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Crisis of European Monetary Union Dampens Global Growth Momentum

Medium-term Forecast for the World Economy Until 2016

The uncertainty surrounding the resolution of the interest rate and debt crisis in the euro area is likely to persist for some time yet. Hence, the euro exchange rate should continue to weaken moderately, i.e., to $ 1.23 by 2016. The oil price, after a cyclical decline to $ 95 per barrel (Brent) in 2012, is expected to rise again to around $ 110 in 2016. The average level of both the short-term and long-term interest rates over the forecast period will be the lowest level ever recorded since 1945. As a result of the extremely loose monetary policy in the USA and owing to the euro crisis, the level of interest rates in the USA is expected to be 1 percentage point lower than that in the euro area. Given these conditions, the world economy should continue to recover after a slowdown of activity in 2012. World trade is expected to expand at an annual rate of 5.8 percent until 2016, almost twice as fast as in the 2006-2011 period, which was shaped by the financial market crisis. As in the past 20 years, total output growth in the USA (+2.1 percent per year) is set to slightly exceed the average for all industrialised countries (+2.0 percent), while in the euro area and in Japan it will be somewhat slower (+1.4 percent and +1.6 percent per year, respectively). This forecast is surrounded by considerable uncertainty, notably because of the euro crisis and the efforts to combat it by means of a synchronous austerity policy in a phase of economic weakness.

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The growth forecast for world trade and global production depends considerably on the assumptions about the development of the gravest problems currently faced. The by far biggest of these lies in the crisis of the European Monetary Union and, hence, the high levels of bond yields and government debt in many euro countries. Other problems relevant to future global economic developments are the current account imbalances, notably the US deficit and China's surplus, as well as the instability of commodity prices.

Dramatic deepening of euro area crisis

The economic situation in the euro area deteriorated markedly over the course of 2011. After interest rates on Greek, Irish and Portuguese government bonds had surged already in 2010, this development spread to the big euro countries Spain and Italy in the summer. Neither by expanding the euro rescue fund (European Financial Stability Facility – EFSF) nor by ECB bond purchases were policymakers able to lastingly stop this process. Economic expectations of firms and households deteriorated accordingly. To prevent yet another interest rate hike, 26 of the 27 EU countries agreed at the European Council meeting in December 2010 on a debt brake to be written into national constitutions. Besides, additional austerity packages were put forth in Portugal, Spain and Italy. Their implementation will accelerate the economic downturn in 2012, which is set to deepen into a recession in the euro countries of southern Europe.

Both longer-term and short-term factors contributed to deterioration in the state of public finances and to the increase in bond yields in the euro area.

Diverging wage developments

The conversion rates at which the individual euro countries joined the Monetary Union in 1999 deviated considerably from that equilibrium level at which no country has a price advantage or disadvantage over competitors in foreign trade (purchasing power parity of tradables). In 2002, internationally traded goods and services were therefore cheaper in Greece, Portugal and Spain than on average in the 12 euro countries, but more expensive in Germany and France (*Schulmeister*, 2005, Table 10). In the following years, this "initial advantage" of the southern European countries was quickly lost; their unit wage costs and hence the price levels of their goods and services rose much more strongly than those in the euro area "core countries". The loss in competitiveness was most severe vis-à-vis Germany, which practised a policy of stringent wage restraint.

The different wage policies deepened the differences in the demand dynamics within the euro area: domestic demand stagnated in Germany (in particular private consumption and residential construction), while exports expanded at a brisk pace. Conversely, in the other euro countries, domestic demand rose much more vigorously and exports much less strongly than in Germany. In Spain and Ireland, the real estate boom aggravated this discrepancy.

The differences in the demand dynamics were intensified by yet another effect: as a result of the wage restraint, inflation in Germany remained permanently lower than in the other euro countries. Given that not only the short-term but also the long-term euro interest rates were roughly equal in all countries of the Monetary Union, the level of real interest rates was higher in Germany than in most of the other euro countries, particularly in Ireland, Portugal, Spain and Greece. This interest rate differential contributed essentially to much more unfavourable real investment developments in Germany than in Ireland, Portugal, Spain and Greece.

Marked differences in investment and saving behaviour

Overall, economic growth in Germany between the introduction of the euro (1999) and the onset of the financial market crisis (2007) was one third lower than in the other euro countries. The high export gains did not offset the stagnation of domestic demand. The German economy's weak investment activity also becomes apparent in the financial accounts: since 2002, the expenditure of non-financial corporations (business sector excluding sole proprietorships) for real capital formation has mostly been markedly lower than their retained earnings, i.e., their saving (Figure 1). Never since 1945 had the German corporate sector for so many years in a row achieved financial surpluses. On the one hand, the interest rate level, which clearly exceeded the growth rate, and stagnating domestic demand dampened real capital formation, while on the other hand the instability of exchange rates, commodity prices and stock prices increased the profit potential of all types of financial investment, including short-term speculation in derivatives.

At the same time, German households' net lending increased from the year 2000 (their savings ratio rose despite stagnating incomes), and so did that of the finance sector (banks and insurance companies increasingly used their profits for monetary wealth formation).

In the course of the 2001-02 recession, German companies curbed their real investment and thus their net borrowing; the government recorded an increase in its deficit by almost the same magnitude (Figure 1; the values for 2000 are distorted by the costs of and proceeds from the UMTS licence auction, respectively). While the financial surpluses of private households as well as of companies and the finance sector rose, the government deficit until 2005 remained at the high level of 3 to 4 percent of GDP, even though the rest of the world's financial deficit was rising (basically, this corresponds to the German current account surplus; Figure 1). In this context one should keep in mind that the sum of the financial balances (net lending) of all sectors adds up to zero; in the case of the crisis, the causality ran from the change in companies' and households' investment and saving behaviour to the unintended deficit of the state (consolidation efforts were particularly pronounced in this "phase of reform"). Only when Germany's current account surplus rose further did a balanced government budget according to balance mechanics become possible in 2007 and 2008 (Figure 1). Immediately before the onset of the financial market

crisis Germany was thus able to improve its budget deficit thanks to high increases in foreign demand.

