

# Macroeconomic developments in Europe: tackling the growth, inequality and climate change challenges

## Introduction

Macroeconomic developments during the recent Great Recession have had adverse effects on the lives of working people in many parts of Europe. The double-dip recession in 2008–2009 and 2011–2012 resulted in large job losses and high unemployment. The failure of macroeconomic policy responses to ‘do no harm’, act in a timely manner, or do enough to stabilise economies led to a period of long-lasting stagnation. This has left its scars, from even longer-lasting labour market slack and low investment to low labour productivity growth and slowed-down convergence in the living standards of EU Member States. It also exacerbated constraints on income redistribution through taxes and benefits.

To be sure, working people had not been reaping all the benefits of growth even before the period of crisis and stagnation that began in 2008. This was due not only to changes in technology and globalisation but also to certain government policies since the 1990s that reduced the bargaining power of workers vis-à-vis employers, and consequently the labour share (Ciminelli et al. 2018, OECD 2012), but also increased gaps in the distribution of earnings and other inequalities among people in employment.

This chapter starts from the premise that sustainable output growth (that is, growth that does not run against resource or policy constraints) is a necessary yet insufficient condition for improving the wellbeing of workers and citizens, by creating the essential conditions for quality job creation, and more equitable income distribution, and by providing the resources for tackling climate change. We consider the current state of affairs regarding the characteristics of the recovery in output growth, the distribution of growth gains, the risks to growth sustainability and the potential tools for resilience to macroeconomic shocks.

### Topics

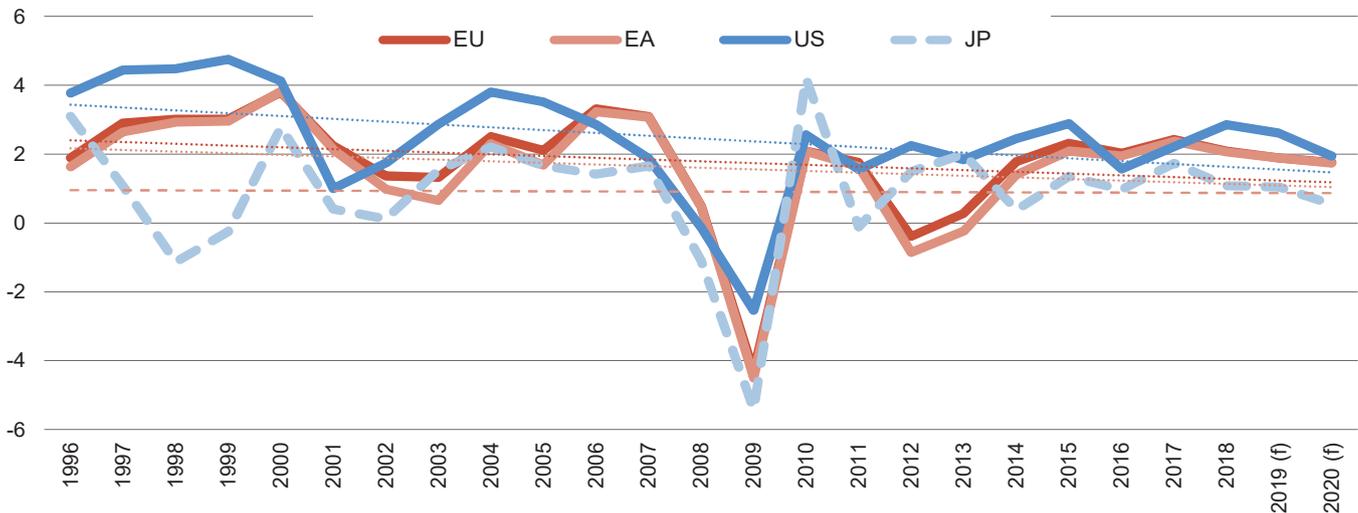
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## Economic developments: real GDP growth in Europe, the US and Japan

Figure 1.1 Real GDP growth (%) in the EU, euro area, US and Japan, 1996–2020 (f)



Source: own calculations using AMECO data (OVGD series).

### Recovery hits a low ceiling

Recovery in output growth in the EU and the eurozone peaked in 2017 at 2.4%, confirming that the European economy is still facing the challenge of declining output growth rates that have been observed since the mid-1990s (see Figure 1.1). Despite differences in the speed and rate of recovery to the US and (initially) Japan, the downward trend in output growth rates is also visible in these advanced economies. The duration and form of the Great Recession seem to have further reinforced this downward trend, as the prolonged weakness in demand has eventually had negative effects on the capacity of the European economy to produce and grow.

The most recent forecasts of the European Commission suggest that real GDP is expected to grow at 1.9 and 1.8% in 2019 and 2020 respectively. These forecasts, which are downward revisions compared to the last spring and autumn forecasts, may be further revised downwards due to, among other things, developments in the global environment, from the economic consequences of the impending Brexit to the possible escalation of trade protectionism and its impact on major European industries, to the spread of turmoil in financial markets.

### Policymakers running low on ammunition to tackle challenges

The massive losses in jobs and employment (see Chapter 2) caused by the Great Recession in several parts of the EU are a particularly challenging reality for working people and policymakers alike. The variation in labour market performance across Member States notwithstanding, the output growth rates that the EU economy as a whole seems

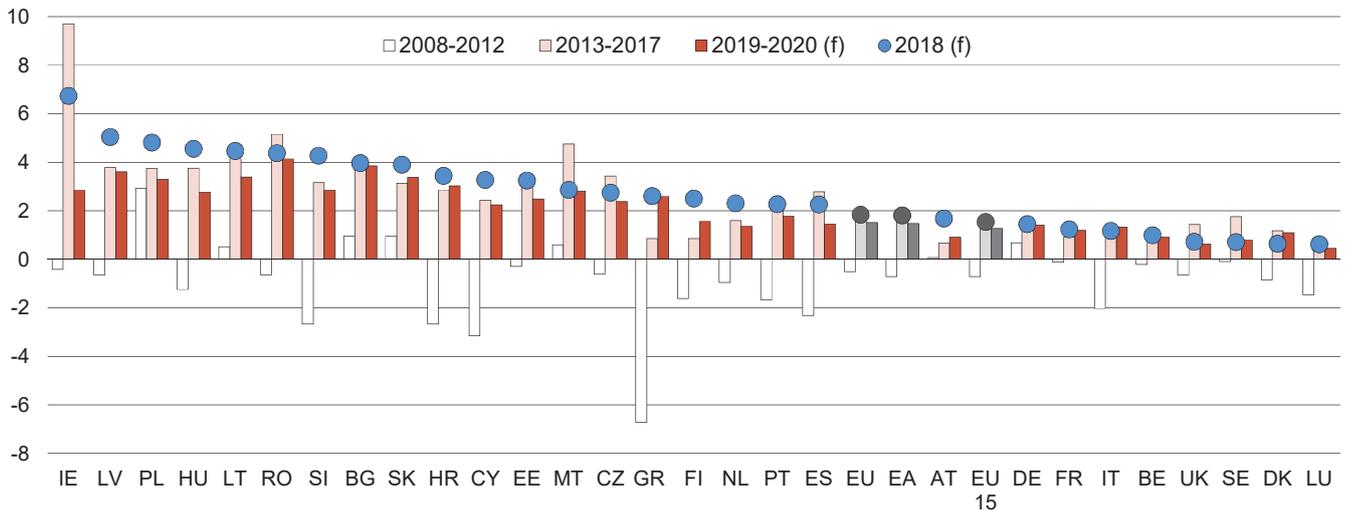
capable of sustaining at the moment do not suffice for stimulating the use of labour at a pace fast and sustainable enough to remedy the losses of the recession years.

On the other hand, if another shock were to affect the EU economy and especially the eurozone, policymakers would find themselves short of ammunition for tackling it. Interest rates have been at virtually zero since 2012 while for several years now the ECB and other major central banks have been implementing programmes of buying private and public financial assets in a bid to further reduce the financing rates of private sector companies (see p. 21). Private debt-to-GDP ratios are still much higher than prior to the crisis (see p. 13), suggesting that the private sector is likely to have been paying off its debt rather than prioritising investment. National fiscal policies, especially in the eurozone, still appear to be steered by the EU fiscal rules and a concern about the public debt-to-GDP ratio, the foundations of which are questionable (Blanchard 2019). Last but not least, the most recent push for reforming and deepening the EMU institutional architecture has not delivered the hoped-for outputs, creating uncertainty about how high the costs of a future adverse economic shock would be for the Member States that are affected.

At the same time, recent extreme weather phenomena in the northern hemisphere have delivered stark reminders of the potential consequences of inaction on the problem of climate change and the political and economic challenges that it poses. While the question of whether policies in economically advanced countries should deliberately steer economies to zero growth in order to save on resources and reduce emissions remains controversial, it is clear that the necessary transition will have to be just to be politically feasible and will require financial resources. Shrinking output makes the question of fairly distributing the costs of such a transition even more complicated.

# Economic developments: GDP per capita growth in Member States

Figure 1.2 Annual average real GDP per capita growth rates (%), EU Member States, 2008–2012, 2013–2017, 2018 (f) and 2019–2020 (f)



Source: own calculations using AMECO data (RVGDP series).

## Uneven developments in average living standards in Member States

Figure 1.2 shows for each Member State, the EU28, the EU15 and the euro area, the forecasted real GDP per capita growth rate for 2018 and compares it with the average annual real output per capita growth rates for the 2008–2012 and 2013–2017 periods, as well as with the currently forecasted average annual growth rates for 2019–2020. Countries are ranked according to the strength of their output growth during the recovery period.

The recovery in real output per capita growth (in the 2013–2017 and 2017–2018 periods) was uneven across EU Member States. Some of the countries whose output per capita growth rates declined the most between 2008 and 2012 experienced relatively stronger growth rates from 2013 onwards, while others, most notably in southern Europe, experienced below average recovery despite their great output losses during the crisis.

Despite positive real GDP per capita growth rates, growth has been weak, especially considering the magnitude of output losses during the recession. In 23 Member States, growth during the recovery period (2013–2017) has counterbalanced any losses from the double downturn (2007–2012). However, in 15 out of these 23 countries (Estonia, Slovenia, Croatia, Spain, Portugal, Sweden, the Netherlands, Denmark, the UK, Belgium, France and Austria) annual average growth rates over the 2007–2017 period were below 1%, and in only 3 out of these 15 (Estonia, Sweden and Germany) were they above 0.5% per year, suggesting that in the rest, average living standards barely improved during the 2007–2017 period.

In five Member States (Cyprus, Italy, Finland, Greece and Luxembourg) the average living standards in 2017 were lower than in 2008, while the average annual real output per capita growth rates in these countries were slower during the recovery period (2013–2017) than during the recession (2008–2012). All of them, bar Cyprus, had growth rates during the recovery period below the EU, EU15 and EA averages. Italy is also forecasted to grow more slowly than all EU/EA averages over the 2018–2020 period.

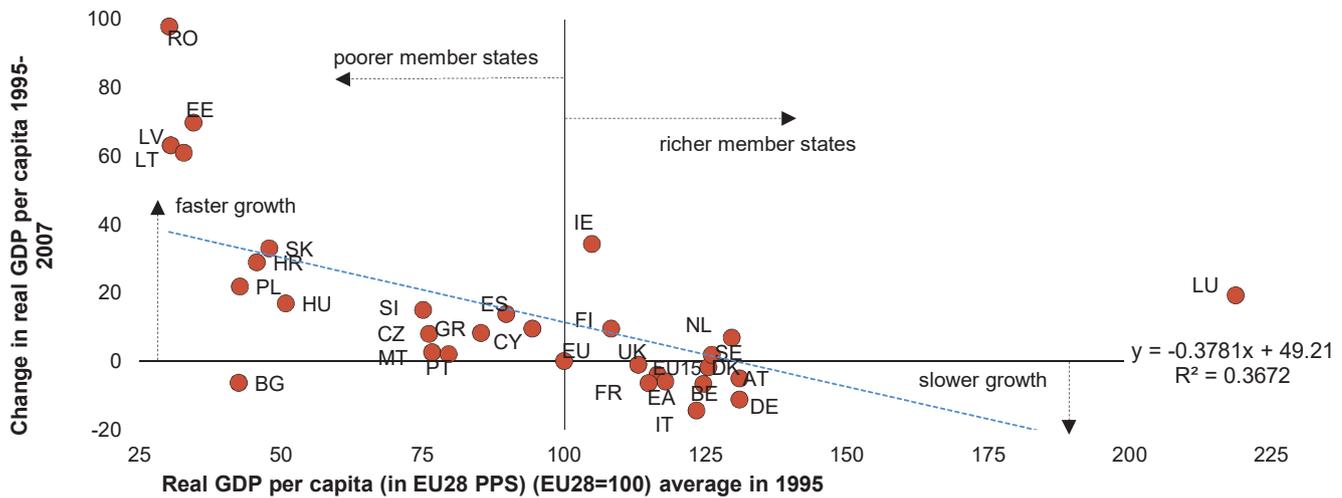
Ten Member States' real GDP per capita grew at average annual rates above 1%, and in seven of these (Ireland, Romania, Malta, Lithuania, Bulgaria, Poland and Slovakia) real GDP per capita grew at rates that ranged from 2.3% (Slovakia) to 3.23% (Poland) per year.

In 24 out of 28 Member States, the recovery has already peaked, as their annual average growth rates in real GDP per capita are expected to slow down during the 2018–2020 period compared to 2013–2017.

On average, the euro area and the generally richer EU15 fared worse than the EU as a whole, reflecting the relatively better growth developments in several of the newer and (until the crisis) generally poorer Member States.

# Economic developments: upwards convergence in GDP per capita

Figure 1.3 Convergence (catching-up) process between richer and poorer EU Member States, 1995–2007



Source: own calculations using Eurostat data (nama\_10\_pc series).

