European Commission

EUROPEAN SEMESTER THEMATIC FACTSHEET

WAGE DEVELOPMENTS AND WAGE SETTING SYSTEMS

1. INTRODUCTION

The role of wage developments in influencing macroeconomic performance has received increased attention in recent EU economic surveillance:

1. Wage changes are one of the **major channels of labour supply-demand adjustments** and directly influence employment outcomes. Therefore too high or too low wage growth (compared to productivity and price growth) could signal imbalances in the labour and product markets. This can induce inflationary or deflationary pressures and make it less or more attractive to hire and retain workers. It can also impact on labour supply, including decisions to participate in the labour market.
2. Wage developments also **affect external price competitiveness**. Wage increases may lead to higher nominal unit labour costs (ULC) and ULC-based real effective exchange rates. This could happen if wage growth is not offset by productivity growth or matched by similar changes of ULC in partner countries or by a depreciation in nominal exchange rates[1] outside a monetary union. The counter argument holds for wage developments that decrease ULC.
3. Wages are a major part of household income and have an **impact on aggregate demand** through household consumption and possibly also through investment to satisfy that increased demand. If the tendency to spend wage income is larger than the tendency to spend profits, the rise in wages can induce an increase in aggregate domestic demand.

   Moreover, as wages are a major part of income especially at the lower end of the distribution, wage increases may reduce income inequalities. Yet, depressed profitability may discourage hiring and investment, which then hurts the economy's growth potential over the medium term.

The **specific characteristics of countries and their position in the business cycle** and their internal and external balances need to be taken into account in assessing the effects of wage developments. In particular, wages are not only determinants of other economic variables but are also reacting to imbalances elsewhere (e.g. to a credit boom on the back of looser financial conditions).

Modernising wage setting systems plays an important role in correcting the large macroeconomic imbalances observed in a number of Member States and in reducing unemployment. This is particularly important in the euro area, since

[1] Nominal unit labour costs are defined as the total labour cost (compensation per employee) per unit of output. They are obtained by dividing the compensation per employee by the real GDP per person employed (labour productivity).

cost and price adjustment is the only means for nominal adjustment in a monetary union.

Wages are not the only drivers of international competitiveness: other costs (such as those related to taxation or compliance with regulation) and the degree of product market competition affect price competitiveness. Non-price competitiveness (e.g. productivity levels and developments, geographical and technological specialisation) also play an essential role.

2. IDENTIFICATION OF CHALLENGES

In spite of the fall in unemployment in 2016, wage growth continued to be subdued in euro area countries but picked up in some non-euro area countries. This can be explained by:

- weak productivity developments;
- low inflation expectations;
- the effect of some labour market reforms; and
- the remaining slack in the labour market, as the current unemployment rate may not adequately capture effective resource utilisation in the labour market.

A convergence of wage growth across the EU was observed on the back of wage stabilisation in countries that adjusted the most during the financial crisis and moderate wage developments in countries with stronger economic activity.

The latest wage patterns have followed years of contained wage growth or wage reductions that supported the adjustment of large external deficits and the absorption of high unemployment. That was particularly the case in a number of euro area countries facing stronger rebalancing needs where a downward wage adjustment or strong wage moderation was recorded. This was notably the case of Cyprus, Greece and Portugal.

In 2015 and 2016, wage changes across euro area countries became less dispersed as wages stabilised in countries with previous downward wage adjustment needs. In countries with a more solid economic situation which had been less affected by the crisis, wages have hardly accelerated (Figure 1)[2]. The strongest wage growth was recorded in Romania and the Baltic countries.

In 2014-2016, wages evolved, on average, in line with productivity (Figure 2). However the aggregate picture conceals wide differences across countries. Notable divergence between wage growth and productivity occurred in the Baltics, Bulgaria and Slovakia (where wage growth was faster than productivity growth) and Croatia, Malta and Portugal (where wage growth was slower).

Since 2008, moderation in ULC developments has supported external adjustment. After strong divergences during the 2000s, ULC began to converge moderately at the beginning of the financial crisis, as countries like Greece, Portugal and Spain started to show a declining trend in ULC. This was as a result of wage moderation or even reductions in response to higher unemployment.

Also in more recent data, changes in cost competitiveness reacted to the external position of countries. Countries with the highest current account surpluses (Germany, Ireland, the Netherlands and to a lesser extent, Malta and Slovenia) registered an appreciation, even if modest, in their ULC-based real effective exchange rates (REER). At the same time, countries with current account deficits (Cyprus, Finland, France) registered REER depreciations. An exception was Lithuania. By 2015, many countries had adjusted past current account deficits and were close to balance or had surpluses (Figure 3).