Figure 1: Net lending/net borrowing in Germany and the euro area

Source: Eurostat.

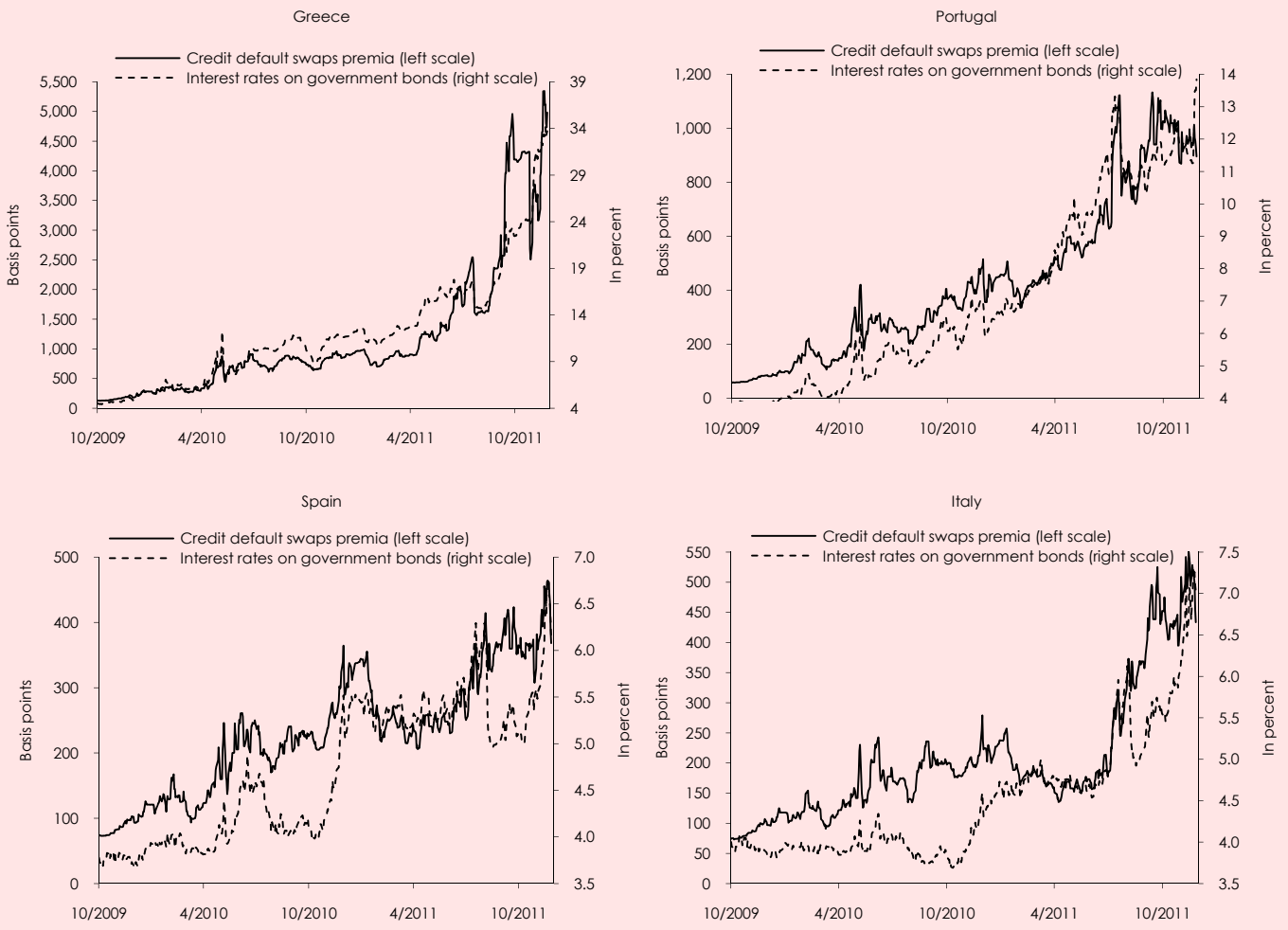
In the other euro countries, national budget developments between the introduction of the euro and the onset of the financial market crisis were similar to those in Germany, however, as a result of highly different balance dynamics. For reasons of clarity, the euro countries excluding Germany are grouped together and their values aggregated in Figure 1. The investment and saving behaviour in the southern European countries deviated to a particularly strong extent from that in Germany.

Not least as a consequence of higher wage gains did private consumption in the other euro countries expand more strongly than in Germany; the surplus of private households was accordingly lower in the other euro countries than in Germany, and receded relative to GDP from 2002 (Figure 1). The companies persistently invested more than their retained earnings; their deficit rose sharply from 2004. Although the surplus of the rest of the world widened (the current account of this group of countries increasingly showed a deficit), the general governments were thus able to reduce their deficit to 1.0 percent of GDP between 2004 and 2007.

The financial market crisis caused substantial declines in the values of shareholdings and real estate owned by households and companies; they reacted with a re-

duced consumption and investment demand. The decline was particularly sharp in those countries where domestic demand had grown vigorously until the crisis. In the euro area excluding Germany, the companies' deficit fell sharply in 2009, while the household surplus rose, with the general government consequently recording a drastic deterioration in the budget (Figure 1).

Figure 2: "Credit default swaps" premia and interest rates on government bonds



Source: Thomson Reuters.

