

## Real economic adjustment processes and reform measures

*During the years prior to the global financial and economic crisis, considerable macroeconomic imbalances built up in several euro-area countries. In an environment of favourable financing conditions, domestic demand and gross domestic product saw, in most cases, strong growth, and factors of production were reallocated to domestically oriented sectors. This went hand in hand with a sharp deterioration in price competitiveness, considerable increases in current account deficits and a surge in private sector debt.*

*When the financial and economic crisis broke out in 2007-08, this process of expansion, which on the whole had not been sustainable, came to an abrupt end. The assessment of the macroeconomic outlook was heavily revised. The subsequent adjustment process has entailed a correction of the macroeconomic imbalances that had built up; it has, to an extent, been cushioned and protracted by extensive assistance programmes, and is still ongoing today. This process is indispensable in redressing the imbalances and laying the foundations for a return to sustainable growth. However, it has been constrained by the fact that the improvement in price competitiveness within a monetary union mainly has to be achieved through real depreciation based to a large degree on wage moderation and rationalisation. Moreover, the lack of sensitivity of the nominal euro exchange rate to country-specific developments limits the scope in a monetary union for a real devaluation of local currency debt through devaluation-induced price increases. Against this background, economic recovery is being hampered by the continued need to correct the balance sheets of the private and public sector and by uncertainty about the possibility of insolvencies.*

*Marked success has been achieved in unwinding the macroeconomic imbalances accumulated in the countries on the periphery of the euro area over the past few years. Current account deficits have contracted significantly or have even, in some of the countries hit particularly hard by the crisis, been turned into surpluses. Reforms, some of them extensive, have also got underway in the labour and product markets. Economy-wide unit labour costs have for the most part fallen substantially. There are now initial signs that the factors of production are being reallocated to sectors with a stronger export orientation, and the share accounted for by the previously bloated construction industry has shrunk significantly in many cases. This is consistent with the fact that the downward economic trend stopped during the course of 2013 and that the outlook has brightened in most of the periphery countries. The positive effects of structural reforms on growth are likely to become more clearly visible in the years ahead as the nascent economic recovery gathers pace. However, the reform process needs to be rigorously continued in order to support and advance the adjustments. This applies in particular to countries in which successes have been relatively slight so far. All in all, it is important to quickly restore confidence in the periphery countries as production locations and, by reanimating the largely still depressed investment activity, to create an effective growth model which will allow robust and sustainable income growth and new job opportunities.*

## Developments in the real economy before the global financial crisis

*Brisk growth before the crisis, ...*

The period from the start of stage three of European Economic and Monetary Union at the beginning of 1999 to the outbreak of the global financial and economic crisis was a phase of relatively robust growth for the euro area. From 1999 to 2007, real gross domestic product (GDP) advanced by an average of 2.3% per year, compared with -0.3% between 2008 and 2013. And yet developments varied widely across the individual member countries in the years leading up to the crisis, too. Average growth rates ranged from 6.2% in Ireland to 1.6% and 1.5% in Germany and Italy respectively. Moreover, inflation rates differed considerably. While the average inflation rate for the euro area as a whole stood at 2.1% per year between 1999 and 2007, the rates in Portugal, Ireland, Spain and Greece ranged between 2.9% and 3.4% compared with only between 1.6% and 1.8% in Germany, Finland, Austria and France. At 2.3%, Italy's inflation rate was somewhat above the euro-area average (see the table on page 21).

*... but growing external imbalances*

The large differences that existed in growth and inflation were accompanied by growing current account imbalances.<sup>1</sup> Particularly in the periphery countries, high current account deficits built up in the years 2007-08, while notably Germany and the Netherlands displayed rising surpluses prior to the crisis (see the table on page 22). Developments in most of the periphery countries between 1999 and 2007 were driven by trade and services accounts. By contrast, the deficits in Greece and Portugal were already fairly high when they joined European Economic and Monetary Union (in 2001 and 1999 respectively). One reason for this was that, in the years before, there had been a marked decline in net capital transfers from abroad; this was true of both public transfers (eg from the EU) and private transfers. The further deterioration of the current accounts of both countries in the subsequent years was

then closely related to the rise in net factor income, *inter alia* because of rising interest payments due to the increasing external debt. Overall, the reversal in factor income and transfers accounted for three-quarters of the widening of Portugal's current account balance by 12½ percentage points between 1995 and 2008; the share was only marginally smaller in Greece. Since transfer and factor income flows are between national income and domestic product, gross national income – ie the total income of residents – grew less strongly than GDP, which represents the total value of goods and services produced.

Substantial differences between euro-area countries existed, moreover, in developments in domestic demand, which grew markedly from as early as the mid-1990s – ie before stage three of European Economic and Monetary Union – in the periphery countries in particular. This growth was fuelled by the positive real interest rate shock and the boost to confidence brought about by the new institutional framework, which promised better predictability of monetary and fiscal policy. In these countries, the level of domestic demand clearly exceeded gross national income over several years, ultimately leading to the development of current account deficits and a sharp increase in external debt (see also the chart on page 68).

With regard to the components of domestic demand, the largest divergences in growth among the periphery countries were found in gross fixed capital formation – above all, in construction investment. The highest growth rates in expenditure on new buildings were recorded in Spain and Ireland, where construction prices likewise rose sharply. In both countries the macroeconomic investment ratios climbed appreciably to 30% of GDP in 2007. Although gross fixed capital formation hardly rose at all in Portugal, the investment ratio

*Euro-area current account balances reflect differences in growth in domestic demand*

*Dynamic gross fixed capital formation*

<sup>1</sup> See Deutsche Bundesbank, On the problems of macroeconomic imbalances in the euro area, Monthly Report, July 2010, pp 17-38.

## Macroeconomic indicators in selected euro-area countries\*

Average annual growth rate in per cent, unless stated otherwise

Period	Country/group of countries							
	Greece	Ireland	Italy	Portugal	Spain	Cyprus	For comparison	
							Germany	Euro-area countries (17)
Real gross domestic product (GDP)								
1999 to 2007	4.1	6.2	1.5	1.8	3.7	3.9	1.6	2.3
2008 to 2009	- 1.7	- 4.3	- 3.3	- 1.5	- 1.5	0.8	- 2.1	- 2.1
2010 to 2013	- 5.7	0.6	- 0.4	- 1.1	- 0.8	- 2.4	2.1	0.6
Real domestic demand								
1999 to 2007	<sup>1</sup> 4.4	6.0	1.7	1.7	4.6	4.7	0.8	2.2
2008 to 2009	- 2.9	- 6.6	- 2.8	- 1.3	- 3.5	0.2	- 0.6	- 1.8
2010 to 2013	- 7.7	- 2.1	- 1.7	- 3.5	- 2.5	- 4.6	1.3	- 0.4
Real gross fixed capital formation								
1999 to 2007	<sup>1</sup> 7.9	6.6	2.6	0.1	6.1	6.1	1.0	3.0
2008 to 2009	- 14.0	- 18.7	- 7.8	- 4.6	- 11.6	- 2.2	- 5.4	- 7.2
2010 to 2013	- 14.7	- 8.4	- 3.4	- 9.2	- 6.1	- 16.2	2.4	- 1.6
Real construction investment								
1999 to 2007	<sup>1</sup> 6.4	7.0	2.8	- 1.1	6.4	6.5	- 1.9	2.2
2008 to 2009	- 17.1	- 20.8	- 5.9	- 5.6	- 11.3	- 5.9	- 1.9	- 6.5
2010 to 2013	- 17.3	- 13.7	- 4.5	- 12.3	- 10.2	- 16.6	2.6	- 3.3
Real private consumption								
1999 to 2007	<sup>1</sup> 4.2	6.1	1.2	2.2	3.9	4.7	0.8	1.9
2008 to 2009	1.3	- 2.8	- 1.2	- 0.5	- 2.2	- 0.2	0.5	- 0.3
2010 to 2013	- 7.5	- 0.4	- 1.3	- 2.2	- 1.6	- 3.1	1.2	- 0.2
Real exports								
1999 to 2007	<sup>1</sup> 3.4	8.3	3.6	4.9	5.3	4.4	7.9	6.0
2008 to 2009	- 9.5	- 2.5	- 10.5	- 5.7	- 5.6	- 5.7	- 5.4	- 5.9
2010 to 2013	1.5	4.0	5.2	6.5	6.4	0.0	7.0	5.4
Real imports								
1999 to 2007	<sup>1</sup> 4.5	8.1	4.4	4.1	8.2	6.0	6.2	5.9
2008 to 2009	- 10.3	- 6.4	- 8.3	- 4.0	- 11.4	- 6.0	- 2.4	- 5.2
2010 to 2013	- 8.5	1.2	0.7	- 1.0	0.3	- 4.8	5.8	3.2
Harmonised Index of Consumer Prices (HICP)								
1999 to 2007	3.2	3.4	2.3	2.9	3.1	2.6	1.6	2.1
2008 to 2009	2.8	0.7	2.1	0.9	1.9	2.3	1.5	1.8
2010 to 2013	2.0	0.5	2.3	2.0	2.3	2.4	1.8	2.0
Compensation per employee								
1999 to 2007	<sup>1</sup> 5.2	5.9	2.4	3.9	3.0	4.1	1.0	2.3
2008 to 2009	3.6	2.0	1.5	2.9	5.5	3.0	1.1	2.4
2010 to 2013	- 4.3	- 0.8	1.2	0.5	0.4	- 1.5	2.5	1.8
Labour productivity								
1999 to 2007	2.6	2.3	0.2	1.2	0.0	1.2	1.2	1.0
2008 to 2009	- 2.0	0.0	- 2.7	- 0.4	1.9	0.0	- 2.7	- 1.6
2010 to 2013	- 0.6	1.7	0.0	1.8	2.3	0.6	1.2	0.9
Unit labour costs								
1999 to 2007	<sup>1</sup> 2.7	3.5	2.2	2.7	3.0	2.9	- 0.1	1.4
2008 to 2009	5.7	2.0	4.3	3.3	3.5	2.9	3.9	4.0
2010 to 2013	- 3.7	- 2.5	1.2	- 1.3	- 1.7	- 2.0	1.2	0.8