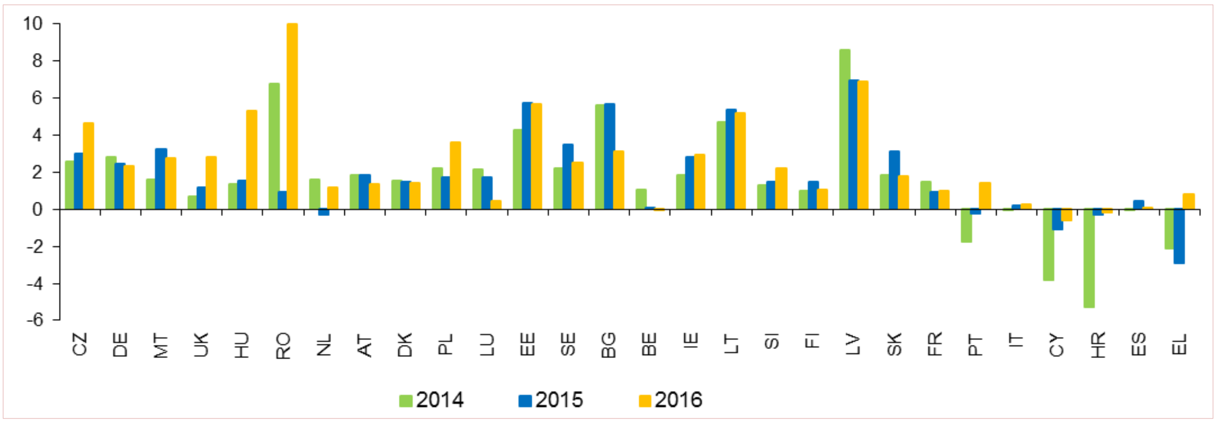
[2] Countries characterised by current account surpluses before 2008 (sometimes called 'surplus countries') saw more subdued wage dynamics until the beginning of the crisis in 2008, when they also started to record stronger wage growth than other countries. Germany, in particular, saw strong wage moderation in those years, which went hand in hand with increased employment in the export industries and constrained domestic demand.

Whereas in the past there was a strong negative correlation between the change in real unit labour costs (RULC) and unemployment, the correlation has in recent years become weak. This may indicate that RULC are becoming less responsive to the unemployment rate (e.g. Greece or Spain), as a substantial adjustment has already taken place and downward adjustment of real wages remain difficult in a low inflation scenario (Figure 4).

Still, some countries that still record high unemployment rates have seen their RULC decreasing further in 2016 on the back of falling compensation per employee in real terms and in some cases reinforced by productivity gains.

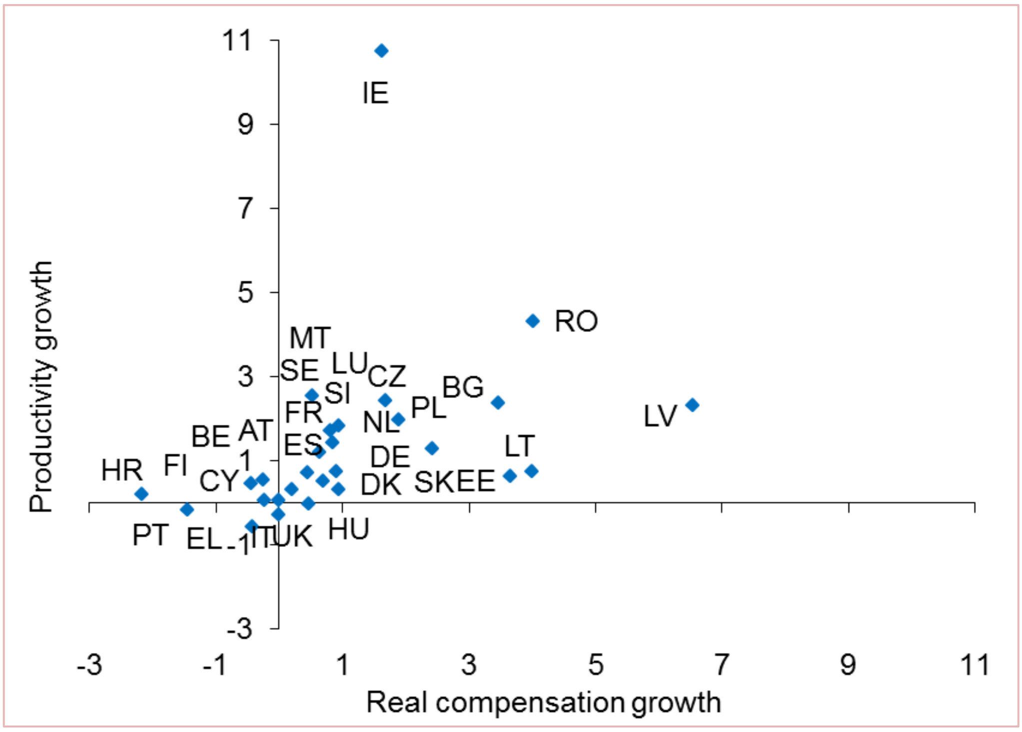
In contrast, the Baltic countries and Hungary recorded rising RULC, which reflects a strong pick-up in domestic demand after the protracted adjustment of previous years and comparatively muted productivity.