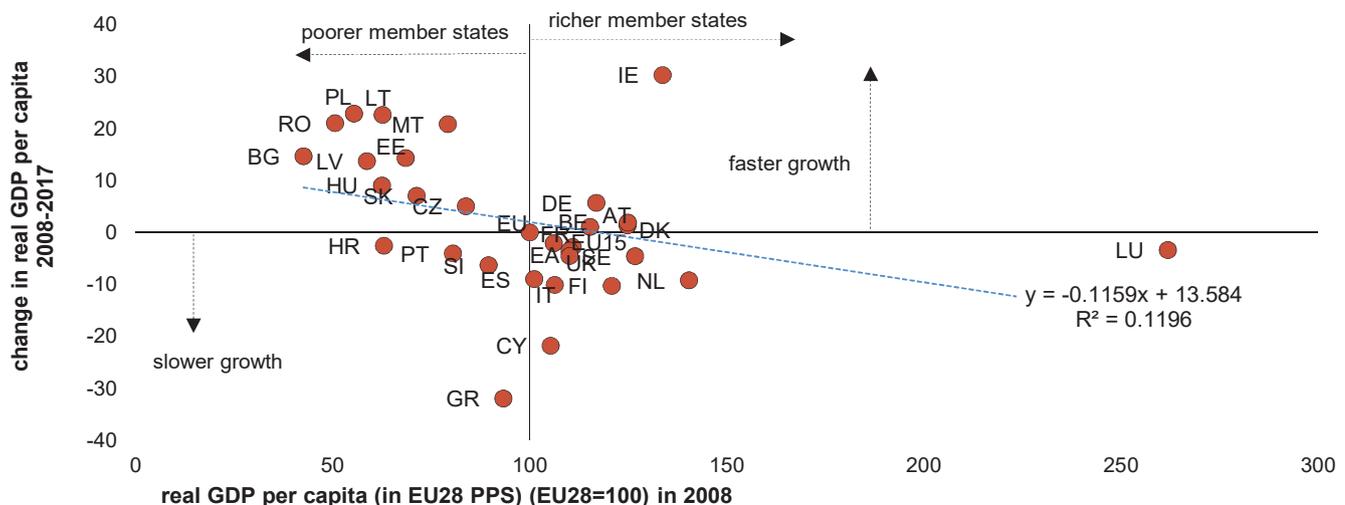
## Upwards convergence in GDP per capita in the EU

One of the objectives of the European economic integration project, as it is laid out in Treaty texts but also in fundamental policy programmes such as the cohesion and regional policies, has been the reduction of economic and social disparities among its Member States. This has been a particularly attractive promise for poorer Member States joining the EC/EU at various stages of enlargement, including the last large wave in 2004. Up until 2008, when the global financial crisis began, the objective had been achieved to varying extents (see Figures 1.3 and 1.5). The 2008–2017 period, however, saw a slowdown of the convergence process, whereby Member States with relatively

lower GDP per capita grew at faster rates than those with higher GDP per capita (figure 1.4), while overall within the EU28 there have been indications of ‘upwards divergence’ (figure 1.5), that is, of a rising average GDP per capita for the area as a whole, with a wider dispersion of real GDP per capita across Member States (Mascherini et al. 2018).

The catching-up process, whereby Member States with lower GDP per capita grow faster than those with higher GDP per capita (also known as ‘unconditional beta-convergence’), slowed down during the 2008–2017 period (see the comparison between Figures 1.3 and 1.4). Overall, the data provided here suggest that for the entire 1995–2017 period, this catching-up process has been ongoing but it was stronger between 1995 and 2007. Several of the new,

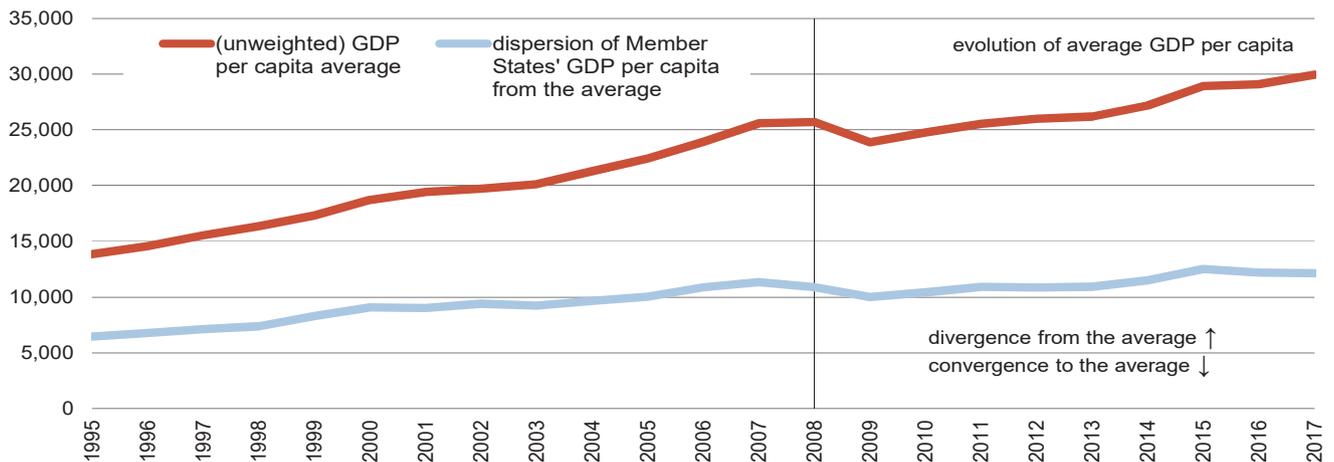
Figure 1.4 Convergence (catching-up) process between richer and poorer Member States, 2008–2017



Source: own calculations using Eurostat data (nama\_10\_pc series).

## Economic developments: upwards convergence in GDP per capita

Figure 1.5 Evolution of average GDP per capita (unweighted average EU28, current prices PPS thousands) and convergence/divergence of Member States' GDP per capita towards/from EU28 average (unweighted standard deviation), 1995–2017



Source: own calculations using Eurostat data (nama\_10\_pc series).

and also some of the poorest, Member States from the EU15 group got caught in balance-of-payment crises, which, following the receipt of financial assistance from other Member States, the EU and the IMF, led to rather abrupt adjustment processes and deep (and in some cases long) recessions.

The EU28 average GDP per capita increased for most of the 1995–2017 period. This, however, does not mean that Member States were converging towards the higher average throughout that period. As can be seen in Figure 1.5, the trend between 1995 and 2007 was one of divergence that changed in intensity (stronger between 1995 and 2000 and then again between 2004 and 2007). However, between 2008 and 2015, there were spells of ‘upwards divergence’, whereby although the average GDP per capita grew, Member States diverged in their GDP per capita (Mascherini et al. 2018). From 2015 onwards, there was a clear pattern of upwards convergence, with both the EU28 average GDP per capita increasing (albeit not at a very fast rate) and a convergence among Member States towards it.

### Definitions and typology of convergence

There are different ways of defining and measuring convergence, which depend on underlying assumptions about what drives it. Here we focus on two:

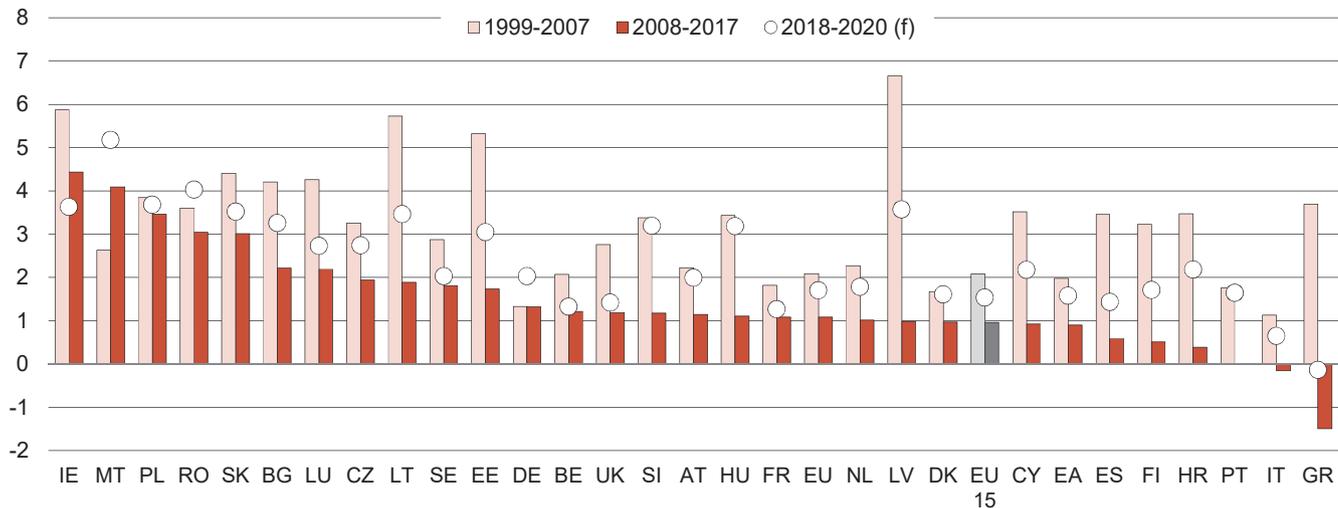
- Unconditional convergence (also known as ‘beta-convergence’): this is the convergence of a variable of interest (for example, GDP per capita or wage share) to the same average.
- Sigma convergence: this is the process whereby Member States with lower GDP per capita experience relatively higher growth rates than Member States with higher GDP per capita. Sigma convergence is a necessary condition for unconditional convergence: in other words, for unconditional convergence to happen, poorer Member States have to ‘catch up’ (by growing faster) than richer Member States.

When convergence takes place, however, it does not necessarily follow that it is upwards. It is possible that, for example, the average GDP per capita falls and Member States converge to that declining average. While this means that disparities are being reduced, it also implies that living standards are generally declining. It is also possible that the average GDP per capita may increase but, on average, Member States do not converge to it.

For these reasons, we adopt the terminology of Mascherini et al. (2018), defining upwards convergence as a process whereby the average of the indicator of interest increases *and* disparity amongst the Member States’ performance in that indicator is reduced. We use ‘unweighted’ averages (that is, averages calculated without taking into account the different sizes of Member States) and the standard deviation (a measure of dispersion) of Member States around this average to characterise whether upwards/downwards convergence/divergence has been taking place.

# Challenges for workers in Europe: potential output growth

Figure 1.6 Average annual growth rate (%) of potential GDP in EU Member States, 1999–2020 (f)



Source: own calculations using AMECO data (OVGDP series).

## Slowdown in average annual growth rates of potential GDP

During the Great Recession, the vast majority of the EU Member States not only suffered drops in the growth rate of their *actually* produced GDP but also in the growth rate of the GDP that their economies can *potentially* produce. A slower potential output growth rate, especially in the aftermath of a recession, suggests that the recovery in output and employment growth may be constrained at a level that is insufficient for recreating the jobs that were lost during the Great Recession and for allowing new labour market entrants to find well-paid jobs.

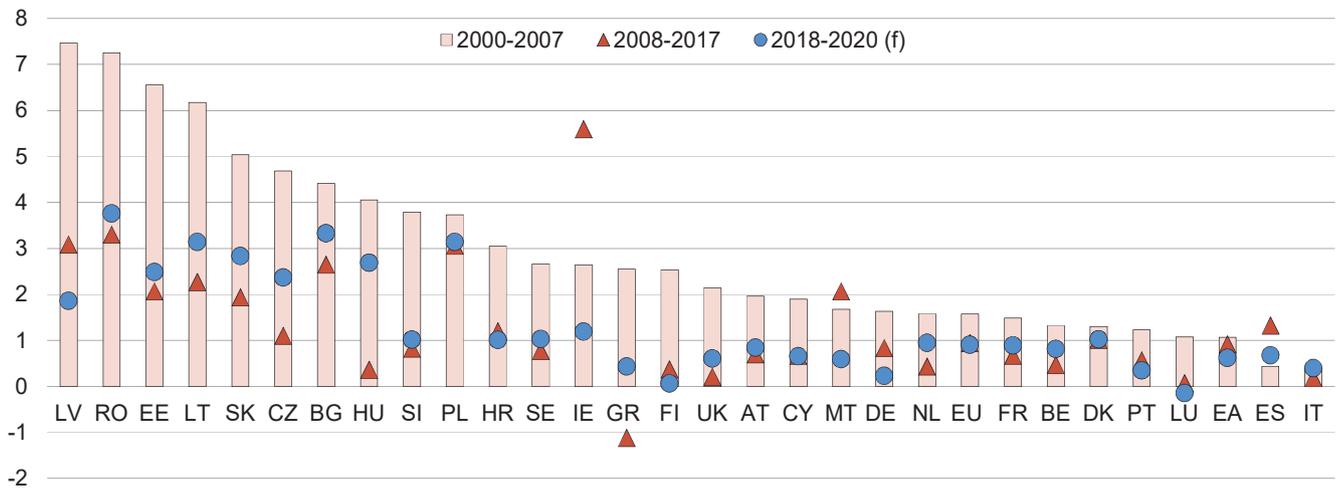
Figure 1.6 shows the average annual growth rate of potential GDP in the EU Member States and the US for subperiods running from 1999 to 2020, ranked by the average annual growth rate in potential GDP during the crisis period (2007–2017). We can see that average growth rates were higher in 1999–2006 than in 2007–2017 for all Member States bar Malta and Germany. There was hardly any difference in average annual growth rates of potential GDP between the two periods for Poland and Romania, while average annual growth rates of potential output were higher in Denmark, France and Belgium for the 1999–2006 period compared to 2007–2017 by only less than one percentage point. Average annual growth rates of potential GDP are forecasted to accelerate in the 2018–2020 period for the EU, EU15 and euro area as a whole but they will still remain below the growth rates of the 1999–2006 period. In many Member States, however, even the projected growth rates for 2018–2020 are expected to stay well below what they were in 1999–2006.

Up until the Great Recession, EU policymaking and the public debate were mostly informed by supply-side explanations, thus focusing on the need for structural reforms – that is, reforms in principally the product and labour markets and the business environment – as ways of stimulating potential output growth. However, the experience of the Great Recession has attracted renewed interest in the fact that demand-side factors matter in shaping potential output growth, especially in the aftermath of lengthy periods of weak demand, when it is well below potential output. Weak demand can result in low expectations, leading to weak investment and eventually lower capital stock. The longer spells of unemployment that often go with it can lead to unemployed workers becoming effectively excluded from the labour market. These findings have been informing calls for a more decisive and sustained use of active demand management policies and for higher wage increases, which would feed into consumption and investment behaviour, thus eventually stimulating productivity growth (Ball 2014; Fatás and Summers 2016).

