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Institut für Makroökonomie
und Konjunkturforschung
Macroeconomic Policy Institute

Report

At a glance

- The past twelve months have seen a marked downturn in the global economy, caused primarily by the effect on growth of austerity policies in the industrialised countries – particularly the euro area – and ongoing instability in the banking system. The Macro Group is forecasting a 0.3 % drop in GDP across the euro area in 2013 and a slight increase, of 0.5 %, in 2014, although the economies of individual countries will continue to diverge significantly.

- There is modest optimism concerning the outlook for the German economy, with the Macro Group estimating growth in GDP of 0.9 % in 2013 and of 1.5 % in 2014.

- Simulations of medium-term trends in Germany show that it will continue to feel the effects of the euro area crisis. There are two main factors at work here. First, Germany's exports to other euro area countries are being drastically curbed as a result of the austerity policies imposed in many of those countries. And second, fiscal policy will be restrictive even in Germany, driving down both incomes and domestic demand. The simulations suggest that the average annual growth in GDP between 2013 and 2017 will be just 1.3 %.

Crisis continues to smoulder

Joint analysis of the Macro Group

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

Contents

Global economy on course for moderate growth

Growth in the global economy slowed in the first half of 2011 and has remained modest since then, largely as a result of the austerity policies in force in the industrialised countries and the ongoing instability of the financial system. The fiscal multiplier, which measures the economic impact of fiscal measures, has risen markedly over recent years in the wake of the tense economic situation, zero interest rates, and more stringent curbs on borrowing (Blanchard/Leigh 2013). Efforts by many euro area countries to bring down their spending are, therefore, having a more substantial effect on demand than was originally predicted, and this has led to budget targets being missed and, in some countries, even more stringent efforts to cut spending.

However, the very expansionary monetary policy being pursued by central banks, particularly in the USA and Japan, is having a positive impetus: these banks are setting low base rates of interest, experimenting increasingly with unconventional methods of keeping market rates low, providing incentives to boost lending, and ensuring that financial institutions have sufficient liquidity. Arguments in favour of continuing this monetary policy strategy over the forecasting period include the persistent weakness of underlying economic growth and problems with availability of lending in many countries. Low economic growth, the continued high volume of non-performing loans and price correction processes on the property markets are imposing long-term strain on the financial system.

2012 saw only modest growth in the global economy (Table 1), reflected in extremely weak growth in global trade: trade grew in real terms by just 2.2 % year on year in 2012, a marked fall on the 5.8 % growth recorded the previous year. Particularly in the industrialised countries, imports of goods stagnated in real terms, while in the euro area, they actually declined substantially between 2011 and 2012. In the USA, Japan and the emerging economies, by contrast, trade continued to grow.

TABLE 1

International economic trends

Gross Domestic Product,
real terms, change on previous year in %

	% weighting[1]	2011	2012	2013	2014
World	100.0	3.8	3.1	3.1	4.1
Industrialised countries	56.5	1.9	1.3	1.5	2.5
EU 27	20.1	1.5	-0.3	0.0	0.9
Eurozone	14.3	1.4	-0.6	-0.3	0.5
USA	19.1	1.8	2.2	2.3	3.1
Japan	5.6	-0.6	1.3	0.6	2.0
Emerging economies	29.5	7.3	5.8	6.5	7.2
China	14.3	9.3	7.8	8.2	8.7
India	5.6	7.9	4.5	6.0	7.3
Russia	3.0	4.3	3.6	3.2	4.4
Brazil	2.9	2.7	1.0	3.4	4.5
ASEAN 5	3.6	4.5	5.4	5.5	5.7

[1] Percentage of GDP at 2011 Purchasing Power Parity in USD - IMF data.
ASEAN 5: Indonesia,Malaysia, Philippines, Thailand, Vietnam.

Sources: Eurostat, IMF; Macro Group calculations; from 2013, Macro Group forecasts.

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The catch-up process in the Asian emerging economies appears to have slowed somewhat and to be refocusing on domestic activity. Real growth in China's GDP in 2012 was 7.8 % (compared with 9.3 % in 2011) – the lowest figure since 1999. The sluggishness observed in the first half of 2012 appears to have been overcome, with China's economic growth now being sustained by stronger infrastructure investment and stabilisation in the domestic house-building sector. Economic growth was robust at the end of the year, at 2.0 % quarter on quarter. Current leading indicators point to sustained expansion, with experts forecasting growth in China's GDP of 8.2 % in 2013 and 8.7 % in 2014.

Growth in Japan's economy, however, is sluggish. Without stimulus from other industrialised countries, there is little growth in exports and manufacturing. To support the economy, the Japanese central bank decided to relax its monetary policy further by means of unlimited bond purchases, and, against the backdrop of persistent deflation, the medium-term inflation target was increased from 1 % to 2 %. The steady drop in value of the yen since October 2012 has also increased the cost of imports and boosted demand for exports, making it easier to achieve the goal of halting the deflationary spiral and providing positive incentives for growth. However, the substantial imbalance between private and public asset positions and the accompanying high level of public debt are creating uncertainty. The Macro Group expects growth in the Japanese economy of 0.6 % in 2013 and of 2.0 % in 2014.

In the USA, meanwhile, GDP grew by 2.2 % in 2012. Leading indicators are currently sending conflicting signals about future growth. While the government was able to avoid falling over the 'fiscal cliff' at the turn of the year, the fiscal measures set out in the compromise deal are bound to drive down demand. For example, private households are more pessimistic about their own financial position than previously, as they face higher social security contributions as the temporary reduction in rates expires. The statutory cap on debt has raised the likelihood of automatic fiscal correctives coming into force, with negative impact on the economy, not least as economic policy differences between Democrats and Republicans continue to widen. Further increases in house prices and financial assets, on the other hand, are sustaining higher levels of consumer demand in the USA. Provided not all the measures to cut spending set out in the legislation are actually implemented, the Macro Group expects the American economy to grow by 2.3 % in 2013 and by 3.1 % in 2014.

Weak demand remains a drag on the euro area

The 'no bail-out' clause incorporated into the Maastricht Treaty and the failure of the ECB to act as the 'lender of last resort' for euro area countries, together with the rise in government debt in the wake of the global financial crisis, have raised doubt and uncertainty about the solvency of some Member States, particularly Greece, Ireland, Portugal and Spain. This has prompted a rise in the price these countries are having to pay to refinance their debts, exposing them to a real risk of insolvency, and has forced them to cut spending on a massive scale. This austerity drive, on which increasing numbers of euro area countries have embarked, has drastically slowed the euro area's economic recovery and – contrary to the aims of the Troika of the ECB, the European Commission and the IMF – placed further strains on governments and produced even higher government debt ratios (Holland/Portes 2012; Rietzler/Gechert 2013). The Member

States affected have reacted by tightening their belts even more, while fiscal policy has also become more restrictive in all the other EU Member States. The combination of austerity in the European Union and a worsening crisis in the euro area has depressed both business and consumer demand across the euro area to such an extent that, although exports have been growing, GDP contracted further in 2012, by 0.5 %. A full four years after the financial and economic crisis first broke, total euro area manufacturing output was, therefore, 1.5 % lower in 2012 than before the crisis (Table 2). At the same time, the unemployment rate rose from 7.6 % to 11.4 % (Table 3) and the government debt ratio rocketed from 70.2 % to 93.1 %. Government debt increased most in the euro area countries that were most severely affected by the financial crisis and have put in place the most radical programmes to cut expenditure.

There are currently no plans for stabilisation measures on any significant scale, such as a targeted strategy for economic growth in the most severely ailing euro area countries (Aiginger et al. 2012a; Aiginger et al. 2012b), so current trends are simply a reflection of the failure of economic policy: in Q4 of 2012, euro area GDP contracted by 0.6 % compared with Q3, accelerating an existing trend. In France, Q4 GDP was down 0.3 %, while the 0.6 % fall in Germany was the biggest since early 2009 and can be attributed mainly to weak growth in exports and investment. Over the same period, the Italian and Spanish economies also fell further into recession, contracting by 0.9 % and 0.7 % respectively. The sharpest fall in economic output was in Portugal, with a fall of 1.8 %, however, contributing to a further rise in unemployment in the southern European crisis countries: in January 2013, unemployment in Portugal and Spain was 17.6 % and more than 26 % respectively.

Unlike with fiscal policy, there was, however, some shift in the line taken by monetary policy: in September 2012, the Outright Monetary Transactions programme (OMT) was adopted and the ECB announced that, subject to specific conditions, it stood ready to purchase unlimited quantities of government bonds issued by countries unable to refinance their borrowing. In making this decision, the ECB was confirming its willingness to act as a lender of last resort. The result was a dramatic drop in the bond yields of countries such as Spain and Italy. De Grauwe/Ji (2013) argue that many of the austerity policies would, in fact, have been unnecessary had the ECB decided to take this step earlier. Moreover, the conditionality of the bond purchases – the requirement that the country con-

cerned accepts a battery of classic EU measures to cut spending – may not only hamper domestic demand but also delay intervention by the ECB in a crisis. The policy has yet to prove its resilience, therefore.

Aside from these weaknesses, the OMT programme effectively changes little in regard to the comparatively reticent monetary policy being pursued outside the countries facing the worst crisis. In connection with the short-term refinancing facility, there is still leeway downwards, and the ECB's open-market trading is considerably less expansive than that of the US and Japanese central banks. The research institutes assume that over the next few years, the Euro/dollar exchange rate will remain largely unchanged at 1.30 (Table 4). Any further rise in the value of the Euro, for example as a result of

TABLE 2

Economic growth in the EU

GDP, real terms, change on previous year in %

	% weighting[1]	2011	2012	2013	2014
EU 27	100.0	1.5	-0.3	0.0	0.9
UK	14.4	0.9	0.2	0.9	1.9
Eurozone	71.0	1.4	-0.6	-0.3	0.5
Germany	19.6	3.0	0.7	0.9	1.5
France	14.0	1.7	-0.1	0.0	1.0
Italy	11.7	0.4	-2.2	-1.2	-0.5
Spain	8.9	0.4	-1.4	-1.6	-0.3
Greece	1.9	-7.1	-6.4	-4.4	-1.7
Portugal	1.6	-1.6	-3.2	-2.6	-0.1
Ireland	1.2	1.4	0.7	0.0	0.5

[1] Percentage of GDP at 2011 Purchasing Power Parity in USD - IMF data.

Sources: Eurostat; Macro Group calculations; from 2013, Macro Groups forecasts.

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TABLE 3

Unemployment rate

in % of working population[1]

	% weighting[1]	2011	2012	2013	2014
EU 27	100	9.7	10.5	11.3	11.3
UK	12.4	8	7,9[2]	7.8	7.9
Eurozone	66.1	10.2	11.4	12.4	12.5
Germany	16.2	5.9	5.5	5.6	5.7
France	13.1	9.6	10.2	11.0	10.9
Italy	12.1	8.4	10.7	12.2	12.8
Spain	9.1	21.7	25.0	26.7	27.0
Greece	2.2	17.7	24,7[2]	28.1	28.8
Portugal	2.1	12.9	15.9	18.0	17.2
Ireland	0.9	14.7	14.8	15.1	15.9

[1] Percentage of 2012 population in %, Eurostat data.

[2] EU forecast, Labour Force Survey data, standardised.

Sources: Eurostat; from 2013, Macro Group forecasts.

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TABLE 4

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Forecast assumptions data

Annual values	2012	2013	2014
Three-month Euribor rate (%)	0.6	0.3	0.0
Yield on ten-year government bonds (Eurozone) (%)[1]	4.0	3.2	3.1
Yield on ten-year government bonds (USA) (%)	1.8	2.1	2.6
Echange rate USD/EUR	1.29	1.30	1.30
Real effective exchange rate EUR/40 countries[2]	92.9	93.8	93.2
German price competitiveness index	88.8	89.1	88.7
Pay index (Bundesbank, hourly basis) (%, quarterly)	2.6	2.7	2.7
Crude oil price (Brent, USD)	111.7	106.3	109.5

[1] EURO12.

[2] Falling values in an indicator denote improved competitiveness.

Sources: ECB, Federal Statistical Office, Deutsche Bundesbank, from 2013, Macro Group forecasts.

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the more expansive monetary policy in Japan and the USA in evidence since mid-2012, would have a negative impact on economic growth in the euro area. Chen et al. (2013), for example, show that the nominal rise in value of the Euro since 2000 has probably had a more significant impact on the loss of market share suffered by the peripheral European countries than changes in unit wage costs.

Against this backdrop, GDP in the euro area looks set to contract again in 2013, by 0.3 %, and the institutes predict only modest growth, of 0.5 %, in 2014. Further gloom is cast over the scenario by

the fact that there is continued divergence in the economic development of individual countries. In the current crisis countries of Greece, Italy, Portugal and Spain, for example, the economy is forecast to contract further in both 2013 and 2014. Ireland is the exception to the rule, with no change forecast for 2013 and modest growth in 2014. The brighter prospects for the countries outside the euro area, such as Denmark, Poland, Sweden and the United Kingdom, mean that EU-27 GDP is expected to be positive in 2013.

The recession is having a marked impact on the labour market. Unemployment across the euro area is expected to rise to 12.4 % in 2014, with the highest rates in Greece and Spain (in excess of 25 %), Portugal and Ireland (in excess of 15 %), and Italy and France (in excess of 10 %). In 2013, the cost of oil and other commodities will fall, but the research institutes predict renewed rises already in 2014. Depressed demand is, however, already dampening inflation in the euro area; due to higher consumer taxes HICP inflation will be 2.0 % in 2013 but fall to just 1.1 % in 2014 (Table 5).

The risks for the global economy and for the euro area remain considerable. Current forecasts assume that fiscal policy will be relaxed somewhat because of the experiences so far with the impact of massive cuts to public expenditure in southern Europe. This is likely to put a brake on the speed at which the goal of reducing the structural deficit to 0.5 % of GDP can be achieved; the Fiscal Compact imposes no deadline on this.

TABLE 5

Hamonised Index of Consumer Prices

Change on previous year in %

	‰ weighting[1]	2011	2012	2013	2014
EU 27	1.000.0	3.1	2.6	2.0	1.1
UK	147.0	4.5	2.8	2.3	1.1
Eurozone	710.6	2.7	2.5	2.0	1.1
Germany	268.5	2.5	2.1	1.8	1.6
France	204.6	2.3	2.2	1.9	1.1
Italy	182.4	2.9	3.3	2.6	1.4
Spain	124.0	3.1	2.4	1.9	0.1
Greece	29.0	3.1	1.0	-0.3	-0.6
Portugal	22.6	3.6	2.8	1.1	0.1
Ireland	13.0	1.2	1.9	1.5	1.7

[1] Country weightings for HICP for 2013, Eurostat data (per mil).

Sources: Eurostat; from 2013, Macro Group forecasts.

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Sluggish economic growth in France

Since mid-2011, France's GDP has remained virtually unchanged and in Q4 of 2012, it actually contracted by 0.3 %, meaning that at the end of that year, the country's economic performance was still 1.1 % lower than in Q1 of 2008, before the crisis broke. Growth in manufacturing output was weaker still: in December 2012, it was a full 14 % below its pre-crisis level. With growth stagnating, unemployment as calculated by Eurostat rose from 9.9 % in December 2011 to 10.6 % in December 2012. The inflation rate as measured by the HICP fell from 2.5 % in December 2011 to 1.4 % in January 2013, although the underlying rate fell from 1.7 % to just 0.8 % over the same period, showing clear deflationary tendencies.

The quarterly national accounts show that household consumption rose 0.2 % in Q4 of 2012, representing virtually the only source of growth in the whole of the French economy; investment, meanwhile, fell by 1.0 % over the period. Foreign trade made a marginally positive contribution to growth, at just 0.1 of a percentage point of GDP, but changes in inventories kept GDP growth down to 0.4 of a percentage point. On average, activity across the economy in 2012 remained unchanged from the previous year, although the cumulative negative contribution to growth represented by falling inventories was 1.1 percentage points. It is, therefore, possible to forecast a short-term technical counter-reaction. Net exports accounted for just under 0.7 percentage points of GDP growth but remained virtually stagnant in the second half of the year.

The OFCE's short-term indicator of quarterly GDP, which is compiled from survey data, suggests virtually zero growth in GDP for Q1 of 2013. The February survey responses from manufacturing show a slight improvement in business confidence, although business attitudes are still more subdued than their long-term average. France's export economy, which is geographically oriented to southern Europe, has been particularly badly hit by the crisis there. However, the fall in French output since the onset of the crisis has been especially marked, particularly by comparison with Germany. France's balance of payments moved from a surplus of 2.6 % of GDP in 1997 to 1 % of GDP in 2007 and a deficit of 2 % in 2012, while over the same period, Germany's moved from a modest deficit of 0.4 % of GDP to a surplus of 6.3 %. Manufacturing's poor record, particularly by comparison with Germany, prompted both the outgoing Sarkozy government and the incoming Hollande government to prioritise measures to boost price competitiveness. The new French government therefore appointed the former Chair of the Board of aerospace company EADS, Louis Gallois, to produce a report on competitiveness in the French economy. Gallois's report was submitted in autumn 2012 and formed the basis for a 'competitiveness pact', while a public investment bank, the Banque Publique d'Investissement, was set up to provide loans and capital to SMEs. The main focus of the Gallois report was, however, on bringing down labour costs by granting tax breaks to companies based on the size of their pay bill. The scheme, known as CICE (Crédit d'impôt pour la compétitivité et l'emploi, or tax relief for competitiveness and employment), provides for EUR 20 billion of funding to be made available in 2013, with the cost offset by higher individual taxation and cuts in public expenditure.

It is questionable whether a transfer of this kind, from private households to large corporations, can be effective in the current economic situation: household incomes are being eroded by higher taxation at a time when levels of demand are already very low. Reducing manufacturing costs with the aim of improving competitiveness can succeed only where just one country pursues the strategy at one time; if all countries do so at the same time, the strategy will not work[1]. As a result of substitution effects between capital and labour, the CICE is forecast by the OFCE[2] to create 150,000 jobs by 2018 and reduce the rate of unemployment by 0.6 percentage points. However, because of the restrictive effect of its funding mechanism, it is unlikely to have any significant effect on growth in GDP.

In February 2013, the French employers' organisation, Medef, and three of the country's five major unions signed an agreement to permit redundancies, internal flexibility and company-level agreements on reducing working time and pay in companies that find themselves in difficulties. The quid pro quo was that the agreement made it less attractive to companies to offer low-paid, part-time work. Additionally, all companies will in future have to provide additional sickness insurance for their employees; employer and employee will each pay half the cost of contributions, and the scheme will supplement state

[1] For a more detailed analysis, see Henri Sterdyniak, Faut-il faire payer par les ménages un choc de compétitivité? (http://www.ofce.sciences-po.fr/blog/?p=2798), OFCE Le Blog, November 2012.

