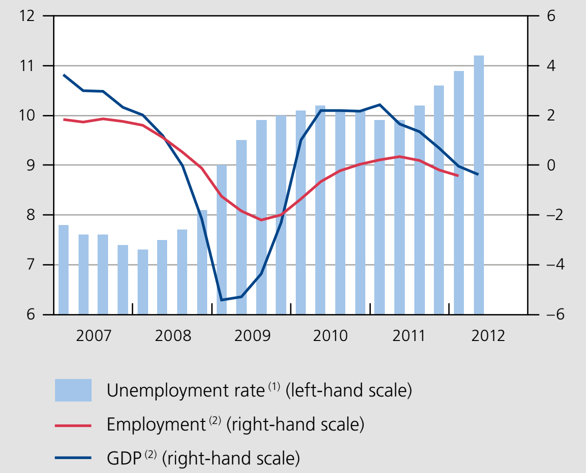
Euro area labour markets and the crisis

J. De Mulder
M. Druant

Introduction

Between the start of the economic and financial crisis in 2008 and early 2010, almost 4 million jobs were lost in euro area labour markets. Employment resumed an upward path in the first half of 2011, but declined again at the end of that year and remains around 3 million workers below the pre-crisis level. However, given the severity of the fall in GDP, employment adjustment was relatively limited, mostly due to the significant labour hoarding in several euro area countries. Indeed, while euro area GDP decreased by 5.5 % from peak to trough, employment dropped by 2.5 % and total hours worked came down by 4.5 %. Nevertheless, the unemployment rate in the euro area has risen by 3.6 percentage points since the start of the crisis, reaching 11.3 % by July 2012, its highest level since 1999. While the crisis has had a more limited or shorter-lived impact in some euro area countries, in others dramatic changes in employment and unemployment rates have been observed and recent data tend to show the effects of a re-intensification of the crisis.

CHART 1 GDP, EMPLOYMENT AND UNEMPLOYMENT IN THE EURO AREA
(quarterly data)



Source : EC (national accounts and LFS).
(2) Percentages of the labour force of 15 years or over.
(3) Percentage changes compared to the corresponding quarter of the previous year.

This article summarises the main findings of the Eurosystem's 2012 Structural Issues Report (SIR). When illustrative, specific aspects for Belgium are highlighted. The report, entitled "Euro area labour markets and the crisis" [1], was prepared by a Eurosystem task force in which the NBB took part. Its main objectives were to understand the notable heterogeneity in the adjustment observed across euro area labour markets, ascertaining the role of different shocks, labour market institutions and policy responses in shaping countries' labour market reactions, and to analyse the medium-term consequences of these labour market developments. The article is structured accordingly. The first part describes the main developments in the euro area labour markets since the start of the crisis and the second part looks at the impact of the crisis on mismatches between labour supply and demand and on long-term unemployment. Finally, the main policy conclusions are listed.

(1) ECB (2012).

1. Main developments in euro area labour markets since the start of the crisis

1.1 Different reactions across countries

Despite the relatively muted employment response to the intense fall in activity for the euro area as a whole, the labour market impact of the crisis has varied substantially across countries. Accumulated employment losses from peak to trough ranged from –16 % in Estonia and Ireland to –0.4 % in Germany and Luxembourg. Belgium falls among the countries that were least hit by the crisis: employment declined by only 0.8 % and although the unemployment rate rose to 8.5 % in the second quarter of 2010, it later returned to its pre-crisis level of about 7 %. As in Germany for instance, short-time working schemes were widely used in Belgium, which made the employment decline smaller than the reduction in total hours worked.