Figure 1 — Nominal compensation per employee, annual % change



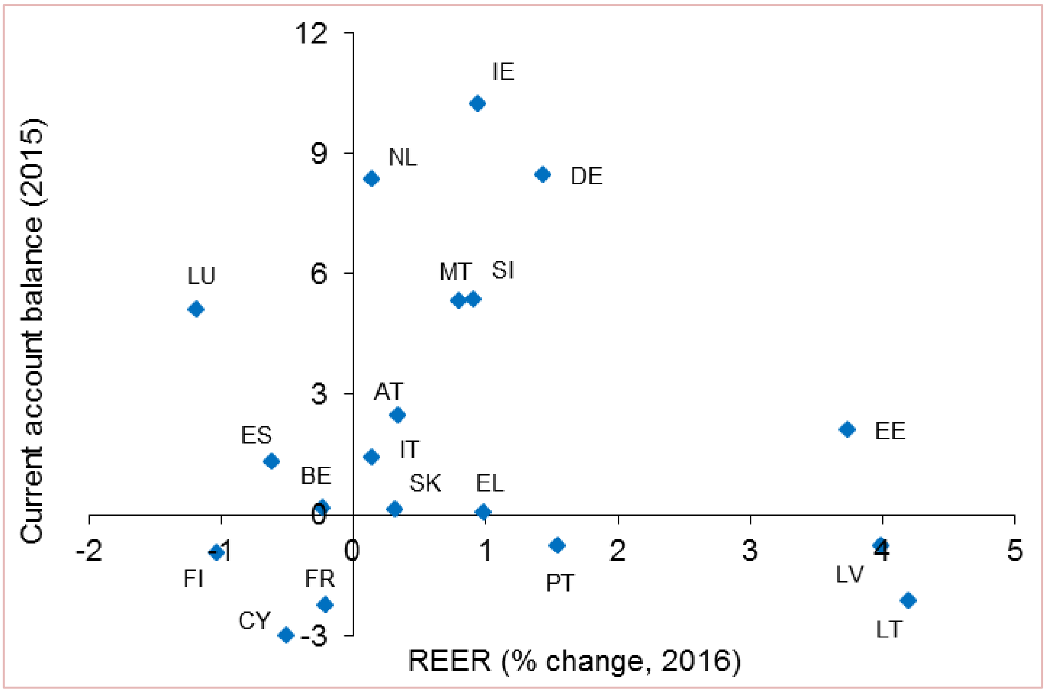
Note: Countries are displayed in ascending order of the unemployment rate in 2016.
Source: European Commission

Figure 2 — Real compensation per employee and productivity, avg. annual growth 2014-2016



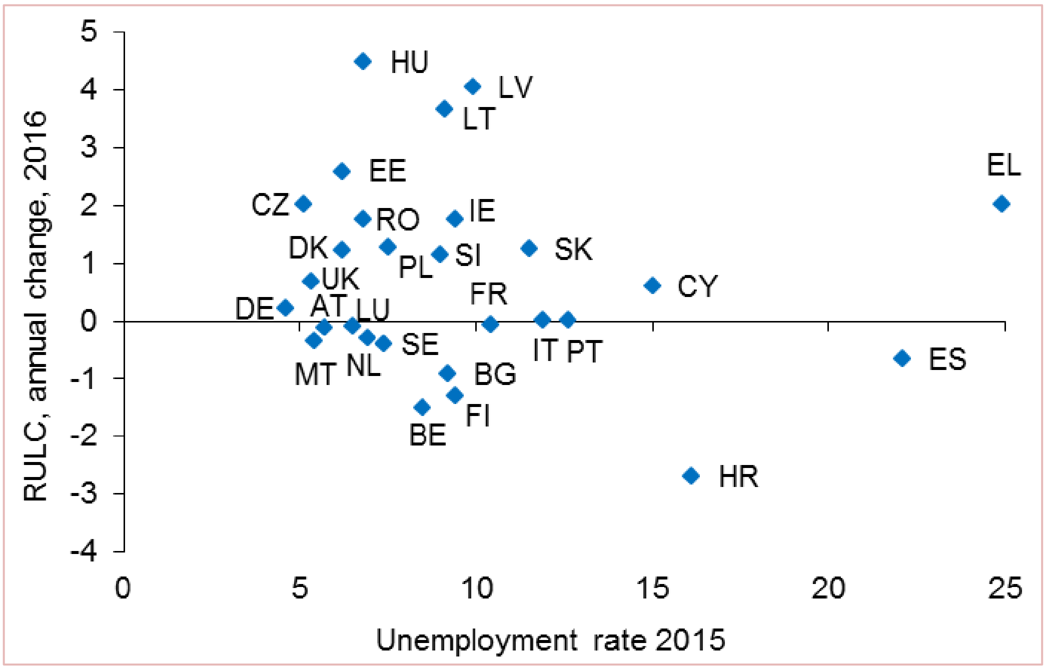
Source: European Commission

Figure 3 — Real effective exchange rate (REER) in 2016 and current account balance in 2015



Source: European Commission

Figure 4 — Real unit labour costs year-on-year change in 2016 and unemployment in 2015



Source: European Commission

3. POLICY LEVERS TO ADDRESS THE CHALLENGES

Wage developments depend not only on the interests of workers and employers and their representatives, but also on the **institutional framework** in which they operate.

The frameworks for wage setting, and in particular for collective bargaining, play an important role in transforming market signals in wage developments and in magnifying the macroeconomic relevance of certain wage decisions. In the EU, there are different approaches to wage setting. Table 1 in the Annex shows indicators of collective wage bargaining characteristics.

Factors relevant to aggregate wage developments include:

- the degree of **centralisation** (the level at which wage bargaining takes place);
- the way in which wages reflect differences in productivity (across sectors, companies and geographical areas); and
- the extent to which bargaining takes into account national level objectives (the degree of **coordination** across different levels).

However, it is difficult to demonstrate a robust relationship between the centralisation of wage bargaining and economic outcomes.

Wage bargaining may either be highly **decentralised** (taking place mostly at company level, e.g. UK, and the Baltic countries), highly **centralised** (wage formation at national level, e.g. Belgium and Slovenia), or may **take place at an intermediate level**, usually at the level of sectors (e.g. Italy). But depending on the degree of coordination, decisions may be taken at more than one level.

With a more centralised approach, it is more likely that the impact of wage developments on the performance of the whole economy is taken into account by participants. A more decentralised approach could favour higher efficiency to the extent that wages and productivity are more likely to be aligned at the company level which may support a more efficient allocation of labour resources. This also means an increased likelihood that an adverse economic shock is accommodated by adjusting labour costs instead of employment.

