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The euro area at the crossroads

First joint analysis of the Macro Group

IMK (Düsseldorf), OFCE (Paris) and WIFO (Vienna)

At a glance

The world economy remains on a strong expansion course (Table 1). In many economies aggregate output has already surpassed its pre-crisis level. Nevertheless, there can be no talk of a stable trend, as the global financial and banking system is not yet on a firm footing. In addition, economic policy gradually exits from its expansionary stance. Further, the surge of commodity prices puts a strain on the economies of consuming countries. At the same time the price hikes cause an accelerated expansion of commodity exporting countries' imports, so that the global burden resulting from the price increase is partly offset.

The EU and the euro area, in particular, are lagging behind the global economic trend. Although the economy is recovering in Europe, too, growth is much weaker than in the rest of the world. Most economies have not yet returned to their pre-crisis production levels. This is particularly true for the countries which are now in a sovereign debt crisis and have, in part, entered a deep recession. Although the overall growth performance is still far from satisfactory, economic policy in the euro area is swinging towards a less expansionary stance. Fiscal policy is even embarking on a restrictive course, which is expected to slow economic activity noticeably during the forecast period. Overall economic activity in the euro area will increase by

Table 1

Key forecast figures
% change on previous year

	2009	2010	2011	2012
	Germany			
Gross domestic product	-4.7	3.6	2.7	1.7
Private consumption expenditure	-0.2	0.4	1.1	0.9
Government consumption expenditure	2.9	2.3	1.4	0.8
Gross fixed capital formation	-10.1	6.0	8.7	4.4
Net exports[1]	-2.9	1.3	1.0	0.4
Exports	-14.3	14.1	10.2	6.5
Imports	-9.4	12.6	9.2	6.5
Employment	0.0	0.5	0.9	0.5
Unemployment rate[2]	8.2	7.7	7.0	6.5
Unit labour cost	5.2	-0.9	0.5	1.3
Consumer prices	0.4	1.1	2.0	1.5
Budget balance[3]	-3.0	-3.3	-2.0	-1.2
	International			
Gross domestic product				
Advanced economies	-3.5	3.1	2.5	2.8
EU-27	-4.2	1.8	1.7	1.8
Euro area	-4.1	1.7	1.5	1.5
Emerging economies	4.7	8.6	7.8	7.7

1 Growth contribution: calculated on the basis of the chained volume index.
2 % of the civilian labour force.
3 % of GDP.

Sources: DESTATIS; Eurostat, ECB; from 2011 forecast of the institutes.

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1.5 % both in this year and next year with partly dramatic divergences within the euro area. On one side there are countries in crisis, whose economies are declining substantially in the current year. On the other side export-oriented industrial countries such as Germany have generated a strong upward trend since last year. Aggregate output of the German economy will grow by a healthy 2.7 % this year, but will expand by only 1.7 % next year due to the weaker world economy and the restrictive course of fiscal policy.

In view of the economic divergences in the euro area, its institutional reform is crucial for future economic performance. In this context the institutes of the Macro Consortium consider it appropriate to establish a permanent rescue fund. However, this can only be a first step. What is needed is a European Monetary Fund (EMF), which helps to prevent sovereign debt and current account crises and also supports member states in a crisis, albeit under a conditionality. In this context it is crucial that debtors are subjected to sustainable interest rates, without which a medium-term consolidation is impossible. However, the Pact for the Euro, which has recently been approved of by the European Council, is based on an incomplete analysis, which one-sidedly places the adjustment burden on the crisis countries and on wages. It would be necessary, however, that countries with current account surpluses also contribute to overcoming the imbalances. By contrast a sovereign debt default is no solution, but would aggravate the crisis. In the current situation Germany should further strengthen its domestic demand to make it easier for the euro area to overcome the crisis.

In line with its medium-term strategy the ECB should leave its key interest rate unchanged, as no second-round effects of the recent price shocks are to be expected.

The German Federal Government should use the technical fiscal leeway which the improved economic activity has created for the application of the “debt brake” (“Schuldenbremse”) as a safety margin to provide against cyclical downturns. This approach would be beneficial for the future stability of the German economy. By contrast, tax reductions are out of the question for the time being. They would exacerbate the structural underfunding of the public sector and, in addition, entail immediate destabilising consolidation measures in the next downturn.

Buoyant global activity – but risks are increasing

The world economy is growing fast, supported above all by the robust upswing in the Asian emerging economies. In the USA demand is expanding steadily, owing also to persistently expansionary economic policies. By contrast the recovery in the EU as a whole remains very subdued. The most important risks for the global economy consist in increases of commodity prices, the persistent weakness of the financial system, the European sovereign debt crisis and an exit from the expansionary orientation of economic policy in the advanced economies.

At the end of 2010 global activity gained substantial momentum (Table 2). This is reflected primarily in the renewed pick-up in world trade after its stagnation between May and September 2010. In the fourth quarter seasonally adjusted world trade exceeded the level of the previous quarter by 2.6 % and that of the previous year by 11.3 %. Whereas imports of advanced economies continued to increase only moderately, the Asian emerging economies, above all, markedly expanded their imports. The institutes expect world GDP (at purchasing power parity) to increase by 4.2 % in 2011 and by 4.4 % in 2012, and thus by only slightly less than in 2010.

Currently, the Asian emerging economies are the most important growth engine of the global expansion. In this region substantial economic impulses traditionally result from foreign trade, but consumption and investment demand have proved equally dynamic. In China real GDP increased by more than 10 % in 2010. The very dynamic investment demand was one major cause. Overheating symptoms in the real estate and equity markets are abating somewhat, but consumer price inflation is accelerating. Most recently the inflation rate was slightly below 5 %. Chinese monetary policy has reacted to this trend by gradually raising interest rates and reserve requirements. This will contribute to an insignificant deceleration of economic growth to slightly below 10 % in 2011 and slightly below 9 % in the following year. In India and the East Asian emerging economies, too, economic activity will continue to expand dynamically. However, the food price hikes might prove dampening, as food has a large weight in consumer demand.

By contrast many Latin American emerging economies, being commodity producers, are benefitting from the rising prices in world markets. In combination with robust consumer demand in these countries this suggests a continuation of the vigorous economic expansion. However, the strong capital inflows, which are caused by the comparatively high interest rates of these countries, are driving up exchange rates, espe-

Table 2

Global economic trends
Real GDP

	Weight in %[1]	2009	2010	2011	2012
World	100.0	-0.6	4.8	4.2	4.4
Advanced economies[2]	59.2	-3.5	3.1	2.5	2.8
EU-27	21.2	-4.2	1.8	1.7	1.8
Euro area	15.1	-4.1	1.7	1.5	1.5
USA	20.4	-2.6	2.8	2.9	3.0
Japan	6.0	-6.3	3.9	1.4	1.9
Emerging economies	27.0	4.7	8.6	7.8	7.7
China	12.6	9.2	10.3	9.7	8.9
India	5.1	5.7	9.7	8.2	9.0
Russia	3.0	-7.9	3.5	4.7	5.2
Brazil	2.9	-0.2	7.5	4.6	5.1
ASEAN 5[3]	3.5	1.7	6.7	5.5	6.0

1 Shares in GDP at purchasing power parity in USD of 2009 according to IMF.
2 Advanced economies: OECD plus Romania, Bulgaria, Croatia, Hong Kong, Singapore, Taiwan.
3 ASEAN 5: Indonesia, Malaysia, Philippines, Thailand, Vietnam.

Sources: Eurostat, IMF; calculations of the institutes; 2011 and 2012 forecast of the institutes.

Table 3

Forecast assumptions

	2009	2010	2011	2012
Crude oil price (Brent, USD/Barrel)	61.6	79.8	99.0	100.0
Exchange rate (USD/EUR)	1.39	1.33	1.39	1.36
Real effective exchange rate[1] of the euro (vis-à-vis 40 countries)	108.0	99.3	98.7	97.7
3-month rate (%)				
Euro area	1.2	0.8	1.3	2.3
USA	0.7	0.3	0.3	1.0
Long-term interest rate (%)				
Euro area	3.8	3.6	4.5	4.6
USA	3.3	3.2	3.8	4.4

1 A decline implies an improvement in competitiveness.

Sources: ECB; Federal Reserve; WIFO; from 2011 forecast of the institutes.

cially strongly in Brazil. This retards the growth of exports and makes the economies vulnerable to the instabilities of international financial markets. Russia benefits from the increase of the crude oil price, which results in an expansion of investment and consumer demand as well as a substantial increase of government revenues. The growth rate of the Russian economy is expected to accelerate to 5 % in real terms both in 2011 and in 2012.

Natural disasters and the nuclear reactor catastrophe hit a Japanese economy, whose already mediocre expansion mainly relies on exports, whereas the weakness of domestic demand persists. The earthquake and tsunami are likely to result in temporary production losses and thus dampen economic growth in the first half of 2011. The subsequent reconstruction will have an expansionary effect. Against this background real GDP is likely to increase by slightly less than 2 % in 2011 and by almost 1.5 % in 2012. There is still an acute threat of large-scale nuclear contamination. However, no reliable estimates can be made of its potential effects.

In the fourth quarter of 2010 real US GDP expanded by 0.7 % over the previous quarter and by 2.7 % over the previous year. Industrial production is rising steadily, benefitting both from exports and from private households' demand for consumer durables. The real estate sector remains the Achilles' heel of economic activity. Having declined for three years house prices are not receding substantially anymore and private residential as well as non-residential construction are pikking up a little, but there is no sign of a significant recovery. This does not only depress construction activity, but, via persistent credit defaults, also burdens the banks.

Private households' consumption demand is also supported by the gradual improvement of the labour market situation: At 8.9 % the seasonally adjusted unemployment rate was more than one percentage point below the peak of October 2009 in February, but still 4 percentage points above the level before the recession. The persistently expansionary orientation of monetary and fiscal policies is particularly supportive of economic activity. Interest rates remain low, fiscal policy does not swing towards a consolidation course. Thus, GDP is expected to expand at a similar pace as in 2010 both in 2011 (+2.9 %) and in 2012 (+3 %).

The risks to the global economic expansion are numerous. In recent months commodities have risen strongly in price. In early March world market prices of crude oil rose to more than $ 110 per barrel pushed by the unrest in the Arab world. Food prices rose even more sharply, spurred by persistently high global demand and a series of bad harvests, especially of grains. Prices of metals and ores, too, have picked up markedly. These upward price trends are likely to have been enhanced by speculative financial investments. More expensive commodities are already affecting consumer prices in industrial countries as well as emerging economies. This causes a dampening of consumer demand and economic growth. Further price hikes of commodities would reinforce this effect.

Potential risks continue to emanate from the financial system. In Europe they originate from the sovereign debt crisis, in the US they arise from the unstable situation of real estate markets. Risks resulting from the beginning exit from the very expansionary economic policies in advanced economies are more imminent. Especially within the EU budgetary policies are swinging towards consolidation already in 2011, which will entail noticeable dampening effects.

Slow economic recovery in the EU

As observed already before and during the financial crisis, the intra-EU division in terms of economic performance into one group of countries oriented towards exports and industry and another group of countries with low competitiveness that strongly depend on the real estate sector will persist during the forecast period: In the export-oriented countries the economic recovery continues in 2011. These countries benefit from buoyant world trade and strong demand in the Asian emerging economies. This facilitates the reduction of unemployment and of budget deficits. In Germany, the Netherlands, Austria, the Scandinavian countries, the Czech Republic and Slovakia, which have a large and competitive industrial sector, aggregate output already increased strongly in 2010. By contrast, the recession could not be overcome in Ireland and in the Southern European countries. In many cases it even worsened. These countries suffer from a persistent weakness of domestic demand, which is primarily a consequence of the restrictive budgetary course. Unemployment has reached record levels. Overall the cyclical upturn remains very weak in the EU (Table 4).

In the export-oriented countries shipments abroad, above all, collapsed during the crisis. Here a recovery already started in the second half of 2009. Its momentum was so high that in some countries production returned to its pre-crisis level already at the end of 2010. Domestic demand remained relatively stable during the recession, but contributed little to the cyclical recovery.

By contrast, the financial crisis and the subsequent sovereign debt crisis in Greece, Ireland and Spain not only hit exports substantially, but also domestic demand. Gross fixed capital formation declined drastically and has not yet recovered. In real terms it was significantly lower than before the crisis in the fourth quarter of 2010 – by 55% in Ireland, by 30 % in Greece and Spain. Consumer demand is dampened above all by the unfavourable labour market situation and the restrictive effects of budget consolidation on disposable income. Most recently exports of Ireland and Spain have returned to their pre-crisis levels.

Parallel to the relatively limited decline of GDP during the crisis, the recovery also progresses at a moderate pace in France and Portugal. By the end of 2010 GDP had almost returned to its pre-crisis level

Table 4

Economic growth in the EU
Annual % change of real GDP

	Weight in %[1]	2009	2010	2011	2012
EU-27	100.0	-4.2	1.8	1.7	1.8
UK	14.5	-4.9	1.5	1.4	1.5
Euro area	71.4	-4.1	1.7	1.5	1.5
Germany	19.0	-4.7	3.6	2.7	1.7
France	14.2	-2.6	1.6	1.4	1.7
Italy	11.8	-5.0	1.1	1.0	1.0
Spain	9.2	-3.7	-0.1	0.3	0.8
Greece	2.3	-2.3	-4.6	-3.8	-0.5
Portugal	1.6	-2.5	1.3	-0.7	0.5
Ireland	1.2	-7.6	-1.0	-2.8	0.5

[1] Shares in GDP at purchasing power parity in USD of 2009 according to IMF.

Sources: Eurostat, calculations of the institutes; 2011 and 2012 forecast of the institutes.

(see box: *France: Slow economic recovery*). However, the Portuguese economy is confronted with enhanced austerity, which will dampen consumer demand in particular. In the United Kingdom, too, the budget consolidation course is enhanced. By contrast economic activity in Italy remains sluggish because of the low competitiveness and limited investment.

The cyclical divergences are also reflected in the output performance of individual sectors. With the exception of Ireland manufacturing in all EU countries was hit particularly hard by the crisis. It suffered primarily from the collapse in world trade and exports. Germany and Italy (-20 %) recorded the strongest declines, Greece the weakest (-5 %). In Germany and other export-oriented industrial countries, however, the recovery of production has been vigorous, whereas it proved only very weak in other countries. In Greece output even continued to decline.

Concerning construction activity there are significant divergences, too. In this sector value added fell most dramatically in Ireland (-60 %) and in Greece (-40 %). In France, the United Kingdom, Italy, Portugal and Spain the decline amounted to between 10 % and 15 %, whereas it turned out relatively weak in other countries. Since its nadir in the crisis, the construction sector recovered successfully only in the UK and in Germany.

The division of Europe in terms of the business cycle as well as sector trends is the consequence of diverging growth patterns before the crisis. Germany and other export-oriented countries relied on foreign trade as a growth engine since the beginning of the Economic and Monetary Union. Nominal unit labour

France: Slow economic recovery

In the past decade France and Germany showed very different macroeconomic growth patterns. From 2000 until 2010 French GDP growth was driven by private households' consumption expenditures (1.7 % per year compared to 0.3 % in Germany). During 2000-2007 French growth was higher than that of Germany (1.7 % compared to 1.3 %) and it was less affected by the crisis in 2008-2009 (-2.4 % compared to -4 %). However, France also experienced a slower recovery in 2010 (1.6 % compared to 3.6 %).

Between 2000 and 2007 the wage ratio decreased by 0.7 percentage points in France, but the decline was 4.7 percentage points in Germany. Nominal unit labour costs increased markedly in France between 2000 and 2010, whereas in Germany they hardly rose at all. Germany also moved from a current account deficit of 1.8 % of GDP in 2000 to a surplus of 7.7 % of GDP in 2007, still reaching a surplus of 5.1 % of GDP in 2010. At the same time the French current account balance turned from a surplus of 1.4 % of GDP in 2000 into a deficit of 2.2 % of GDP in 2010.

The French government is trying to strengthen the French industrial sector's competitiveness by lowering employers' social security contributions. Private households would then have to finance a larger share of social security – either via a VAT hike or an increase of the general social contribution rate.

In 2010 the French economy expanded by 1.6 %. This was sufficient to generate a renewed increase in employment after a two-year decline (+117,000 in 2010 following -470,000 in 2008 and 2009, Table K1). Nevertheless the year 2010 was still marked by the crisis and the more favourable developments cannot be interpreted as the beginning of a strong upswing:

- Production was still 7 % below the pre-crisis trend.
- The budget deficit had risen from 2.7 % of GDP to 7.7 % of GDP within three years, while public debt reached a record level of 82.7 % of GDP, which is equivalent to an increase by 19 % compared to the level of 2007.
- At 9.7 % of the labour force the unemployment rate reached the highest level of the past ten years. In addition the slight reduction in unemployment is matched by a corresponding decline of the participation rate. The persistent weakness of the labour market is also reflected in the type of employment that was created in 2010. 80 % are fixed-term jobs. As in other countries the expansion of employment remained subdued during the recovery, which gives rise to fears of jobless growth in the coming years.
- The persistent underutilisation of the business sector's production capacity reflects the weakness of the economic recovery. It is also a strong impediment to a revival of investment.

Table K1

Dampening of growth due to the commodity price increase and budget consolidation
Percentage points

	2010	2011	2012
GDP growth rate	**1.6%**	**1.4%**	**1.7%**
Effect			
… of commodity price increase	**0.2**	**-0.4**	**-0.7**
Direct effect on domestic demand	0.2	-0.3	-0.4
Indirect effects via foreign trade	0.0	-0.1	-0.3
… of budget consolidation	**-0.3**	**-1.8**	**-1.0**
Direct effect on domestic demand	-0.1	-1.4	-0.7
Indirect effects via foreign trade	-0.2	-0.4	-0.3
Total effect on growth	**-0.1**	**-2.2**	**-1.7**

Sources: INSEE; calculation of the OFCE (e-mod.fr); from 2011 forecast of the institutes.