[2] See also Mathieu Plane, Evaluation de l'impact économique du crédit d'impôt pour la compétitivité et l'emploi, Revue de l'OFCE/Varia, 126, 2012.

health insurance. Many economists believe that businesses now have incentives to take on more staff because they need no longer fear that they cannot subsequently make them redundant if they need too. Other commentators, however, fear that precarious employment is being extended.

Fiscal policy was very contractionary in 2012. The discretionary measures were equivalent to 1.5 % of GDP, comprising one percentage point from taxation measures and 0.5 of a percentage point from cuts in spending. There is no short-term prospect in France of boosting consumer demand, in terms either of spending or of investment, with pay rises predicted to be low and the depressed level of demand deterring business investment. Nonetheless, fiscal policy will remain very restrictive in 2013. The French government has committed itself to cutting its deficit from 5.2 % in 2011 to 3 % by 2013. The current official plans amount to 2 % of GDP in the current year, funded from higher taxation (1.5 % of GDP) and cuts in spending (0.5 % of GDP). Increases in taxation affect primarily higher earners and large corporations, so the French government is expecting only a modest restrictive effect on growth from this source. Despite extensive efforts to cut the overall deficit, it is likely to remain above 3 % of GDP in 2013: in its current forecasts, the OFCE assumes a deficit for 2013 of around 3.5 % of GDP and zero growth in the French economy. In 2014, the impct on output of the financial consolidation measures built into the current planning (virtually all on the expenditure side) is expected to be 0.7 %. With consolidation measures relaxed slightly and a slightly improved foreign trade picture, it is not unreasonable to assume growth in the country's GDP of around 1 % in 2014. However, unemployment is likely to remain stubbornly above 10 %, a key policy concern for the French economy.

Consolidation of public finances will remain a key topic, as the government is planning to balance its budget by 2017 without any further increase in taxation. This means cuts in spending of around EUR 60 billion, equivalent to 3 % of GDP, including substantial cuts in social benefits such as transfer payments to families or pensions.

Germany's economic situation

Economic outlook gives modest cause for optimism

Germany's economy grew only sluggishly in 2012: growth in Gross Domestic Product (GDP) was just 0.7 % on annual averages and only 0.4 % over the course of the year (Table 6). The key factor in this increasingly sluggish growth as the year progressed

TABLE 6

Statistical components of growth in GDP

in % or percentage points

	2012	2013	2014
Statistical carry-over at end of previous year[1]	0.2	-0.3	0.6
Year-end rate of growth[2]	0.4	1.9	1.4
Annual average GDP growth rate, working-day adjusted	0.9	1.0	1.5
Calendar effect[3]	-0.2	-0.1	0.0
Annual average GDP growth rate	0.7	0.9	1.5

[1] Seasonally and working-day adjusted index figure in Q4 of previous year compared with working-day adjusted quarterly average for the previous year.

[2] Annual rate of change in Q4, working-day adjusted.

[3] In % of GDP.

Sources: DESTATIS; Macro Group calculations; from 2013, Macro Group forecasts.

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was the unexpectedly sharp decline in investments, particularly in capital equipment. Companies were clearly cancelling or deferring investment in the wake of the euro area crisis, despite favourable conditions for borrowing. By the end of 2012, this marked decline in investment and the slump in foreign demand caused output to dip across the economy. Exports were down as a result both of the situation in the euro area and of the poor economic health of many third countries. Despite this, the German labour market remained robust.

The prospects for the forecast period are cautiously optimistic. Global economic trends will recover only gradually and not gain real momentum until 2014. A key factor will be the situation in the non-euro area countries with which Germany trades, although the modest economic recovery in the euro area will also help: German exports will benefit from this recovery, and the contribution to GDP made by foreign trade is expected to remain broadly unchanged in 2013 and 2014.

The signs of stabilisation in the euro area and the resulting alleviation of some of the uncertainty are likely to reduce businesses' reluctance to invest, not least because their caution in 2012 suggests they will be keen to catch up once conditions improve. The relatively high profitability of companies is also

TABLE 7

Key forecast data for Germany

Change in %

	2011	2012	2013	2014
Gross Domestic Product	3.0	0.7	0.9	1.5
Household expenditure	1.7	0.6	0.9	1.3
Public expenditure	1.0	1.4	1.2	1.0
Gross fixed asset investments	6.2	-2.5	-0.6	3.2
Foreign trade[1]	0.6	1.0	0.0	0.1
Exports	7.8	3.7	1.5	5.0
Imports	7.4	1.8	1.8	5.6
Employment	1.4	1.1	0.4	0.3
Unemployment rate[2]	7.1	6.8	6.8	6.7
Unit wage costs	1.2	2.8	1.9	1.5
Consumer prices	2.3	2.0	1.6	1.4
Budget deficit/surplus[3]	-0.8	0.2	0.0	0.1

[1] Contribution to growth, calculated from linked volume data; Lundberg components.

[2] % of civilian labour force.

[3] % of Gross Domestic Product.

Sources: DESTATIS; ECB; from 2013, Macro Group forecasts.

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TABLE 8

Macroeconomic trends in Germany

Change on previous year in %

	2011	2012	2013	2014
Expenditure approach[1]				
Household expenditure[2]	1,7	0,6	0,9	1,3
Government expenditure	1,0	1,4	1,2	1,0
Capital investment	7,0	-4,8	-2,2	5,0
Construction investment	5,8	-1,5	0,6	1,8
Other fixed asset investment	3,9	3,1	3,4	2,9
Exports	7,8	3,7	1,5	5,0
Imports	7,4	1,8	1,8	5,6
Gross domestic product	3,0	0,7	0,9	1,5
Prices				
Gross Domestic Product	0,8	1,3	1,7	1,4
Consumer spending[2]	2,1	1,6	1,4	1,3
Imports	4,7	5,2	0,9	0,8
For information only:				
Consumer prices	2,3	2,0	1,6	1,4
Income approach				
Wages and salaries	4,5	3,7	2,7	3,1
Profits[3]	1,3	-1,9	1,4	4,2
National income	3,4	1,8	2,3	3,4
For information only:				
Collectively-agreed pay (hourly rate)	1,7	2,6	2,7	2,7
Actual earnings (hourly rate)	3,3	3,4	3,0	3,0
Wage drift	1,6	0,7	0,3	0,3
Gross wages and salaries	4,8	3,9	2,8	3,3
Gross wages and salaries per employee	3,3	2,7	2,3	3,0
Output approach				
Employees	1,4	1,1	0,4	0,3
Working time per employee	0,0	-0,7	-0,6	0,0
Volume of labour	1,4	0,4	-0,2	0,3
Productivity (hourly)	1,6	0,3	1,1	1,2
Gross Domestic Product[1]	3,0	0,7	0,9	1,5
For information only:				
Unemployment[4], in 1000s	2502	2318	2246	2214
Unemployment rate, in %	5,7	5,3	5,1	5,0
Unemployment[5], in 1000s	2976	2897	2907	2870
Unemployment rate[6], in %	7,1	6,8	6,8	6,7
Unit wage costs	1,2	2,8	1,9	1,5
Budget deficit, in % of GDP	-0,8	0,2	0,0	0,1

[1] Price-adjusted.

[2] Private households including private, non-profit organisations.

[3] Corporate and investment income.

[4] Defined by the International Labour Organisation (ILO).
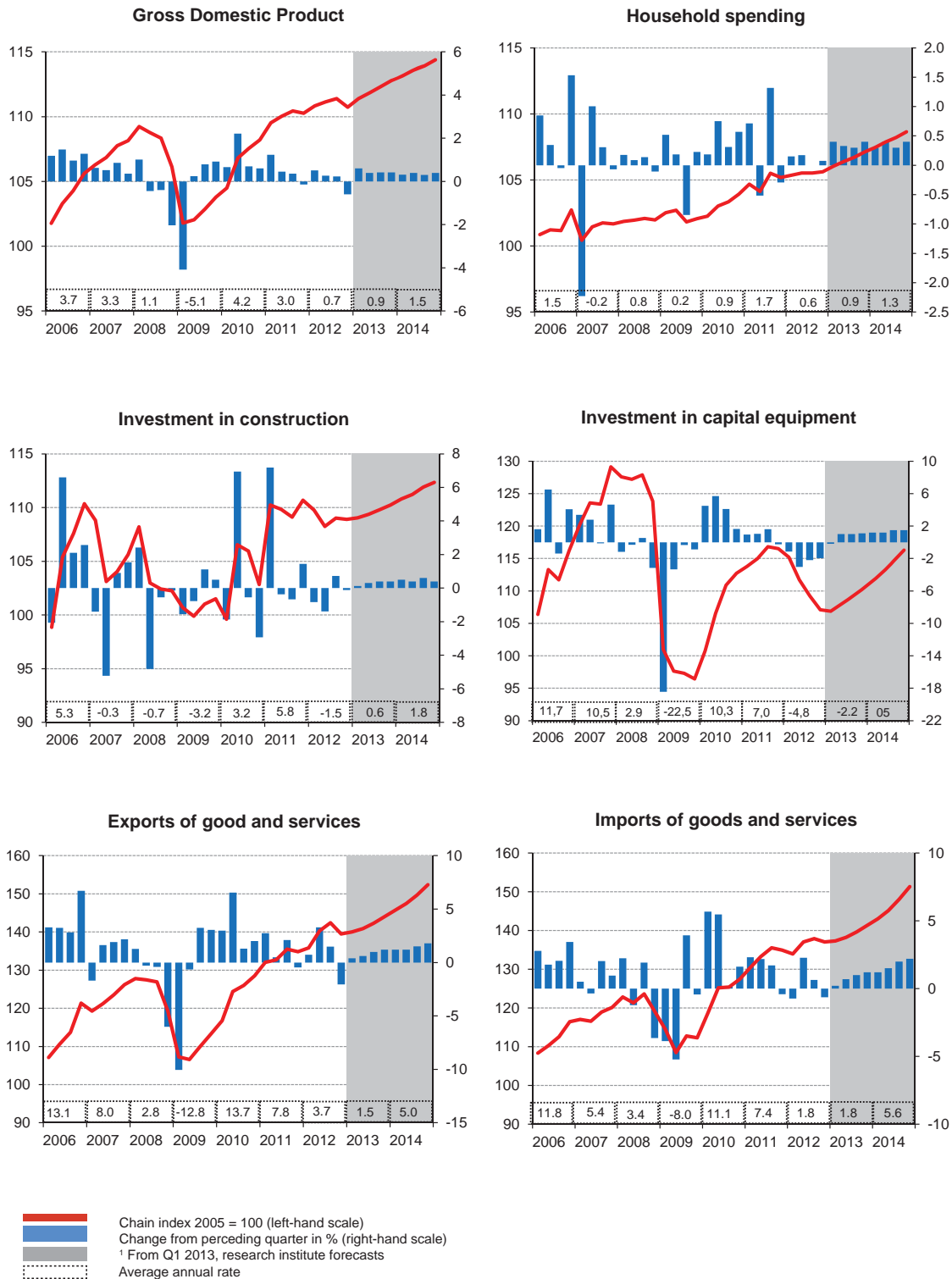
[5] Defined by Germany's Federal Employment Agency.

[6] In % of civilian population.

Sources: Deutsche Bundesbank; DESTATIS; Federal Employment Agency; Macro Group calculations; from 2013, Macro Group forecasts.

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set to increase further, while conditions for lending remain favourable. Yet again, household spending is likely to be a major driver of growth both this year and next, as pay increases more substantially as a result of higher collective pay settlements and employment continues to rise. The Macro Group forecasts average annual growth in GDP of 0.9 % in 2013 and as much as 1.9 % over the year. Growth is forecast to be 1.5 % in 2014 (Tables 7 and 8, Figure 1).

Slow recovery in foreign trade

In 2012, Germany's foreign trade grew relatively slowly in a difficult economic climate. The average annual increase in exports of goods and services in real terms was 3.7 % , but over the course of the year it dropped to 3.4 %. This overall figure masks substantial regional divergences, however. Exports to the euro area contracted markedly, by 2.2 %, but those to countries outside the euro area grew all the more markedly, by 7.1 %. The largest growth was in exports to the USA, Japan and the emerging economies of south-east Asia (Table 9). Exports to the UK and Russia also performed extremely well, growing by more than 10 %, whereas those to the southern European euro area countries – Greece, Italy, Portugal and Spain – but also to Belgium and Poland were down substantially. Following the

FIGURE 1

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Allocation of Gross Domestic Product

Year-end movement, seasonally and calendar adjusted[1]

Gross Domestic Product

Household spending

Investment in construction

Investment in capital equipment

Exports of good and services

Imports of goods and services

Chain index 2005 = 100 (left-hand scale)
Change from perceding quarter in % (right-hand scale)
[1] From Q1 2013, research institute forecasts
Average annual rate

Sources: DESTATIS; Macro Group calculations.

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TABLE 9

Growth in German exports 2012
(special trade)

	Annual growth rate[1] in %	Percentage of total exports of goods in 2012
Total exports of goods	**3.4**	**100.0**
Eurozone	**-2.2**	**37.5**
of which:		
France	3.0	9.5
Netherlands	2.2	6.5
Austria	0.3	5.3
Ireland	3.7	0.4
Belgium	-5.1	4.1
Finland	-4.1	0.7
Italy	-9.8	5.1
Spain	-10.4	2.8
Portugal	-11.6	0.6
Greece	-7.5	0.4
EU27	**-0.3**	**57.0**
of which:		
United Kingdom	10.1	6.6
Sweden	-3.7	1.9
Denmark	2.0	1.4
Poland	-3.0	3.8
Czech Republic	2.3	2.9
Hungary	3.7	1.5
Russia	10.4	3.5
NAFTA	**17.8**	**9.5**
USA	17.7	7.9
Canada	20.5	0.8
Mexico	16.7	0.8
Asia	7.9	16.3
China	2.7	6.1
Japan	13.1	1.6
South-East Asian threshold countries[3]	10.2	4.1
of which:		
South Korea	14.3	1.2
Thailand	31.2	0.4
Indonesia	47.2	0.3
Malaysia	13.9	0.5
Philippines	21.8	0.1

[1] Calculated on basis of original figures.

[2] Calculated on basis of seasonally-adjusted figures from Deutsche Bank.

[3] Thailand, Indonesia, Malaysia, Singapore, Philippines, South Korea, Taiwan, Hong Kong.

Sources: DESTATIS (Macrobond);
Deutsche Bundesbank; Macro Group calculations.

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considerable slowdown in growth of exports in 2011, there was a further decline in 2012, with Q4 figures seeing German exporters losing business across all major markets (Figure 2).

Growth in exports will initially remain sluggish during the forecast period as a result of the ongoing recession in the euro area. The unresolved euro area crisis is continuing to curb the willingness of businesses to invest, while in many countries hit by the crisis, a combination of cuts in wages and transfer payments and high unemployment has prompted households to slash their spending further. Against this backdrop, it seems likely that exports to the euro area will again fall substantially in 2013 and pick up only in 2014, as the euro area economy re-

covers modestly. As in 2012, over the forecast period exports will continue to be sustained by strong demand from countries outside the euro area. Positive growth will come in particular from Russia and the emerging economies of south-east Asia, but trade in goods with China – which declined in the second half of 2012 – is also set to pick up. The prospects for exports to the USA and Japan, which saw particularly vigorous growth in 2012, will, however, remain limited in 2013. The Japanese economy looks set to emerge gradually from stagnation only during the course of the current year, while economic recovery in the USA will be fragile, given further spending cuts resulting from the still unresolved political conflict over fiscal policy. In both countries, economic growth will not begin to accelerate significantly until 2014.

Overall, exports of goods and services are forecast to rise, on a price-adjusted basis, by 3.1 % in 2013 and 5.8 % in 2014. The average annual increase for 2013 is forecast to be 1.5 %, compared with 5 % for 2014. However, 1.5 percentage points of that figure can be attributed to a statistical overhang from the preceding year.

In 2012, imports grew markedly more slowly than exports. On an average annual basis, and after price adjustment, imports of goods and services were up just 1.8 %. Demand for imports is likely initially to be weak over the forecast period but then to pick up substantially as demand for both exports and investment also recovers. The demand for imports will be sustained in both 2013 and 2014 by robust consumer spending levels. Overall, imports of goods and services are forecast to rise 3.1 % in 2013 and by 7.1 % in 2014, an average annual rise for 2013 of 1.8 % and for 2014 of 5.6 %, of which 1.6 percentage points will be the result of a statistical overhang from 2013. Foreign trade will make no contribution to growth in GDP in 2013 and only a minimal contribution, of just 0.1 of a percentage point, in 2014 (Table 10).

Growth in import prices, which is determined primarily by the rise in energy costs, slowed substantially in 2012 to an annual average of 1.7 % as against 5.2 % in 2011. Over the forecast period, they are likely to rise only modestly; the research institutes forecast that in 2013, sluggish growth in the global economy will see a fall in the oil price and only a modest increase in the cost of metals and other commodities. In 2014, energy costs and commodity prices will, however, rise more sharply as the global economy picks up again. The rise in the import deflator for the next two years is expected to be 0.9 % in 2013 and 1.1 % in 2014.

