

Wage developments in the euro area Increasingly unequal?

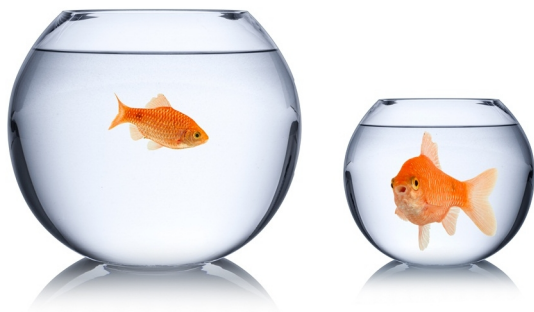
SUMMARY

In the wake of the crisis, gross wages in the euro area fell by 3.1% in 2009. They started to grow again, by 2.0%, in 2011 and the European Commission forecasts an increase of trend growth to 3.5% for 2016. Net earnings are only increasing slightly, however. Convergence in wage levels in the euro area remains static.

Income inequality has increased in two thirds of EU countries since 2006, specifically for low-wage earners. In the euro area, inequality increased in ten Member States: Luxembourg, Slovenia, Greece, France, Italy, Estonia, Austria, Slovakia, Cyprus and Spain (in ascending order). After decreasing levels of inequality in previous years, the euro area is now back to 2004 levels.

Being the biggest share of labour costs, the structure and development of earnings are important features of labour markets. Within a monetary union much of the pressure to (re-)gain competitiveness is shifted onto labour markets, and thus real wage developments. Yet nominal wage rigidities, increased by a low inflation environment, may increase unemployment and foster cross-country heterogeneity.

The European Parliament is stimulating the debate with the aim of formulating better social and employment policy. The EP's own initiative report on the economic governance framework of June 2015 also focused on how to strengthen the social dimension.



In this briefing:

- Context: Real, nominal, and unequal?
- Recent wage developments in the euro area
- Insights from current research
- The European Semester and the European Parliament
- Remaining challenges
- Main references

Glossary

Gross wages/earnings: Gross earnings cover monetary remuneration paid directly by the employer, before tax deductions and social security contributions payable by wage earners and retained by the employer. Includes bonuses and payments in kind, see Commission Regulation (EC) No [1738/2005](#).

Net wages/earnings: Do not include social security contributions and taxes, but do include family allowances, if applicable.

Real wages: Nominal wages adjusted for inflation, i.e. adjusted for changes in the price of goods and services.

Household income: Wages (of all household members) plus revenues from other sources, e.g. private income from investment and property, transfers between households, and pensions, see Commission Regulation (EC) No [1981/2003](#) ([EU SILC](#)).

DNWR: Downward nominal wage rigidity – observed failure of nominal wages to adjust downward after economic shocks, despite sizable increases in unemployment.

Context: Real, nominal, and unequal?

Wages are a crucial element of the economic and social development of the European economic and monetary union. With GDP growth rates in the euro area [on the rise](#) again,¹ the question looms whether employment rates will increase as well and if so, whether wage developments will follow them.

So far, wages in the EU seem unaffected by the first signs of economic bloom. The labour market in the United States has recovered much more strongly than is the case in the EU, but real wages are still 1.2% below where they were in 2009.² In the same vein, recent [ILO data](#) indicates that euro area countries most affected by the crisis have still not regained their real wage levels of 2007. For example Spain is at 96.8% and Ireland at 98.1% of 2007 wage levels – with Greece being significantly below, at just 75.8%.

The structure and development of earnings, as a key part of total labour costs, are important features of any labour market, reflecting labour supply from individuals and labour demand by enterprises. In a monetary union, much of the pressure to (re-)gain or retain competitiveness is shifted onto labour markets, relying on functional wage-setting mechanisms among economic players. Yet one of these mechanisms, to adjust wages downwards during periods of unemployment, may be impaired by what economists have called nominal wage rigidity. This means that, after economic shocks and despite sizable increases in unemployment, nominal wages may fail to adjust downwards, they remain 'rigid'. Particularly in a period of low inflation, such a phenomenon might even increase unemployment.³ Combined with diverging adjustment mechanisms in national labour markets, such as wage-setting and collective-bargaining structures, it might [foster cross-country heterogeneity](#). The latter is a key challenge for the euro area, in the sense that it makes EU-wide policy responses more difficult.

At the same time, wages usually account for the biggest share of household income, and thereby eventually impact on the distribution of wealth within a society. So keeping real wage developments in line with productivity is one tool to mitigate a [widening income gap between rich and poor](#). With the on-going debate on the social dimension of the EU's economic governance, trends in income inequality matter not only for individual Member States, as they [can affect growth prospects](#), but for the euro area as

a whole. Growing in size over recent years, the monetary union needs to monitor macroeconomic imbalances and to prevent trends of dwindling convergence.