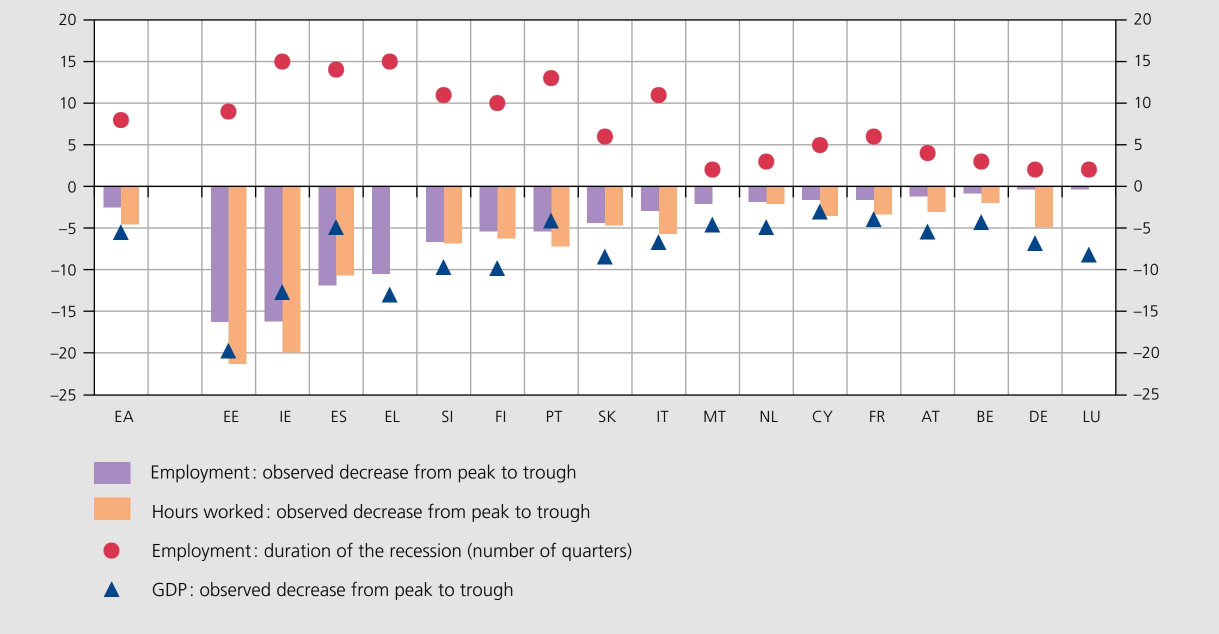
The wide divergences in labour market adjustment are only a partial reflection of differences in the severity of the crisis and its impact on GDP. Employment and unemployment elasticity to GDP indeed differed markedly in the euro area countries during the recession: the labour market reaction was mild in countries like Germany and Luxembourg but very strong in Spain. The heterogeneity of responses partly reflects the nature of the shocks hitting euro area economies and the presence of imbalances – such as previous booms in the construction sector or accumulated competitiveness losses – in the run-up to the crisis. Countries in which the downturn was driven by a decline in domestic demand experienced a relatively stronger rate of job destruction; the moderate labour market adjustment in countries in which a fall in exports was observed was supported by the temporary nature of the global trade downturn. Other country-specific factors also had an impact. For instance, labour markets characterised by higher shares of temporary contracts prior to the crisis exhibited considerable higher employment losses and increases in unemployment. This was especially the case in Spain.

1.2 Different reactions across worker groups

Significant divergences were observed across worker groups in euro area countries. The impact of the crisis was strongest on manufacturing and construction, with substantial differences between countries. Partly as a result

CHART 2 EMPLOYMENT ADJUSTMENT TO THE CRISIS [1]

(percentage changes from peak to trough, unless otherwise stated)