FIGURE 2

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Germany's foreign trade by region and country

Special trade, seasonally-adjusted quarterly figures in EUR billion
Q1 2000 - Q4 2012

Eurozone

Other EU Member States

Other European countries

USA

Asia

OPEC-countries
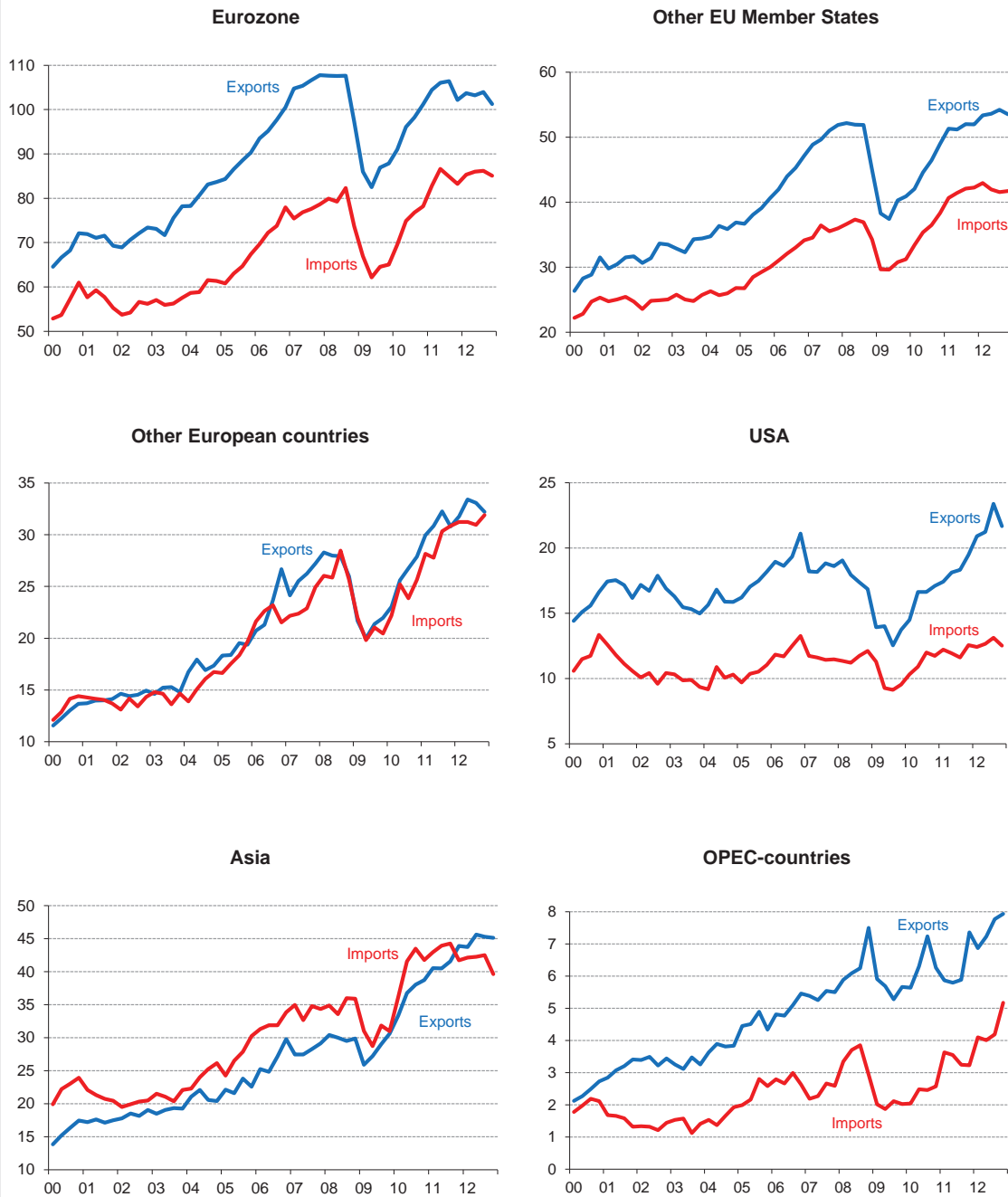
Sources: Deutsche Bundesbank; DESTATIS; Macro Group calculations.

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TABLE 10

Contribution to growth of expenditure aggregates[1] in Germany

in percentage points

	2011	2012	2013	2014
Gross Domestic Product[2]	3,0	0,7	0,9	1,5
Domestic demand	2,4	-0,3	0,9	1,4
Consumer spending	1,2	0,6	0,8	0,9
Private households	1,0	0,4	0,5	0,7
Government	0,2	0,3	0,3	0,2
Fixed asset investment	1,1	-0,5	-0,1	0,5
Capital equipment	0,5	-0,3	-0,2	0,3
Construction	0,6	-0,1	0,1	0,2
Other fixed assets	0,0	0,0	0,0	0,0
Changes in stock	0,2	-0,5	0,2	0,0
Foreign trade	0,6	1,0	0,0	0,1
Exports	3,7	1,8	0,8	2,6
Imports	-3,1	-0,8	-0,8	-2,5

[1] Calculated form chain-indexed volume data; Lundberg components; changes in totals arising from rounding of figures.

[2] in %

Sources: DESTATIS; Macro Group calculations; from 2013, Macro Group forecasts.

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Growth in export prices also slowed markedly in 2012, falling from 2.8 % in 2011 to an average of 1.1 % in 2012. The modest rise in import prices and the fact that exporters continue to operate in a difficult economic environment mean that there is little scope for putting up prices. Overall, the export deflator is expected to rise by 0.7 % in 2013 and by 1.3 % in 2014. The terms of trade are forecast to deteriorate slightly this year before improving in 2014.

End in sight for slump in capital investment

There was a dramatic decline in investment in capital equipment over the past year, reaching 8.1 % over the course of the year and 4.8 % on annual averages. While borrowing conditions were favourable, the crisis of confidence in the future of the euro area was a major brake on investment.

However, there are indicators that the situation will improve over the forecast period, including a steady rise in the expectations of investment goods manufacturers over the past three months. Investors' confidence is clearly picking up in line with the situation in the euro area. Since the start of 2013, businesses have also been reporting higher utilisation of production capacity, and sales prospects are likely to continue to improve as the year progresses and the global economy picks up. Against this backdrop, it is likely that both capital investment and replacement and rationalisation investment will rise.

As unit labour costs rise only modestly as a re-

sult of higher productivity gains over the forecast period, company profitability is expected to improve markedly in 2014. The funding conditions for companies on the capital markets are also set to remain favourable. Overall, 2013 is likely to see capital investment picking up again, with growth reaching 2.9 % over the course of the year, ahead of higher growth in 2014 (5.5 %). The substantial statistical overhang will push the annual average rate of growth in 2013 down by 2.2 % but it will rise by 5 % in 2014 (Figure 1, Table 8).

Modest growth in construction investment

Investment in construction fell overall by 1.5 % in 2012, although the picture varied widely from one part of the sector to another.

Investment in residential construction experienced a roller-coaster ride during the course of 2012, in fact, and by the end of the year, it was only fractionally above the previous year's level, with average annual growth of 0.9 %. The outlook for the forecast period is, however, much brighter. A robust labour market, low mortgage rates, and a lack of attractive alternative investment opportunities are likely to encourage more private households to purchase property than has recently been the case, a prediction borne out by the recent boom in planning permission applications being approved. Applications for planning permission are also on the increase, while order books are very healthy. The construction sector has also been more optimistic over the past few months, and investment in residential property is forecast to rise substantially in both 2013 and 2014.

As a result of disappointing growth in capital investment, investment in commercial construction was down 2 % in 2012 but is expected to recover over the forecast period, with a modest increase in 2013 and stronger growth in 2014 as capital investment also picks up again.

Investment in public sector construction, meanwhile, plummeted by 10.4 % in 2012, primarily as a result of construction projects designed to stimulate the economy reaching completion in 2011. Investment in public sector construction picked up in the summer of 2012, and this improvement is likely to continue over the forecast period as a result of relatively favourable lending conditions. The rates of growth will, however, remain modest overall, given the wide variation in local authorities' financial situations.

Overall, investment in construction rose by an annual average of 0.6 % in 2013, with 1.8 % growth forecast for 2014 (Figure 1, Table 8).

Household spending sustains the economy

On a seasonally adjusted basis, household spending rose substantially more slowly during 2012 than in 2011 (0.4 % compared with 1.2 %). Average annual growth was also low, at just 0.6 %. Nominal disposable income rose by just 2.2 %, markedly lower than the previous two years, although gross pay grew more substantially following high pay settlements. Distributed profits rose more slowly, however, and the rise in the deflator for consumer spending (1.6 %) put a brake on growth in disposable income. The savings rate, meanwhile, dipped by 0.1 of a percentage point to 10.3 %.

Over the forecast period, consumer spending is expected to pick up markedly, and in both 2013 and 2014, half of the growth in Gross Domestic Product will be the result of higher household spending (Table 10). In 2013, collectively agreed pay is likely to rise by 2.7 %, slightly more than in 2012, but actual pay per capita will grow by less as a result of negative wage drift. Employment will again rise on average over the year, meaning that gross pay will rise by 2.8 % and net pay by a fraction more as a result of lower social security contributions.

Cash benefits will be up slightly in 2013, while income from profits and assets will rise more than in 2012. Overall, disposable incomes will increase by 2.4 % or 0.9 % after adjustment for inflation (the household spending deflator). Assuming the savings rate remains unchanged, consumer spending looks set to rise by 0.9 % on average over 2013, although over the course of the year the increase is likely to become higher, at 1.4 % (Figure 1, Table 8).

In 2014, collectively agreed pay looks likely to grow again, by 2.7 %; earnings per capita should then rise by as much as 3 % because of positive wage drift. And because employment is expected to grow on average throughout the year, the total gross pay bill and net pay are both forecast to rise by 3.3 %. Cash benefits will increase by the same order of magnitude as in 2013, while transfers from profit and incomes from assets look likely to grow by slightly more than in 2013. Overall, disposable incomes are expected to grow by 2.7 %, or 1.4 % in real terms, in 2014. Against the backdrop of only a modest rise in the savings rate (0.1 of a percentage point), consumer spending is set to increase by 1.3 % in 2014 (Figure 1, Tables 8 and 10).

Price rises continue to slow

Consumer prices in Germany were 1.5 % up on the year in February 2013, markedly below the ECB's inflation target of 1.9 %. This took inflation (as measured by the Harmonised Index of Consumer Prices and excluding energy, food, alcohol and tobacco) closer to the recent core rate of 1.3 %, as expected. The main reason for this movement is the modest rate of increase in the price of crude oil; while the cost of crude – expressed in US dollars – soared by 40 % on average between 2010 and 2011, it remained largely unchanged on average in 2012, and in February 2013, it was almost 3 % lower than in January 2013 (just under 4 % lower if calculated in Euros). The massive increase in the preceding year is still having an indirect impact on inflation as it works its way through production chains, but this effect is weakening noticeably. The growth in consumer prices excluding domestic energy and fuel was 1.3 % in February 2013, just 0.2 of a percentage point below the general inflation rate of 1.5 %, whereas in February 2012, the differential had been 0.7 of a percentage point.

Over the rest of 2013 and 2014, inflation is expected to fall further. There will be short-lived inflationary effects from higher electricity prices as Germany withdraws from nuclear energy, but unit wage costs – a key determinant of production costs in companies – will rise by 1.9 % in 2013 and by 1.5 % in 2014, while companies are likely to have less scope for putting up their prices as economic growth remains modest. In 2013, consumer prices are predicted to rise by 1.6 % while the inflation forecast for 2014 is 1.4 % (the HICP inflation forecast is 1.8 % in 2013 and 1.6 % in 2014). Germany's rate of inflation in 2014 will, therefore, be above the euro area rate of 1.1 %, something that has previously happened only once since the launch of the euro area, in 2007.

Output picks up pace

Total output across all sectors grew only sluggishly in 2012, by an annual average of 0.7 % and just 0.4 % by year-end. While the service sectors, and especially the information and communications industry and business services, grew by above-average rates (3.5 % and 2.9 % respectively), manufacturing industry actually saw output fall by 1 %. The decline was particularly marked in the investment goods sector, while construction output fell by 2.5 %.

There are signs of output picking up in the first half of 2013, including the fact that both the business environment and business expectations have improved steadily since November 2012 and gained pace over recent months. Output figures for January 2013 were slightly higher than the 2012 Q4 average. There was also recovery in the services sector, where retail sales were 2.5 % higher in real terms in Janu-

ary 2013 than in the previous quarter. After seasonal adjustment, output across all sectors is expected to grow by 0.6 % in Q1 of 2013.

There are signs of this growth continuing for the rest of the forecast period. Overall, output is forecast to grow more rapidly in 2013 than in 2012, with output across all sectors predicted to be 1.9 % higher year on year by the end of 2013 or 0.9 % on average. Output is set to grow even more rapidly in 2014, with GDP up 1.5 % on average over the year and by a comparable figure by the year-end (1.4 %).

Stable labour market developments

After the slight deterioration in the labour market performance in the course of 2012, the situation picked up by the end of the year. The German labour market is generally robust, and there are grounds for modest optimism over 2013 and 2014 after a short-lived deterioration caused by general sluggishness in the economy during 2012.

After seasonal adjustment, total employment rose by 25,000 in January to more than 41.7 million, taking the growth in employment over the past three

months to more than 20,000 a month following the decline in September 2012 – the first since January 2010. Year on year, total employment was up by around 240,000 at just under 41.4 million, with a similar trend among employees liable for statutory social security contributions.

In February 2013, seasonally adjusted total registered unemployment in Germany topped 2.9 million. The jobless total had risen steadily by around 10,000 per month between March and November 2012 but then fell slightly over the following three months. Before seasonal adjustment, the total number out of work in February 2013 was just under 3.2 million, 46,000 more than in February 2012. Under-employment, excluding short-time working, affected almost 4.1 million individuals, 74,000 fewer than twelve months previously. The main reason for these divergent trends in under-employment and registered unemployment was the down-scaling of labour market policies in a difficult economic environment.

The clearest indicator of the downturn in the economy was the change in total hours worked during 2012, which had reached a low during Q2 of 2009, during the great recession, but then recovered markedly to a high in Q1 of 2012, only to dip again, by more than 1.2 %, by the end of 2012 on a seasonally- and calendar-adjusted basis. This decline translates into 82 million fewer hours worked. Average annual hours worked per employee fell by almost six over the past three quarters.

After a good Q1, the economy slowed markedly over the course of 2012, culminating in a sharp drop in GDP in Q4, which also impacted on the labour market. However, while unemployment then increased modestly, partly as a result of changes in

TABLE 11

Labour market data
Annual average in 1000s

	2010	2011	2012	2013	2014
Employed (German nationals)	40 566	41 116	41 559	41 740	41 872
Net cross-border workers	37	48	54	54	55
Employed (in Germany)	40 603	41 164	41 613	41 794	41 927
Employed	36 110	36 625	37 067	37 265	37 400
Employed and liable to social security contributions	27 757	28 440	28 987	29 245	29 379
Employed and liable to social security contributions but receiving state subsidy[1]	242	181	140	112	96
Employed but low-paid and not liable to social security contributions	4 883	4 865	4 810	4 819	4 848
one euro jobs[2]	306	188	137	92	81
Self-employed	4 493	4 539	4 546	4 528	4 527
Self-employed but receiving state subsidy[3]	154	136	75	19	17
Unemployed[4]	3 238	2 976	2 897	2 907	2 870
Unemployment rate as defined by Federal Employment Agency[5]	7.7	7.1	6.8	6.8	6.7
Unemployed[6]	2 946	2 502	2 318	2 246	2 214
Unemployment rate[7]	6.8	5.7	5.3	5.1	5.0
Short-time working for economic reasons	456	104	66	87	107

[1] Job creation programmes, structural adjustment programmes, personal service agencies, integration allowance, integration allowance for replacement posts, integration allowance for new businesses, wage payment subsidy, initial financial support (paid employment), employment opportunity for work (paid variant), employment grant, skills training allowance for younger people, integration support for younger people and payment protection for older people.

[2] Employment opportunity with compensation for additional costs.

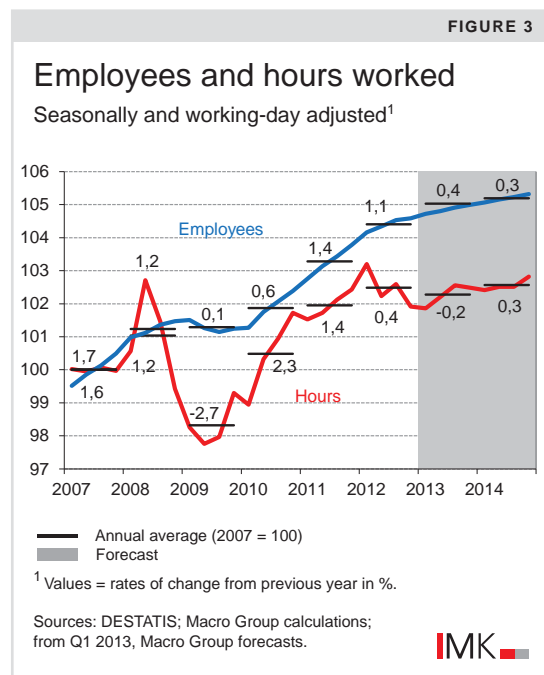[3] Business and company set-up allowances, transitional allowance and integrations support.

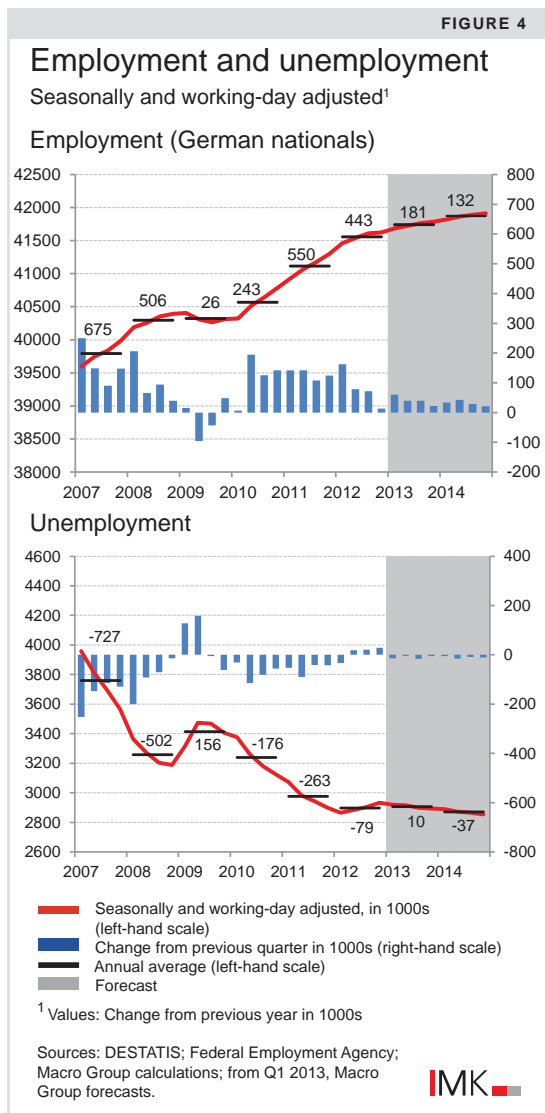[4] As defined by German Federal Employment Agency.

[5] % of total civilian labour force.

[6] As defined by International Labour Organization (ILO).

[7] % of total German labour forc.

Sources: DESTATIS; Federal Employment Agency; Macro Group calculations; from 2013, Macro Group forecasts.

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FIGURE 3

Employees and hours worked
Seasonally and working-day adjusted[1]

Annual average (2007 = 100)
Forecast

[1] Values = rates of change from previous year in %.

Sources: DESTATIS; Macro Group calculations; from Q1 2013, Macro Group forecasts.

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FIGURE 4

Employment and unemployment

Seasonally and working-day adjusted[1]

Employment (German nationals)

Unemployment

Seasonally and working-day adjusted, in 1000s
(left-hand scale)
Change from previous quarter in 1000s (right-hand scale)
Annual average (left-hand scale)
Forecast

[1] Values: Change from previous year in 1000s

Sources: DESTATIS; Federal Employment Agency;
Macro Group calculations; from Q1 2013, Macro
Group forecasts.

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labour market policy, overall growth in employment remained robust, despite the continued downturn in economic performance. Over the forecast period, the continuing recovery in the German economy suggests that labour market performance will be positive.