In Germany, domestic demand, which had stagnated already before 2009, declined more slowly than in the other euro countries; at the same time Germany continued to generate a high current account surplus (the markets of particular importance for German exports: China, India or Brazil, were less adversely affected by the financial crisis than were the industrialised countries).

All in all, it was due to these reactions by private households, companies and the (respective) foreign countries to the financial market crisis that Germany's government deficit deteriorated less between 2007 and 2009 than did the deficit in the other euro countries[1].

The sharpest rise in the budget deficit was registered by the countries that had been hit hardest by the collapse of the real estate boom (Ireland and Spain). However, the highest budget deficit of all euro countries in 2009 was recorded by Greece, due to the fact that the deficit in this country had been by far the highest already before the crisis.

[1] Rising imbalances in the euro area are analysed in detail by *Ederer* (2010), *Horn – Joebges – Zwiener* (2009) and *Niechoj et al.* (2011).

Rising interest rate differences

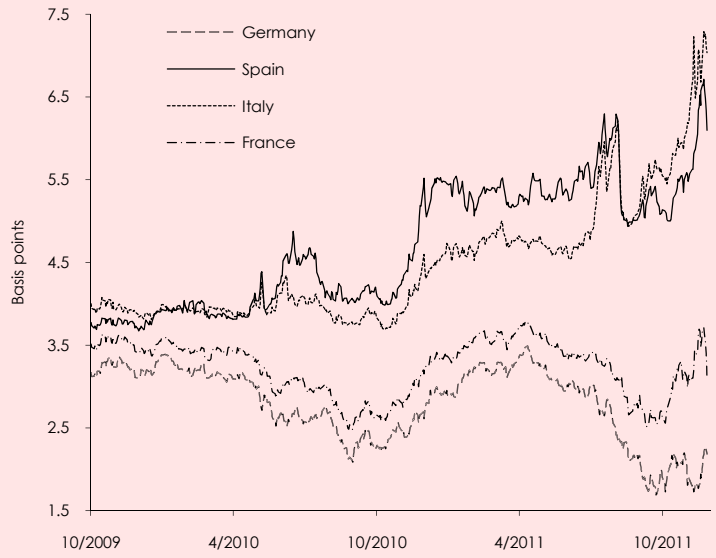
The financial market crisis brought the almost 10-year phase of largely uniform interest rates on euro area government bonds to an end; the differences between the countries increased constantly. This process was intensified by the interaction between transactions with government bonds and credit default swaps (CDS). Financial investors use this derivative to have the risk of default on government bonds insured by a third party (on payment of a premium), but they can also speculate on a country's insolvency by concluding such an insurance without holding the respective government bonds ("naked CDS").

In the event of a deterioration in the creditworthiness of a country, with risk premia, bond yields and CDS premia rising as a result, the value of existing CDS contracts concluded at lower premia will rise sharply. Those who speculate early on a deterioration in the creditworthiness of a country can thus earn high profits. At the same time, the additional demand for CDS contracts will lead to an even higher increase in premia and interest rates and thus in the risk of a country becoming insolvent. The downgrading of a country's creditworthiness by rating agencies is part of this process (see *Tichy*, 2011, *Url*, 2011).

The market for CDS on government bonds began to boom only after the financial market crisis (until then, bond interest rates had been roughly the same in all euro countries). This development was triggered by the Greek government's admission in autumn 2009 that it had covered up the true extent of its government debt. Until the beginning of May 2010, CDS premia rose from 154 to 875 basis points, while interest rates on 10-year government bonds increased from 4.5 to 12.2 percent (Figure 2). The government budget cannot be financed in a sustainable way at such high interest rates; this is why the European Union created the EFSF rescue fund in May 2012.

Subsequently the process of rising CDS premia and bond yields spread to Ireland and Portugal, forcing also these two countries to have recourse to the EU rescue facility. In the summer of 2011, the situation worsened dramatically because at that point the interest rates on Spanish and Italian government bonds also reached levels impossible to finance in the long run (Figure 2). The fact is that the national budgets of these countries are much too big to be financed through EFSF.

Figure 3: Interest rates on government bonds



Source: Thomson Reuters.

All countries that were experiencing a rise in interest rates then reacted by intensifying their austerity efforts to calm "the markets" and thereby achieve a fall in interest rates. Greece's austerity package was the most radical of all. As a result, the process of GDP contraction accelerated, with consequently budget consolidation falling far

short of the set goals, and interest rates rising dramatically. In Portugal, Spain and Italy, too, the restrictive fiscal policy along with the announcement of further austerity packages was not sufficient to bring about a trend reversal in interest rate developments (Figure 2).

The brisker the increase in interest rates in the "problem countries", the higher was their decline in the countries seen as (relatively) stable by "the markets" such as the Netherlands, Finland, France and especially Germany. Since the autumn of 2011, this has held true only for Germany, strictly speaking. The interest rate differential vis-à-vis Germany also rose for countries previously considered stable, notably for France (Figure 3).

Until autumn 2009, there had been no significant differences in interest rates on bonds in the euro countries for almost 11 years. Dramatically diverging interest rate levels have since deepened the differences in economic developments in the Monetary Union: those countries whose economies recovered quickly after the economic downturn in 2009 in addition benefit from low interest rates. In the southern European countries, the interest rate hike and the austerity policy for which it is partly responsible nipped an economic recovery in the bud.

