU regional policy can be traced back as far as the Treaty of Rome, but a more genuinely ‘European’ cohesion policy was given impetus by the Single European Act of 1986, which for the first time introduced a specific heading covering the notion of economic and social cohesion. Under this heading, Article 130c refers to the need to redress ‘regional imbalances’ through regions ‘participating in ... development’ and undergoing ‘structural adjustment’. This constituted the legal basis for the creation of the European structural and investment funds (ESIFs), as well as the backbone for European cohesion policy more generally. The same aim is now enshrined in Article 174 of the Treaty on the Functioning of the European Union (TFEU) (the Lisbon Treaty).

Whereas cross-country convergence has been occurring at varying speeds since the 1980s, the evidence on cross-regional convergence is more mixed. On the one hand, some early sources (for example, Armstrong, 1995; Neven and Gouymte, 1995; Paci, 1997) suggest that, from the mid-1970s to the early 1990s, convergence across EU regions, if present, was very low and unstable. On the other hand, disparities kept decreasing rapidly among the then EU27 regions from 1995 to 2007. This was because the poorest regions of the newest Member States were attempting to catch up to the EU’s most prosperous countries, while among the EU15, regions were no longer converging (Monfort, 2008).

Overall, declining regional disparities within the EU as a whole were then accompanied by growing differences within a number of Member States – in particular those that had recently joined the EU (Monfort, 2008; Cuadrado-Roura et al, 2016). Indeed, while between 2000 and 2015 central and eastern European countries and regions quickly converged towards the EU average in terms of GDP per capita, performance varied considerably from one region to the next (Alcidi et al, 2018). In particular, major disparities emerged between capital regions and the rest of the respective country, with the former moving further into the lead by dint of higher income growth rates and the latter deteriorating further in relative terms. This was the case for Bulgaria, Czechia, Hungary, Poland and Romania, with Sofia, Prague, Budapest, Warsaw and Bucharest performing above their respective national averages. For all these countries, internal disparities had already been increasing at a more or less steady pace since the mid-1990s, with the exception of Romania, where local differences increased much more dramatically; they more than doubled between 1995 and 2000 (Monfort, 2008).

Moreover, the 2008 economic crisis had a significant impact on regional convergence. Even in the Member States most affected by the crisis, there were remarkable differences between NUTS 2 regions. Empirical evidence on regional labour markets over the crisis period (2008–2012) does not support the hypothesis of a clear north–south divide; rather, it indicates that ebbs and flows in unemployment rates followed more complex patterns. The picture is that of a continental area, centred on Germany and Poland, which experienced a reduction in unemployment, and a large ring of more peripheral countries (for instance, the Baltic states, Cyprus, Greece, Ireland and Spain) where unemployment rose quite significantly.

Evidence based on finer-grained data shows an even more complex patchwork, in which different effects of the crisis across different regions and sub-regions can be seen. More specifically, the traditional dichotomy between large dynamic urban agglomerations and remote areas (either rural or decaying industrialised ones) was partly changed by the presence of capital metro regions that were severely hit by the crisis, together with a number of resilient rural and intermediate regions (Dijkstra et al, 2015). This evidence clearly points to the existence of several different modes of local economic performance in Europe.

EU regional convergence in the employment and socioeconomic areas

Against this backdrop, this section presents the main convergence trends among EU regions at NUTS 2 level in a subset of indicators for which data are available at this territorial level. The focus is on four indicators:

- employment rate (age 20–64)
- NEET rate (age 15–24)
- tertiary educational attainment (age 30–34)
- gender employment gap (age 20–64)

The period of observation is slightly shorter than that used for the description of convergence among countries due to some limitations in data availability.

For each indicator, regional convergence trends are presented using the Eurofound upward convergence methodology; as such, the evolution of the unweighted average and standard deviation of values observed at NUTS 2 level shall be considered. Moreover, the coefficient of variation, based on the unweighted mean, is used to compare the evolution of regional disparities at the regional and national level, both for the EU28 aggregate and, separately, for euro and non-euro zones. Results are first presented and then discussed separately for each indicator, before being compared and summarised.

The next section will look more specifically at the speed of regional convergence by applying the concept of beta-convergence. It assesses whether a regional catch-up process took place, meaning whether the selected indicators increased more rapidly in the regions with low starting points.

Although data coverage may be lower at the regional level than at the country level, investigating regional convergence in employment and socioeconomic dimensions can be very informative. Moreover, as already mentioned, the TFEU spells out that the improvement of socioeconomic cohesion depends on the reduction of regional disparities.

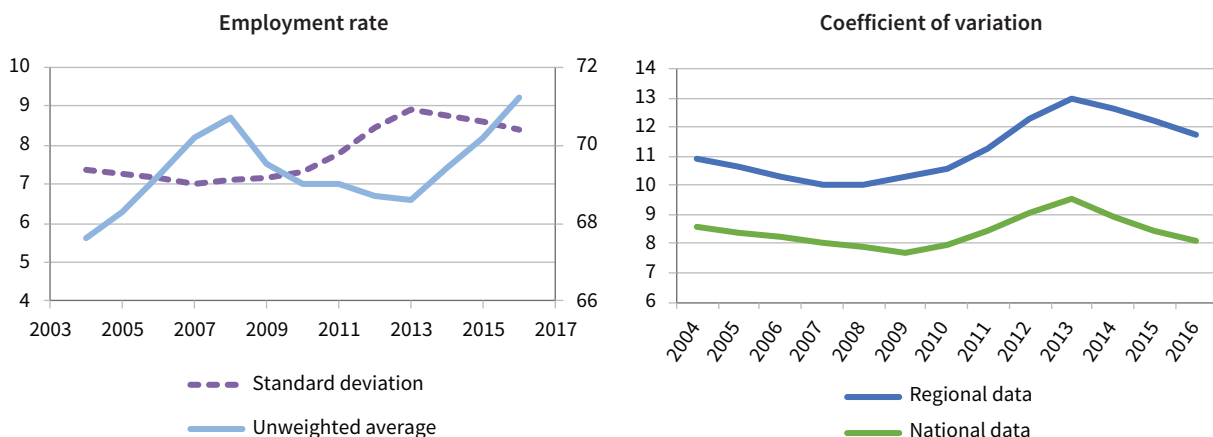
Employment rate

The patterns of convergence in regional employment rates are very similar to the national dynamics, and indeed very much influenced by the business cycle. Upward convergence is recorded in the period before the economic crisis and during the recovery, while a clear downward divergence in regional employment rates can be seen following the crisis (see Figure 7).

Though similar trends were recorded at the national level, disparities among EU regions are higher than among EU countries (this holds true for both the standard deviation and the coefficient of variation). In particular, the increasing level of disparities triggered by the crisis is more pronounced and starts earlier at the regional level than at the national level. Moreover, the reduction of disparities that began in 2013 is slightly less pronounced at the regional level.

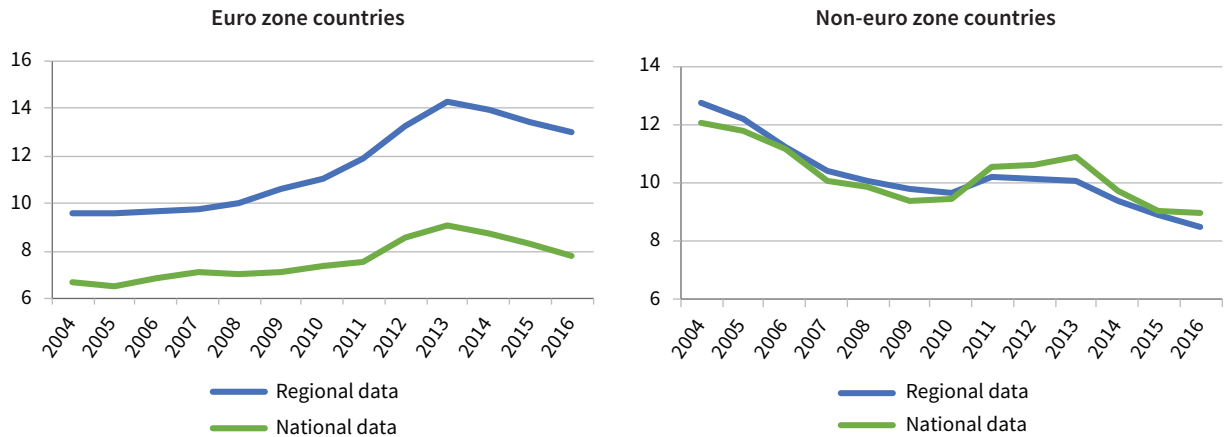
Looking separately at the euro and non-euro zones, it is clear that in the non-euro zone regional disparities declined to a similar degree to national ones, while in the euro zone there was a significant difference between the two. As Figure 8 suggests, in the euro zone, regional disparities were consistently higher than national ones and tended to increase from the beginning of the crisis onwards.

Figure 7: Convergence and divergence among EU28 regions in the employment rate



Source: Authors' own calculations, based on Eurostat NUTS 2 data

Figure 8: Coefficient of variation in the employment rate: euro zone and non-euro zone



Source: Authors' own calculations, based on Eurostat NUTS 2 data

NEET rate

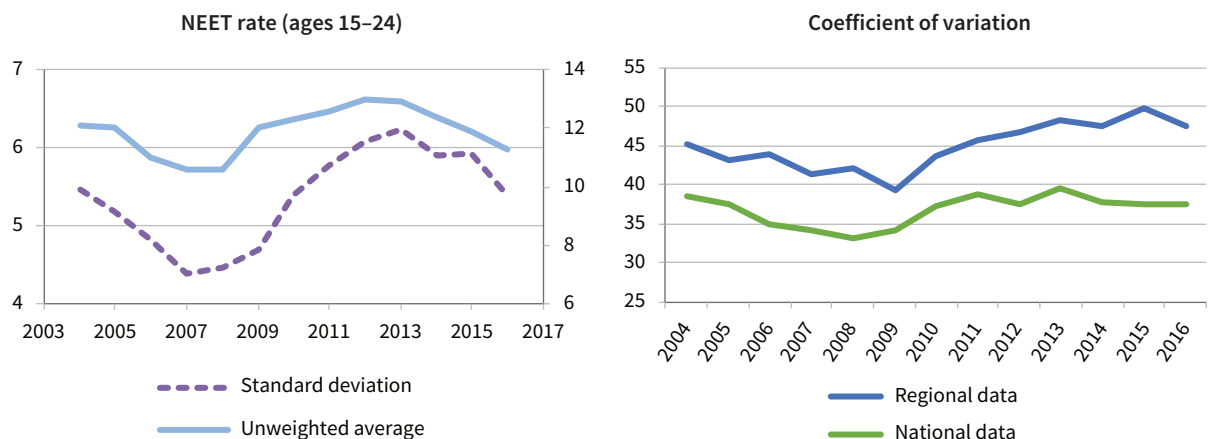
Similar to national trends, as shown in Figure 9, the youth NEET rate saw upward convergence among EU regions, although the decline in disparities between the first and final years is only marginal. Indeed, between 2008 and 2013, the convergence pattern reversed, showing a deterioration of the NEET rate and a sharp increase in disparities among regions.

In general, disparities in NEET rates are higher among EU regions than among EU countries (this holds true when using either the standard deviation or the

coefficient of variation). Moreover, while the economic crisis interrupted the convergence path at both regional and national levels, the regional effects were more marked and lasted longer.

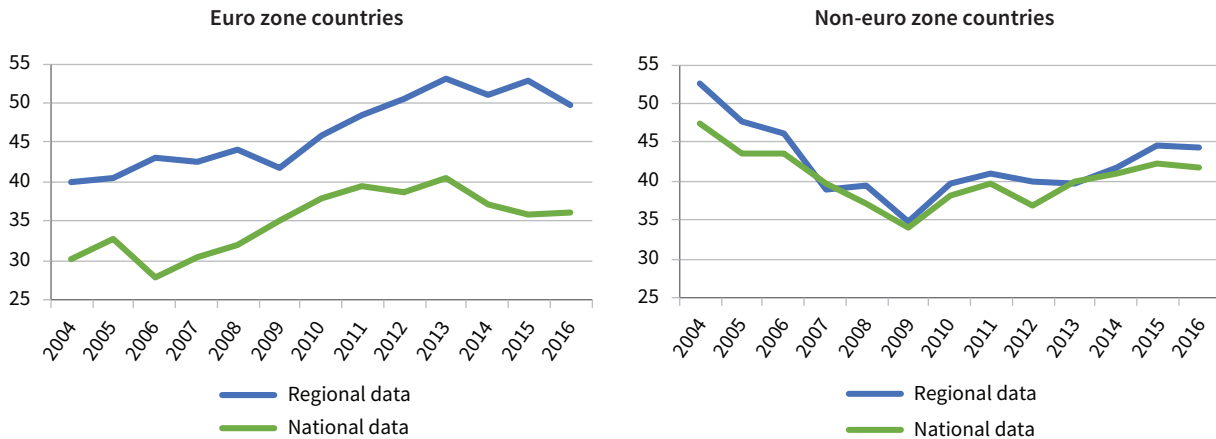
NEET convergence patterns differ more between countries and regions in the euro zone (Figure 10). In particular, a divergence process is evident over the whole period among regions of the euro zone, while regions in the non-euro zone recorded convergence until 2009 and divergence thereafter. Moreover, in the non-euro zone, disparities among regions are similar to those among countries.

Figure 9: Convergence and divergence among EU28 regions in the NEET rate



Source: Authors' own calculations, based on Eurostat NUTS 2 data

Figure 10: Coefficient of variation in the NEET rate: euro zone and non-euro zone



Source: Authors' own calculations, based on Eurostat NUTS 2 data

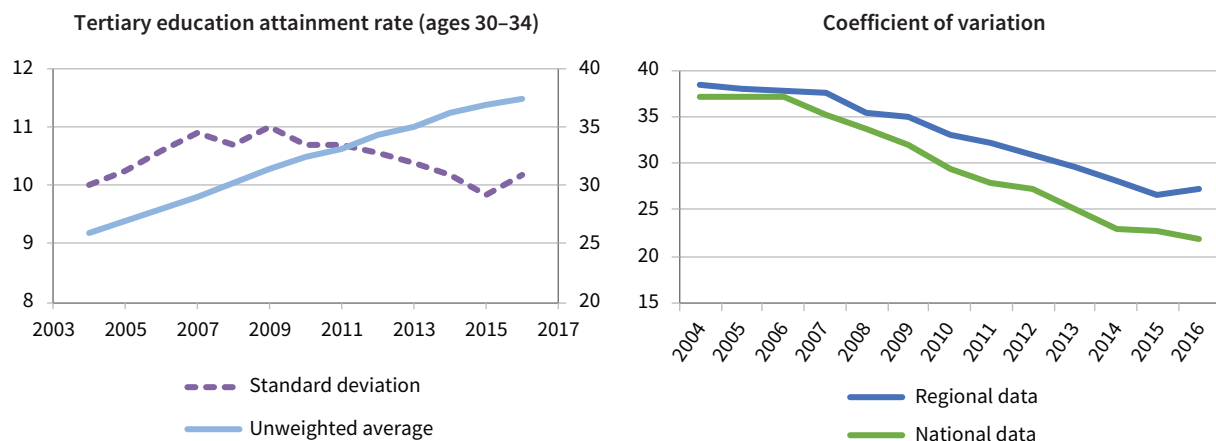
Tertiary educational attainment

As shown in Figure 11, regional-level tertiary educational attainment rates steadily increased over the period 2004–2016, mirroring the developments at national level. The dispersion, however, as measured by the standard deviation, increased more or less consistently until 2009 and then declined until 2015 to reach values similar to the beginning of the period. At the national level, the decline in disparities was more pronounced and started earlier, in 2006, while at the regional level the upward convergence trend can be more clearly seen from 2009 onwards.