The debate about which policies are more important for enhancing the production potential of economies is ongoing and has also been informing the discussion on economic convergence and resilience in the euro area and the EU more broadly. At the EU level, and particularly in the Council, the policy initiatives that seem to be advancing the most are, however, still those informed by the supply-side and institutional quality explanations (examples include initiatives on a capital markets union, the Single Market, and an EU budget programme on funding for reforms). Steps towards ensuring a more active use of counter-cyclical policies, meanwhile, especially in the eurozone (for example, the establishment of a fiscal capacity) seem to have stalled.

# Challenges for workers in Europe: scars from the Great Recession

Figure 1.7 Labour productivity (real GDP per hour worked) in the EU, 1996–2020 (f)



Source: own calculations using AMECO data (OVGD and NLHT).

## Slowdown in labour productivity growth

Labour productivity growth, measured as real output per hour worked, slowed down in 2008–2017 compared to 2000–2007 (see Figure 1.7 above) in all but three EU Member States (Ireland, Malta and Spain). While in several countries it is expected to accelerate in 2018–2020, it will still not grow as fast as in 2000–2007. In the medium and long term, growth in labour productivity provides the material base for sustainable real wage growth, so these figures constitute a stark projection for workers. In fact, given that in many Member States labour productivity gains have not been fully translating into real wage increases for quite some time (see Chapter 3 and also Pasimeni 2018, Theodoropoulou 2019), the slowdown in labour productivity growth is likely to have an even greater adverse effect on real wages unless policy action is taken.

## Labour market slack still higher than in 2008

The persistent weakness in wage growth despite the recovery in output growth rates (see again Chapter 3) has in the past few years brought attention to alternative indicators of labour market conditions beyond the standard unemployment rate, such as the so-called labour market slack (see box for definition) and the extent to which the jobs created are precarious (see Chapter 2). Figures 1.8 and 1.9 (see next page) show the evolution of labour market slack for the EU Member States at three different points in time (the beginning of the recession, the beginning of the recovery period, and relatively recent quarterly data for 2018Q2) and for the euro area for the entire 2008–2017

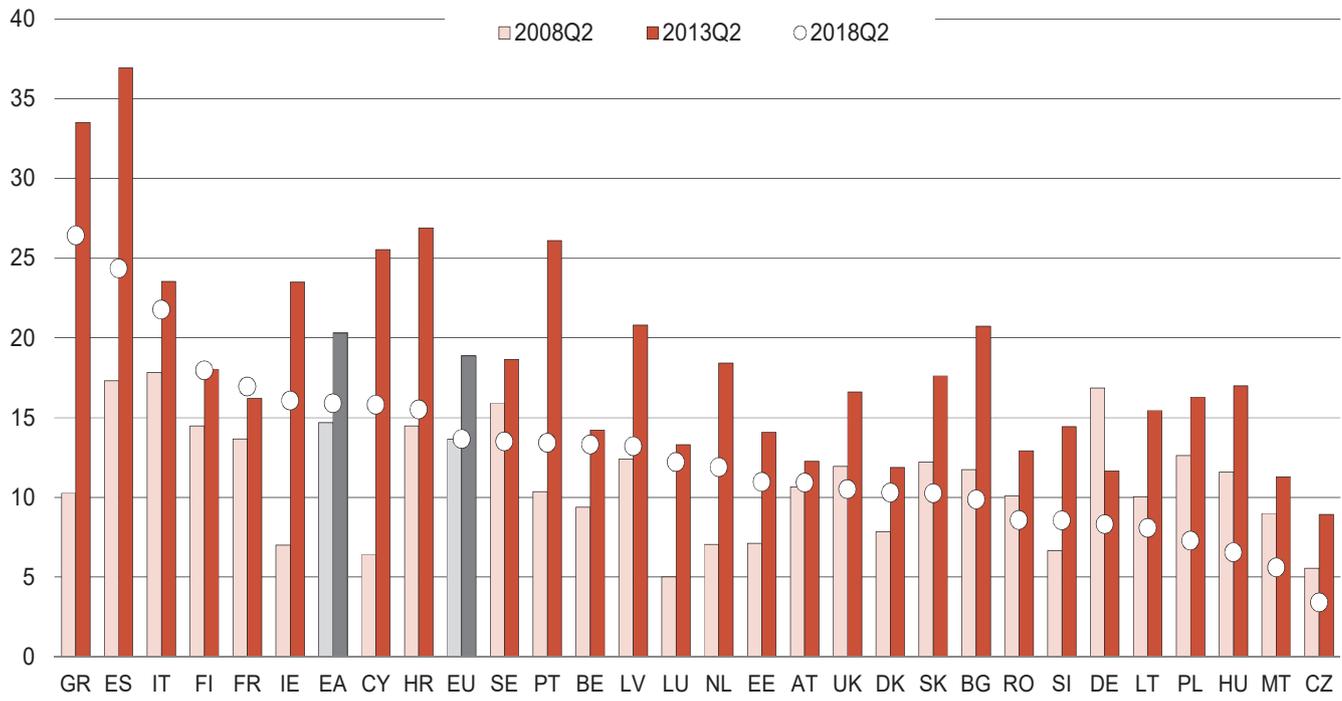
period (most recent annual data). As can be seen in Figure 1.9, unemployed persons accounted for only about half of the total labour market slack in the euro area in 2017. We see that in 12 Member States (Greece, Spain, Italy, Ireland, Cyprus, Portugal, Belgium, Luxembourg, the Netherlands, Estonia, Denmark and Slovenia), labour market slack increased between 2008Q2 and 2013Q2, and although it was lower in 2018Q2 than in 2013Q2, it was still clearly higher than in 2008Q2. In the UK, Slovakia, Bulgaria, Romania, Germany, Lithuania, Poland, Hungary, Malta and Czechia, labour market slack in 2018Q2 was clearly lower than in 2008Q2 and 2013Q2. Germany was the only country in which labour market slack was lower in 2013Q2 compared to 2008Q2.

In the euro area, the share of unemployed persons, underemployed part-timers and those available for work but not seeking employment (what one could consider as ‘discouraged jobseekers’) in the labour force (according to its extended definition: see box) has declined since its peak in 2013–2014 but was still higher in 2017 compared to 2008. It was only the share of those seeking employment but not available to start work within two weeks that was somewhat lower compared to 2008.

**Labour market slack** provides a broader picture of labour under-utilisation compared to the unemployment rate. It is calculated as the ratio of two sums. On the one hand, there is the sum of the unemployed, under-employed (part-time workers who would like to work more hours but cannot find jobs offering this) and those who are ‘marginally attached’ to the labour market (those available to start work within two weeks but not seeking and those seeking work but not available to start within two weeks). This sum is then divided by the sum of the categories of unemployed, employed and those marginally attached to the labour market, which is an ‘extended’ definition of the labour force.

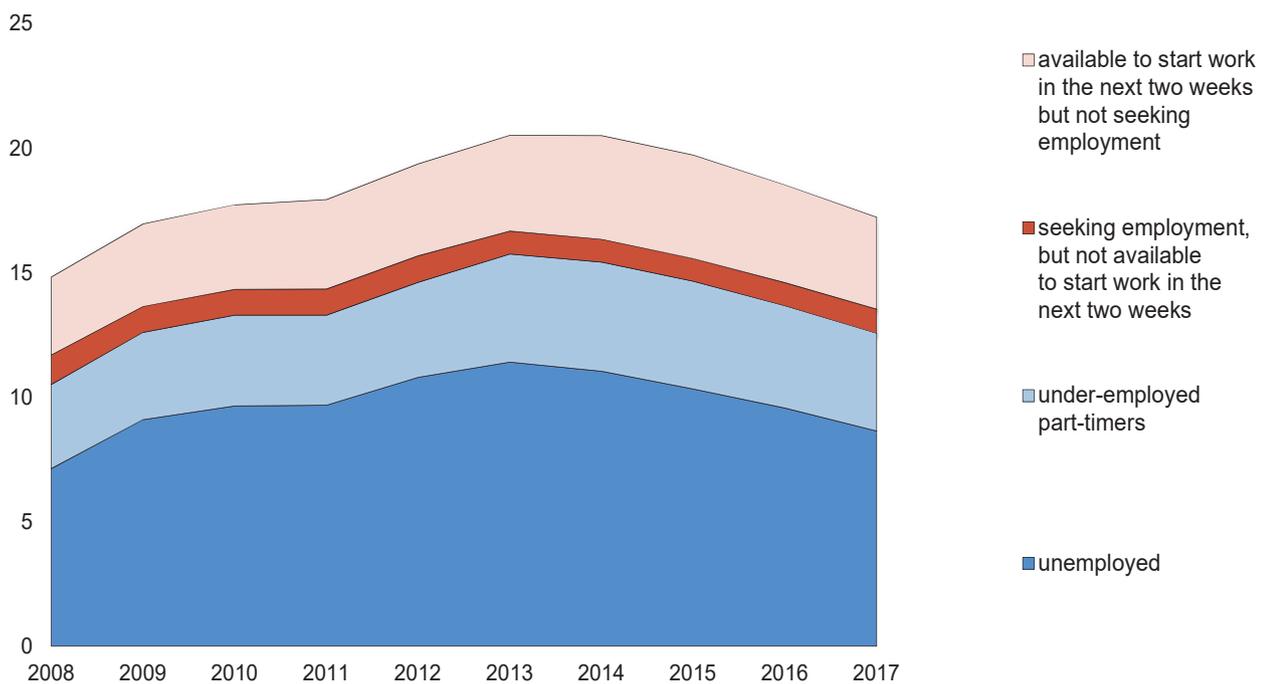
# Challenges for workers in Europe: scars from the Great Recession

Figure 1.8 Labour market slack in the EU Member States (percentage of extended labour force aged 15–74), 2008Q2, 2013Q2 and 2018Q2



Source: own calculations using Eurostat LFS data (lfsq\_ugan, lfsq\_egan, lfsq\_sup\_age series).

Figure 1.9 Labour market slack by category (percentage of extended labour force aged 15–74) in the euro area, 2008–2017



Source: own calculations using Eurostat LFS data (lfsa\_ugan, lfsa\_egan, lfsa\_sup\_age series).

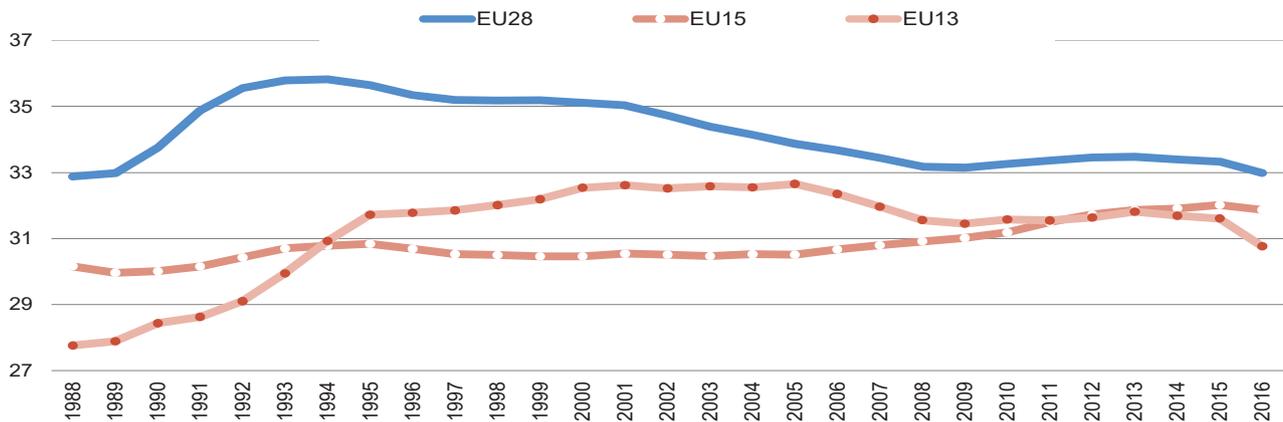
# Challenges for workers in Europe: unequal distribution of income growth

During the recent crisis, we not only observed a slowdown/negative turn in output growth rates but also a more unequal distribution of income within several Member States. Increasing income inequality has been a longer-term phenomenon dating back a few decades. Apart from its negative repercussions for the lives and chances of ordinary citizens, greater income inequality can also act as a drag on output growth (Ostry et al. 2014).

On average, income inequality rose slightly during the recession phase of the 2008–2017 period, mostly among the EU15 (‘old’ Member States rather than the EU13 (‘new’ 2004 accession) Member States (Figure 1.10). The dynamics of income inequality had been fairly different in the two large groups of Member States since the late 1980s, despite the

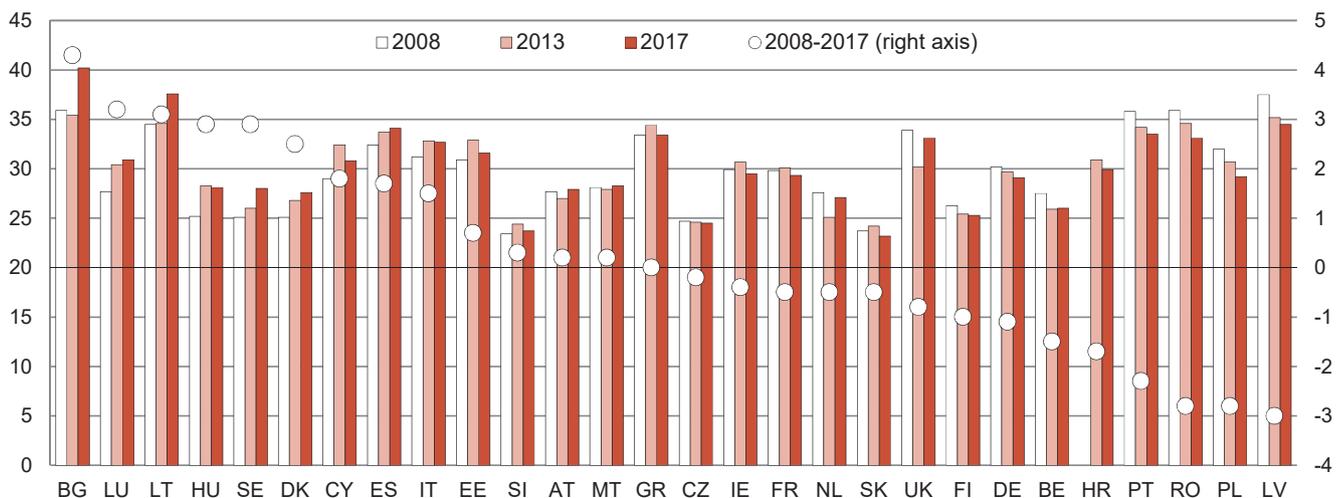
fact that the trend during the 1988–2016 period had been one of increased inequality for both groups. In the EU15, income inequality, measured by the Gini coefficient, rose in the late 1980s and then remained largely stable between 1994 and 2005, meaning that it had started increasing even before the economic and financial crisis began and it only began declining modestly in 2015. In the EU13, on the other hand, income inequality rose sharply in the early years of transition in the early- to mid-1990s and continued rising, albeit at a more modest pace, until 2005, when it began to decline, converging to the level of income inequality in the EU15. During the second part of the EU recession (2011–2013), income inequality in the EU13 rose again, in line with that of the EU15, but started declining earlier (in 2014) and more sharply than in the EU15.