Table K2

Effect of growth dampening factors on the unemployment rate and on public finances
Percentage points

	2010	2011	2012
Baseline forecast			
GDP	1.6	1.4	1.7
Net borrowing (-) of the government	-7.7	-6.5	-5.9
Unemployment rate	9.7	9.6	9.5
Without austerity policies			
GDP	1.6	3.2	2.7
Net borrowing (-) of the government	-7.7	-7.0	-6.5
Unemployment rate	9.7	8.2	7.4
Without inflation shock			
GDP	1.6	1.8	2.4
Net borrowing (-) of the government	-7.7	-7.7	-7.4
Unemployment rate	9.7	9.3	8.7

Sources: INSEE; calculations of the OFCE (e-mod.fr); from 2011 forecast of the institutes.

This confirms the experience that financial and real estate crises, which simultaneously occur in numerous advanced economies, are overcome only slowly. For this reason GDP growth will amount to only 1.4 % in 2011 and 1.7 % in 2012. This is insufficient for a significant reduction of the unemployment rate (2012: 9.5 % of the labour force).

The recovery of economic activity will be dampened to a particular extent by the restrictive effects of fiscal policy (Table K2). The budget consolidation in France and the simultaneous spending cuts of its trade partners will cause GDP growth to be diminished by a total of 2.8 percentage points in 2011 and 2012. The French economy has not yet reached a self-sustaining upswing, which would enable it to grow above its potential. Therefore, the consolidation course seems premature. In addition the French economy will have to absorb a further severe shock: The surge of commodity prices. As in 2008 this will cause an increase of the inflation rate. The harmonised consumer price index will rise by 1.9 % in 2011. Above all this will limit private households' purchasing power and their consumption expenditures, thus dampening aggregate demand. In total the commodity-induced increase of inflation will result in a cumulative loss of GDP growth of 1 percentage point in 2011 and 2012 (Table K1).

costs and consumer prices increased moderately and price competitiveness vis-à-vis the other countries of the euro area improved significantly. However, the weak increase of disposable income dampened private consumption expenditure. In addition, the one-size-fits-all monetary policy of the ECB lead to relatively high real interest rates, which also limited investment demand. GDP growth was therefore relatively weak before the crisis.

In Ireland and Southern Europe, by contrast, unit labour costs and consumer prices rose fast between 1999 and 2007, which resulted in low real interest rates and a strong increase of domestic demand. Particularly in Ireland and in Spain the construction sector expanded substantially and a house price bubble emerged. At the same time the price competitiveness deteriorated further. After the bubble burst and the financial crisis broke out, it was mainly the high private sector debt which dampened consumption and investment demand in Ireland and in Southern Europe. At the same time the competitiveness problems and the long-lasting neglect of the export-oriented industrial sector limited their benefits from the international cyclical upswing.

The large current account imbalances resulting from these growth patterns were somewhat reduced in the crisis. In 2010 Germany's surplus still amounted to 5 % of GDP, the deficits of Greece and Spain shrank to 10 % and 5 %, respectively. In Portugal the balance remained unchanged. In France and in Italy the current account deficits even increased slightly. The decline in the external imbalances is due to the collapse of world trade and declining imports due to the persistent weakness of domestic demand in Southern Europe. By contrast, the divergences in price competitiveness have hardly changed yet. Only Ireland and Spain succeeded in reducing the differences between their unit labour costs and those of Germany. However, this was mainly due to the decline in employment and the resulting increase in labour productivity. In Germany, by contrast, employment remained robust during the crisis, which caused a decline in productivity and an increase in unit labour costs. However, the latter affected companies only to a certain extent, because the government partly subsidised wages via its short-time work scheme.

The recession is also reflected clearly in the EU's labour markets (Table 5). In Germany, Austria and several other countries the decline in employment remained limited compared to that of GDP. In addition job creation began relatively early and was strong, so that the level of employment is even higher now than it was before the crisis. By contrast, the decline in employment continued in Greece, Portugal, Italy, and especially in Spain and Ireland. In Ireland (-60 %) and in Spain (-40%) employment fell sharply especially in the construction sector, but in manufacturing, too, 20 % of the employees were made redundant. In both countries the unemployment rate increased by 10 percentage points since the beginning of 2008 and amounted to 13.5 % of the labour force in Ireland and 20.4 % in Spain at the beginning of 2011.

The severe recession will cause a further increase of unemployment particularly in Greece and in Ireland. For 2012 the institutes expect unemployment rates of about 16 % in both countries. In Spain the unemployment rate might stabilise at about 20 % of the labour force, in Portugal at about 11 %. For the average of the euro area the institutes expect an unemployment rate of 9.5 % in 2012, which, due to the weak recovery, will be only slightly below the peak during the crisis (10 %).

The financial crisis also affected the government budget balance (Table 6). Whereas it was still only -0.6 % of GDP for the euro area as a whole in 2007, it had widened to -6.3 % by 2009. In some countries the budget situation was favourable before the crisis: Spain and Germany recorded a surplus, Ireland had a balanced budget. Almost all countries reported positive primary balances. However, the decline in tax revenues, the increase of social transfers and the measures to stabilise the banking sector drastically worsened the budget situation. Due to the recession the deficit limit of 3 % of GDP was exceeded in almost all countries. In some countries budget consolidation was already started in 2010, thus aggravating the recession there. In 2011 consolidation measures have been effective in all countries, but their scope and dampening effects on economic activity differ widely. The institutes expect a reduction of the budget deficit in the euro area and in the EU to roughly 4 % of GDP in 2012.

The increase of consumer prices accelerated noticeably at the beginning of 2011, particularly because of commodity price increases, but also due to indirect tax hikes in some countries. In March 2011 the inflation rate in the euro area amounted to 2.6 %. However, it would have been 0.3 percentage points lower in January, the last month for which detailed data of the price index is available, if tax rates had been left unchanged (Table 10). On the contrary, core inflation (HICP excluding energy, food, alcohol and tobacco), which is more strongly affected by economic activity, did not accelerate. It amounted to 1.0 % in February. For 2011 the institutes expect an increase of consumer prices of 2.4 % in the euro area and 2.8 % in the EU. On the basis of the assumptions about commodity prices and due to the sluggish economic activity the inflation rate is likely to fall to 1.6 % in 2012 (Table 7).

In the EU real GDP will expand by only 1.7 % and 1.8 % in 2011 and 2012, respectively. Thus the pre-crisis level will only be reached in the course of 2012. The cyclical recovery is retarded by the persistent instability in financial markets, the increase of commodity prices, and the dampening effects of budget consolidation efforts. Whereas GDP will grow at slightly above-average rates in the Scandinavian and Eastern European countries outside the monetary union, the increase in the United Kingdom remains weak due to the pronounced austerity measures (1.4 % and 1.5 % in real terms).

In the euro area, too, the recovery is progressing only slowly after the deep recession. Economic activity will expand by only about 1.5 % in real terms both in 2011 and in 2012. The division of the euro area in terms of economic activity will continue during the forecast period: The group of export oriented countries continue to benefit from the Asian emerging eco-

Table 5

Unemployment rate
% of the labour force

	2009	2010	2011	2012
EU-27	8.9	9.6	9.4	9.3
UK	7.6	7.8	8.2	8.3
Euro area	9.5	10	9.8	9.5
Germany	7.4	6.8	6.2	5.8
France	9.5	9.7	9.6	9.5
Italy	7.8	8.5	8.5	8.3
Spain	18	20.1	20.5	20
Greece	9.5	12.4	15	16
Portugal	9.6	11	11.4	11.6
Ireland	11.9	13.5	15.5	15.8

Sources: Eurostat (Labour Force Survey); 2011 and 2012 forecast of the institutes.

Table 6

Net borrowing (-) of the government
% of GDP

	2009	2010	2011	2012
EU-27	-6.8	-6.8	-5.1	-4.2
UK	-11.4	-10.5	-8.3	-7.0
Euro area	-6.3	-6.3	-4.6	-4.0
Germany	-3.0	-3.3	-2.0	-1.2
France	-7.5	-7.7	-6.5	-5.9
Italy	-5.4	-4.6	-4.3	-4.0
Spain	-11.1	-9.3	-6.5	-5.5
Greece	-15.4	-9.6	-7.8	-7.0
Portugal	-9.3	-7.3	-5.5	-4.0
Ireland	-14.4	-32.3	-10.5	-8.5

Sources: Eurostat, national sources; from 2011 forecast of the institutes.

Table 7

Harmonised consumer price index
% change on previous year

	2009	2010	2011	2012
EU-27	1.0	2.1	2.8	1.8
UK	2.2	3.3	4.2	2.0
Euro area	0.3	1.6	2.4	1.6
Germany	0.2	1.2	2.0	1.5
France	0.1	1.7	1.9	1.4
Italy	0.8	1.6	2.2	2.0
Spain	-0.2	2.0	2.7	1.3
Greece	1.3	4.7	3.0	0.8
Portugal	-0.9	1.4	2.3	0.6
Ireland	-1.7	-1.6	1.2	0.6

Sources: Eurostat, calculations of the institutes; from 2011 forecast of the institutes.

Table 8

Key forecast figures for Germany
% change on previous year

	2009	2010	2011	2012
Gross domestic product	-4.7	3.6	2.7	1.7
expenditure	-0.2	0.4	1.1	0.9
expenditure	2.9	2.3	1.4	0.8
Gross fixed capital formation	-10.1	6.0	8.7	4.4
Net exports[1]	-2.9	1.3	1.0	0.4
Exports	-14.3	14.1	10.2	6.5
Imports	-9.4	12.6	9.2	6.5
Employment	0.0	0.5	0.9	0.5
Unemployment rate[2]	8.2	7.7	7.0	6.5
Unit labour cost	5.2	-0.9	0.5	1.3
Consumer prices	0.4	1.1	2.0	1.5
Budget balance[3]	-3.0	-3.3	-2.0	-1.2

1 Contribution to growth: Calculated from the chained volume index.
2 % of the civilian labour force.
3 % of GDP.

Sources: DESTATIS; ECB; from 2011 forecast of the institutes.

Table 9

Statistical components of GDP growth
%

	2010	2011	2012
Statistical carry-over effect at the end of the previous year[1]	0.7	1.2	0.8
Growth rate over the course of the year[2]	4.0	2.4	1.6
Annual average GDP growth rate, adjusted for working days	3.5	2.8	1.9
Calendar effect[3]	0.1	-0.1	-0.2
Annual average GDP growth rate	3.6	2.7	1.7

1 Seasonally and working-day adjusted index in the fourth quarter of the previous year relative to the working-day adjusted quarterly average of the previous year (percentage points).
2 Annual growth rate in the fourth quarter adjusted for working-day effects.
3 % of GDP.

Sources: DESTATIS; calculations of the institutes; from 2011 forecast of the institutes.

nomies' strong demand and the buoyant world trade. In some countries GDP will increase by more than 2 % in 2011 and slightly more moderately in 2012 due to an insignificant slowing of the demand momentum.

However, the Southern European countries and Ireland continue to suffer not only from the immediate consequences of the crisis, but also from the dampening effects of consolidation policies. Therefore they cannot leave the recession behind. In Greece GDP will decline also in 2011 and in 2012, falling short of the pre-crisis level by 10 %. In Ireland the situation is similar. However, a stabilisation is expected in 2012. For Spain and Portugal the institutes expect stagnation in the years 2011 and 2012. In Italy, which suffers from weak competitiveness, real GDP will also expand only moderately at 1 % in each year.

All in all, the driving forces of the EU economy originate from world trade and especially the expansion in the Asian emerging economies. This is too little to facilitate a vigorous rebound of economic activity, which could also reduce unemployment and budget deficits from their high levels in the wake of the crisis.

Economic activity in Germany
A frictionless start of an upswing?

The German economy entered the year 2011 with a high growth momentum, despite production losses due to bad weather at the end of 2010, particularly in the construction sector. Past experience suggests that these production losses will soon be made up for. Thus, the question is, whether the German economy is on its way towards a self-sustaining upswing, in which production capacity expands noticeably and unemployment continues to decrease significantly.

There is substantial support for the view that 2011 is indeed an upswing year at a GDP growth rate of 2.7 % (Tables 8 and 9). The cyclical tendency is clearly upward, although the expansion is not expected to become as dynamic as the preceding upswing. It is remarkable that both domestic demand and external demand are driving economic activity. The strong export activity will continue only slightly less dynamically. At the same time private consumption will increase by slightly more than 1 %. Thus, the long-lasting weakness of German consumption continues to be gradually overcome. This is due to higher income increases caused by higher effective wages, while negotiated wages have risen at a moderately accelerated pace. In an environment of still low interest rates, dynamic exports and increased consumption trigger vigorous investment activity, which supports domestic demand on the one hand and leads to increased imports on the other hand. As a result this upswing is considerably more balanced than the previous one, which largely relied on exports.

However, in the course of the forecast period the cyclical momentum is likely to abate. There are two essential reasons. The first is that the effects of the stimulus programmes are petering out and the Federal Government is switching to a restrictive fiscal policy course, which, seen from a narrow national perspective, seems appropriate in view of the favourable business situation. The second and much more important reason consists in the crisis of the euro area. Not only are the crisis countries in deep economic depressions due to the harsh austerity programmes imposed on them and the partly extremely high risk premiums on interest. The rest of the member states are also switching to a consolidation course. This will have a dampening effect on the euro area, the most important market for German products.

For 2012 the institutes thus expect a noticeably weakened export growth and a slowing domestic investment activity. All in all GDP growth will amount to 1.7 % in the coming year, 2012 thus becoming a year of moderate expansion.

Table 10

Growth contributions of expenditure aggregates[1] in Germany
Percentage points

	2009	2010	2011	2012
Gross domestic product	-4.7	3.6	2.7	1.7
Domestic demand	-1.8	2.4	1.6	1.3
Consumption expenditure	0.4	0.7	0.9	0.7
Private households	-0.1	0.2	0.6	0.5
Government	0.5	0.5	0.3	0.2
Gross fixed capital formation	-1.9	1.1	0.9	0.6
Machinery and equipment	-1.8	0.7	0.7	0.4
Construction	-0.1	0.3	0.1	0.1
Other capital formation	0.1	0.1	0.1	0.1
Changes in inventories	-0.3	0.6	-0.2	0.0
Net exports	-2.9	1.3	1.0	0.4
Exports	-6.8	5.8	5.2	3.5
Imports	3.9	-4.5	-4.2	-3.1

[1] Calculated on the basis of the chained volume index; growth contributions of individual aggregates may not add up to the GDP growth rate due to rounding.

Sources: DESTATIS; Calculations of the institutes; from 2011 forecast of the institutes. 2011 Prognose der Institute.

Foreign trade remains on an expansion course

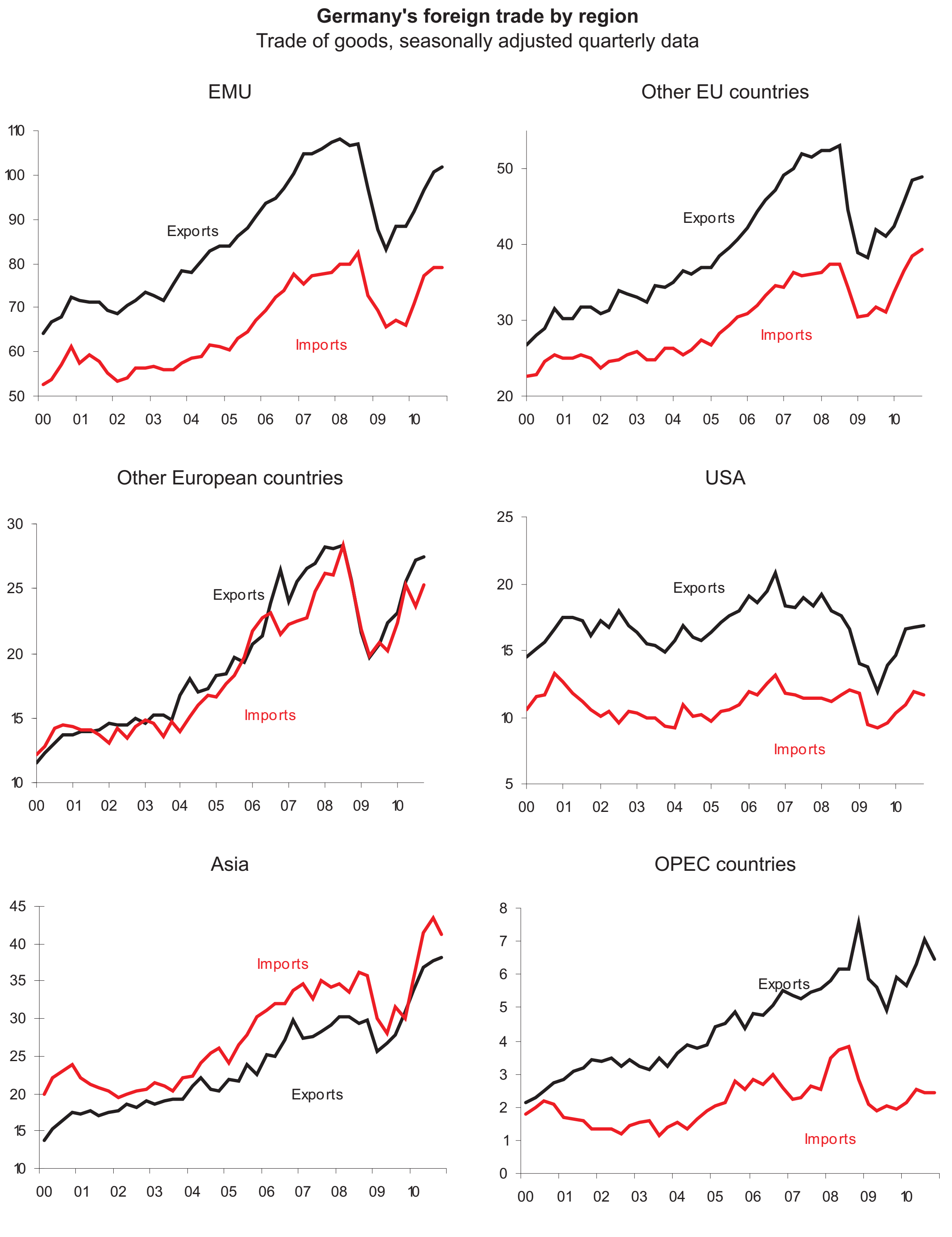
The year 2010 was characterised by the unprecedented recovery of the German foreign trade. Real exports of goods and services expanded at an annual average of 14.1 %. The increase between the fourth quarter of 2009 and the fourth quarter of 2010 was even higher at 15.7 %. Nevertheless, the export dynamics differed by region. Whereas German exports to Asia and especially to China boomed, with growth rates of 30 % and almost 44 %, respectively, trade in goods with the countries of the European Union as well as the United States of America recovered at a significantly lower pace. Despite strong increases German exporters have not yet made up for sales lost in those regions during the crisis (Figure 1).