In general, disparities in tertiary educational attainment rates are higher among EU regions than among EU countries (this holds true when using either the standard deviation or the coefficient of variation). However, while disparities were similar at the beginning of the period considered, differences widened over time.

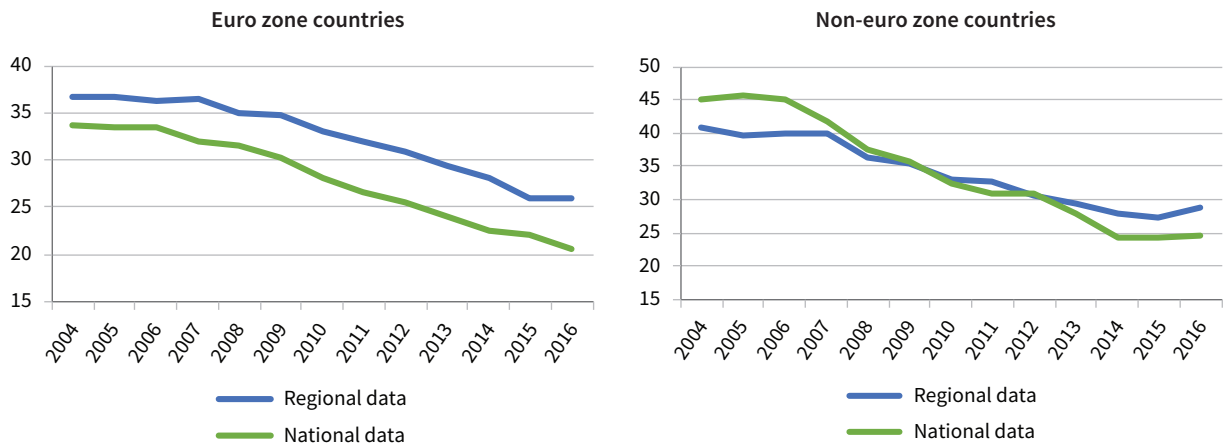
As seen in Figure 12, most of the differences between national and regional developments were recorded in the euro zone, where regional disparities were always higher than those observed at national level. On the contrary, in the non-euro zone, national and regional disparities were at a more similar level, especially in the period 2007–2013.

Figure 11: Convergence and divergence among EU28 regions in the tertiary educational attainment rate



Source: Authors' own calculations, based on Eurostat NUTS 2 data

Figure 12: Coefficient of variation in the tertiary educational attainment rate: euro zone and non-euro zone



Source: Authors' own calculations, based on Eurostat NUTS 2 data

Gender employment gap

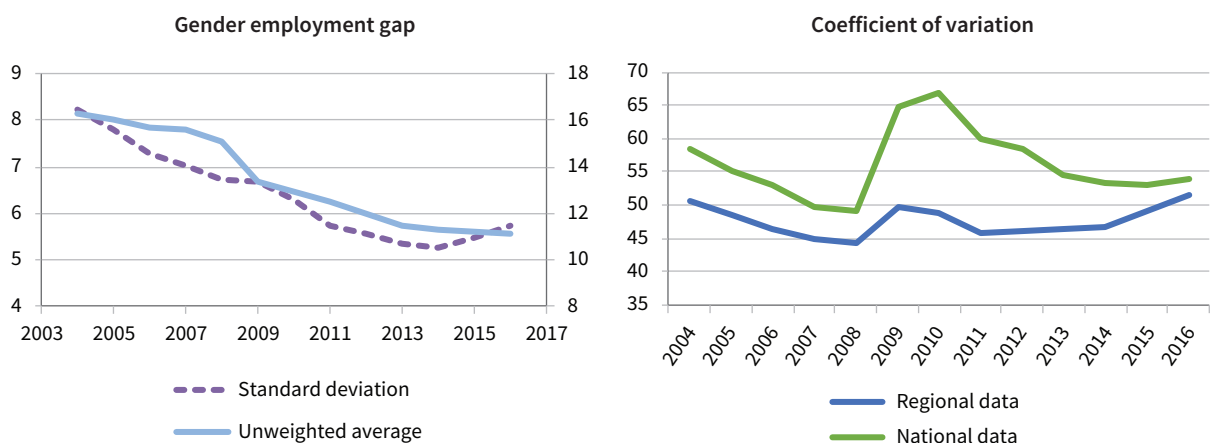
The gender employment gap at the regional level followed a pattern of upward convergence very similar to the national one, with a consistent decline in both the average gap and its dispersion.

In contrast to all the other indicators analysed so far, the gender employment gap shows larger disparities among EU countries than among EU regions. This is particularly the case from 2008 onwards, when national disparities started to increase rapidly. However, after

the economic crisis, the gap between regions and countries slowly started to close due to the increase in regional disparities observed since 2014 (see Figure 13).

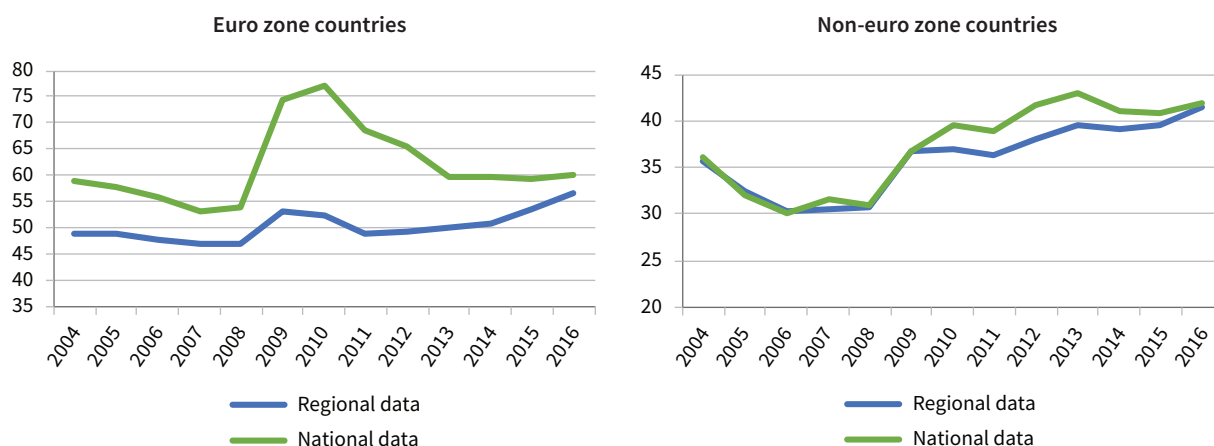
As seen in Figure 14, differences also emerge when analysing the euro and non-euro zones separately. In fact, in the case of the latter, the level of disparities among regions and countries were similar and increased from 2008 onwards. On the contrary, in the euro zone, the evolution of the coefficient of variation at the national level is strongly influenced by the crisis and follows a pattern very similar to that of the overall EU28.

Figure 13: Convergence and divergence among EU28 regions in the gender employment gap



Source: Authors' own calculations, based on Eurostat NUTS 2 data

Figure 14: Coefficient of variation in the gender employment gap: euro zone and non-euro zone



Source: Authors' own calculations, based on Eurostat NUTS 2 data

Overview of results

Overall, the results presented above confirm that regional trends of convergence or divergence for the selected indicators are rather similar to those at the national level. The findings are summarised in Table 5.

Indicators such as the employment and NEET rates were significantly influenced by the business cycle at the regional level, with a clear upward convergence process interrupted and reversed by the economic crisis until the recovery in 2013. Furthermore, for the gender employment gap, regional developments show a period of upward convergence in line with national figures, with no substantial differences among sub-periods.

Perhaps the main difference worth noting is that of tertiary educational attainment. On the one hand, at the national level, the share of the population successfully completing tertiary studies steadily increased over the entire period, with disparities between countries beginning to decrease in 2006. On the other hand, at the regional level, the decrease in disparities was recorded later, from 2009 onwards.

Another important finding is that for all indicators, with the notable exception of the gender employment gap, disparities (measured by the coefficient of variation) are larger among EU regions than among countries. The smallest gap in disparities is instead recorded for tertiary educational attainment.

For all indicators with the exception of tertiary educational attainment, the financial crisis contributed to an increase in disparities at the regional level (measured by the coefficient of variation). The effect was particularly evident for the employment rate, NEET rate and gender employment gap.

Finally, when breaking down the analysis by groups of countries, the results clearly show that for all indicators, regional and national disparities in the non-euro zone had very similar values and followed the same patterns (decreasing disparities for the tertiary educational attainment and NEET rates up to 2009, increasing disparities for the employment rate, gender employment gap and NEET rate from 2009 onwards). Overall, this suggests that the greater disparities at the regional level are linked to developments in the euro zone rather than the non-euro zone.

Table 5: Regional patterns of convergence and divergence

	2004–2008	2009–2013	2014–2016
Employment rate	UC	DD	UC
NEET rate	UC	DD	UC
Gender employment gap	UC	UC	UC
Tertiary educational attainment	UD	UC	UC

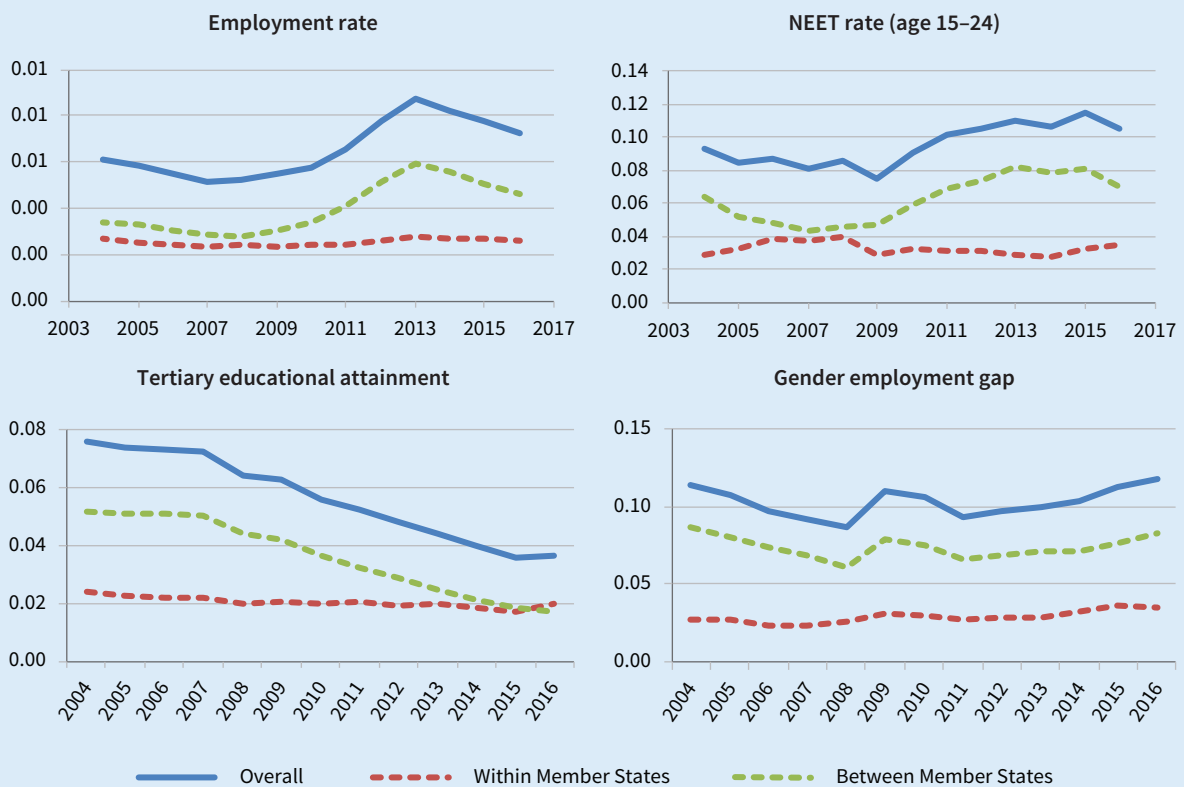
Note: UC = upward convergence; UD = upward divergence; DD = downward divergence.

Box 3: Disparities between and within Member States

This specific analysis considers the evolution of the Theil index, a statistic primarily used to measure economic inequality but also frequently used as an indicator of dispersion in regional convergence studies (Monfort, 2008). The Theil index enables overall inequality to be broken down into the part that derives from inequality within areas and the part that derives from differences between areas. In the current research, it provides additional information on the extent to which observed reductions (or increases) in disparities among EU regions are attributable to changes in regional disparities between Member States and/or to changes in regional disparities within Member States (see Figure 15).

The results suggest that regional disparities can mostly be explained by disparities between, rather than within, Member States. For the employment rate and NEET rate, an increase in disparities between Member States coincided with the economic crisis. While disparities in the employment rate between Member States steadily declined from 2013 to 2017, this was not equally true of the NEET rates (the difference in scales should, however, be noted). In the case of the gender employment gap, while disparities between Member States determine the overall pattern, differences within Member States have been marginally increasing since 2004. As for tertiary educational attainment, the results also show that the reduction of disparities among EU regions observed between 2004 and 2016 was mainly due to a reduction in inequalities between Member States rather than between regions within them; in fact, by the end of the study period, more inequalities were accounted for by within-country than between-country disparities.

Figure 15: Theil index for four selected indicators



Source: Authors' own calculations, based on Eurostat country-level data and EIGE data

Speed of regional convergence

In this section, in order to assess and compare the EU regional catch-up processes in the selected employment-related and socioeconomic domains, the speed of regional convergence is estimated for the four indicators of interest selected in the previous section. For the regression analysis here, however, the youth unemployment rate is used in place of the NEET rate, as the latter has many more missing values. The correlation between the youth unemployment rate and the NEET rate is 0.74 across the whole sample, 0.83 for the euro zone regions and 0.55 for the non-euro zone regions. To minimise the number of regions that would be excluded from the analysis, the analysis was restricted to the regional dataset for youth unemployment over the period 2002–2016.

The concept of beta- (rather than sigma-) convergence is used. Beta-convergence is the empirical definition of convergence postulated by growth models, and it measures whether countries with a low GDP per capita (or any other employment and socioeconomic indicator) grow faster than richer ones. The main idea behind this is that countries lagging behind in terms of GDP per capita will exhibit faster economic growth in order to catch up with countries in the lead. The same logic is used to assess regional convergence in employment and socioeconomic indicators. This implies that regions starting from a relatively low employment rate, for example, or a relatively low socioeconomic indicator, such as tertiary educational attainment, will try to catch up with the best-performing regions, thus experiencing relatively more significant progress in the domains in which they lag behind.