In most countries, where the dominant level of wage bargaining is the sector, company level agreements cannot be less favourable to employees than sectoral agreements. Even if companies can get exemptions from some clauses of sector level collective agreements (i.e. in Austria or France), such 'escape clauses' are not often used in practice.

Escape clauses have, however, been commonly used in Germany over the past 15 years, allowing for more flexibility at the company level. Decentralisation at company level can also be associated with strong unions, at least in companies of a certain size, or where the German co-decision model (Mitbestimmung) implies strong employees' participation.

Depending on the approach taken in the different countries, the possibility of escape clauses can be provided for in the legislation or in the higher-level collective agreements. However, there a number of countries (e.g. Portugal and Spain) in which a company-level agreement prevails over a sector-level agreement even if less favourable to the worker.

Wage developments may also depend on the current degree of coordination among various actors.

Coordination can be 'horizontal' where some sectors act as leaders in setting wage agreements with others following them ('pattern bargaining' or 'pattern setting', notably in Austria, Germany and Sweden) or where inter-association agreements are concluded.

Coordination can also be 'vertical' where agreements at national level, for instance a bipartite or tripartite national agreement sponsored by the peak social partner organisations and the government sets the guidelines for wage negotiations at the lower levels (e.g. in Belgium).

Coordination may coexist with decentralised wage bargaining. This has played an important role in countries where the external constraint imposed on the export sector is also internalised by sheltered sectors. This helps to maintain international competitiveness in the economy as a whole.

Wage behaviour and bargaining power of wage-setters is influenced by **employer and union density** and **collective bargaining coverage**. The existence of a procedure to legally extend collective agreements, making them binding for non-unionised employees or non-signatory firms, can significantly broaden the coverage of collective agreements.

This would in turn broaden the coverage of collective bargaining beyond the levels that would have been warranted by the densities of employer organisations and unions alone. It is a form of improving horizontal coordination, notably across a sector or an occupation.

While **extension mechanisms** are common in the EU and generally concern occupational and sector-level contracts, there are different approaches when it comes to extending collective agreements.

In most countries, the extension is the outcome of an explicit decision by the government, and in many cases it is granted upon request of one or both of the parties of the agreement that is proposed for extension (e.g. Germany, France and the Netherlands).

In other countries, the extension is almost automatic (e.g. Italy and Finland), or is the result of all employers being obliged to be members of the employers' association (e.g. Austria).

Countries like Sweden and Denmark do not have a legal mechanism for extending agreements but the density of social partners is very high to start with and that ensures very high coverage.

Extensions may help overcome coordination problems, reduce the transaction costs of a highly decentralised setting and improve working conditions. This is particularly the case for very fragmented and varied sectors and in small companies, as long as the extension does not lead to competitiveness problems because wages are too high.

Also, it stabilises the representation in collective bargaining as it provides an incentive to employers to become members of the negotiating employer association. In the medium-to-long term, the extension might raise the overall wage level. There is robust evidence that higher levels of bargaining coverage and more centralised or coordinated bargaining, and high union density, are associated with a compression of the wage distribution and a reduction in earnings inequality[3].

The issue with extending collective agreements, and a centralised approach to wage setting, is that wages may not be able to fully adjust to differences in productivity across companies or geographical areas within the same sector. The more significant these differences are, the stronger the risk that the extension results in a misallocation of labour, with high wages (and low employment and output) in low-productivity firms. The same holds for shocks that are specific to certain companies or areas.

The average **duration of wage agreements** may also influence relative wage flexibility. The average length of collective agreements often varies between one and three years in Europe but can be longer in some cases.

All EU countries have some form of **minimum wage floors** that are either

[3] European Commission, Industrial Relations in Europe 2008, Chapter 3.

regulated by the government (statutory minimum wage) or collectively agreed by social partners[4]. In 2016, 22 Member States had national legislation setting a minimum wage by statute or by national inter-sectoral agreement. Collectively agreed sector-level minimum wages are applied in Italy, Austria, Cyprus, Denmark, Finland and Sweden. Cyprus has a statutory minimum wage for only a few specific occupations in which employees have weak bargaining power.

The effect of a minimum wage on jobs is ambiguous. If fixed too high, a minimum wage may negatively affect the employment of lower-paid and younger, less experienced workers, where costs can be driven above productivity levels.

However, minimum wages may increase the incentives to work and can help address in-work poverty even if these objectives may also be achieved through well-designed in-work benefits. In times of severe economic downturn, appropriate minimum wages may help to sustain aggregate demand and underpin prices, reducing the risk of entrenched deflation. They also impact wage inequality, particularly at the bottom of the wage distribution, by maintaining an adequate living standard for the most vulnerable workers[5].

Acting as wage floors, they need to be sufficient and timely attuned to the overall economic backdrop. Minimum wage increases can also act as a signal that significant parts of the wage distribution are above the minimum wage.

Monthly statutory minimum wages in the EU vary widely: from EUR 235 in Bulgaria to EUR 1 999 in Luxembourg in July 2017 (Figure 5). When adjusted for price differentials across countries, the disparities among Member States are reduced from a range of one to eight (in EUR) to a range of one to four [in purchasing power standards (PPS)] (Figure 6).

The statutory minimum wage level varied between about 40% and 65% of median earnings in 2014 (Figure 7). The highest values are reported for Portugal, France, and Slovenia. At the lower end of the scale were the Czech Republic, Estonia, Ireland, and Spain.