Sources: Eurostat, OECD, IMF. \* Data from the national accounts for 2013 are taken from the European Commission's autumn forecast of November 2013. <sup>1</sup> This figure refers to the period 2001 to 2007.

### Macroeconomic indicators in selected euro-area countries (cont'd)

Period	Country/group of countries							
	Greece	Ireland	Italy	Portugal	Spain	Cyprus	For comparison	
							Germany	Euro-area countries (17)
	Current account balance (as a percentage of GDP)							
1995	- 2.4	2.5	2.2	- 0.1	- 0.3	- 2.2	- 1.2	...
1998	- 3.0	0.8	1.8	- 7.1	- 1.2	3.1	- 0.7	0.3
2007	- 14.6	- 5.3	- 1.3	- 10.1	- 10.0	- 11.8	7.4	0.1
2012	- 2.4	4.4	- 0.4	- 2.0	- 1.1	- 6.8	7.0	1.3
	Investment ratio (as a percentage of the available gross national product)							
1995	...	19.0	19.6	23.0	21.7	19.2	22.1	20.4
1998	<sup>1</sup> 21.6	24.5	19.6	27.3	23.3	17.8	21.4	20.6
2007	27.4	29.5	21.5	23.0	31.4	23.5	18.1	21.8
2012	13.1	13.1	18.0	16.5	19.4	14.1	17.2	18.3
	Consumption rate (as a percentage of the available gross national product)							
1995	...	78.1	77.4	82.6	78.6	80.4	77.7	78.2
1998	<sup>1</sup> 89.9	73.0	77.8	81.8	77.5	77.3	77.6	77.6
2007	90.0	73.9	78.2	88.0	77.6	89.9	72.5	75.8
2012	91.0	80.5	81.5	86.3	80.4	90.4	75.0	78.7
	Employment in industry (as a percentage of total employment)							
1995	...	20.9	23.8	22.7	19.1	15.8	23.3	20.9
1998	<sup>1</sup> 12.7	19.9	23.4	22.0	19.4	13.9	22.1	20.1
2007	11.6	14.0	20.7	17.8	14.0	10.6	19.5	16.8
2012	10.5	12.8	19.0	16.5	12.8	9.5	18.8	15.7
	Employment in construction (as a percentage of total employment)							
1995	...	7.4	6.9	9.7	9.1	9.8	8.9	7.6
1998	<sup>1</sup> 7.1	8.2	6.7	10.8	9.8	9.0	8.0	7.3
2007	8.1	12.7	7.8	10.7	13.4	10.5	5.9	7.9
2012	5.1	5.6	7.2	7.7	6.4	8.0	5.9	6.5
	Unemployment rate (as a percentage)							
1995	...	12.3	11.2	7.2	20.0	...	8.3	10.7
1998	11.1	7.5	11.3	5.6	15.9	<sup>1</sup> 4.8	9.4	10.3
2007	8.3	4.7	6.1	8.9	8.3	3.9	8.7	7.6
2012	24.3	14.7	10.7	15.9	25.0	11.9	5.5	11.4
	Net borrowing by households and non-financial corporations (as a percentage of GDP)							
1999	<sup>1</sup> - 5.6	<sup>2</sup> - 5.9	3.1	- 4.6	<sup>1</sup> - 2.7	11.2	0.1	1.0
2007	- 10.1	- 9.7	- 0.4	- 7.3	- 13.4	- 13.9	6.6	- 0.3
2012	- 0.5	6.5	0.4	2.4	3.6	- 0.1	6.5	2.7
	General government balance (as a percentage of GDP)							
1999	<sup>1</sup> - 3.7	<sup>2</sup> - 0.3	- 2.0	- 3.1	<sup>1</sup> - 1.0	- 4.4	- 1.6	- 1.5
2007	- 6.8	0.1	- 1.6	- 3.2	2.0	3.5	0.2	- 0.7
2012	- 9.7	- 7.4	- 2.9	- 6.5	- 10.6	- 6.3	0.1	- 3.7

Sources: Eurostat, OECD, IMF. <sup>1</sup> This figure refers to the year 2000. <sup>2</sup> This figure refers to the year 2002.

trended only slightly downwards from the high level of 27% achieved in 1999.

*Sectoral fiscal balances*

In sectoral terms, the public sector contributed perceptibly to the external imbalances in Portugal and Greece. By contrast, general government in Spain and Ireland, having benefited from the strong macroeconomic expansion of the pre-crisis years, posted only slightly negative or even positive fiscal balances. The private non-financial sector (households and non-financial corporations) dragged down the macroeconomic fiscal balance in all four countries, however.<sup>2</sup> Italy consistently recorded a negative general government budget deficit and a steadily declining surplus for the private non-financial sector.

*Growing importance of the domestically oriented sectors*

The increase in domestic demand in the periphery countries, which was relatively strong in most cases, led to a steady reallocation of the factors of production to domestically oriented sectors. Enterprises' change of focus to the domestic market was encouraged, moreover, by two factors. First, competitive pressure on the international markets intensified considerably owing to the growing integration of the Asian emerging market economies and the eastward enlargement of the EU. Second, the euro appreciated in real effective terms over a number of years after 2001. The price and non-price competitiveness of manufacturers declined in the euro-area member countries in general, and in the periphery countries in particular given their less technology-intensive range of goods. Following this reallocation of resources, macroeconomic developments in the periphery countries grew more and more dependent on an increasingly debt-financed domestic demand, notably in the construction industry. All in all, the periphery countries' vulnerability to crises grew significantly in the years after the launch of European Economic and Monetary Union, fuelled by the mounting macroeconomic imbalances, although this was initially scarcely reflected in the credit assessment of the financial markets.