Recent wage developments in the euro area

Gross wages

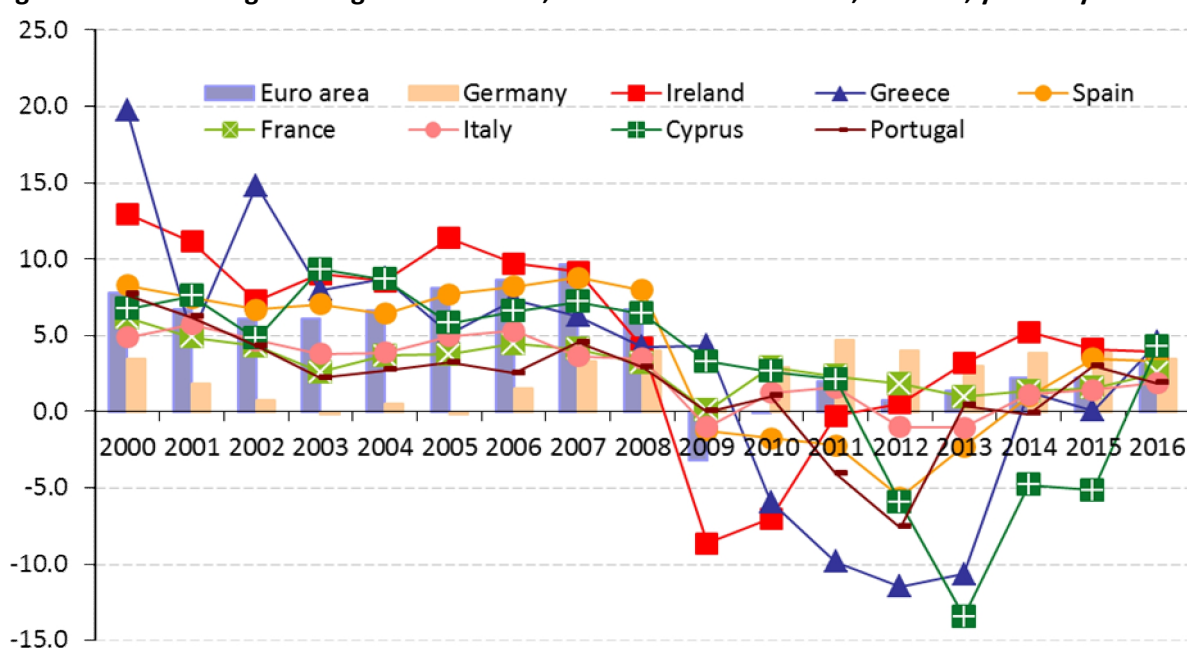
Followed by social contributions, gross earnings are the largest part of labour costs. According to Eurostat's most recent earnings survey,⁴ in 2010 the highest median⁵ gross hourly earnings in the euro area were recorded in Ireland (€18.30) and Luxembourg (€17.80). The lowest were recorded in Lithuania (€2.70) and Latvia (€2.90). These two Baltic Member States also have the highest share of low wage earners⁶ with 27.2% and 27.8%, respectively. Since 2006 the proportion of low wage earners among total employees has remained relatively stable, increasing in the euro area by 0.4 percentage points.

Growth trajectory

The growth path of total gross wages⁷ since 2000 clearly shows the magnitude of the financial and, later, economic and sovereign-debt crisis, with its major impact beginning in 2009 (figure 1). Most euro area countries witnessed respectable growth rates in the run-up to the 2008 crisis, whereas wage growth in Germany remained low, partly driven by wage-restraining agreements with German trade unions in that period. Different positions on the business cycle⁸ explain why in 2005, triggered by record high unemployment, German wages decreased by 0.14% whereas Ireland, Spain, Italy and France grew by 11.4%, 7.7%, 5.0%, and 3.8% respectively. Wage growth in the euro area as a whole dipped from +6.7% in 2008 to -3.1% the year after.

Wages started to grow again in 2011, at +2.0%, and the European Commission forecasts an increase of 3.5% for 2016. However, the data also indicate the effect of the crisis after 2008: Cypriot wages fell by over 13% in 2013 and Greece saw three consecutive years of ten percentage point losses between 2011 and 2013, though recent data for 2014 suggest a return to a low increase.

Figure 1 - Growth of gross wages and salaries, selected Member States, 2000-16, year on year in %



Data source: European Commission, [AMECO](#), 2015, 2016 estimates, Euro area (EU19), own calculations.

But growth rates alone say little about wages' actual purchasing power (PPS)⁹ in real terms, as well as the relative difference between Member States. One proxy is to look at [GDP per capita](#) figures (aggregate measure of economic activity per person) and to adjust for differences in price levels. Adjusted for PPS, average annual GDP per capita in Luxembourg was €68 500 in 2013 and €17 000 in Latvia. While it is true that the absolute difference between the richest and the poorest member of the euro area has reduced since 2002, the heterogeneity among the members (EA19) has not.