Figure 1.10 Income inequality (Gini coefficients, 0-100) (EU28, EU15, EU13) (1988-2016)



Source: Darvas, Z. (2016), Some are more unequal than others: new estimates of regional and global inequality, Working Paper 2016/08, Brussels, Bruegel. Note: the Gini coefficients used above illustrate the (in)equality in income distribution among households across the pictured groups of countries rather than as averages of the national Gini coefficients.

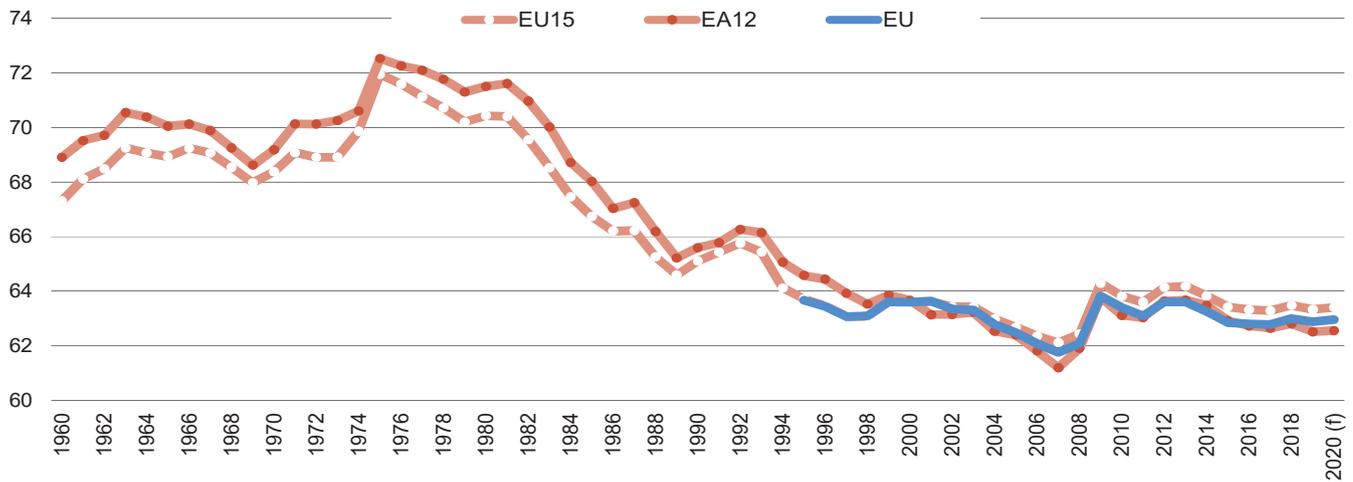
Figure 1.11 Income inequality (Gini coefficient, 0-100) (EU Member States) (2008, 2013, 2017) (2008-2017, change in percentage points)



Source: own calculations using Eurostat-EU-SILC data (ilc\_di12 series).

# Challenges for workers in Europe: unequal distribution of income growth

Figure 1.12 Adjusted wage share (%) in the EU15 and euro area (EA12), 1960–2017, and in the EU (including new Member States), 1995–2020 (f)



Source: AMECO database (ALCD2 series).

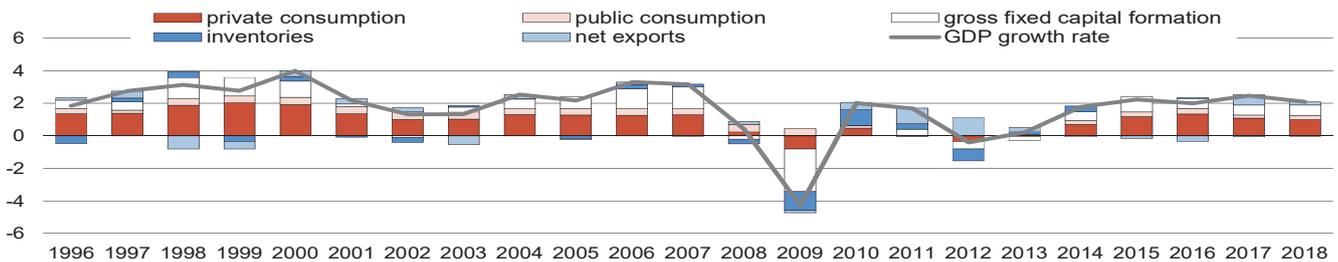
Note: EU15 and EA12 included West Germany data until 1991.

Figure 1.11 shows the Gini coefficients for individual Member States in 2008, 2013 and 2017 and their change (in pp) between 2008 and 2017. Income inequality measured by this indicator was higher in 2017 compared to 2008 in 10 Member States (Bulgaria, Luxembourg, Lithuania, Hungary, Sweden, Denmark, Cyprus, Spain, Italy, Estonia and Slovenia). Interestingly, these are some of the countries with the highest and the lowest income inequalities prior to the crisis.

Increases in income inequality can be the outcome of developments in various aspects of the distribution of output growth, including the distribution of output growth between labour and capital. Figure 1.12 shows that the adjusted wage share – that is, the ratio of the compensation per employee over labour productivity (per person employed) – has been following a downward trend in the 'old' members of both the EU (EU15) and the euro area (EA12) for which there are available data since the 1960s (AMECO database). The rate of decline somewhat slowed down in the 1990s and the 2010s, after having peaked in the early years of the crisis, as GDP declined sharply whereas employment and compensation only followed with a lag. These developments reflect not only longer-term structural trends (technological change, globalisation and financialisation) in Europe (Dao et al. 2017, OECD 2012, Stockhammer 2017), but also specific economic, policy and institutional developments, often in response to these trends, in the different groups of countries. Recent research has suggested that the deregulation of employment protection legislation can explain up to 15% of the decline in the labour share in advanced economies since the 1970s (Ciminelli et al. 2018). Such policies have been heavily advocated, originally as remedies for the high European unemployment in the 1990s and more recently as a means of promoting faster total factor productivity growth.

# Sustainable recovery? Developments in aggregate demand

Figure 1.13 Contributions to real GDP growth percentage of GDP of previous year at constant 2010 prices) of consumption (private and public), investment, net exports and inventories (stocks) (at 2010 prices), EU, 1996–2018



Source: AMECO data (CVGD0, CVGD1, CVGD2, CVGD4, CVGD9 series).

Several factors have been underpinning the relatively modest (compared to the length of the stagnation period) recovery in the European economy and the increases in income inequality. In what follows, we examine the components of aggregate demand and some of the developments that have been driving them, not least the developments in macroeconomic policies, in order to illustrate the channels through which aggregate demand could be strengthened. Compared to the most recent recoveries, in 1996–2000 and 2003–2006, the contribution of investment and of private and public consumption has been relatively weak in the present recovery, whereas for an economy as large as the EU, net exports have been making sizeable contributions to GDP growth, especially since 2010. Figure 1.13 shows the contribution of different components of aggregate demand to yearly real GDP growth from 1996 to 2018 for the EU. The euro area presents an almost identical picture.

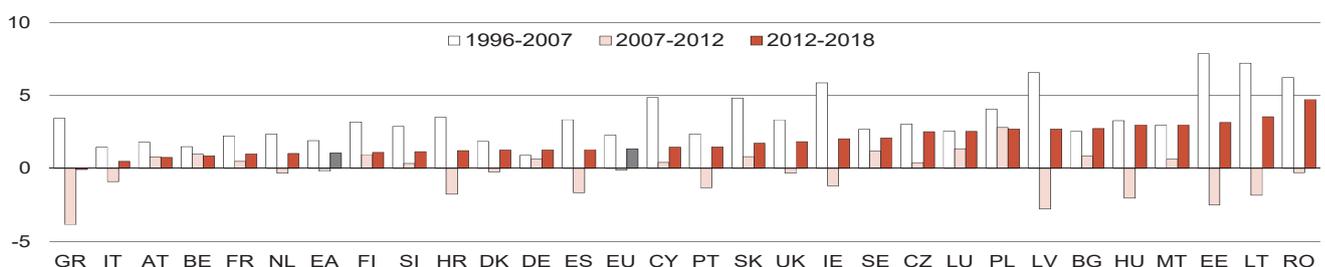
## Private consumption

Private final consumption is usually the largest component of GDP and aggregate demand, with its share often accounting for over 50% of GDP. It is also relatively non-volatile in recessions, as households need to keep spending on necessary items such as food, fuel and so on. A healthy final consumption demand growth can also create incentives for higher investment in capital, as it fosters expectations of high demand and incomes in the future. This

is why cushioning consumption spending from negative shocks, through the use of taxation and unemployment benefits (fiscal policy), is one of the targets of government stabilisation policies.

Growth in private final consumption expenditure was positive during the 2013–2018 period, rising since its slowdown in 2008–2012 in all EU Member States, although there were large variations in the strength of this recovery. Graph 1.14 shows the annual growth rate of real private final consumption for individual Member States for three time periods: 1996–2007 (before the crisis), 2008–2012 (the recession period), and 2013–2018 (the recovery period). In all cases, the average annual private final consumption growth in the recovery period has been slower than the average annual growth in 1996–2007. The strongest average annual growth rates during the recovery have been mostly registered in the ‘new’ Member States, although several ‘old’ Member States (the UK, Portugal, Sweden, Spain, Luxembourg and Ireland) also had growth rates above the EU and euro area averages. The group of Member States with relatively strong average annual growth rates in private consumption in 2013–2018 includes all those countries that underwent drastic economic adjustment programmes as a condition of receiving international financial support (bar Greece) and those countries that suffered most from the recession. Nevertheless, in Greece, Spain, Italy, and Croatia, the real consumption levels in 2018 are still below their 2008 values, with Portugal coming in just slightly above.

Figure 1.14 Average annual growth rate of private final consumption expenditure at 2010 prices (EU Member States, EU and euro area), 1996–2007, 2008–2012 and 2013–2018

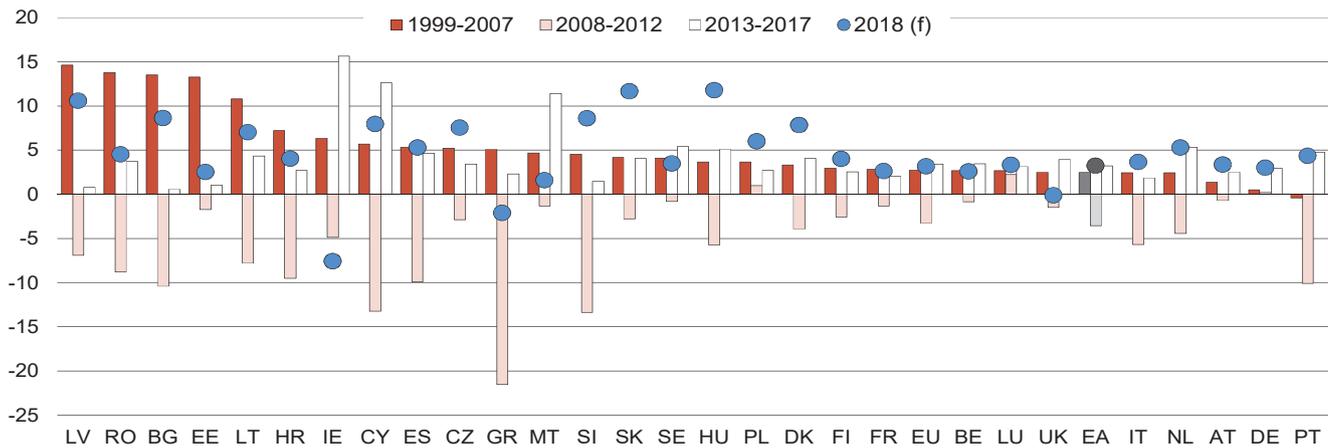


Source: AMECO (OCPH), own calculations.

Note: Final consumption includes expenditure by households and non-profit institutions on goods and services but excludes benefits in kind financed by the government and supplied to households.

# Sustainable recovery? Developments in investment

Figure 1.15 Average annual growth rates (%) of real gross fixed capital formation (investment) (at 2010 constant prices), EU Member States, 1999–2018 (f)



Source: own calculations using AMECO data (OIGT series).

## Investment growth is too weak to compensate for lost years

Investment (gross fixed capital formation) growth in the EU as a whole has been positive, albeit weaker than in previous recoveries. Since 2013, its average annual growth rates for the EU (2.8%) and the euro area (2.9%) have been somewhat stronger than what they were in 1999–2007 (see Figure 1.15) and this is expected to continue over the 2018–2020 period. Gross fixed capital formation is forecasted to contribute about 0.65 pp to EU and 0.67 pp to euro area GDP growth in 2018.