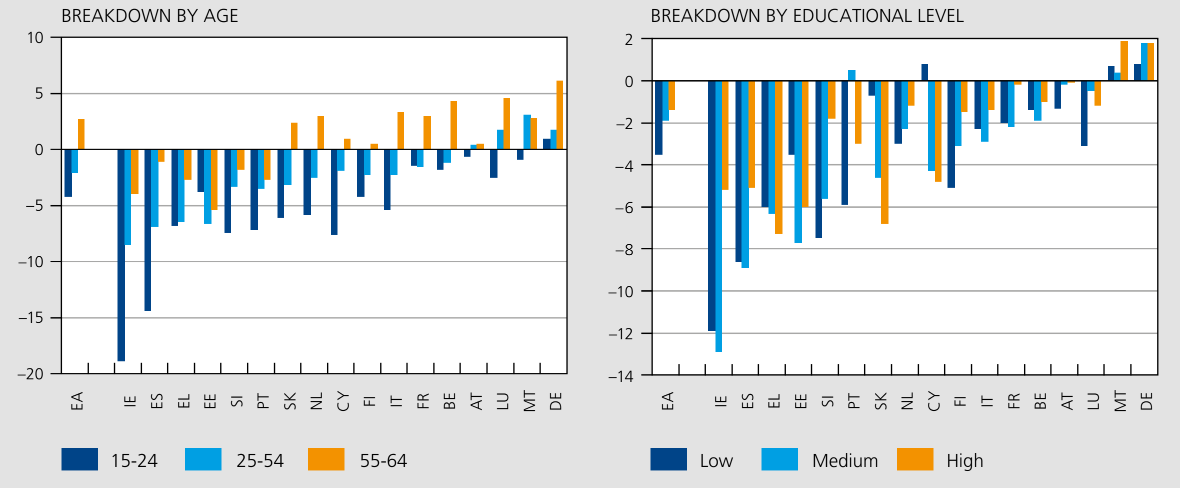


Source: EC (national accounts).

(1) No quarterly national accounts data are available concerning total hours worked in Greece, Malta and Luxembourg. NBB estimate for Belgium. Country-specific peaks and troughs are considered.

CHART 3 EMPLOYMENT RATES: BREAKDOWN BY AGE AND EDUCATIONAL LEVEL

(changes, in percentage points, between the first three quarters of 2011 compared to the corresponding period of 2008)



Source: EC (LFS).

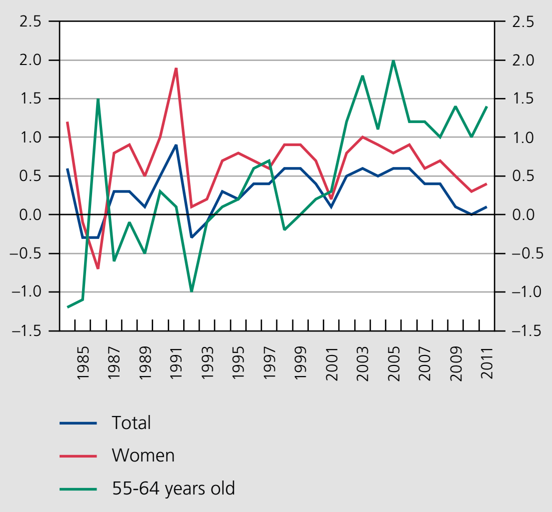
of the sectoral concentration of employment losses, the less-skilled and young workers were the hardest hit, again with significant variety across countries. In the euro area as a whole, the employment rates among low-skilled workers and people aged from 15 to 24 years old were in 2011 about 4 percentage points lower than before the crisis. But there was also a decline in higher-skilled jobs in almost all countries, apart from Malta and Germany[(1)]. So, although almost all worker groups were affected, older workers were the notable exception, as their employment rates rose, partly reflecting past institutional reforms (such as reforms to pension entitlements and increases in statutory retirement ages). These overall trends were also observed in Belgium: while the employment rates of all educational groups and of people aged 15-24 and 25-54 declined by 1 to 2 percentage points, the proportion of people aged 55 to 64 years old increased by some 4 percentage points.

1.3 Impact on labour supply

Labour supply also slowed down in reaction to the downturn, but in a relatively muted fashion compared with previous cyclical adjustments. The overall labour market participation rate further increased, although at a slower pace. Once again, significant cross-country heterogeneity was found, and developments diverged considerably across population groups. Participation rates for females and older workers continued to evolve more favourably, probably reflecting added-worker effects resulting from the negative income and wealth effects of the crisis as well as reduced opportunities for early retirement. In Belgium, the participation rate of people aged from 55 to 64 years old kept rising too, but the increase in the female rate slowed down in line with the overall tendency.

CHART 4 EURO AREA PARTICIPATION RATE

(population aged from 15 to 64 years old, unless otherwise stated, yearly data, percentage point changes compared to the previous year)



Source: EC (LFS).