This trend will continue in the forecast period. Strict austerity programmes in numerous EU countries will dampen the demand of these countries for German manufactures and the trade in goods with the USA will expand rather moderately due to the consolidation efforts of the US administration, the high unemployment in the US and the appreciation of the euro vis-à-vis the US dollar, which is assumed in this forecast. At the same time the persistently high demand from emerging economies, especially the BRIC countries (Brazil, Russia, India and China), which by now have a share of more than 10 % of German exports, stimulates German exports. As German companies are leading in the production of machines and motor vehicles, Germany benefits particularly strongly from the emerging economies' demand for investment goods. All in all exports of goods and services will increase by 7.9 % in the course of this year (fourth quarter over fourth quarter) and by 7.0 % next year. Due to the enormous statistical carry-over effect of 2010 the average increase will amount to 10.2 % in 2011. In 2012 it will be 6.5 %.

Last year imports also expanded at an extraordinary pace. Their average annual increase amounted to 12.6 %. In the year to the fourth quarter of 2010 they even rose by 16.5 %. Thus the momentum of imports was even higher than that of exports. In the forecast period, too, imports will continue to grow fast. This year the strong increase of exports, investment into machinery and equipment as well as private consumption will result in strong positive impulses for Germany's import demand. Next year the dynamic growth will abate, because domestic investment demand will slow noticeably. On balance imports of goods and services will increase by 8.5 % in the course of this year and 6.6 % in the course of next year. The annual average growth rates will be 9.2 % in 2011 and 6.5 % in 2012. The contribution of foreign trade to GDP growth will be 1 percentage point in this year and 0.4 percentage points in 2012 (Table 10).

Import prices surged in the course of the past year. This is due to strong price increases of fuels, commodities, metals and food combined with the depreciation of the euro in the summer half-year of 2010. For the forecast period a slight appreciation of the euro vis-à-vis the US dollar and a crude oil price of roughly $ 100 per barrel are assumed (Table 3). As, except for Europe, economic growth will be strong during the forecast period, the price increases of fuels, commodities and metals are likely to persist, so that the import deflator will increase by 3.5 % in this year and 2.4 %

Graph 1



Sources: Deutsche Bundesbank; DESTATIS; calculations of the institutes.

next year. In the past year its increase amounted to 4.9 %.

In contrast to import prices export prices rose by only 2.6 % in the past year. During the forecast period rising import prices will raise the production costs of German exporters. At the same time the weak increase of unit labour costs leads to a further improvement of the competitiveness of the German economy. On balance there will be a moderate increase of the export deflator by 2.2 % this year and 1.4 % next year. Following an unfavourable trend in 2010, the terms of trade will worsen further both this year and next year.

Investment boom in machinery and equipment over

Investment into machinery and equipment boomed in the past year. In the course of the year it expanded by 17.9 %, on average the increase was 10.9 % in 2010. Nevertheless it still falls short of the pre-crisis level by slightly more than 11 % (Table 11). The business sector's pronounced propensity to invest is likely to reflect the backlog resulting from the deferral of investments at the peak of the crisis and is intensified by a pull forward effect due to the more favourable depreciation rules expiring at the end of 2010. A continuation of the strong expansion is not expected in the forecast period, as the discontinuation of the favourable depreciation options will initially have a dampening effect. This is also indicated by the subdued business expectations recently reported by producers of investment goods, although the respective indicator of the Munich-based ifo Institute, which regularly surveys the business sector, remains at a fairly high level.

Later this year sales prospects are expected to worsen, because global economic activity will lose some momentum. Further the level of capacity utilisation still remains below that of the preceding upswing despite the strong expansion in the past quarters. A persistent capacity utilisation above the normal level is not expected in the forecast period. Therefore, the only slightly accelerated increase of investment into new capacity is not expected to offset the slowing expansion of replacement and labour saving investment.

The profit situation of the business sector is expected to remain favourable, albeit less so than in the previous year. Unit labour costs will increase only insignificantly during the forecast period. The financing conditions for the business sector have eased slightly due to banks' somewhat relaxed credit standards in the second half of 2010. However, the tendency towards rising interest rates for investment loans will tend to cause dampening effects. All in all the increase of investment into machinery and equipment is expected to turn out less dynamic this year and next year. In the course of 2011 it will expand by 5.6 %. Due to the significant statistical carry-over from the previous year the annual average will still amount to 8.7 %. In 2012 the increase will halve to 4.4 % on average, but reach 4.6 % over the course of the year. By the end of the forecast period the level attained will be almost equivalent to the pre-crisis level (Figure 2, Table 11).

Only weak expansion of construction investment

Total construction investment expanded by 2.8 % in the past year. This was mainly due to an unusually strong increase in the second quarter. By contrast, significant production losses occurred both at the beginning and at the end of the year due to bad weather, the individual lines of business showing a different performance.

Particularly during the first half of 2010 residential construction surged, whereas it was impaired by the weather conditions towards the end of the year. In the first half of 2011 an accelerated increase is expected owing to the completion of deferred construction activities. The outlook for the rest of the forecast period is rather favourable. New orders have been rising for some months. The positive trend in building permits has continued to date – albeit at a slowing pace. Private households, too, are increasingly buying homes owing to the improved labour market situation and the relatively low mortgage rates. Overall, residential construction investment is expected to grow noticeably in 2011 and 2012.

Private non-residential construction investment has expanded sluggishly despite the dynamic growth of investment into machinery and equipment, which usually shows a high synchronicity. Capacity-increasing investments have only been made to a very limited extent due to the relatively low capacity utilisation. The decline of new orders since autumn and the limited number of building permits point to a slowdown in private non-residential construction. Additional capacity-increasing investment is likely to be insignificant. During the forecast period there will, at best, be a slight increase.

Government construction investment shrank by 1.1 % in 2010. During the forecast period, it is expected to continue its decline as the stimulus programmes are phased out. Further no particular impulses can be expected from the local municipalities, whose financial situation remains tense despite minor improvements.

Total construction investment will increase by an annual average of 1.5 % in 2011 and by only 1.0 % in 2012 (Figure 2, Table 11).

Table 11

Macroeconomic trends in Germany
% change on previous year

	2009	2010	2011	2012
Expenditure[1]				
Consumption expenditure	0.5	0.9	1.2	0.9
Private households[2]	-0.2	0.4	1.1	0.9
Government	2.9	2.3	1.4	0.8
Gross fixed capital formation	-10.1	6.0	4.5	2.6
Machinery and equipment	-22.6	10.9	8.7	4.4
Construction	-1.5	2.8	1.5	1.0
Other capital formation	5.6	6.4	6.0	5.5
Exports of goods and services	-14.3	14.1	10.2	6.5
Imports of goods and services	-9.4	12.6	9.2	6.5
Gross domestic product	-4.7	3.6	2.7	1.7
Prices				
Gross domestic product	1.4	0.6	1.1	1.5
Consumption expenditure[2]	0.1	2.0	2.0	1.5
Imports of goods and services	-6.8	4.9	3.2	2.4
Memorandum item: Consumer prices	0.4	1.1	2.0	1.5
Income distribution				
Compensation of employees	0.2	2.8	3.3	3.0
Profits[3]	-12.6	13.4	8.2	4.8
National income	-4.2	6.1	4.9	3.6
Memorandum items:				
Negotiated wages (per hour)	2.1	1.6	1.9	2.5
Effective earnings (per hour)	2.9	-0.1	1.5	2.6
Wage drift	0.8	-1.7	-0.4	0.1
Gross wages and salaries	-0.2	2.8	3.3	3.2
Gross wages and salaries per employee	-0.2	2.2	2.3	2.6
Production				
Employed persons	0.0	0.5	0.9	0.5
Working time per employed person	-2.5	2.1	0.2	-0.4
Hours worked	-2.6	2.6	1.2	0.2
Produktivity (per hour)	-2.2	1.0	1.5	1.5
Gross domestic product	-4.7	3.6	2.7	1.7
Memorandum items:				
Unemployed persons,[4] thousands	3 227	2 930	2 699	2 527
Unemployment rate,[4] (%)	7.4	6.8	6.2	5.8
Unemployed persons,[5] thousands	3415	3238	2944	2758
Unemployment rate,[5,6] in %	8.2	7.7	7.0	6.5
Unit labour cost	5.2	-0.9	0.5	1.3
Budget balance, in % of GDP	-3.0	-3.3	-2.0	-1.2

1 Adjusted for inflation.
2 Private households including non-profit organisations serving households.
3 Operating surplus and mixed income.
4 Definition of the International Labour Organization (ILO).
5 Definition of the Federal Employment Agency (Bundesagentur für Arbeit, BA).
6 % of the civilian labour force.

Sources: Deutsche Bundesbank; DESTATIS; Federal Employment Agency (BA); calculations of the institutes; from 2011 forecast of the institutes.

Private consumption: Slow recovery

In the course of 2010 private consumption expenditure expanded unusually strongly by 1.4 %. However, the annual average increase amounted to only 0.4 % because the initial level at the beginning of the year was low (negative statistical carry-over effect). After a decline in 2009 disposable income rose by a robust 2.7 %, both net wages and salaries and operating surplus and mixed income increasing considerably. However, the increase in disposable income was diminished in real terms due to the strong rise of the private consumption deflator (2.0 %). At the same time the propensity to save increased. The savings ratio climbed by 0.3 percentage points to 11.4 %.

In this year negotiated wages will rise by 1.9 % and thus somewhat faster than last year, effective per capita wages will increase even faster due to the positive wage drift. As employment is expanding considerably, gross wages and salaries will be 3.3 % higher. Owing to the increased burden of social security contributions the gain in net wages and salaries is expected to turn out somewhat lower. Contribution rates to unemployment and health insurance have been raised by 0.2 and 0.6 percentage points.

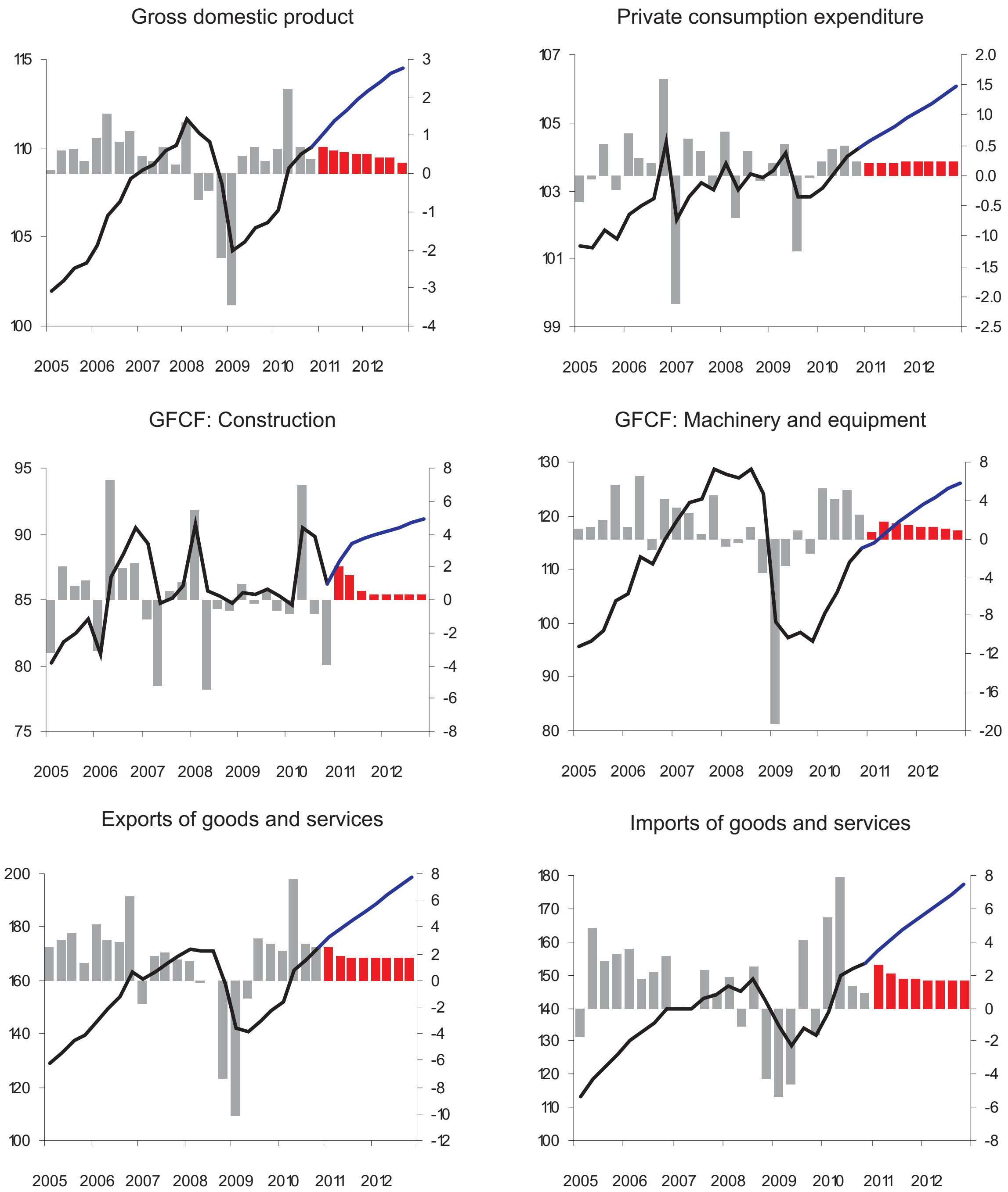
Monetary transfers will decrease slightly. Statutory pension payments will expand by 1 % from July 1st, following last year's favourable trend of wages and salaries and notwithstanding the deductions because of the pension guarantee, the sustainability factor and the Riester factor[1], but unemployment benefit payments will decrease due to the decline in unemployment. Owing to lower social benefits the increase of mass income will turn out much smaller than that of wages and salaries. Withdrawals of profits and property income will surge by 6.7 %. Adjusted for inflation disposable income will increase by 0.9 % in 2011. The savings ratio will decline marginally from 11.4 % to 11.3 %. On the whole, private consumption expenditure will expand by 1.1 % compared to the previous year in 2011. During the course of 2011 the increase will be only 0.8 % (Figure 2, Table 11).

In 2012 negotiated wages will rise once more and slightly faster than in the current year. Due to the meagre positive per capita wage drift effective wages will advance at roughly the same pace. However, as

1 These are some of the key variables in the formula used for the calculation of the German statutory pension level. Due to the pension guarantee any reductions which would lead to an absolute decline of the pension level are deferred until there is a sufficient increase of the pension level. The "Riester factor" – named after the labour minister who introduced supplementary fully-funded private pensions – decreases the pension level by a pre-defined percentage that increases parallel to the subsidisation of the voluntary fully-funded pensions. In 2013 it will reach the maximum of 4 %. The sustainability factor reflects the relation between pensioners and contributors.

Graph 2

Gross domestic product by type of expenditure
Seasonally and calender adjusted series[1]



Chain index 2000 = 100 (left axis).
% change on previous quarter(right axis).
[1] from first quarter 2011: Forecast of the institutes.
GFCF: gross fixed capital formation.

Sources: DESTATIS; calculations of the institutes.

employment growth is expected to slow, the increase of gross wages and salaries will be similar to that of this year. In accordance with current legislation net wages and salaries rise at the same pace, as social security contributions are expected to remain unchanged. Monetary transfers will increase slightly. Withdrawals of profits are not expected to continue their rapid growth. Disposable income will increase by 0.9 % in real terms. At a constant savings ratio this is equivalent to the growth of private consumption expenditure in 2012.

Moderate price trend despite price shocks

Influenced by surging crude oil and food prices, consumer prices have also risen considerably since November 2010. In February food was 3.4 % dearer than a year earlier, for light heating oil and fuels the price increases were 32 % and 11.8 %, respectively. Nevertheless, overall consumer price inflation was only 2.1 % in February and, presumably, also in March, thus exceeding the ECB's inflation target of 1.9 % only marginally. This was mainly due to weak domestic inflationary pressures. Consumer prices excluding energy rose by only 1.2 %, those of goods excluding food increased by merely 0.7 % and the harmonised consumer price index excluding energy, food, alcohol and tobacco showed a very small rise of 0.8 %.

Owing to the considerable increase in crude oil prices since 1999 light heating oil and fuels have shown above-average price increases during the past 12 years, reaching annual averages of 9.3 % and 5 %, respectively. By contrast, prices of communication had a dampening effect on inflation. They have declined by an annual average of 3.3 % and thus lowered consumer price inflation by an annual average of 0.1 percentage points. According to the ECB's definition food prices were nearly stable: Its prices increased by an annual average of 1.5 %. Therefore, we cannot speak of a rising trend.

Assuming a crude oil price of $ 100 per barrel during the rest of the year as well as broadly constant exchange rates, the oil price shock will be reflected in the inflation rate during the rest of the year and will initially continue to have an effect in the coming year, too, due to rising production and transport costs. However, no second-round effects are expected: The moderate negotiated wage increases and an only slightly positive wage drift are expected to raise unit labour costs by 0.5 % in this year and by 1.3 % in 2012. By and large there is little scope for price increases as economic activity is weakening again. Consumer price inflation is expected to amount to 1.5 % in 2012, after 2.0 % in this year.