Euro-area unemployment fell rapidly until 2001 as a result of the brisk economic activity, and either continued to fall or remained virtually constant in the years that followed. With the exception of Portugal, the unemployment rate in the periphery countries even trended downwards fairly steeply until 2007. The pace of wage growth accelerated, driven not least by the upbeat labour market situation. Because productivity saw only a modest increase, unit labour costs in all the periphery countries rose perceptibly. In Spain, the extensive recruitment of low-productivity construction workers was a major factor in this context. The deterioration of price competitiveness was especially clear vis-à-vis Germany, where unit labour costs had decreased by 0.1% per year on average between 1999 and 2007.

*Divergences on the labour market and in unit labour costs*

## **Growth prospects dim abruptly after the onset of the financial crisis**

The buoyant growth in domestic demand in the periphery countries came to an abrupt halt when the global financial and economic crisis broke out. Economic activity had already slackened markedly after mid-2006 owing to the interest rate increases by the Eurosystem and the global rise in oil prices. This is particularly true of the construction sector in Spain and Ireland. However, as a result of the crisis of confidence on the financial markets, which made investors much more risk averse from summer 2007 onwards, households' financing conditions in particular deteriorated further and domestic demand continued to slow markedly. Moreover, exports slumped in autumn 2008 when the crisis escalated following the collapse of Lehman Brothers. Between spring 2008 and the second quarter of 2009, euro-area GDP dropped by a total of 5.9%. The decline in GDP was less pronounced in member countries in which imports, too, contracted very sharply; these included Spain and Portugal. While for-

*Global financial and economic crisis the trigger*

<sup>2</sup> See pp 53-65 for information on sectoral debt.

eign demand recovered during the course of 2009 and exports picked up again in most euro-area countries, domestic demand in the periphery countries remained weak. This was due, first, to the rapid increase in unemployment and the associated income losses. Second, the assessment of growth prospects and of the sustainability of private and public sector debt for these countries (see pages 53 to 65) was now much more pessimistic. A return to the credit-driven growth of the pre-crisis years was therefore no longer possible.

*The crisis causes substantial losses of potential*

What is more, part of the new capital stock created in the overheated domestic sectors had become obsolete. In practice, it is difficult to quantify this effect with any degree of reliability for individual countries. Nonetheless, it is clear that it will not be possible to use profitably some of the production capacity that was previously created on the basis of incorrect market signals. As was seen in Ireland and Spain, when a housing bubble bursts the misallocation of resources becomes particularly evident, eg in a large stock of unsold residential properties that will also remain unmarketable in the long term and a sharp rise in the number of bankrupt construction companies. However, excessive borrowing by households and governments purely for consumption purposes can likewise lead to misallocations. When domestic demand slackens and the level of costs remains unchanged, certain plants can no longer be utilised as before. A further factor is that structural unemployment rises on account of workers' limited regional or sectoral mobility and unsuitable skills profiles, among other factors. Overall, when the financial crisis began in 2007, putting an end to the extremely loose financing conditions, it became obvious that the level of potential output had been overestimated before the crisis. Potential growth, too, had to be reassessed; it will remain weak in the years ahead.

*Reform and austerity measures get underway*

Adjustment pressure in the real economy intensified as private capital inflows to the periphery countries dried up. The impact of the abrupt

correction that would otherwise have occurred in Greece, Ireland and Portugal was cushioned by international assistance programmes in 2010 and 2011 that were made conditional on extensive consolidation and reform. Italy and Spain, too, gradually introduced reform and consolidation measures, not least in order to signal to the financial markets that they were endeavouring to achieve a more sustainable growth model and sound public finances. The crisis escalated in Cyprus in 2012 after the haircut on Greek government bonds had placed a heavy burden on Cyprus's already stricken banking sector. An adjustment programme was launched for Cyprus, too, in 2013.

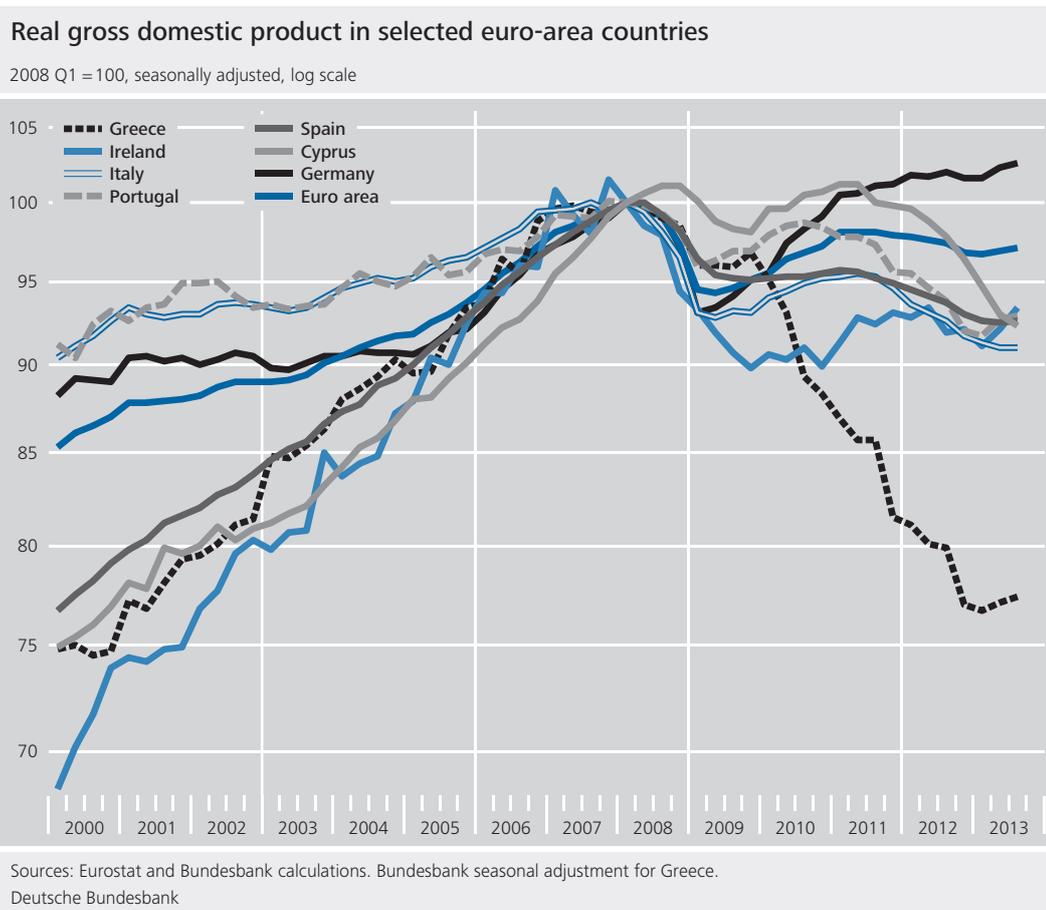
Owing to the escalation of the sovereign debt and banking crisis from 2010 onwards, the periphery countries slipped back into recession after a brief, flat recovery, which Greece did not experience at all. The cumulative GDP loss between the beginning of 2008 and summer 2013 came to 9.1% in Italy, 6.6% in Ireland, 7.4% in Spain and 7.1% in Portugal (see the chart on page 25). The strongest declines were seen in Greece, where real GDP fell over a period of six years and recently stood at almost one quarter below its pre-crisis high. At the same time, unemployment in those countries rose dramatically, with most of them posting record levels during the course of 2013. A substantial share of unemployment has probably now become structurally entrenched, and structural reform will be indispensable in reducing it again in a future cyclical recovery.

*Renewed recession and sharp rise in unemployment*

## Real economic adjustment processes now underway

The adjustment process now underway in the periphery countries is designed, on the one hand, to reduce the macroeconomic imbalances that have built up by lowering high current account deficits, consolidating public finances, restructuring the financial systems and reducing the debt of households and non-financial corporations. On the other hand, the

*Adjustment process seeks to reduce imbalances and generate new forces of growth*



medium and long-term objective is to improve economic performance and foster sustainable growth. To achieve this, sweeping reforms of the labour and product markets in particular and of public administrations, as well as changes to the legal system, are essential.

for in the medium term at the earliest and the – for now – muted wage growth for employees in the non-financial business economy will dent income developments.