The econometric specification used to estimate the speed of regional convergence is based on the classical growth equation model proposed by Barro and Sala-i-Martin (1992), and empirically tests for convergence (β) in the growth rate of GDP per capita. As is usual in the literature, the overall time span is divided into sub-periods to allow for potential changes in trends within a long time span. Specifically, the period 2000–2016 is divided into three intervals: 2000–2004, 2005–2009 and 2010–2016.⁸ For each indicator y , the dependent variable is then the average rate of growth in each sub-period.

The most general specification of the estimated regression is the following:

$$\ln\left(\frac{y_{it}}{y_{it-T}}\right)/T = \alpha + \beta \ln y_{it-T} + \varepsilon_{it} \quad [1]$$

where $\ln\left(\frac{y_{it}}{y_{it-T}}\right)/T$ is the average rate of growth of

indicator y in region i over the T -year horizon, $y_{i,t-T}$ is the level of y_i in the first year of each interval, and ε is the standard error term.

The coefficient of interest is clearly β : a negative (and statistically significant) estimate that indicates whether a catch-up process has occurred at an annual rate of β . The estimated β s for the five indicators of interest are reported in Column 1 of Table 6, separately by group of countries (EU28, euro zone, non-euro zone and periphery of the euro zone – namely, Greece, Ireland, Italy, Portugal and Spain). The results reported in Column 2 are instead obtained by controlling for time fixed effects; as such, they can be regarded as unconditional convergence rates (more specifically, interval dummies d_T are included for the periods 2005–2010 and 2010–2016).

The analysis reveals that in the EU28, between 2000 and 2016, a regional catch-up process took place for all indicators considered. The rate of convergence is highest for the youth unemployment rate (the β coefficient has the biggest negative value, at around -0.07) and lowest for the employment rate (β is around -0.02). The other two indicators show similar speeds of unconditional β convergence, at around -0.05 . It is important to note that, for the youth unemployment rate and the gender employment gap, upward convergence would require the rate of growth of the indicator to be negative and high in absolute value for regions starting with the indicator at a high level, whereas for regions starting with the indicator at a low level, the rate of growth would still be negative but lower in absolute value.

The results also suggest that for some indicators, the catch-up process was exclusively (in the case of the employment rate and gender employment gap) or largely driven by developments in the non-euro zone. The only exception is tertiary educational attainment, for which the speed of convergence is very similar for regions in both the euro zone and the non-euro zone. Finally, significant regional convergence is found in the peripheral euro zone only for tertiary educational attainment and, to an even higher degree, for youth unemployment.

⁸ While the priority for the descriptive part was to include as many regions as possible so as to provide a better comparison with evolution at the national level, the econometric analysis prioritises the length of the time series. In both cases, over the time period analysed (2004–2016 for the former and 2000–2016 for the latter), regions with more than three consecutive missing pieces of information were dropped. For the remaining missing values, interpolation techniques have been applied.

Table 6: Unconditional convergence by group of countries, 2000–2016

	EU28		Euro zone		Non-euro zone		Periphery euro zone	
	1	2	1	2	1	2	1	2
Employment rate								
ln(employment rate)t-T	-0.0226**	-0.0227**	-0.00947	-0.00663	-0.0426***	-0.0445***	-0.0283	-0.0171
<i>Observations</i>	720	720	462	462	258	258	165	165
<i>R-squared</i>	0.058	0.074	0.01	0.045	0.196	0.339	0.071	0.395
Youth unemployment rate								
ln(youth unemployment rate)t-T	-0.0757***	-0.0713***	-0.0457***	-0.0443***	-0.143***	-0.132***	-0.101***	-0.102***
<i>Observations</i>	670	670	423	423	247	247	168	168
<i>R-squared</i>	0.223	0.28	0.1	0.142	0.565	0.678	0.264	0.664
Tertiary educational attainment								
ln(tertiary education)t-T	-0.0497***	-0.0520***	-0.0545***	-0.0545***	-0.0459***	-0.0459***	-0.0438***	-0.0438***
<i>Observations</i>	720	720	462	462	258	258	165	165
<i>R-squared</i>	0.272	0.278	0.273	0.273	0.29	0.29	0.277	0.277
Gender employment gap								
ln(gender employment gap)t-T	-0.0486***	-0.0515***	-0.0149	-0.0135	-0.0875***	-0.0864***	-0.00104	0.0106
<i>Observations</i>	715	715	458	458	257	257	165	165
<i>R-squared</i>	0.177	0.209	0.028	0.064	0.349	0.377	0	0.174
<i>Time fixed effects</i>	NO	YES	NO	YES	NO	YES	NO	YES

Note: For each indicator, each column is a different regression. Standard errors are clustered at the country level. Significance levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Role of structural factors: a case study of the employment rate

Although the gap in the indicator of interest between a given region and the best-performing region is the main driver of convergence between them, in some cases, this process may be hampered or spurred on by specific conditions prevailing at the regional and/or country level. The growth convergence literature reports that such conditions are usually accounted for by structural factors such as demographic trends, availability of factor inputs, and technological progress. As the employment rate is largely driven by economic growth, which is also at the core of various economic and social dimensions, one can employ analogous measures of structural factors, as well as account for other forces that may affect regions as parts of a particular country.

Differences in structural factors across regions may lead to corresponding differences in the regions' long-term equilibrium and influence the speed of convergence. Controlling for these enables us to identify conditional convergence as opposed to unconditional or absolute convergence which is when all regions converge towards the same long-term equilibrium independently of structural factors (see Box 4 for definitions and main issues).

Most of the empirical literature on the determinants of convergence refers to standard models of economic growth as a way to pin down the factors that can

influence the convergence process. Depending on the theoretical focus and data availability, these studies point to several factors that can influence both the long-term level and the speed of convergence. Such factors include population growth, capital accumulation, technological progress, openness to trade, and government policies or institutions (especially those influencing consumption and investment, protection of property rights and market regulation (Barro, 1996)). If all countries were the same in these regards, they would converge to the same level in the long run, with those starting from lower initial levels of GDP per capita and capital growing faster than the richer ones. However, if countries differed in these aspects, they would converge to different levels. This also implies that poor countries characterised by a relatively low steady state (due to low levels of human capital, poor innovation or weak institutions, for example) will not necessarily grow faster than richer ones.

This section specifically focuses on the employment rate, and analyses how regional- and country-level structural factors affect the speed of convergence in EU28 regions. The regional-level factors included are demography (fertility rate and share of population aged 60 and over) and human capital (share of youth with tertiary educational attainment). Meanwhile, the country-level factors included are government investment (government-fixed capital formation as a

percentage of GDP), government research and development (R&D) (public expenditure in R&D as a percentage of GDP), entrepreneurship (self-employment as a share of total employment) and openness to trade (the sum of imports and exports as a percentage of GDP).

To make comparison easier, Columns 1 and 2 of Table 7 report exactly the same results of unconditional convergence previously presented in Table 6. The results shown in Columns 3 to 5 are all conditional rates of convergence; however, these conditioning variables do differ, with structural factors sequentially included: first demographics, then human capital and, finally, country-level factors.

In the last column, the speed of convergence is tested to see whether it changed significantly in the last interval,

2010–2016, with respect to the previous ones. The implementation of the Europe 2020 strategy in 2010 was indeed expected to provide a further push for convergence; however, the sovereign debt crisis that hit some euro zone Member States during the recessionary years led such countries to pull back on convergence. A negative and significant estimated coefficient of the interaction term between the lagged indicator and the last-period dummy would indicate a strengthening of convergence speed, but in fact, a positive and significant coefficient actually reveals that, since 2010, the speed of convergence has weakened. In Column 6, while the estimated coefficient of the lagged indicator (β equation [1] in Box 4) gives the annual speed of convergence in the first two sub-periods, the speed in the last period is given by the sum of the coefficients of the lagged indicator and the interaction term ($\beta + B1$).

Table 7: Conditional convergence of the employment rate in the EU28, 2000–2016

	1	2	3	4	5	6
Employment rate						
ln (employment rate)t-T	-0.0226**	-0.0227**	-0.0207*	-0.0245**	-0.0367***	-0.0476***
	-0.00916	-0.00946	-0.0111	-0.0114	-0.011	-0.0111
ln (employment rate)t-T*dummy 2010–2016						0.0344**
						-0.0156
Time 2		-0.00216	-0.00231	-0.00298	-0.00215	-0.00192
		-0.00424	-0.00422	-0.0041	-0.00414	-0.00395
Time 3		0.00112	0.000854	-0.000355	0.00104	-0.144**
		-0.00319	-0.00312	-0.00292	-0.00345	-0.0676
ln(population60)t-T			0.0065	0.00593	0.00747	0.00666
			-0.00613	-0.00608	-0.00469	-0.00414
ln(fertility)t-T			-0.00525	-0.00767	-0.0115*	-0.0116*
			-0.0047	-0.00505	-0.00609	-0.00601
ln(tertiary education)t-T				0.00381	0.00225	0.00241
				-0.00266	-0.00218	-0.00213
ln(fixedcapital)t-T					-0.00121	-0.000869
					-0.00348	-0.00366
ln(selfempl)t-T					-0.0102***	-0.0105***
					-0.00324	-0.00322
ln(expenditureRD)t-T					0.000719	0.000653
					-0.00179	-0.00172
ln(openesstrade)t-T					0.00256	0.00231
					-0.00275	-0.00263
Constant	0.0990**	0.100**	0.0737*	0.0810*	0.163***	0.211***
	-0.0387	-0.0396	-0.042	-0.0434	-0.0489	-0.0494
Observations	720	720	720	720	720	720
R-squared	0.058	0.074	0.092	0.11	0.228	0.257
Time fixed effects	NO	YES	YES	YES	YES	YES
Demographics	NO	NO	YES	YES	YES	YES
Human capital	NO	NO	NO	YES	YES	YES
State-level controls	NO	NO	NO	NO	YES	YES

Note: Significance levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

The results reported in Table 7 show that the magnitude of the unconditional speeds of convergence (Column 2) are lower than the rates estimated by conditioning on regional- and country-level structural factors (Column 5), thus suggesting that the latter can play a role in speeding up the convergence process (from 2.3% to 3.7%). In particular, demographic regional-level factors, such as fertility rate, and country-level factors, such as the incidence of self-employment, play a significant role.

Finally, in Column 6, the interaction term is positive and statistically significant. This indicates that in the last period, 2010–2016, the rate of conditional convergence declined, suggesting the dominance of recessionary effects over those of the Europe 2020 strategy. The drop is also very large, denoting a sharp reduction in convergence rates; for the employment rate, the speed of convergence drops from 4.8% to 1.4%.

Box 4: Unconditional and conditional beta-convergence

From a theoretical point of view, while unconditional or absolute convergence rests on the assumption that all regions (or countries, depending on the level of analysis) share the same steady state and converge to the same equilibrium point, conditional convergence allows the long-term equilibrium to differ across regions, depending on the conditioning variables.

In the growth literature, unconditional convergence pertains to the neoclassical view of an exogenous progression, in which obstacles are overcome to drive all regions to the same steady state. The theoretical underpinnings of conditional convergence, however, relate to the endogenous growth theory, which stresses the relevance of structural factors – in particular, education levels, capital formation and endowment, innovation activities, R&D expenditure and institutions – as the actual engines of growth; depending on the levels of these, long-term equilibrium can differ across regions.

Empirical evidence shows that unconditional convergence is normally lower than conditional convergence, especially where the sample of regions (or countries) is heterogeneous in terms of the levels of relevant structural factors. When the latter is conditioned upon, the estimated convergence rate usually rises. By the same token, a similar result is observed when including regional (or country) fixed effects, which capture all observed and unobserved time-invariant regional (or country) characteristics, thus allowing each region to converge to its own steady state. In fact, the inclusion of fixed effects in conditional convergence regressions is an important technical issue as discussed at length by Barro (2015), who advises great care when adopting such an approach, as fixed effects may unrealistically inflate the estimated convergence rate. This bias tends to zero when the available time period is long but may be significant when the overall time period is relatively short – less than 20 years – or even only moderately long (between 20 and 50 years).

Unconditional beta-convergence analysis usually produces downward-biased convergence estimates due to omitted variables that are positively related to both growth rate and the lagged dependent variables. Hence, the suggested solution when dealing with short time periods is to include structural factors in the regression analysis and to avoid adding fixed effects.

Specifically, the following regression is estimated:

$$\ln\left(\frac{y_{it}}{y_{it-T}}\right)/T = \alpha + \beta \ln y_{it-T} + d_T + \gamma_1 X_{1it-T} + \gamma_2 X_{2jt-T} + \varepsilon_{it} \quad [1]$$

where $\ln\left(\frac{y_{it}}{y_{it-T}}\right)/T$ is the average rate of growth of indicator y in region i over the next five years starting at t , $y_{i,t-T}$ is the level of y_i in the first year of each interval, d_T are interval dummies, X_1 and X_2 are, respectively, vectors of regional- and country-level factors that may influence the growth rate of the selected indicator y , and ε is the standard error term.⁹ The inclusion of the vector X determines whether the convergence is conditional or unconditional.

9 In order to take potential endogeneity into account to some extent, regional- and country-level factors are measured at the beginning of each period.

In order to test for changes in the speed of converge since 2010, a final specification adds an interaction term between the lagged indicator and the last interval dummy d_3 :

$$\ln\left(\frac{y_{it}}{y_{it-T}}\right)/T = \alpha + \beta \ln y_{it-T} + d_T + \gamma_1 X_{1it-T} + \gamma_2 X_{2jt-T} + \beta_1 \ln y_{it-T} * d_3 + \varepsilon_{it} \quad [2]$$

As already established, the implementation of the Europe 2020 strategy in 2010 could have provided a further push towards convergence; however, the following five-year period comprised recessionary years for some EU countries, especially those hit by the sovereign debt crisis at the end of 2011, a situation that potentially delayed convergence.

Spatial distribution of growth rates

The convergence-related findings discussed in the previous section consider regions as independent units. This assumption implies that there are no systematic spillover effects linking one region to another. However, regions are not isolated in space, and growth and employment conditions in a certain region are likely to affect and to be affected by such conditions in neighbouring regions (Le Gallo and Ertur, 2003; Magrini, 2004). Indeed, there are many factors that make regions interdependent: for example, migration and commuter flows, capital flows, and technological and knowledge spillovers (Fingleton, 2003; Rey and Janikas, 2005). It is worth noting that spatial independence may also be violated by measurement errors or the so-called areal unit problem. This arises when data are provided for administrative regions (such as the NUTS levels in Europe) even though these do not necessarily reflect the spatial structure of economic activities (Eckey and Türck, 2007). An ‘economic’ region may be split into different administrative regions in this way, thus generating spatial autocorrelation by construction.

Linkages are expected to be stronger in integrated markets, like the EU, where intra-EU trade means economic growth in one region can easily increase market demand in, as well as the market capacity of, neighbouring regions by creating jobs and disseminating innovation beyond regional boundaries. In a similar vein, in a context of interdependent regions, a local negative shock may easily be transmitted to other regions; for example, through job losses on the part of cross-border workers or declining demand for intermediate goods supplied by firms located in neighbouring regions. Likewise, the functioning of the markets and related structural issues and inefficiencies

(such as employment rigidities or skill mismatch) are likely to impact the economic performance of interconnected regions, thus affecting their employment and socioeconomic convergence (Özyurt and Dees, 2015).