Production growth is losing momentum

In the past year aggregate output surged at an extraordinary rate of 3.6 %. In the fourth quarter it was even 4 % above the level of a year earlier. At a growth rate of 11.3 % the recovery was particularly strong in manufacturing. The export-oriented investment goods industry in particular, but also the production of intermediate goods, which benefited from the dynamic growth of the world economy, expanded at above-average rates. Additional impulses are coming from an increased inventory build-up. Despite the production decline due to bad weather both at the beginning and at the end of the year, the average output of the construction industry exceeded the level of the previous year. Service output, too, increased considerably, transport and communication advancing particularly fast due to the buoyant industrial activity.

For the first half of 2011 a continuation of the strong recovery is expected. The leading business cycle indicators point to a further increase of aggregate output, particularly in industry. Most recently new orders have risen, especially for producers of investment and intermediary goods, the increase being driven above all by increased orders from abroad (compared to the previous 3-month period: foreign orders +4-7 %, domestic orders 2.5 %). Further, the construction industry will experience the positive effects of regaining production lost due to bad weather in the winter. In the first quarter seasonally adjusted GDP is expected to increase by 0.7 %.

For the further course of the year a more restrained production trend is in the offing. Exports, particularly of investment goods, will grow more slowly due to the slowing momentum of global economic activity, above all in the euro area, which, at a share of 40 %, remains the most important market for German exporters. The domestic economy, too, will not experience the momentum of the past year any more. The business expectations of industrial companies surveyed by the ifo Institute have almost been stagnating for several months, albeit at a rather high level. The output of the construction sector will be dampened considerably, because decisive expansionary impulses will no longer be at work as the stimulus programmes peter out. The consolidation course of fiscal policy will also have a dampening effect. Overall, there will only be a moderate expansion of output in 2011 compared to the previous year. At the end of the year aggregate output will exceed the level of a year earlier by 2.4 %. The annual average increase will amount to 2.7 %. Thus, production will regain its pre-crisis level in the second half of the year. In 2012 the expansion of aggregate production is expected to continue levelling off. Both

Table 12

Labour market balance sheet
Annual average, 1000 persons

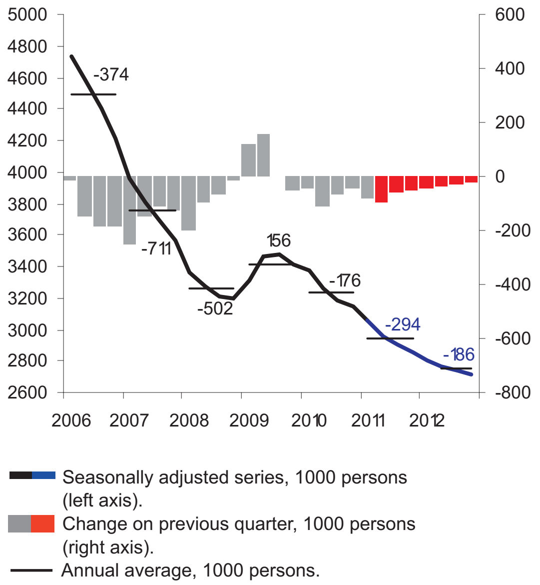
	2009	2010	2011	2012
Employed persons, national concept	40 171	40 369	40 743	40 976
Commuting balance	100	115	119	108
Employed persons, domestic concept	40 271	40 483	40 862	41 084
Employees	35 862	36 067	36 419	36 624
Employees subject to social security contributions	27 493	27 756	28 207	28 416
Subsidised employment subject to social security contributions[1]	267	242	196	175
"Mini jobs"	4 906	4 891	4 902	4 901
"One euro jobs"[2]	279	262	210	210
Self-employed persons	4 409	4 416	4 443	4 461
subsidised self-employment[3]	145	154	135	126
Unemployed persons (Federal Employment Agency)	3 415	3 238	2 944	2 758
Unemployment rate (Federal Employment Agency)[4]	8.2	7.7	7	6.5
Unemployed persons (ILO concept)	3 227	2 930	2 699	2 527
Unemployment rate (ILO concept)[5]	7.4	6.8	6.2	5.8
Persons in short time working schemes (cyclical component)	1 078	427	78	79

1 Wage subsidies and other labour market instruments ("Arbeitsbeschaffungsmaßnahmen", "Strukturanpassungsmaßnahmen", "Personal-Service-Agenturen", "Eingliederungszuschuss", "Eingliederungszuschuss bei Vertretung", "Eingliederungszuschuss bei Neugründung", "Arbeitsentgeltzuschuss", "Einstiegsgeld bei abhängiger Beschäftigung", "Arbeitsgelegenheiten bei Entgeltvariante", "Beschäftigungszuschuss", "Qualifikationszuschuss für Jüngere", "Eingliederungshilfen für Jüngere", "Entgeltsicherung für Ältere").
2 Work opportunities with refund of additional expenses ("Arbeitsgelegenheiten mit Mehraufwandentschädigung").
3 Various start-up bonuses ("Gründungszuschuss", "Existenzgründungszuschuss", "Überbrückungsgeld" and "Einstiegsgeld").
4 % of the civilian labour force.
5 % % of the domestic labour force.

Sources: Federal Employment Agency (BA); DESTATIS; calculations of the institutes; from 2011 forecast of the institutes.

Graph 3

Unemployed persons (1000s)
Seasonally adjusted series[1]



1 Labels: Change on previous year, 1000 persons.

Sources: Federal Employment Agency (BA); DESTATIS; Calculations of the institutes; from 2nd Quarter 2011: Forecast of the institutes.

external and domestic growth impulses will turn out somewhat weaker. GDP is expected to increase by an annual average of 1.7 % in 2012. At 1.6 % the growth rate of the year to the fourth quarter of 2012 will be slightly lower (Table 9, Table 11).

Persistently high employment level

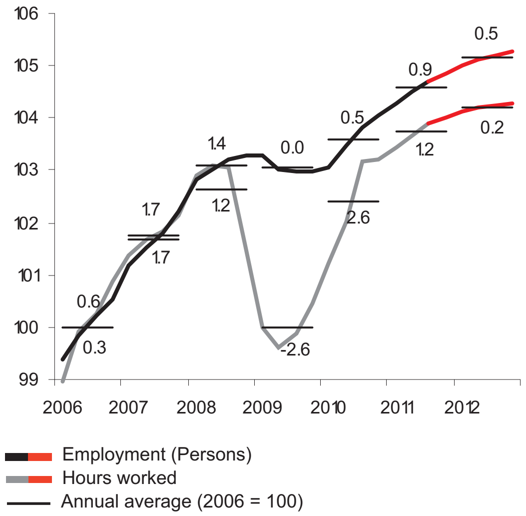
The upswing in the labour market is in full swing. In the year to February 2011 seasonally adjusted employment rose by slightly more than 504,000 persons and thus reached 40.8 million persons (Table 12, Figure 3). According to provisional projections of the Federal Employment Agency (Bundesagentur für Arbeit, BA) seasonally adjusted employment subject to social security contributions increased even more strongly in the year to January 2011, namely by 610,000 persons. It thus reached a level of 28.1 million persons in January 2011.

The strong momentum of employment subject to social security contributions is largely due to an increase in temporary employment. Whereas only 630,000 persons worked for temporary employment agencies at the beginning of 2010, the number was 877,000 in December 2010 according to surveys. Thus, temporary employment accounted for almost half the increase in employment subject to social security contributions.

The lion's share of the increase in employment subject to social security contributions consists of full-time jobs with a gain of 378,000 jobs in the year to January 2011. Thus, full-time employment increased by 1.7 %. However, part-time employment has experienced a more dynamic expansion, increasing by 4.3 % or 224,000 jobs during the same period.

Graph 4

Domestic employment and hours worked
Seasonally and calendar adjusted series[1]

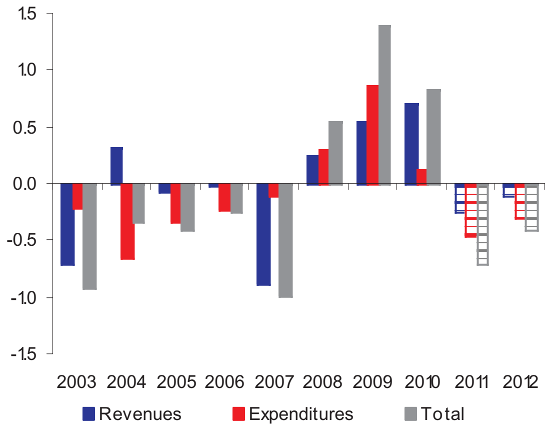


[1] Labels: % change on previous year.

Sources: Federal Employment Agency (BA); DESTATIS; calculations of the institutes, from 1st quarter 2011 forecast of the institutes.

Graph 5

Discretionary fiscal impulses[1]
2003-2012
in % of GDP



[1] Due to fiscal policy measures or savings during budget execution. Excluding privatisation proceeds and macroeconomic repercussions. Positive (negative) impulses imply an expansionary (contractionary) fiscal policy.

Source: various joint forecasts for the German government 2003-2010, DESTATIS; Federal Ministry of Finance; calculations of the institutes. From 2011: Forecast of the institutes.

In 2010 new jobs were created in all industries. The number of jobs expanded rapidly particularly in business services, which also include temporary employment agencies. Since the second quarter of 2010 employment has also been rising in manufacturing. However, employment remains significantly below the pre-crisis level.

Job creation has lead to a considerable decline in unemployment, albeit not to the same extent. In the year to March 2011 seasonally adjusted unemployment declined by 344,000 persons. In March 3 million persons were registered as unemployed according to seasonally adjusted figures. (Table 12, Figure 3). One reason for the relatively moderate decrease of unemployment despite strong job creation and a declining labour force (Fuchs et al. 2011) was the strongly increased commuting balance. Another consisted in the considerable decline in the number of persons in the hidden labour reserve. A larger number of persons who were previously unavailable to the labour market and were thus not registered as unemployed are now back at work.

Hours worked per employee surged again after the crisis (Figure 4). In combination with the increase of the number of employees this yielded a strong increase of the annual average number of hours worked in 2010 compared to 2009 by 2.4 %. Thus, the number of hours worked returned to the pre-crisis level.

The considerable decline of cyclical short time work also shows that the situation in the labour market has strongly improved since the crisis. According to projections of the Federal Employment Agency only about 155,000 persons were in short time working schemes in January 2011, compared to 875,000 at the beginning of 2010. The strongly increased number of vacancies and companies' increased willingness to hire shown in surveys suggest that employment trends are likely to continue being very positive over the next months.

The institutes expect a persistent positive employment trend for 2011, which will, however, level off in 2012 due to weakening economic activity. In 2011 annual average domestic employment will increase by 380,000 persons or 0.9 %, compared to 213,000 persons or 0.5 % in the previous year. Between January and December 2011 the increase will only be 290,000 persons. In 2012 annual average employment is expected to rise by 220,000 persons or 0.5 %. From January to December the increase will merely amount to 160,000 persons.

The number of registered unemployed persons is expected to be slightly below 3 million on average in the current year, compared to 3.2 million in 2010. Thus the unemployment rate will be 7.0 % in 2011. In 2012

Table 13

Fiscal impulses of discretionary measures in 2011 and in 2012 compared to 2010 (billion euros)[1]

	2011	2012
Total of grand coalition and preceeding governments	**-4.6**	**-17.5**
Stimulus package I	**-0.9**	**-2.9**
Increase and support of investment	-0.8	-0.7
Tax relief for private households	0.5	0.5
Tax relief for companies	-0.3	-2.3
Measures of the Federal Employment Agency	-0.3	-0.4
Stimulus package II	**-3.4**	**-14.3**
Strategic public sector investment	-2.0	-7.0
Federal innovation programme ("ZIM")	0.1	0.1
Scrappage scheme	-0.8	-0.8
Revision of motor vehicle tax	0.0	0.0
Funding of research into mobility	0.1	0.1
Employment support (mainly short time working schemes)	-1.3	-1.5
Reduction of income tax	0.3	0.6
Reduction of health insurance contributions	0.3	-5.7
Allowances for families and children	0.0	0.0
Further measure connected to the stimulus packages	**1.0**	**1.0**
Commuter allowance	-0.6	-0.6
Citizen relief act ("Bürgerentlastungsgesetz")	1.6	1.6
Other measures[2]	**-1.3**	**-1.3**
Measures of the consvervative-liberal coalition government	**-13.8**	**-10.8**
Growth acceleration act ("Wachstumsbeschleunigungsgesetz")	**2.1**	**2.1**
Relief for companies	1.6	1.6
Increase of child benefit/allowance	0.2	0.2
Inheritance tax relief	0.3	0.3
VAT reduction for hotels	0.1	0.1
Consolidation measures of the federal government	**-10.2**	**-13.2**
Air traffic levy	-1.0	-1.0
Nuclear fuels tax	-2.3	-2.3
Tobacco tax increase/reduction of energy tax exemptions	-1.3	-1.2
Change of the bankcruptcy regulations	-0.3	-0.4
Dividend payment from Deutsche Bahn	-0.5	-0.5
Reduction of parental allowance	-0.7	-0.7
Abolition of the temporary transition bonus (unemployment benefit II)	-0.2	-0.2
Abolition of heating cost supplement (previously included in the housing benefit)	-0.1	-0.1
Changes in the social security code (SGB I and II)	-2.0	-4.0
Cuts in flexible expenditures	-1.0	-2.0
Cuts in administration expenditures	-0.7	-0.7
Deferral of the reconstruction of Berlin City Palace	-0.1	-0.1
Other measures	**-5.7**	**0.2**
Increase of unemployment benefit II + child support	1.1	1.4
Supplementary contributions to statutory health insurance	0.6	0.6
Increase of contribution rate of statutory health insurance	-5.3	-0.2
Health spending cuts	-3.0	-3.0
Increase of monthly student loan payments	0.9	1.4
Total	**-18.4**	**-28.4**
% of GDP	-0.7	-1.1

1 Excluding macroeconomic repercussions.

2 Including: Abolition of first home buyer grant, increase of contribution rate of unemployment insurance, changes of the pension formula, expansion of social transfers.

Sources: Federal Ministry of Finance; estimates of the institutes.

Table 14

General government budget balance and gross debt 2004-2012

	Budget balance		Gross debt
	Billion euros	% of GDP	% of GDP
2004	-83.5	-3.8	65.6
2005	-74.2	-3.3	68.0
2006	-37.1	-1.6	67.6
2007	6.3	0.3	64.9
2008	2.8	0.1	66.3
2009	-72.7	-3.0	73.4
2010	-82.0	-3.3	83.5
2011	-51.5	-2.0	83.3
2012	-30.8	-1.2	82.7

Sources: DESTATIS; Federal Ministry of Finance; calculations of the institutes; from 2011 forecast of the institutes.

an annual average of 2.8 million registered unemployed persons is expected. The unemployment rate will thus be 6.5 %. The number of hours worked is expected to expand by 1.2 % in this year and by 0.2 % in 2012. Correspondingly, the increase in hourly productivity will be 1.5 % in each year.

Public finances recover fast

Fiscal policy on a restrictive course in 2011 and 2012

In this year fiscal policy is swinging to a strongly restrictive course following a year which was still substantially affected by the expansionary impulses of the stimulus packages. This course will continue in 2012, albeit noticeably slowed (Figure 5). Discretionary impulses will amount to € -18.4 billion (-0.7 % of GDP) in this year and € -10.0 billion (-0.4 % of GDP) next year (Table 13).

The strong restrictive impulse in this year initially results from the phasing out of temporary stimulus measures, the increase of contribution rates to statutory health and unemployment insurance as well as spending cuts in health care. Stronger still are the effects of the Federal Government's consolidation measures combined in the so-called package for the future ("Zukunftspaket"), which is to enable the Federal Government to keep within the limits of the debt brake. In 2012 the strongest restrictive impulse emanates from the termination of the stimulus measures, whereas the accumulation of savings from the package for the future will contribute a minor share – not taking the financial transaction tax into account, because it remains unclear, whether and in which form it will be introduced.

Table 15

Global economic framework of the medium-term forecast

	1991-2000	2001-2005	2006-2010	2011-2015
	Average level			
Oil price (Brent, USD/Barrel)	18.8	34.2	75.4	99.6
Exchange rate (USD/EUR)	1.19	1.09	1.36	1.33
3-month interest rate (%)				
Euro area	6.3	2.8	2.8	2.7
USA	5.3	2.4	2.9	2.0
Long-term interest rate (%)				
Euro area	7.3	4.3	4.0	4.4
USA	6.4	4.4	3.9	3.9
	% change			
World trade, in real terms	6.9	5.4	3.9	7.3

Sources: ECB; Federal Reserve; WIFO; from 2011 forecast of the institutes.

Table 16

Real GDP growth

	1991-2000	2001-2005	2006-2010	2011-2015
	% change			
World	3.0	3.5	3.3	4.5
Advanced economies	2.6	2.1	1.0	2.6
EU-27	2.4	1.8	0.8	2.1
Euro area	2.2	1.5	0.8	1.8
Germany	1.8	0.6	1.1	2.1
France	2.0	1.6	0.7	2.0
Italy	1.6	0.9	-0.4	1.3
USA	3.4	2.4	0.9	3.0
Japan	1.2	1.3	0.1	1.7
China	10.4	9.8	11.2	8.9
India	5.7	6.6	8.4	8.5
Russia	-3.9	6.1	3.3	4.7
Brazil	2.4	2.8	4.4	4.6

Sources: Oxford Economics; calculations of the institutes; from 2011 forecast of the institutes.

In synergy with the automatic stabilisers public finances will continue to recover fast: After reporting a deficit of € 82.0 billion (3.3 % of GDP) in the previous year, the general government budget will exhibit a shortfall of € 52.2 billion (2.0 % of GDP) in this year, remaining considerably below the limit of the Stability and Growth Pact. Next year the deficit is expected to amount to merely € 30.8 billion (1.2 % of GDP, Table 14). In 2010 gross debt of the general government jumped by 10.1 % of GDP to 83.5 % of GDP. This increase resulted, above all, from bailout measures for the banking sector. Liabilities and risky assets were divested from the balance sheets of Hypo Real Estate (HRE) and West-LB to the government sector. Excluding these effects the government debt ratio would have remained roughly constant at 73.7 % of GDP. In this year and next year government debt will rise further due to the bail-out measures for Greece and Ireland. However, the government debt ratio will decline slightly due to decreasing public deficits (Table 14).