The forecasts for growth in investment for 2018 in individual Member States vary substantially. In several new Member States (Latvia, Bulgaria, Lithuania, Cyprus, Czechia, Slovenia, Slovakia, Hungary and Poland), but also in older Member States (Denmark and the Netherlands), the forecasts are for a growth rate faster (and in some cases much faster) than 5% in 2018, almost more than twice as fast as the EU average. Romania, Croatia and Portugal follow closely with forecasts of between 4 and 5%. In most cases, however (except for Romania and Croatia), the forecasted investment growth rates for 2018–2020 are expected to be slower. On the other hand, Greece, Ireland and the UK stand out with their negative or zero forecasted growth rates for 2018 even though in the former two, investment is expected to pick up briskly in 2018–2020.

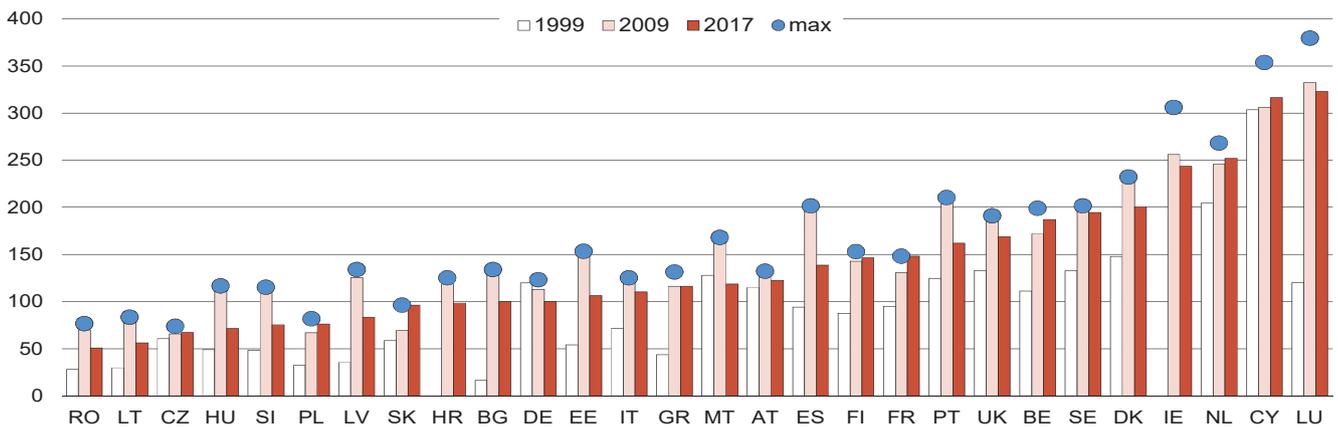
These forecasted growth rates come in the aftermath of an investment gap that emerged during the financial and economic crisis (compared to the average annual growth rate of investment in 1999–2007) and which in most cases had not closed by 2017. Although the average annual growth rate of real investment was positive in all EU Member States

between 2013 and 2017, average annual growth rates were still very unequal across Member States (see Figure 1.15). While Cyprus (12.4%), Ireland 11.6%), Hungary (6.6%), the Netherlands (5.5%) and Slovakia (5.7%) saw particularly strong increases above the European weighted mean (3.4%), Estonia and Greece remained at annual growth rates of below 2%. What is more, the positive average annual growth rates registered in 2013–2017 barely made up for the large losses in 2008–2012 in many Member States, such as in Latvia, Romania, Bulgaria, Estonia, Lithuania, Croatia, Cyprus, Greece, Slovenia, Hungary, Denmark, Finland, France and Italy.

## Paying off debt holds back private consumption and investment

A possible drag on the strength of the current recovery, at least as far as private sector consumption and investment are concerned, is the process of ‘deleveraging’, whereby households and firms prioritise paying off their debts instead of spending their income on consumption or investment (Koo 2009). Figure 1.16 shows the private sector debt-to-GDP ratio for 1999, 2009 and 2017 and the maximum level during these years. In most Member States, and especially in those where there were sizeable increases in the private debt-to-GDP ratio between 1999 and 2009, households and (non-financial) firms have been reducing their gross debt levels relative to GDP from the maximum amounts that were typically reached between 2009 and 2016. For many countries, however, private debt levels are still fairly close to their 2009 levels. As balance sheets are still not in order for some households and firms, those affected make paying off debt their priority.

Figure 1.16 Private sector debt (percentage of national GDP, consolidated) for EU Member States and the euro area (1999, 2008, 2017 and maximum during 1999-2017)



Source: own calculations using Eurostat (tipspd20)

The flip side of the coin, underpinning the weakness in investment in some cases (especially in Member States that suffered deep recessions), are the balance sheets of banks, most notably the share of ‘non-performing loans’ or ‘non-performing exposures’ on their total loans. These weigh down on banks’ capacity to extend credit for investment. The combination of high debt and low growth have led to late payments or even defaults on the part of bank customers, eventually forcing write-downs on loans. As loans are assets for banks, writing down non-performing loans is a process fraught with difficulties, and a lengthy one at that. With the exception of Greece, most countries with a problematic share of non-performing loans should have been able to reduce it by one third to one half from June 2016 to June 2018.

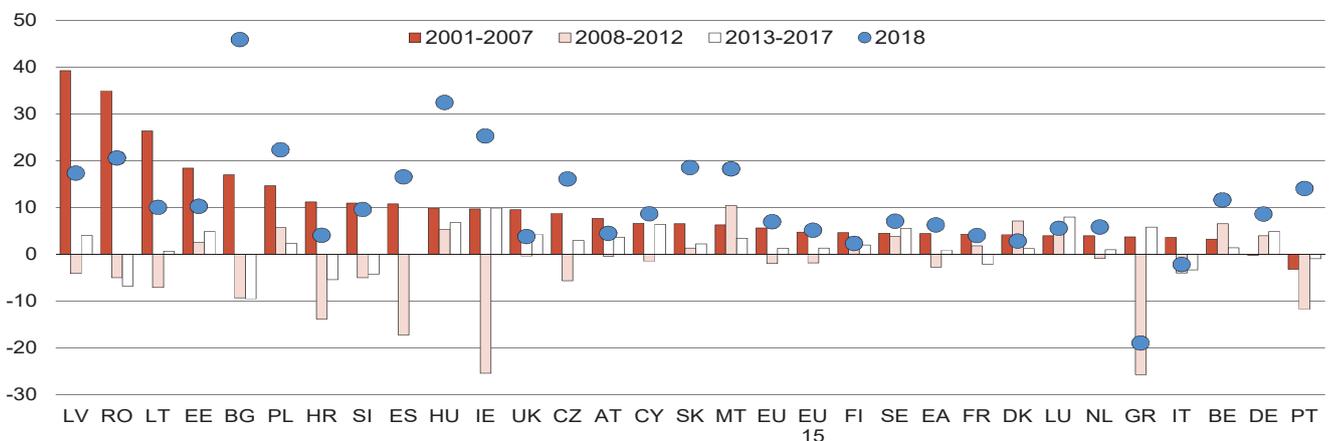
## Public investment not growing fast enough

Although only a small part of total investment in advanced economies, public investment is of special importance: it provides for physical and human infrastructure and

it can support the private sector in undertaking risky activities, such as investment in innovation (Mazzucato 2013) and renewable forms of energy, all necessary for the smooth functioning and sustainable long-term growth of an economy. It can also play an important role in limiting the effects of technological advances as regards inequality (Atkinson 2015). It is therefore all the more worrying that public investment has not played a lead role in combatting the perceived investment gap to counter the shortfall in private investment.

In 2018, real public investment is expected to grow at 7% in the EU and at 6.2% in the euro area, 1.4 and 1.8 pp faster than their respective average annual growth rate in the 2001–2007 period. This performance follows a collapse in public investment growth rates during the economic and financial crisis, with annual averages near or above -2% during the recession years and around 1% per year during the recovery. The average annual rates of public investment are expected to have grown faster in 2018 than during the economic and financial crises in all Member States bar Finland, Denmark and Italy. However, in 2019–2020, the rate is expected to slow down in 15 Member States.

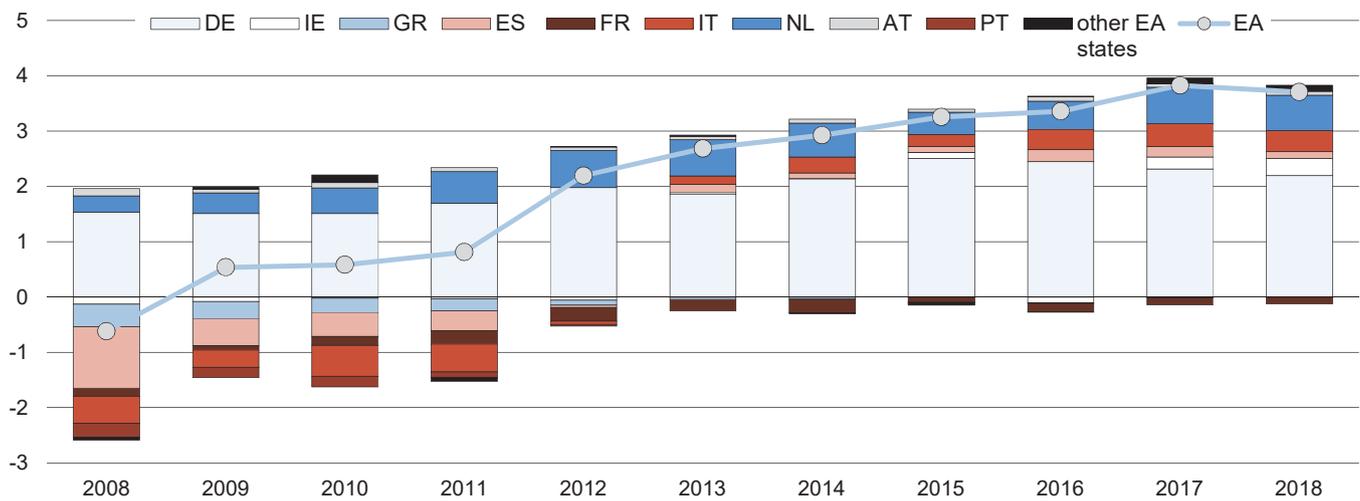
Figure 1.17 Real public investment (gross fixed capital formation: government sector), average annual growth rates in EU Member States (2001–2018)



Source: own calculations using AMECO data (OIGT0 series).

# Sustainable recovery? The euro area's current account surplus

Figure 1.18 Current account balance (percentage of euro area GDP) for euro area and EU Member States (2008–2017)



Source: own calculations using AMECO data (UBCA series).

## An asymmetric rebalancing of current account imbalances

In 2018, the current account surplus of the euro area with the rest of the world as a share of GDP is expected to slightly decline to 3.7% of GDP (or 444 billion euros), from 3.8% of GDP in 2017 and following its continuous increase since 2008 when there was a small deficit (see Figure 1.18). This arguably large (for an economy as big as the euro area) current account surplus indicates that the area's economy as a whole exports more than it imports and would be particularly vulnerable to a decline in global trade, should a trade war escalate.

The persistently large current account surplus of the euro area with the rest of the world also implies that the area as a whole has been lending and/or investing pretty much the equivalent amount of its current account surplus to the rest of the world. This is potentially dangerous for global financial stability: if for any reason, the optimism of investors/lenders from the euro area changed for the worse, then these flows of capital from the euro area to the rest of the world could suddenly stop, plunging the recipient economies in the rest of the world into crisis, which could easily spread across financial markets, banking systems and governments (public debt), as happened in 2008.

This persistent current account surplus also suggests that investment in the euro area could not only help heal the scars of the crisis and facilitate the transition to a greener model of economic growth, but also help reduce this surplus with the rest of the world. This is especially true for those Member States that got entangled in balance-of-payment, banking and public debt crises after 2010, having to reduce

their current account deficits sharply within a few years, mostly by suppressing domestic demand and imports and allowing unemployment to skyrocket. In this respect, the macroeconomic imbalances procedure (MIP), established under the 'Six-Pack', while generally a step in the right direction, has failed to contain the excessive surpluses in some Member States.

# Sustainable recovery? Tackling climate change

## Decoupling greenhouse gas emissions (GHG) from GDP growth: a net zero-carbon economy by 2050 is still possible without giving up economic growth

In December 2018, 196 countries and the European Union signed up to the ‘Katowice Climate Package’ to operationalise the climate change regime set out by the Paris Agreement. The rulebook (a single set of rules for all countries) adopted to underpin its implementation was necessary for the Paris Agreement to enter force in 2020. This step constituted the absolute minimum to keep the global climate policy ambition set out in Paris alive, but the COP24 in Katowice fell short of producing more ambitious climate pledges in order to collectively meet the temperature goals of the Paris Agreement. Several dozen countries and the EU, as members of a ‘High Ambition Coalition’, pledged to ‘step up’ their climate policy ambition by 2020.

At the same time, global CO<sub>2</sub> emissions keep rising at an alarming pace. The report of the Global Carbon Project (2018) estimates that global CO<sub>2</sub> emissions from fossil fuels and industry will rise by 2.7% in 2018 – a sharp increase after three years of stagnation between 2014 and 2016 and a 1.6% rise in 2017 – and will reach an all-time high of 37.1 billion tonnes. Climate models estimate a remaining global carbon budget of 118 billion tonnes of CO<sub>2</sub> between 2018 and 2100, if temperatures are to be kept well below 1.5°C. This amounts to approximately three years of current emissions until the budget is exhausted (Hausfather 2018).

In October 2018, the UN Intergovernmental Panel on Climate Change warned the world to keep the increase in

global temperatures at a maximum of 1.5°C (IPCC 2018), beyond which even half a degree will significantly worsen the risks of drought, floods, and extreme heat. The panel urged the implementation of policies that will bring about the needed changes in carbon use, which it said were technologically feasible.