Information about the labour market relevance of the minimum wage is provided by the share of workers earning the minimum wage, or less than 105% of that wage. The latest data from Eurostat refers to October 2010 and shows considerable differences in such 'effective coverage' across countries with statutory minimum wages (from 0.2% in Spain to 19.2% in Slovenia). Higher statutory minimum wages (as a percentage of the average wage) may not necessarily imply a higher effective coverage.

Overall, effective coverage depends also on the characteristics of the labour force. A relatively low effective coverage may also reflect the importance of collective agreements in wage setting and/or individually negotiated wages set above the minimum wage. Tighter labour market conditions may push wages further above the minimum wage, thus also reducing effective coverage.

Economy-wide **wage indexation** is another form of wage coordination. Wage indexation mechanisms covering all or at least most of the employees are currently in place in four EU countries: Belgium, Cyprus, Luxembourg and Malta.

In these cases, wage adjustment is automatic and is based on recent price inflation. In addition to these four Member States, a number of other EU countries used to have this system but have abolished it (e.g. Denmark, France, Italy and the Netherlands). In Spain, ex-post indexation used to be common in

4 In Belgium the minimum wage is set through a national agreement between social partners. However, in terms of coverage and universality, it is equivalent to the statutory minimum wage as it is legally binding in all sectors.

5 See, e.g. OECD Employment Outlook 2015.

collective agreements, although it is no longer required by law. France, the Netherlands and Slovenia have their minimum wage indexed to prices or wages or both. In Belgium, Luxembourg and Malta, minimum wages are indexed as are wages in general.

Indexation clauses may make it easier to conclude multiannual agreements, which provide stability in industrial relations and reduce the risk of recurrent conflicts in relation to wage negotiations. While indexation systems can be an effective tool to preserve the purchasing power of wages and salaries, they need to be designed to be flexible enough to ensure cost competitiveness relative to a country's trading partners and adequate adjustment capacity.

The mechanical indexation of wages to past inflation risks creating inertia and hampering the adjustment capacity.

Firstly, indexation can easily create a wage-price spiral and is likely to make any nominal shock (e.g. a worsening of terms of trade) lasting, particularly where a country is in a monetary union with irreversible nominal exchange rates.

Secondly, indexation makes real wages more rigid and consequently works against adjustment in the labour market, including where shocks affect different sectors, companies and jobs differently.

Thirdly, in a low inflation environment like the euro area is currently experiencing, indexation may make it harder for inflation to return to levels targeted by policy-makers.

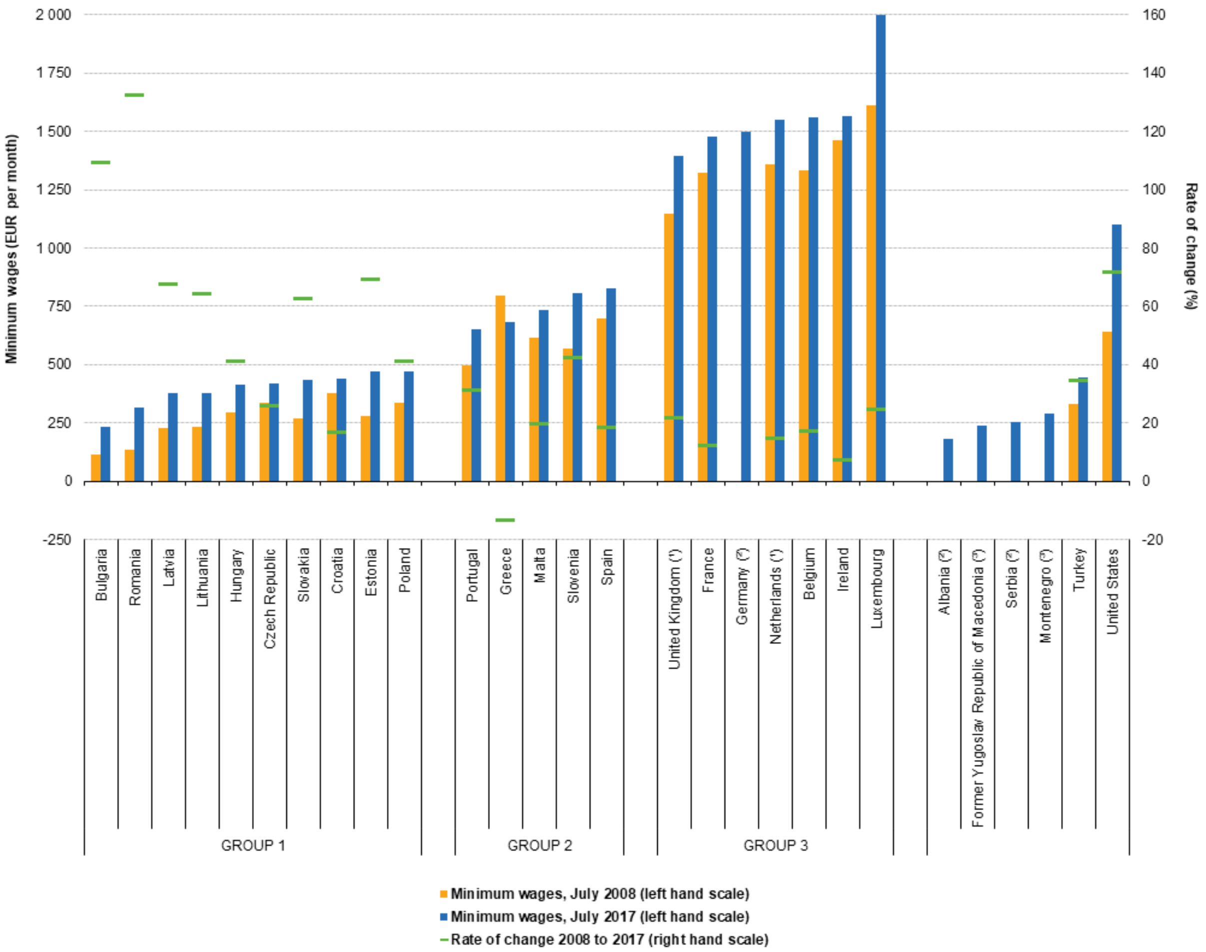
The **macroeconomic effects of indexation** depend on the way it is designed and implemented: relevant dimensions include:

- the coverage (what is indexed);
- the method of adjustment (*ex-ante* or *ex-post* inflation, the headline inflation index or a refined indicator);
- the derogations (the possibility of opting-out);
- the monitoring; and
- the regularity of adjustments.

In addition to defining the framework conditions and being involved in tri-partite agreements, governments have a number of **other levers** they can use to affect labour costs. This includes public sector wages as the level and conditions of employment in the public sector, often a major employer, can affect labour demand and supply in the private sector. Changes in social contributions and direct labour taxation affect non-wage labour costs and are therefore another way of impacting unit labour costs (ULC) in the short to medium term.

Different **additional factors affect how wages react** to changes in economic conditions, including labour taxation, employment protection legislation and unemployment benefit systems. More broadly, labour market reforms can affect wage responsiveness. For instance, changes to unemployment benefit systems and strengthened activation policies can reduce reservation wages (the lowest wage at which a worker would accept a job), increasing labour supply and therefore reducing wage pressures in the economy.

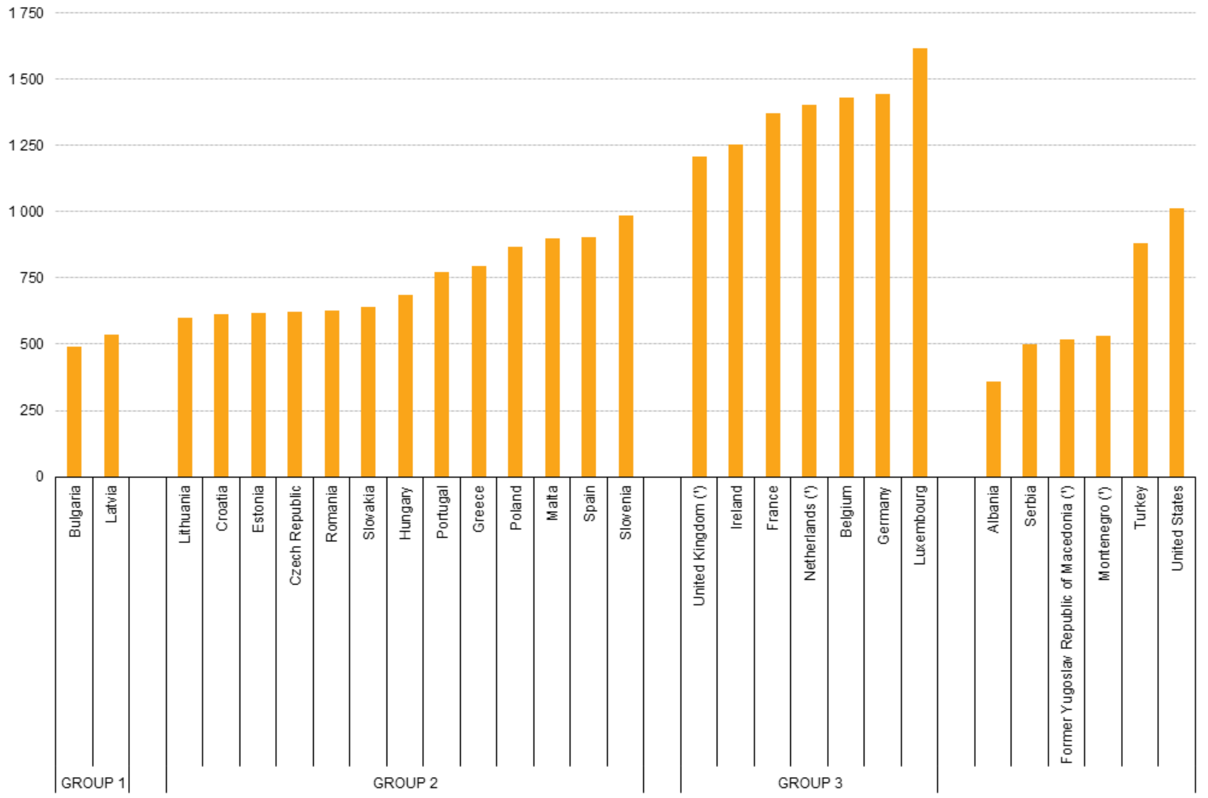
Figure 5 — Statutory minimum wages (in euros) in EU Member States, 2008 and 2017



Note. Denmark, Italy, Cyprus, Austria, Finland and Sweden: no national minimum wage.
(¹) January 2017 instead of July 2017.
(²) July 2008 and rate of change: not available.
(³) January 2017 instead of July 2017. July 2008 and rate of change: not available.
Source: Eurostat (online data code: earn_mw_cur)