The role of the interest rate-growth differential

Over the short term, the change in the general government deficit results from the interaction of net lending/net borrowing of all sectors, i.e., their saving and investment decisions. The long-time sustainability of the budget deficit depends on the dynamics of the government debt ratio. Here the interest rate-growth differential is of fundamental importance because of the "dynamic budget constraint" (*Schulmeister*, 1995):

- If the interest rate is lower than the growth rate, a debtor sector (enterprise, general government) can borrow more than it has to pay in interest on "old debt". It can thus maintain a primary deficit without its debt ratio necessarily rising.
- But if the interest rate exceeds the growth rate, a debtor sector must achieve a primary surplus, i.e., it can only borrow less than its interest payment on existing debt. This implies a liquidity drain from the debtor sector.

As a consequence of the policy of high interest rates pursued at the beginning of the 1980s and of the subsequent fall in the inflation rate, the level of nominal interest rates in Western Europe has almost continuously exceeded the nominal growth rate since then (Figure 4). The corporate sector has adjusted to this condition: it "turned" its primary balance into a surplus by curbing its real investment and increasingly accumulating financial assets instead.

Private households as a rule run primary surpluses (they save more than their income from interest). With the sum of all primary balances being zero, the state can achieve a primary surplus only if the fourth sector, the rest of the world, maintains high primary deficits. The German economy has been successful in this respect in recent years (with the current account surplus exceeding the net income from interest from abroad), meaning, however, that the problem was shifted to other countries.

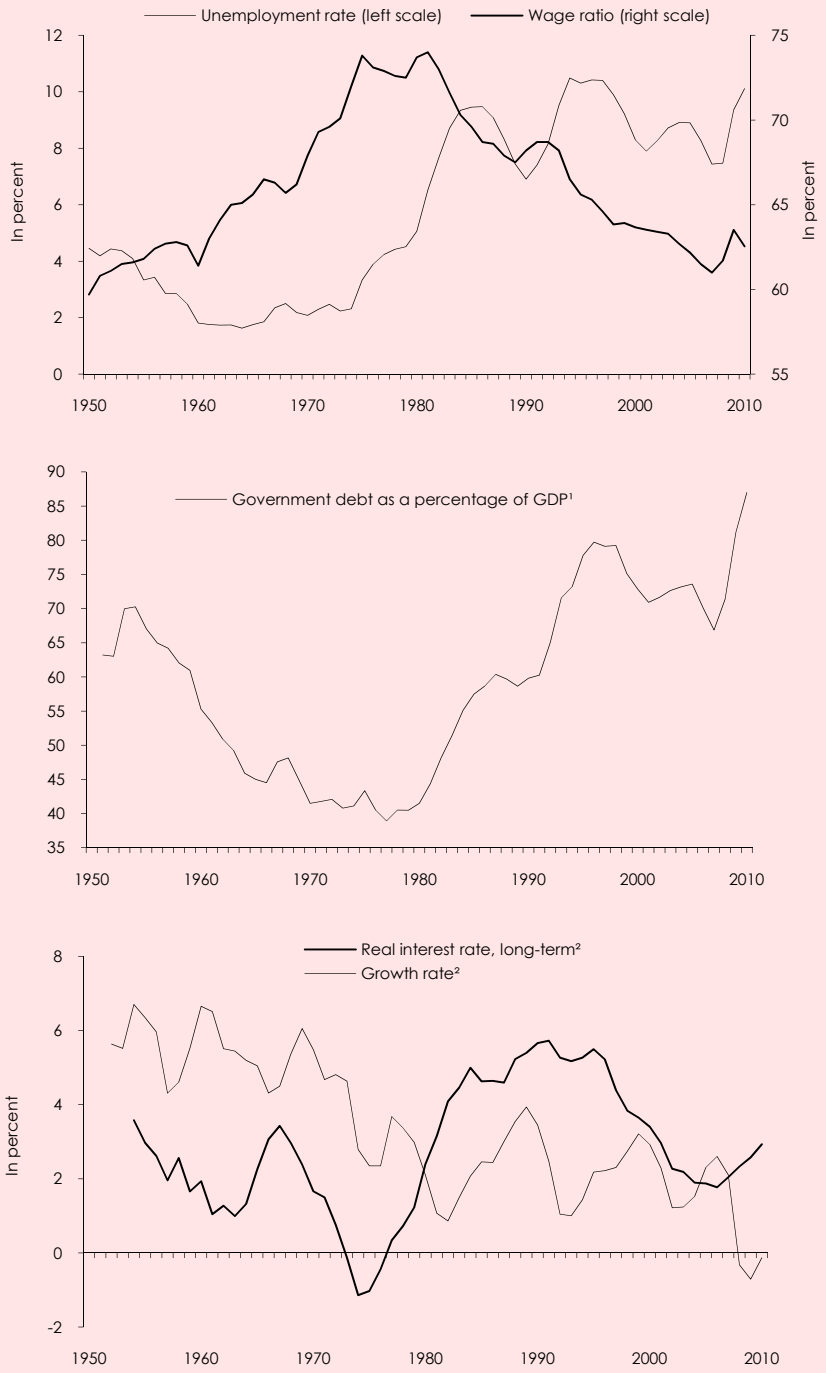
The most important channels through which the interest-growth differential influences debt dynamics are not the direct effects (reduction of interest payments by the general government), but the indirect effects resulting from an increasing or decreasing willingness of companies to incur debt or to invest (feedback effects on GDP; *Schulmeister*, 1996). They are mostly neglected when investigating indebtedness scenarios, but not so the interest-raising effects of insufficient consolidation measures (*European Commission*, 2011).

Inconsistent policy reaction to euro crisis

The policy reaction of the EU and its most important member countries to the aggravating euro crisis has been inconsistent. On the one hand, policy makers realise the threat the "interest epidemic" is posing to the cohesion of the Monetary Union, on the other, they are not able to reach a consensus on guaranteeing a uniform level of interest rates through the issue of Eurobonds (see also *Ederer,* 2011, *Horn et al.,* 2011). They try to lower the effective interest rate level for the "problem coun-

tries" indirectly. The EFSF rescue facility serves this purpose; its intervention potential is to be extended through "leveraging" (like a third-part insurance, EFSF guarantees only a certain percentage of the government bonds of a euro country).