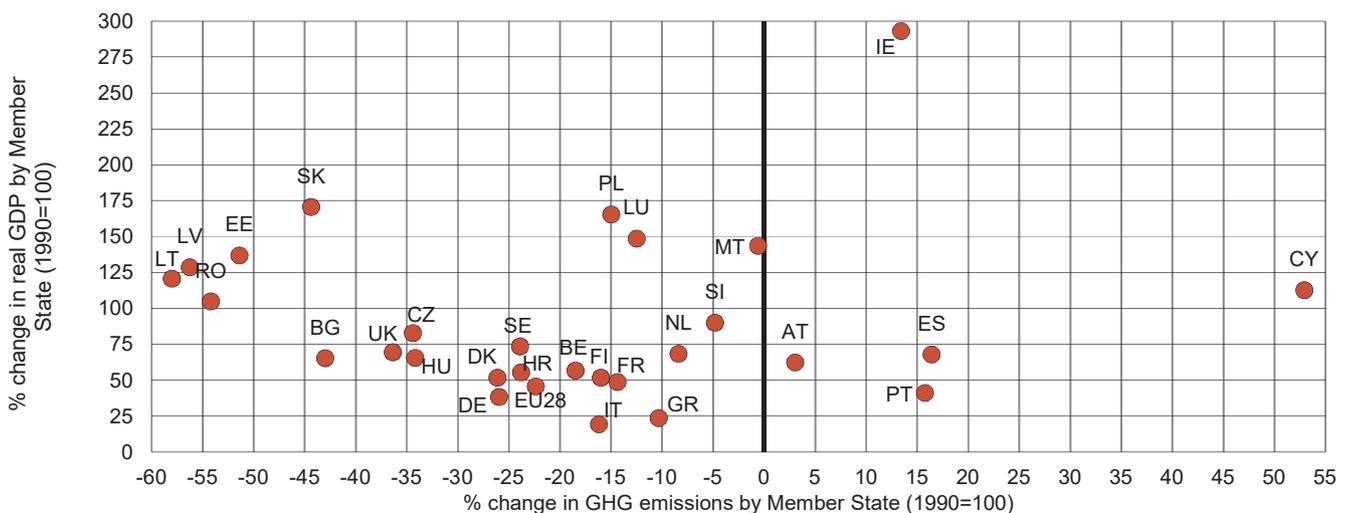
For the EU, the European Environment Agency’s (EEA 2018) annual ‘trends and projections’ assessments show an increase of emissions by 0.6% in 2017 from 2016. Although the EU is still on track to achieve its 2020 emissions reduction target, it will be by a narrower margin than expected. National measures will need to be urgently stepped up to achieve the EU’s new reduction targets for 2030 and a radical change will be necessary to reach net zero emissions by 2050, consistent with the Paris targets.

Against this background, it is no wonder that the voices of those arguing that climate policy objectives can only be met with no-growth or de-growth scenarios, at least for developed economies (DeGrowth 2018), have become louder. However, is the necessary radical reduction of GHG emissions possible without giving up continuous economic growth? Several authors have shown that in fact the decoupling of emissions and incomes is already happening (Cohen and Loungani 2018).

When looking at the yearly rate of decoupling GHG emissions from GDP, identical change rates of both GDP and GHG emissions means that no decoupling takes place. Relative decoupling takes place when GDP increases faster than GHG emissions, while absolute decoupling denotes an absolute decrease of emissions while GDP grows.

Using the latest available data, Figure 1.19 shows real GDP growth and GHG emissions for each Member State and the EU28 between 1990 and 2016 to illustrate that the decoupling of GDP from GHG emissions is indeed happening in Europe. While the EU had a cumulative real GDP growth rate of 45.4% in this period (at a 1.45% compound annual growth rate), GHG emissions were down by 22.5% (at a 0.98% compound annual rate of reduction). The figure also reveals

Figure 1.19 Decoupling greenhouse gas emissions from GDP, 2017, percentage change (1990=100)



Source: EEA, Eurostat.  
Note: EE, LV, LT: 1990=1993; CZ, BG, EU, HU, MT, PL, RO, SI, SK: 1990=1992.

huge differences by Member State, both in terms of GDP growth and GHG reductions. While all Member States saw positive GDP developments over the 26-year period, there was great disparity: cumulative GDP growth in Italy was a mere 19% while in Ireland it was a staggering 290%. Only five countries did not manage to reduce their GHG emissions (Austria, Cyprus, Spain, Ireland and Portugal); the rest achieved reductions in GHG emissions to a varying extent. There was thus a wide range of developments in emissions across Member States, from a 52% increase in Cyprus to a 51% decrease in Latvia. The decoupling of GHG emissions from GDP growth was the most pronounced in Slovakia and the Baltic states, which all had robust growth on the one hand and significant GHG reductions on the other.

As regards the rate of decoupling for the EU as a whole, we used compound annual rates for both GHG and GDP change for the 26-year period and found that the EU28 achieved a yearly average of 0.98% in emission reductions and 1.45% real annual GDP growth. This corresponds to an annual decoupling of GHG emissions from GDP by 2.43%. Although this signifies absolute decoupling, it is nowhere near enough to meet the Paris climate policy targets. For that, at least a 95% GHG emission reduction (on the basis of the 1990 level) would need to happen by 2050. While by 2016 (latest available data) GHG had been reduced to 77.5% of the 1990 level, over the next 34 years a further reduction to 5% of the 1990 level is needed. This means a yearly average GHG reduction rate of 7.74% and, assuming the average GDP growth rate will continue at 1.45% a year, a yearly decoupling rate of 9.19%.

This is a decoupling intensity of almost four times what we have achieved so far. The mid-century carbon roadmap soon to be launched by the Commission should step up the climate policy ambition of the EU accordingly.

## Renewable energy investment in the EU: in 2017, 50% down from its 2011 peak

In order to accomplish the radical revision of our growth model and manage the necessary reduction of GHG emissions by mid-century, two major transformations need to take place: one in the energy sector and one in the transport and mobility sector. Both will require huge levels of investment. Here we look at investment in the energy sector, with a focus on clean energy generation.

Europe passed a new landmark in energy generation in 2017, because for the first time a greater part of its electricity supply came from renewable sources than from coal (Agora Energiewende and Sandbag 2018). However, in investment in renewables it is seriously lagging behind China, the global leader, and even the EU's own past performance.

Figure 1.20 shows that investment in renewable energy by the EU27 in 2017 was a mere 50% of the level in 2011 and 30% less than in 2016 (Frankfurt School-UNEP-BNEF 2018). In 2011 China still invested a mere third of what the EU did in clean energy, but in 2017 this had increased to

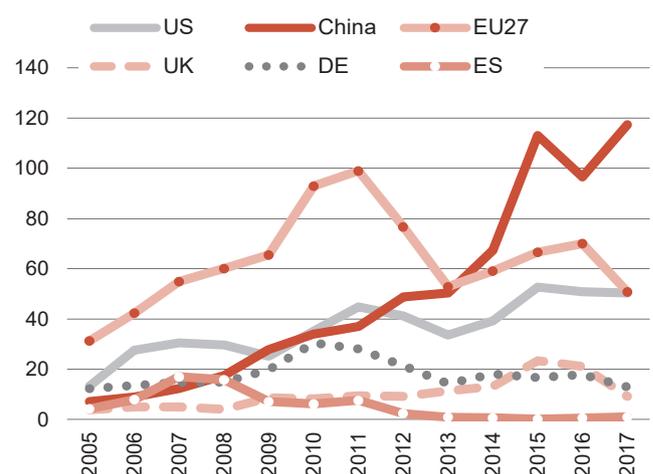
almost two and a half times more than the EU amount. The EU had a 45% share in global clean energy investment in 2011 but by 2017 this had fallen to 15%, while China's share rose to 40% in 2017. Within Europe, both Germany and the UK saw big drops in clean energy investment, while in Spain (once a leader in renewables) investments in clean energy have collapsed in the past couple of years.

The enduring weakness of investment activity in renewables in Europe is also in contrast to the high level of still existing fossil fuel subsidies across its Member States. Depending on the methodology and definition, estimates (by the OECD and the IEA) for combined fossil fuel subsidies in the EU range from EUR 39 billion to over EUR 200 billion per annum (Hayer 2017). The IMF, which also takes environmental externalities into account, arrives at a higher estimate (Coady et al. 2015). In all cases, however, fossil fuel subsidies in the EU are still higher than investments in clean energy. Moreover, investment support is also provided on a large scale for fossil fuel use and generation. Between 2013 and 2017, the EIB provided up to EUR 11.8 billion in funding for fossil fuel projects. This amount was almost 30% of its total lending in the energy sector. Although this figure is lower than its funding for renewables (which was EUR 18.4 billion in the same period), funding for renewables actually decreased in that period, while funding for fossil fuel investments increased (Bankwatch 2018).

The European Fund for Strategic Investments also provides significant funding for fossil fuels (in particular, gas infrastructure), leveraging EUR 1.5 billion for additional investments in fossil fuel infrastructure.

Given the huge amount of investment needed to create a net zero-carbon economy, the continuing underinvestment in renewable energy is a policy mistake that urgently needs to be corrected. Moreover, the problem is not only underinvestment; the allocation of existing resources is also dysfunctional, as the case of fossil fuel subsidies and funding show. Clear policy objectives and a more coherent policy framework is necessary to turn around these negative trends.

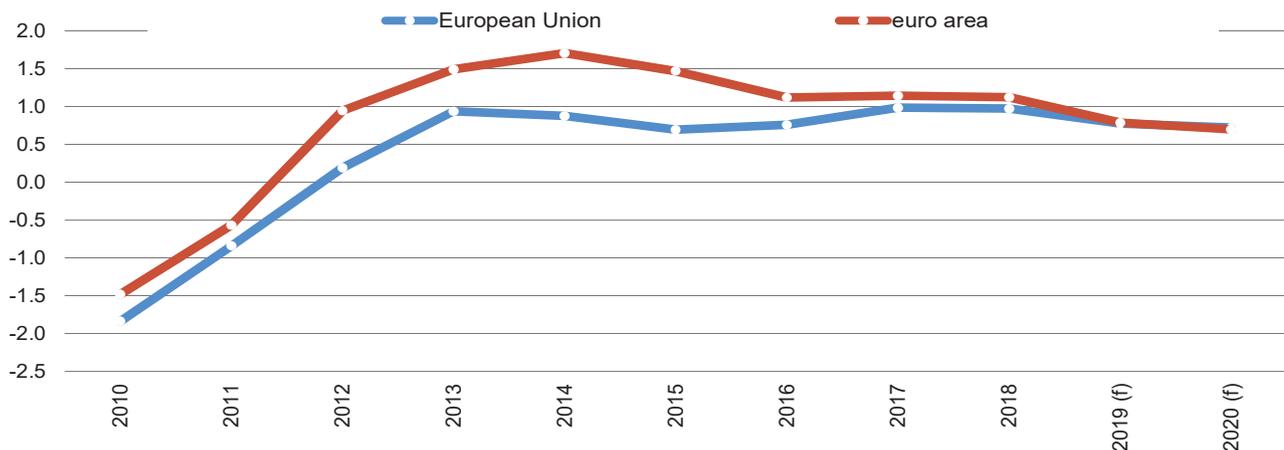
Figure 1.20 Clean energy investments in China, the US and Europe, 2005–2017 (in EUR billions)



Source: Frankfurt School-UNEP-BNEF 2018; original USD data converted to EUR at the ECB annual average exchange rate.

## Macroeconomic policy developments: fiscal policy and public debt

Figure 1.21 Fiscal policy stance (change in government structural budget balance excluding interest, percentage points of potential GDP) EU and euro area, 2010–2020 (f)



Source: AMECO data (UBLGPS series).

### A new framework for fiscal policy coordination is needed

The fiscal policy stance is expected to be broadly neutral (that is, neither expanding nor contracting) in 2018 but nevertheless somewhat more expansionary than in 2017 in both the euro area and the EU (see Figure 1.21). This fiscal stance follows a couple of years of moderate expansion in the euro area and a contraction in the EU in 2016, as well as the arguably misguided fiscal austerity from 2010 to 2013 in the EU, and to 2014 in the euro area. As output growth is expected to slow down from 2018 onwards, the aggregate fiscal stance in both the euro area and the EU are projected to become more expansionary. For 2018, the fiscal stance of most Member States is expected to have been on the expansionary side, with the exception of Germany, Estonia, Cyprus and the UK (see figure 1.22). This is a switch from 2017 when most Member States consolidated their public finances, except for Germany, Estonia, Greece, Italy, Cyprus, Latvia, Hungary, Poland and Romania.

In line with the EU fiscal rules (the Stability and Growth Pact), the 'broadly neutral' fiscal stance in the EU and the euro area has been considered as 'appropriate' by both the European Commission and ECOFIN, given the recovery in output growth and the increases in public debt-to-GDP ratios during the economic and financial crisis. The logic goes that as output has been growing recently and the 'output gap' is positive, this is the time to build up fiscal buffers, that is, reduce budget deficits and build up surpluses so as to have space to allow them to expand when a negative shock hits again. However, there are several considerations that cast doubt on this view. The first consideration is that basing policy recommendations on measures that depend on current calculations of the output gap of an economy (the

difference between actual and potential output) is likely to result in a fiscal policy that is too tight when it should be expanding or too loose when it should be tightening. In this respect, targeting ill-measured structural budget deficits is likely to lead to erroneous policy recommendations (see box, p. 19). The fact that core inflation, especially in the euro area, remains well below the 1.9% target of the European Central Bank is further evidence that the way the output gap for the euro area is currently calculated is most likely wrong, and that there is scope and indeed a need to stimulate the eurozone economy further. Contrary to the recommendation of the European Fiscal Board (2018) for 2019, in most Member States it is not yet time to build up fiscal buffers.

The second consideration that calls into question the appropriateness of a neutral fiscal policy in the euro area is the relative priority that it assigns to reducing the public debt-to-GDP ratio faster than the rate at which the scars left by the crisis are healed, especially given that monetary policy is at zero interest rates (see p.21). Following the introduction of the 'Six-Pack' in 2011, the public debt-to-GDP ratio and the speed at which it is being reduced also enter into the considerations for determining whether a Member State complies with the fiscal rules, thus effectively adding pressure on Member States to prioritise their reduction by running primary surpluses.

# Macroeconomic policy developments: fiscal policy and public debt

Figure 1.23 shows the evolution of the gross public debt-to-GDP ratio from 2008, when the economic crisis began. Public debt in the European Union rose from 60.7% to spike at 88.1% in 2014 and has only diminished slightly from its peak to 81.4% in 2018. In the euro area, it is forecasted to be somewhat higher at 86.9%. Both figures are well above the threshold of 60% stipulated by the Maastricht Treaty and enshrined in European fiscal rules.