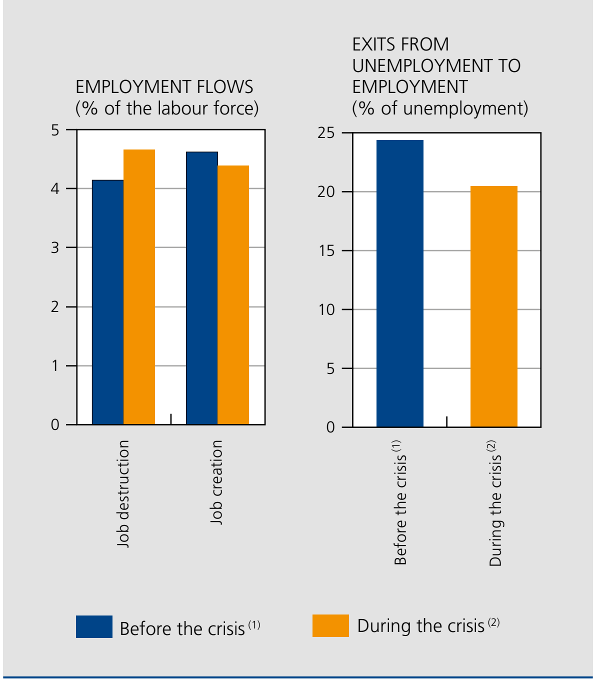
(1) In both countries, the employment rate of all educational groups increased.

There is also evidence of a reaction of migration flows to the current crisis in some of the euro area countries more severely affected. This is consistent with model results which show that the negative response of GDP to the recession could be amplified in countries with a large share of (more mobile) foreign workers in the labour force before the crisis. This phenomenon was most striking in Ireland, where a rapid and sharp rise of outward migration of non-Irish nationals – in particular Eastern European citizens – was observed in consequence of increasing labour market slack.

1.4 Impact on labour flows

Labour force survey (LFS) micro data – available for 13 of the 17 euro area countries[1] – have enabled quarterly individual labour market transitions between employment, unemployment and inactivity to be computed, thus providing a detailed analysis of the dynamic adjustment of euro area labour markets. Very large differences in the size of worker flows in individual euro area labour markets are evident, indicating substantially different adjustment dynamics to shocks across countries. Some labour market institutions, including employment protection and wage-bargaining institutions, seem to be associated with the observed cross-country differences.

CHART 5 WORKER FLOWS BEFORE AND DURING THE CRISIS



Source: EC (LFS micro data).
(1) Period from the first quarter of 2004 until the second quarter of 2008.
(2) Period from the third quarter of 2008 until the third quarter of 2010.

With respect to developments since the start of the crisis, the increase in job destruction rates is found to be responsible for the bulk of the extra unemployment, although a lower job creation rate also contributed. Exit rates from unemployment also declined, leading to a notable increase in the mean duration of unemployment and in the share of long-term unemployment or more precisely those out of work for more than one year (to around 46 %, which is 12 percentage points higher than before the crisis). The analysis of exit rates by duration of unemployment nevertheless shows a limited impact of the crisis on exit rates of long-term unemployed, but for those countries where more up-to-date worker flows are available, some additional decrease in exit rates tends to be found. In a number of countries, like Austria and the Netherlands, the exit rate from unemployment to employment remained stable for older workers during the crisis. By contrast, unemployed youths generally experienced a drop in exit rates; this trend was most pronounced in Finland.

1.5 Wage adjustment

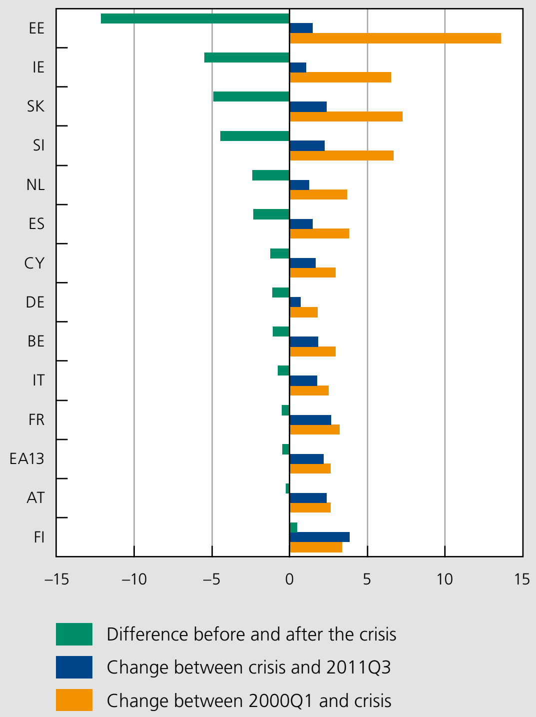
Despite the severity of the recession, a relatively limited wage adjustment in the euro area has been observed. At the beginning of the crisis, the presence of multi-annual contracts agreed in several countries prior to the crisis partly accounted for an initial delay in the adjustment. Public sector wages reacted faster and stronger to the crisis than private sector wages as a result of fiscal consolidation measures, while private sector compensation per hour continued its upward movement until the beginning of 2009. This, among other reasons, reflected the large downward adjustment in hours worked observed in some euro area countries and a less-than-proportional reduction in wages. When the decline of working time per employee stopped, hourly compensation growth started to slow down, reaching a trough at the beginning of 2010 and picking up afterwards. When a distinction is made between compensation per hour before and since the start of the recession, the turning point corresponding to the peak in employment for the euro area as a whole, average wage increases were almost similar in both periods in the euro area as a whole.