Figure 4: Development trends in Western Europe



Source: WIFO Database, OECD, Eurostat. Until 1990: OECD-Europe, from 1991: EU 15. – [1] Until 1969: Germany, UK, France and Italy. – [2] 3-year moving average.

The bond purchases by the ECB are also intended to put brakes on the interest rate hike, but the ECB employs this instrument only in cases of emergency – for instance in the summer of 2011, when interest rates on Spanish and Italian bonds surged (Figure 2). These interventions – unlike the extensive "quantitative easing" by the UK and US central banks – cannot effectively shatter expectations of a further interest hike. The ECB tries to avert the resulting risk of an aggravation of the bank crisis owing to

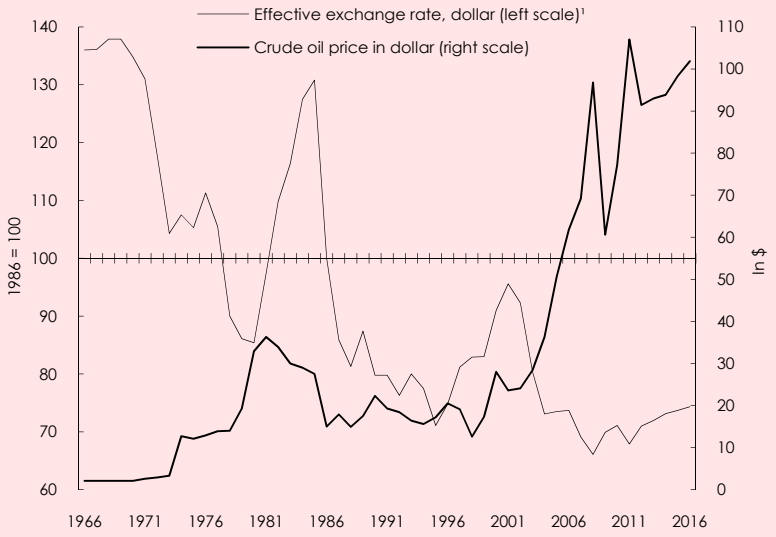
declines in the value of their bond holdings by providing massive liquidity[2]. This is also intended to encourage banks to buy government bonds, which would indirectly slow down the interest rate hike.

The inconsistency of the European policy also becomes apparent in two other measures: firstly, banks must increase their equity ratio as a preventive measure against crisis, but in many cases they need government subsidies to do so, which once more raises the public debt and hence the threat of yet another decline in the value of the bonds held by the banks. Secondly, the central banks of the euro countries are to provide € 200 billion to the International Monetary Fund to enable it to help individual euro countries in the event of a future aggravation of the euro crisis (instead of a declaration by the institutions of the Monetary Union that they themselves take on this task).

The lack of coherence in European policy measures aimed at combating the euro crisis is the result of divergent development paths over a long period of time. On the one hand, there is the tradition of the German stability policy adhered to in the last 25 years by the countries of the former "hard currency bloc" (France with a few reservations, however). This tradition is in favour of wage restraint and a "passive" fiscal and monetary policy having monetary stability as its main goal. On the other hand there are two different traditions of economic policy – that of the southern European countries, where wage policy is less restrictive than in Germany, and that of the UK, which – not least under US influence – pursues an "activist" fiscal and monetary policy also oriented towards the employment goal.

The German tradition prevailed at the December 2011 EU Council Meeting: austerity policies will be intensified, a debt brake is to be established in the constitutions of 26 of the 27 EU countries (the UK does not go along with this); Eurobonds will not be issued, national budgets will have to be consolidated first.

Figure 5: Dollar exchange rate and crude oil price



Source: IMF, OECD, Oxford Economics, WIFO. – [1] Compared to DM, Franc, Pound sterling, Yen.

A serious forecast as to whether this strategy will be successful is not possible, given the course of the euro crisis so far. This applies in particular to the question whether or not it will thus become possible to bring the level of long-term interest rates in the euro area "problem countries" more into line with the level of the medium-term rate of growth. The additional austerity packages will dampen growth in the short run,

[2] In December 2011, it provided banks with more than € 500 billion for a period of three years at a reference interest rate of 1 percent.

especially in the southern European countries. For the present forecast, the base version of the Oxford Model of November 2011 (still without the EU Council Resolutions of December) was therefore modified, only inasmuch as a somewhat stronger increase in the household savings ratio as a consequence of the more restrictive fiscal policy is assumed in 2012 and 2013.

Euro depreciation continues

The dollar exchange rate has been rising moderately for three years now, in spite of the enormous current account deficit of the USA and, hence, its continuously rising external debt. Between 2001 and 2008, by contrast, the dollar had sharply depreciated (by 30.9 percent vis-à-vis the SDR-weighted average of euro, yen and pound sterling; Figure 5). This development was first and foremost a consequence of the USA's policy of low interest rates and the particularly marked increase in its current account deficit during that phase. With the dollar being the reserve currency, the USA can finance its foreign trade deficit in its national currency; it is therefore the only country that is not subject to any currency account limit (the most important reason for the long-term depreciation of the reserve currency; Figure 5). However, this applies only if the country with a reserve currency is indifferent to depreciations.

In fact US policy strives for a dollar depreciation in phases of weak economic activity. Such "talking the dollar down" is aided both by a policy of low interest rates and by the extent of the USA current account deficit and external debt. In the 1990-91 and 2000-01 recessions, this strategy was successful, with the dollar depreciation in both cases supporting the subsequent economic recovery. This pattern appeared to repeat itself after the outbreak of the real estate crisis in the USA in the summer of 2007: in the course of one year, the dollar depreciated by 18.5 percent against the euro (the euro exchange rate rose from $ 1.35 to $ 1.60, its highest level ever).