*Domestic demand under pressure in the medium term*

The direct consequence of reducing macroeconomic imbalances is that domestic demand in the periphery countries will – in absolute terms or as a percentage of GDP – be lower than before the crisis over an extended period of time. For instance, investment activity is being dampened by often high overcapacity, balance sheet adjustments by enterprises and households as well as more cautious lending by banks. There is pressure to consolidate public investment if savings are not made elsewhere or taxes and levies increased. In the short run, cuts in government transfers and the public sector will curb households' real disposable income, and therefore private consumption. In addition, the heavy job losses, which will be compensated

Against this background, it would appear appropriate for the periphery countries to focus mainly on strengthening their export industry. The current account deficits of the periphery countries have already contracted markedly or have even turned into surpluses over the last two to three years. This development is largely attributable to the change in the balance of goods and services, which was clearly in positive territory in Ireland, Italy and Spain in 2012 and in Portugal in the first half of 2013. The development of their bilateral current account balance with Germany in particular has been turned around.<sup>3</sup> Moreover, lower interest pay-

*Current account deficits contracted sharply or turned into surpluses*

<sup>3</sup> See Deutsche Bundesbank, The pronounced rise and fall in Germany's current account surplus vis-à-vis its euro-area partner countries between 1999 and 2011, Monthly Report, March 2012, pp 18-20.

ments as a result of the haircut in 2012 have made a significant contribution to Greece's lowering the external imbalance. The improvement of the current account balance in Spain, Portugal and Ireland is attributable in large part to the sharp rise in exports, which experienced a distinct increase to non-euro-area markets in particular. However, despite a moderate, constant upward trend, Italy has so far been unable to return to its pre-crisis level. Greek real exports have been stagnating for three years. By contrast, real imports trended downwards in the countries under review over almost the entire period. A slight upward trend first took hold in several of the countries in the course of 2013.

*Adjustment of current account balances largely structural in nature*

The correction of the current account balances is likely to be largely structural in nature and not cyclical. It is therefore unlikely that an economic recovery would quickly give rise to the build-up of deficits on the scale seen before the crisis. Crucially, the reduction of imports is attributable in part to a permanent reduction in the level of domestic demand, and the relative prices in the countries have shifted in favour of tradable goods. Another important factor is that the rise in exports has been achieved in a fairly difficult global setting with a relatively weak economic tailwind. However, price and non-price competitiveness will need to be strengthened further in order to generate strong export growth in the future, too, or to replace imports by domestic production. To this end, the conditions for investment in the tradable sector need to become more attractive. It will only be possible to exert relatively little influence on the costs of certain intermediate goods, notably energy, in the individual countries in the near future. Continued wage moderation will therefore be crucial. Competitiveness can be partly improved through productivity gains; however, to be broad-based, these will have to result, not least, from successfully implemented structural reforms, which means that they will only become effective in the medium term. In many cases, real wages will even have to fall markedly in order to reinte-

grate, in particular, employees with a low level of education who before the crisis had relatively well-paid jobs in construction or construction-related services. Additionally, structural reforms are needed to heighten adaptability to shocks so that the factors of production that are freed up can again be used fairly quickly in the most appropriate economic sectors.

The current account adjustments in the periphery countries in recent years reflect the significant changes in the fiscal balances of their domestic sectors. Viewed in combination, the fiscal balances of non-financial corporations and households responded quickly and strongly to the changes, while public sector deficits initially continued to increase sharply before shrinking only at a slow pace. Partly with the support of the assistance programmes, this has lessened the impact of the macroeconomic adjustment process, but has come at the cost of rapidly rising debt ratios (see pages 39 to 52).

*Current accounts and fiscal balances of domestic sectors*

The fact that economy-wide unit labour costs have fallen quite substantially in some periphery countries over the last few years is also part of the considerable progress made in the adjustment process. This fall is partly a reflection of the sharp increase in average labour productivity as job cuts have mostly taken place in sectors where cyclical excesses had previously made the recruitment of workers with comparatively low labour productivity worthwhile. Average labour productivity rose sharply over the four years from the second quarter of 2008, especially in Spain and Ireland. By contrast, labour productivity in Italy fell in certain sectors during this period, which played a key role in pushing up national unit labour costs.

*Substantial reduction in unit labour costs, except in Italy*

In Ireland, Greece, and more recently also Cyprus, there has also been a marked to steep decline in compensation per employee. In these countries, as well as other crisis countries, there have been cutbacks in the average compensation for public-sector workers in the last few years. With the exception of Greece,

*Fall in the average wage level in some countries*

wage adjustment in the public sector has been higher than in the non-financial business economy, where any wage cuts so far have affected almost only new staff, while wage levels for existing employees have mostly been maintained or slightly increased.

Wage cuts in the public sector have helped to consolidate public finances. In addition, they are important from a macroeconomic perspective because a relative fall in public sector wage levels increases the incentive to look for jobs in the private sector and public sector wage developments can act as a signal for wage settlements in other sectors. From a macroeconomic point of view, the crisis countries need a prolonged period of wage moderation to lower the employment threshold and help to reduce the high rate of unemployment through more employment-intensive growth.

*Initial signs of a reallocation to sectors with a strong focus on exports*

In some periphery countries, initial signs that factors of production are being reallocated to sectors with a strong focus on exports have emerged in recent years. In Ireland, the construction industry accounted for over half the decrease in aggregate employment; in Spain, Italy and Portugal, it accounted for around two-fifths. In industry, by contrast, either much fewer jobs have been cut or – as in Ireland – new jobs have recently been created. Real value added, in particular, already far exceeded its pre-crisis level in the export-intensive information and communication sector in Spain and Ireland in 2012. In Ireland, other business-related services also showed substantial growth. Compared to its pre-crisis level, real value added in trade and tourism increased in Portugal and remained virtually unchanged in Spain.

*Stabilisation of the economic situation in the course of 2013*

Overall, it can be said that the macroeconomic adjustment process in most periphery countries has already made appreciable progress. The economic outlook in the periphery countries also brightened distinctly over the course of 2013. For the first time in two years, Portugal and Spain recorded positive quarterly GDP

growth rates in the second and third quarters respectively, while the sharp decline in Italy came to a halt during the third quarter. The economic situation also appears to be gradually stabilising in Greece. During the second half of 2013, the unemployment rate in the periphery countries, which had risen to unprecedented levels over a period of several years, either remained high or – as in Ireland and Portugal – decreased slightly. In Ireland and Portugal, employment levels have also risen again recently.

## Improved price competitiveness in the periphery countries

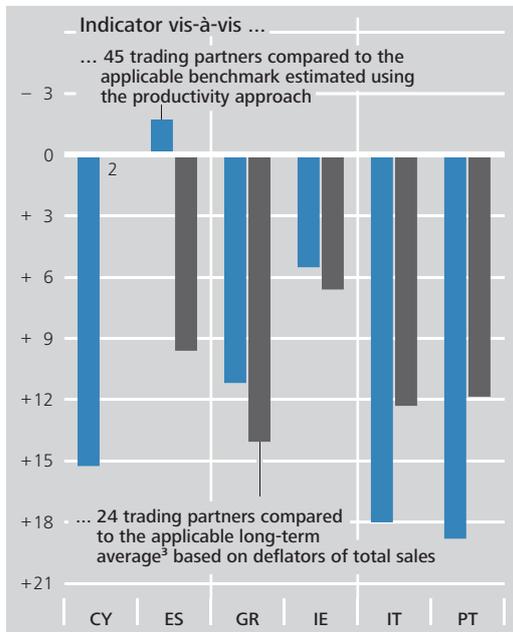
Thanks to the productivity gains and wage cuts described above, some periphery countries have noticeably improved their price competitiveness in recent years. Measured by the price competitiveness indicator based on the deflators of total sales vis-à-vis a large group of 37 countries, the increase since the second quarter of 2008 has been between around 4% (Portugal) and 9% (Ireland). As well as the progress made in domestic adjustments, the increased competitiveness on the world markets was due largely to the fact that, on balance, the euro depreciated considerably in several stages against the currencies of important trading partners after the US real estate crisis escalated into a global financial crisis during 2008 and the financial situation of some euro-area countries deteriorated dramatically during 2010. At the end of the year, the effective exchange rate of the euro was around 7% lower than its average during the second quarter of 2008.