This apparent lack of adjustment corroborates evidence from wage equations, estimated with the objective of capturing the effect of rising unemployment on the evolution of wages over the crisis period. These equations confirm the negative relationship between compensation per employee and unemployment, presented by the slope

(1) The data are not available for Belgium, Germany, Luxembourg and Portugal.

CHART 6 PRIVATE SECTOR COMPENSATION PER HOUR [1]

(average annual percentage changes)



Sources: EC and SIR calculations.

(1) No data available for Greece, Luxembourg, Malta or Portugal. Turning points correspond to the peak in employment for each individual country and for the euro area as a whole.

of the regression line, and they point to a lower wage responsiveness during the 2008 – 2010 downturn, hence, providing additional evidence of downward wage rigidities in the euro area.

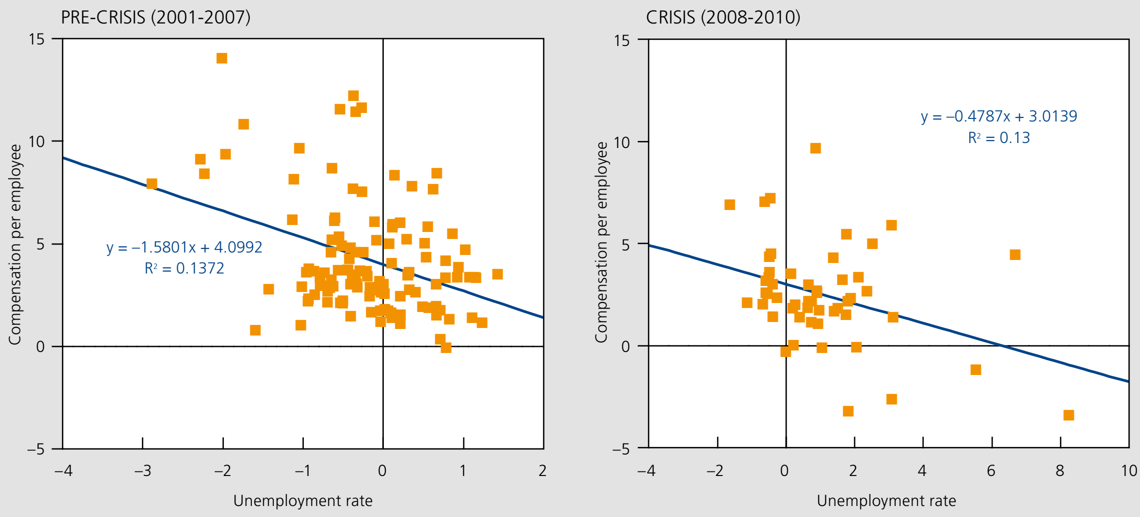
Even though wage adjustment was limited in the euro area as a whole, large cross-country differences were observed. Hourly wage increases slowed down since the start of the recession, when compared to the period from 2000 until the onset of the downturn, in all countries except Finland. The slowdown was most remarkable in Estonia, Ireland, Slovakia and Slovenia. In Belgium, hourly wage moderation was comparable to that in Germany, lower than the adjustment observed in the Netherlands and more pronounced than in France. This heterogeneous adjustment may partially reflect cross-country differences in exposure to the recession as well as differences in wage-bargaining institutions.

The results of an update of the Wage Dynamics Network (WDN) questionnaire on wage-bargaining institutions in the euro area, the conclusions of the first wave of this survey in 2008 having been analysed in a former edition of this Review [1], point to very limited changes in the institutional setting during and since the crisis. However, a move towards more decentralised wage bargaining has been observed, as evidenced by more intensive use of opt-out clauses or firm-level agreements in Germany, Slovenia,

(1) de Walque *et al.* (2010).