The dollar exchange rate has recovered noticeably since then; the euro exchange rate recently fell to $ 1.30. This can for the most part be attributed to the deepening financial market crisis in the European Monetary Union. It counteracts the depreciation pressure on the dollar resulting from the high external debt of the USA and foils the "talking the dollar down" strategy practised successfully after previous recessions. For the reasons discussed above the present forecast assumes that the euro crisis will be overcome only slowly. This is in line with the result of the Oxford model according to which the euro exchange rate will yet continue to fall slightly until 2016, from $ 1.30 to $ 1.23 (Figure 5, Table 1).

Commodity prices keep on rising

Longer-term fluctuations of commodity prices have been increasing drastically for about ten years now. For instance, between the beginning of 2002 and mid-2008 prices increased by around 360 percent overall, and in the course of the acute phase of the financial market crisis fell by 67.9 percent over a period of 8 months. They subsequently accelerated by 61.7 percent until April 2011, only to fall again by 15.3 percent until the end of 2011. The sequence of "bull markets" and "bear markets" has been even more pronounced for the most important commodity price, i.e., oil: the price of Brent rose from $ 19 at the beginning of 2002 to $ 147 in mid-2008, and subsequently plummeted to $ 35 at the end of 2009. In the course of the global economic recovery it rose until reaching $ 113 in May 2011, and since then has been falling moderately.

This up and down of commodity prices is to some extent in line with the development of market fundamentals, notably with global economic fluctuations (the long-term increase in the price of oil reflects the fact that it is an exhaustible resource), but the extent of the price trends is likely to be further intensified by speculative transactions by financial investors. So, agencies like Bloomberg have increasingly been reporting in recent years about the engagement of banks and hedge funds in the trade with commodity derivates.

Traditional forecasting methods cannot assess the extent of the overshooting of speculative prices. Hence the present model forecast only depicts the shifts of supply and demand in the individual commodity markets ("fundamental factors"). According to this forecast, they would decline in 2012; oil prices should decline more

strongly as a consequence of the economic downturn than non-oil commodities. Subsequently the price of oil (Brent) should rise from $ 95.0 to $ 109.5 per barrel. Other commodity prices should fall in the medium term, as is largely the case in phases of a dollar appreciation, albeit only marginally (Table 2).

The main results of the forecast

The present forecast was drawn up using the Oxford Economics' Global Model. This includes partial models for 46 countries and/or regions, respectively (including almost all industrialised countries), whose interactions are represented by export and import functions for goods and services. The Oxford Economics model's version of November 2011 served as a basis. It was modified in the face of the intensified consolidation measures. As the measures are not yet known in detail, only a slight increase in the household savings ratio in the euro countries was assumed. A new model solution was calculated based on the given data; its results form the basis of the present forecast.

Table 1: Global economic framework

		Ø 1992-1996	Ø 1997-2001	Ø 2002-2006	Ø 2007-2011	2011	2012	2013	2014	2015	2016	Ø 2012-2016
Exchange rates, absolute	$ per €	1.28	1.03	1.16	1.39	1.40	1.30	1.30	1.26	1.24	1.23	1.26
	Yen per €	139.6	123.0	133.3	134.3	110.9	104.8	122.6	120.0	115.2	111.0	114.7
Interest rates, short-term, dollar	in percent	4.7	5.4	2.7	1.9	0.3	0.2	0.2	0.2	0.9	1.0	0.5
Euro	in percent	7.4	3.9	2.6	2.5	1.4	1.1	1.1	1.8	1.9	1.8	1.5
Interest rates, long-term, dollar	in percent	6.6	5.7	4.4	3.5	2.8	2.4	3.3	2.9	2.1	1.6	2.4
Euro	in percent	8.4	5.2	4.1	4.1	4.3	3.9	3.9	3.6	2.9	2.5	3.4
Oil price, absolute (Brent)	in $	18.0	20.5	42.3	84.1	110.0	95.0	100.0	100.9	105.7	109.5	102.2
Dollar interest rates, real[1]	in percent	3.1	9.3	– 4.9	– 4.2	–12.4	5.5	1.5	– 0.1	– 0.8	0.2	1.3

Source: Oxford Economics, WIFO. – [1] Dollar interest rate, short-term, deflated by total world trade prices.

Level of interest rates remains low

Table 1 gives a summary of the main framework conditions of the global economy. The level of interest rates (nominal) until 2016 will be considerably lower than in any five-year period since 1945. This applies especially to short-term interest rates. They will be 1 percentage point lower in the USA than in the euro area (average for 2012-2016: 0.5 percent, compared with 1.5 percent in the euro area), not least because the monetary policy pursued by the Fed is even more expansionary than that of the ECB.

Long-term interest rates will also remain higher in the euro area than in the USA, mainly owing to the euro crisis and the related high level of interest rates on bonds in "problem countries" such as Spain and Italy. The model results imply that the debt and interest rate problems in the euro area should at least be mitigated until 2013: while in 2012 interest rates in the euro area will still exceed those in the USA by 1.5 percentage points, the difference is set to decline to 0.6 percentage point in 2013, according to the calculations of the Oxford model (Table 1).

Vigorous expansion of world trade

The model forecasts world trade growth of 5.8 percent for the period until 2016; it is thus almost twice as high as in the 2006-2011 period that was characterised by the financial-market and economic crisis (Table 2). In 2012, world trade is expected to expand by a mere 4.2 percent, however, owing to the slowdown in global economic activity. It is not least for this reason that medium-term world trade growth until 2016 will be somewhat lower than it was in the 1990s.