Medium-term projection for Germany: Muted recovery

The medium term projection of the institutes has been produced using Oxford Economics' Global Macro Model (OEF Model). It includes 46 country or regional models, whose interactions are represented by export and import functions. The model's version of February 2011 served as a basis. It was modified in the following respects: the Obama Administration's budgetary plans are taken into account, lowering government consumption and transfer payments. In view of high unemployment, enhanced budget consolidation and stagnating house prices, the savings ratio of households in the US and in the UK is expected to decline less sharply than assumed in the model. Based on recent reports a slightly "tougher" consolidation policy was assumed than in February's version of the OEF Model. In line with most recent trends a slightly higher dollar-euro exchange rate was assumed for 2011 and 2012 (1.39 and 1.36 dollars per euro, respectively). For the three following years the exchange rate was held constant at 1.30 dollars per euro (Table 15).

Global economy continues to grow vigorously

Based on these assumptions the following baseline projection for global economic trends emerges (Tables 16 and 17, Figure 6):

Short-term interest rates in the US remain low despite an increase in 2012. They will be 2 % on average during 2011-2015. In the euro area the level of short-term interest rates will continue to be higher (2011-2015: 2.7 %). The crude oil price (Brent) will remain stable after the strong increases of 2010 and 2011 and will amount to 99.6 dollars per barrel in 2011-2015 (32.0 % higher than in the period from 2005 until 2010). Other commodity prices will increase only slightly. Until 2015 world trade will expand by an average of 7.3 % per year, i.e. almost as rapidly as in the 1990s.

Under these conditions the advanced economies will experience similarly high growth rates as in the 1990s (2.6 % per year).

As production in emerging economies will continue to expand at an accelerated pace, world economic growth will turn out noticeably higher (4.5 % per year).

Tabelle 17

Macroeconomic trends in Germany
% change

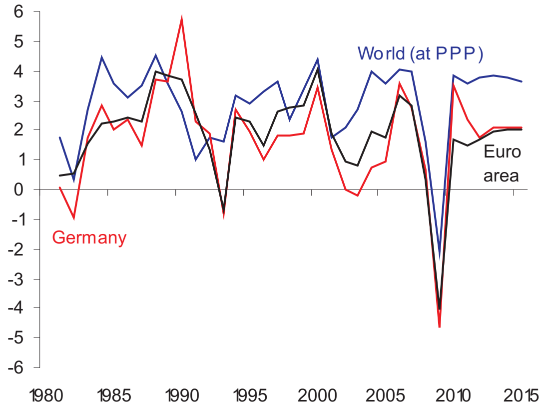
	1991-2000	2001-2005	2006-2010	2011-2015
Expenditure				
Consumption expenditure				
Private households	2.0	0.3	0.4	1.4
Government	2.0	0.4	2.0	0.6
Gross fixed capital formation	1.9	-2.0	2.0	4.2
Exports	5.4	6.1	4.1	6.4
Imports	6.0	3.7	4.6	6.7
Gross domestic product	1.8	0.6	1.1	2.1
Potential output	2.0	1.5	1.2	1.5
Output gap[1]	-0.1	-1.1	-1.8	-1.3
Prices				
Gross domestic product	1.9	1.1	1.0	1.5
Consumption expenditure	1.9	1.4	1.3	1.7
Unit labour cost	2.9	0.0	1.1	0.9
Income distribution				
Compensation of employees	4.6	0.6	2.2	3.0
Operating surplus and mixed income	0.6	4.5	1.5	3.9
Production				
Employment (persons)	0.2	-0.2	0.8	0.3
Productivity per employed person	1.6	0.7	0.3	1.8
Gross domestic product	1.8	0.6	1.1	2.1
Memorandum items:				
Unemployment rate[1]	9.5	10.4	8.7	6.9
Budget deficit (% of GDP)[1]	-2.2	-3.5	-1.6	-1.1
Current account balance (% of GDP)[1]	-1.1	2.7	6.2	4.1

[1] Average level.

Sources: Oxford Economics; calculations of the institutes; from 2011 forecast of the institutes.

Graph 6

Global growth momentum
Annual %change of real GDP



PPP: Purchasing power parity.

Sources: Oxford Economics; calculations of the institutes; from 2011 forecast of the institutes.

In the EU-27 GDP will increase by 2.1 % per year, i.e. more slowly than in the 1990s (2.4 %), but faster than in the past decade (1.3 %). For the euro area the OEF Model forecasts an economic growth of merely 1.8 % per year owing to the persistent economic slump in those countries which implement rigorous budget consolidation policies.

This projection implies, as is the rule for baseline scenarios, that there will be no serious turbulences and the world economy will converge again towards its long-term steady state. Under these conditions the average GDP growth will be higher in 2011-2015 than in the two preceding five-year periods, as the latter were affected by a recession (2001) and a severe global economic crisis (2009).

However, it is possible that serious problems, such as an exacerbation of the debt crisis or a permanently higher oil price, may “disturb” the convergence towards the steady state also in the coming years. This forecast of the global economy thus seems rather on the optimistic side. The consequences of the turbulences mentioned above are assessed by means of alternative scenarios.

Economic growth in Germany lowers unemployment and budget deficit

The OEF Model projects medium-term growth in Germany at 2.1 % per year, the highest since the beginning of the 1990s. Thus German GDP will expand 0.3 percentage points faster than the euro area.

The trend of total demand shows a similar pattern as in the past. However, the extent of Germany’s export dependence is expected to decline somewhat. Whereas domestic demand has not grown appreciably since 2000, private consumption will increase by 1.4 % per year until 2015 and gross fixed capital formation even by 4.2 %. Correspondingly import demand will grow noticeably faster. The current account surplus will decline by 1.5 percentage points of GDP to 3.6 % in 2015.

As a consequence of the “great recession” of 2009 the output gap amounted to -3.3 %in 2010. By the end of the forecast period in 2015 it is expected to close almost completely: Until 2015 annual GDP growth will amount to 2.1 %, whereas potential output growth will be only 1.5 % per year, only slightly above the rate quoted by the federal ministry of finance (BMF 2011, p. 60). The BMF assumes a slightly smaller output gap for 2010 (-1.8 %), but also forecasts that it will almost close by 2015. The calculations of the OEF Model thus roughly coincide with those of the BMF. For this reason we can still assume a negative cyclical component with respect to the debt brake until 2015.

Under these conditions inflation will remain moderate. On average the GDP deflator will increase by

1.5 %, the private consumption deflator by 1.7 %. At the same time unit labour costs rise noticeably more slowly (0.9 %) per year. The OEF Model thus implies that also in the coming years real wage increases will turn out weaker than the increase in labour productivity (1.8 % per year). Correspondingly compensation of employees will increase more slowly until 2015 than operating surplus and mixed income (3.0 % compared to 3.9 % per year).

Until 2015 the unemployment rate will continue to decline in Germany, namely from 7.7 % (2010) to about 6 % (2015). As trade unions and employers as well as policy makers succeeded in preventing a marked increase of unemployment during the crisis of 2009 (especially by means of short time working schemes), its initial level continues to be below the average of the preceding two decades. For this reason, at 6.9 %, the unemployment rate will even be lower than the average of the 1980s during the whole forecast period.

Under the conditions of the baseline scenario public finances will also improve. The budget deficit will decline from 3.3 % of GDP in 2010 to almost zero in 2015. From 2012 onwards nominal economic growth will exceed the deficit (in % of GDP). Thus, from then onwards the government debt ratio will decline.

Alternative medium-term scenarios

Starting from this baseline several scenarios were calculated using the OEF Model, to assess the effects of individual risks or desirable developments. The former include in particular a marked increase of the oil price as well as enhanced budget consolidation efforts in the euro area. The different scenarios are to assess what will be the consequences, if, in one case, all euro area countries cut government spending, or, in the other case, increase taxes (in each case by 1 % of GDP).

In addition to these three scenarios, the analysis is to examine whether and to what extent alternative strategies would be suitable for mitigating two of the most serious problems in the euro area: the size of government debt and the current account imbalances.

In the former case the analysis investigates what would be the consequences, if a (future) European Monetary Fund (EMF) issued euro bonds at a fixed interest rate, i.e. if not only the short-term, but also the long-term interest rate were determined by monetary policy. There were two determining reasons for such a simulation. Firstly, in markets for government bonds and (related) credit default swaps (CDS) interest rates have reached levels which make a stabilisation of government debt impossible. For instance Greece is making drastic consolidation efforts and economic activity is declining. Under these conditions bond yields of 12 % cannot be financed. Secondly, the Federal Reserve has been focusing precisely on this objective, namely stabilising bond yields at a low level by buying government bonds.

As this scenario merely looks into the effects of such a low-interest strategy, the numerous other preconditions, which are necessary for its implementation and especially the criteria a country has to meet to obtain funds from the emission of euro bonds, do not have to be discussed.

The second "strategy scenario" serves to examine whether and to what extent additional real wage increases in Germany could help to reduce the current account imbalances in the euro area. In this case, too, the focus is less on the simulation of a probable scenario than on an assessment of the effect of a policy that would correct the wage restraint of the past ten years. For this reason it is not necessary to describe which institutional arrangements (e.g. "concerted action") would bring about such a real wage increase.

Thus, the following five scenarios were analysed using the OEF Model:

- Scenario 1 "oil price increase": Due to growing political turbulence in the Middle East and higher uncertainty about the scope of future exploitation of nuclear energy after the catastrophe in Japan the oil price will be $ 50 per barrel higher in 2011-2015 than in the baseline scenario (i.e. roughly $ 150).
- Scenario 2 "spending cuts": As the consolidation fails to meet the objectives (e.g. due to weakening economic activity) and the Stability and Growth Pact is tightened at the same time, government spending on consumption and investment is reduced by 1 percentage point of GDP in the euro area countries.
- Scenario 3 "tax increase": For the same reason consolidation measures are implemented on the revenue side of the budget. Direct taxes are raised by 1 percentage points of GDP in the euro area countries.
- Scenario 4 "low interest rates": The ECB keeps its key interest rate at 1.5 % until 2015. Bond yields are stabilised at 3 %. The latter is achieved by ssuing euro bonds at a fixed interest rate. All 17 countries guarantee these new bonds. Risk premiums are thus minimised.
- Scenario 5 "real wage increase in Germany": Wages in Germany are increased by an additional 2 % per year compared to the baseline scenario. This is to assess the effects of such a wage policy, which partly corrects the wage restraint of the past 15 years, on economic trends in the euro area.

Table 18

Alternative scenarios of euro area medium-term trends

Deviation of cumulative (2011-2015) from baseline in 2015

	Scenario 1: Oil price increase	Scenario 2: Spending cuts	Scenario 3: Tax increases	Scenario 4: Low interest rates	Scenario 5: Real wage increases
Euro area					
GDP[1]	-4.2	-3.3	-2.2	5.0	1.1
Unemployment rate[1]	1.5	1.3	0.8	-1.5	-2.5
Inflation[2]	0.6	-0.4	-0.3	0.7	0.2
Budget balance (% of GDP)[1]	-3.8	4.8	3.8	4.2	2.0
Government debt ratio	2.0	-1.7	-1.7	-7.3	-4.7
Current account[1]	-4.4	1.8	1.2	-0.6	-0.9
Germany					
GDP[1]	-4.8	-3.0	-2.1	3.5	0.1
Unemployment rate[1]	1.6	1.2	0.8	-0.9	-7.8
Inflation[2]	0.8	-0.3	-0.2	0.5	0.0
Budget balance (% of GDP)[1]	-3.6	5.0	3.9	1.7	5.0
Government debt ratio	1.7	-2.8	-2.3	-3.6	-9.9
Current account[1]	-3.8	1.9	1.6	-0.2	-6.9
France					
GDP[1]	-4.9	-3.4	-2.1	4.1	1.2
Unemployment rate[1]	1.4	0.8	0.5	-0.8	-0.2
Inflation [2]	0.7	-0.4	-0.2	0.5	0.2
Budget balance (% of GDP)[1]	-3.0	5.8	4.4	2.3	0.3
Government debt ratio	1.4	-3.2	-2.7	-4.3	-1.0
Current account[1]	-4.8	2.4	1.4	-0.3	0.9
Spain					
GDP[1]	-3.9	-6.8	-3.3	6.6	0.6
Unemployment rate[1]	1.5	2.1	1.0	-1.5	-0.1
Inflation[2]	0.7	-0.7	-0.3	0.7	0.2
Budget balance (% of GDP)[1]	-2.2	-2.6	3.0	4.3	0.2
Government debt ratio	0.7	5.7	-0.9	-7.2	-0.8
Current account[1]	-4.9	2.9	1.4	-1.6	0.3
Greece					
GDP[1]	-3.4	-3.1	-3.1	7.6	1.1
Unemployment rate[1]	2.4	2.7	1.9	-4.1	-0.5
Inflation[2]	-0.4	-1.7	-1.0	2.2	0.3
Budget balance (% of GDP)[1]	-12.2	13.4	9.1	30.7	-0.2
Government debt ratio	14.3	-0.3	0.1	-40.9	-2.3
Current account[1]	-5.7	1.9	1.2	-2.3	0.8
Ireland					
GDP[1]	-3.7	-3.0	-0.2	8.0	4.1
Unemployment rate[1]	1.9	1.1	0.1	-2.8	-1.5
Inflation[2]	0.7	0.0	0.0	0.2	0.1
Budget balance (% of GDP)[1]	-3.3	3.6	1.2	5.9	-0.2
Government debt ratio	9.1	-11.4	-3.8	-24.2	-1.3
Current account[1]	-8.8	1.4	-1.3	1.5	2.7
Portugal					
GDP[1]	-1.7	-1.5	0.1	4.0	1.0
Unemployment rate[1]	0.9	1.0	0.0	-1.9	-0.5
Inflation[2]	0.3	-0.6	0.0	1.0	0.3
Budget balance (% of GDP)[1]	-3.5	9.1	0.6	2.1	-0.2
Government debt ratio	2.2	-5.3	-0.5	-6.6	-1.3
Current account[1]	-10.3	0.7	-1.6	-3.1	0.6
Italy					
GDP[1]	-4.3	-3.5	-2.8	6.3	1.5
Unemployment rate[1]	1.6	1.7	1.3	-2.2	-0.5
Inflation[2]	0.6	-0.6	-0.4	1.0	0.3
Budget balance (% of GDP)[1]	-4.3	5.5	3.8	4.6	0.7
Government debt ratio	2.8	-0.3	0.0	-11.3	-2.6
Current account[1]	-3.7	1.9	1.5	0.0	1.3

Calculated using Oxford Economics' Global Macro Model.

[1] Deviation from baseline in percentage points (absolute differences).

[2] Deviation of average inflation rate 2010-2015.

[3] Spalte "2011 bis 2015": Abweichung im Jahr 2015.

Scenario 1: Oil price (Brent) increases by 50 USD.
Scenario 2: Government demand is reduced by 1% of GDP.
Scenario 3: Direct taxes are raised by 1% of GDP.
Scenario 4: Short-term euro area interest rate and long-term euro area interest rate (bond yield) are stabilised at 1.5 % and 3 %, respectively.
Scenario 5: German real wages are increased by an additional 2 % per year.

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Table 18 sums up the most important results of these simulations. For a concise presentation cumulative deviations from the baseline are disclosed for the period 2011-2015. In the case of an oil price that exceeds the baseline by USD 50 (Scenario 1) the accumulated GDP would be 4.2 percentage points lower than in the baseline scenario. Recording only the deviations in a particular year one would neglect the production losses (or gains) in the other years. For instance, in the oil price scenario euro area GDP is only 0.8 percentage points below the baseline in 2015, but the production losses accumulate to 3.4 percentage points over the preceding four years.

Similar can be said of the unemployment rate as well as the budget and current account balances. For instance, the euro area unemployment rate of the oil price scenario would exceed that of the baseline by an accumulated 1.5 percentage points between 2011 and 2015 (employment losses are suffered in each year), the budget balance would worsen by a total of 3.8 percentage points of GDP, the current account balance by 4.4 percentage points (Table 18).

The effects of the scenarios on inflation are illustrated as the deviation of the average growth rate of the consumer price index between 2011 and 2015 from that of the baseline scenario. Thus, the annual consumer price inflation rate of the euro area would be 0.6 percentage points above the baseline.

For the government debt ratio the deviation from the baseline is reported for 2015. If the oil price were 50 USD higher, the euro area's government debt would be 2.0 percentage points of GDP higher at the end of the forecast period than in the baseline scenario (Table 18).

As expected the effects of a persistently higher oil price on the individual economies are similar (Table 18 includes the largest economies as well as those countries which are most severely affected by the sovereign debt crisis: Greece, Ireland, and Portugal). However the production losses due to the energy price hike turn out slightly higher in the large economies than in the smaller ones.

A simultaneous reduction of government spending on consumption and investment of the size of 1 % of GDP in all euro area countries (Scenario 2) would dampen the economy markedly, notably due to the close trade links within the euro area (the OEF Model is particularly suitable for the simulation of international multiplier effects, because it explicitly models the import and export flows). In the euro area the production losses would accumulate to 3.3 % of GDP until 2015 (Table 18).

Consolidation measures via an increase of direct taxes of the size of 1 % of GDP (Scenario 3) would cause smaller growth losses. Until 2015 the production losses relative to the baseline scenario accumulate to 2.2 % of GDP (compared to 3.3 % in the case of additional spending cuts). This is due to the different effects of the two consolidation strategies on income and demand. The reduction of government demand markedly dampens investment and foreign trade. Correspondingly, manufacturing output declines much more sharply compared to the baseline than in the case of a consolidation via measures on the revenue side of the budget.

By far the largest improvement of public finances could be achieved, if the euro area succeeded in pushing the general nominal interest rates below the nominal GDP growth rate. This is because the crucial factor for the sustainability of public debt not its level, but its trend. For the latter the interest growth differential is of fundamental importance because of the dynamic budget constraint (Schulmeister 1996).