In light of these considerations, it is important to test how regional convergence processes in the employment and socioeconomic dimensions are affected by spillover effects, referred to here as spatial dependence. The extent of the spatial dependence is technically treated as a further conditioning factor; in addition, interconnections affect the error term, and thus the estimation technique. Statistical tests reported in Table 8. confirm that employment growth rates are not randomly distributed across regions, suggesting the presence of spatial dependence. Specifically, the Moran’s I test indicates that there is positive spatial dependence and that neighbouring regions are likely to register similar growth rates, thus confirming the existence of clusters of regions that are not always fully delimited by national boundaries.¹⁰

In light of this evidence, we can test whether the estimates of convergence obtained with the standard regression analysis in the previous section still hold once spatial dependence between neighbouring regions is considered (see Box 5 for more details on the spatial model).

Table 8 reports the main estimates of the convergence parameter β , obtained with the spatial model when controlling for regional- and country-level factors (as in Column 5 of Table 7). For ease of comparison, the convergence estimate obtained in the previous section, in which spillover effects across regions were not controlled for, is also reported (and labelled the ordinary least squares (OLS) model in Table 8).

¹⁰ The Moran’s I test computes the correlation in the growth rate of a certain indicator (or in the error term of the regression) between neighbouring regions. These correlations are weighted on the basis of the distance between regions, giving more weight to the correlation of the indicator considered between closer regions. A Moran’s I test of 0 means that there is no correlation in the growth rates of neighbouring regions, meaning growth rates are randomly distributed. A positive value of the Moran’s I test indicates that neighbouring regions display similar growth rates (i.e. positive spatial correlation or dependence), while a negative value implies that highly performing regions border poorly performing ones (i.e. there is negative spatial correlation or dependence between neighbouring regions).

Box 5: Convergence estimates with spillover effects between neighbouring regions

Spatial models enable potential spillover effects between neighbouring regions caused by spatial correlation to be controlled for. In a regression framework, a general model is estimated by assuming that both the dependent variable (in this case, the growth rate of certain employment or socioeconomic indicators) and the error term of a certain region are correlated with, respectively, the growth rates and the error terms of the neighbouring regions.

This model, known in the literature as a spatial autoregressive model with autoregressive disturbances of order, or SARAR model (Anselin and Florax, 1995; Kelejian and Prucha, 1998), can be specified as follows:

$$\ln\left(\frac{y_{i,t}}{y_{i,t-T}}\right)/T = \alpha + \beta \ln(y_{i,t-T}) + \gamma_1 X_{1it-T} + \gamma_2 X_{2jt-T} + \lambda \mathbb{W} \ln\left(\frac{y_{jt}}{y_{j,t-T}}\right)/T + \epsilon_{it}$$

where: $\epsilon_{it} = \rho \mathbb{W} \epsilon_{jt} + u_{it}$

All the variables have the same meaning as outlined in the previous section, and \mathbb{W} is a connectivity matrix whose elements w_{ij} measure the contiguity between any pair of regions i and j . A typical (and computationally feasible) specification of the contiguity relationship is a simple rule where w_{ij} is equal 1 if i and j are contiguous (for example, because they share a border), and 0 otherwise (Pesaran, 2004). In addition to the regressors of the previous specification, the spatial regression includes, for each region i , the weighted growth rates of the neighbouring regions j (the second-to-last term in the above equation). Furthermore, the error term of the i -th region is allowed to depend on the weighted error terms of the neighbouring regions j . Following the literature on spatial analysis using European regions at NUTS 2 level, we assigned weight 1 to the k -nearest neighbours of each region i , with $k = 12$ neighbours; we then assigned weight 0 to the remaining $j-k$ regions.

Table 8: Spatial regressions for conditional convergence in the employment rate for European regions, 2000–2016

	Employment rate	
	OLS model	Spatial model
$\gamma(t-T)$	-0.0367 0.000	-0.075*** -0.010
Observations	720	720
Moran's I test	5.404 0.000	

Note: Column 1 provides OLS estimates as in Column 5 of Table 7, with standard errors clustered at the country level, while Column 2 provides SARAR estimates in which standard errors are not clustered but the spatial weighting matrix is included in the error terms. Significance levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

The estimates in Table 8 show that conditional convergence of the employment rate is faster when the potential spatial dependence between neighbouring regions is taken into account. Based on spatial estimates, the annual rate of convergence for the employment rate is around 7.5% (while the corresponding OLS estimate is 3.7%): spatial estimates actually halve the time needed to reduce disparities across regional labour markets.

Spatial dependence can therefore affect convergence, but existing studies show that these effects are very heterogeneous and depend greatly on the indicator considered, the estimation method used and the sample (in terms of period and regions (Monfort, 2008)).

As such, it is difficult to draw clear-cut conclusions about the effects of regional interdependencies on conditional convergence. However, most studies agree that working with regional data requires that the issue of the linkages between neighbouring regions be addressed; furthermore, once we consider that regions are not isolated in space, this usually leads to higher speeds of convergence, particularly for poorer regions (Eckey and Türck, 2007).

Summary of key findings

The regional-level analysis carried out using the Eurofound methodology shows that the trends of convergence or divergence for the selected indicators (employment rate, NEET rate, tertiary educational attainment and gender employment gap) are quite similar to developments at the national level. For all indicators under study in this chapter, with the notable exception of the gender employment gap, disparities (measured by the coefficient of variation) are larger among EU regions than among countries; meanwhile, the smallest gap in disparities is recorded for tertiary educational attainment. For all indicators, regional and national disparities in the non-euro zone displayed very similar values and followed the same patterns, suggesting that the higher disparities at the regional level overall were linked to developments in the euro zone.

Between 2000 and 2016, a catch-up process across EU28 regions took place in all the employment and socioeconomic indicators considered. Specifically, all four indicators exhibited unconditional convergence. For some indicators, the catch-up process was exclusively (in the case of the employment rate and gender employment gap) or largely driven by developments in the non-euro zone. The only exception is tertiary educational attainment, for which the speed of convergence was very similar in regions in both the euro zone and non-euro zone.

The analysis of conditional convergence for the employment rate indicates that regional- and

country-level structural factors played a role in enhancing the speed of convergence (from 2.3% to 3.7%). It also shows that, in the last period (2010–2016), the rate of conditional convergence declined, suggesting the dominance of recessionary effects over the influence of the Europe 2020 strategy.

Taking into account spatial dependence between neighbouring regions is important when analysing convergence at the regional level. It is indeed the case for the employment rate that geographical proximity of regions influences the speed of convergence by halving the time needed to reduce disparities across regional labour markets.

4 Potential policy measures to support employment and socioeconomic convergence

As demonstrated in the previous chapters, socioeconomic and labour market indicators are pointing to an overall trajectory of convergence among Member States and to improvements in living conditions in the EU since the beginning of this century. However, the same trend is less evident at the regional level, where convergence appears more mixed due to increasing territorial disparities, especially between rural or peripheral regions and central metropolitan ones. The data show that the 2008 economic crisis halted the long-term patterns of strong upward convergence in the EU28 and widened disparities among countries and regions, particularly in the euro zone. Although the economic and employment domains have recovered since 2013, increasing inequalities and worsening employment conditions have emerged across population groups, regions and countries in the EU.

There have also been political calls for the EU to play a more decisive role in supporting employment and socioeconomic convergence, with social divergence within the EU threatening to undermine the credibility of the European project. This is shown by growing scepticism towards the EU and the increasing political swing towards nationalistic forces among European citizens, who feel ‘left behind’ or concerned by globalisation and the Europeanisation processes (Kuhn et al, 2016; Garben, 2018).

Demographic ageing, migration flows, digitalisation and global competition are likely to affect employment and socioeconomic conditions further in the coming years, as well as to increase social and territorial inequalities in the EU. Such factors bring with them the risk that political instability will be fuelled in the absence of adequate policies and institutions supporting convergence, particularly in countries and regions lagging behind. Diverging trends have been the result not only of asymmetric shocks, but also of the severe weaknesses in structural and institutional characteristics – including weak productivity growth and insufficient policies – in some countries and regions, particularly those within the EMU (ECB, 2015).

While national and place-based policies (at regional or local level) are necessary to address local needs and growth opportunities, there is also a need for greater EU coordination in policymaking, together with well-functioning institutions at national and regional levels.

The current distribution of competencies between the EU and Member States limits the EU’s scope to intervene in social and labour market policy.¹¹ However, in order to support upward economic and social convergence, common EU measures to reduce the negative effects of asymmetrical shocks and enable labour markets to adjust rapidly during downturns may be necessary. Such measures may also favour structural reforms and investment in social and educational policies to improve long-term socioeconomic growth, especially in countries and regions characterised by structural and institutional weaknesses.

In addition to the European structural and investment funds (ESIFs), which are the primary long-standing EU tool to support regional convergence, several European programmes and initiatives have been launched in recent years to prevent structural divergence in employment and socioeconomic conditions. These include the European Youth Guarantee, the Long-term Unemployment Initiative, the Employment and Social Innovation programme and the Fund for European Aid to the Most Deprived.

The most recent development was the launch of the European Pillar of Social Rights in November 2017 (European Commission, 2016a), which attempted to further upgrade the social dimension of growth and convergence in the EU political agenda. The wide-reaching debate surrounding the pillar underlines its importance in strengthening the political mandate for EU institutions to act in policy domains where the principle of subsidiarity could otherwise have curtailed such actions (Karlson and Wennerberg, 2018, p. 27). This enables a higher level of protection to be provided than would otherwise be available in some Member States (Hendrickx, 2018, p. 5). However, according to some

11 This is according to the TFEU, Articles 4–5 and 151–161. The defined competencies of the EU within the area of social policy and labour market policy are stated in Articles 151–161 of the TFEU, which stipulate, among other things, that the Union shall ‘support and complement’ actions within the area of social policy in the Member States (Article 153).

commentators, the pillar does not expand EU competencies in the covered areas, as it is not legally binding (Garben, 2018). Karlson and Wennerberg (2018) also point out that the increased centralisation of these policy areas at the EU level is likely to draw attention away from national and regional specificities, thus weakening accountability and decreasing efficiency and innovation. In light of this, it has been argued that institutional competition would be a more effective tool to support convergence. Vandenbroucke (2017a) posits that the EMU needs mechanisms that limit the diversity of national labour market policies because other stabilisation mechanisms (for example, labour mobility and centralised fiscal policy) do not operate efficiently. It is thus necessary to have EU guidance on wage determination and an EU risk-sharing or risk-reduction mechanism.

Although the pillar is not legally binding, it already backs a number of important EU-level legislative and non-legislative proposals that foster convergence in the area of employment and socioeconomic conditions. The proposal for a Council Recommendation on access to social protection for workers and the self-employed of March 2018 is one example (European Commission, 2018d). Other long-standing and debated EU legislative proposals have been linked to the pillar. These include:

- the Work–Life Balance Directive, which met with European Parliament approval in April 2019
- the proposal for a revision of the Written Statement Directive (91/533/EEC)
- the proposal for a revision of the Posting of Workers Directive (96/71/EC)
- the interpretative communication on the Working Time Directive (2003/88/EC)

The pillar also acts as a reference framework in the annual cycle of economic policy coordination (European Commission, 2017a), and in the European Commission’s proposals on the European Social Fund Plus (ESF+) 2021–2027. According to this proposal, the mandate of the ESF+ is to support a more social Europe and to oversee the implementation of the pillar. The ESF+ will merge the original ESF with other EU programmes and funds currently supporting social inclusion and access to healthcare.

The EU has a number of policy options through which to sustain employment and economic convergence, including a European unemployment insurance (EUI) scheme and a European minimum wage (EMW) policy. Going forward, an EUI scheme could play an important macroeconomic risk-reduction role in supporting socioeconomic convergence for the unemployed, while an EMW policy could be beneficial in generating greater convergence in disposable income, thus reducing the

numbers of the working poor. Both policy options could equip Member States with additional tools to increase their resilience to shocks, as well as prevent diverging trends in socioeconomic conditions. These policies should be considered as complementary to other structural measures for convergence. Their implementation is, however, difficult, as they intervene in policy areas of national competence characterised by wide disparities across countries, which may hamper their political feasibility.

The following sections present an assessment of the EUI and EMW, discussing the rationale behind the main arguments for and against EU intervention, as well as the key design features and their feasibility given the current situation across Member States. The analysis is based on a review of the academic literature and policy documents, as well as semi-structured interviews with some policy stakeholders, including representatives of the EU social partners, and experts, professionals and academics in EU employment and social policies.

Potential role and feasibility of a European unemployment insurance scheme

Unemployment insurance schemes are defined at the national level, with the EU’s role limited to providing only advisory guidelines on ways to coordinate national social security systems and to ensure social security protection when an EU citizen moves within Europe. The provision of such guidelines is intended to prevent a person from being left without social protection or having double coverage in a cross-border situation.

An EUI scheme can be defined as an unemployment-based, supranational, automatic stabilisation mechanism, which can take different forms (Beblavý and Lenaerts, 2017). The idea of an EUI has featured in the academic and policy discourse for decades. The underlying objective is to develop a European redistributive mechanism that compensates countries hit hardest by asymmetric shocks in terms of involuntary unemployment in order to avoid the need for cutbacks in unemployment insurance schemes currently running deficits (Bordo et al, 2013; Farhi and Werning, 2014). While social convergence is not the primary objective of an EUI scheme, nevertheless, it would help to smooth the business cycle and contribute to reducing the impact of recessions on European citizens, countering the potentially negative impact of unemployment on income and on future employment perspectives. This debate is focused on the euro zone, although most arguments also apply to the EU as a whole.

Arguments for and against an EUI scheme

The rationale behind introducing an EUI scheme, as outlined in the literature and by the interviewed stakeholders, relates to its potential positive effects on macroeconomic stabilisation and social convergence.¹² The main argument in favour of an EUI scheme is its capacity to act as a rapid automatic counter-cyclical mechanism at the EU level, supporting consumption and domestic demand during recessions with a multiplier effect in those Member States hardest hit by the crisis (Beblavý et al, 2015). Through cross-country transfers, an EUI scheme could support the most affected Member States by providing additional funding for unemployment benefits, thus preventing them from being cut in these countries. In this way, an EUI scheme would serve as an EU macroeconomic stabilisation mechanism, with potentially stronger counter-cyclical effects compared to national schemes, given its higher spatial and intertemporal smoothing effects. As pointed out in the literature and by some of the interviewees, as long as other aspects of the monetary union remain incomplete, this stabilisation mechanism in the face of asymmetric shocks ensures that such shocks are rapidly stabilised and prevented from producing long-term negative effects and divergence. As is the case in a monetary union, asymmetrical shocks in one country have spillover effects in other countries, meaning it is rational for its members to have some common requirements for unemployment insurance schemes so that a quick reaction to shocks can be mounted.

An EUI scheme may also favour upward social convergence with positive redistributive effects, both at the individual and territorial levels. It could reduce divergences in household income during downturns by increasing support to those workers more likely to bear the social costs, as well as those regions or countries more affected by asymmetric or symmetric shocks of different intensities. The multiplier effect of an EUI scheme on household consumption during downturns in countries or regions most hit by shocks might also reduce the potential negative effects that this has on economic convergence.