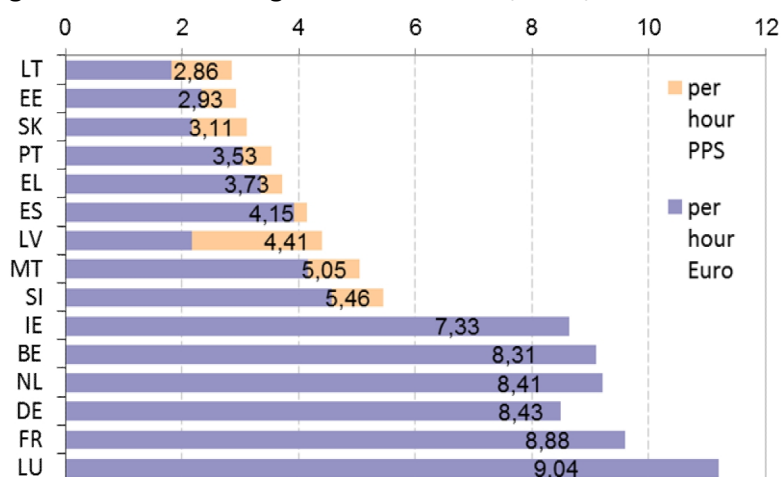
Minimum wage

Focusing on the actual purchasing power also makes sense when it comes to statutory minimum wages in the euro area. The nominal per hour compensation of €11.12 in Luxembourg equals €9.04 if adjusted for PPS (figure 2). France ranks second at €8.88, just ahead of Germany with €8.43. Following many years of domestic political debate, the latter introduced its first statutory minimum wage in 2014. Comparing nominal differences alone usually skews the perception. For instance, in the case of Latvia the nominal hourly compensation of €2.17 is actually 'worth' twice as much (€4.41). According to [WSI calculations](#), Latvia, Estonia, Slovakia and Portugal witnessed the highest increase in minimum wages in 2014. Real values dropped slightly for Malta, Ireland, Belgium and Luxembourg.¹⁰

Net earnings

To assess the 'take-away' salary of individuals, information on gross hourly earnings needs to be complemented by data on disposable (net) earnings: deducting income taxes and social security contributions. In 2014, the net earnings of a single person earning 100% of the average earnings of a worker, without children, ranged from €5 955 in Lithuania to €38 254 in

Figure 2 - Minimum wages in the euro area, 2015, in €



Data source: [WSI Minimum Wage Database](#), as of January.

Table 1 - Annual net earnings in €, selected years, current prices and (PPS)

	2002	2008	2014
LT	2 474 (4 568)	5 667 (8 596)	5 955* (9 711)
LV	2 513 (4 412)	5 876 (7 861)	6 487* (6 800)
SK		6 808 (9 828)\$	7 977 (11 386)
EE		6 942 (9 464)\$	9 991 (12 696)
SI		10 557 (12 823)	11 926 (14 643)
PT	10 292 (11 923)	12 884 (14 636)	12 683 (15 501)
EL	9 014 (11 240)	13 480 (14 806)	15 145 (17 915)
MT		13 936 (18 030)	16 872* (22 312)
ES	14 794 (17 483)	18 765 (19 716)	20 150 (22 055)
IT	16 104 (15 682)	18 918 (18 387)	20 834 (20 241)
EA19		23 375	24 751*
FR	19 979 (19 308)	24 213 (21 629)	26 687 (23 521)
BE	19 686 (19 397)	23 405 (21 197)	26 794 (23 819)
IE	21 012 (16 782)	28 011 (21 694)	27 413 (23 980)
DE	20 872 (19 574)	24 015 (23 199)	27 782 (26 163)
AT	21 180 (20 476)	24 492 (23 226)	27 843 (24 584)
FI	19 945 (16 094)	26 026 (21 451)	29 755 (23 973)
NL	24 412 (23 733)	28 977 (27 641)	33 525 (30 096)
LU	29 223 (28 621)	34 150 (29 066)	38 254 (30 479)

Data source: 'Single person without children, 100% of average worker', Eurostat [earn nt net](#). *2013 values, including PPS; \$2007 values. No data available for Cyprus.

Luxembourg. The euro area average was €24 751, slightly higher than for the EU28 (€22 047). Compared to 2002 when then annual net earnings were at €2 474, Lithuanians witnessed an increase of over 100% by 2008. Between 2008 and 2014, only Ireland and Portugal experienced a reduction in net earnings, from €28 011 in 2008 to €27 413 today in Ireland (and from €12 884 to €12 683 in Portugal). Adjusting for purchasing power again improves cross-country comparisons, as it takes into account different price levels within the Member States. Taking this into account, Luxembourg still ranks at the top (€30 479) but the Netherlands (€30 096) is much closer. Interestingly, the distance between the richest and poorest euro area member decreases, with Latvia is at the bottom with €6 800. However, indicators using simple averages tend to tilt the picture when it comes to how wages and income are dispersed across society.