Employment within Germany is forecast to grow by an average of 180,000 or 0.4 % over the course of 2013, while for 2014, the average increase is expected to be around 130,000 or just over 0.3 % (Figure 3, Table 11). Over the forecast period, as the economic recovery picks up pace slightly, employment is set to rise further, although the increase is likely to be more muted than in previous years. While unemployment rose over the course of 2012, this was not reflected in the annual average figures. However, the statistical overhang from 2012 means that average annual unemployment in 2013 is likely to rise by 10,000 to more than 2.9 million, since the slight decrease over the course of 2013 will not

be enough to offset the 2012 rise. In 2014, the very modest but steady decline is set to continue, taking unemployment in Germany to an annual average of just under 2.87 million, down 37,000 (Figure 4). The forecast annual average unemployment rate as defined by the ILO is 5.1 % in 2013 and 5.0 % in 2014 as against 5.3 % in 2012. Over recent years, there has been significant net immigration, not least as a result of the economic crisis besetting the euro area, reflected in growth in the working population over the past three years despite a demographic decline. The assumption is that this significant net immigration into Germany will continue in 2013 and 2014, giving rise to a continuation of the divergent trends in unemployment and employment, albeit less pronounced: employment will rise rather more rapidly than unemployment falls.

Hours worked are expected to decline by an average of 0.2 % in 2013, while for 2014, they are expected to rise again, by 0.3 %, producing a very small increase over the forecast period as a whole. Hourly productivity is forecast to rise by 1.1 % in 2013 and by 1.2 % in 2014.

A balanced national budget

Fiscal policy, which was notably restrictive in 2012 as most of the measures included in packages designed to boost the economy had expired, is now modestly expansive again in the current year. Modest impetus, of around 0.2 % of GDP, is coming mainly from the income side, in particular as a result of a significant drop in the contribution rate to the statutory pension scheme, from 19.6 % to 18.9 %. Discretionary measures on the expenditure side tend to be slightly restrictive. Fiscal policy is likely to be neutral in 2014.

Revenue from taxation will rise rather more slowly over the forecast period than in 2012, while revenue from social security contributions will also grow more slowly because of lower contribution rates and will not start to pick up again until 2014. Expenditure is also expected to grow less rapidly than in 2012, however, and in 2014, both revenue and expenditure will rise more significantly. In 2013, the overall fiscal surplus will contract to no more than zero but is expected to rise again very slightly in 2014 (by 0.1 % of GDP). The federal government will again be able substantially to overshoot the targets set by the country's 'debt brake' mechanism in both 2013 and 2014.

Economic impact of fiscal rules in the euro area

Since 2011, the EU has gradually tightened up the budgetary rules applying to euro area Member States. The current rules date back to the conclusion of the Fiscal Compact in March 2012. In contrast with assumptions made by the institutes in their forecast, strict adherence to the new rules would require yet another increase in the extent of fiscal tightening over the next few years, which would then hamper economic growth further in relation to the baseline scenario.

The Fiscal Compact came into force on 1 January 2013. Applying it in a situation in which most EU economies are in recession, or at least stagnating, could delay or even block a recovery and hamper medium-term economic growth. This risk comes not from the fundamentally sensible objective of stopping further growth in government debt but from the two specific ways in which the EU has sought to achieve the objective:

■ no Member State may have a structural (cyclically adjusted) deficit of more than 0.5 % of GDP (the 'balanced budget' rule);

■ government debt must be reduced each year by one twentieth of the difference between the current debt-to-GDP ratio and the 60 % target (the 'debt brake' rule).

If the European Commission decides that these rules have been broken, automatic penalties will be imposed which may be revoked only by a qualified majority vote.

While the debt rule takes effect only three years after a Member State has brought its total deficit under 3 %, the new 'balanced budget' rule applies in perpetuity and exemptions apply only in exceptional circumstances, such as a dramatic collapse in the economy (and even then, exemptions may be only temporary and may not jeopardise the medium-term sustainability of public finances). Below, we use the example of the Spanish economy to demonstrate how application of the Fiscal Compact rules could impede a country's medium-term economic growth.

The risk of negative feedback

The structural budget deficit comprises the actual deficit after the cyclical component is removed – that is, that part of the deficit that is produced by the 'output gap', or the discrepancy between output potential and actual GDP.

The cyclical component is assessed by the European Commission at around 50 % of the output gap: although these "budgetary sensitivity parameters" differ from one Member State to another, the average across the euro area is 0.48 (Larch/Turrini 2009, p. 8).

Output potential is estimated by the Commission on the basis that a Cobb-Douglas production function more or less reflects the relationship between the deployment of physical capital and of labour and the relationship between the productivity of both inputs.[1] The available labour (measured in hours) is estimated on the basis of Friedman's (1968) concept of a 'natural' (or balanced or structural) rate of unemployment. If unemployment rises following an economic decline resulting from an oil price shock or a financial crisis but does not then fall back to its pre-crisis level, the price mechanism on the labour market has failed to operate correctly, maybe because pay has not fallen far enough, forcing up the structural rate of unemployment.

This rate of unemployment is also the rate at which inflation remains stable, whether total inflation (the non-accelerating inflation rate of unemployment, or NAIRU) or wage inflation (the non-accelerating wage rate of unemployment, or NAWRU). The European Commission estimates the structural unemployment rate reflected by the NAWRU as the rate that is required to keep pay growth down. In line with

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[1] This production function is frequently used in the specialist literature and in devising econometric models because it is mathematically very simple. In economic terms, it implies that the inputs represented by capital and labour are interchangeable: where, for example, wage costs fall by 10 % relative to capital costs, the same output can achieved by 10 % higher use of labour and a 10 % lower use of capital. A cut in pay will, therefore, increase the demand for labour.

the logic that any unemployment that is more than ephemeral has a structural cause, the NAWRU is assessed as the trend for the actual rate of unemployment using the Kalman filter (D'Auria et al. 2010). Figure K1 illustrates the actual growth in production and unemployment in Spain and the estimated values for the NAWRU, potential output, output gap and cyclically adjusted budget deficit (all data are taken from the Commission's winter 2013 forecasts). This example illustrates the Commission's method of calculation and the economic policy impact of its results.

After a phase of rapid economic growth between 1999 and 2007, which saw Spain's budget deficit transformed into a surplus and the government debt ratio falling to 40 % of GDP, the international financial crisis erupted and Spain's property bubble burst, plunging the economy into severe difficulties. The unemployment rate soared from 8.3 % to 18.0 % between 2007 and 2009, prompting a rise in the estimated NAWRU to 15.1 %. According to the European Commission, stable wage growth and, hence, stable inflation permits no more than 85 % of the labour available on the market to actually be employed (the remaining 15 % being unemployed for structural and institutional reasons). The Commission therefore estimates the output gap for 2009 at just 4.1 %, which means that only around two GDP-percentage points of the actual 11.2 % deficit resulting from the financial and stock market crisis can be interpreted (and accepted) as cyclical (Figure K1).

The rapid growth in what is interpreted as the structural deficit is forcing massive cuts in public spending and in transfer payments by the state, which remain unchanged even though unemployment levels have more than doubled. As a result, the economy fell back into recession in 2012 and unemployment rose again – and with it, the NAWRU. As a result, the output gap remains at 4.5 % of GDP – or, to put it another way, although Spain has 25 % unemployment, the Spanish economy, according to the

FIGURE K1

Growth in output, unemployment and public finances in Spain

Sources: Eurostat; Macro Group calculations.

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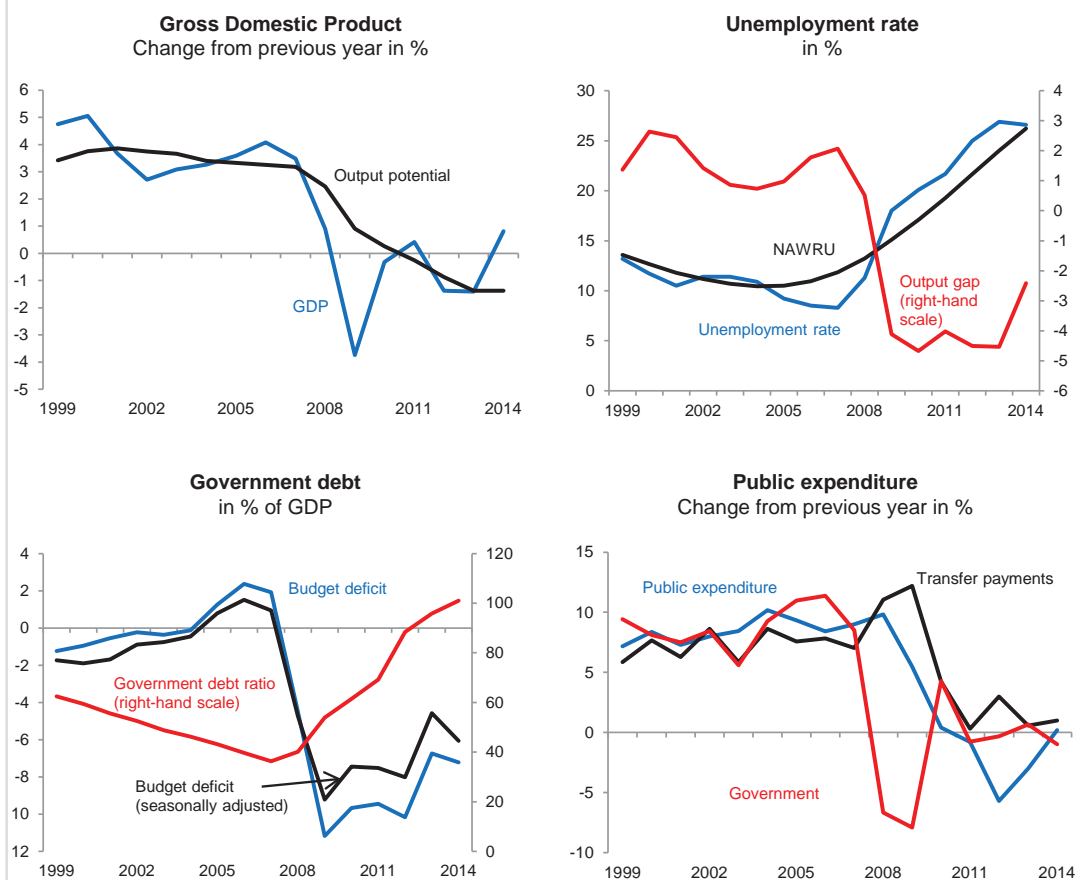
European Commission, has the capacity to produce not even 5 % more than it is currently producing. Since the major part of actual unemployment is interpreted as being structurally determined, the major part of the budget deficit is also seen as being structural: the growth in the NAWRU prompts potential output to contract, making the budget deficit appear overwhelmingly structural (Figure K1). Additional consolidation measures are, therefore, necessary which, while they bring the budget deficit down, do so at the cost of even higher unemployment.

Rising unemployment and a contracting economy are producing a dramatic rise in Spain's government debt ratio, paradoxically largely as a result of the consolidation measures taken in the wake of the crisis: according to European Commission estimates, the country's government debt ratio will almost double between 2009 and 2014, rising from 53.9 % to 101 %. Over the same period, there is expected to be a cut of less than 50 % in the "structural" i.e. cyclically adjusted deficit, which is forecast to fall from 9.4 % to 6.1 % (Figure K1).

If Spain's government debt ratio, until a structural deficit of 0.5 % of GDP is reached, rises to around 120 %, this means that under the 'debt brake rule', it would take around 20 years with consolidation at three percentage points of GDP a year to achieve the target debt ratio of 60 % of GDP.

At present, 24 of the 27 EU Member States have a cyclically-adjusted deficit in excess of 0.5 % of GDP, with an average deficit across the euro area countries of 2.4 % of GDP in 2012 and an average across the EU of 2.6 %. If all these countries were to step up their budget consolidation measures at the same time, the negative feedback would be mutually reinforcing and, since overall output in most EU Member States is either stagnating or declining and unemployment is at record post-war levels, this could severely hamper growth in the long term if the strategy were implemented strictly.

Medium-term forecasts up to 2017

The crisis of confidence on the government bond market and the restrictive fiscal policy introduced as a response to the euro area crisis caused the economic recovery from the recession that resulted from the global financial crisis to stall long, prompting further increases in unemployment and under-utilisation of capacity. The baseline scenario posited by the Macro Group shows that these problems cannot be solved, even in the medium term, without a shift to an expansive fiscal policy. The institutes have, therefore, also modelled scenarios based on an expansive fiscal policy, which are presented along with the results of the baseline scenario.

Assumptions for the baseline scenario

This forecast was prepared using the global model developed by Oxford Economic Forecasting (OEF), which includes sub-models for 46 countries or regions, including virtually all the industrialised countries, and reflects their interaction through export and import functions for goods and services.

The starting point was the OEF model for February 2013, which forecasts no large-scale consolidation measures over the next few years and, therefore, reflects the baseline scenario adopted by the research institutes. Our baseline scenario differs from the OEF model forecast in one key respect, however: the OEF expects a marked drop in the dollar-Euro exchange rate in 2014 to 1.21 and a

further drop, to 1.17, between 2015 and 2017. The Macro Group, by contrast, assumes a constant dollar-Euro exchange rate of 1.30 (Table 12). Additionally, 'talking down the dollar' may become more important as an objective of US policy, because the USA's fiscal policy is going to have to become more restrictive than in has been in recent years. Meanwhile, the most recent drop in the value of the yen also increases pressure to devalue the dollar in relation to the Euro. By comparison European policy makers and the ECB are unlikely to be interested in reducing the value of the Euro.

On the basis of this assumption, a new set of findings was modelled, which form the basis for the present forecast. For 2013 and 2014, it is very similar to the Macro-Group forecast but differs minimally on individual variables because this baseline forecast is the result of an econometric simulation, while the economic forecast combines a number of methods.

The global economic framework

Table 12 summarises the key elements making up the global economic framework. Until 2017, the (nominal) level of interest will remain markedly lower than in any five-year period since the Second World War. This is particularly true of short-term rates, which will, on average, be 0.2 % between 2013 and 2017 compared with 0.8 % in the USA, mainly as a result of the continued expansive mo-

netary policy pursued by the ECB and the fact that economic growth in the euro area will markedly under-perform that in the USA. Over the five years prior to the forecast period, the short-term interest rate in the euro area was, by contrast, 1.7 %, almost double the corresponding rate for the dollar (0.9 %).

Long-term rates in the euro area will be only fractionally higher than in the USA (3.6 % compared with 3.3 %). The key factors here are the Outright Monetary Transactions programme and the growth differential between the USA and the euro area: the OEF model predicts average annual growth in GDP of 2.9 % for the USA but just 0.9 % for the euro area (Table 13). As the differential between euro area and USA interest rates narrows, so too do interest rate differentials within the euro area itself, leading the OEF model to forecast a halving of the interest premium on Italian and Spanish government bonds compared with German bonds, to around two percentage points, by 2017.

As a result of sluggish economic growth in the industrialised countries, the price of Brent crude is likely to fall slightly in 2013 and then recover, to rise to USD 120 by 2017. Between 2013 and 2017, the average price will be USD 113 a barrel, 22.3 % higher than during the preceding five-year period (Table 12).

The model forecasts that between 2013 and 2017, global trade will grow by 5.7 %, more than twice the rate of growth during the 2007-2012 period, which was overshadowed by the financial and economic crisis. This marked expansion of international trade will be the result primarily of the continued high level of growth in the emerging market economies, especially China and India (Table 13).

Divergent growth paths in the global economy

The contrasting rates at which the global economy grows are likely to persist over the next few years. Primarily as a result of austerity policies across the euro area, its economy is set to grow by just 0.9 % a year up to 2017 (Table 13). The OEF model forecasts the beginning of a recovery in 2014, after which the economy should grow modestly again to achieve 1.8 % growth by 2017 (Figure 5).

GDP is likely to grow more strongly across the EU as a whole than in the euro area – that is by an average of 1.2 % (Table 13) – largely because long-term interest rates will be lower than in the euro area; indeed, the OEF model puts them at 2.5 % for the UK, 1.1 percentage points lower than the euro area average, and the same is likely to be true of Denmark and Sweden.

The US economy is forecast to grow by 2.9 %

TABLE 12

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Global economic framework – medium-term trends
Baseline scenario

	Ø 1993-2002	Ø 2003-2007	Ø 2008-2012	Ø 2013-2017
	Mean values, absolute terms			
Crude oil prices (Brent, USD/barrel)	19.8	51.8	92.3	112.9
Exchange rate (USD/EUR)	1.1	1.2	1.4	1.3
Three-month interest rate in %				
Eurozone	4.9	2.8	1.7	0.2
USA	4.8	3.4	0.9	0.8
Long-term interest rate in %				
Eurozone	6.3	4.0	4.0	3.6
USA	5.9	4.4	2.9	3.3
	Year-on-year change in %			
Global trade, real terms	6.2	7.9	2.5	5.7

Sources: Oxford Economics; Macro Group forecasts. IMK

a year, largely as a result of its expansive monetary policy, which is stabilising not only short-term but also long-term interest rates at a level significantly below the nominal rate of growth. However, the model simulation does not include the impact of budget cuts that took effect on 1 March 2013, with the implicit assumption that Republicans and Democrats will, in the not-too-distant future, reach agreement on a less drastic consolidation package. For Japan, the OEF model forecasts only marginally higher economic growth than in the EU-27
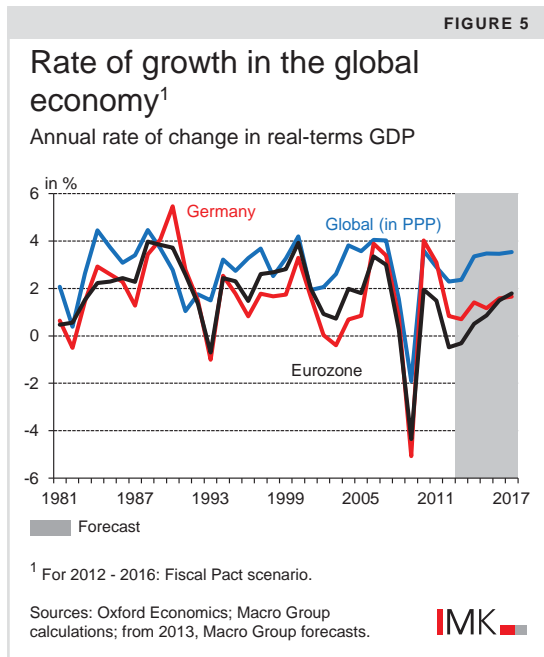
TABLE 13

Growth in real Gross Domestic Product
Baseline scenario

	Ø 1993-2002	Ø 2003-2007	Ø 2008-2012	Ø 2013-2017
World	4.8	4.3	2.9	4.1
Industrialised countries/total OECD	2.6	2.6	0.4	2.2
EU27	2.4	2.5	-0.2	1.2
Eurozone	2.0	2.2	-0.2	0.9
Germany	1.4	1.7	0.7	1.3
France	2.0	2.0	0.0	0.9
Italy	1.6	1.3	-1.3	0.4
United Kingdom	3.4	3.1	-0.5	2.1
USA	3.4	2.7	0.6	2.9
Japan	0.9	1.8	-0.2	1.4
Cnada	3.5	2.6	1.2	2.6
China	9.8	11.6	9.3	8.2
India	5.9	8.6	7.2	7.2
Russia	-0.9	7.5	1.8	4.0
Brazil	2.8	4.0	3.2	4.3

Sources: Oxford Economics; Macro Group forecasts. IMK

FIGURE 5

Rate of growth in the global economy[1]

Annual rate of change in real-terms GDP

[1] For 2012 - 2016: Fiscal Pact scenario.