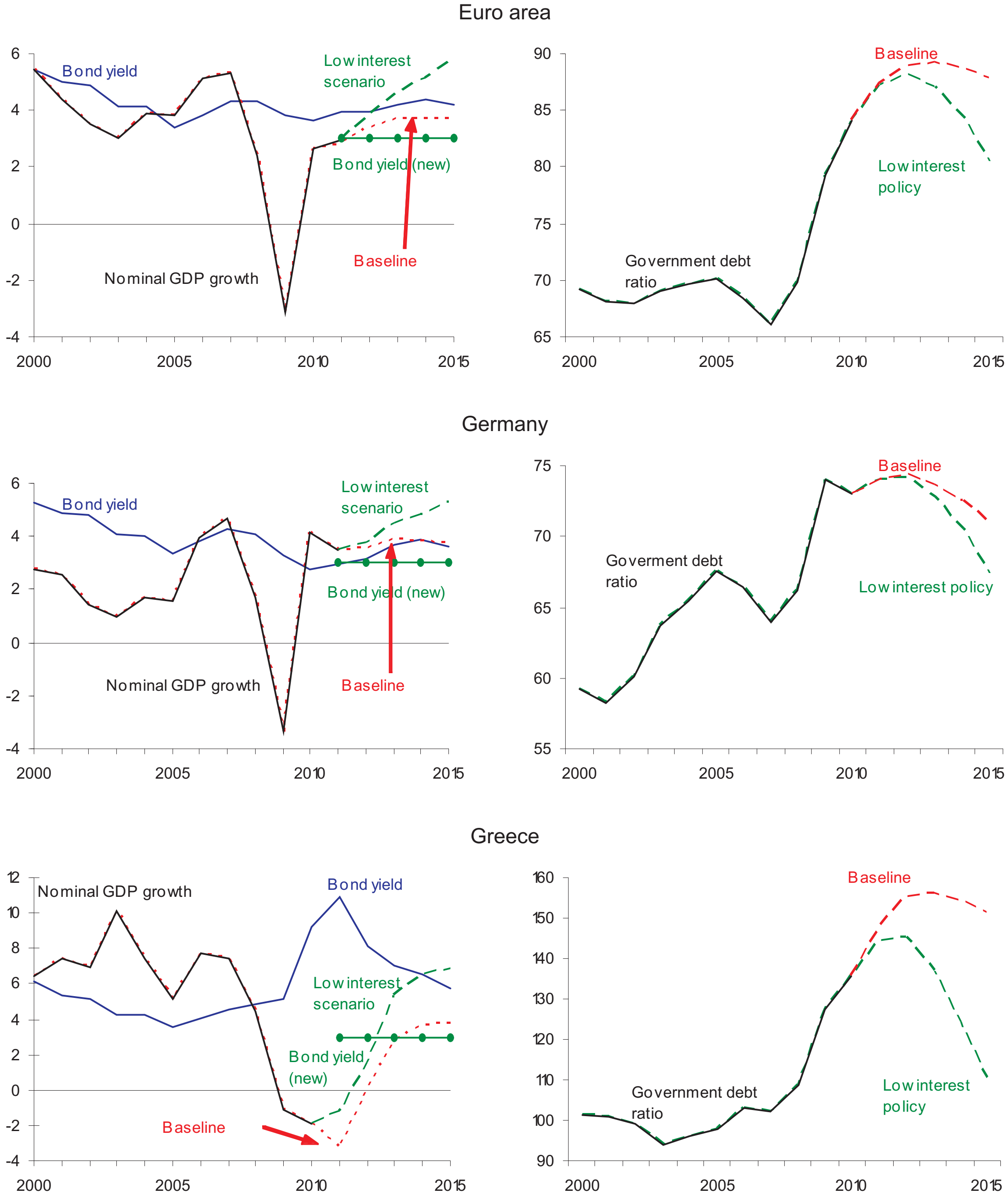
- If the interest rate is below the growth rate, an indebted sector can borrow more than it has to pay in interest on its existing debt. It can thus sustain a primary deficit without necessarily increasing the debt ratio.
- If the interest rate is above the growth rate, an indebted sector has to generate a primary surplus. It can only borrow less than its interest payments on existing debt. This implies a liquidity drain from the indebted sector.

As a consequence of the high interest policies of the early 1980s and the subsequent decline in inflation the nominal interest rate level has almost permanently remained above the nominal growth rate in countries with a particularly low inflation rate such as Germany. The business sector has adjusted to these conditions: It "turned" its primary balance into a surplus by reducing its external financing and real investments and by increasingly accumulating financial assets.

Private households permanently generate primary surpluses (they save more than their interest income). As all primary balances add up to zero, the government can only generate a primary surplus, if the fourth sector (the rest of the world) sustains high primary deficits. Although the German economy succeeded in such a policy in recent years, with current account balances exceeding the net interest payments from the rest of the world, but this only served to shift the problem to other countries.

Graph 7

Interest rate, growth rate and debt ratio in the euro area, Germany and Greece



Sources: Oxford Economics, calculations of the institutes; from 2011 forecast of the institutes.

Figure 7 illustrates the importance of the interest growth differential. Between 2000 and 2005 this relation was strongly positive, as already since the early 1980s: Despite sizeable efforts to cut spending the government debt ratio increased markedly. In Spain, by contrast, the level of long-term interest rates was significantly below the nominal growth rate: Despite strong increases in spending government debt decreased substantially until 2007.

The most important "channels" via which the interest growth differential affects the debt trend are not the direct effects (reduction of the government's interest payments), but the indirect effects due to companies' increased or reduced willingness to invest (repercussions on GDP).

The results of the model simulation elucidate these relationships. If the short-term and long-term interest rates in the euro area were stabilised at 1.5 % and 3 %, respectively, aggregate output (GDP) in the euro area would be 5 percentage points above baseline. Correspondingly, the unemployment rates would decline markedly as well as public deficits and debt (Table 18). At the same time inflation would by 0.7 percentage points higher on average than in the baseline simulation. Nominal GDP growth would thus exceed the baseline level by much more than real GDP growth (Figure 7). The interest growth differential would thus become even smaller, i.e. more negative (dynamic feedback effect).

A stabilisation of euro area interest rates at a low level contributes the more to an improvement of public finances, the higher the initial level of government debt and of bond yields. Correspondingly, until 2015 government debt ratios would decline most in Greece, Ireland and Italy. However, even in countries like Germany and France a determined low interest policy (combined with the introduction of euro bonds) would entail substantial consolidation effects. This is the case, because, unlike a policy of spending cuts or higher taxes, a low interest strategy facilitates consolidation by expansion.

At the same time such a strategy helps to avoid debt restructuring and, consequently, an abrupt write-off of creditors' receivables. Further, a "haircut" would only result in time saving, but would not produce a long-term solution of the problem of government debt. This is so, because, due to the lack of exchange rate adjustments, the required turn-around in the current account from deficit to balance or even slight surplus will not be achieved in this way. Even if countries like Greece or Ireland were granted a waiver equivalent to 30 % of their debt, the debt ratio would rise again, if bond yields remained significantly above the growth rate, which would be highly likely after a "haircut". Even under the conditions of the baseline the OEF Model projects that long-term interest rates will remain markedly above the (nominal) growth rates in many euro area countries (results for Greece see Figure 7).

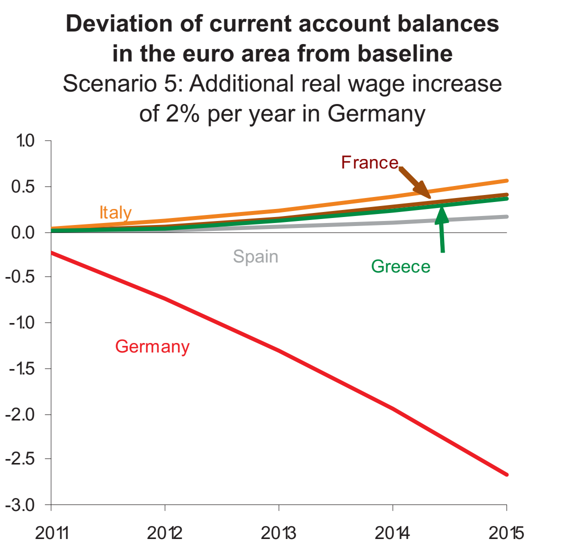
From the creditors' point of view a comprehensive low interest policy means foregoing part of their interest income. In this way they enable the debtor states to service their debt in the long run. The creditors' overall loss will turn out much smaller than in the case of (abrupt) restructuring ("haircuts").

In a final step the effects of an expansionary wage policy in Germany are analysed, particularly with respect to current account deficits in the euro area. Economically this can be explained by an improved bargaining position of trade unions in an upswing or a shortage of skilled workers. In the model the growth rate of nominal wages was raised by 2 percentage points relative to the baseline, while restricting the inflation rate to the baseline solution. This is a substantial interference with the interactions of the model variables, because a wage-price-spiral is ruled out. However, such an approach is justified, if merely a temporary redistribution in favour of wages is to be simulated.

Under these conditions domestic demand in Germany would be spurred strongly and export demand would be dampened. Private consumption and imports would rise much faster than in the baseline, exports would be weaker. Overall, until 2015 aggregate demand (GDP) would exceed the baseline by an accumulated 1.1 percentage points (Table 18). As a consequence, production would shift from manufacturing, where labour productivity is highest, to services, where labour productivity is significantly lower. At a slightly higher aggregate output, employment would thus rise much faster than in the baseline. Therefore the unemployment rate would turn out much lower. Under these conditions public finances would also improve further.

Under these conditions Germany's high current account surpluses would be reduced significantly (by an accumulated 6.9 percentage points of GDP relative to the baseline simulation). Nevertheless, Germany would remain a net exporter. At the same time the current accounts of all deficit countries in the euro area would improve, albeit to different extents. The external position of the euro area as a whole with respect to the rest of the world would worsen slightly (Table 18, Figure 8).

Graph 8



Sources: Oxford Economics; calculations of the institutes, from 2011 forecast of the institutes.

Economic policy recommendations

Difficult challenges

Despite the favourable economic situation economic policy in Germany and, particularly, in the euro area is facing substantial challenges. Economic policy has to initiate a self-sustaining upswing, which is a prerequisite for a further reduction of unemployment and the consolidation of public finances, which have been burdened heavily with the costs of the financial crisis. Currently, these objectives are not easy to meet, because the enormous problems of the euro area still have to be overcome.

In this respect it is vital to find a stable solution to the debt problems of individual euro area member states as soon as possible. Otherwise there will be repeated turbulence in financial markets, because the indebted countries are, actually or allegedly, no longer able to service their debts.

Such waves of increasing uncertainty would massively impair the upward trend. Furthermore, during the forecast period almost all crisis countries will already be stuck in deep recessions due to the harsh consolidation strategies. For this reason any upswing in the euro area as a whole would have to rely on a correspondingly stronger economic activity in the other countries.

In any case a solution to the debt problem will require serious institutional changes in the euro area. To achieve a stable solution, a clear diagnosis of the current crisis is necessary as a starting point.

The two main problems are the diverging trends of inflation, competitiveness and current account balances within the euro area as well as the related divergences in bond yield levels.

Euro area crisis not yet overcome

Growing imbalances between euro area countries

A main problem in the evolution of the euro crisis is that, for an extended period, the ECB's inflation target has not been met by the individual member states. In a currency union of otherwise sovereign national states it is not sufficient to meet the inflation target in the currency area as a whole, which was indeed achieved. Rather, every individual member state has to succeed in generally meeting this target. However, precisely this was not the case. This is at the root of the current account imbalances which have been a burden on the euro area for quite some time. When the euro was introduced this danger was culpably ignored.

Those countries, where inflation rates remained above the ECB's inflation target for an extended period, lost competitiveness in the longer term, so that their current account balances turned more and more negative. In some countries an inflation rate above the ECB target was also a symptom of cyclical overheating or excessive house price increases. These countries, particularly Greece, Ireland, Portugal and Spain, incurred more and more debt vis-à-vis the rest of the world. In these cases it was irrelevant whether the government incurred the debt as in Greece or the private sector as in Ireland and Spain. Sooner or later the creditworthiness of the debtor becomes doubtful. As can be observed since the end of 2009 this can lead to substantial risk premiums in the interest rates, which, in the long run, can be borne neither by the government nor by the private sector.

The current account crisis in the euro area is not only caused by countries with excessive inflation, but also by countries with overly low inflation. For good reasons, the ECB's inflation target has a lower bound, as the inflation rate is to be close to, but not above 2 %. If a country persistently remains below this target, as has been the case particularly in Germany, this initially appears as a permanent gain in competitiveness, which entails an increasing accumulation of current account surpluses.

Indeed this can also reflect an insufficient domestic economic activity as was the case in Germany be-tween 2001 and 2005. In countries with a current account surplus growing external assets are accumulated. However, this seemingly favourable prospect evaporates at the very moment, when the debtors lose their creditworthiness, as the counterpart of the debtors' loss in creditworthiness consists in the depreciation of the creditors' external assets. Then, the fruits of the increased competitiveness rot fast. They have been unsustainable. Creditors and debtors are thus both affected by the current account crisis.

Therefore, it is in the best interest of both, creditors and debtors, to find solutions, which, on the one hand, help to overcome the currently pressing debt crisis, and, on the other hand, contribute to the prevention of future crises. The former can only be achieved, if a debt default is avoided for all debtor countries. Otherwise, loans to euro area countries would be subject to risk premiums for a very long time, which would render any sustainable solution to the debt crisis in the near future impossible. Furthermore, there is a danger that additional countries are sucked into the whirlpool of the crisis. The euro area would become a permanent crisis area. Therefore, it is vital even in the short term that interest rates in the euro area are kept at a low level (this is also what the model simulations show). However, this cannot exclusively be the task of monetary policy, but requires the establishment of a European Rescue Fund, which, in a rudimentary form, has been enacted by the European Council. Effective prevention is only achievable, if institutional arrangements ensuring that the ECB's inflation target is also met at country level are implemented within the euro area.

Existing proposals do not fully meet these requirements. An extension and institutionalisation of the European Financial Stability Facility (EFSF) by the European Council may be a step in the right direction, because it helps the community of euro area countries to signal credibly that it will not accept that any of the crisis countries is driven into default by increased risk premiums. However, like the anti-crisis measures in 2010, the decisions are insufficient to calm financial markets.

Further, a credible concept for the permanent prevention of current account imbalances is lacking. The "Pact for Competitiveness", which the German Federal Government had proposed in cooperation with the French government, was inappropriate in its existing form, and was therefore rightly softened by inserting suitable provisions.

The first fundamental problem of the pact, which had been proposed by the German Federal Government, was that it saw the need for adjustment exclusively in the deficit countries, but not in the surplus countries. It thus ignored that meeting the inflation target is the duty of each individual member state – not only those whose inflation rates are too high, but also those whose inflation rates are too low. The duty of the former is to increase their competitiveness to raise exports. The latter have to make sure that the benefits of their high competitiveness also accrue to the domestic economy. This would cause imports to increase. Both help to overcome the current account balances.

By contrast, the one-sided focus on the competitiveness of the deficit countries increases their adjustment burden in a way that unnecessarily exacerbates the crisis in these countries and thus simultaneously makes it more difficult to overcome the imbalances. As this approach exclusively pushes for lower inflation rates there is also a danger of deflationary tendencies in the euro area as a whole.

The second fundamental problem of the "Pact for Competitiveness" was that the adjustment burden was placed exclusively on wages. Indeed, it is correct that wages are to evolve in line with the inflation target. This means that wages generally have to rise more slowly in the deficit countries, but increase faster in the surplus countries. However, this is not a sufficient but merely a necessary condition for an equilibrium. Profits, too, have to take the inflation target into account as a benchmark. Particularly in those countries where the current account imbalances originated from the private sector profit inflation rather than wage inflation was at the origin of high price increases. This is not taken into account in the "Pact for competitiveness". It is thus clearly falling short.

The third fundamental problem of the German Federal Government's "Pact for Competitiveness" was that governments alone were made responsible for wage formation. This would be possible only with massive government interference with the free wage bargaining process between employers and unions in the individual countries.

Due to these fundamental problems the European Council was right in not adopting the pact as submitted. However, some toughening with respect to new government debt and the surveillance of current account deficits was decided at the EU summit at the end of March. Nevertheless, a suitable long-term strategy to prevent current account imbalances is still lacking. For this purpose, a pan-European perspective is necessary. National strategies cannot solve the crisis.

From the financial crisis to the euro area debt crisis

The financial crisis of 2007-2009 has not only compelled a massive economic policy intervention, but also massively exacerbated the imbalances within the euro area, most recently by drastically widening the yield spreads of government bonds.

The financial crisis itself was caused by risky innovations in an environment characterised by the uncontrolled liberalisation and globalisation of financial markets and by the explosive growth of capital that was seeking liquid and profitable investment opportunities. The financial markets have proven to be unstable.

The crisis is not due to the increase in public debt or public deficits. In 2007 the OECD member states exhibited a deficit of merely 1.3 % of GDP, whereas those of the euro area reported a deficit of 0.6 % of GDP. However, the crisis entailed an unprecedented worsening of public finances. Now the financial markets and international organisations declare these very deficits the core of the problem.

Indeed, the crisis caused a strong increase of public deficits and debt in all OECD member states. The countries stimulated economic activity and rescued their banking systems. They had to raise their expenditures for unemployment benefits. In particular, they suffered substantial losses in tax revenues.

By international comparison, the worsening of public finances in the euro area was less pronounced than it was in the United States, in the United Kingdom or in Japan. However, some euro area countries were particularly strongly affected, namely those that had experienced a particularly strong growth before: Greece (which already had high public deficit before), Ireland, and Spain (which experienced the bursting of a house price bubble).