Insights from current research

Wages and Inequality

Even prior to the financial crisis, topics such as appropriate pay for top managers have been widely debated in the EU. But only after 2007 did the [link between earnings and inequality](#) gradually become politically salient. Why this debate matters becomes clear when looking at average incomes of the bottom 90%. In the United Kingdom, this group had more or less the same income in 2012 as in 2000. Hence, no improvement in purchasing power terms. In 2008 Germany's bottom 90% had even lower real income than in 1992, according to Thomas Piketty's [income database](#). In fact, quite a few European labour market reforms in the past decade have faced criticism that they raised employment rates only at the expense of an established middle class,¹¹ or else that they were not considered bold enough to overcome protracted inefficiencies, such as skills gaps or lack of sufficient worker mobility.

A 2014 [IZA study](#) on the matching capacity of labour markets in the EU reveals different degrees of mismatch in skills, across sectors and regions, and advocates tailor-made solutions instead of undifferentiated responses for the euro area. What remains particularly troubling is the fact that the global economic and financial crisis has [impacted](#) harder on individuals at the bottom of the income distribution. This is not only problematic for individual Member States in terms of social cohesion, but it may also hamper growth prospects. According to new [OECD estimates](#), the rise in inequality between 1985 and 2005 came at the cost of 4.7 percentage points in cumulative growth between 1990 and 2010.¹²

A recent [study](#) commissioned by the European Parliament analyses key drivers of wage and income inequality in the EU between 2006/07 and 2011. Combining Eurostat statistics on income and living conditions (SILC) and micro-data from the [Structure of Earnings Survey](#), the authors found that:¹³

- Overall income inequality has increased in ten euro area countries: Luxembourg, Slovenia, Greece, France, Italy, Estonia, Austria, Slovakia, Cyprus, and Spain and decreased in Ireland, Finland, Malta, Belgium, Portugal, Germany, Latvia, Netherlands, and Latvia (ascending order of magnitude). However, this finding offers no clear conclusions as changes occurred in both high and low inequality countries.
- Wage inequality (gross annual wages¹⁴) has increased in 12 Member States of the euro area: Spain, Germany, Belgium, Finland, Netherlands, Lithuania, France, Ireland, Slovenia, Cyprus, Latvia, and Austria. A decrease occurred in Estonia, Italy, Slovakia, Luxembourg, Portugal, and most significantly in Greece (ascending order of

magnitude). Yet, the trend in Portugal and Greece comes with the caveat that high degrees of unemployment may have short-term positive effects on (i.e. reducing) wage inequality.

This heterogeneous development of income and wage levels is interesting insofar as only five countries witnessed deterioration in both indicators (Spain, France, Slovenia, Cyprus, and Austria).

- In most countries, income inequality has increased at the bottom of the distribution (the lowest decile). There the incidence of low-wage work has also increased.
- Minimum wages can be interpreted as a protection mechanism for the bottom part of the distribution.
- Wage changes are a key driver of inequality: they explain around 25% of the variation in changes in overall income inequality between 2006 and 2011 (in the EU28).
- Other sources of household income, such as transfers and capital income also contribute to explaining trends in overall inequality. Evidence shows that the capital income has contributed most to the increase, while taxes have contributed to the decrease and transfers¹⁵ have been neutral.