Sources: Oxford Economics; Macro Group calculations; from 2013, Macro Group forecasts.

(1.4 % a year compared with 1.2 %).

Total output continues to grow vigorously in the BRIC countries. For China and India, the OEF model posits annual growth of 8.2 % and 7.8 % respectively, while Russia and Brazil are likely to see more sluggish growth persisting for some time to come (4.0 % and 4.3 % a year respectively). Total global GDP (at Purchasing Power Parity) is set to rise by 4.1 % a year between 2013 and 2016 according to OEF model findings (Table 13, Figure 5).

The impact of synchronised austerity across Europe

A year ago, the Macro Group used an OEF simulation of the impact of the Fiscal Compact to conclude that a rigid interpretation and implementation of the Fiscal Compact would result in a period of stagnation in the European economy and would widen the gulf between the southern European Member States on the one hand, and Germany and the remaining euro area countries in central and northern Europe on the other. Its final comment was that, rather than resolving the main factors behind the euro area crisis, such action would actually make them worse (Macro Group, 2012).

Trends over the past year have confirmed this assessment. Even assuming a less restrictive application of the Fiscal Compact – which underpins the modelling of the baseline scenario – the outlook for economic and social growth across the euro area over the next few years gives cause for concern (Table 14, Figure 6):

- The average rate of unemployment would be 12.1 %, higher than in any five-year period since the end of the Second World War. It would continue to rise, to 12.4 % by 2014, and then fall back slightly by 2017, to 11.7 %. In the southern European countries, the employment situation would resemble that produced by an economic depression, with the situation in Greece and Spain worse than in 1933 in Germany and the USA – the countries most badly affected by the Great Depression.

- Under the baseline scenario, euro area inflation would be an average of 0.4 % a year, markedly lower than the target value of just under 2 %. This much lower inflation rate would seriously hamper the objective of maintaining price stability, as all the crisis countries plus the Netherlands would slide into deflation over the forecast period, making it virtually impossible for them to reduce either government or private debt. The main cause would be low pay growth, which itself would be the result primarily of high unemployment.

- Capital market rates would be higher than the already low growth rate, particularly in the crisis countries, and both factors would impede investment. Companies would also have to maintain a primary surplus solely to prevent their debt levels from rising further. Gross investment would also grow only slowly, recovering in 2014 and then growing by an average of just 1.5 % a year in real terms over the forecast period.

- The primary surpluses from the corporate and domestic sector would not enable the governments of those countries with marked interest rate/growth differentials to achieve even primary surpluses despite considerable efforts to boost savings (for further details of the importance of the interest rate/growth differential for the interaction of primary deficits and, hence, debt accumulation, Schulmeister, 1995). Accordingly, the government debt ratio would continue to rise steadily under the baseline scenario (Figure 6).

The German economy in the wake of the European crisis

Under the conditions set out in the baseline scenario, the OEF model also forecasts weak economic growth – just 1.3 % a year – for Germany (Table 15, Figure 7), primarily as a result of two factors:

- The majority of German exports are destined for other EU countries, whose demand for imports has been greatly curbed as a result of synchronous austerity policies. Despite continued strong demand from the emerging economies, Germany's exports are therefore likely to grow by just 4.2 % a year between 2013 and 2017 (Table 15).

TABLE 14

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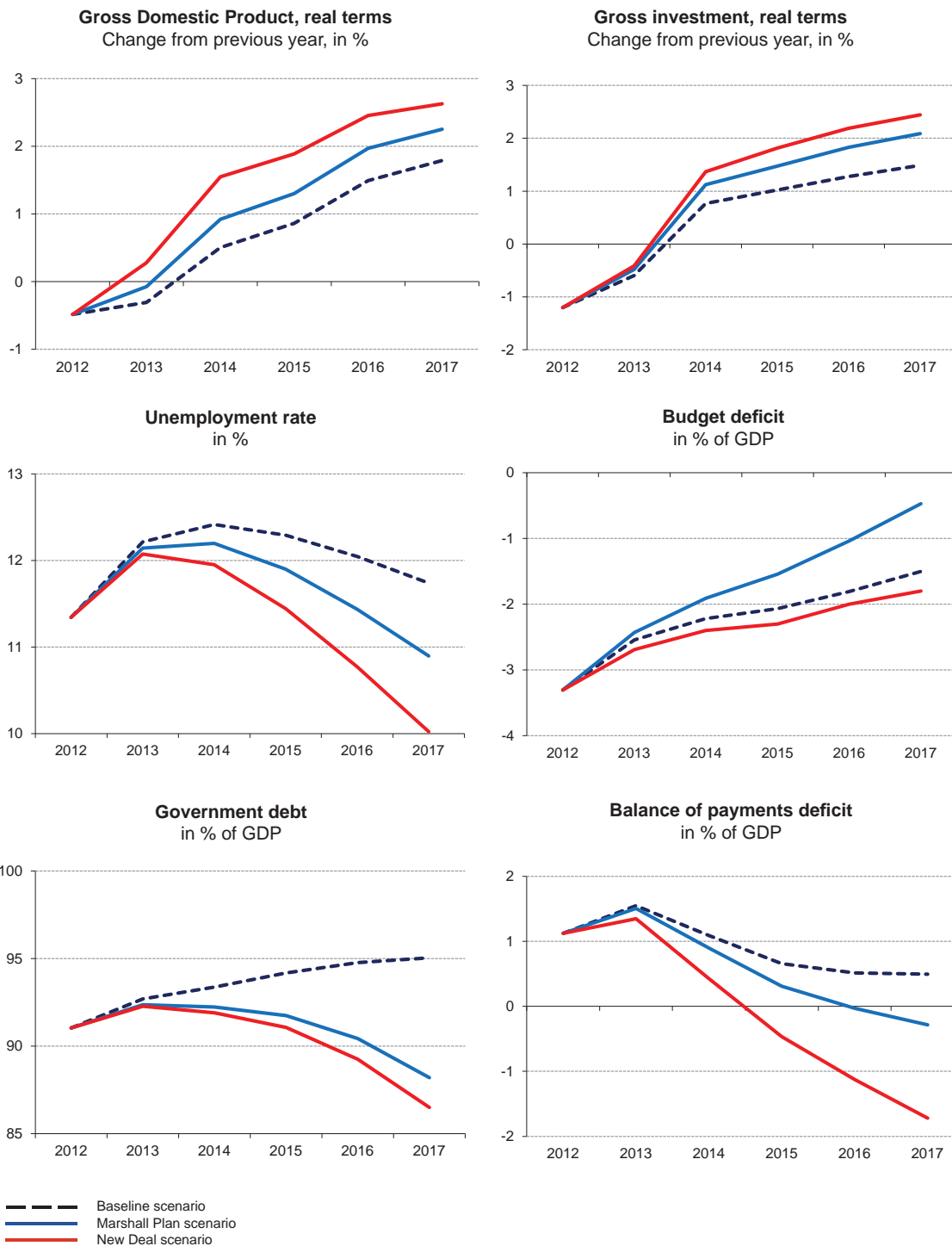# Alternative scenarios for medium-term economic growth in the Eurozone

Model simulation using the Oxford Economics model

	Baseline scenario	Marshall Plan scenario	New Deal scenario	Baseline scenario	Marshall Plan scenario	New Deal scenario	Baseline scenario	Marshall Plan scenario	New Deal scenario
				Ø 2013 / 2017					
		Germany			Austria			France	
GDP	1.3	1.4	2.0	1.2	1.3	1.9	0.9	1.1	1.7
Consumer spending	1.2	1.3	1.5	1.3	1.4	1.6	1.1	1.2	1.7
Gross investment	2.6	2.8	3.7	1.8	2.0	2.8	1.4	1.7	2.7
Total exports	4.2	4.6	5.0	4.1	4.5	5.3	3.5	4.0	4.4
Total imports	4.7	5.0	6.5	4.4	4.8	6.4	3.8	4.2	6.2
Unemployment rate[1]	6.9	6.8	6.1	4.9	4.8	4.3	10.4	10.3	9.8
Manufacturing output	1.0	1.1	1.5	1.8	2.0	2.5	1.1	1.3	1.7
Inflation	0.5	0.7	1.8	1.2	1.3	1.8	0.5	0.8	1.8
Budget deficit in % of GDP[1]	-0.3	-0.2	-1.2	-2.3	-2.2	-3.2	-2.5	-2.4	-3.8
Government debt	0.4	0.3	1.7	3.2	3.0	4.5	2.8	2.6	4.3
GDP (notional)	1.8	2.2	3.8	2.3	2.5	3.6	1.7	2.1	3.7
Government debt ratio[1]	75.2	74.5	74.3	74.6	74.0	74.7	93.4	92.4	92.5
Balance of payments[1]	5.1	5.1	3.4	1.3	1.3	0.0	-2.2	-2.2	-3.5
		Finland			Portugal			Italy	
GDP	1.5	1.6	2.1	-0.1	0.8	1.1	0.4	1.2	1.4
Consumer spending	1.7	1.8	2.1	-0.5	0.1	0.2	0.4	1.5	1.6
Gross investment	1.6	1.8	2.3	-1.2	5.6	5.6	1.5	5.3	5.3
Total exports	2.5	2.8	3.1	2.7	3.2	4.0	1.7	1.7	2.3
Total imports	2.5	2.7	4.0	2.0	4.0	4.4	2.4	4.3	4.6
Unemployment rate[1]	7.7	7.6	7.1	15.8	14.9	14.7	12.3	11.3	11.1
Manufacturing output	2.4	2.5	3.1	0.6	1.6	1.8	1.6	2.8	3.0
Inflation	0.6	0.8	1.8	0.1	0.6	0.9	0.6	1.6	2.0
Budget deficit in % of GDP[1]	-0.8	-0.7	-2.2	-3.2	-1.4	-1.1	-2.3	-1.0	-0.7
Government debt	1.8	1.5	4.6	2.7	1.2	0.9	1.9	0.8	0.6
GDP (notional)	1.7	2.0	3.5	0.4	1.8	2.3	0.9	2.8	3.4
Government debt ratio[1]	48.0	47.5	49.1	126.1	118.3	116.6	128.2	120.1	118.4
Balance of payments[1]	1.2	1.2	-0.1	-0.6	-2.2	-1.9	-1.0	-2.0	-1.7
		Ireland			Greece			Spain	
GDP	1.9	2.1	2.8	-0.4	0.5	0.6	0.3	1.5	1.8
Consumer spending	0.4	0.6	1.0	-0.5	0.3	0.4	0.1	1.3	1.5
Gross investment	3.1	3.6	4.5	-1.9	5.6	5.6	-0.7	4.5	4.5
Total exports	3.5	3.7	4.0	2.7	2.4	2.8	3.8	3.8	4.5
Total imports	3.0	3.3	4.4	0.6	2.8	2.9	1.4	3.5	3.8
Unemployment rate[1]	15.5	15.3	14.2	28.1	26.9	26.8	26.3	25.5	25.3
Manufacturing output	2.1	2.3	3.0	-0.6	0.6	0.7	0.8	2.6	2.9
Inflation	0.5	0.7	1.7	-0.7	2.0	2.3	0.1	1.2	1.6
Budget deficit in % of GDP[1]	-2.0	-1.8	-2.7	-5.1	-2.1	-2.0	-3.8	-2.4	-2.2
Government debt	1.9	1.7	2.7	2.7	1.2	1.1	4.6	3.0	2.8
GDP (notional)	2.3	2.7	4.4	-0.8	2.9	3.3	0.2	2.7	3.4
Government debt ratio[1]	108.6	107.2	105.5	193.4	172.6	171.0	89.8	81.9	80.4
Balance of payments[1]	3.6	3.6	2.5	-4.0	-5.0	-4.9	0.3	-1.5	-1.2
		Belgium			Netherlands			Eurozone	
GDP	0.9	1.0	1.5	0.5	0.7	1.8	0.9	1.3	1.8
Consumer spending	1.3	1.3	1.5	0.2	0.3	0.8	0.8	1.2	1.5
Gross investment	1.2	1.3	2.5	1.2	1.4	3.0	1.5	3.1	3.8
Total exports	3.2	3.5	4.2	2.6	3.0	3.6	3.4	3.7	4.3
Total imports	3.1	3.4	4.9	2.5	2.8	3.9	3.5	4.2	5.4
Unemployment rate[1]	8.1	8.0	7.3	8.0	7.9	7.0	12.1	11.7	11.3
Manufacturing output	1.7	1.8	2.3	-0.5	-0.2	0.6	1.1	1.7	2.0
Inflation	1.0	1.2	2.0	0.2	0.4	1.6	0.4	0.9	1.7
Budget deficit in % of GDP[1]	-1.8	-1.7	-3.8	-3.3	-3.1	-4.2	-2.0	-1.5	-2.2
Government debt	1.9	1.7	3.9	4.5	4.3	6.0	2.2	1.6	2.5
GDP (notional)	2.0	2.3	3.6	0.3	0.7	3.1	1.3	2.3	3.6
Government debt ratio[1]	98.6	97.9	100.0	77.3	76.3	74.9	94.0	91.0	90.2
Balance of payments[1]	1.6	1.6	-0.4	5.5	5.8	5.7	0.9	0.5	-0.3

[1] Mean for 2013-2017.

Sources: Oxford Economics; Macro Group calculations.

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FIGURE 6

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Macroeconomic trends in the Eurozone
under three different economic policy scenarios

Gross Domestic Product, real terms
Change from previous year, in %

Gross investment, real terms
Change from previous year, in %

Unemployment rate
in %

Budget deficit
in % of GDP

Government debt
in % of GDP

Balance of payments deficit
in % of GDP

- - - Baseline scenario
——— Marshall Plan scenario
——— New Deal scenario

Sources: Oxford Economics; Macro Group calculations.

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TABLE 15

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■ Fiscal policy will be restrictive in Germany as well as in other countries, driving down both incomes and domestic demand. The OEF model in the baseline scenario therefore expects medium-term growth in consumer spending of just 1.2 % a year. Gross investment will also grow only slightly up to 2017 (2.6 % a year – Table 15 and Figure 7).

Economic growth in Germany is, therefore, likely to be as weak under the baseline scenario as it has been over the preceding 20 years. Yet while over that period the German economy lagged substantially behind that of other European countries, it would in this scenario actually have one of the highest growth rates during the forecast period, with average growth of 1.3 % (of the euro area countries, only the Irish and Finnish economies would have a higher rate).

On the basis of this relatively good performance – at least by comparison with the rest of the euro area – the OEF model forecasts that the German economy will see a medium-term pick-up in growth in imports compared with exports (4.7 % a year as against 4.2 %). Germany's balance of payments surplus would, therefore, fall by around 2 percentage points of GDP by 2017 (Figure 7). Even under these conditions, it would be 5.1 % of GDP on average over the forecast period, a level that no other industrialised country achieves in its trade in goods and services. This foreign trade-oriented austerity policy would make it difficult for other countries to consolidate their balance of payments and government budget. The problem is particularly true of the southern European euro area countries, since they have high levels of deficit in both their balance of payments and their public budgets.

Potential output is likely to rise only a little more rapidly than total demand and the OEF model posits an output gap in the base year of -0.3 %, so actual total output as an annual average over the forecast period would be 1.1 % lower than output potential (Table 15).

Productivity per employee would rise in line with the long-term trend by 1.5 % a year, while against a backdrop of low economic growth, the number of people employed would fall slightly, by 0.2 % a year; the rate of unemployment would remain largely unchanged at 6.9 % over the forecast period (5.2 % using the ILO definition).

The overall government budget would remain slightly in deficit despite a restrictive fiscal policy, at -0.3 % of GDP over the forecast period. With weak nominal growth, the government debt ratio would then fall by around 5 percentage points of GDP (Figure 7).