Note: Data concern monthly figures and computed on the basis of 12 instalments per year (since Member States differ in the unit in which minimum wages are set). Source: Eurostat

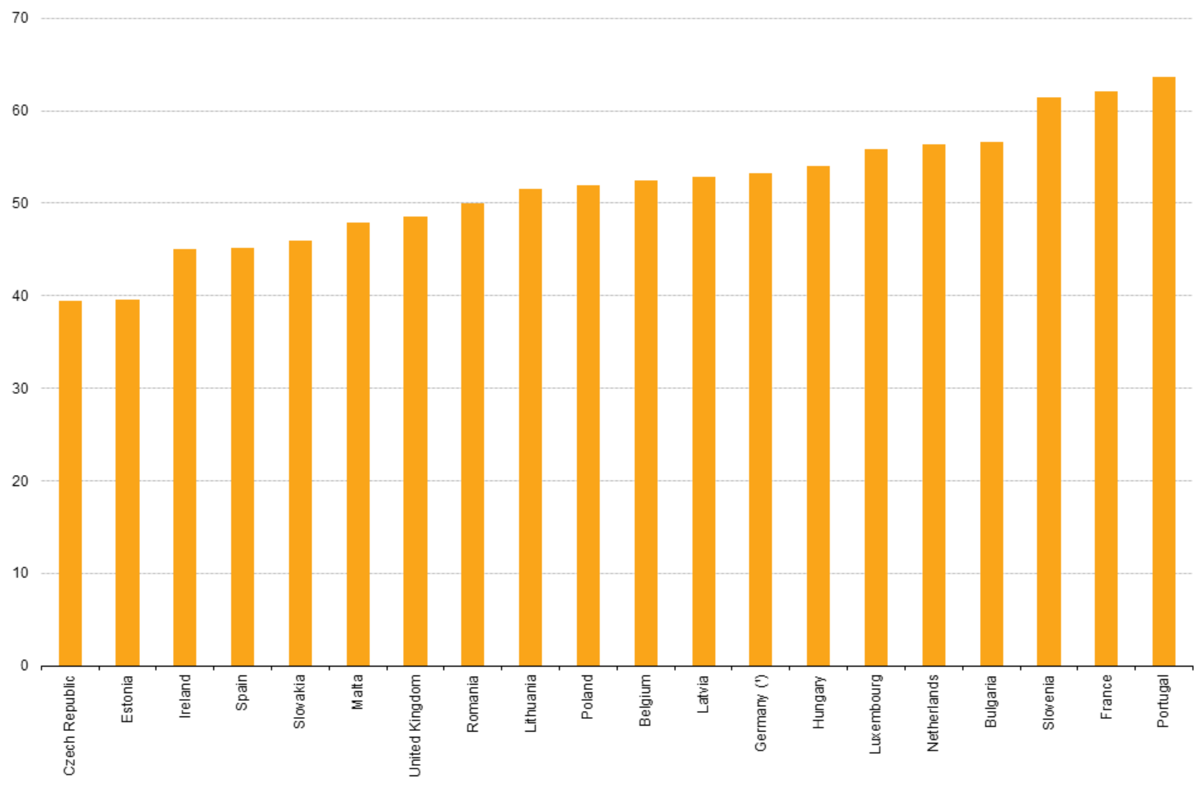
Figure 6 — Statutory minimum wages (in PPS) in EU Member States, 2017



Note. Estimates. Denmark, Italy, Cyprus, Austria, Finland and Sweden: no national minimum wage.
(¹) January 2017.
Source: Eurostat (online data code: earn_mw_cur)

Note: Data concern monthly figures and computed on the basis of 12 instalments per year (since Member States differ in the unit in which minimum wages are set). Source: Eurostat.

Figure 7 — Statutory minimum wages as a proportion of the mean value of average gross monthly earnings in EU Member States, 2014



Note. Median monthly gross earnings for employees within NACE Rev. 2 Sections B to S excluding O working in enterprises with 10 employees or more; apprentices excluded. Data on national minimum wages relate to 1 January. Greece and Croatia: not available. Denmark, Italy, Cyprus, Austria, Finland and Sweden: no national minimum wage.
(¹) 2015 instead of 2014 for the minimum wage.
Source: Eurostat (online data codes: earn_ses_monthly and earn_mw_cur)

Note: Data concern monthly figures and computed on the basis of 12 instalments per year (since Member States differ in the unit in which minimum wages are set). Source: Eurostat.

4. ASSESSMENT OF CURRENT POLICIES

In response to the 2008 crisis, many countries introduced far-reaching reforms of their **wage setting systems** to increase wage responsiveness to economic conditions. Major reforms were also passed as part of the reform packages agreed under the financial assistance programmes in Greece, Ireland, Portugal, Spain and Romania.

More recent reforms include the following examples.

In 2017, as a result of intense negotiations with the social partners, Belgium revised its 1996 Competitiveness Law. The objective of the reform is to prevent possible competitiveness losses due to excessive labour cost increases compared to Belgium's main trading partners. The revised law:

- provides an automatic correction mechanism;
- introduces a safety margin; and
- strengthens the legal basis for the 'wage norm', which is agreed every two years by the inter-sectoral social partners as a upper threshold for wage setting at sector level.

France adopted reforms to its wage bargaining institutions in a number of steps. Adopted in 2016, the El Khomri law states that company-level agreements get priority over sectoral agreements on matters such as working time, paid holidays and bonuses.