CHART 7 PHILLIPS CURVE FOR THE EURO AREA

(percentage changes compared to the corresponding quarter of the previous year)



Sources: EC and SIR calculations.

TABLE 1 DECOMPOSITION OF REAL WAGE CHANGES DURING THE CRISIS

(cumulated percentage changes)

	Males			Females		
	Observed wage change	Price effect	Composition effects	Observed wage change	Price effect	Composition effects
Portugal 2007-2009	5.23	2.05	3.18	6.85	3.29	3.55
France 2008-2009	1.65	–1.03	2.68	1.22	–0.44	1.66
Belgium 2007-2009	0.87	–2.92	3.79	6.81	1.23	5.58
Germany 2007-2009	0.43	–1.48	1.91	1.58	–3.99	5.57
Italy 2008-2010	–0.62	–2.34	1.72	0.95	–1.88	2.83

Sources: SIR calculations based on data from labour force surveys in France and Italy, German Socio-Economic Panel, Structure of Earnings Survey in Belgium and Quadros de Pessoal in Portugal. Net wages of full-time workers only, including bonuses and extra payments (except for Italy) and deflated by the HICP.

Greece, Italy, Portugal and Spain (although seldom used in the latter four countries). Moreover, two countries with an automatic wage indexation system, namely Luxembourg and Spain, deviated temporarily from the prevailing mechanism. The automatic adjustment of wages to inflation was maintained in Belgium and Malta, while it is currently under discussion in Cyprus.

While several pieces of evidence point to the existence of real wage rigidities, consistent with earlier WDN results, a decomposition of real wage changes reveals that wages did react to some extent to the crisis. This exercise was done for five countries and is based on earnings data of individual workers. It assumes that the skill distribution of workers has remained unchanged during the period considered. If the observed aggregate wage change is calculated net of the changes in the skill composition, presented as "price effect" in the table, real wages of male workers actually declined in four out of five countries (Belgium, Italy, Germany and France) and the wage increase was much lower in Portugal than before the correction for composition effects. Similar conclusions can be drawn for female workers. This implies that the decline in the share of low-skilled workers during the crisis has had an upward effect on average real wages.

2. The impact of the crisis on mismatches between labour supply and demand and long-term unemployment

This part of the article assesses the long-term consequences of the crisis, taking into account the large degree of heterogeneity observed in the labour market adjustment across countries described above. Growing mismatches between worker attributes and job requirements in euro area economies are observed.

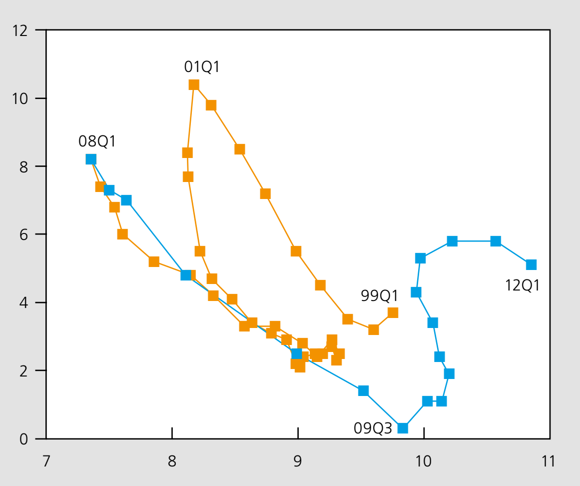
In terms of Beveridge curve analysis, from the onset of the crisis onwards, the aggregate euro area curve showed a typical movement down to the right explained by cyclical developments, with fewer labour shortages and rising unemployment rates. However, an outward shift has been

CHART 8 MOVEMENTS IN THE EURO AREA BEVERIDGE CURVE

(X-axis: unemployment rate, % of labour force)

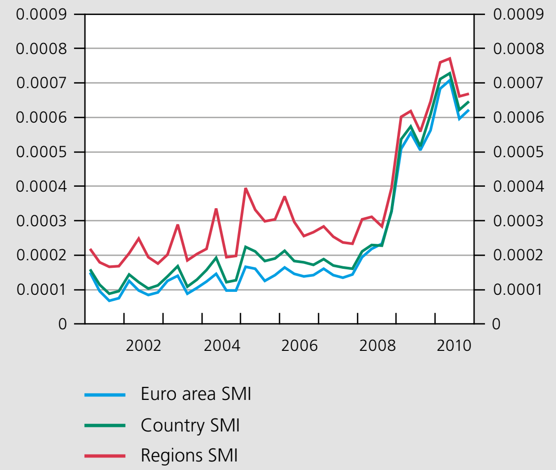
(Y-axis: labour shortages, mean-adjusted diffusion index of EC confidence survey)

(orange lines: 1999Q1-2008Q1; blue lines: from 2008Q1 up to latest observation)



Sources: EC and SIR calculations.