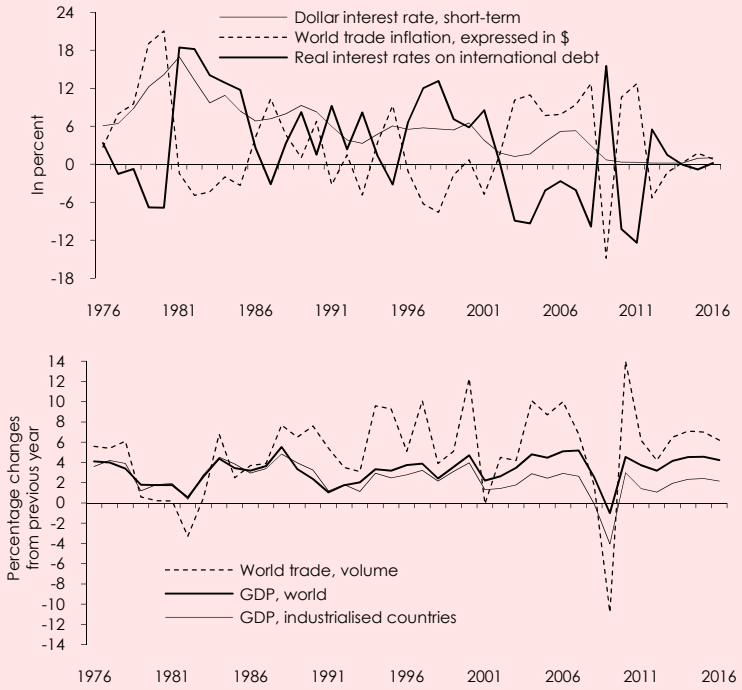
Unlike in the last ten years, industrialised countries are not likely to lose market shares until 2016; their exports will expand at the same rate as total world trade.

The USA will see its exports grow more strongly than its imports over the medium term (exports +8.6 percent per year, imports +6.8 percent per year), notwithstanding the slight appreciation of the dollar (measured by the purchasing power parity of internationally traded goods and services, it will nevertheless remain undervalued). Conversely, the model forecasts higher import than export growth for the surplus countries such as Germany, China, Russia and the OPEC countries (Table 2). Accordingly, current account imbalances should decline noticeably in the next five years.

Revival of economic growth

Compared with the 2006-2011 period that was characterised by the financial market crisis, economic growth in the industrialised countries is set to accelerate markedly over the forecast horizon. The economic downturn in 2012 would thus be overcome quickly. On this condition, GDP growth in the industrialised countries would average 2.0 percent per year until 2016. Growth should accelerate at a particularly quick pace in those countries that recorded the highest declines in growth during the preceding five-year period (Japan, Italy, the UK).

Figure 6: Global economic trends



Source: IMF, Oxford Economics, WIFO.

Table 2: Development of world trade

		Ø 1991-1996	Ø 1996-2001	Ø 2001-2006	Ø 2006-2011	2011	2012	2013	2014	2015	2016	Ø 2011-2016
		Year-to-year percentage changes										
Exchange rate 4 reserve currencies per dollar		*+ 0.8*	*+ 5.3*	*– 5.6*	*– 1.0*	*– 4.5*	*+ 4.6*	*+ 1.3*	*+ 1.7*	*+ 0.8*	*+ 0.9*	*+ 1.8*
World trade prices		*+ 1.5*	*– 4.0*	*+ 7.6*	*+ 5.5*	*+ 12.7*	*– 5.3*	*– 1.3*	*+ 0.2*	*+ 1.8*	*+ 0.8*	*– 0.8*
Oil		+ 0.6	+ 3.5	+ 21.7	+ 11.0	+ 38.4	– 13.6	+ 5.3	+ 0.9	+ 4.8	+ 3.6	– 0.1
Non-oil commodities		+ 2.9	– 5.3	+ 10.2	+ 9.3	+ 19.7	– 5.9	– 3.7	– 0.4	+ 1.4	– 0.9	– 1.9
Manufactured goods		+ 1.4	– 4.2	+ 5.8	+ 4.0	+ 7.5	– 3.3	– 1.4	+ 0.2	+ 1.3	+ 0.6	– 0.5
World	Exports	+ 6.1	+ 6.2	+ 7.5	+ 3.2	+ 6.2	+ 4.2	+ 6.5	+ 7.1	+ 7.0	+ 6.2	+ 5.8
	Imports	+ 6.5	+ 6.9	+ 5.5	+ 2.5	+ 6.5	+ 3.4	+ 6.4	+ 6.8	+ 6.7	+ 5.9	+ 5.8
Industrialised countries	Exports	+ 6.5	+ 7.8	+ 6.3	+ 1.6	+ 6.1	+ 2.8	+ 5.8	+ 6.7	+ 6.4	+ 5.6	+ 5.5
	Imports	+ 8.1	+ 4.6	+ 4.6	+ 4.6	+ 7.6	+ 6.7	+ 8.1	+ 9.3	+ 10.1	+ 8.7	+ 8.6
USA	Exports	+ 9.4	+ 8.9	+ 6.3	+ 0.4	+ 6.8	+ 4.4	+ 7.9	+ 8.5	+ 7.1	+ 6.2	+ 6.8
	Imports	+ 3.5	+ 3.2	+ 9.3	+ 1.5	+ 0.9	+ 7.0	+ 6.2	+ 5.5	+ 5.1	+ 4.8	+ 5.7
Japan	Exports	+ 7.0	+ 2.0	+ 4.4	+ 0.1	+ 4.1	+ 9.8	+ 5.5	+ 5.9	+ 7.0	+ 6.7	+ 7.0
	Imports	+ 2.7	+ 9.1	+ 7.4	+ 3.1	+ 9.2	+ 2.9	+ 6.2	+ 7.0	+ 6.7	+ 5.5	+ 5.6
Germany	Exports	+ 2.2	+ 7.9	+ 7.0	+ 4.0	+ 9.5	+ 3.3	+ 5.5	+ 7.0	+ 6.8	+ 5.7	+ 5.7
	Imports	– 0.5	+ 5.2	+ 9.4	+ 2.4	+ 3.0	+ 3.6	+ 4.2	+ 4.2	+ 4.3	+ 3.9	+ 4.0
Russia	Exports	+ 0.2	+ 1.6	+ 18.5	+ 8.5	+ 18.8	+ 7.2	+ 6.9	+ 7.5	+ 7.8	+ 7.4	+ 7.4
	Imports	+ 15.0	+ 14.5	+ 23.6	+ 6.1	+ 6.0	+ 8.6	+ 8.5	+ 9.4	+ 8.7	+ 7.3	+ 8.5
China	Exports	+ 18.7	+ 15.0	+ 19.5	+ 6.1	+ 5.2	+ 6.9	+ 8.5	+ 10.7	+ 10.3	+ 9.1	+ 9.1
	Imports	+ 3.1	– 1.8	+ 2.1	+ 2.0	+ 3.6	+ 3.4	+ 3.4	+ 4.4	+ 4.6	+ 4.3	+ 4.0
OPEC	Exports	+ 2.4	+ 4.3	+ 11.6	+ 9.7	+ 7.9	+ 9.7	+ 8.9	+ 7.4	+ 6.8	+ 6.5	+ 7.9