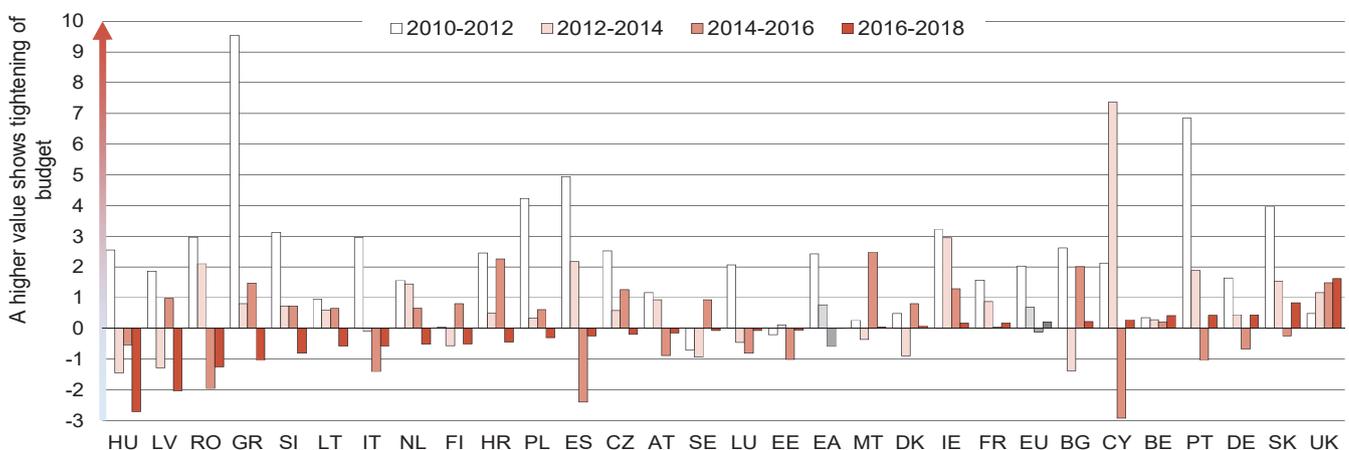
The European aggregate number conceals the wide variety of public debt levels that correspond to different initial levels in 2008 and ensuing economic developments in the respective economies. While all countries have seen their debt increase from 2008 to 2014, the increases have varied in size. The typical pattern for most countries is a slow fall in the debt level after 2014 which, by 2018, nevertheless remained far above its level of a decade earlier. A few countries managed to decrease their public debt-to-GDP levels compared to 2008: Germany, the Netherlands, Malta, and Denmark. At the opposite end of the spectrum, several countries have not been able to decrease their debt ratios since 2014 (or only barely). Among them are countries that received financial support (Greece, Portugal, Spain, Cyprus, Latvia and Romania) and countries that did not (Italy, France, Slovenia and Finland). A notable exception is Ireland, whose public debt-to-GDP ratio has been declining relatively fast, even after taking into account the effects of the controversial jump in GDP growth figures in 2015. The weak recovery in many Member States explains, to a significant extent, the sluggish reversals.

This is all the more striking as the monetary policy stance has been easing the burden of paying back public debt. When effective interest rates on government debt are lowered below the nominal GDP growth rate of an economy and when these interest rates are also at zero, the government may apply an additional fiscal stimulus to the economy

without impacting the public debt-to-GDP ratio because its costs of borrowing do not increase. Moreover, the ECB and national central banks have bought up government bonds, thereby driving down interest rates on them. By now, over 15% of public sector debt is held by the European System of Central Banks as a result of the ECB’s public sector purchase program. However, this has not been exploited much in most European economies.

Short of scrapping the EU fiscal rules in their current form, a way forward could be the adoption of the ‘golden rule’ for investment, whereby investment expenditure is exempted from the calculation of budget deficits that may trigger an excessive deficit procedure (Feigl and Trueger 2015). Extending the definition of investment to include spending on social investment (for example, for the provision of early childhood education), which is likely to stimulate long-term growth and mitigate income inequalities, would also help. This would allow countries which may have suffered recessions and reductions in their capital stock to regain lost ground and turn the current weak recovery into a stronger one for all European workers.

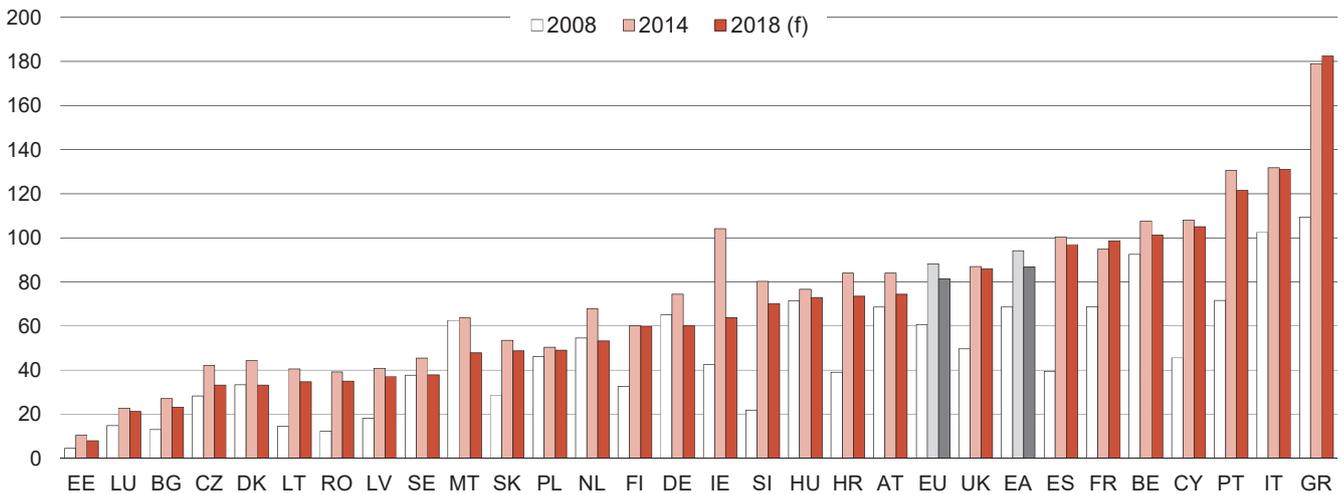
Figure 1.22 Fiscal policy stance (cumulative change in government structural budget balances, excluding interest) (percentage points of potential GDP), EU Member States, 2010–2018 (f), two-year intervals



Source: own calculations using AMECO data (UBLGBPS series).

# Macroeconomic policy developments: fiscal policy and public debt

Figure 1.23 Public sector debt (percentage of national GDP) for EU Member States and the euro area (2008, 2014 and 2018) (f)



Source: AMECO data (UDGG series).

The third consideration that casts doubt on the appropriateness of the current fiscal policy stance has to do with the mix of national fiscal stances underlying the aggregate fiscal stance, especially in the eurozone. At present, the SGP forces countries to save when the primary government deficit is too high, but it does not require countries to spend when a primary surplus and current account surplus allows for it. Those who can expand their fiscal policies do not do so, while those who are more constrained do. In part this is due to the fact that fiscal rules are asymmetrically focused on preventing national fiscal policies from being too loose and do nothing about Member States with too-tight fiscal policies, which is also problematic given the eurozone’s need for an aggregate fiscal stance.

The ideal fix for this problem would be the introduction of a common fiscal capacity for the euro area or even a ‘Euro Area Treasury’ (see Bibow 2019). It would be the fiscal counterpart to the European Central Bank’s monetary policy and would ensure an appropriate fiscal stance for the euro area as a whole. An aggregate fiscal capacity, however, would need a stabilisation function for stimulating the economy during recessions, and also redistribute to countries in recessionary or low-growth periods. If it does not fulfil these functions, its impact may not reach the country where it is needed. For instance, spending in Germany affects growth in other large euro area countries only through rather modest spillover effects (Picek and Schroeder 2018). It is already obvious that the minimal euro area budget (within the EU budget, and without a stabilisation function) that European heads of state have tasked their finance ministers to develop will not be sufficient to this end.

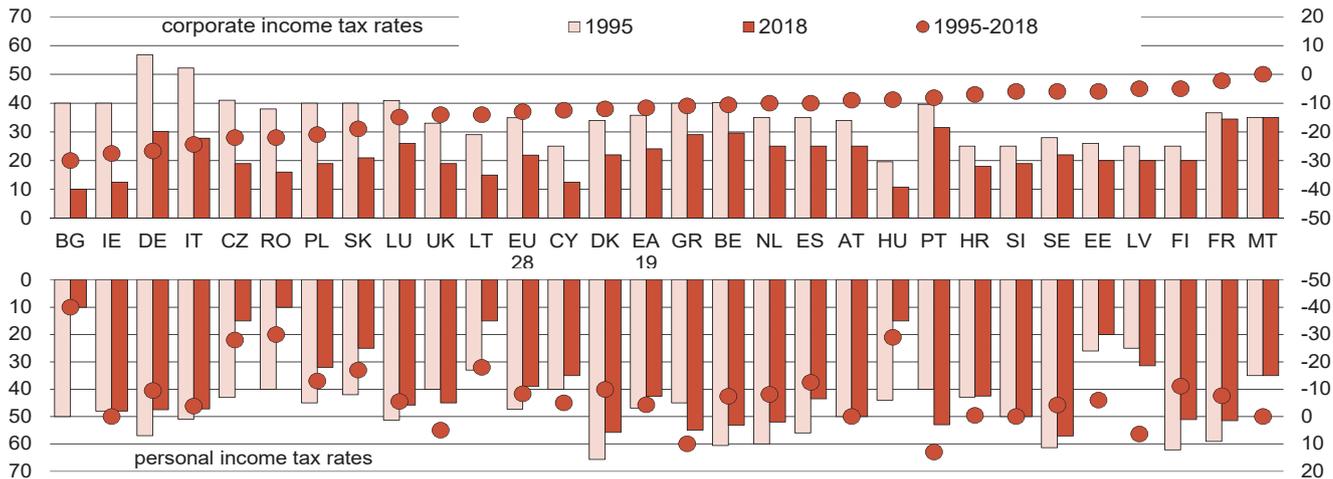
### The fiscal stance and the government structural budget balance

The fiscal policy stance is calculated as the change (in percentage points of potential GDP) in the government budget balance once the effects of automatic stabilisers and interest payments are excluded. This is called the government structural budget balance. Automatic stabilisers include tax revenues levied upon incomes and expenditure, and unemployment benefits.

In simple words, the structural balance excluding interest shows the balance between expenditure and revenues that are in the discretion of a government. A positive change is equivalent to consolidation (that is, revenues exceeding expenditure) whereas a negative change signals an expansion (that is, expenditure being greater than revenues). An equal change of expenditure and revenues signals a neutral fiscal policy stance that neither grows nor contracts the economy.

# Macroeconomic policy developments: taxation

Figure 1.24 Top statutory corporate and personal income tax rates (including surcharges) (%), EU Member States, EU28 and euro area, 1995, 2018 and change 1995-2018 (percentage points)



Source: own calculations using data from European Commission (2018b). Taxation trends in the EU.

## The decline in top income tax rates

Questions of taxation, from the structure and progressiveness of the tax system to the rules determining the tax base, have taken centre stage in the policy (and academic) debate in Europe and elsewhere. Pressures on public spending have been mounting for decades due to such developments as the maturing of welfare states and ageing populations. They further intensified during the crisis, especially in Europe, leading to more restrictive social policies and leaner public services that do not meet demand (Theodoropoulou 2018). At the same time, big challenges, such as the transition to a more environmentally sustainable model of growth but also technological advances, will require massive efforts and public resources in order to facilitate a ‘just transition’ to the new realities. High capital mobility has, over the years, put constraints on the taxation of capital by national governments, although these constraints have varied. It is difficult to explain increases in income inequality (mostly driven by developments in the top 1% of incomes) as simply the result of the disparity in educational attainment; the lowering of the top income tax rates arguably also plays an important role (Atkinson 2015). Last but not least, recent high-profile revelations about worldwide tax avoidance mechanisms used by wealthy individuals and corporations have been fuelling a sense of social injustice about sharing the burden of adjusting to current and recent challenges and crises.

The past couple of decades have seen a decline in the tax rates for top incomes, whether corporate or personal, in the vast majority of EU Member States. Figures 1.24 and 1.25 show the evolution of the top statutory personal and corporate income tax rates in Europe between 1995 and 2018. In 2018, the average statutory top personal income tax rate was 39% for the EU28 and 42.6% for the euro area,

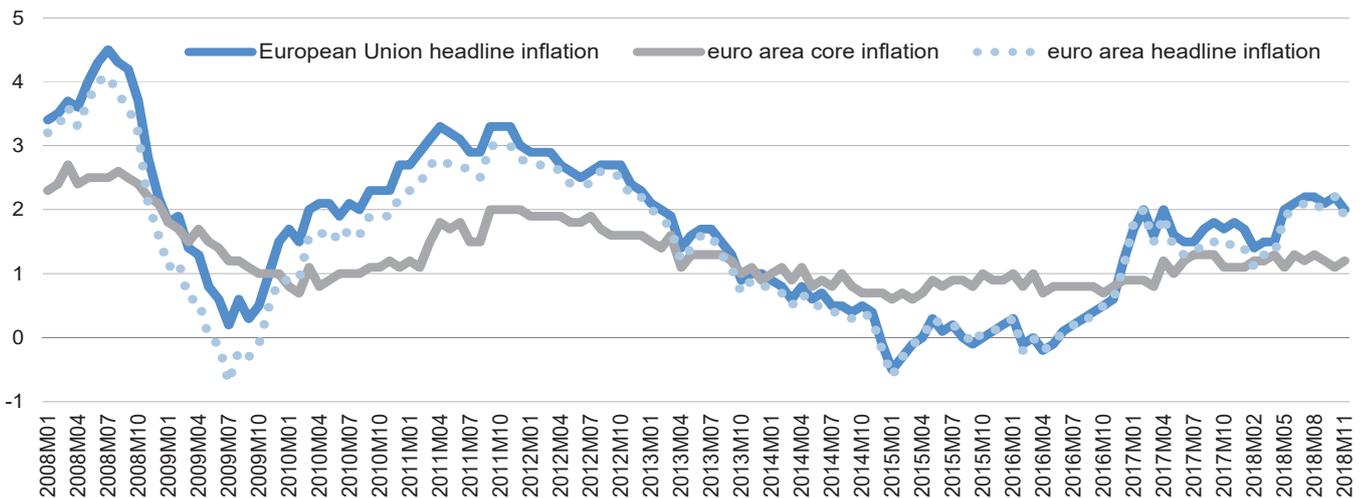
down from 47.2% and 46.9%, respectively, in 1995. These tax rates had been declining between 1995 and 2009, when they somewhat increased once again, presumably in the context of government efforts to consolidate their public finances. Over the whole 1995–2018 period, in 19 out of 28 Member States, the rates dropped, in five they remained broadly stable and only in four (Portugal, Greece, Latvia and the UK), did they increase. Three out of four of these latter countries underwent harsh economic and fiscal adjustments. The biggest declines during this period were seen in central and eastern European Member States (Bulgaria, Romania, Hungary, Czechia, Lithuania, Slovakia and Poland), while Spain, Finland, Denmark and Germany also saw larger than average reductions.