An EUI scheme could also indirectly support social convergence and stabilisation by favouring upward convergence in labour market policies and institutional capacity. If so, coverage and protection of the unemployed across Member States would likely improve due to the introduction of common standards for activation policies. Convergence in standards of national unemployment benefits could also quell any moral hazard behaviour, which represents the main risk associated with the introduction of EUI mechanisms.

By strengthening the social dimension, an EUI scheme may also contribute to the legitimacy of the European project (Andor et al, 2014). Depending on the design of the scheme, unemployment benefits could be seen as a sign of solidarity (among countries and citizens) in that they target those individuals or areas that bear the largest share of costs during a recession.

In principle, an EUI scheme would support labour mobility by easing the portability of unemployment benefits across countries. By facilitating job searches across the EU, it would contribute to a more integrated European labour market, as well as to territorial convergence.

The budgetary cost of an EUI scheme is likely to be relatively low compared to other income-support measures, being limited in population coverage and duration.

However, there are also important arguments against the implementation of an EUI scheme. These are mainly related to moral hazard, and to the legal and political barriers of EU intervention in a policy domain that falls in the remit of Member States.

The risk of inducing moral hazard behaviours at both Member State and individual levels is the main argument against the introduction of an EUI scheme. Member States with persistently high unemployment and a large shadow economy might be discouraged from implementing unpopular labour market and social reforms if they knew that an EUI scheme would provide increased financial support. At the individual level, overly generous unemployment benefits may dissuade people from actively searching for a job.

Another issue, related to moral hazard, is the risk that the EUI scheme may lead to a permanent redistribution of resources from Member States with low unemployment rates to Member States with consistently high rates.

The feasibility of an EUI scheme, both from an operational as well as a political and institutional point of view, is also an issue. The national unemployment benefit schemes already in place reflect social preferences deeply rooted in each country's institutional and regulatory framework. The EU legal framework may be an additional constraint. Previous work on a potential EUI has debated whether such a scheme could be established within the existing EU legal framework without requiring changes to various treaties. According to some authors (for example, Fuchs, 2013), this is not possible, while others have identified a legal basis for some types of EUI (for example, Kullas and Sohn, 2015; Beblavý and Lenaerts, 2017).

The required legislative amendments largely depend on

12 For an in-depth discussion on the rationale and challenges of introducing an EUI scheme, see Beblavý, Marconi et al (2015) and Beblavý and Lenaerts (2017).

the design of the scheme, which will be discussed below.

In terms of EU funding, setting up the financing side of an EUI as part of the general budget appears to be the easiest and most preferred option (rather than setting it up outside the budget), although this would not be without difficulties, and would require political support.

The pros and cons and the feasibility of an EUI scheme largely depend on its design, for which different options have been proposed in the academic and policy debate. The following section summarises key design aspects and the discourse surrounding them.

Key design features of an EUI scheme

Thus far, academic debate has predominantly focused on how to design an EUI system in order to minimise the potential negative moral hazard implications and to improve its political and legal feasibility.

Many EUI variants have been proposed. For example, Beblavý and Lenaerts (2017) cover 18 variants, with certain parameters differing from one to the next. Box 6 illustrates some of the proposals emerging from the literature.

The main distinction in terms of design is between a genuine EUI scheme and a reinsurance-based EUI scheme. In a genuine scheme, European unemployment benefits are transferred directly to unemployed individuals, and, in turn, contributions are collected from employers and employees. In this case, the EUI would provide a basic level of insurance, partly or fully replacing existing national schemes, as Member States could eventually top up the EUI scheme with national resources. In a reinsurance scheme, all financial transfers would occur between the supranational fund and the Member States (which would only receive a payout when the EUI was triggered). Countries would pay contributions into the fund and receive transfers from the fund when triggered. The EUI would thus ‘reinsure’ the existing national unemployment benefit schemes.

Both the genuine and the reinsurance variants have benefits and drawbacks, and the choice between them should also take into account political considerations.

The genuine variant would be more visible among European citizens and could become a tangible proof of European solidarity. As pointed out by some interviewed stakeholders, it would pool national resources and thus be more distanced from any ‘net contribution’ consideration. However, this variant would be difficult to implement, as it would require a considerable effort in its administration and in the harmonisation of national systems, inducing substantial political, legal and operational barriers. Member States would have less flexibility to operate their own schemes if the national unemployment benefit scheme had to

comply with a set of common minimum standards. However, as underlined by some of the interviewed stakeholders, the issue of harmonisation could be tackled by outlining the conditions that would need to be met to join the scheme from the outset.

According to the literature and most of the interviewed stakeholders, reinsurance EUI schemes would likely be more acceptable politically, as they give more flexibility to the Member States. However, their political feasibility crucially depends on the extent to which conditions are imposed on the ways that governments can use the funds received from the supranational fund and whether minimum standards are set for national schemes.

Whatever the choice between genuine and reinsurance schemes, an EUI should be designed to prevent permanent transfer across EU countries and to reduce incentives for moral hazard. According to the economic literature (see Dolls et al, 2017) and interviewed stakeholders, both problems could be partially solved through careful design of the following three main mechanisms.

- The **trigger mechanism** stipulates when the EUI should be activated; for example, when unemployment rates exceed a pre-defined threshold. The conditions on which to employ this trigger could be based on previous national unemployment records. The adoption of high thresholds would guarantee that the EUI scheme only intervened in cases of severe shocks, thus reducing incentives for moral hazard. In addition, incentives to moral hazards could be reduced by basing the thresholds on short-term unemployment deviations from previous national trends, rather than on long-term ones.
- The **experience-rating mechanism** links the payment into the supranational fund to the likelihood of using it, either by taking into account how often the fund is used (reinsurance EUI) or by linking the payment to a country’s past unemployment record (genuine EUI). Experience-rating mechanisms can also reduce incentives to moral hazard and the risk of a country becoming a permanent beneficiary of the EUI.
- The **claw-back mechanism**, serving as an additional mechanism to address permanent transfers, ensures that there are no national long-term imbalances regarding the supranational fund.

In addition, in order to avoid permanent transfer and moral hazard, the EUI scheme should address only short-term unemployment, rather than structural long-term unemployment. It should also introduce activation conditionalities, requiring Member States to implement specific activation measures and employment policies to reduce unemployment.

Box 6: Key design options for an EUI in the academic debate

Since 2012, the debate on a potential EUI as an automatic stabilisation mechanism has advanced significantly, with a large part of the literature discussing possible design options. A summary of some of the most recent papers and proposals is presented below.

Dullien (2007, 2013, 2014) outlines the EUI as a solution to help restore citizens' trust in the EU and to mobilise public support for a fiscal union. To do so, it would need to be designed as a basic scheme with transfers to the short-term unemployed, which would substitute part of the national unemployment insurance schemes.

Esser et al (2013), in a report prepared for the European Commission, consider the option of ignoring cross-national institutional differences by providing a direct EU contribution to the funding of unemployment insurance benefits. In order to build a shared mechanism, countries would have to find and agree on the ways in which states and the euro zone symmetrically participate in funding an unemployment insurance tool, designed to have common European standards and the possible inclusion of second-tier assistance or flat-rate unemployment benefit programmes. This option would require adjustments at country level, though institutional changes to build up systems of unemployment benefits in Member States do not appear difficult. The authors suggest that a fruitful harmonisation for an EUI scheme would be to consider a contribution period of 26 weeks and a benefit period extended to 52 weeks in seven euro zone countries. A final reflection concerns the replacement rate of unemployment benefits. The majority of euro zone economies have replacement rates of between 60% and 80%, with Austria, Estonia, Ireland and Malta having lower rates. Whether an upward adjustment of benefit levels is possible and whether it could be facilitated by EU financial incentives is left to further discussion.

Dolls et al (2017) discuss different possible variants of an unemployment insurance system for the euro zone: a basic unemployment insurance scheme that in part replaces national unemployment insurance systems, a benefit extension programme that complements national unemployment insurance systems, and a fully centralised system. All three options would establish automatic stabilisers at the euro zone level, but would have very different implications for stabilisation, redistribution and the risk of moral hazard.

Jara et al (2014) propose an unemployment insurance benefit at EMU level, in which additional support is provided to unemployed people. Such a proposal moves beyond any existing national provisions that fall short in terms of eligibility (coverage) and the amount payable.

Beblavý and Maselli (2014) analyse two main proposals for the creation of an EUI scheme: the creation of a harmonised European scheme that applies automatically to every eligible unemployed person, and a scenario in which funds are transferred to Member States' national unemployment insurance schemes to finance benefits from the centre to the periphery when unemployment is measurably higher than normal. In their study, **Beblavý et al (2015)** propose a reinsurance mechanism for the Europeanisation of national insurance schemes, showing that such a system delivers, for a small average contribution, large shock-absorption capacities. Both studies consider the effects on all Member States.

Brandolini et al (2014) underline the broad characteristics that a shock absorber based on unemployment should have in order to be incentive-compatible and politically feasible. The analysis suggests that the scheme should give rise to macro cross-national transfers, mimicking those that would be generated by a notional euro-wide unemployment benefit scheme of minimal coverage and generosity; it should be activated by a trigger and feature partial experience rating. The paper's simulations suggest that even systems that do not redistribute resources between countries can have a considerable stabilisation impact in the medium run.

More recently, **Dolls et al (2017)** consider the role of an EUI scheme in the euro zone as a fiscal risk-sharing device and compare the different stabilisation channels activated by the scheme. They find that the value added of such a scheme lies crucially in its ability to provide interregional smoothing. Implementing counterfactual simulations based on microdata for the period 2000–2013, they assert that '10% of the income fluctuations due to transitions into and out of unemployment would have been cushioned through interregional smoothing' at the euro zone level. However, the gains are unevenly distributed across countries, ranging from –5% in Malta to 22% in Latvia during the analysed period, and four Member States would have been either a permanent net contributor or net recipient. The paper also discusses moral hazard issues at individual, administrative and economic policy levels.

Other key elements to be considered in the design of an EUI scheme are its geographical scope and specific features in terms of eligibility rules, coverage rates, duration, benefit levels and replacement rates, which are currently diversified across EU Member States to varying degrees.

Discussion on the geographical scope of an EUI is focused on whether only countries in the euro zone should take part in the scheme, whether all EU members should be eligible or whether any EU member can partake on a voluntary basis.

As highlighted by Beblavý et al (2015), one argument for the inclusion of all Member States is that, if the purpose of the scheme is to insure countries against asymmetric shocks, a larger pool will face these shocks more effectively than one made up of a smaller number of countries (Beblavý and Maselli, 2014). A second argument is that this would impose some minimal common welfare standards across the EU and demonstrate citizen solidarity at the European level.

On the other hand, the arguments for including (at least initially) only euro zone Member States relate to the fact that benefits arising from such a scheme would be higher for euro zone countries, as they do not have the freedom to use monetary policy to react to adverse shocks. In addition, their higher degree of economic

integration would ensure an easier and faster adoption of the scheme compared to non-euro zone countries. For this reason, most studies and simulations have been limited to euro zone countries (Dullien, 2007, 2013; Pisani-Ferry et al, 2013; Jara et al, 2014; Dolls et al, 2017).

Other simulations include the possibility for countries (and citizens) to opt out of the scheme or suggest an optional incorporation into the scheme (Dullien, 2013). Leaving every country free to decide whether or not to join the EUI scheme would make the scheme politically acceptable to everyone. However, in order to avoid adverse adoption of the EUI scheme, it would be more effective if participation were mandatory (Beblavý and Maselli, 2014), as is the case in other federal states, such as the United States and Switzerland (Dullien, 2007; Beblavý et al, 2015).

As for the other features of an EUI scheme, most of the proposals suggest adopting a scheme in which a wide coverage for short-term unemployment, including non-standard workers, is allowed, and which is sufficiently generous not only to support a high multiplier effect, but also to become strongly linked to activation conditions. These features are increasingly being adopted by Member States, as shown in Box 7. A detailed presentation of the current situation in Member States is provided in the annexes.

Box 7: Unemployment benefit schemes in Member States and recent changes

There is a great deal of variety in unemployment benefit systems across Member States in terms of eligibility rules, the definition of benefit levels, net replacement rates, benefit duration and funding.

With regard to eligibility rules, the main issue relates to the qualifying period for eligibility: for example, in 2017, the qualifying period was 13 weeks in Italy and 104 in Ireland and Slovakia. The variation is higher among euro zone countries than in the non-euro zone. However, in both cases, the typical qualifying period is around 52 weeks.

National differences are even wider with regard to benefit levels and replacement rates. In most countries, benefit levels and duration depend on the contribution period, and are set as a proportion of previous earnings. However, in some Member States (for example, Bulgaria, Greece, Malta, Romania and the UK), there are flat-rate benefits (European Commission, 2016b). In addition, in certain countries (for example, Austria, Hungary, Latvia, Lithuania, Portugal, Romania and the UK), replacement rates decline over time as a way to incentivise job search.

Net replacement rates – expressed as a percentage of an average production worker's wage in the case of a single person¹³ – range from 92% in Portugal to 12% in the UK, with 21 different rates across the EU27 (2010). The most frequent net replacement rate (58%) is shared by only three Member States (Cyprus, Denmark and Finland). However, 17 Member States (14 in the euro zone) have net replacement rates around or above 60%, which could be taken as the basis of an EU scheme. On average, net replacement rates are higher in euro zone countries (62%) than in non-euro zone countries (45%). Euro zone countries also show higher differences than non-euro zone ones.

¹³ Since most EU countries provide additional social benefits for parents, net replacement rates vary according to the type of household – for example whether there are one or two wage earners and the number of children. This may influence the ordering of countries in terms of generosity. Data are available on the OECD online tax and benefits database here: <https://stats.oecd.org/Index.aspx?DataSetCode=TAXBEN>

There is also much variation across Member States in the duration of benefits, defined as the time span during which benefits are paid. In 2017, this ranged from three months in Hungary to an unlimited period in Belgium. A total of 20 EU countries have duration periods of ten or more months, with all the EU27 having at least five months. The average duration is considerably higher in the euro zone (above two years) than outside it (around 12 months). In several European countries, benefit duration may be extended depending on age and the relevant previous employment record (Esser et al, 2013).

In most EU countries, unemployment insurance schemes are largely funded by social contributions paid by workers and employers. However, in Croatia, Czechia, Lithuania, the Netherlands and Poland, only employers' contributions are used. In Luxembourg, employees contribute through a special solidarity tax, and in Sweden, the employee only contributes to the earnings-related benefit. In Denmark, only employees contribute, while certain employers pay contributions for their employees who are members of an unemployment fund, and in Finland neither employer nor employee contribute to the basic insurance benefit, adding instead to the earnings-related benefit.

As for state contributions, Cyprus, Luxembourg and Malta have fixed contributions from the state, while in Austria, Belgium, Germany, Ireland, Lithuania and Slovakia (euro zone) and Czechia, Poland and Romania (non-euro zone), the state covers deficits. In Finland, Greece, Italy, Latvia and Spain, the state provides a subsidy to unemployment insurance. This applies to some non-euro zone countries as well, including Denmark, Hungary, Sweden and the UK. There is no formal participation of the state in Estonia, France, the Netherlands, Portugal or Slovenia (euro zone) or Bulgaria or Croatia (non-euro zone).