CHART 9 EURO AREA SKILL MISMATCH INDEX [1]
(level)
(skill demand: educational level of the employed)
(skill supply: educational level of the labour force)



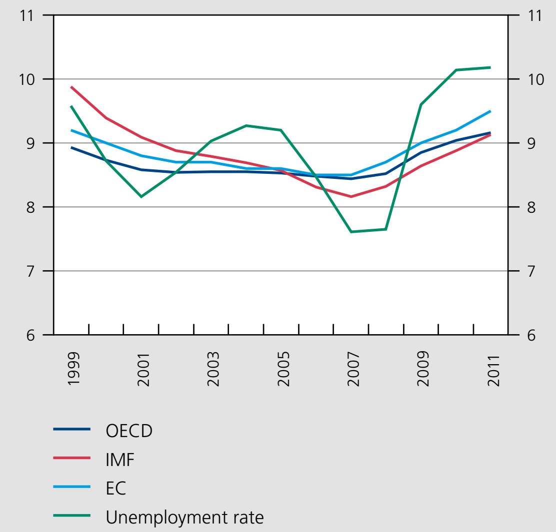
Sources: EC, IMF, OECD and SIR calculations.
(1) The euro area SMI is constructed by using the aggregate skill distributions of labour demand and supply at the euro area level. The country SMI is calculated by aggregating the sixteen country SMIs computed using country-level skill distributions.The regions SMI is the aggregation of SMIs computed at a regional level.

observed since the end of 2009, with stabilising high unemployment rates and increasing labour shortages and, as such, pointing to a deterioration of the matching process. Recently, a further increase in the unemployment rate has been observed, with a given level of shortages. Significant cross-country differences exist, partly as a consequence of the different exposure to the downturn and the institutional features of the labour markets. The recent outward shift of the aggregate curve is driven by countries like France, Greece and Spain. It is also observed in Belgium, as described in detail in the article entitled "Labour market mismatches" of this Economic Review [1]. In Germany, on the contrary, labour shortages are increasing while the unemployment rate has been declining slightly since the end of 2009.

The persistent downsizing of specific sectors in a number of euro area countries and the growing skill disparity between labour demand and supply have played a crucial role in explaining the outward shifts of the Beveridge curve. The latter is illustrated by the skill mismatch index (SMI), measuring the degree of disparity between the skill requirements of labour demand (i.e. the educational level of the employed) and labour supply (the educational level of the labour force). The evidence points to a significant increase in the skill mismatch since the start of the crisis in the euro area as a whole and more specifically in those countries more badly affected by the downturn. The recent SMI increase is found at all aggregation levels, namely for the euro area SMI, constructed by using the aggregate skill distributions of labour demand and supply, for the country SMI, calculated by aggregating the sixteen country SMIs, as well as for the regions SMI, which is the aggregation of SMIs computed at a regional level. This signals that the growing skill mismatch problem is of a structural nature and that, in view of the decreasing distance between the SMIs, the potential role of labour mobility in alleviating the mismatches is rather limited. The conclusion for Belgium is in line with that for the euro area, as explained in the "Labour market mismatches" article.

The growing mismatch is closely linked to higher structural unemployment. Estimates from international institutions such as the EC, IMF and OECD show a marked upward trend in aggregate euro area structural unemployment with increasing divergences across Member States as well. Most countries have faced an increase in structural unemployment, as in Belgium's case albeit to a very limited extent, while others like Germany and Slovakia have seen a decrease, or stabilisation as in Malta and Austria. The fact that the recent rise in the unemployment rate

CHART 10 ACTUAL AND STRUCTURAL UNEMPLOYMENT IN THE EURO AREA
(in % of the labour force)



Sources: EC, IMF, OECD and SIR calculations.

(1) Zimmer (2012).

has been mirrored by increases in the estimated structural unemployment rate, contrary to what happened in the period 2001-2005, suggests that some of the rise in unemployment has become structural and, hence, hysteresis effects could be present.