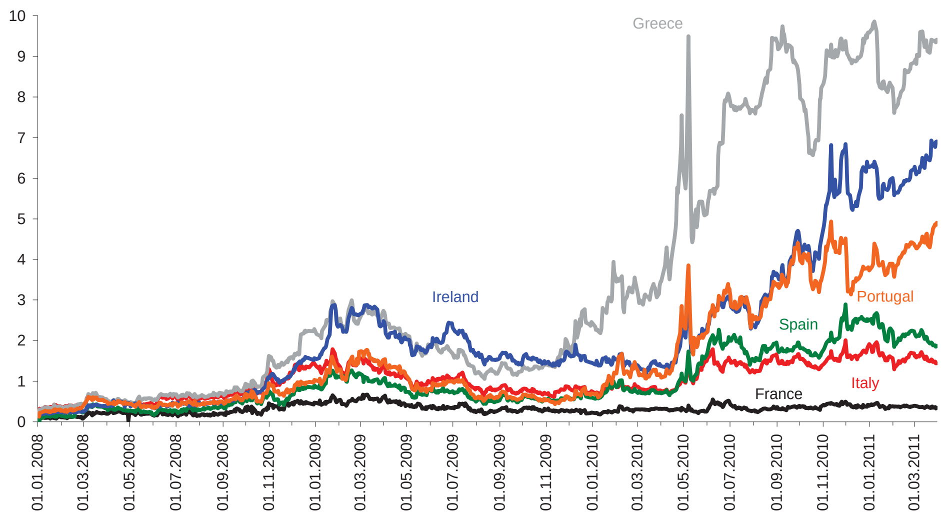
During the crisis the strong increase in public debt did not lead to an increase of global long-term interest rates. Rather, the latter declined, because markets expected that key interest rates would remain low for an extended period and there was no risk of inflation or overheating.

From the end of 2009 onwards the markets have discovered the weaknesses of the euro area (Figure 9). The fundamental problem consists in the hybrid design of the euro area. On the one hand the euro area is made up of sovereign national states; on the other hand there is no longer any monetary sovereignty. Debt denominated in euro can thus be both domestic debt and external debt. The former is the case when member states incur debt from nationals; the latter is the case, when they incur debt from the rest of the euro area. Unlike, for example, the governments of the USA, the UK and Japan, which cannot become insolvent, if their debt is denominated in national currency, because they can eventually be financed by their central banks, the euro area countries do not have this option, because they are not the sovereigns of their own currency.

Therefore, government debt in the euro area is different in character from that of the USA or Japan. Whereas the latter is, in principle, backed by the central bank and these countries only get into trouble, when they incur excessive debts in foreign currency, the euro area countries face difficulties, even when

Graph 9

Yield spread of 10-year government bonds of selected euro area countries over German Bunds
percentage points, daily data



Source: Reuters EcoWin (EcoWin Financial).

Decisions of the European Council of 24 and 25 March 2001 and Reform of the Stability and Growth Pact

As specified by the conclusions of the European Council (2011) and prepared by a summit of the euro area heads of state or government (Euro area heads of state or government 2011), the effective credit volume of the **European Financial Stabilisation Facility (EFSF)** is to be raised from about € 250 billion to **€ 440 billion.** The **European Stability Mechanism (ESM**), which will replace the EFSF, will begin operations on 1 July 2013. An effective credit volume of **€ 500 billion** is planned. Unlike in the case of the EFSF, the euro area countries will have to make a cash deposit of a total of € 80 billion. This is not to be paid in at once, though, but in several instalments. This is complemented by committed callable capital and guarantees of € 620 billion. The interest premium on the cost of the ESM's credits is 2 percentage points per annum during the first three years and 3 percentage points per annum for longer maturities.

Credit is provided only under the following three conditions: 1. Credit is provided only after a rigorous **analysis of public debt sustainability**. 2. The debtors and the European Commission negotiate an adjustment programme for the reduction of their debt, which has to be approved by the European Council and the ESM's Board of Governors. 3. If, according to the debt sustainability check, the debt cannot be reduced in the long term despite the adjustment programme, the debtor state hast to negotiate a debt restructuring with the existing creditors.

From 2013 all government bonds of the euro area with a maturity of more than one year are to be s**ubject to collective action clauses** which, in the case of solvency problems, make the creditors contribute to a solution via repayment deferrals or interest waivers.

Credit is provided in cooperation with the IMF and in liaison with the ECB. The ESM has a preferred creditor status over all other creditors excluding the IMF, which in turn has a preferred creditor status over the ESM. After the approval by the Board of Governors of the ESM, the purchase of government bonds in the primary market is permitted in addition to the provision of loans. The agreements required for both, the increase of the EFSF's capital as well as the establishment of the ESM, are to be signed by the end of June 2011.

The Pact for the Euro – also known as Euro Plus Pact, because it was adopted by further EU countries besides the euro area member states – includes joint agreements and commitments, but no direct sanctions. It is based on a joint initiative of the German Chancellor Merkel and the French President Sarkozy. Core elements of the Pact, which was agreed at the Council meeting, concern public finances and the labour market. To limit the burden of the social systems on the government budget, a number of measures are proposed, which include, inter alia, an increase of the retirement age, raising the labour market participation rate and the reduction of early retirement provisions. In addition the rules of the Stability and Growth Pact are to be implemented into national law, the legal form and detailed design remaining the competence of the member states. To enhance competitiveness in all member states, but especially in those facing sovereign debt problems, unit labour cost trends are to be used as an indicator for corrective measures. Adjustments should focus on the labour market and wage setting – while the right of unions' and employers' to negotiate wages is to remain unaffected. Correspondingly, the abolition of wage indexation and a further deregulation of labour markets are recommended. The public sector is to play a particular role. Its wage trends are to serve as a guideline for the whole economy and to help increase competitiveness. This implies that public sector wage trends should exert a dampening effect in the case of high and persistent unit labour cost increases, which would require lower wage increases in the public sector.

The Reform of the **Stability and Growth Pact** is to be enacted in June 2011. The Reform itself was only a side issue at the Council meeting of 24 and 25 March 2011. The current state of affairs is that, besides the 3-%-limit for new public debt and the objective of a budget in balance or surplus, the criterion of the debt ratio is to be strengthened: If the debt ratio is not reduced below 60 % within 20 years, sanctions can be implemented. At the same time the excessive deficit procedure is complemented by a macroeconomic imbalances procedure. The latter comprises the assessment of a country's macroeconomic situation based on a set of indicators including both public and private debt as well as the current account balance. Here, too, fines are envisaged as sanctions, if a country exhibits macroeconomic imbalances. The imbalances are to be reduced by means of structural reforms.

they incur high debts in euro, i.e. in their own domestic currency. Consequently, government bonds of the euro area countries are fundamentally less secure than those of the USA or Japan. This explains why investors in financial markets divested themselves of the weakest euro area countries' bonds. The highly indebted euro area countries are subject to a double restriction. They neither have the possibility to devalue their own currency, nor do they have a central bank which can intervene to stabilise the economy.

The relatively insecure nature of the European government bonds is cemented by the decisions of the European Council of 24 and 25 March 2011 (see box *Decisions of the European Council of and 25 March 2011 and Reform of the Stability and Growth Pact).* The receivables of the European Stability Mechanism (ESM) will have priority over private sector receivables. From June 2013 onwards issues of government debt securities will include collective action clauses. This means that in case of the insolvency of the issuing country, which is proclaimed by the European Commission and the IMF, the respective country will be entitled to renegotiate the debt repayment schedule, the renegotiated schedule applying to all creditors, if it is accepted by a qualified majority. Euro area countries' debt securities would thus keep their status as a relatively insecure investment compared to US or Japanese government bonds. Financial institutions would no longer classify them as risk-free. Interest rates on government debt would thus be higher, more volatile and less controllable. This will impair the member states' fiscal policy, and will result in a permanent risk of speculative attacks.

In many countries the interest rate level declined as they entered monetary union, because from then on the inflation target was lower than before. For this reason, there was a high incentive, both for the government and for the private sector, to incur high debts both domestically and from the rest of Europe. With lower growth due to the financial crisis there is an increasing risk that the higher debt level cannot be serviced any more. The market thus demanded higher interest rates, which caused a vicious circle, because the risk of a government default increased as interest rates rose, which made the interest rates rise further.

The speculation was fuelled by the rating agencies who declared the debt of individual euro area countries risky, although the scenario of a euro area country defaulting on its debt was extremely unlikely a priori. The rating agencies themselves increased this probability. Speculation was also facilitated by the emergence of an unregulated market for credit default swaps (CDS), which allow speculating against government debt without investing large amounts of money. This was all the more profitable the more uncertainty increased.

Austerity policy is not enough

The current strategy of the European Commission and the member states includes three elements: The implementation of austerity packages, institutional reform, and the introduction of a financial solidarity mechanism.

Although the economic recovery in the EU is fragile and unemployment is high, the reduction of government deficits has become a top priority of the European Commission. It is to be achieved primarily via public spending cuts, because tax increases allegedly harm work, saving and investment incentives. This principle does not only characterise the European Commission's policies, but also the recommendations of the IMF and the OECD.

In view of high interest rates and financial instability, those countries which are forced to implement particularly restrictive economic policies are paying this with an economic slump. Under these conditions it is particularly hard to meet the consolidation objectives.

Furthermore, the restrictive fiscal policy renders those measures impossible, which would improve growth conditions in the EU. These include in particular strategic investment into research, education, health, infrastructure and the protection of the environment. Such investments foster the sustainability of the EU societies' development not only from an economic (in particular via an improvement of the competitiveness of the industrial sector) but also from a social and an ecological perspective.

Designing a sustainable upswing

Overall, the euro area is suffering from diverging and weak economic trends. In addition, productive capacity is markedly underutilised. The cost of the crisis was 8.5 percentage points with respect to the GDP trend. By contrast, the euro area is not suffering from an external imbalance: Its current account is roughly balanced.

In the short run economic policy should, above all, aim at closing the output gap. The euro area must not regard the growth losses due to the crisis as irreversible. This would imply accepting permanently higher unemployment and a persistently low labour market participation rate of young and older workers.

The reduction of imbalances in the crisis countries requires a joint strategy. One cannot ask the deficit countries to bear the whole adjustment burden, without requiring the surplus countries to question their strategies. An asymmetric strategy would increase the overall growth imbalance.

On the contrary, the current account imbalances call for a symmetric strategy: The surplus countries (Germany, Austria, the Netherlands, and Finland) must aim at an increase of their domestic demand and wages. For the deficit countries (Spain, Greece, and Portugal) the reverse is required.

The period before the crisis and the crisis itself have shown clearly that the euro area suffers from fundamental flaws. These are now fuelling financial market speculation on public debt. There is a dilemma. A total guarantee of any amount of government debt would create a moral hazard problem, because each country could expand its debts without limit. The lack of a guarantee leaves the field to the games of the financial markets.

To stabilise the situation in the markets for sovereign debt, it is therefore necessary that the euro area countries jointly guarantee government debt securities. This guarantee has to be backed by a modified ESM and by the ECB.

Currently, three scenarios of an exit from the crisis are conceivable. All current decisions point towards a restriction scenario, in which all countries implement restrictive fiscal policies to reduce their government deficits and calm the financial markets. Stagnation in the euro area would be the consequence; yield spreads would remain high.

The second scenario is that of a break-up. The crisis countries can give up remaining in the euro area, because the effort they would have to make to remain there would be too demanding, both from the perspective of public finances and from that of competitiveness. These countries could prefer leaving the currency area. Considerable exchange rate adjustments, government defaults and write-offs of debt would be the consequences.

The third scenario assumes a profound reorientation of Europe towards more solidarity between the countries. This is the path the institutes propose to follow.

A stable framework for the euro area

Whether the euro area crisis can be overcome crucially depends – as the simulations show – on the interest rate level for the crisis countries. Their current bond yields would inevitably lead to a default. The essence of any measure must therefore consist in a regulation that ensures that the capital market rate is low enough for a consolidation process to be realistic. An important but not sufficient prerequisite for this is that the interest rate for newly issued credits of the ESM, which has already been lowered compared to the EFSF, will be fully passed through to the debtors. The surcharge of a risk premium can be dispensed with also, because it is the clear and primary objective of the rescue facility to prevent insolvencies and to restore creditworthiness.

In the medium term the surveillance of macroeconomic developments and the safeguarding of the solvency require a one stop solution: Therefore, the institutes suggest the establishment of a European Monetary Fund (EMF), which would combine the tasks of the envisaged ESM as well as a reformed Stability and Growth Pact. The establishment of the EMF requires the creation of an institutional framework, which respects the euro area's democratic institutions.

The EMF would have the task to prevent current account crises and to provide support in the case of a crisis. It issues euro bonds, which are guaranteed jointly by the euro area countries.

The possibility to borrow by means of euro bonds should be available to all member states from 2013, albeit not to an unlimited extent. The EC and the member states should settle a scenario with coordinated macroeconomic policies targeting the highest GDP growth consistent with price stability and the reduction of domestic imbalances: too high or too low inflation, too large external account surpluses or deficits. Member statesrunning economic policies consistent with this scenario will have a right to borrow through Eurobonds. Consequently, MS with current account surpluses have the possibility to implement stimulus programmes at relatively low cost, thus offsetting the restrictive effects of the consolidation programmes in the deficit countries, in case this should be necessary, from a euro area perspective, to stabilise economic activity.

In the case of Germany this may imply a premium over the interest rate level of the past six months. However, as investors restructured their portfolios replacing securities of euro area countries in financial difficulty by German government bonds, yields of the latter have declined. This effect was only due to the euro area crisis, however, and is not persistent. Nevertheless, a higher interest rate level is not inevitable, as the high liquidity of a euro bond market used by all euro area countries would tend to reduce interest rates.

The possibility of incurring debt in euro bonds is subject to restrictions. In the case of countries with current account deficits the focus is on measures to reduce these deficits. By contrast, countries with high current account surpluses are obliged to stimulate their domestic economy, which may coincide with rising government debt, but could also be brought about via an expansionary fiscal policy which does not affect the deficit. If the surplus countries do not implement fiscal programmes to stimulate their economies, they will have to provide an increased guarantee-contribution beyond their share in the euro area GDP. The level of the additional guarantee should depend on the size of the surplus. This creates a certain incentive, also for surplus countries, to act in line with the stability requirements.

The EMF is in charge of the technical implementation. It issues the euro bonds, imposes and supervises the conditions and thus also adopts all surveillance tasks of the Stability and Growth Pact. To create an institutional basis the European Stability and Growth Pact should be refocused. Instead of concentrating on the government debt ratio and the budget deficit, it should focus on the current account balance. Deficits and surpluses should be monitored by the EMF and, if necessary, result in a procedure to reduce the imbalances, which makes demands on both sides, i.e. both on the surplus and on the deficit countries (Horn et al. 2010).

The consideration of current account imbalances is, reasonably, already included in the newly envisaged macroeconomic surveillance by the Commission (European Commission 2010; European Council 2010). However, the focus remains on government debt and concrete instructions for surplus countries are lacking. The reformed pact, however, would acknowledge the overall economic situation of a country in a more comprehensive way than before and would also take precisely the interdependencies between the member states into account. For this purpose the EMF permanently monitors the evolution of the current account balances and additional macroeconomic indicators and addresses any undesirable developments in a timely manner. In periods of acute current account crises it also provides liquidity support, which, however, is also subject to conditionality: the EMF will support member states where policies are in line with the macroeconomic policy coordination strategy agreed at the EU level.

However, further measures are required to calm the markets in the current situation and to overcome the current euro area crisis. As a first measure to build confidence the European rescue fund should be upgraded with the objective of guaranteeing all currently circulating government bonds of those euro area countries, who ask for it. Secondly, countries in crisis can obtain new credits from the rescue facility, which can be subjected to conditionality. Thirdly, it is vital for overcoming the crisis, that those countries exhibiting relatively sound public finances and current account surpluses strengthen their domestic demand and thus contribute to creating an expansionary economic environment which helps the crisis countries both to consolidate their government budgets and to reduce their current account deficits.

From 2013 maturing bonds requiring refinancing will gradually be replaced by Eurobonds until the limit is reached. The transition to euro bonds would thus not occur all at once, but would be implemented step by step. This gives the member states the time to address their problems in the medium term without pushing their economies into recession in the short term by implementing excessively harsh austerity programmes. For this purpose they will have to strengthen their financial power and reduce their current account deficits. Euro bonds provide the necessary time, but the member states will also have to use it.

It is of crucial importance that the interest paid on euro bonds is low enough to facilitate debt reduction in the crisis countries (Figure 7 and Table 18). Whether this is possible at the respective market rate, cannot be said a priori. If it is impossible, then the EMF requires supporting measures from the ECB, which would have to buy euro bonds in the secondary market. This cooperation between the EMF and the ECB helps to provide the euro area with a crisis-proof institutional framework, which protects it against the turbulences of the financial markets.

In addition, it would, however, be desirable for the member states of the euro area should fulfil their macroeconomic responsibility for Europe by pursuing adequate fiscal policies. For Germany this currently implies an expansionary policy, which supports domestic demand via increased investment. To meet the requirements of the debt brake, the extra expenditures would have to be financed by taxes, which affect economic activity as little as possible.

To avoid current account crises in the future, member states have to behave in conformity with the stability requirements. For instance, wage increases should follow the formula of trend productivity growth plus the ECB's inflation target to stabilise private consumption without causing inflation. To increase their competitiveness the deficit countries should keep their inflation rates below the ECB's target rate. In countries with current account surpluses the inflation rate may temporarily exceed this benchmark, which further eases the adjustment of the deficit countries. As wage trends cannot be controlled directly, as they are the result of a bargaining process between independent employers' associations and trade unions, the responsibility to overcome current account imbalances remains with the government, or more precisely: With the government's fiscal policy. Deficit countries have to consolidate their budgets. However, surplus countries should provide fiscal impulses to strengthen domestic demand and, consequently, enable the deficit countries to increase their exports.

The danger of insolvency will be averted, if these measures are implemented and if the member states of the euro area comply with them, because, after an adjustment period, they will enable the deficit countries to enter a self-sustaining upswing which helps to reduce debt.