*Improved price competitiveness on the world markets, ...*

The competitiveness indicator based on the unit labour cost of the total economy shows an even more positive overall picture than price-based indicators. Here, the improvement ranged from around 6% in Italy to 25% in Ireland. In the periphery countries, the reform and adjustment measures seem to have had a stronger impact on wages and productivity,

### Price competitiveness of the peripheral countries

Deviation from the benchmark as a percentage<sup>1</sup>, as at 23 January 2014



**1** Inverted scale: a column pointing upwards (a negative value) indicates a favourable competitive position. **2** Long-term average for Cyprus cannot be calculated because data are only available starting from 1996. **3** From 1975 Q1.  
 Deutsche Bundesbank

while prices in themselves have risen, at least temporarily, not least due to the considerable increases in indirect taxes, eg the VAT hikes in Greece and Spain. However, when interpreting the relatively strong improvement in unit labour cost-based competitiveness indicators, it should be borne in mind that these had deteriorated to a greater extent than price-based indicators before the crisis and only capture part of the macroeconomic costs.

*... but progress vis-à-vis other euro-area countries is weaker ...*

Due to their close trade links, the development of prices and costs in relation to other euro-area countries has a major impact on the periphery countries' competitiveness.<sup>4</sup> Within the euro area, where competitiveness is no longer directly influenced by exchange rate movements, Italy has, at most, only managed to stabilise its competitive position in recent years. The other periphery countries, by contrast, have improved their price competitiveness vis-à-vis their euro-area trading partners since the second quarter of 2008.<sup>5</sup>

Despite the progress made in restoring competitiveness, it cannot be assumed that this process has already made sufficient headway. This is indicated by the mere fact that unemployment levels currently remain high. A suitable benchmark is needed in order to draw valid conclusions about the remaining need for adjustment.<sup>6</sup> Looking at the long-term average of the competitiveness indicator based on the deflators of total sales, and taking into consideration the estimation uncertainty, the Irish economy's competitive position is practically neutral, while the competitive positions of the other periphery countries are less favourable across the board.<sup>7</sup> Further adjustments of around 10% to 15% in relative prices would be needed in these countries. The need for product and labour market reforms and the pressure to change the focus of business in the corporate sector thus remain high.

*... and considerable adjustment is still needed*

While the long-term average used as a reference value for assessing the competitive position is derived from the relative purchasing power parity, which assumes a constant reference value for the real exchange rate, the productivity approach takes account of the fact that, during the recovery process, productivity in each of the observed counties tends to increase and therefore affects the reference

**4** The euro-area countries account for between 34% (Ireland) and 65% (Portugal) of the periphery countries' total goods imports and exports.

**5** This ranges from around 1% (Cyprus) to 4% (Spain) based on the deflators of the total sales and from around 2% (Cyprus) to 20% (Ireland) based on unit labour costs for the total economy.

**6** For more information on the different methods of establishing this type of reference value, see Deutsche Bundesbank, Macroeconomic approaches to assessing price competitiveness, Monthly Report, October 2013, pp 31-45.

**7** The reference value cannot be calculated for the large group of 37 countries because the time series only starts from the first quarter of 1996. Earlier data are available for a smaller group of 24 industrial countries that includes all the euro-area countries as well as Denmark, the United Kingdom, Norway, Sweden, Switzerland, Japan, Canada and the United States. The long-term average vis-à-vis these 24 industrial countries, starting from the first quarter of 1975, was therefore used as the reference value. The remaining need for adjustment is shown to be slightly smaller when looking only at the competitive position vis-à-vis the euro-area countries.

value.<sup>8</sup> The stronger a country's productivity growth vis-à-vis its trading partners, the more sharply this country's relative price level can rise without causing a reduction in its price competitiveness. Although the reference values are calculated in very different ways, both methods mostly produce fairly similar results when assessing the periphery countries' current competitive position. The productivity approach also indicates that, if at all, Ireland has only minor remaining adjustment needs, while these are still quite high in most of the other periphery countries. It is only for Spain that the productivity approach – unlike the long-term average of the competitiveness indicator – indicates a neutral to favourable competitive position.

## The current level of progress in structural reforms

*Aims of structural reforms*

The periphery countries have initiated a number of reforms in the last three years. These reforms have focused on labour and product markets, financial markets, public finances, public authorities and judicial systems. The aim was, and still is, to support the reduction of macroeconomic imbalances, strengthen expansionary forces in these countries and generate new growth potential. A further objective is to prevent high cyclical adjustment costs on the labour market in future, for instance by enabling labour costs and working hours to respond more flexibly to changes to orders received, for example through short-time working arrangements. Empirical studies show that structural reforms that generally aim to change the regulatory framework and that reduce impediments to growth have positive long-term effects on growth and employment.<sup>9</sup> Studies also indicate that some reforms also have a positive medium-term impact (see box on pages 30 to 32).

*Employment protection reform*

In addition to generous wage replacement payments, rigid wage bargaining systems and a low retirement age, strict employment protection regulations in particular prevent the labour market from functioning efficiently. This is why,

in some euro-area countries, notice periods have been significantly shortened (Greece, Spain) and severance payments for individual redundancies have been capped (Greece, Portugal, Spain, Italy). Collective dismissals have been made easier by relaxing the regulatory requirements (Greece), by removing the need for government approval (Spain) and by speeding up the redundancy process (Spain, Portugal). In addition, the legal proceedings that often follow redundancies and increase redundancy costs have been simplified (Greece, Spain, Italy). According to the OECD indicators for the strictness of employment protection legislation, the crisis countries have made noticeable progress in this area over the last few years (see chart on page 33).

The reforms in Spain and Italy were also intended to reduce labour market segmentation so as to prevent workers on temporary contracts from having to bear the brunt of the adjustment during the economic downturn. In addition to the above-mentioned reduction in severance payments for workers on permanent contracts, stricter regulation has been introduced for temporary employment contracts (Spain, Italy), internships and service contracts (Italy). Spanish labour law now provides for a new, permanent type of contract with a longer probationary period and severance pay that only increases gradually. It also allows employers to make dismissals on economic grounds. In Greece, by contrast, regulation on the use and extension of temporary employment contracts has largely been relaxed.

*Labour market becoming less segmented*

<sup>8</sup> In principle, the productivity approach can be applied to a group of 57 countries. The version chosen here shows the price competitiveness vis-à-vis 45 trading partners because the necessary data on labour productivity per hour are only available for these countries.

<sup>9</sup> O Blanchard and F Giavazzi (2003), Macroeconomic effects of regulation and deregulation in goods and labour markets, *The Quarterly Journal of Economics*, August, pp 879-907; M Cacciatore, R Duval and G Fiori (2012), Short-Term Gain or Pain? A DSGE Model-Based Analysis of the Short-Term Effects of Structural Reforms in Labour and Product Markets, OECD Economics Department Working Papers, No 948; H Berger and S Danninger (2006), The employment effects of labor and product market deregulation and their implications for structural reform, CESifo working paper, No 1709.

## The empirical relationship between structural reforms and labour market variables

The question of whether structural reforms in the past were accompanied by progress in the labour market is analysed below for the period from 1980 to 2012. More specifically, it is examined whether there are any empirical correlations within the first five years following the implementation of these reforms.<sup>1</sup> The OECD provides a variety of structural variables for the largest 11 of the 18 euro-area economies, which can be

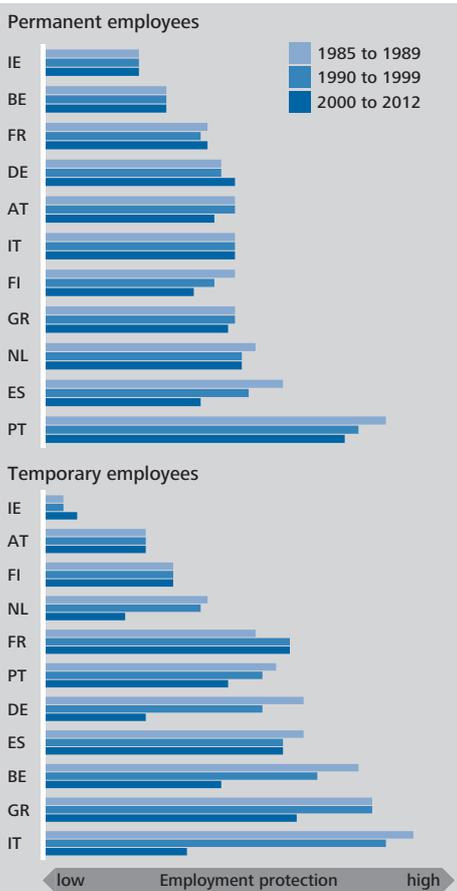
used to measure reforms on the labour market.<sup>2</sup> These include

- the level of unemployment benefits for the long-term unemployed,
- the strictness of employment protection,
- the level of expenditure on labour market policy measures,
- the retirement age.