3. Policy conclusions

This article summarises the main findings of the Eurosystem's 2012 Structural Issues Report and reveals continued major differences between the labour markets of the euro area countries. There were already divergences in the labour market situation before the crisis, but these were accentuated by the Great Recession. The euro area Member States were hit by different kinds of shocks which varied in magnitude as well. Subsequently, the policy reactions diverged too, depending on the perceived shocks, (budgetary) possibilities and the labour market institutions, such as employment protection legislation or the wage formation process. As a result, varying labour market consequences of the crisis have been observed, ranging from almost no impact (for instance in Germany) to very severe adjustments (like in Estonia, Ireland, Spain and Greece). Because of the considerable use of short-time working schemes, the impact on the Belgian labour market remained rather limited. It should nonetheless be stressed that the crisis is not over yet and several countries are experiencing a further deterioration of economic conditions. The SIR was finalised in March 2012 and therefore does not include the most recent developments.

In a context of largely diverging situations at country level and the ongoing crisis, it has proved difficult to identify "best practices" to improve labour market functioning in the future. Nevertheless, several policy conclusions have been drawn.

The response of wages to the crisis has remained limited, pointing to the presence of downward wage rigidities, which are an impediment to restoring competitiveness – and thus employment – particularly in those euro area countries with previously accumulated external imbalances. In the presence of high unemployment, a flexible response of wages to labour market conditions should be a key priority. Moreover, it could also facilitate the necessary sectoral reallocation which underpins job creation and reductions in unemployment. In this respect, short-time working schemes, although successful in mitigating employment losses in some Member States, including Belgium, might hinder the reallocation of the labour force from declining sectors towards growing ones if they are maintained for too long. Also, in a context of growing mismatches in the labour market, higher wage differentiation across different types of workers and jobs is needed to contribute to a proper matching between labour supply and demand and will particularly benefit some of the hardest hit worker groups.

Given the abrupt impact of the crisis on some specific groups of workers and the increase in the structural component of unemployment, the main aim of active labour market policies (ALMP) should be to limit, as far as possible, the risks of significant hysteresis effects from the increase in unemployment, particularly given that almost half of the unemployed have been out of work for more than a year. In this respect, ALMPs should be designed to facilitate the return to work of young and less-skilled people especially, including appropriate training policies to close the gap between the labour skills supplied and those demanded, particularly in those countries more affected by the possible permanent downsizing of certain sectors. Such policies would also help to increase the downward pressure on wages exerted by the unemployed and limit the decline in potential output growth associated with higher structural unemployment.

Labour market segmentation tends to amplify employment adjustment to negative shocks and gives rise to a disproportionate burden of the adjustment process on specific groups of workers (those with temporary contracts, younger and low-skilled workers). The longer these groups are out of work, the greater the danger that their skills will deteriorate, making it harder for them to find work in the future and possibly leading to higher structural unemployment. Regulations on labour contracts should avoid wide differentiation across different worker types and instead focus on lowering employment adjustment costs across the whole economy. Meanwhile, labour market institutions which facilitate higher internal flexibility (e.g. in terms of hours and wages) can help firms to accommodate negative shocks at a lower employment cost.

Major labour market reforms are essential for the Member States in order to foster job creation, bring down unemployment and restore competitiveness while also lowering the risks of a permanent decline in potential output growth. A comprehensive reform strategy to increase labour market flexibility is a key ingredient for a solid economic recovery with additional positive spillovers on the correction and prevention of macroeconomic imbalances, fiscal consolidation and financial stability. In a monetary union such as the euro area, a flexible and properly functioning labour market can provide an economic environment which greatly facilitates the price stability-oriented monetary policy of the ECB.

Reforms which deliver greater flexibility in employment and wages will reduce adjustment costs associated with idiosyncratic shocks and enhance both the efficiency and effectiveness of the monetary policy transmission mechanism.

Bibliography

de Walque G., M. Druant, Ph. Du Caju and C. Fuss (2010), *Lessons of the Wage Dynamics Network,* NBB, Economic Bulletin, June.

ECB (2012), "Euro area labour markets and the crisis", ECB, *Structural Issues Report*, September.

Zimmer H. (2012), "Labour market mismatches", NBB, *Economic Review*, September.