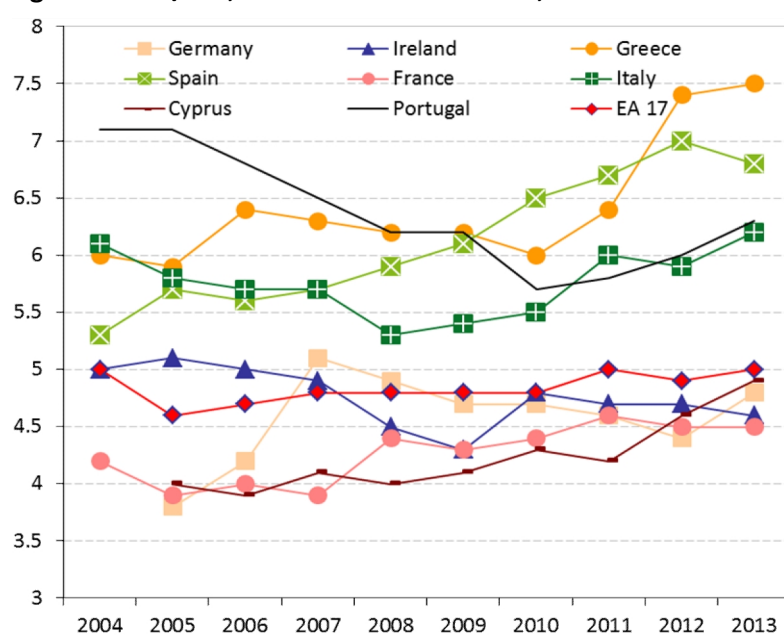
S80/S20 quintile ratio

Looking at the S80/S20 ratio, comparable to the Gini coefficient,¹⁶ is one of the best indicators to assess the income dispersion within a society. It measures the income quintile share ratio, and the higher the value, the greater the scope of income inequality. Comparing selected Member States with the EU average is instructive as inequality indicators tend to react rather slowly. This is because they reflect not only positions in the business cycle but also longer term societal developments and preferences¹⁷ regarding income distribution. This relates predominantly to different concepts of welfare provision, such as minimum wages or pension systems. The latter can provide either basic protection (Beveridgean type) or maintain a high replacement income for retired persons equivalent to that of their working life (Bismarckian type).

The ratio of earners in the top 20% to the bottom quintile remained stable at 5.2 in the EU27 from 2004 to 2013 as well as for the euro area (EU17), which was slightly lower at 5.0. In an attempt to calculate an S80/S20 ratio in real terms, one [paper](#) finds a meagre reduction after 2011 for the EU as a whole.

Yet, stability on the aggregate level easily distracts from developments within the Member States. Germany is a good example. Starting from a relatively equal income distribution of 3.8 in 2005, the protracted domestic crisis and

Figure 3 - S80/S20, selected Member States, 2004-13



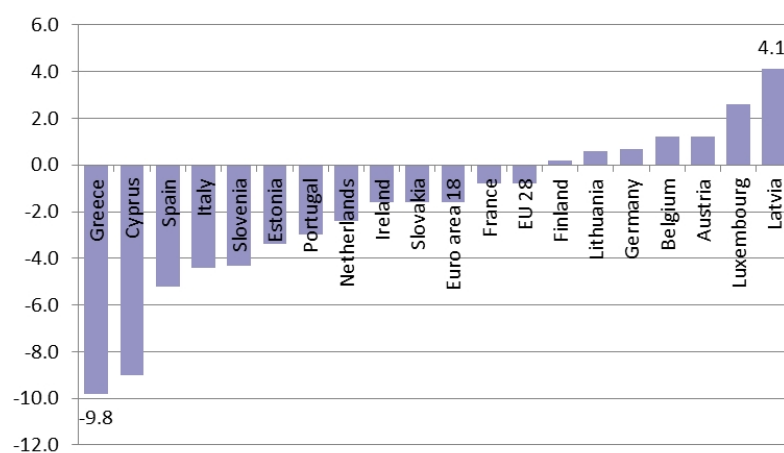
Data source: Eurostat SILC, [ilc_di11], less than 65 years.

unseen levels of unemployment pushed the value in 2007 to 5.1 and dropped again to 4.8 in 2013. Greece and Spain were affected by rising income inequality to much greater extent. In 2004, the S80/S20 ratio in Spain was slightly above the EU17 average at 5.3 and increased steadily to 6.8 in 2013 (most recent data available). Developments in Greece have been less linear. The ratio narrowed between 2006 and 2010 from 6.4 to 6.0 but after that rose again to 7.5 in 2013, the most unequal ratio in the euro area. On the other hand, in the years running up to the economic and financial crisis, many Member States of the euro area enjoyed increasing levels of equality, most notably Portugal and Italy.

Household income

One of the most relevant indicators addressing trends in inequality is the change in gross disposable household income (GDHI). This is because earnings are only part of income, even for a single individual. As households typically comprise more than one income recipient, it makes sense to take into account the earnings of the different household members. The disposable income indicator is used in the social

Figure 4 - Real growth of household disposable income, 2011-12 in %



Data source: DG EMPL, national accounts, no data available for MT.

monitoring instruments of the European Commission as a proxy for aggregate demand and the adequacy of labour market incomes. The most recent trend data available offers some interesting findings (figure 4). Latvia, Luxembourg and Austria have witnessed the strongest increase, with 4.1% in Latvia and 2.6% in Luxembourg between 2011 and 2012. The euro area saw a reduction in disposable income of 1.6% on average, whilst in comparison the EU as a whole saw average household income decrease by only 0.8%. Southern European Member States have been most affected. Italian household disposable income decreased by 4.4%, Spanish citizens saw a drop of 5.2% and income reduction in Greece amounted to almost 10% in one year alone.