In the case of major year-on-year changes, it is assumed that a reform was implemented. This makes it possible to identify structural reforms that could be correlated with rising employment, declining unemployment or higher GDP growth in the years following implementation.

A glance at the reform indicators shows that, in certain areas, changes took place quite rarely – in the case of benefits for the long-term unemployed, for example – whereas other segments of the labour market, such as employment protection legislation, were reformed rather frequently. In the euro area, employment protection for temporary workers, in particular, has been reduced considerably over the past few decades, whereas employment protection for workers with permanent contracts has been subject to noticeably fewer changes (see adjacent chart). In the majority of these

### Employment protection\*



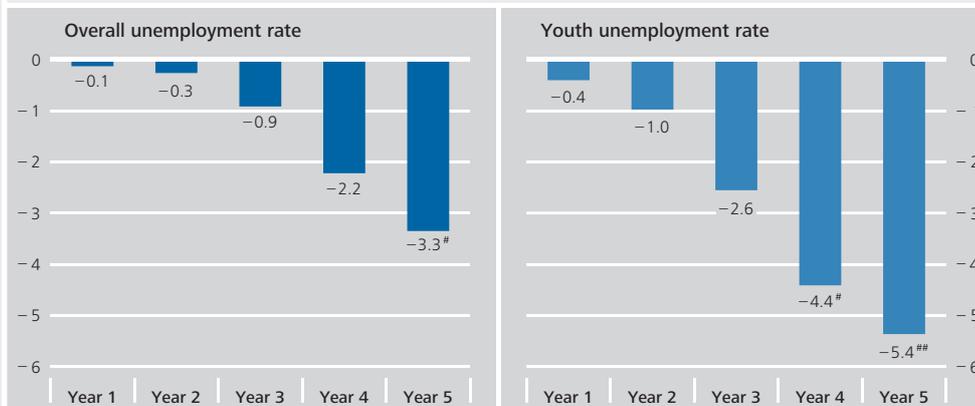
Source: OECD. \* The Employment Protection Index provides an indication of the level of strictness of various aspects of employment protection legislation, such as notice periods, severance payments, redundancy costs and the duration of the probationary period.  
 Deutsche Bundesbank

1 The relationships identified here cannot be interpreted as causal since a number of different factors are superimposed on each other and it is difficult to isolate the impact of a specific structural reform.

2 The majority of the indicators used are described inter alia in OECD (2013), Economic Policy Reforms 2013: Going for Growth, OECD Publishing, Chapter 4: Structural policy indicators. However, many of these indicators do not stretch as far as the current end; what is therefore measured more are general correlations of structural reforms with the situation in the labour market (or GDP growth) and not the impact of structural reforms in the current euro-area crisis.

### Unemployment following a reduction in benefits for the long-term unemployed \*

Percentage points



\* Results are based on econometric estimates. ## and # indicate significance at a level of 5% and 10% respectively.

Deutsche Bundesbank

euro-area countries, funding for labour market policy measures was increased on several occasions during the period under review, whereas the retirement age was raised only in around half of these countries.

A descriptive analysis shows that there would appear to be a correlation between the implementation of a reform and the corresponding variables on the labour market that were targeted by the reform. For example, in the years following the reduction in benefits for the long-term unemployed, the youth unemployment rate was considerably lower than its level prior to the reform. As it may nevertheless be assumed that various other factors also had an impact in this instance and that the decline was not due solely to the impact of the reform, the relationship is estimated in an econometric model based on Bouis et al (2012).<sup>3</sup> This makes it possible to eliminate the other factors from the calculation. Here, the relevant variable is a dummy for whether or not a country has implemented a structural reform in a given year. The correlation of the individual reforms to the change in employment, unemployment or the rise in GDP is determined in individual regressions.

The following equation is estimated for each year  $k = 1, 2, 3, 4$  and 5 as well as for each reform:

$$Y_{i,t+k} - Y_{i,t} = \alpha_k + \beta_k Y_{i,t-1} + \theta_k \text{reform}_{i,t} + \lambda_k \text{recession}_{i,t} + \delta_k \text{rxr}_{i,t} + \eta_k \text{interest}_{i,t} + \nu_i + \gamma_t + \varepsilon_{i,k,t}$$

where  $Y$  denotes the dependent variable (employment rate, unemployment rate, GDP growth),  $\text{reform}$  is the dummy variable for a major reform step,  $\text{recession}$  is a dummy variable for a recession (ie a negative year-on-year growth rate),  $\text{rxr}$  is the real exchange rate (on the basis of the deflators of total sales),  $\text{interest}$  is the interest rate and  $\nu$  and  $\gamma$  are the dummy variables for the countries and the years respectively.<sup>4</sup>

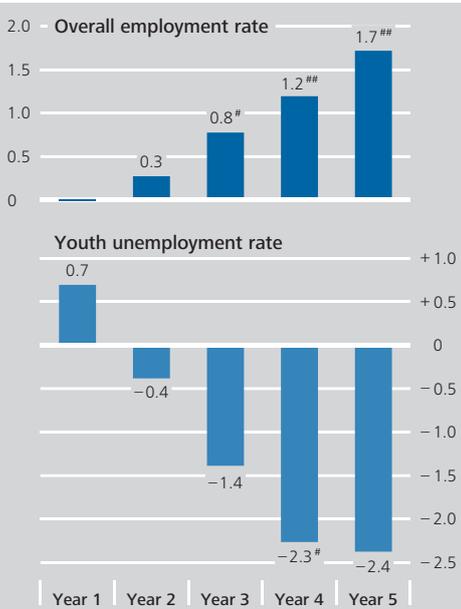
It can be seen that a reduction in benefits for the long-term unemployed was accompanied by declining unemployment, with youth unemployment showing an even

<sup>3</sup> R Bouis et al (2012), The Short-Term Effects of Structural Reforms: An Empirical Analysis, OECD Economics Department Working Papers, No 949, OECD Publishing.

<sup>4</sup> In the estimates of employment and unemployment, there is an additional control for GDP growth in the year of the reform in order to take account of the country's economic situation.

**Employment and youth unemployment following increases in expenditure on labour market policy measures\***

Percentage points



\* Results are based on econometric estimates. ## and # indicate significance at a level of 5% and 10% respectively.  
 Deutsche Bundesbank

sharper fall (see chart above). In those countries where there were significant cut-backs in benefits for the long-term unemployed, the unemployment rate fell by up to 3.3 percentage points in the subsequent five-year period; in the case of youth unemployment, this rate dropped by as much as 5.4 percentage points below its level in the year of the reform.

By contrast, in the case of lower unemployment benefit payments for the short-term unemployed, no empirical relationship was found with the rate of unemployment. The strongest correlation is that between lower employment protection for temporary workers and a rise in the overall employment rate, especially in the case of older workers. Furthermore, there exists a negative correlation with unemployment. This, however, should not imply the policy recommendation for crisis countries with an already strongly segmented labour market

to further reduce the level of employment protection for temporary workers. In the past, the lower level of employment protection for temporary workers led to this category having to make the greatest adjustment effort in the crisis. Instead, the findings should be interpreted to mean that a reduction in employment protection – which primarily affected temporary employees in the period under review – is correlated with a rise in employment for this category, too.