Finally, the taxation of unemployment cash benefits also varies widely. Such benefits are not subject to taxation in 11 countries (Austria, Bulgaria, Croatia, Cyprus, Czechia, Germany, Latvia, Lithuania, Portugal, Romania and Slovakia), seven of which are euro zone members. Of the 17 Member States in which taxation is applied to benefits, 12 are euro zone countries. In some countries, such as Germany, part of the benefit is subject to taxation, and benefits in Greece are subject to taxation in cases where annual personal income is over a certain threshold.

During the first two years of the economic crisis (2008–2009), many Member States eased eligibility conditions (e.g. Finland, Italy, Latvia, Portugal and Sweden) or increased benefit levels (Belgium, Bulgaria, Czechia, Ireland, the Netherlands, Poland and Slovenia). Only Ireland tightened eligibility conditions and decreased benefit levels for unemployed youth (Leschke, 2015). A tightening of eligibility conditions occurred from 2010 onwards in Belgium, Bulgaria, Czechia, Denmark, Greece, Hungary, Latvia and Romania, while Greece, Ireland, Latvia, Poland, Portugal, Romania, Spain and the UK reduced benefit levels. It is expected that planned reform in France and the ongoing changes in Finland will also tighten the conditions for accessing benefits.

With regard to benefit duration, there has not been a clear trend in the mentioned period, nor has there been a clear trend with regard to the benefit levels observed. Some countries have implemented reforms aimed at linking payments more closely to contributions or previous earnings, such as Italy and Lithuania.

It is, however, worth noting the tendency in recent years for the extension of eligibility for unemployment insurance to non-standard workers and the self-employed.

Political feasibility of an EUI scheme and positions of the main stakeholders

As strongly emphasised by interviewed stakeholders and in the literature (Claeys et al, 2014), in addition to the complexity of designing an EUI scheme that minimises moral hazard and permanent transfers, a crucial issue for implementation is political commitment from Member States.

At EU level, the idea of an EUI scheme has been advocated for decades. As early as 1975, the so-called Marjolin Report proposed the EUI as a tool for fiscal policy, stabilisation and redistribution that would provide a certain number of unemployment benefits (European Commission, 1975). This proposal was then taken up in 1993 in a report by Italianer and

Vanheukelen (1993), who envisaged a federal-level insurance scheme with a stabilising role. This would involve triggering a mechanism either automatically or purposely when the government was unable to control the fallout from a particular shock. According to the authors, this option would offer the advantage of fiscal autonomy, avoid moral hazard and guarantee the automatic nature of the system.

When the economic crisis occurred in 2008, several calls for EMU reform and proposals for implementing an EUI scheme emerged once again in EU discourse. In 2012, László Andor, then Commissioner for Employment, Social Affairs and Inclusion, reiterated that an EUI was a way to complement national insurance schemes and act as a macroeconomic stabiliser for the EU.

In November 2012, the European Commission adopted a blueprint for a deep and genuine EMU, advocating an EMU-level stabilisation tool to support adjustment to asymmetric shocks (European Commission, 2012). This was aimed at facilitating stronger economic integration and convergence and avoiding the setting up of long-term transfer flows. Building upon the previous *Four Presidents' report*, the 2015 *Five Presidents' report* (Juncker et al, 2015) considered the introduction of automatic stabilisers as transnational fiscal shock absorbers for the EMU and outlined four criteria to be met in order to avoid moral hazard effects:

- the EUI should not lead to permanent transfers
- it should not undermine the incentives for sound fiscal policymaking at the national level
- it should be developed within the EU framework
- it should not be used for crisis management

More recently, the *Reflection paper on the deepening of the Economic and Monetary Union* published by the European Commission in May 2017 considered the introduction of a European Unemployment Reinsurance Scheme as a 'reinsurance fund' for national unemployment schemes, used to provide more breathing space for national public finances and to help countries emerge from economic crises faster and stronger (European Commission, 2017e). However, it recognised that such a scheme would probably require some prior convergence of labour market policies and characteristics.

Recent years have seen the EUI concept gain support from both citizens and political actors, who see it as a way to sustain the European project. Regarding EU citizens, a 2018 study by Vandenbroucke et al, which included a survey involving 19,641 respondents from 13 EU Member States, provides interesting results (Vandenbroucke et al, 2018).¹⁴ The survey shows that less than 13% of people in the targeted countries are against cross-border sharing of unemployment risks, although there are differences across countries. Moreover, the findings show that citizens tend to prefer generous schemes that guarantee higher minimum unemployment benefits. They also support schemes associated with education and training services, as well as those based on activation and conditionality (for example, accepting suitable job offers), and are generally opposed to tax increases. In most countries, there is greater support for a decentralised implementation of an EUI – a system that Vandenbroucke (2018) sees as akin to a 'reinsurance scheme, which supports national benefit systems with

lump-sum budgetary transfers'. Another interesting finding is the issue of between-country redistribution, which is seen as

less important for citizens, when they express preferences, than for policymakers. This is not to say that such debates are not important; but other issues – such as education, training and activation requirements – seem to carry more weight

(Vandenbroucke et al, 2018, p. 5)

However, political positions largely depend on government coalitions and may change over time. The strongest advocates of EUI currently are the French and German governments, both of which are looking for ways to counteract the centrifugal nationalistic forces threatening the European project. The French–German Meseberg Declaration, signed in June 2018 by French President Emmanuel Macron and German Chancellor Angela Merkel, puts forward, among other measures affecting the euro zone budget, the possibility of a European unemployment stabilisation fund in the case of severe economic crises. The declaration also refers to a French–German working group, which was set the task of preparing 'concrete proposals for the European Council of December 2018'. It is worth noting, however, that such a proposal remains controversial among various members of the German government.

In terms of social partners, the debate on the potential implementation of an EUI scheme has been less prominent. Only BusinessEurope – the main organisation representing employers in Europe – has taken a negative official position. In a note on the subject in October 2013, it defines a potential EUI as politically unfeasible, unacceptable and impractical. In its opinion, in order to be effective, social protection systems should remain under the competence of Member States, and unemployment insurance should continue to be shaped at national level (BusinessEurope, 2013). The EUI scheme would have adverse moral hazard effects, reducing incentives for structural labour market reform, and could be ineffective in terms of its stabilising impact due to the difficulty of responding immediately to asymmetric shocks in Member States and the risk of being activated too late.

Interestingly, as of July 2019, the main European trade unions have yet to provide an official or full assessment. In its reaction to the European Commission's reflection paper *Strengthening the social dimension of the Economic and Monetary Union*, the European Trade Union Confederation (ETUC) – the main trade union

¹⁴ The survey was implemented in Austria, Belgium, Denmark, Estonia, Finland, France, Germany, Hungary, Ireland, Italy, the Netherlands, Poland and Spain.

organisation representing workers at European level – asked for more clarification (ETUC, 2017), while the European Confederation of Independent Trade Unions (CESI) – representing mainly employees working in the public sector – welcomed the introduction of an EUI scheme (CESI, 2018). The cautious stance on the part of trade unions in low unemployment countries (for example, Germany) can be attributed to a commonly held fear that an EUI scheme, whatever its design, could result in permanent transfers from richer to poorer Member States.

In recent years, the EU social partners have given increasing attention to the issue and the European Economic and Social Committee is currently drawing up common minimum standards in the field of unemployment insurance in Member States – a concrete step towards the effective implementation of the European Pillar of Social Rights. The objective of such standards is to promote an upward social convergence within the EU, with indications on minimum standards to be adopted in the form of a series of features of a potential EUI, including the net replacement rate, the coverage ratio of unemployed people receiving unemployment payments, the duration of unemployment benefit entitlements, and the right to (re)qualification and training.

Potential role and feasibility of a European minimum wage policy

Intervention rationale for an EMW policy

The International Labour Organization (ILO) defines a minimum wage as

the minimum amount of remuneration that an employer is required to pay wage earners for the work performed during a given period, which cannot be reduced by collective agreement or individual contract.

(ILO, 2016, p. 35)

Although, in principle, the EU has no competence with respect to wage levels or wage formation mechanisms, the EU social *acquis* – the cumulative body of EU laws on social matters – addresses related aspects; for example, collective bargaining and dignity in working conditions are addressed in Articles 28 and 31 of the Charter of Fundamental Rights of the European Union, respectively. As underlined by Schulten (2008) and Ofek-Ghendler (2009), the normative justification for an EMW policy is supported by a number of international and European conventions and agreements that see fair and adequate remuneration as a basic social right.

Indeed, the right of EU workers to ‘a fair remuneration for a decent standard of living’ was first proposed by the European Social Charter (1961),¹⁵ and this principle has recently been reaffirmed in the European Pillar of Social Rights, with specific reference to ensuring an adequate level of remuneration (Eurofound, 2018b).

Minimum wages are mainly justified on ethical grounds: society feels there is a threshold below which wages are not acceptable, even though some employers and workers are willing to transgress this principle (Eurofound, 2013). Regardless of how they are fixed – by statute, a competent authority, wage board or council, via collective agreements or through labour courts or tribunals – minimum wages are meant to ensure that nobody is paid a wage below what is considered acceptable or decent, thus protecting the most disadvantaged groups in the labour market. However, the extent to which they actually protect low-wage workers largely depends on employers’ compliance, which is highly differentiated across Member States and economic sectors.

Whether the introduction of an EMW policy would support employment and socioeconomic convergence is debatable. The literature and interviewed stakeholders put forward a number of reasons in its favour. First, by increasing the wages of the lowest-paid workers, an EMW policy is expected to reduce in-work poverty and poverty risks, especially in those EU countries with very low wages. According to a Eurofound study, the introduction of an EMW standard of 60% of the national median wage (Eurofound, 2014) in 2010 would have benefited 16% of all EU employees. Second, supporting low-wage workers could contribute to socioeconomic upward convergence (Schulten, 2012). An EU coordination role could reinforce the social dimension of Europe, contributing to the legitimacy of the European project and increasing EU citizens’ confidence in it.

There is also an economic rationale for EU intervention in an EMW. In preventing workers from being paid below their contribution to productivity, minimum wages would stimulate aggregate demand, since low earners have a higher propensity to consume (Herr and Kazandziska, 2011). For surplus countries in particular, an increase in minimum wages could boost internal demand and thus help to reduce economic imbalances in Europe (Direction générale du Trésor, 2015). An EMW could also complement economic integration measures, avoiding social dumping and unfair competition among European firms (European Parliament, 2016). This would affect certain sectors of the economy in particular, such as construction and

15 For more information, see European Commission (1993).

road transport (Vaughan-Whitehead, 2010), and positively influence the ways in which workers are posted. Finally, such a measure could represent a step towards the creation of an EU labour market that has transparent conditions and favours labour mobility.

However, there are also arguments against an EMW policy. One set of these relates to the potential negative effects of minimum wages on employment, especially in the case of low-skilled workers and labour market entrants (as set out in Box 8). The results of the estimations in the previous chapter also show that an EMW policy may increase divergence across regions and countries in the case of youth unemployment. It is also argued that an EU-coordinated mechanism for minimum wages may affect the competitive position of Member States and EU companies, particularly for goods and services requiring low-skilled labour (Fernández-Macías and Vacas-Soriano, 2015). Furthermore, an EMW policy might not address the needs and specificities of each Member State and erode the autonomy of existing national or local labour market institutions. In those Member States with strong collective bargaining practices (such as the Nordic countries), this would significantly affect patterns of

existing industrial relations, as well as the role of the social partners. For this reason, the interviewed stakeholders underline the need for a decision-making process involving all relevant stakeholders (social partners) in order to ensure accountability and acceptance.

Another set of arguments relates to the feasibility of EU intervention. The latter is sometimes seen as particularly problematic in a context characterised by wide disparities between the ways in which minimum wages, along with their features, are defined by different countries (as shown in Box 8 below and in Annex 8), and by the risk of minimum wages acting as a barrier to competitiveness. In principle, the EU has no competence with respect to wage levels or wage formation mechanisms. Remuneration was explicitly excluded from the scope of the new social policy chapter of the TFEU (Article 153). The issue of legal feasibility is underlined by both the literature and interviewed stakeholders, with some of the latter pointing to the need to arrive at a common understanding between the EU and Member States, while others point out that treaties exclude wage determination from the EU's remit.

Box 8: Minimum wages, low wages and in-work poverty

According to international standards, low-wage earners are employees who earn two-thirds of national median gross hourly earnings or less. McKnight et al (2016) underline how in-work poverty is increasing in many Member States due to low wages, low work intensity, employment instability and the effects of tax benefit systems. The economic crisis and the increase in non-standard forms of employment in many countries appear to have contributed to this increase.

As for the effects of minimum wages on poverty, according to economic theory, minimum wages above the 'equilibrium' level reduce employment opportunities and increase unemployment, particularly for young people and low-skilled workers (Laporšek, 2013; Kalenkoski, 2016). If the level of the minimum wage becomes too disconnected from productivity levels, unemployment poverty rates among the low-skilled are likely to increase, and the lifetime income stream of young unskilled workers may potentially reduce due to delayed entry into the labour market. Minimum wages may also reduce on-the-job training opportunities, since training cannot be exchanged for lower wages. In addition, they may incentivise employers to adjust working times through the use of non-standard and/or informal labour. The aggregate effects of minimum wages thus depend on the extent to which the gains for those who remain in standard employment exceed the losses for those who cannot find work or are employed in non-standard or informal work.

The bulk of the empirical evidence finds statistically significant negative effects of minimum wages on youth employment (Laporšek, 2013), although some authors argue that when spatial correlation is taken into account, the negative effects of minimum wages disappear (Dube et al, 2010). Matsaganis et al (2015) show that the poverty-reducing effects of increasing the minimum wage are small but not trivial. For instance, increasing the minimum wage to 50% of the average wage would reduce the overall AROPE rate by at least one percentage point in 13 out of 28 Member States, and tackle issues such as earning inequality and work incentives. These positive effects could be enhanced by combining other redistributive policies with an increased minimum wage, like minimum income or universal benefit programmes.

Other issues are the level at which minimum wages are fixed and employers' compliance with such stipulations. There is evidence that minimum wage policies improve the wage of the lowest paid, acting as a wage floor and preventing employers from dropping wages to very low levels (Card and Krueger, 1995; OECD, 1998; Doucouliagos and Stanley, 2009). However, they do not necessarily reduce the incidence of low pay. As argued by Schulten

(2014) and Schulten and Müller (2014), in many European countries, statutory minimum wages do not rise above the level of 'poverty wages'.

Given the possible negative effects of minimum wages on (un)employment in the debate, a variety of other policy approaches aim to reduce the number of low-paid workers and increase their take-home pay and opportunities to move into higher-paying jobs. These include: a tax-benefit system supporting the income of low-wage workers (for example, cash welfare payments or tax reliefs); education or training and upskilling policies; and active labour market programmes to support labour market transitions.

Key design features of an EMW policy

It is only in recent years, with growing inequality across workers and countries, that the debate on the introduction of a European minimum wage policy has gained traction. The most discussed elements are the mechanism to be adopted to coordinate the different minimum wage systems currently in existence across Member States and the level at which minimum wages should be set in order to avoid, or at least minimise, the potential negative employment effects, especially for young and low-skilled workers.