Monetary policy reaction to oil price shock would be a mistake

After first steps in July 2010, the ECB has continued its exit from a strongly expansionary and also unconventional monetary policy. Long-term refinancing operations with maturities of 12 and 6 months have been phased out, and the over-night interbank rate (EONIA) and the 3-month interbank rate (EURIBOR) are 0.4 and 0.6 percentage points higher, repectively, than in April 2010. To the surprise of the markets, ECB president Mr. Trichet indicated at the beginning of March 2011 that the ECB might raise key interest rates already in April.

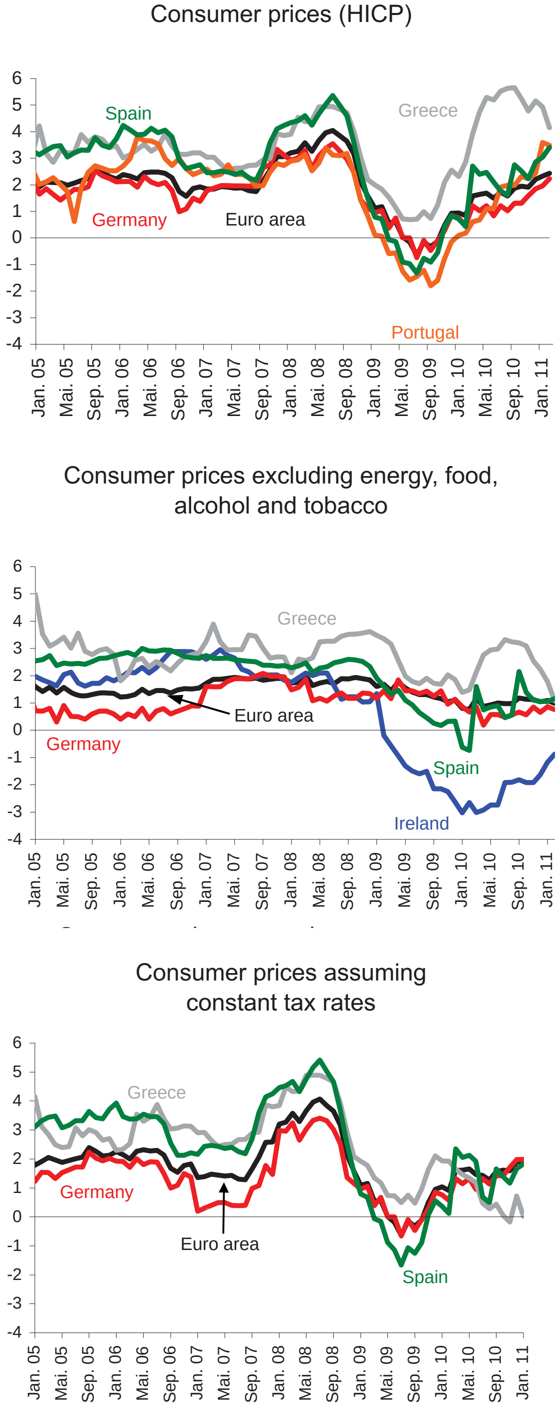
Neither the slight recovery in the euro area nor the rapid increase of the oil price justify a rate hike at the moment. Oil prices and food prices are in the focus of the ECB's monetary policy considerations. Indeed, the increase in these prices has caused euro area inflation to exceed the ECB's inflation target of 1.9 %. It reached 2.6 % in March (Figure 10) and is expected to remain above 2 % for several months to come. By contrast, the core inflation rate as measured by the harmonised consumer price index excluding energy, food, alcohol, and tobacco remained at the low level of 1 % in February. This core rate is noticeably higher in those countries where indirect taxes were raised considerably as part of a fiscal austerity programme. A comparison of the HICP with an HICP series assuming unchanged tax rates shows the influence of such tax increases (Figure 10). In the case of Greece the deviation is particularly pronounced at 4.9 percentage points. Adjusted for the increase in indirect taxes Greece's inflation rate would have been 0 % in January, the most recent month for which data is available, and even this rate would have overstated domestic inflationary dynamics considerably, as it included the effects of the oil price hike.

The origins of rising crude oil and food prices are located outside the euro area and can be influenced by European monetary policy minimally at best. To keep the inflation rate at the targeted level despite

Graph 10

Increase of consumer prices in the euro area (%)

in %



Source: Eurostat (Reuters EcoWin).

rising oil prices monetary policy has to reduce the core inflation rate to a corresponding extent. It can only achieve this by dampening economic activity or by stimulating it less. In the case of a temporary shock such a policy implies that monetary policy will subsequently have to be loosened again to meet the inflation target, as the core inflation rate will then be below the target rate and the oil price does not have any effect on the overall rate or even dampens it in the case of a price decline. A monetary policy reaction to price shocks thus increases the volatility of interest rates and of economic activity. For this reason central banks usually focus on the core inflation rate. Similarly the ECB's monetary policy strategy emphasises that the Governing Council of the ECB "agreed that in the pursuit of price stability it will aim to maintain inflation rates close to 2% over the medium term" (European Central Bank 2003). Accordingly, short-term shocks should not play any role as long as they do not entail any wage increases which would influence inflation trends also in the medium term (second round effects).

What happens, though, if a price which is not determined by domestic economic trends increases at an above-average pace in the medium term? This applies particularly in the case of the oil price, not only because it is an exhaustible natural resource, but also because climate change warrants a politically induced gradual price increase. However, if, as decided by the ECB, an inflation target below but close to 2 % is considered to reflect price stability for various reasons, then the inflation rate has to be corrected for trends in this price. This is so, because a positive inflation rate is justified in particular by potential measurement errors of the HICP and by inflation differentials due to an economic catching-up process as well as the "ECB's commitment to provide a sufficient safety margin to guard against the risks of deflation" (ibid.). The crude oil price concerns neither the safety margin, as it is not a price which is determined by the domestic economy, nor the measurement errors in the HICP, nor an overproportional increase of services prices in economies that are in a catching-up process. Further, the oil price has risen at an above-average trend for 12 years, but not at a constant annual average rate: For instance it rose by 33.6 % in 2008 and fell by 36.5 % in 2009 to surge again in 2010, namely by 29.3 %. These deviations from the average annual trend growth rate of 22 % are comparable to temporary price shocks and could not even be managed adequately by raising the inflation target to take the trend increase in the crude oil price into account. Correspondingly, in this case, too, using the core rate or the medium-term inflation outlook as a guideline is sensible from the perspective of stabilisation policy, as emphasised also by the IMF (International Monetary Fund 2008, p. 114; Tober/ Zimmermann 2009).

If monetary policy focuses on the core inflation rate or the medium-term inflation rate, this does not imply that economic policy is ignoring the social hardship inflicted by strong increases of food and energy prices. It only follows the insight that monetary policy cannot prevent real income losses due to exogenous price shocks and that nothing is gained, if, in addition to their loss in purchasing power, households also lose their jobs because of a restrictive interest rate policy.

To a certain extent, the core inflation rate, too, increases as a consequence of a price shock even if there are no second round effects owing to accelerated wage increases. This is due to indirect effects of price increases, if the respective product is used in the production or the transport of other products. In the case of crude oil, for example, the transport and production costs of many goods are affected. These indirect effects still belong in the group of first round effects and should be accepted by the central bank. They illustrate that even using the core inflation rate as a reference is not unproblematic and only constitutes an attempt to assess future inflation trends. Ultimately the dynamics of unit labour costs and profits are decisive for inflation trends, because only they can give rise to second round effects. Last year unit labour costs declined in the euro area, after rising due to the fall in productivity during the crisis. Although no data is available for 2011 yet, productivity growth has recovered and labour costs per hour as well as negotiated wages have risen moderately so far. In view of merely weak economic growth and high unemployment in the euro area, an acceleration of unit labour costs can hardly be expected. Only in countries where wages are still indexed the increase in unit labour costs could accelerate, which, however, has only been observed in Belgium and Luxembourg so far. Even in Germany unit labour costs will exert a dampening effect during the forecast period despite the stronger economic growth and the decline in unemployment. In this year and in the coming year unit labour costs are expected to increase by 0.5 % and 1.3 % respectively, remaining clearly below the ECB's inflation target.

Which interest rate is appropriate?

Although the increase in crude oil and food prices thus does not justify any rate hikes, one might argue that the current interest rate level of 1 % was appropriate when the economy was in free fall in 2009, but not when the economy is on an, albeit flat, expansion path. In this context the first question that has to be answered is whether the level of 1 % was indeed appropriate, when the euro area economy shrank by 4.1 % in 2009. The key interest rate was lowered to 1 % in May 2009 after five quarters of falling economic activity. If the ECB's reaction was to slow and too weak then, which is also suggested by the interest rate hike in the middle of the crisis in July 2008, the ECB's policy would now have to be expansionary for a correspondingly longer period.

Often monetary policy is assessed applying a Taylor rule, which calculates the key interest rate on the basis of the deviations of the actual inflation rate from the inflation target and the actual production level from potential output. However, an estimated Taylor rule may at best be used for a forecast of key interest rates, but not as a policy recommendation. The latter would imply that the central bank always reacted optimally in the past. In addition, estimations of a neutral interest rate and of the output gap are extremely difficult, because, ultimately, these variables are unobservable. If the neutral interest rate is calculated on the basis of potential output growth, then not only potential output growth has to be estimated sufficiently precisely. In addition, the thus estimated neutral interest rate would have to be adjusted downward, because it would be the long-term real interest rate, which is in line with potential growth not the short-term interest rate.

In view of an unemployment rate of almost 10 % this year the output level is undoubtedly below potential. Although low investment during the crisis may suggest a smaller underutilisation of capacity, an upswing would shift the capacity limit upwards via increased investment. Nor are inflation trends an argument against maintaining the current expansionary course as argued above. Against the backdrop of an only subdued recovery in the euro area a strongly expansionary monetary policy is all the more important as numerous dampening effects are burdening the economy. In this year fiscal policy will have a strongly restrictive effect and can easily be underestimated in terms of its overall negative impact on economic activity, because, from a historical perspective, it has been the exception that so many countries exert strong restrictive fiscal policy effects at the same time.

Further, restrictive lending conditions for business loans weaken the expansionary impulse of monetary policy. From the third quarter of 2007 until the third quarter of 2010 they were tightened continuously and remained unchanged in the fourth quarter. Loans to non-financial corporations are growing very slowly. After declining in each month since September 2009, they increased again slightly for the first time in January 2011, namely by 0.5 %. The recent increase in the risk premium on securities of medium credit rating makes financing in the capital market more difficult.

The strong increase of crude oil prices also exerts a dampening effect. In the past 12 months the price of Brent crude oil has surged by 53 %. According to estimates of the institutes euro area GDP will be 0.9 % lower than otherwise two years after an increase of this size. This adds up to an accumulated production loss of 1.6 % of GDP (Table 18).

Against this background the ECB should adopt a wait and see attitude and tighten the reins only, if second round effects of the oil price shock loom or a stable upswing materialises in the euro area. At the same time the ECB should communicate why it is sensible to meet the inflation target in the medium term instead of reacting to exogenous price shocks.

According to the EU Treaty the ECB is obliged to support the governments' economic policies as long as its inflation target is not jeopardised (by such a policy). Overcoming the euro area crisis requires an environment which is as expansionary as possible, so that the necessary growth differentials within the euro area occur at the highest possible average level.

Federal budget: Objectives of the debt brake can be met without additional efforts until 2013

This year the Federal Government (Bund) and the federal states (Länder) entered the transition period to the full legal force of the debt brake. For the federal states the overall implementation has not yet advanced very far, which, in view of the long adjustment period until 2020 and some difficult questions, seems reasonable and appropriate. For the federal level, whose debt brake is specified in Article 115 of the constitution (Grundgesetz) as well as the corresponding implementation law and decree, the new rules are applied for the first time already in the budget of 2011. Until 2016 structural net lending of the Federal Government must gradually be reduced below 0.35 % of GDP. In the past the IMK repeatedly pointed out the fundamental problems and risks of the debt brake (Horn et al. 2008, Horn et al. 2009, Truger/Will 2009, Truger et al. 2009a and 2009b as well as Horn et al. 2011):

- Firstly, due to the high initial structural deficits, which were, to a large extent, caused by tax cuts, fiscal policy will have to be very restrictive during the transition towards the intended (almost) balanced budgets, particularly at the level of the federal states. This results in a declining supply of public goods and services and of vital strategic investments. Further, the fiscal restriction may dampen economic trends in a period of weak growth or even a recession, which, in turn, is likely to make budget consolidation itself more difficult.

- Secondly, the debt brake will have a pro-cyclical effect due to the cyclical adjustment methods which are usually applied and will thus unnecessarily destabilise economic trends. In a downturn excessive consolidation efforts will be demanded, in an upswing, by contrast, there will symmetrically be an insufficient pressure for consolidation (see in detail Horn et al. 2011).
- Thirdly, the application and the consequences of the debt brake depend on the choice of the applied cyclical adjustment method and budget sensitivity estimates. Although the Federal Government has already decided in favour of the method which the EU Commission uses for budget surveillance, determining the concrete technical implementation ultimately remains the competence of the Federal Ministry of Economics and Technology and the Federal Ministry of Finance. It thus runs the risk of being non-transparent and arbitrary (see Horn et al. 2011).

Compliance with debt brake foreseeable

The three problems mentioned above can be illustrated using the most recent developments of federal budget policy as an example. The problem of restrictive fiscal policy became apparent, when, in the summer of last year, the Federal Government felt compelled to implement a large austerity package, the so-called package for the future ("Zukunftspaket"), in order to meet the objectives of the debt brake, although, at the time, it was uncertain, whether the German economy would cope with it. The surprisingly strong cyclical recovery became apparent only later. The government thus put economic activity at a high risk.

With the strong recovery the problem of pro-cyclical effects inherent in the technical methods became obvious. Although the recovery was a cyclical phenomenon, the structural deficit of 2010 as estimated by various institutions declined continuously. Instead, the cyclical recovery should have affected only the cyclical deficit. However, as potential GDP was revised upwards, the structural deficit simultaneously declined.

The problem of non-transparency and arbitrariness finally became apparent in the Federal Government's approach during the budget process of 2011. Essential information for the assessment of the calculated structural deficits, such as the applied method, was only published at the request of members of the Bundestag's budget committee. Eventually, the Federal Government increased its future leeway by leaving the initial structural budget deficit level unchanged at the high level estimated in mid-2010, while updating budget data for 2011 in line with available new statistics. Thus, with respect to the budget 2011 it apparently overachieved in its consolidation effort, as envisaged net borrowing was € 5 billion below the permitted limit. While drafting the basic figures of the 2012 budget, the Federal Government gained further leeway by switching to the new EU method for the calculation of the output gap. Thus, the estimated negative output gap in 2011 rose from 0.6 % of GDP to 1.0 % of GDP in absolute terms, although the GDP growth forecast for 2011 was raised from 1.8 % to 2.3 % at the same time – i.e. due to the change in methodology an improvement of economic activity resulted in an increase of the reported cyclical deficit.

If the structural deficits for the years 2012-2014 are calculated based on the main figures of the 2012 budget and the cyclical component estimated by the Federal Ministry of Finance, then, depending on the assumptions for the balance of financial transactions, net lending is reduced considerably below the permitted limit by roughly € 10 billion in each year, although additional spending of € 2.8 billion and € 4.2 billion in individual years is already included in the figures. Even if the Federal Government abstained from the complete implementation of the package for the future, the objectives of the debt brake could nevertheless be met. This is all the more so, as the assumed growth rates for 2011 and 2012 of 2.3 % and 1.8 %, respectively, are near the bottom end of the forecast range. Therefore, it can be expected that the actual and, consequently, also the structural deficits will continue to decline noticeably for cyclical reasons. To the extent that actual deficits remain below the limit a positive balance would accumulate in the control account.

The government's actions in calculating the initial structural deficit in 2010 and in changing the cyclical adjustment method have been criticised from various directions. Thus the SPD fraction in the Bundestag demanded in unison with the Bundesbank and the Bundesrechnungshof (court of auditors) that the Federal Government should retroactively adjust the initial structural deficit of 2010 and consequently also follow a stricter consolidation path between 2012 and 2015. The SPD faction even demanded that the German Council of Economic Experts should in future be involved in the calculation of the cyclical component to ensure tighter control. Due to the retroactive adjustment the initial structural deficit of 2010 would have to be changed from € 53 billion to about € 38 billion.[2] In view of the expected further cyclical improvement of the budget the Federal Government might still comply with the debt brake without additional spending cuts – provided that it succeeds in fully implementing the package for the future.

Fiscal policy conclusions

In view of the previously identified problems of the debt brake no retroactive adjustment should be carried out. However, available fiscal leeway should be used neither for tax cuts nor for increased spending. Instead, it should be used in combination with the positive balance in the control account as a safety margin for phases of weaker economic activity. Policy makers should be aware that another cyclical downturn may occur during the transition period until 2016. In this situation the pro-cyclical effects of the debt brake would work in the reverse direction: Due to the worsening of economic activity, structural deficits would increase, too. The pressure to consolidate the budget would increase despite the downturn and would aggravate the crisis. The existing room for manoeuvre can be used to prevent this. [3] If the partly dramatic spending cuts envisaged in the package for the future are to be cancelled, this should be financed by tax increases on high incomes and wealth. Further, tax increases are also advisable to improve the financial situation of the Länder and municipalities, which suffer substantially from the structural lack of funding caused by tax policies, while at the same time having to implement essential parts of vital strategic investments. It seems unnecessary to assign the calculation of the cyclical component to the German Council of Economic Experts. It does not matter who carries out the calculations, but it is important which calculations are carried out for precisely which reason. Therefore, the Federal Government should immediately publish the method it applies to estimate the cyclical component. Similarly to the EU Commission it could make the computer programmes and the data it uses available in the internet. Changes of the methodology should have to be well-justified.[4]

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2 A one-off, final retroactive adjustment would be reasonable. If the amount were readjusted every year – in this respect the wording of the SPD's proposition is not quite clear – the consolidation path would also have to be readjusted every year, which would be counterproductive for planning.

3 Concerning the idea of a safety margin in the debt brake see also Kremer and Stegarescu (2009).

4 The Federal Ministry of Finance has recently announced that it would in future publish the respective data, to increase transparency (Federal Ministry of Finance 2011, p. 69).

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