In addition to employment protection, higher expenditure on getting individuals who are difficult to place (back) into the labour market is correlated, at best, with rising employment. Countries with increased spending (measured by GDP) had significantly higher employment from the third year following implementation of the reform compared with countries without such a programme (see adjacent chart). Furthermore, there is also a correlation with declining youth unemployment. For example, within five years of the increase in expenditure, the youth unemployment rate in these countries fell 2.4 percentage points more than in the countries which did not implement such a reform.

Even though, for methodological reasons, the present analysis can demonstrate only empirical correlations between structural reforms and advances in the labour market, and not a causal relationship, looking at past reforms can at least provide valuable clues about the chances of success of comparable structural reforms which have already been implemented or are planned in the crisis countries.

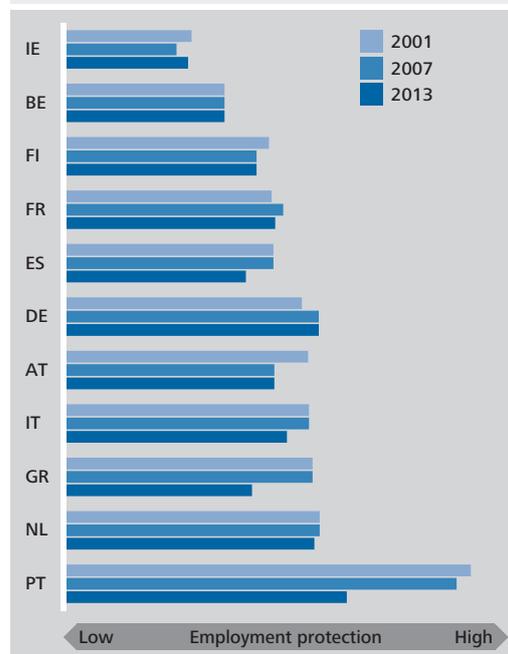
*Reforms to pensions and unemployment benefits*

Greece, Italy, Portugal and Spain have decided to increase the statutory retirement age gradually. Furthermore, early retirement options have been restricted in Spain. Pension payments have also been reduced in Greece. These reforms are likely to raise the effective retirement age, thereby increasing the potential labour force. Unemployment benefits have been reduced by cutting payments across the board (Greece, Spain), introducing caps (Portugal) and shortening the entitlement period (Greece, Ireland, Portugal, Italy). In addition, financial incentives to take up work have been created in Portugal. Italy has introduced a universal unemployment insurance scheme which reduces the income risks associated with the former sector or company-based system and which is intended to encourage mobility between sectors and companies. In Greece, extending the group of persons entitled to pension benefits to the self-employed has also made it easier to change from employee status to self-employment, and vice versa.<sup>10</sup>

*Product market reforms*

Product market reforms are intended to help reduce potential inefficiencies caused by a lack of competition, growth-inhibiting regulations, government intervention, excessive bureaucracy or access restrictions in order to boost productivity growth, encourage investment and create jobs. Reform efforts of this kind in the periphery countries have been aimed primarily at relaxing the eligibility criteria for independent professions, reducing the bureaucracy involved in setting up new businesses or intensifying competition in network industries. The Doing Business report published by the World Bank can be used to evaluate the progress made with the reforms in these areas. The report assesses the general business environment based, for example, on the cost and bureaucracy involved in starting a business, legal clarity, getting credit and the cost and time needed to resolve insolvency. According to Doing Business 2014, the business environment in the southern periphery countries has improved noticeably in the last few years; Ireland has already been rated more favourably. Between

**Employment protection for workers on permanent contracts\***



Source: OECD. \* The employment protection indicator reflects the strictness of regulation on various factors including notice periods, severance payments, redundancy costs and length of probationary periods.  
 Deutsche Bundesbank

2009 and 2013, Portugal, Italy and Spain rose 17, 13 and 10 places up the list respectively. Greece moved up 37 places. However, despite the progress achieved, Italy and Greece remain very low in the rankings in terms of enforcing contracts (103rd and 98th out of 189 countries). Overall, further efforts appear necessary in this area to create a reliable legal environment for companies.

**Reform path must be maintained consistently**

All in all, the crisis countries have made considerable reform efforts over the past few years. The Troika has also confirmed in various reviews that this is the case in the programme

*Full benefit of the reforms will only become apparent in an upturn*

<sup>10</sup> In some countries, reforms have been implemented to reduce the minimum wage and non-wage labour costs and to improve active labour market policy. However, it is not possible to list them all individually here.

## The macroeconomic impact of labour market reforms in Germany

About 15 years ago, the fact that unemployment was entrenched at a high level showed that the institutional framework of the German labour market was no longer in keeping with the times. Disincentives dampened unemployed persons' willingness to take up work and their search intensity when looking for a new job. Firms were subject to considerable strains due to costs and suffered from a lack of flexibility in the deployment of labour. After the start of the new millennium, economic output stagnated for several years; along with an oppressively high level of unemployment, this placed a heavy burden on public finances and the social security systems. During this period, enterprises and trade unions were already exploring new avenues in terms of their collective working agreements.<sup>1</sup> Above all, along with measures for fiscal consolidation and the adjustment of the social security systems, the governing coalition at the time implemented a comprehensive multi-stage reform of labour market policy and social policy. This included reducing both the amount of unemployment benefit and the maximum period of entitlement to it, a reorientation of active labour market policy, raising the *de facto* retirement age, simplified regulations for temporary work, and the restructuring of the Federal Labour Office in order to be more effective in supporting the unemployed and getting them back into work in future.

From the present-day perspective, these reform measures are generally rated as a success, since they led to a net rise in employment and a significant decline in unemployment. After they entered into force, it was initially all but impossible to identify the positive effects of the new regulations

from a macroeconomic perspective and, as a result, they were the subject of some dispute. A number of side effects, which mainly dampened domestic economic activity, countered the growth-promoting stimuli of the reforms. From 2006 onwards, however, the cyclical recovery led into a sharp upswing under the positive influence of the global economic setting and saw a perceptible rise in employment, principally affecting jobs that are subject to social security contributions. There was also a notable increase in the labour force participation of older persons. Even so, at this time it was not an easy matter to separate the permanent part of the labour market pick-up from the cyclical component. The improvement in the structural condition of the labour market became apparent chiefly in the ensuing period. The abrupt and marked recession in 2008-09 had no more than a moderate impact on employment and unemployment, for example. Although workers had been hoarded on a major scale, the subsequent economic upturn saw both employment and unemployment rapidly returning to their earlier trend growth paths. The fact that the recession did not necessitate any major structural adjustments was an advantage in this context.

The success of the labour market reforms, which included improving job placement for the unemployed and making greater efforts to find a job, can be illustrated by the Beveridge curve. This is a graphical representation of the relationship between the unemployment rate and the job vacancy

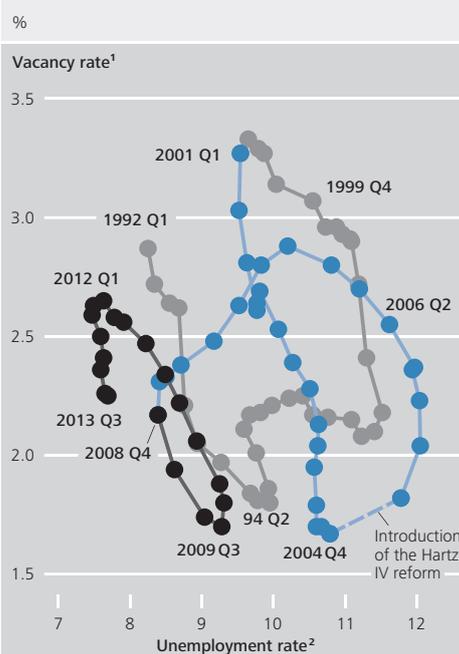
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<sup>1</sup> See Deutsche Bundesbank, Greater flexibility on the German labour market, Monthly Report, September 2004, pp 43-57.

rate during the business cycle given unchanged underlying structural conditions. A fall in unemployment during expansionary periods is usually accompanied by a heightened level of vacancies in the economy as a whole and causes the curve to slope downwards. Long-term improvements in the job placement process and greater search efforts by unemployed persons push the Beveridge curve towards its origin and lower the structural unemployment rate. Following the amalgamation of unemployment assistance and social assistance for persons of working age to form unemployment benefit II (Hartz IV) at the beginning of 2005, statistical effects initially led to the Beveridge curve shifting outwards, since certain persons who had not previously been counted as part of the labour force were now classified as unemployed. By contrast, there was a marked decline in unemployment in 2007-08, while, as expected, the number of advertised vacancies dropped. As a result, the Beveridge curve is now identifiably nearer to its origin than in the period prior to the labour market reforms.