Macroeconomic trends in Germany

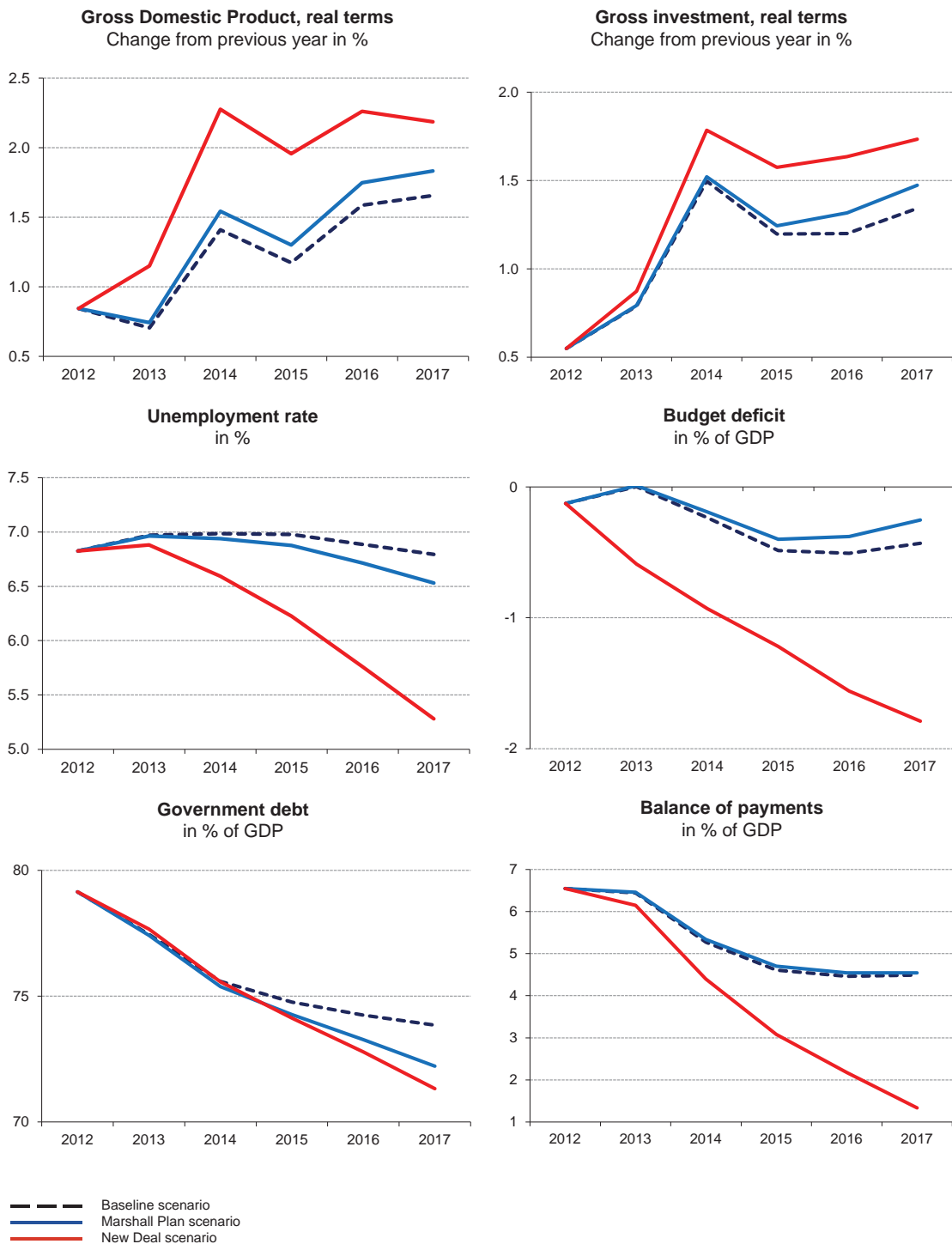|	Ø 1993-2002	Ø 2003-2007	Ø 2008-2012	Ø 2013-2017
	Annual change in %			
GDP	1.4	1.7	0.7	1.3
Consumer spending	1.3	0.4	0.8	1.2
Gross investment	0.2	2.4	-0.3	2.6
Government	-1.9	-2.2	0.2	0.9
Corporate	0.6	4.9	-1.2	3.5
Residential construction	0.3	-1.1	1.4	0.9
Public expenditure	1.4	0.5	2.0	0.7
Total exports	6.3	8.3	2.7	4.2
Total imports	5.0	7.4	3.0	4.7
Domestic demand	1.0	1.0	0.7	1.3
Exchange rate, real effective terms	-0.3	1.8	-1.2	-0.3
Consumer spending deflator	1.5	1.4	1.5	0.5
GDP deflator	1.2	0.9	1.0	0.5
Output potential	1.6	1.3	1.2	1.5
	Mean values, absolute terms			
Interest rates, real terms[1]				
Short-term	3.0	1.9	0.7	-0.4
Long-term	4.4	3.0	1.9	1.7
	Annual change in %			
Unit wage costs				
Absolute	0.6	-0.8	2.3	0.3
Relative	0.1	-1.1	-1.0	-2.1
Labour productivity	1.1	1.4	-0.2	1.5
Wage bill	1.8	1.0	3.1	1.5
Profits	4.9	4.4	0.0	1.6
Disposable income, real terms	0.9	1.4	0.6	1.1
	Mean values, absolute terms			
Savings rate	10.5	10.7	10.8	10.1
	Annual change in %			
Total employment	0.3	0.3	0.9	-0.2
	Mean values, absolute terms			
Unemployment rate	10.0	10.5	7.5	6.9
Budget deficit in % of GDP	-3.1	-2.5	-1.6	-0.3
Balance of payments deficit/surplus in % of GDP	-0.7	5.0	6.1	5.1
NAIRU	7.5	8.2	7.5	6.8
Output gap	0.3	-0.4	-1.2	-1.1

[1] With GDP deflator.

Sources: DESTATIS; Federal Employment Agency; Deutsche Bundesbank; Macro Group calculations; from 2013, Macro Group forecasts.

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Scenarios for an expansive economic policy

The Macro Group is convinced that an exceptional situation such as that in the euro area, and especially that facing the southern European countries, calls for exceptional measures. The aim of the simulation is to estimate the effects of such a fundamental change of direction on growth in the EU. In view of the poor economic performance identified by the baseline scenario and its impact on social unrest and political instability in the EU, the institutes have used the OEF model to simulate two scenarios for a radical change of direction in macro-economic policy. In the first case, it is assumed that economic growth in southern Europe is promoted by the following measures (the 'Marshall Plan scenario'):

FIGURE 7

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Macroeconomic trends in Germany
under three different economic policy scenarios

Gross Domestic Product, real terms
Change from previous year in %

Gross investment, real terms
Change from previous year in %

Unemployment rate
in %

Budget deficit
in % of GDP

Government debt
in % of GDP

Balance of payments
in % of GDP

- - - Baseline scenario
—— Marshall Plan scenario
—— New Deal scenario

Sources: Oxford Economics; Macro Group calculations.

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- Greece, Italy, Portugal and Spain receive a payment equivalent to 1 % of their GDP from EU funds each year until 2017; this payment is made in such a way that it does not increase their national debt. It is assumed that this special funding increases real gross investment by one percentage point of GDP each year.
- Long-term interest on government bonds will be stabilised at a standard 2 %, taking substantial pressure off the southern European countries in their efforts to service their debt and markedly improve the funding environment for the private sector.

The second scenario, the 'New Deal scenario', assumes that:

- The 'Marshall Plan' is implemented.
- The remaining euro area countries expand their public sector investment and consumption spending by 1 % of GDP a year to boost demand by around five percentage points of GDP by 2017, for example to improve conditions in the education system, in research and in environmental protection: the alternative scenarios focus solely on their macroeconomic impact, so the demand stimulus does not need to be specified in detail. The 'New Deal' scenario assumes that the demand stimulus in these countries is funded by the states themselves – that is, at the cost of their public budgets.

The question of how these measures can be put into effect is discussed in the section on economic policy. The options include setting up a European Monetary Fund (EMF), creating a debt repayment fund and launching Eurobonds.

In the 'Marshall Plan' scenario, overall growth in the economy would be considerably higher than under the baseline scenario, both across the euro area as a whole and in each of the individual Member States (Table 14 and Figures 6, 7, 8 and 9 illustrate this using the example of the major euro area countries). By definition, the economies benefiting most from additional funding of their investment over several years and from more favourable lending conditions would be the southern European Member states: in Greece and Portugal, medium-term economic growth would be 0.9 of a percentage point higher each year than under the baseline scenario, while in Spain and Italy, the improvement would be 1.2 and 0.8 percentage points respectively. In the remaining euro area countries, GDP would grow by 0.1 or 0.2 of a percentage point more rapidly than in the baseline scenario, primarily as a result of higher exports and the resultant slight increase in demand for investment (Table 14 and Figures 6, 8 und 9).

Overall economic performance across the euro area would also be better under the 'Marshall Plan' scenario than under the baseline scenario for other criteria: inflation would at least approach the 2 % target, there would be a more marked decline in unemployment, and state finances would also improve substantially, particularly in those countries with the highest levels of government debt. However, the balance of payments deficit in these (southern European) countries would be higher under the 'Marshall Plan' scenario than under the baseline scenario, as the 'Marshall Plan' would stimulate growth in these countries only, as least as far as direct stimulus is concerned (Table 14 and Figures 6, 8 and 9).

For these reasons too, then, the Macro Group also modelled the 'New Deal' scenario ('ND' scenario): the additional demand created under these conditions would be higher than under the 'Marshall Plan' scenario and would initially focus stimulus on economic activities in the remaining-non-southern European – euro area countries[1].
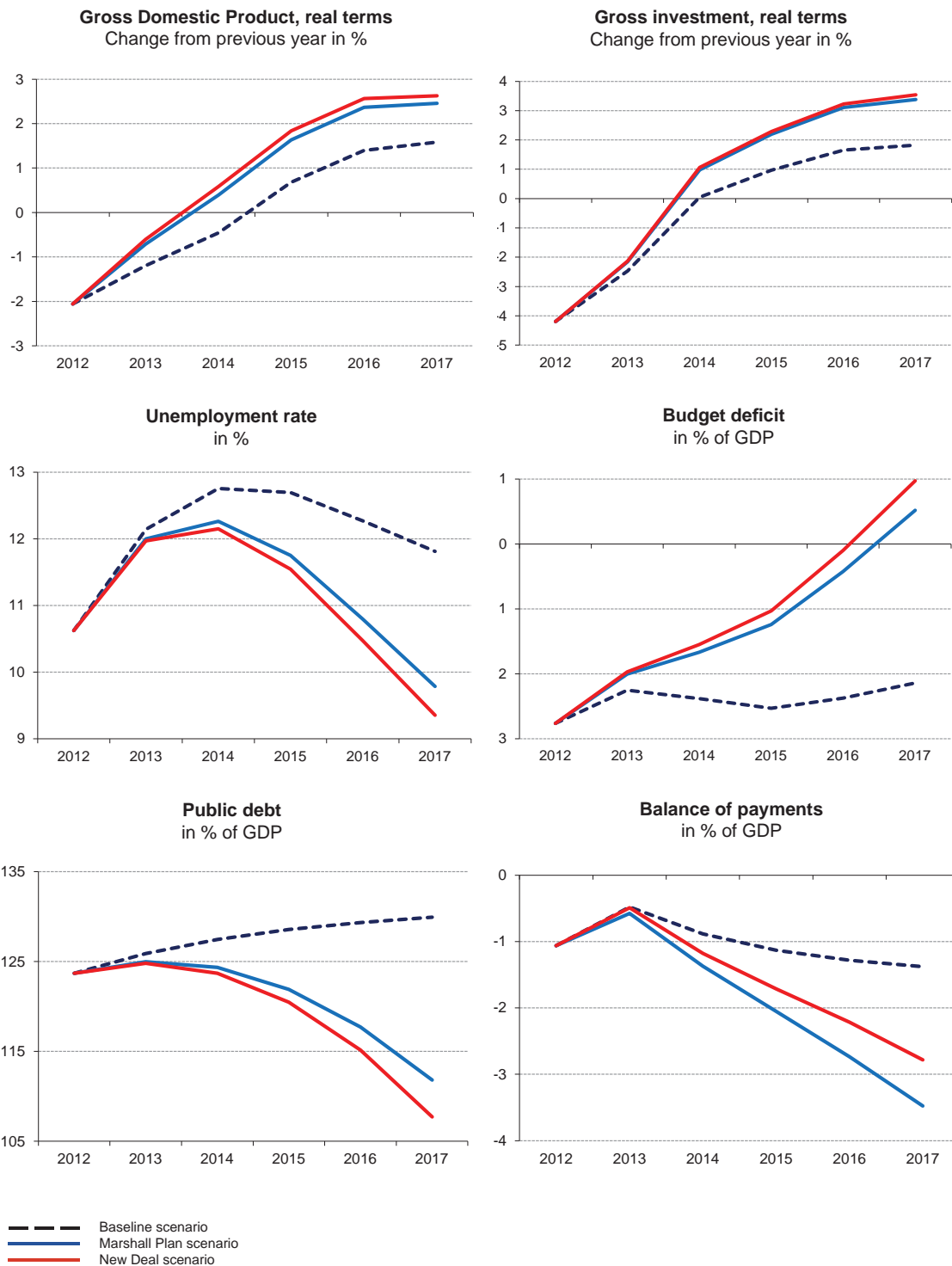
Across the euro area, the economy would expand by 1.8 % a year up to 2017 under the 'ND' scenario, almost one percentage point more per year than in the baseline scenario (Table 14, Figure 6). The reason is that stabilising the economic and hence also the social situation in southern Europe by means of the 'Marshall Plan', combined with fiscal stimulus in the remaining euro area countries, would prompt average growth in gross investment across the euro area of 3.8 % a year. The unemployment rate is also predicted to fall to 10.0 % in 2017.

The 'ND' scenario would see average annual inflation of 1.7 % for the 2012-2017 period, only slightly lower than the ECB target of 2 %. Although the budget deficit in this scenario is 2.2 % of GDP on average, and thus slightly higher than in the baseline scenario, the government debt ratio falls from 91.0 % to 86.5 %, compared with the continued rise set out in the baseline scenario. The reason is that in the 'ND' scenario, nominal GDP grows by 3.6 %, because of higher inflation and stronger economic growth, almost twice as rapidly as in the baseline scenario (Table 14, Figure 6).

Because the additional fiscal stimulus under the 'New Deal' scenario will initially stimulate output only in the 'northern' euro area countries, the acceleration of growth compared with the 'Marshall Plan' scenario would be higher in these countries

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[1] The OEF model gives individual data for only the 12 largest of the 17 euro area countries. Exogenous growth in public demand could, therefore, be modelled for only Austria, Belgium, Finland, France, Germany, Ireland, the Netherlands and Slovakia.
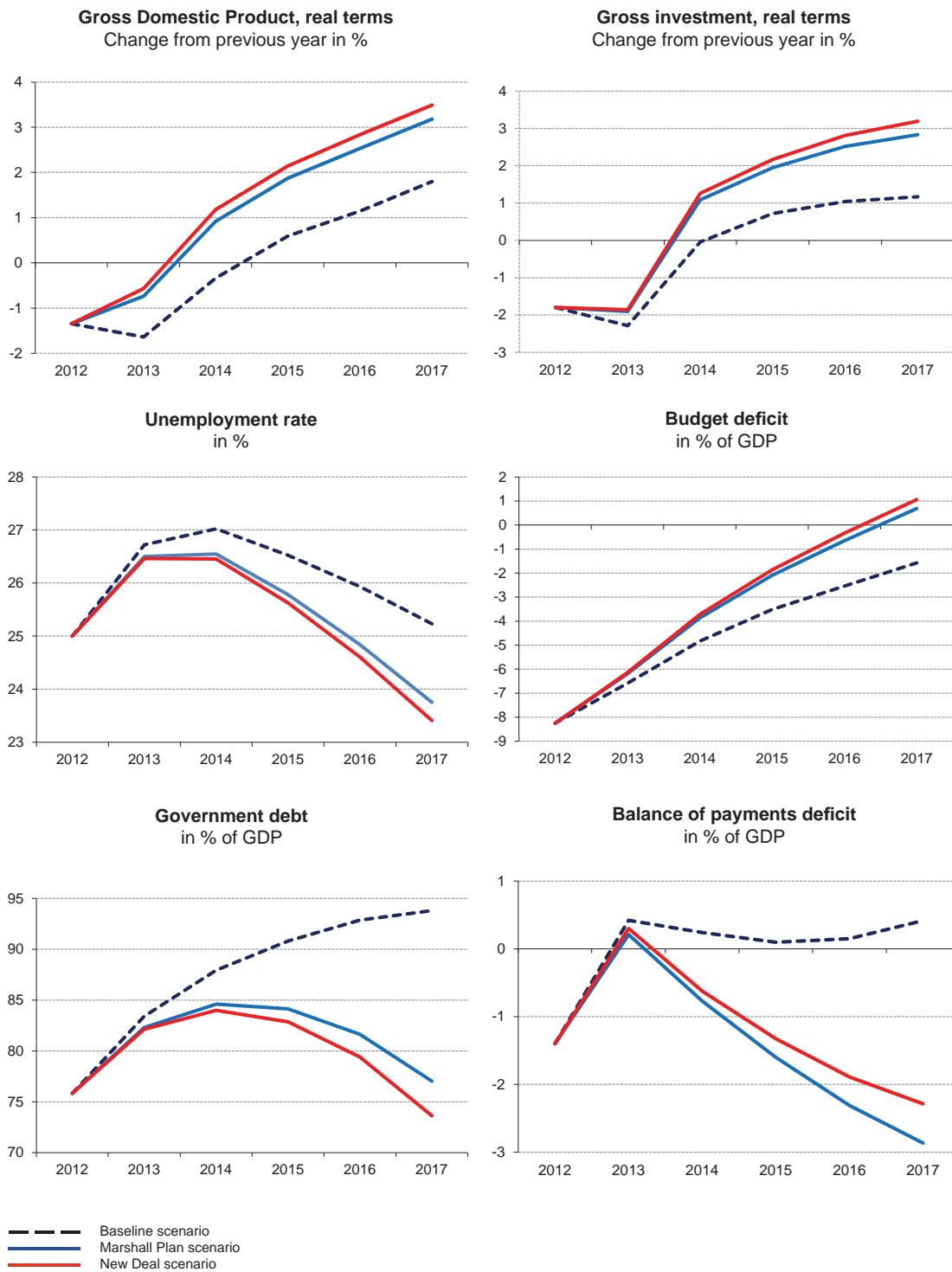
FIGURE 8

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Macroeconomic trends in Italy
under three different economic policy scenarios

Gross Domestic Product, real terms
Change from previous year in %

Gross investment, real terms
Change from previous year in %

Unemployment rate
in %

Budget deficit
in % of GDP

Public debt
in % of GDP

Balance of payments
in % of GDP

- - - Baseline scenario
— Marshall Plan scenario
— New Deal scenario

Sources: Oxford Economics; Macro Group calculations.

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FIGURE 9

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Macroeconomic trends in Spain
under three different economic policy scenarios

Gross Domestic Product, real terms
Change from previous year in %

Gross investment, real terms
Change from previous year in %

Unemployment rate
in %

Budget deficit
in % of GDP

Government debt
in % of GDP

Balance of payments deficit
in % of GDP

- - - Baseline scenario
—— Marshall Plan scenario
—— New Deal scenario

Sources: Oxford Economics; Macro Group calculations.

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than in Italy, Spain, Portugal and Greece. This would mean economic growth in Austria, Finland, France and Germany would be 0.6 of a percentage point higher than under the 'Marshall Plan' scenario, while in the southern European countries, the difference would be just 0.2 of a percentage point (Table 14).

Unemployment in the 'New Deal' countries would fall much more rapidly than under either the baseline scenario or the 'Marshall Plan' scenario. Although the budget deficit would also be higher, because the additional fiscal stimulus would have to be funded by the Member States themselves, the government debt ratio would fall most rapidly in the 'ND' scenario: in Germany, for example, it would fall from 79.1 % in 2012 to 71.3 % in 2017. The effect of stronger growth in nominal GDP as a result of higher real output and higher inflation would be more significant that the impact of the need to borrow to provide the fiscal stimulus.

Like most other widely-used models, the OEF model assumes that imports react strongly to a fiscal stimulus. For Germany, this would, under the 'New Deal' scenario, produce a marked reduction in the country's balance of payments surplus, from 6.5 % of GDP in 2012 to 1.3 % (Figure 7). That is desirable and would help to stabilise the euro area, creating potential for euro area countries with a balance of payments deficit to bring down their deficit (Figures 8 and 9). However, the question arises of whether they would be able to make use of the opportunity; in fact the simulations show that this can happen only where the fiscal impetus is supported by wage policy.

The impetus produced by the externally financed boost to investment leads not only to growing demand across the economy but also – if pay- and price-setting mechanisms are not adjusted – to a rapid acceleration in inflation. However, that runs counter to the goal of improving countries' balance of payments: domestic production again becomes relatively more expensive than foreign production, boosting demand for imports. The OEF model simulation shows that a large part of the fiscal stimulus in the 'New Deal' countries would, in fact, stimulate imports from countries outside the euro area. In this scenario, the model shows an average balance of payments deficit across the euro area of 0.3 % of GDP between 2012 and 2017, while the 'Marshall Plan' scenario produces an estimated 0.5 % surplus (Table 14, Figure 6). Over time, however, both scenarios would see balance of payments deficits recurring in the crisis countries – modest in the 'Marshall Plan' scenario but more substantial under the New Deal scenario. There

would therefore be a risk of triggering a new crisis, wiping out the benefits of fiscal stimulus. The simulations therefore show that fiscal expansion must be supported in the crisis countries if it is to be sustainable. A tough competition policy must prevent excessive price increases, while growth in pay must be linked to growth in productivity and to target inflation. With these conditions in place, trade imbalances would simply not arise. Then the multiplier effect of the fiscal stimulus would be markedly higher than the model suggests, because less demand would leak in the form of higher imports of goods from countries outside the euro area.