Similarly, the latest OECD data on inequality trends confirm a growing divide within the euro area, as several Member States have been affected more severely than others. Between 2007 and 2011, the average income of the bottom 10% in Spain, Greece, Estonia, and Ireland fell by 5% or more per year.¹⁸

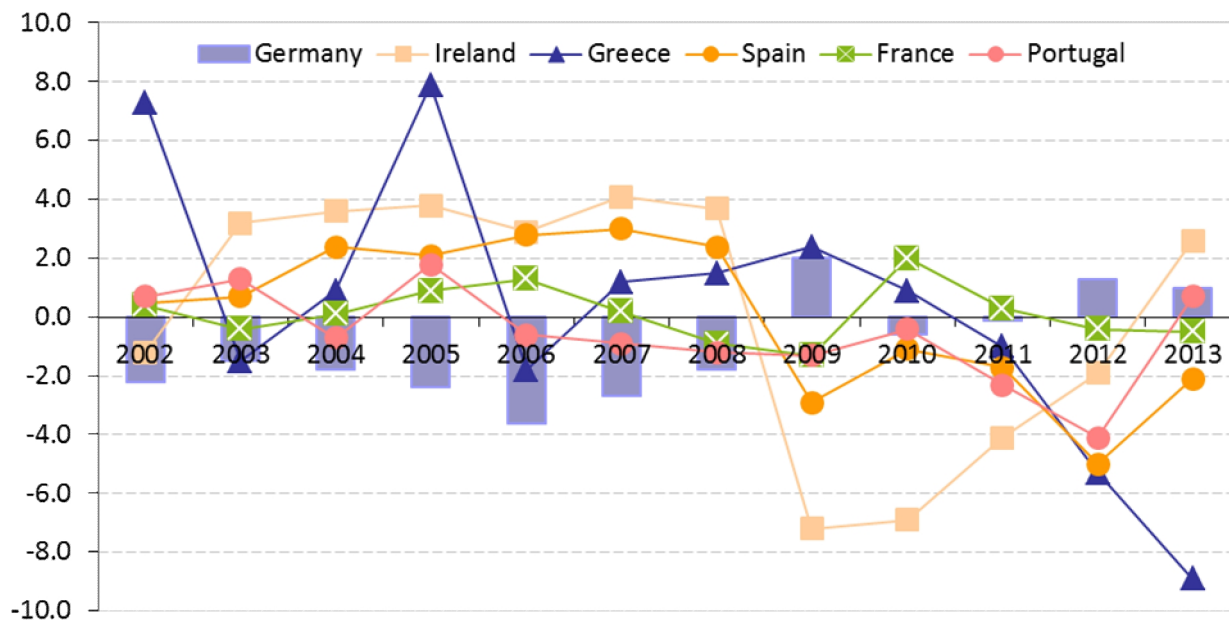
Wages in a monetary union

Labour costs and competitiveness

In the framework of the European Semester, employment aspects are measured with several indicators. Among others, the Macroeconomic Imbalance Procedure looks at unit labour costs,¹⁹ not only in nominal but also in relative terms. As such, a decrease in the relative unit labour cost index is regarded as an improvement in a country's competitive position relative to their trading partners in the euro area. The graph (figure 5) plotting yearly change mimics the development of gross wages in figure 1 above. Again, Germany has been able to improve its relative position just as [southern European Member States](#) such as Greece and Spain saw significantly rising relative labour costs up to 2008. The picture is slightly different for Portugal and France which

after 2005 and 2007 respectively managed to reduce their labour cost burden. Ireland is a case in point as it has witnessed the biggest swing from +4.1% in 2008 to -7.2% in 2009 and back again to an increase of 2.6% (second highest in the euro area) in 2013. The austerity measures in Greece have finally kicked in after 2010 and decreased its relative unit labour cost by almost 9% in 2013.

Figure 5 - Relative Unit Labour Costs, 2002-13, year on year in %



Data source: DG ECFIN 5 May 2015, MIP auxiliary indicator, Eurostat [[tipslm50](#)].

Downward nominal wage rigidity (DNWR)

Economic theory often suggests that improving competitiveness within a common monetary framework implies some sort of cost-cutting, or 'internal devaluation', which [usually proves difficult](#). As nominal wages are often downwardly sticky (tend not to decline easily in nominal terms), real wage adjustment becomes necessary to achieve this. This sort of adjustment may be realised in a high inflation environment (e.g. Portugal in 1984). Yet, in times of low inflation, downward nominal wage rigidity can prevent such a decline in real wages and becomes [problematic](#): 'Absent an adjustment in real wages, the relative price of non-tradables cannot fall – that is, the real exchange rate cannot depreciate – causing involuntary unemployment in the economy'.²⁰ Solutions to circumvent this problem differ according to economic perspectives. From a more liberal point of view, labour market adjustments are key to provide for and maintain a sufficient degree of (wage) flexibility, precisely in times of low inflation. A Commission [paper](#) which looked into that even before the crisis concluded that some necessary labour market adjustments have not been pursued, despite rather favourable economic conditions.²¹ In contrast, a more demand-led approach favours an [expansionary wage policy](#) instead, as this could counter deflationary tendencies by stabilising aggregate demand (if nominal wages follow inflation and productivity, and if the wage share is increased). Although not intended as such, the [quantitative easing decision of the ECB](#) on January 2015 can be interpreted as an inflationary stimulus, which could possibly decrease DNWR and adjust real wages downwards, thereby increasing competitiveness and employment in countries undergoing internal devaluation.