The notable increase in the transition rate from unemployment to employment between 2006 and 2010 indicates that the fall in the unemployment rate was due principally to the more efficient operation of job placement processes in the labour market and the fact that unemployed persons stepped up their efforts to find work. This can be confirmed by simulations. For this purpose, the structural unemployment rate, which results from the labour market flows in steady state, is calculated for the hypothetical case excluding the effects of the labour market reforms. If the transition rate from unemployment to employment since 2005 had remained at the same low level as before the Hartz reforms, the structural unemployment rate would not have moder-

**Beveridge curve for Germany**



**1** Number of unsubsidised vacancies in relation to the number of persons in the labour force. **2** Unemployed persons in the broader sense (using the Federal Employment Agency's definition) and persons in job creation schemes in relation to the number of persons in the labour force.

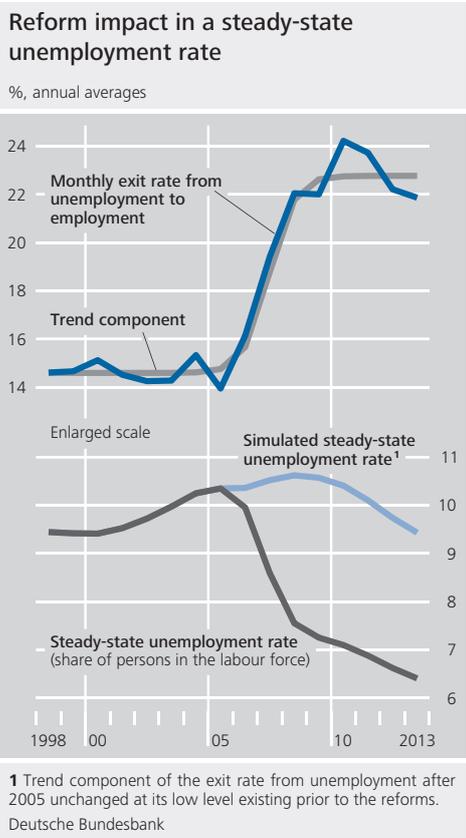
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ated substantially by 2010. It would have been virtually just as high in 2012 as in the middle of the past decade.<sup>2</sup> Similar studies based on detailed models and using more differentiated datasets largely confirm the results of the calculations presented here.<sup>3</sup>

The labour market reforms also included a reduction of unemployment benefits.

**2** The transition rate from unemployment to employment in the partial analytical model calculations also comprises unemployed persons exiting the labour force into inactivity, since it is not possible to isolate the latter in the statistics. The increase in labour force participation in the underlying period does suggest, however, that the results are largely due to unemployed persons taking up work.

**3** See S Klinger and E Weber, 2012, Decomposing Beveridge curve dynamics by correlated unobserved components. Institute for Employment Research, Discussion paper 28/2012; M Hertweck and O Sigrist, 2013, The aggregate effects of the Hartz reforms in Germany, SOEPpapers on Multidisciplinary Panel Data Research, DIW Berlin; R Fahr and U Sunde, 2009, Did the Hartz reforms speed-up the matching process? A macro-evaluation using empirical matching functions, German Economic Review 10 (3), pp 284-316.



According to traditional labour market models, lower transfer income is likely to tend to lead to unemployed persons stepping up their search efforts and a fall in unemployment. These effects have been demonstrated in quantitative studies for the German labour market.<sup>4</sup> Furthermore, distribution effects are to be taken into consideration. After the reforms, some categories of unemployed persons received higher unemployment benefits or took up work again, whereas others who were out of work suffered losses. Lower net expenditure on unemployment benefits, taken in isolation, is likely to have reduced the burden of taxes and social contributions and, in purely mathematical terms, increased the net income of those in work.<sup>5</sup> Furthermore, welfare losses occurred among persons in work, since the reforms meant that they have to forgo state-organised insurance benefits in the event of a prolonged period of unemployment.<sup>6</sup> Any assessment of this

change in the institutional framework is subjective; from the perspective of the individual user, it depends, for example, on variables which are difficult to determine empirically, such as the degree of risk aversion or perhaps the disinclination to be reliant on the basic allowance system provided by the state. Also, determining macroeconomic welfare effects is made more difficult by the fact that a weighting of the specific profit and loss items has to be made.

Additionally, it should be noted that, despite the conspicuous successes of the labour market reforms in the past decade, not all the problems on the German labour market have been eliminated. Seen in that light, there is still a need for action, say, with regard to the still very high level of unemployment among the low-skilled in particular. Even so, there is no doubt that the reforms were an essential condition for the improved resilience of the German labour market.

<sup>4</sup> See T Krebs and M Scheffel, 2013, Macroeconomic evaluation of labor market reform in Germany, International Monetary Fund, IMF Working Paper WP/13/42; M Krause and H Uhlig, 2012, Transitions in the German labor market: Structure and crisis, *Journal of Monetary Economics* 59, pp 64-79; S Arent and W Nagl, 2013, Unemployment compensation and wages: Evidence from the German Hartz reforms, *Jahrbücher für Nationalökonomie und Statistik* 233 (4), pp 451-466.

<sup>5</sup> See T Krebs and M Scheffel, 2013, op cit.

<sup>6</sup> See A Launov and K Wälde, 2013, Estimating incentive and welfare effects of nonstationary unemployment benefits, *International Economic Review* 54 (4), pp 1159-1198.

countries Ireland<sup>11</sup>, Portugal<sup>12</sup> and Cyprus<sup>13</sup>. The third programme review at the beginning of July also confirmed, with a few caveats, that Greece<sup>14</sup> is on the right track. However, the fourth review could not be completed because there are currently substantial deficits in the programme implementation.

In general, it should be remembered that the positive effects of the reforms are not immediate, but will only become apparent over the course of time. They are also currently overshadowed by the ongoing macroeconomic adjustment process and the accompanying weakness in domestic demand. In addition, certain reforms, such as the relaxation of employment protection legislation, may make the symptoms of the crisis more visible in the short to medium term, increasing political opposition to their implementation.

member states, and the Eurosystem's monetary policy have both cushioned the impact of the adjustment process, but it is not yet complete and has created high levels of unemployment. Overall, thanks to the reform efforts made so far, the underlying conditions in most of the periphery countries are already significantly better than before the crisis. The resulting positive growth effects are likely to become stronger in the next few years in the wake of the nascent economic recovery. It is especially important to improve the locational conditions for the production of tradable goods in order to ensure both an upturn and a sustainable current account position. This must also involve safeguarding confidence in a politically stable framework that lays solid foundations for a sustainable economic policy in the future.

*Reforms must  
continue*

Nevertheless, the periphery countries must remain on this reform path. It should not be forgotten that the macroeconomic developments in the periphery countries in the run-up to the crisis were unsustainable. The crisis has led to sharp, painful adjustments because the credit-based growth model could no longer be financed. Financial aid, especially from the other

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**11** European Commission (2013), The Economic Adjustment Programme for Ireland: Autumn 2013 Review, Occasional Papers 167.

**12** European Commission (2013), The Economic Adjustment Programme for Portugal: Eighth and Ninth Review, Occasional Papers 164.

**13** European Commission (2013), The Economic Adjustment Programme for Cyprus: Second Review, Occasional Papers 169.

**14** European Commission (2013), The Second Economic Adjustment Programme for Greece: Third Review, Occasional Papers 159.