Over the 1995–2018 period, top statutory corporate income tax rates declined everywhere in the EU except for Malta where they remained unchanged. In 2018, this rate was 21.9% in the EU and 24.1% in the euro area, down from 35% and 35.8%, respectively, in 1995. Unlike the statutory top personal income tax rates, those for corporate income declined more or less continuously during the 1995–2018 period. The same trend can be observed in effective corporate tax rates, which measure actual taxes paid: on (simple) average in the EU, they have remained stable in the past years (20.1% in 2017) but stand well below their 2004 level of 25–26%.

A fairer tax system requires higher taxes on high-income and high-wealth individuals, and lower taxes on labour and consumption (Piketty et al. 2018). In many areas, such as properly taxing tax-avoiding multinational companies and companies that offer digital products, cooperation at the EU level is required. However, as taxation matters remain a competence of the Member States, consensus has been elusive.

# Macroeconomic policy developments: monetary policy

Figure 1.25 Monthly headline and core inflation: annual change (%) in the EU and euro area (2008M1–2018M11)



Source: Eurostat (prc\_hicp\_manr series).

## Cautious rolling back of unconventional monetary policy measures as economic outlook seems to improve

Despite headline inflation reaching and surpassing the 2% target in the second half of 2018 in both the euro area and the EU, core inflation (the inflation rate which does not include the usually volatile evolution of prices of commodities such as energy and unprocessed food) remained steady at its late 2017 values of between 1.1 and 1.3%, and well below 1.9%. The lifting of the euro area out of its persistent low inflation was mainly due to surging energy costs in recent months, and to a much smaller degree to rising food, alcohol and tobacco costs. While there was a hike in energy prices to an annualised rate of around 9% since the summer months of 2018, services and non-energy industrial goods remained well below 2%. Although wage growth has picked up in 2018 (see Chapter 3), the low core inflation numbers still indicate the fragility of the recovery and the identified risks to which it is subject.

Following signs of improvement in a number of (but not all) macroeconomic indicators, the ECB announced that it would end its programme of new purchases of financial assets (a policy known as ‘quantitative easing’, QE), as of 19 December 2018, while planning to keep key interest rates such as the main refinancing rate (currently at 0%) and the deposit rate (currently at -0.4%) at low levels at least through the summer of 2019. ECB President Mario Draghi has made it clear that the Eurosystem will keep reinvesting its EUR 2.6 trillion worth of maturing bonds bought during its QE programme, of which 1.93 trillion are public sector bonds, beyond its next interest rate increase. Overall, euro

area monetary policy is still expansive and, in light of the scaling down of the ECB’s balance sheet coupled with interest rate increases, a possible reversal of QE is not in sight, especially as various indicators suggest that the next downturn in economic activity may not be too far away.

However, a known unknown regarding the policy stance of the ECB from late 2019 onwards has been the appointments for the key positions of the Bank’s Governor and chief economist, which are due to become vacant later this year. Since 2012, the conventional and unconventional policy actions that have been credited by many for contributing the most to allowing the eurozone economy to eventually return to recovery have not been enjoying approval amongst central bankers in the eurozone, most notably in Germany. However, given that calls for substantial changes in the fiscal policymaking framework to allow fiscal policies to play a more active role in output stabilisation are not being heeded, the monetary policy approach will be crucial in determining the economic health of the eurozone.

### ECB asset purchase programme: monthly purchases

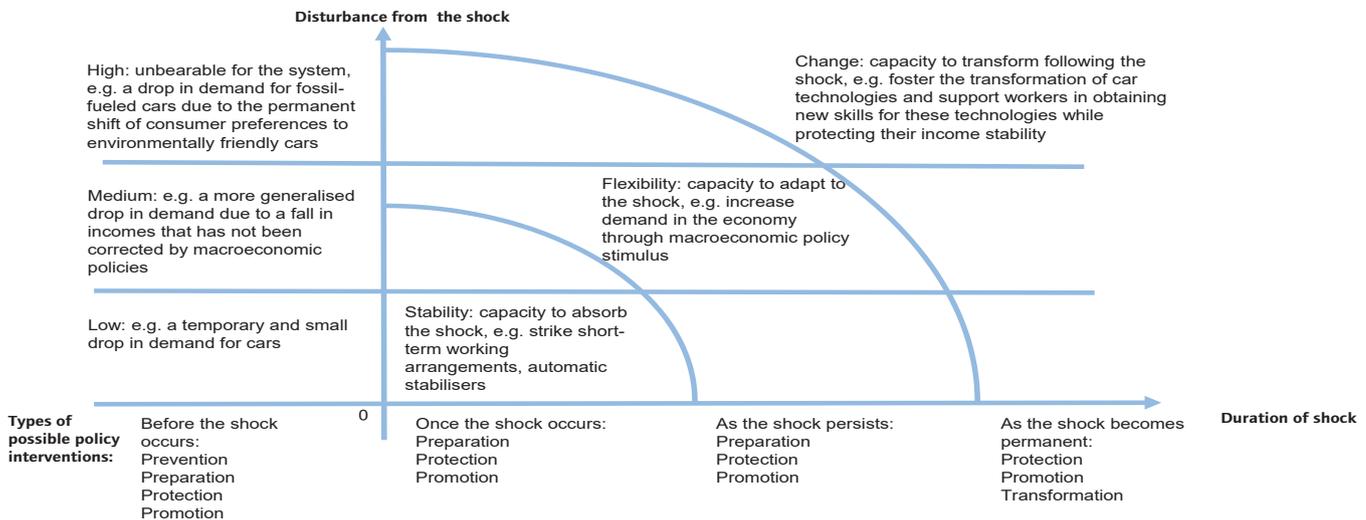
- March 2015 to March 2016: EUR 60 billion
- April 2016 to March 2017: EUR 80 billion
- April 2017 to December 2017: EUR 60 billion
- January 2018 to September 2018: EUR 30 billion
- October 2018 to 19 December 2018: EUR 15 billion

### Size of the consolidated Eurosystem balance sheet:

Total Assets on 31 January 2014: EUR 2.208 trillion  
 Total Assets on 11 January 2019: EUR 4.703 trillion

# Economic resilience

Figure 1.26 Economic and labour market resilience



Source: Adapted from Manca, A.R. et al. (2017), p.11.

Developing greater resilience to (economic) shocks is an objective that has been gaining ground in official economic policy debates, particularly in the euro area, following the lasting scars that the recent economic and financial crises left but also in anticipation of the highly disruptive effects that the Fourth Industrial Revolution is expected to generate in European economies and societies and especially in the world of work (see also OECD 2018). In the context of the EMU, the definition of economic resilience proposed by the European Commission is the ability of a country to withstand a shock (for example, slower demand for its output) and recover quickly to its potential (growth) after it falls into recession (European Commission 2017, 2). In a similar vein, both the Five Presidents Report and the Commission’s White Paper on Deepening the EMU state that the eurozone Member States should converge towards a cohesive establishment of ‘resilient economic structures’, which should ‘prevent economic shocks having significant and persistent effects on income and employment levels’, so that they can reduce economic fluctuations, most notably deep and extended recessions.

Economically resilient economies are ideally not very vulnerable to shocks; they are either not exposed to them or if they are exposed, they are not exposed to intense shocks. Whenever shocks actually hit them, resilient economies can cushion their impact by minimising their effects on output and employment levels and/or they can recover swiftly from them by adapting. Different types of policy interventions, and in different combinations, can be used to enhance resilience: namely, preparation, prevention, protection, promotion (of change) and transformation policies (Manca et al. 2017, 3).

If we consider a recession (that is, the fall in demand for a part of an economy’s output) as a shock, then an economy

that specialises, for example, in producing cars is vulnerable to a fall in demand for cars, and the bigger the share of the car industry in its overall GDP, the greater the vulnerability to a shock. If the shock is due, for example, to a drop in the incomes of those who usually buy the cars, then in a resilient economy, car producers could either strike a deal on short-term working arrangements with their employees to weather the temporarily lower demand without reductions in employment levels or they could impose large cuts in wages to lower their production costs and subsequently car prices to stimulate demand for them. Another option could be that the government intervenes to increase the incomes of potential car buyers or buys more cars itself to stimulate demand. If the shock is due to the fact that the buyers prefer to buy different, more environmentally friendly vehicles, as a response to policies against climate change, then in a resilient economy more permanent changes would have to happen: car-producing industries should be supported by public policies to be able to move on to producing new models or they would have to shut down and their employees supported to move on to new jobs.

As the above example illustrates, economic resilience can be achieved in ways that have very different effects on the welfare of workers, which largely depends on how stable, secure and equally distributed their income and employment opportunities are. From the workers’ perspective, therefore, policies that promote both economic and labour market resilience should be privileged, with labour market resilience being defined as the capacity of a labour market to withstand an economic shock with limited losses to workers’ welfare (OECD 2012). The increasing share of non-standard employment in the total employment creation, however, is a stark reminder that economic and labour market resilience do not necessarily coincide.

## Conclusions and policy recommendations

A Europe that works for workers would be a Europe that creates large numbers of high-quality jobs; that puts in place policies which allow for the fair distribution of the gains from growth, not only between capital and labour but also across different generations and different types of income earners, as well as within and across Member States; and that ensures that the planet will be a liveable place in the future, with a fair distribution of the transition costs. The question, then, is what can economic policies do to make this happen?

To achieve the above goals, there are three main challenges for workers in Europe that must be confronted. The first is weak productivity and output growth rates. The second is the fact that income inequalities have been rising for decades, while current structural longer-term secular developments, if left unchecked, also create pressures for further increases in inequality (see also Chapters 2 and 3). Last but not least, and cutting across the previous two, massive efforts are required to change our economic growth model in order to halt (let alone reverse) climate change.

At the heart of any strategy aimed at tackling the above challenges lies the need to stimulate investment, including social investment and investment in cleaner and renewable forms of energy. Keeping capital costs low, supporting demand prospects and also reducing ‘uncertainty’ about future economic developments have been empirically shown to be important correlates of investment (Barkbu *et al.* 2015). While reducing corporate debt and restoring credit growth for financially troubled banks is likely to take time, supporting domestic demand and creating incentives for investment through, among other things, stronger real wage growth and household incomes at the middle and lower ends of the income distribution scale will be important steps. Setting clear policy objectives aimed at fostering the just transition to a zero-carbon economy, whether they concern taxation, regulation or even the use of asset purchase programmes of central banks in the EU, will be paramount.

At this juncture, public investment will have to play an important role. This is not only a question of sharing the risks and financing the costs of the private sector (cf. Mazzucato 2015) but also of providing incentives to steer investment in R&D and new technologies in directions which can mitigate the pressures that lead to income and labour market inequalities (Atkinson 2015). It also involves fostering the just transition to a net-zero carbon economy.

For this to be possible, however, important reforms are needed in the EU framework that shapes national macroeconomic policies, most notably the EU fiscal rules. In the short to medium term, space should be created for national fiscal policies to play a more active role in stabilising economies, especially when the effectiveness of monetary policy in this respect is questionable. These policies should also aim to eliminate the overly heavy focus on fiscal

policies that are too expansionary and instead develop effective mechanisms to put pressure on Member States with too-austere fiscal policies. Finally, safeguarding public investment should be a priority. In time, a better framework for coordinating fiscal policies should reduce uncertainty about the future prospects of economies, especially in the eurozone. This could be achieved by creating a sizeable eurozone budget to be used for stabilisation purposes.

Deepening the eurozone, in particular by establishing a euro treasury (see Bibow 2019), a fiscal capacity and a safe asset and by completing the banking union, is an important step in this direction but is likely to take longer. In terms of resilience, granting national fiscal policies the flexibility to perform the aforementioned functions would contribute to all three dimensions of economic resilience.

More generally, reducing the vulnerability of, in particular, the euro area economies to shocks, especially those that can be predicted, such as the accumulated divergence in domestic demand and current account balances among Member States, will be important. A fiscal capacity could help in that direction but some form of coordination of wage and price developments across Member States would also act as a complement, if not a substitute, until this fiscal capacity is established.

Focusing only on preserving and stimulating growth, however, will not necessarily lead to lower inequality. Redistribution (progressive taxes and benefits) and pre-distribution (investment in skills and stronger collective bargaining institutions) policies are necessary. Often touted as pro-growth policies, the decline of collective bargaining coverage and top tax rates for personal income, along with deregulatory labour market reforms, have been associated with greater income inequality. Even if the empirical evidence on the pro-growth effects of such policies was solid, their effects on income distribution cannot and should not be ignored. The trade-offs made in the pursuit of growth should be the subject of political debate at the national and the EU level.

While the policies with the biggest impact on inequality and the just transition to a net-zero carbon economy are national, coordination and cooperation at the EU and global level are not just useful but also necessary, especially on issues such as taxation, macroeconomic policies more generally, and climate change. The 2021–2027 EU budget, currently under negotiation, should reflect bold choices to shift resources towards such priorities, including an increase in the EU’s own resources.

Finally, greater cooperation and coordination at the EU level should go hand in hand with a greater accountability and transparency of the EU institutions, such as the European Central Bank, that make policy decisions which have far-reaching consequences for the lives and wellbeing of European citizens.