[Panel data](#) indicate that the financial and economic crisis has indeed triggered reforms which successfully increased real wage flexibility.²² Still, for the time being, the monetary union faces stark differences regarding real wage adjustment mechanisms, depending on labour market institutions, maturity of the economy and the business cycle. Despite the possible clash of economic approaches, Member States entertain differently regulated labour markets,²³ which ultimately reflect societal and political decisions and make one-size-fits-all solutions difficult. This is especially true as there might be a trade-off between improving wage flexibility and income inequality. While [research](#) suggests that low labour market regulation goes in line with high real wage flexibility,²⁴ a 2015 [European Parliament study](#) finds that countries with more centralised wage-bargaining systems report lower inequality indices.²⁵

The European Semester and the European Parliament

The European Parliament has played an active role in formulating social and employment policy to fight unemployment and promote better social conditions. Through its resolutions '[Towards a Genuine Economic and Monetary Union](#)' (EMU) in 2012 and '[Strengthening the Social Dimension of EMU](#)' in 2013, Parliament actively contributed to the debate on the social dimension of the economic and monetary union. It has stressed the need to integrate social and employment objectives into the European Semester properly, by broadening the social indicators and making them binding. In addition, the Parliament has repeatedly emphasised that the social and employment effects of the reforms and crisis need to be addressed, with the involvement of the social partners. It has also reiterated its desire to see its decision-making role in this process expanded, including a strengthened role in the setting of employment priorities and guidelines. In particular, the Parliament gained the right to give its opinion on the current fiscal coordination cycle and the establishment of an Economic Dialogue (the EP may invite Commission and Council Presidents, amongst others, for discussion). Since the start of the eighth term, the Employment Committee has prepared a [motion for resolution](#) and oral questions to the [Commission](#) and the [Council](#) on the employment and social aspects of the EU2020 strategy, with the aim of rekindling the debate and putting employment and social considerations on an equal footing with macroeconomic ones. Members adopted the [resolution](#) during the November 2014 plenary session.

Social scoreboard

In a [communication of October 2013](#), the Commission introduced a 'social scoreboard', to be included in the benchmarking activities of the European Semester. The 5+1 indicators are unemployment rate, youth unemployment, NEETs (not in education, employment nor training), real growth in gross household disposable income (GHDl), at-risk-of-poverty rate (AROP), as well as the inequality indicator S80/S20. Since 2014 the scoreboard results feed into the [Joint Employment Report](#) (JER, Article 148 TFEU) which accompanies the [Annual Growth Survey \(AGS\)](#) and are also included in the [Alert Mechanism Report \(AMR\)](#) to kick off the European Semester every November.

The European Parliament adopted in June 2015 a [resolution](#) on the economic governance framework, including aspects on how to strengthen the social dimension therein. Led by the Committee on Economic and Monetary Affairs, this 'Review of the economic governance framework: stocktaking and challenges' is intended to contribute to the debate on better functioning of the EMU. Such a debate should also address the EMU left-overs, including 'a minimum wage mechanism and a minimum unemployment

scheme'. In a similar vein and [commenting on the draft report](#), the Employment Committee drew attention to the role of wages in macroeconomic imbalances.

Remaining challenges

Looking at gross wage growth and relative labour costs, the euro area appears more balanced today than prior to the financial and economic crisis. Nonetheless, regarding net earnings, the heterogeneity of the euro area has not decreased. Moreover, despite the first signs of economic recovery after the crisis, wages seem not to be picking up in the way economic theory would suggest. This might be just a temporary phenomenon,²⁶ but it may equally become a prolonged development, given the unusual environment of low inflation rates for some time to come. Since a low inflation environment exacerbates downward nominal wage rigidity, 'internal devaluation' may remain more problematic in terms of unemployment.

An option to mitigate the rising levels of income inequality in the monetary union is to increase employment rates of women. The [OECD estimates](#) that if today's female employment rate were as low as 20 to 25 years ago, income inequality would have increased by almost 1 Gini point more on the average.²⁷

Growing shares of temporary and non-standard work over recent years affect predominantly low-wage earners. Thus, [experts suggest](#) that more efforts should be made to improve job-matching of skills, across sectors and regions, and to increase the relevance of employment monitoring as well as Active Labour Market Policies within the European economic governance framework.

Main References

[Nominal and real wage flexibility in EMU](#), A. Arpaia, K. Pichelmann, Economic Papers No. 281, DG ECFIN, European Commission, June 2007.

[Wage and Income Inequality in the European Union](#), DG IPOL, Policy Department A, Study for the EMPL Committee, European Parliament, 20 January 2015.

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[Downward Nominal Wage Rigidity and the Case for Temporary Inflation in the Eurozone](#), S. Schmitt-Grohé, M. Uribe, Journal of Economic Perspectives, Vol. 27, No. 3, 2013, pp. 193-212.

[In It Together. Why Less Inequality Benefits All](#), OECD, May, 2015.