The degree and type of coordination (either by statutory intervention or social dialogue) is a crucial issue; as summarised in Box 9 and described in detail in Annex 8, minimum wage systems differ greatly across Member States. Minimum wages are set in some countries via a statutory model, while in others they are set by collective bargaining. Furthermore, some minimum wages take intermediate forms, in which government intervention either extends the coverage of collective agreements to all workers or establishes a statutory minimum wage in particular cases. A coordination between minimum wages at EU level based upon statutory regulation would indeed significantly affect national industrial relations and social partners' competencies, particularly in those Member States where minimum wages are determined by collective bargaining at the sectoral and/or occupational level. Therefore, it is likely to face the opposition of trade unions, especially in countries (such as the Nordic countries) with strong traditions in collective bargaining for minimum wage-setting. However, as underlined by Fernández-Macías and Vacas-Soriano (2015), an EU-wide statutory minimum wage would affect a larger proportion of such countries' workers, who tend to occupy a larger share of low-paid employment.

The form of regulation at EU level is thus a key element in the design of an EMW policy. The debate is about whether to adopt a 'soft law' mechanism – similar to the 'open method of coordination' used for employment and social policy coordination, in which the voluntary cooperation of Member States and/or social partners is integral (Schulten, 2008) – or to implement a 'hard' form of coordination, which could require a treaty change. Soft law mechanisms are considered more feasible and

effective, given the wide national differences in wage determination systems, although some authors and interviewed stakeholders have pointed out the lack of results produced by such mechanisms in terms of the coordination and harmonisation of policies (Borrás and Radaelli, 2010). The adoption of 'hard' forms of coordination appears very difficult to implement: given that wages are currently explicitly excluded from the EU treaties, such mechanisms would require a high and improbable level of consensus across Member States, affecting not only governments but also social partners and other stakeholders. As such, it will probably be necessary to explore other options for voluntary coordination, such as the autonomous agreements between the EU's social partners, or the creation of a Eurosystem Competitiveness Council with a coordination and guidance role for national wage-setting negotiations.

In terms of the latter, Sapir and Wolff (2015) originally suggested that the Eurosystem Competitiveness Council be composed of national councils and that the European Commission reflect the Belgian experience at federal level. This proposal was eventually taken up in the *Five Presidents' report*, albeit as a softer version. In theory, to avoid competitiveness problems in the euro zone, the Eurosystem Competitiveness Council could coordinate the actions of national councils to ensure that national wage determination systems do not support wage increases above productivity levels. Member States and the social partners would therefore have complete flexibility over the way wages are determined. In cases where the competitiveness benchmark is not followed, the European Commission could intervene with corrective actions from the European Semester framework.

The level at which minimum wages should be set is another controversial feature of an EMW policy (Fernández-Macías and Vacas-Soriano, 2015), given the difficulty in defining the level of 'fair wages that provide for a decent standard of living' as stated in Principle 6 of the European Pillar of Social Rights. The wide diversity of national regimes and levels means that a relative minimum wage is usually considered for the EU standard. Most suggestions refer to a certain percentage of the national median or average wage, with 60% as the most frequently mentioned percentage

(the European Committee of Social Rights defines a ‘fair’ or ‘decent’ wage as being at least 60% of the average net wage, while the European Parliament has called for minimum wages of at least 60% of the relevant average wage). It is worth noting, however, that the choice of the reference wage makes a difference: while the use of the median wage as a reference dissociates the minimum wage from the variations in the highest salaries, using the average wage would avoid this problem (although the average wage would be less representative in cases of high wage heterogeneity). The use of gross national product per capita or per worker would link the minimum wage with productivity growth, although it would present problems during economic crises, among other circumstances (Eurofound, 2013).

Interviewed stakeholders have pointed out the need for European guidelines or recommendations supporting a common minimum wage of at least 60% each EU country's median wage; the European Semester could then monitor the situation and provide additional recommendations if needed. An option that has been discussed in this respect is the creation of an EU-level advisory body to advise on minimum wages. Following the model of the UK's Low Pay Commission, it would be the responsibility of this body to adjust the target on a yearly basis, depending on the evaluation of the economic and social situation.

Finally, since compliance with minimum wages differs greatly across countries and sectors, there is the issue of monitoring and enforcing the potential EMW. To this end, specific monitoring (data collection and indicators) and enforcement tools would need to be developed, in addition to measures extending the coverage of minimum wages.

Box 9: Minimum wage schemes in Member States and recent changes

The majority of Member States (22 out of 28) have a national minimum wage. In the remaining six (Austria, Cyprus, Denmark, Finland, Italy and Sweden), minimum wages are set either by collective agreements for a range of sectors or by the government but only for specific occupations. Thus, minimum wage schemes vary widely across Member States, and approaches differ in several regards.

The first is the regulatory instrument used to determine minimum wage rates. The most frequent scheme in the EU is a national minimum wage determined by statutory regulation, which is implemented in 17 Member States. In five Member States (Belgium, Bulgaria, Estonia, Greece and Poland), national minimum wages are fixed by collective bargaining. Sectoral or occupational minimum wages are set by collective bargaining in another five Member States (Austria, Denmark, Finland, Italy and Sweden), in which minimum wages differ depending on the industry, position, occupation or age. Finally, in Cyprus, minimum wages are statutory for certain occupational groups.

Turning to the scope and applicability of minimum wages, there is a difference between those countries with a single national or universal minimum wage and those with minimum wages set only at the sectoral or occupational level, with sometimes large variations in coverage. Systems with single national schemes are characterised by the establishment of a general lower wage threshold, usually at the national level, which applies to all employees (with some exceptions); by contrast, sectoral or occupational schemes do not have general lower wage thresholds, but set minimum wages for specific sectors or occupational groups (Schulten et al, 2015).

In July 2018, the level of monthly gross minimum wages ranged from €261 in Bulgaria to €1,999 in Luxembourg (Eurostat, 2018). Minimum wages are much lower in eastern European countries than western ones; however, as shown in Chapter 3 of this report, the gap is narrowing. Variation in minimum wage levels is higher among euro zone countries than those in the non-euro zone. Differences in the level of minimum wages are lower when assessing households' final consumption expenditure on a purchasing power parity basis. When considering minimum wage levels relative to median wages (that is, the ratio of minimum wages to the median earnings of full-time employees),¹⁶ the 19 Member States analysed by the OECD reveal that, in 2016, the lowest rate was found in Spain (37%) while the highest was in France (61%).¹⁷ Again, variation is wider in euro zone countries than in non-euro zone countries, meaning that coordinating minimum wage thresholds is likely to be more challenging in the euro zone (Eurofound, 2018b).

¹⁶ Median earnings provide a better basis for international comparisons than average earnings, as the median accounts for differences in the dispersion of earnings across countries.

¹⁷ The available data, which are published regularly by the OECD, are based on unharmonised national data sources and can thus be regarded only as approximate values (Schulten, 2014).

There are also major differences in the proportion of employees being paid at the statutory minimum wage or less. According to Eurostat data for October 2014, the proportion of employees being paid less than 105% of the national minimum wage was above 7% in ten of the Member States with a statutory minimum wage: Slovenia (19.1%), Romania (15.7%), Portugal (13.0%), Poland (11.7%), Bulgaria (8.8%), France (8.4%), Lithuania (8.1%), Latvia (7.9%), Greece (7.7%) and Croatia (7.1%) (Eurostat, 2019).

As described in Chapter 3, minimum wages have been increasing both at the top and bottom of the distribution since 2008 in all Member States except for Greece. The largest increases were recorded in eastern countries characterised by initial lower levels (Lübker and Schulten, 2018).

New statutory minimum wages were introduced in Germany in 2015 and in the UK in 2016. In Germany, part of the agreement between the Christian Democrats and the Social Democratic Party when forming the grand coalition government was to introduce a new statutory scheme, as the previous collective bargaining mechanism was considered inadequate (Eurofound, 2013). In the UK, the new mandatory National Living Wage is targeted at adult workers aged 25 and over and is expected to be gradually increased to reach 60% of median earnings by 2020.

Political feasibility of an EMW policy and positions of the main stakeholders

The political feasibility of an EMW policy appears rather limited, as this field is more politically sensitive than the potential EUI scheme, in part due to the polarised positions of Member States and the social partners.

The debate over the implementation of an EMW policy has almost always coincided with the enlargement of the EU towards low-wage countries and fears of social dumping. This mentality came to light in the 1980s, with the widening of the wage gap resulting from the expansion of the then European Economic Community towards southern European countries, such as Greece in 1981 and Spain and Portugal in 1986 (Seeliger, 2018). Following this, in September 1993, the European Commission adopted its Opinion on an Equitable Wage (European Commission, 1993), emphasising that the pursuit of equitable wages was to be seen as part of the process of achieving the Community's basic objectives of greater economic and social cohesion and more harmonious development within the framework of an increasingly integrated European economy (European Commission, 1997). The European Parliament backed this opinion and recommended the definition of guidelines encouraging Member States to establish a minimum wage that amounted to a certain proportion of the national average wage (European Parliament, 1993). However, this proposal was resisted by some Member States and wages remained excluded from EU competencies in the Treaties of Maastricht, Amsterdam and Lisbon, as well as in the Charter of Fundamental Rights of the European Union (Eurofound, 2013).

With the eastern enlargements in the 2000s (involving Czechia, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia and Slovenia, plus the two Mediterranean countries Cyprus and Malta in 2004 and Bulgaria and Romania in 2007), the debate over minimum wages gained new momentum, with a particular focus on the posting of workers.

In October 2008, the European Parliament adopted a resolution (European Parliament, 2010) calling again on the European Council to agree an EU target for minimum wages (statutory, collective agreements at national, regional or sectoral level) to provide remuneration of at least 60% of the relevant (national, sectoral, etc.) average wage and, further, to agree a timetable for achieving that target in all Member States.

The economic crisis thrust the issue further into the spotlight, with national minimum wage policies increasingly addressed in the European Semester, as well as in country-specific recommendations (Schulten and Müller 2014; Schulten, 2014) and the memorandums signed by countries receiving frequent EU bailouts. The discourse during this period focused on the requirements needed for the reduction of minimum wage levels and reforms of the collective bargaining systems (Busch et al, 2013).

In August 2016, the European Parliament's Committee on Employment and Social Affairs adopted the report on social dumping, underlining the importance of decent wages for social cohesion and for maintaining a productive economy (European Parliament, 2016). The report recommends

the establishment of wage floors in the form of a national minimum wage ..., with the objective of gradually attaining at least 60% of the respective national average wage, if possible, so as to avoid excessive wage disparities, to support aggregate demand and economic recovery and to underpin upward social convergence.

(European Parliament, 2016)

The report also recommends the introduction of minimum wage floors at community level in certain sectors such as transport, while duly respecting the autonomy of the social partners and the various legal traditions governing national social systems.

Wages are also included in the European Pillar of Social Rights as one of the 20 key principles and rights supporting fair and well-functioning labour markets and welfare systems in Europe (European Commission, 2017d). To this end, the pillar states that workers have the right to fair wages and that wages shall be set in a transparent and predictable way according to national practices while respecting the autonomy of the social partners. Although no specific measures are yet envisaged to implement this principle, its inclusion in the pillar provides political weight in terms of recognising the role that wages play in boosting internal demand and social cohesion through EU intervention.

The reference to decent wage levels and the fight against in-work poverty are favoured by the European Anti-Poverty Network, the main EU anti-poverty umbrella association (EAPN, 2017), which agrees that EU minimum wages should be set at 60% of median wages as a benchmark in which the price index, inflation and purchasing power are also taken into account. It also recommends that minimum wages be higher than minimum income and social benefits.

Member States and national centre-left political parties have been active in the debate, particularly in France and Germany. The French Socialist Party called for the introduction of a European minimum wage in its 2004 European election programme, and the former European Commission President, Jacques Delors, expressed his support for such a scheme in June 2006. One year later, Delors – together with the former Prime Minister of Denmark, Poul Nyrup Rasmussen – presented the European Socialist Party with a report calling for decent minimum wages and the introduction of an EU target for minimum wages in terms of gross national product per capita (European Socialist Party, 2007). In July 2014, the French Ministry of Finance and Economy emphasised that, set at an adequate level, a European minimum wage standard could help to support living standards for the lowest-paid workers and improve the functioning of the European economy (Direction générale du Trésor, 2014). It subsequently suggested a scheme that set out a minimum wage floor that would be fixed at 45–50% of each country's median wage or at a rate at least higher than the euro zone's lowest income ratios. In October 2015, the ministry underlined that, to prevent social dumping and to guarantee fairness in EU labour markets, harmonisation could also extend to common standards for employment conditions, including minimum wage rates.

Germany also entered into the debate: in January 2007, during the conclusions of an informal meeting of EU Ministers for Employment and Social Affairs, the German President of the EU called upon Member States and social partners to find a way to ensure that wages are set in a fair and adequate manner (German EU Presidency, 2007). Two years later, the German Socialist

Democratic Party, the Greens and the Left Party included the issue in their manifestos for the European election of 2009. The Christian Democratic Union of Germany argued in 2014 that the wages across all European countries should be enough for people to live on.

Conversely, an EMW policy is generally opposed both by eastern European countries and Nordic countries, though for different reasons. Eastern countries fear that a common EMW would reduce their competitive advantage over western Member States, despite the fact that wage gaps have been narrowing since the start of this century, as shown in Chapter 3. In the Nordic countries – in particular, Sweden – trade unions fear that their autonomy would be lost in wage determination.

The social partners also show diverging views. While EU employer organisations such as BusinessEurope clearly oppose an EMW policy, trade unions do not communicate a consistent position, instead displaying opposing stances similar to those seen among Member States. Trade unions in countries with weak collective bargaining tend to support an EMW policy, while unions in countries where minimum wages are set in strong collective bargaining systems are reluctant to delegate their role and accept EU regulation (Seeliger, 2018). These contrasting positions emerge in the opinions expressed within ETUC. As highlighted in a recent survey (Furåker and Bengtsson, 2013, p. 513), eastern and southern European representatives tend to support the introduction of an EMW policy, while those from Austria, Italy and Nordic countries tend to strongly oppose it.

In a 2014 discussion note, the ETUC emphasises some of the potential advantages of an EMW policy in increasing wage levels for relatively large groups of workers and its importance in showing EU commitment to social policies (ETUC, 2014). More recently, in its 2016 resolution 'for a common strategy on low and minimum wages', the ETUC demanded that all statutory minimum wages be set to no less than 60% of the national median or average wage – whichever is more favourable for workers. However, the ETUC also expressed some caution over this policy option, given that 60% of a very low wage – present in many Member States – is still low. If the overall wage building comes down, the wage floor will collapse, as happened in Greece.

Another concern is the potential transfer of competence on wages from the social partners to governments. According to the ETUC, the European floor is at risk of becoming a national ceiling, particularly when the Posted Workers Directive is considered. In order to avoid these shortcomings and take into account the differing costs of living across Member States, the ETUC recommends a move towards a single European wage standard, adjusted for purchasing power parities. It also endorses a staged 'living wage' approach (calculated on the basis of the wage that is needed to cover the costs of

a standard basket of basic goods), which is argued to be a politically more feasible method for calculation. The minimum wages provided across the EU through this staged approach could see countries first reaching the poverty wage threshold of 50% of the national median wage, before meeting the living wage threshold. The ETUC also emphasises that the European wage standard should be set by law and/or by collective bargaining according to the different national practices and trade union strategies.