Economic policy challenges

Crisis resolution: an investment-led exit strategy for the euro area

The euro area economy has been contracting continuously since the fourth quarter of 2011. Notwithstanding the sharp economic contraction in the last quarter of 2012, political progress, especially the announcement of OMT by the ECB, has arrested the threatened break-up of the euro area. The monetary union is far from having emerged from the woods, however. The expansionary monetary policies that have been implemented and the promise of unlimited purchases of sovereign bonds - doing "whatever it takes" (Draghi) to save the euro area - are not by themselves enough to bring about a sustained recovery. There are two main reasons for this. Firstly the measures are perceived as contingent and possibly temporary responses to the crisis: there is still a lack of fundamental trust in the institutional framework and stability of monetary union. As long as this fundamental uncertainty is not removed, interest rates in the crisis countries will remain elevated and investment will remain weak. The second factor is the fiscal austerity policies pursued across the continent since, at the latest, the spring of 2011. There are limitations to what monetary policy can achieve as long as fiscal policy is directly draining spending out of already weakened and fragile national economies.

The resolution of the crisis in the euro area requires progress in four main areas. The process of economic contraction in the crisis countries and the current stagnation in the other member states of the euro area must be brought to an end and give way to economic growth at a rate that enables capacity utilization to increase and unemployment to be brought down. Second, the necessary process of deleveraging needs to be accomplished and government finances must be put on a sustaina-

ble trajectory where this is not currently the case. Third, further progress is needed in resolving the competitive imbalances that built up during the pre-crisis years. Last but by no means least, the financial sector needs to be stabilised, particularly, but not only, in the crisis countries.

Addressing these issues requires changes to current monetary and fiscal policy strategies as set out in more detail below. These include a firm commitment to, and the determined use of, OMT, and where required other quantitative easing measures, by the ECB. Fiscal policy measures in crisis countries need to be redesigned so as to foster growth while ensuring longer-term fiscal sustainability. To make monetary policy effective in the crisis countries the confidence crisis in government securities needs to be resolved.

As sketched out in an indicative way in the simulations using the OEF model (see the previous section of this report), an important element in a crisis resolution strategy should be a coordinated investment strategy for growth and jobs, designed so as to contribute also to the goals of current account rebalancing, fiscal consolidation and financial sector stabilisation. While the economic impact of such measures would take some time to be felt, already in the short-term positive confidence effects are to be expected if economic agents are reassured that the current cycle of declining demand, worsening job prospects and continuing, if not worsening, financial sector difficulties is being effectively broken.

An important consideration in this regard is where geographically additional stimulus measures should be concentrated. It would appear logical to focus spending on the crisis countries, where negative output gaps are largest and economic and social distress most acute. Easing financing constraints by providing various forms of external finance to crisis countries would have the largest "bang for the euro", focusing spending where the multipliers are likely to be highest. Consideration needs to be given to the need for competitive rebalancing, however. Taking this factor into account suggests that spending should be increased also in surplus countries that do not face financing constraints, even if output gaps there are small and unemployment comparatively low. The additional demand would partly lead to faster wage and price increases, but this is actually desirable from the point of view of current account rebalancing. There is considerable evidence that substantial progress has been made – at high cost – in improving the price competitiveness of the crisis countries (ECB 2013). Unit labour costs, in particular,

have adjusted to a considerable extent (Stein, Stephan, Zwiener 2012). Concerns remain, however. Firstly the improvement in terms of unit labour costs is not fully reflected in falls in relative prices in the crisis countries; ultimately product prices, rather than wages, are the metric of competitive positions. While some rebuilding of profit margins may be seen as desirable, a lack of competition on product markets clearly means that in some cases a shift in income from labour to capital is preventing the full benefit in terms of price competitiveness being achieved (OFCE/ECLM/IMK 2012: 63-76). Second, too little adjustment has been achieved by surplus countries. Faster demand and also nominal wage and price growth, especially in Germany, would permit a more balanced adjustment process with better aggregate output and employment outcomes.

A number of growth initiatives of varying degrees of ambition have been put forward and can be mentioned in this context.

In June 2012 the European Council agreed on a so-called Growth Pact that was supposed to be a counterpart to the austerity measures. The headline figure was 120 billion euro, or close to 1 % of euro area GDP. However, apart from a small (10 billion euro) increase in the capital of the European Investment Bank details of the proposal remained rather vague. In particular much of the headline figure represented a commitment to reallocate funding from other sources – and so is not additional expenditure – and even this reallocation faced unresolved legal obstacles. In short it is more a political gesture than a concrete stimulus package.

At the end of 2012 the EU Commission also proposed a Youth Employment Package. Member States offering unemployed youth training and subsidized employment are to receive financial support from the European Social Funds. Given both the severe social effects and the longer-term economic consequences of high youth unemployment (OFCE/ECLM/IMK 2012: 51-62), this policy focus is justified. European funding would alleviate financing constraints in the crisis countries. Similarly, a recently announced Social Investment Package offers support to Member States in policy areas conceived as social investment (education, housing etc.). These are both worthy initiatives, but they are neither of a sufficient order of magnitude nor can they be ramped up quickly enough to have the desired effect of changing expectations in a fundamental way about the direction of the European economy over the coming years.

More fundamentally they are a case of, at best, "one step forward, two steps back" for as long as pressure continues to be imposed on these countries to make much more substantial cutbacks in these very policy areas.

The German Confederation of Trade Unions recently proposed an ambitious Marshall Plan for Europe . Under it, EUR260 billion of additional investment – 2 % of euro area GDP –would take place every year over a ten year period. A European Future Fund would issue bonds guaranteed by all Member States participating in the scheme and serviced from revenues from a financial transactions tax. Initial capital for the Fund would come from a one-off wealth levy. Participation in the programme is limited to those countries introducing such a tax. Investment is to be targeted towards areas of growing need, such as raising energy efficiency, investing in education and other needed public services and facilities. In addition subsidies will be made available to private investors. Such a plan seeks to combine short-term economic stimulus, while avoiding putting further pressure on government budgets in the crisis countries, with the longer-term requirements of economic, social and ecological modernisation in Europe. The Macro Group is convinced of the desirability of implementing a programme along these lines. The simulations presented in the previous section are similar in orientation and suggest that such an approach could generate substantial positive effects.

In the light of the above, the Macro Group considers that a pragmatic multi-track approach to stimulating investment and underpinning stable demand growth, one that would be both politically realistic and have some effect in speeding up the path towards economic and labour market stabilization, might take the following form, complementing the monetary and fiscal policies recommended elsewhere in this report.

- The various supportive initiatives proposed by the Commission and the European Council should be implemented as quickly as possible and to the maximum feasible extent.
- A political commitment should be made towards the crisis countries to provide external finance for public investment and/or subsidies for private investment to the value of 1 % of current GDP for five years. The countries themselves should determine spending priorities subject to the constraint that they should, at least in the longer term, be such as to raise potential output and alleviate current account and competitiveness deficiencies. The source(s) of this additional finance is a secondary issue and can consist of a combination of existing institutions (EIB, social funds, ESM etc.). To the extent possible social pacts should be sought to avoid acceleration of nominal wages and prices in response to the higher aggregate demand, whereby a strong investment-orientation of the measures will in any case limit this effect.

- Surplus countries should commit to fiscal expansion equal to at least one percent of GDP. This stimulus should be maintained until the respective price level has returned to the path defined by an annual inflation rate of 1.9 % per year since the beginning of the monetary union. This implies that in the current context the inflation rate in Germany would be higher than 2 % for some time. However, in the medium run it should return to the inflation target after the necessary realignment of real exchange rates is completed. At that point no further stimulus will be needed. Therefore the short term overshooting of inflation rates should not be interpreted as a violation of price stability. Member States should be left free to decide the packages and the balance of spending increases and tax in accordance with national priorities and constraints. They should also commit to underpin wage developments, particularly at the bottom of the labour market. While stimulating domestic spending the surplus countries would thus contribute to higher export demand in the crisis countries.

Monetary policy transmission still impaired

Financial markets have calmed noticeably since the European Central Bank (ECB) in September 2012 announced its willingness to intervene without limit on government bond markets, provided the respective country enters an adjustment or precautionary programme of the rescue fund ESM. Yield spreads on 10-year government bonds in Italy and Spain over German government bonds are still about one percentage point higher than in June 2011, but around 2 percentage points lower than in July 2012 (Figure 10).

Like the numerous other monetary policy measures to quell the crisis since May 2010, the promise of outright monetary transactions (OMT) will not suffice to stabilize the euro area – it does, however, provide yet another breathing space for policy makers. Given the nexus between budget deficits, debt ratios, growth, and confidence, a resumption of growth is a conditio sine qua non for overcoming the current crisis in the euro area. This is all the more so as current ECB policies continue to entail numerous risks which could materialize if euro-area governments and European institutions do

not manage to engineer a turnaround in euro area growth prospects.

Loans to the private sector are shrinking, the distribution of refinancing credits among euro area countries is still highly skewed and inter-central-bank assets and liabilities (TARGET2) remain high. albeit somewhat below their August 2012 peaks. (Figure 10)
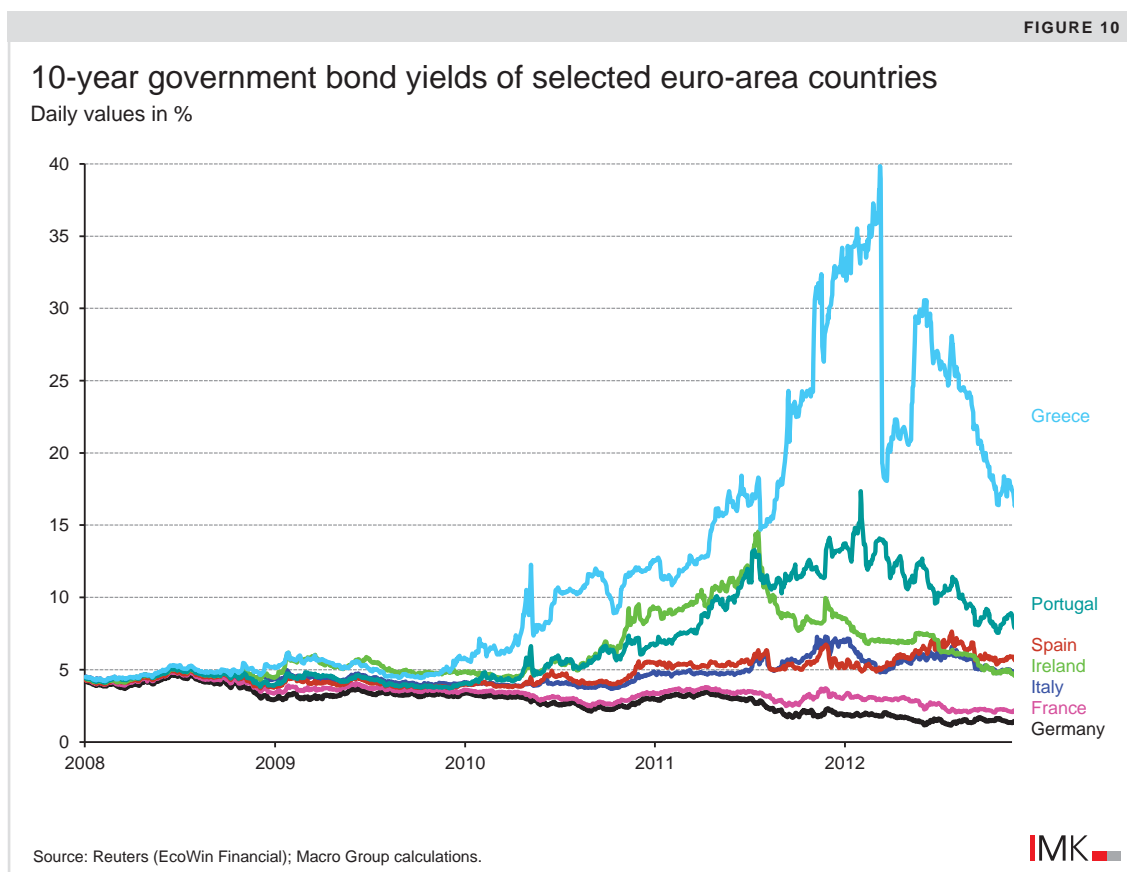
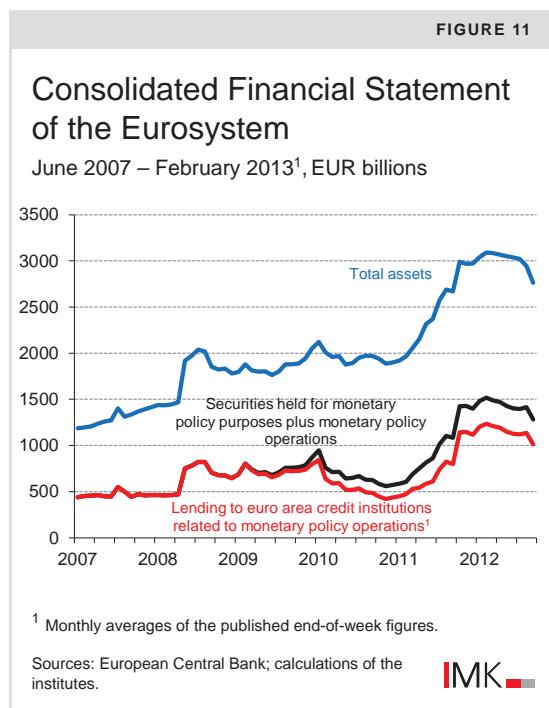### High demand for refinancing loans in troubled economies

The demand for central bank refinancing remains high in Cyprus, Greece, Ireland, Italy, Portugal and Spain but has declined markedly from the levels of mid-2012. This applies especially to Spain, where deposit withdrawals and capital outflow caused refinancing loans to surge from the already high level of 77.8 billion euros in August 2011 to 413 billion euros in August 2012. By January 2013 – the latest available data – central bank refinancing of Spanish banks had declined to 294 billion euros. The increase in confidence spurred by the OMT announcement in September 2012 is also reflected in the more recent data at the euro area level: Overall the Eurosystem's provision of liquidity for monetary policy purposes declined by 196 billion euros since August 2012 and in February 2013 amounted to 1013 billion euros. This reduction results, in part,

from repayments of longer-term refinancing loans by banking institutions in countries experiencing capital inflows, such as Germany. For various reasons, banks in Germany had availed themselves of the three-year liquidity provided by the ECB in December 2011 and March 2012 and are now finding it too costly. These banks are flush with liquidity from deposits and were eager to be able to reduce their surplus liquidity parked on central bank accounts at no interest or at 0.25 % interest in the case of the deposit facility, once the initial one-year holding period had passed.

The most pronounced percentage reduction in liquidity obtained through regular monetary policy operations recently took place in the most troubled euro-area countries, Greece and Cyprus; not so much because they did not need it, however, but for lack of adequate collateral. Between March 2012 and December 2012, regular central bank refinancing of Greek and Cypriot banks declined by 75 % and 93 %, respectively. At the same time central bank refinancing via emergency lending assistance and other lending increased from negligible amounts to 102 billion euros and 9.4 billion euros, respectively, in December 2012 (Figure 11).

FIGURE 10

10-year government bond yields of selected euro-area countries
Daily values in %

Greece
Portugal
Spain
Ireland
Italy
France
Germany

Source: Reuters (EcoWin Financial); Macro Group calculations.

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FIGURE 11

Consolidated Financial Statement of the Eurosystem

June 2007 – February 2013[1], EUR billions

Total assets

Securities held for monetary policy purposes plus monetary policy operations

Lending to euro area credit institutions related to monetary policy operations[1]

[1] Monthly averages of the published end-of-week figures.

Sources: European Central Bank; calculations of the institutes.

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Somewhat lower inter-central-bank balances (TARGET2)

The steep increase in the demand for ECB refinancing loans since the start of the euro area crisis is to a great extent due to the lack of other refinancing possibilities open to the banks in Greece, Ireland, Italy, Portugal and Spain. Not only are interbank loans scarce, but deposits of residents have also been withdrawn. This outflow of private capital led to a build-up of arrears between euro area central banks (TARGET2 balances). When private creditors withdraw funds from an Italian bank, for example, and redeposit them at a German bank it is a cross-border transaction that also involves the German and the Italian central banks: The Bank of Italy incurs a liability vis-à-vis the German Bundesbank. If these arrears are not compensated for by transactions running the other way by the end of the day, the balances are transformed into liabilities of the Bank of Italy vis-à-vis the ECB and corresponding liabilities of the ECB vis-à-vis the German Bundesbank. Prior to the international financial crisis these TARGET balances were negligible, because interbank lending was well-functioning. The increasing TARGET balances show that interbank-lending was interrupted transferring risks away from commercial banks to the Eurosystem. In August 2012, they reached record highs: The Bundesbank's TARGET2 assets reached 751 billion euro, Italy and Spain had TARGET2-liabilities of 289 billion euros and 434 billion euros, respectively (Figure 12).

TARGET2 liabilities have the same root cause as the increased dependence on central bank financing – a lack of confidence in the solvency of the banking system of the crisis countries. It is therefore not a coincidence that central bank refinancing and TARGET liabilities are of similar magnitude (Tober 2011). The Target2 balances have declined noticeably since August 2012 – most pronouncedly in the case of Spain, with a reduction by 97 billion euros to 337 billion euros in January 2013. Nonetheless these balances indicate that the crisis is far from over.
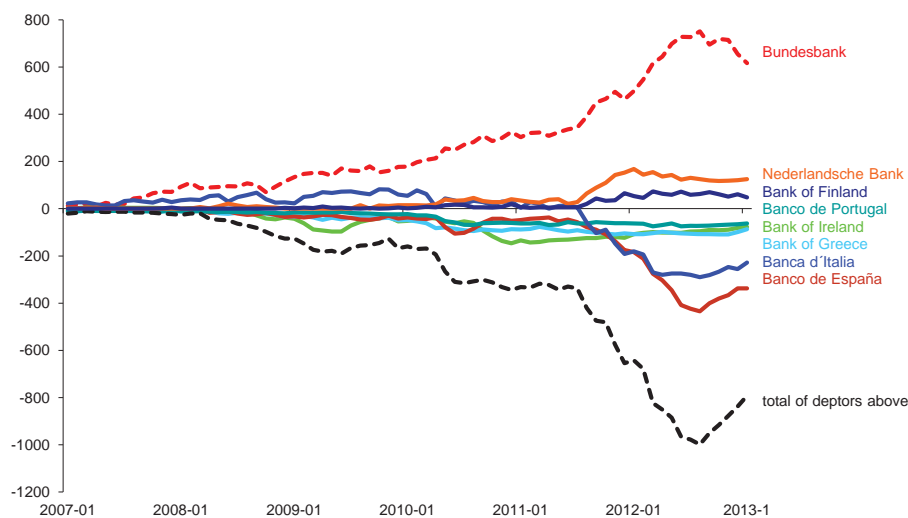
Tensions eased; crisis not yet resolved

The crisis symptoms of skewed central-bank refinancing of banks, large inter-central-bank balances and high yield spreads have eased noticeably since mid-2012. Yields, although still very high given the current dismal economic outlook for the crisis countries, have come down substantially. Furthermore, short-term rates in the crisis countries are quite a bit lower than long-term rates allowing for less costly financing. Moreover, the ECB has so far only announced OMT but has not yet actually started to intervene in government bond markets. If the crisis does not flare up again and if economic growth resumes, most of the crisis countries will therefore be able to handle their debt burden. The ECB can begin active intervention, but the extent to which it does so, is ultimately at its own discretion. Those are big ifs and uncertainties, however. Without a fiscal policy turnaround, economic growth is unlikely to resume any time soon. Prolonged recession could trigger another confidence loss.