Endnotes

¹ Euro area 1.5% in 2015 and 1.9% in 2016 (EU28 1.8% in 2015 and 2.1% in 2016). See [Spring Forecast](#) of the European Commission, 5 May 2015.

² The Economist: When what comes down doesn't go up, 2 May 2015. In Europe, the United Kingdom has witnessed falling real wages for seven consecutive years, and thus the 'longest period of pay stagnation since 1855', see: The Economist: What recovery? Workers continue to feel the pinch, 25 October 2014.

³ See e.g. Portugal, Pedro: [The Portuguese Economic Crisis. Policies and Outcomes](#), Bertelsmann Stiftung, Policy Brief, Gütersloh, February 2015.

⁴ Data on gross earnings is collected in Eurostat's four-yearly [structure of earnings survey \(SES\)](#), a firm-based survey.

⁵ 'Median' refers to the middle value, in which half the wage earners are above the median and half are below.

⁶ Low-wage earners are defined as those employees earning two thirds or less of the national median gross hourly earnings in a particular country.

⁷ The European Commission applies the following definition: The sum of 'Gross wages and salaries; households and NPISH (Non Profit Institutions Serving Households)' as received by households. Source: European Commission, [AMECO Database](#) (Annual macroeconomic database).

- ⁸ A business cycle refers to fluctuations in economic activity, entailing expansion and recession periods. During an economic upswing (i.e. growth in real terms), employment and eventually salaries are assumed to rise as well.
- ⁹ Eurostat data [[nama_10pc](#)]. PPS are fictive 'currency' units that remove differences in purchasing power, i.e. different price levels between countries. These parities are obtained as a weighted average of relative price ratios in respect of a homogeneous basket of goods and services, both comparable and representative for each country.
- ¹⁰ Among the euro area members Austria, Cyprus, Finland, and Italy do not have a universal minimum wage regime.
- ¹¹ Mau, Steffen: *Inequality, Marketization and the Majority Class. Why Did the European Middle Classes Accept Neo-Liberalism?*, Houndmills: Palgrave, 2015.
- ¹² OECD: [In It Together. Why Less Inequality Benefits All](#), Paris, May, 2015, p. 15.
- ¹³ European Parliament: [Wage and Income Inequality in the European Union](#), DG IPOL, Policy Department A, Study for the EMPL Committee, Brussels, 20 January 2015, p. 11, 20, 39, 62.
- ¹⁴ Here measured as 'change in Gini index for annual wages', based on EU SILC data, European Parliament (2015), p. 39, micro data item [PY010G].
- ¹⁵ The finding regarding the role of transfers, particularly in Member States running an economic adjustment programme, is contested.
- ¹⁶ Here, we prefer the S80/S20 indicator over Gini because of its use in the social scoreboard in the European Commission and the [Open Method of Coordination for social protection and social inclusion](#) (Social OMC). The Social OMC provides a framework for national strategy development for social protection and social investment, beyond the treaty competences. The Gini coefficient is an index used to measure the level of income inequality in a particular country at one point in time. It ranges from 0 to 100, where 0 represents perfect equality in a society.
- ¹⁷ For a recent discussion see Brady, David; Bostic, Amie: [Paradoxes of Social Policy: Welfare Transfers, Relative Poverty, and Redistribution Preferences](#), in: *American Sociological Review*, Vol. 80, No 2, 2015, pp. 268-298.
- ¹⁸ OECD 2015, op. cit., p. 106.
- ¹⁹ Unit labour cost (ULC) is defined as the ratio of labour costs to labour productivity. Compiled as a relative unit it measures the trading position of an individual country relative to its partners in the euro area and as such offers an indication about changes in its competitive position.
- ²⁰ Schmitt-Grohé, Stephanie; Uribe, Martin: [Downward Nominal Wage Rigidity and the Case for Temporary Inflation in the Eurozone](#), in: *Journal of Economic Perspectives*, Vol. 27, No. 3, 2013, p. 210.
- ²¹ Arpaia, Alfonso and Pichelmann, Karl, [Nominal and real wage flexibility in EMU](#), European Economy No 281, June 2007, European Commission, DG ECFIN, p. 30.
- ²² Rusinova, Desislava; Lipatov, Vilen; Heinz, Frigyes Ferdinand: [How flexible are real wages in EU countries? A panel investigation](#), in: *Journal of Macroeconomics*, Vol 43, March, 2015, p. 149.
- ²³ Such as varying degrees of trade union density, collective bargaining coverage, company vs. sectoral wage agreements, etc. One might add that rigidities may have positive effects on consumption levels as they stabilise income expectations.
- ²⁴ Rusinova et al 2015, op. cit., p. 148.
- ²⁵ European Parliament 2015, op. cit., p. 61.
- ²⁶ The Economist 2015, op. cit.
- ²⁷ OECD 2015, op. cit., p. 16.

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