Summary of key findings

The economic crisis has shown that stronger redistributive tools and common social stabilisers are needed at the EU level to avoid increasing divergences and inequalities across and within Member States, and to cope with asymmetric shocks. This is even more urgent as cross-border effects arising from labour market and social adjustments are likely to intensify in the future. To address these problems, there is a need for structural policies addressing the imbalances across Member States, as well as common EU automatic stabilisers that allow the labour market to rapidly adjust during shocks, to prevent permanent negative effects from economic slowdowns.

In recent years, European institutions have promoted a number of measures to strengthen upward social convergence and reduce social inequalities. The European Pillar of Social Rights further upgraded the social dimension of growth and convergence in the EU political agenda. Although the pillar is not a binding document, it has an important political mandate supporting several important legislative and non-legislative proposals at the EU level in the area of employment and socioeconomic inclusion. Among the possible EU policy options, the implementation of an

EUI scheme and of an EMW policy could contribute to increasing the Member States' resilience to shocks and to preventing diverging trends in employment and socioeconomic conditions. However, they both intervene in areas of national competence and are characterised by wide disparities across countries; as such, they should be adopted in combination with other policies directly supporting structural convergence.

An EUI scheme would promote not only macroeconomic risk reduction but convergence in socioeconomic conditions for the unemployed. However, moral hazard and distributional effects across countries make the implementation of this scheme difficult.

Notwithstanding design complexities, there is increasing recognition among policymakers of the need for a greater coordination of unemployment benefit systems, not only for cycle stabilisation, but also for the processes ensuring that unemployed EU citizens have access to similar unemployment benefits and activation measures.

An EMW policy is a more politically sensitive issue. Arguments in favour of such a policy include its potential positive effects in countering in-work poverty in the EU and in reducing the extent of low-wage competition, while also promoting economic development. A higher income at the lower end of income distribution could also support access to basic services where needs are still unmet. However, an EMW could exert certain negative effects on employment for low-skilled and first-time labour market entrants, as well as on the bargaining autonomy of the social partners. The legal feasibility of EU intervention in this field is another relevant obstacle. Soft coordination mechanisms have been proposed to ensure the participation of social partners and a greater flexibility at national level within a common framework for wage determination.

5 | Conclusions

Upward economic and social convergence has always been seen as a political promise on the part of the EU: Member States, and their citizens, joined the EU and adopted the euro with the legitimate expectation of improving working and living conditions.

Before the economic crisis of 2008, these expectations were largely met. Member States' performances were marked by substantial and continual convergence, in part due to progressive EU enlargement. The EU revealed its capacity to act as a 'convergence machine' by supporting poorer and newer Member States in developing high-income economies, and by providing its citizens with some of the highest living standards and lowest levels of income inequality in the world. The EU's capacity for convergence during this pre-crisis period was not limited to the economic dimension alone, however: the worst-performing countries were also catching up with the best in terms of employment, and working and living conditions were improving as well.

However, the European convergence machine stalled, or even reversed, with the eruption of the 2008 economic crisis, when downward trends and increased disparities between Member States' performances became more frequent, affecting not only the economic and financial dimensions, but also those of a more social nature, including poverty levels and labour market participation.

Diverging performances among Member States and increasing inequalities within them warrant serious concern, since they threaten the cohesion and legitimacy of the Union and contradict the expectations of Member States and citizens. Economic divergence undermines the promise of shared economic prosperity, which was central to the creation of the EU in the first place, and social divergence disrupts cohesion and the European integration project's ultimate goal of improving living and working conditions. If divergence is prolonged, the EU stops being seen as a win-win situation, and trends of disintegration are likely to set in. Going one step further, if growth is unevenly distributed among Member States and only a few countries do well out of the single market and the Economic and Monetary Union (EMU), the situation could deteriorate in terms of socioeconomic outcomes, with support for the EU project weakening. While the economic and social dimensions of the EU have always been seen as two separate entities, the economic crisis has led us to acknowledge that such dimensions should go hand in hand.

Against this backdrop, and given the importance of convergence, Eurofound's strategic objective for the programming period 2017–2020 is 'to provide scientifically sound, unbiased, timely and policy-relevant knowledge that contributes to better informed policies for upward convergence of living and working conditions in Europe'. In order to achieve this objective, and to support policymakers in addressing possible diverging trends by investigating whether these trends signal a general deterioration in living and working conditions, Eurofound has designed a new strategic area of intervention entitled 'Monitoring convergence in the European Union'.

In this multiannual activity, Eurofound is monitoring upward convergence among and within Member States across a range of areas: employment, working conditions, living conditions and socioeconomic factors. This report constitutes the main output of the line of work entitled 'Monitoring convergence in employment and socioeconomic dimensions', its second project on convergence, and its first thematic report on the topic.

Along with its annexes, this report offers a thematic focus on upward convergence in the employment-related and socioeconomic spheres. Building on the European Pillar of Social Rights, this data-driven study investigates upward convergence across 21 indicators, most of which are part of the pillar's Social Scoreboard. The indicators encompass employment (participation in, exclusion from and the dynamics of the labour market) and the socioeconomic domain (access to services and gender equality).

Upward convergence: still rising, but not everywhere, and not for all

The statistical analysis of upward convergence presented in this report reveals that, despite the negative effects of the economic crisis, since the beginning of the 2000s, Member States have been converging towards better employment and socioeconomic conditions. During this period, upward convergence was recorded in most of the labour market and socioeconomic indicators considered in this report, showing an improvement in the EU's average performance together with a reduction in disparities between Member States.

However, among the two dimensions investigated, three main groups of indicators can be identified, with different trends being observed in each case.

For the first group of indicators – which includes those relating to education (early school-leavers and tertiary educational attainment), the activity rate and gender gaps in employment rates, political participation and

education – upward convergence trends were steady and robust over the entire period considered. The pattern also remained constant during the crisis, and the effect of the business cycle was very limited. In fact, these indicators have seen marked improvements and an overall reduction in disparities among Member States' performances over the last 15 years, with only a limited number seeing fluctuations in levels and variability due to the business cycle. Interestingly, for the indicators in this group, convergence is occurring more quickly in the euro zone than for the non-euro zone countries.

For the second group – which includes employment rate, unemployment, long-term unemployment, those neither in employment nor in education or training (NEET) and those at risk of poverty or social exclusion (AROPE) – all indicators show upward convergence trends, but there is a considerable correlation with the business cycle in terms of both average performance and degree of variability. It seems that in good times there is upward convergence (with improvements in the indicators and a lower level of disparity) while in bad times there is downward divergence (with a deterioration in indicator levels and a higher degree of disparity). This is a cause for concern, as business cycles cannot grow indefinitely, meaning recessions are inevitable. These are the indicators for which Member States' resilience should be built in order to prevent future asymmetric shocks. For the indicators in this group, non-euro zone countries converge more quickly than euro zone countries. This is particularly evident among eastern European countries, which are still catching up with the richer western countries where employment rates and disposable household income are concerned. Conversely, for this group of indicators, euro zone countries have exhibited increasing variability and growing national and regional disparities since the onset of the crisis, with southern countries losing ground compared to central and northern Member States.

Although most indicators have recovered since the economic crisis, for the third group of indicators – which includes income inequality – Member States are still showing growing differences or are converging towards negative outcomes. The economic crisis had a severe effect on income inequalities among the population and increased the degree of socioeconomic heterogeneity across Member States. There has been a reversal in the convergence towards lower income inequality recorded before the crisis, with convergence towards higher levels of poverty and inequality for the EU as a whole. Non-euro zone countries have been particularly affected, with Bulgaria, Estonia, Lithuania and Romania showing high and increasing levels of inequality. During this period, the share of population with unmet needs for medical care also increased, with growing disparities between euro zone countries (particularly Estonia and Greece and, to a lesser extent, Italy). Similarly, a

downward divergence pattern in employment conditions, especially regarding atypical employment, is recorded. Involuntary temporary and part-time work increased and transitions from temporary to permanent work declined in the period 2000–2017, with increasing disparities emerging among Member States. The crisis worsened employment conditions especially in some countries of the euro zone, where cross-country disparities increased to higher levels than in the non-euro zone. Moreover, southern countries with already weak labour markets, such as Cyprus, Greece, Italy and Spain, experienced a dramatic deterioration in employment rates and overall employment conditions.

The analysis of convergence across different regions and population groups reveals less uniform and more positive developments. Disparities in socioeconomic and labour market indicators are generally greater among EU regions than countries, although broad developments in terms of convergence and divergence are quite similar. In addition, higher disparities at the regional level are mostly linked to developments in the euro zone. Different convergence patterns are also seen when analysing the data on the basis of age and education. For example, despite the overall trend of upward convergence identified for the employment rate for prime-age and older people, divergence can be seen in employment rates for younger workers (those aged 15–24) and workers with a high level of education.

These findings confirm that growth has been unequally distributed among regions and has not reached all citizens. It indicates that particular attention should be placed not only on reducing disparities among countries, but also on ensuring that growth and the reduction of disparities reach all geographical levels and all groups of the population.

Fostering upward socioeconomic convergence

The recession challenged the European project and cohesion among its Member States, and socioeconomic convergence is now at the top of the EU's agenda. The consequences of the crisis have shown that the social impact of asymmetric shocks can be profound and can shake the foundations of the EU, eroding the trust that European citizens have in the project as a whole.

Sustainable upward convergence is needed for the functioning of the EU in the medium term, and particularly that of the euro zone. Upward economic and social convergence is seen as increasingly fundamental for the stability of the single currency and for fostering further integration among Member States. The current debate on macroeconomic policies underlines the potential social costs of fiscal consolidation measures and the need to pay attention to issues relating to distribution in economic unions, and especially single-currency unions such as the euro zone.

The diverging social trends recorded in the euro zone during the crisis show that economic convergence is not sufficient to reduce social inequalities. In light of this, a firmer focus on social performance is particularly important to increase resilience, shore up the EMU and strengthen the EU as a whole (European Commission, 2017a).

In recent years, several initiatives have been taken up by European institutions in order to enhance Member States' resilience and economic and social convergence. The Europe 2020 strategy, launched in March 2010, was the first to introduce an 'inclusive growth' objective, which took centre stage within the framework of smart and sustainable objectives. More recently, the inclusion of the employment and social coordination mechanisms in the framework of the European Semester drew the attention of EU institutions to the wide range of social and employment policy issues requiring action. Furthermore, the recent launch of the European Pillar of Social Rights has further strengthened the position of the social dimension of growth and convergence in the EU political agenda.

Taking into account the possible policy initiatives at European level discussed in the literature and in policy discourse, this report has focused its attention on two measures through which upward convergence could be enhanced and future divergence of Member States avoided: a European unemployment insurance (EUI) scheme and a European minimum wage (EMW) policy.

An EUI scheme would promote both macroeconomic risk reduction and convergence in socioeconomic conditions for the unemployed. Such a scheme could help reduce the asymmetric impact of recessionary periods across Member States and reduce the potentially negative economic and social consequences of unemployment on European citizens. However, moral hazard and distributional effects across countries make such a scheme difficult to implement. Notwithstanding design complexities, there is increasing recognition among policymakers of the need for a greater coordination of unemployment benefit systems – not only for cycle stabilisation, also to ensure that all unemployed EU citizens have access to similar unemployment benefits and activation measures.

An EMW policy could support greater convergence in disposable income among countries, regions and population groups, reduce the number of working poor and prevent social dumping. A higher income at the lower end of income distribution could also support citizens in accessing basic services where needs are still unmet. The main drawbacks of this solution relate to

the potential negative effects of minimum wages on youth and low-skilled employment, and on the autonomy of both national and social partners in wage determination. This policy option is, however, more politically sensitive than the EUI scheme. Soft coordination mechanisms that ensure the participation of social partners and greater flexibility at national level within a common framework appear more feasible than hard ones.

Both policy options could equip Member States with additional tools to increase their resilience to shocks and prevent diverging trends in employment and socioeconomic conditions from occurring. However, while such approaches – and particularly the EUI scheme – have been being discussed for quite some time, both intervene in areas of national competence and are the subject of divergent opinions on the part of Member States and social partners. For this reason, though such options remain on the table, their implementation is very difficult. As such, continuous monitoring of the convergence of national policies and greater coordination at the EU level are necessary to ensure that economic and social convergence go hand in hand. Particular attention should be given to reducing not only employment and social disparities among countries, but also inequalities among regions and different groups of the population.

Next steps

This report is Eurofound's first thematic report on upward convergence. Its aim was to investigate upward convergence in a set of selected indicators relating to employment and the socioeconomic domain, taking up the theoretical and methodological work done in the 2018 report entitled *Upward convergence in the EU: Concepts, measurements and indicators* (Eurofound, 2018a). The report comprises three main strands: first, patterns of convergence/divergence were investigated over time in order to identify important trends within the EU. Next, trends of convergence and divergence at the regional level were outlined and compared with broad national-level developments. Finally, the benefits and drawbacks of two possible policy options with which to foster economic and social convergence, or to avoid divergence, at the European level were discussed.

Later in 2019, a second thematic report on convergence in working conditions will be published, while a report concerning the living conditions and social protection areas will be released in 2020. A report on regional convergence will be also published in 2020. The final flagship report, which will provide an overarching view of convergence in the EU, will be produced in 2021.

Key messages

Despite the negative effects of the economic crisis at the start of 2000, EU Member States have recorded upward convergence towards better employment and socioeconomic conditions overall.

At the same time, Eurofound's analysis of various indicators show different forces are at play:

- In *education and gender employment gap related* indicators, as well as the activity rate, upward convergence trends are robust, with little fluctuation around the business cycle. These positive trends have been driven mainly by euro-area countries such as the south Mediterranean Member States.
- *Labour market participation and exclusion* as well as *poverty* indicators were greatly affected by the business cycle but have recovered significantly since 2014. Showing upward convergence in good times and downward divergence in bad times, these are the areas where Member States now need to become more resilient to avoid future shocks affecting different areas or regions. Positive trends for these indicators were mainly driven by non-euro countries such as East European countries.
- For *labour market conditions* and *income inequality* indicators, downward trends are still being recorded despite recovery.

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All Eurofound publications are available at www.eurofound.europa.eu

Eurofound web topic 'Monitoring convergence in the European Union': <http://eurofound.link/convergencehub>

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Upward convergence is a process whereby the performance of EU Member States in a given domain or range of domains is seen to improve while gaps between Member States reduce. Achieving upward convergence is of crucial importance to the EU, as the increase of disparities among Member States threatens the cohesion of the Union by counteracting citizens' expectations that EU membership will improve working and living conditions.

This report investigates recent socioeconomic and employment trends across Member States and offers possible policy measures to assist in avoiding future divergence. The analysis is based on a set of 21 indicators; most of them are headline indicators on the Social Scoreboard of the European Pillar of Social Rights. The findings reveal that, despite the negative effect of the 2008 economic crisis, upward convergence trends have been restored in most of the indicators examined.

An online collection of Eurofound's resources on monitoring convergence in the EU, including definitions, dimensions, methodology and publications, is available at:
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