Finland's social partners, in 2016, agreed on a bi-partite deal that provides wage moderation for the coming years and revised its approach to collective bargaining giving more room for local-level bargaining.

On the institutional frameworks guiding **minimum wage setting**, temporary minimum wage freezes introduced during the crisis expired around 2013. Measures taken from 2013 onwards have gone mainly in the direction of strengthening the regulation of minimum wages, including the introduction of a national statutory minimum wage in Germany in 2015.

More recent reforms include the following examples.

The UK set the national living wage as the wage floor for those aged 25 and above instead of the minimum wage.

Ireland created a Low Pay Commission to advise the government on minimum wage setting.

Poland extended the coverage of minimum wage to civil law contractors.

Date: 6.10.2017

5. ANNEX

Table 1 — Wage bargaining characteristics

	Union density	Coordination of wage bargaining	The dominant level(s) at which wage bargaining takes place	Minimum Wage Setting	Bargaining coverage, adjusted	Extension index	Employers' organisation density
AT	27.4*	4	3	2	98.0*	3	100.0
BE	55.1*	5	5	3	96.0*	3	82.0**
BG	17.5**	2	2	5	29.0**	2	50.0**
CY	45.2*	2	2	7	45.2*	0	62.5******
CZ	12.7*	2	1	8	47.3*	1	41.4***
DE	17.7*	4	3	1	57.6*	1	58.0***
DK	66.8*	4	3	1	84.0*	0	68****
EST	16.9*	3	3	8	77.6*	2	75******
EE	6.5**	1	1	3	23.0**	2	25.0***
FI	69.0*	5	4	2	93.0	2	70.0**
FR	7.7*	2	3	8	98.0**	3	75.0**
UK	25.7*	1	1	6	29.5*	0	35.0******
EL	21.5*	2	2	8	42.0*	0	43.7******
HR	30.9**	2	2	5*	60.0*****	2*	32.0*
HU	10.7**	1	1	5	23.0*	1	40.0******
IE	33.7*	1	1	6*	40.5*****	0	60.0***
IT	37.3*	3	3	1	80.0****	0	56.0**
LT	9.0**	1	1	5	9.9**	1	14.4**
LU	32.8**	2	2	7	59.0**	3	80.0**
LV	13.1**	1	1	8	15.0*	1	41.0*
MT	52.9**	2	1	7	62.8**	0	60******
NL	18.0*	4	3	7	84.8*	2	85.0***
Pl	12.7**	1	1	8	14.7**	1	20.0**
PT	18.5**	2	3	8*	67.0	2	38.0***
RO	19.8**	2	1	5*	35.0*	0	:
SK	13.3*	3	2	8	24.9*	2	30.5*
SI	21.2*	3	3	7	65.0*	3	60.0*
SE	67.4**	4	3	1	89.0*	0	82.0***

*Note: Data concerns 2014, except: *2013; **2012; ***2011; ****2010; *****2009; ******2008*
See the Annex for a description of the ICTWSS indicators

Source: Jelle Visser (2015), ICTWSS Data base (Version 5.0). Amsterdam: Amsterdam Institute for Advanced Labour Studies AIAS. October 2015. Open access database at: http://www.uva-aias.net/en/ictwss

Table 2 — Definition of wage bargaining characteristics variables

Union Density	Union Density rate, net union membership as a proportion wage and salary earners in employment (0-100) = NUM*100/WSEE
Coordination of wage bargaining	5 = economy-wide bargaining, based on a) enforceable agreements between the central organisations of unions and employers affecting the entire economy or entire private sector, or on b) government imposition of a wage schedule, freeze, or ceiling. 4 = mixed industry and economy-wide bargaining: a) central organisations negotiate non-enforceable central agreements (guidelines) and/or b) key unions and employers associations set pattern for the entire economy. 3 = industry bargaining with no or irregular pattern setting, limited involvement of central organizations, and limited freedoms for company bargaining. 2 = mixed or alternating industry- and firm level bargaining, with weak enforceability of industry agreements 1 = none of the above, fragmented bargaining, mostly at company level
The dominant level(s) at which wage bargaining takes place	5 = national or central level 4 = national or central level, with additional sectoral / local or company bargaining 3 = sectoral or industry level 2 = sectoral or industry level, with additional local or company bargaining 1 = local or company bargaining
Minimum Wage Setting	0 = No statutory minimum wage, no sectoral or national agreements 1 = Minimum wages are set by (sectoral) collective agreement or tripartite wage boards in (some) sectors; 2 = Minimum wages are set by national (cross-sectoral or inter-occupational) agreement ("autonomous agreement") between unions and employers; 3 = National minimum wage is set by agreement (as in 1 or 2) but extended and made binding by law or Ministerial decree; 4 = National minimum wage is set through tripartite negotiations; 5 = National minimum wage is set by government, but after (non-binding) tripartite consultations; 6 = Minimum wage set by judges or expert committee, as in award-system; 7 = Minimum wage is set by government but government is bound by fixed rule (index-based minimum wage); 8 = Minimum wage is set by government, without fixed rule.
Bargaining coverage, adjusted	Employees covered by wage bargaining agreements as a proportion of all wage and salary earners in employment with the right to bargaining, expressed as percentage, adjusted for the possibility that some sectors or occupations are excluded from the right to bargain; ranges from 0 to 100.

Source: Jelle Visser (2015), ICTWSS Data base (Version 5.0). Amsterdam: Amsterdam Institute for Advanced Labour Studies AIAS. October 2015. Open access database at: http://www.uva-aias.net/en/ictwss