The exchange rate is unlikely to boost growth via higher exports: the less expansionary monetary policy stance of the ECB has led the euro to appreciate against major currencies. The appreciation has been especially pronounced since July 2012: The euro appreciated against the U.S. dollar by 8.7 %, the British pound by 9.4 %, the Yen by 28.2 % and the Yuan by 6.4 % (February 2013). Adjusted for inflation differentials, the euro appreciated against a basket of currencies by 5.8 % in the same time period and the price competitiveness of German products decreased by only 3.3 %. Viewed in a larger perspective, the picture is more mixed: In the past two years the euro depreciated against the US dollar by 2.1 % and the Chinese Yuan by 7.3 %, while it appreciated vis-à-vis the British pound by 1.9 % and the Yen by 10.3 %. Adjusted for inflation differentials, the euro depreciated in real effective terms by 0.6 %. So far there are no clear signs of a currency war; the other central banks are primarily taking a more aggressive stance against unemployment than the ECB, resulting not only in lower interest rates but

FIGURE 12

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TARGET2 balances of selected national central Banks in the Eurosystem[1]

January 2007 – January 2013, EUR billions

also a lower external value of the national currency. To the extent that the national economies revive, the euro area benefits from increased external demand. Although the crisis countries would undoubtedly benefit from a lower exchange rate, it is hard to argue that the euro is currently overvalued for the euro area as a whole. It has depreciated in real effective terms since the introduction of the euro, and by and large the current account of the euro area was balanced during the past 13 years. By far the greatest increase in international competitiveness was experienced by Germany. It follows that the necessary rebalancing has to be made within the euro area.

At least until the announcement of OMT the approach to crisis resolution was rather roundabout. Rather than directly targeting the loss of confidence that caused many countries to be faced with unsustainable interest demands (Macro Group 2012), the Eurosystem was providing unlimited, low-interest funds to national banking systems whose solvency is intimately linked to that of their home country.

The key risk inherent in this crisis strategy is not higher inflation. Core inflation averaged 1.5 % in 2012, where it also stood in December 2012, and was at 1.3 % in February 2013. It would be even lower if increases in indirect taxes were discounted. Both money and loan growth are subdued: Lo-

ans to the private sector declined by 0.9 % between January 2012 and January 2013, with loans to non-financial corporations down 2.5 %. Core inflation is only likely to pick up if euro area countries experience sustained and vigorous growth. Given an unemployment rate of 11.9 % (January 2013), there is ample room for production increases. The real risk lies in a recessionary environment in which confidence does not return but instead either banks fail or the austerity measures demanded make exit the more viable option for some countries. The latter would entail debt restructuring and, at best, sizable losses for tax payers in the euro area.

Piecemeal strategies might suffice to stabilize the current dismal economic situation, with unemployment averaging 11.9 % or 19 million people and youth unemployment averaging 24 % and 56 % and 58 % in Spain and Greece, respectively. The current strategy based on fiscal austerity and malfunctioning monetary policy due to country risk is unlikely to shift the euro area economy toward a path of high capacity utilization and high employment.

The key to crisis resolution lies in making monetary transmission effective in the crisis countries. A prerequisite is regaining confidence in government bonds to reduce country risk premiums and thus lower the national level of interest rates.

A banking union is often mentioned in this context as an element in a crisis resolution strategy. Banking union has four main elements: bank regulation, bank supervision, a common deposit insurance and institutionalized bank restructuring. It could constitute a stabilising feature of a currency union in the longer run, potentially breaking the link between sovereign and bank debt, an important source of the vicious cycle that has aggravated the current crisis. In the short run, however, it is neither necessary nor sufficient for overcoming the current crisis.

But as in the case of central bank financing of troubled banks, this would be a round-about way of battling the crisis and stabilizing financial market expectations. Restoring confidence in the viability of government debt is the more direct way. If the risks of government default and country exit are reduced, then the existing euro-wide deposit insurances should be sufficient to stave off bank runs. Higher government bond prices, in line with lower yields, will go a long way to strengthening banks' balance sheets. And as the expansionary monetary policy begins to reach the troubled countries of the euro area, a more positive economic outlook could start a virtuous cycle of improving bank balance sheets and government finances, more investment, higher growth and increasing employment. Unless the crisis is resolved quickly and comprehensively, debt burdens will continue to rise – be it in the shape of government debt, bad-bank debt or intra-central bank liabilities making each new peak in the crisis even more fragile.

Fiscal policy in a spiral of austerity

In 2012, the output gap remained negative in all euro area countries. Official estimates by the European Commission (-2.2 %, European Commission, 2013) and by the OECD (-37 %, OECD, 2013) are rather modest, as, due to their methods, a decline of effective output is followed automatically by a decline of potential output. However, taking into account that supply side factors have not been affected to the same extent by the crisis as effective demand, one arrives at a higher and more plausible value for the output gap (e.g. OFCE: -11 %, Mathieu and Sterdyniak, 2013). The European Commission (2013) estimates euro area potential GDP to have grown by only around 0.5 % per year since 2009. Such estimates suggest that the euro area has no choice but to accept weak growth and high unemployment. But there is no explanation of the supply factors which would have induced such a reduction of the potential growth. If the only explanation is that potential growth was affected by ef-

fective growth, then a growth revival would induce a potential growth acceleration. Such a concept of potential growth has little meaning and usefulness for economic policy. However it plays a crucial role in estimating the fiscal stance: with potential output growth estimated to be always close to effective output, the cyclical part of the fiscal balance will always be small, while the structural part will be close to the effective balance. Hence whether the euro area deficit is estimated to be structural or cyclical will lead to different policy conclusions: if the deficit is mainly cyclical, letting automatic stabilisers play will reduce the deficit, if the deficit is structural, structural measures will be needed to reduce it.

In 2012, the euro area public deficit reached 3.3 % of GDP, well below the level in the UK (6.6 %), Japan (9 %), and the US (8.5 %). At the same time all euro area countries, except Germany, Finland, Estonia, and Luxemburg breached the 3 % of GDP reference value of the Maastricht Treaty.

Notwithstanding the weak economic activity and the comparatively low euro area fiscal deficit, the European Commission pursues its strategy: requesting member states to maintain restrictive fiscal policies, and to boost growth by structural reforms. Although this strategy failed to deliver, the Commission refuses to change its course, even if, thanks to its strategy, growth has fallen. Euro area GDP was forecast to grow by 1.8 % in 2012 in the Spring 2011 EC forecasts, (European Commission, 2011), but in fact fell by 0.6 %; for 2013, GDP was forecast to grow by 1.3 % in the Spring 2012 EC forecast, versus -0.3 in the Winter 2013 forecast (Table 16). It can also be noted that the European Commission has once more revised downward potential output estimates recently, for instance for 2012: from 1.1 % according to the Spring 2011 forecast, to 0.8 % one year ago and 0.4 % in the Winter 2013 forecast. No explanations are given for these revisions, which are very surprising as many Member States have undertaken the required structural reforms supposed to increase their potential growth (Table 16).

Under the pressure of financial markets, of the European Commission (and of the Troika as concerns Greece, Ireland, and Portugal), all euro area member states have implemented fiscal consolidation policies either starting from 2010 or 2011. According to our estimates based on pre-crisis trend output and on the latest forecast of the European Commission, these policies amount on average to around 1.8 % of GDP in 2011, 2.4 % in 2012 and 1.5 % in 2013 (Table 17). From 2010 to 2014, the cumulated negative fiscal impulse will reach more than 26 % of GDP in Greece, 16 % of GDP in Por-

TABLE 16

Euro area GDP growth forecasts

according to DG European Commision forecasts

	2010	2011	2012	2013	2014
Spring 2011	1.8	1.6	1.8		
Autumn 2011	1.9	1.5	0.5	1.3	
Spring 2012	1.9	1.5	-0.3	1	
Autumn 2012	2	1.4	-0.4	-0.1	1.4
Winter 2013	2	1.4	-0.6	-0.3	1.4

Source: European Economic Forecasts.

IMK

tugal, 14.5 % in Ireland, 12 % in Spain. Fiscal tightening weighs mainly on the expenditure side: 80 % at the euro area level, with two exceptions, Belgium and France, where the taxes increases are more important (Table 18). A consolidation strategy focusing on the expenditure side of the budget is problematic for several reasons. Fiscal multipliers are much higher on the expenditure than on the revenue side (Bouthevillain et al. 2009, Gechert/Will 2012). At the same time the attempt to consolidate public finances via spending cuts increases inequality as a recent analysis by the IMF (2012) shows. Given that some of the countries implementing drastic austerity measures exhibit government revenue ratios well below the euro area average – and even below 40 % in Spain and Ireland – the current bias towards spending cuts cannot be justified (Eurostat 2012) (Table 17, Table 18).

Table 19 shows the impacts of currently planned fiscal tightening, using a small model built at OFCE. The model embeds the fiscal plans as shown in table 17. It then accounts for the 'direct impact' of these policies, on the basis of domestic multipliers (slightly above 1 for the larger economies). It also accounts for the impact through external demand of fiscal plans announced in the euro area countries, the UK, the US and Japan. The multiplier is assumed to be 1.4 for the euro area and is thus in line with recent research findings on the size of the fiscal multiplier in a situation characterised by large output gaps, interest rates close to the zero lower bound, simultaneous austerity in many countries and the impossibility of exchange rate devaluations (Auerbach/Gorodnichenko 2012, Blanchard/Leigh 2013, Baum/Koester 2012, Coenen et al. 2012, DeLong/Summers 2012, Fazzari et al. 2012, Holland/Portes 2012). The simulation assumes that interest rates will not be affected as these restrictive policies will not strongly improve the debt ratios and risk premia will consequently remain high (Table 19).

The fiscal impulses reduce Euro area GDP growth by 1.0 % in 2010 and by 0.9 % in 2014. The cumulated impact on euro area GDP during the whole period from 2010 until 2014 is -9.9 %. In Spain and in Portugal the effect is about 20 % and in Greece it even amounts to 31 %. The ex ante favourable impact of the restrictive fiscal policies on public balances is strongly redu-

TABLE 17

Fiscal impulses

% GDP

	2010	2011	2012	2013	2014	Total
Germany	1.3	-1.2	-1.2	-0.2	0	-1.3
France	-0.4	-2.2	-1.6	-1.9	-0.8	-6.9
Italy	-1.0	-1.3	-3.0	-2.0	-0.2	-7.5
Spain	-2.5	-1.7	-4.2	-2.6	-1	-12.0
Netherlands	-0.4	-1.4	-1.9	-1.8	-0.5	-6.0
Belgium	-1.3	-0.1	-1.8	-0.9	0	-4.1
Austria	0.5	-1.7	-0.1	-1.0	-0.7	-3.0
Portugal	0.5	-6.2	-5.4	-2.1	-2.9	-16.1
Finland	0.1	-1.8	-0.5	-1.4	-0.8	-4.4
Ireland	-3.8	-2.2	-2.8	-2.6	-3.1	-14.5
Greece	-8.9	-5.0	-7.0	-3.7	-1.8	-26.4
Euro area	**-0.9**	**-1.8**	**-2.4**	**-1.5**	**-0.6**	**-7.2**
United Kingdom	-2.8	-2.6	-1.6	-1.1	-1.8	-9.9
USA	-0.7	-1.7	-1.8	-1.5	-0.7	-6.4
Japan	0.8	-1.9	0.0	2.3	-3.7	-4.9

Source: Macro Group estimate. Fiscal impulses are calculated as changes in structural primary balances, based on pre-crisis trend GDP growth.

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TABLE 18

Fiscal consolidation programmes breakdown, 2010-2014

	Primary expenditures	Revenues	Total
Germany	-1.1	0.2	-1.3
France	-3.0	3.9	-6.9
Italy	-6.4	1.1	-7.5
Spain	-12.0	0.0	-12.0
Netherlands	-4.3	1.7	-6.0
Belgium	-1.4	2.7	-4.1
Austria	-3.0	0.0	-3.0
Portugal	-12.8	3.3	-16.1
Finland	-3.4	1.0	-4.4
Ireland	-14.3	0.2	-14.5
Greece	-21.2	5.2	-26.4
Euro area	**-5.6**	**1.6**	**-7.2**
United Kingdom	-9.6	0.3	-9.9
USA	-3.6	2.8	-6.4
Japan	-1.6	3.3	-4.9

Source: Macro Group estimate Authors.

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TABLE 19

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Fiscal impulse impacts on GDP, public deficit and public debt
2011 - 2013

	In % of GDP						Public balance change until 2014	Public debt change until 2014
	2010	2011	2012	2013	2014	Total		
Germany	1.0	-1.9	-1.9	-0.7	-0.3	-3.8	-0.6	5.4
France	-0.7	-2.5	-2.5	-2.5	-1.1	-9.3	2.3	2.0
Italy	-1.4	-1.6	-4.3	-2.8	-0.5	-10.6	2.2	5.4
Spain	-4.0	-3.5	-7.3	-4.6	-1.9	-19.5	3.2	8.1
Netherlands	-0.4	-1.5	-2.0	-1.7	-0.6	-6.2	2.9	-3.6
Belgium	-1.1	-0.6	-1.8	-1.0	-0.3	-4.8	1.7	-1.6
Austria	0.5	-2.2	-0.8	-1.3	-0.8	-4.6	0.4	2.1
Portugal	0.0	-7.7	-7.3	-3.1	-3.6	-20.1	7.0	8.3
Finland	0.0	-2.1	-0.9	-1.6	-0.9	-5.5	1.4	-0.2
Ireland	-3.7	-2.6	-3.0	-2.8	-3.1	-14.2	7.8	-7.3
Greece	-11.2	-6.8	-9.5	-5.1	-2.5	-30.7	13.9	12.0
Euro area	**-1.0**	**-2.4**	**-3.4**	**-2.2**	**-0.9**	**-9.9**	**2.7**	**1.4**

Source: Calculations of the Macro Group.

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ced by this depressive effect. Due to the strong fall in output, the public debt-to-GDP ratio does not decrease but rise in many countries. In this simulation the public balance is improved by 2.7 percentage points of GDP, but the debt ratio increases by 1.4 percentage points.

Countries implementing restrictive fiscal policies suffer from large output declines and high unemployment. In such circumstances, government deficit targets are not met, which is used to justify additional austerity measures, mainly cuts in social and other public expenditures, which further depress consumption and activity.

Before the crisis, the predominance of neoclassical thinking at the expense of old Keynesian reasoning, in particular in International Institutions (IMF, ECB, EC) spread the idea that the fiscal multiplier is very low, even in rather closed economies, in the order of 0.5 in the short term and nil after 2-3 years. In many neoclassical and DSGE-models, restrictive policies do not have any detrimental impact on output, thanks to two assumptions. Households anticipate that a permanent decline in public expenditure will reduce their taxes in the future and therefore they immediately increase their consumption, which offsets the decline in public expenditure (Ricardo-Barro Effect). Sometimes, the expected decline in taxes induces them to anticipate that the labour supply (and then the GDP) will increase: the rise in consumption is higher than the public spending reduction, which lead to a negative multiplier and actually increases current growth. The economy is often assumed to operate at full capacity, or very close to it, thanks to price flexibility or monetary policy: a decline in output would induce a strong decline in inflation, and, consequently, a strong decline in interest rates which sustains activity.

The crisis has shown that the output level depends on the demand level, that a strong decrease in demand, like in 2008 is not offset by automatic mechanisms. Economists (and International Institutions) have re-discovered that the Keynesian multiplier is high, in the order of 1 to 1.5 (Auerbach/Gorodnichenko 2012, Blanchard/Leigh 2013, Baum et al. 2012, Coenen et al. 2012, DeLong/Summers 2012, Fazzari et al. 2012, Holland/Portes 2012), that the multiplier is larger in a situation of large underemployment than when capacity is fully used (but who would undertake fiscal stimulus in a full employment situation?) and that the multiplier is higher for public consumption or investment than for tax cuts(Bouthevillain et al. 2009, Gechert/Will 2012).

In historical expansionary-fiscal consolidation episodes that some economists describe (Giavazzi/Pagano 1990, Alesina/Ardagna 1998, 2009), restrictive fiscal policies were accompanied by elements which are not available today for euro area member states, like exchange rate depreciation, interest rates cuts, increase in private borrowing thanks to financial deregulation, or a strong rise in private demand due to economic shocks (such as joining the EU). Recent research (Perotti 2012) suggests that "expansionary fiscal consolidation" is highly unlikely to occur in the euro area. Further,

there are indications that some papers finding evidence of "expansionary fiscal consolidation" may be biased (Dullien 2012, Guajardo et al. 2011).

In a depressed situation Barro-Ricardian effects are unlikely because austerity measures reduce households' incomes, liquidity constraints weigh heavily on firms and households, banks will not lend massively to the private sector in a low-growth/high uncertainty situation, and austerity strategies imply that effective demand will be durably lower, which contributes to depressing investment. It is therefore also unlikely that risk premia will decrease since public debt ratios will not decline significantly and restrictive fiscal policies implemented in the euro area make the euro area fragile and worries markets. In a depressed situation, high unemployment puts downwards pressure on wages lowering household incomes and consequently private consumption. Depressed wages do not strongly increase profits because the fall in demand induces a drop in production and productivity. However, even rising profits do not induce firms to invest, given the weak demand outlook. No country benefits from competitiveness gains if the depression hits the whole area.

Contractionary policies must not be applied in times of economic recession. Instead, fiscal policies must be designed so as not to impinge on economic activity An increase in public debt may be necessary if the private sector wants to reduce its debt. Austerity policies have failed to reassure financial markets. Structural reforms cannot offset the negative demand impact of consolidation policies.The current restrictive policies will not enhance medium-term growth. The risk is high that the euro area will fail to overcome the current depression, unless there is a fiscal policy turnaround

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