Source: Oxford Economics, WIFO.

As in the last 20 years, total output will expand at a somewhat faster pace in the USA (+2.1 percent per year) than the average for all industrialised countries, but at a somewhat slower pace in the euro area and in Japan (+1.4 percent and +1.6 percent, respectively, per year). In the six big new EU countries (Bulgaria, Czech Republic, Hungary, Poland, Romania, Slovakia), the growth momentum will be considerably higher at +3.2 percent per year than the EU-27 average (+1.7 percent per year).

In China and India, GDP will continue to grow at a markedly faster pace until 2016 than the global average (Table 3). However, the pace of the expansion will moderate from 10.5 percent per year (2006-2011) to +8.6 percent per year (2011-2016) in China, and will accelerate only marginally in India (from +8.0 percent to +8.4 percent per year). GDP growth in the OPEC countries, at +4.7 percent per year is likely to be approximately as high as in the previous ten years, not least on account of the high level of oil prices. As for the economies of Latin America, the OEF model also forecasts similarly high growth rates as those recorded since 2001. In Africa, growth is expected to gain considerable momentum: at +4.8 percent, the pace of growth is the highest forecast in 20 years (Table 3).

Table 3: Economic growth by groups of countries

	Ø 1991-1996	Ø 1996-2001	Ø 2001-2006	Ø 2006-2011	2011	2012	2013	2014	2015	2016	Ø 2011-2016
	Annual percentage change										
World output (GDP)	+ 2.8	+ 3.3	+ 4.1	+ 3.0	+ 3.8	+ 3.2	+ 4.2	+ 4.5	+ 4.6	+ 4.2	+ 4.1
Industrialised countries[1]	+ 2.2	+ 2.7	+ 2.3	+ 0.5	+ 1.4	+ 1.1	+ 1.9	+ 2.3	+ 2.4	+ 2.2	+ 2.0
USA	+ 3.3	+ 3.8	+ 2.7	+ 0.5	+ 1.6	+ 1.3	+ 1.6	+ 2.6	+ 2.9	+ 2.3	+ 2.1
Japan	+ 1.3	+ 0.5	+ 1.7	– 0.4	– 1.0	+ 1.5	+ 2.3	+ 1.8	+ 1.3	+ 1.0	+ 1.6
EU 27	+ 2.1	+ 2.9	+ 2.1	+ 0.5	+ 1.7	+ 0.3	+ 1.7	+ 2.1	+ 2.3	+ 2.3	+ 1.7
Germany	+ 1.1	+ 2.0	+ 1.0	+ 1.1	+ 3.1	+ 0.5	+ 1.6	+ 2.0	+ 2.1	+ 2.0	+ 1.6
France	+ 1.2	+ 2.9	+ 1.7	+ 0.5	+ 1.6	– 0.1	+ 1.1	+ 1.7	+ 1.9	+ 1.8	+ 1.3
Italy	+ 1.2	+ 2.1	+ 1.0	– 0.7	+ 0.6	– 0.8	+ 0.3	+ 0.8	+ 1.4	+ 1.8	+ 0.7
UK	+ 2.5	+ 3.7	+ 2.8	+ 0.1	+ 0.9	+ 0.7	+ 2.1	+ 2.4	+ 2.5	+ 2.4	+ 2.0
Euro area	+ 1.4	+ 2.8	+ 1.8	+ 0.5	+ 1.7	+ 0.0	+ 1.3	+ 1.7	+ 1.9	+ 2.0	+ 1.4
6 new EU countries[2]	+ 2.4	+ 2.7	+ 4.7	+ 2.5	+ 2.7	+ 1.4	+ 3.1	+ 3.9	+ 4.0	+ 3.6	+ 3.2
Poland	+ 4.9	+ 4.4	+ 4.1	+ 4.2	+ 4.0	+ 2.1	+ 3.3	+ 4.0	+ 3.7	+ 3.3	+ 3.3
Czech Republic	+ 2.3	+ 1.2	+ 4.6	+ 1.6	+ 1.9	+ 0.5	+ 2.1	+ 2.9	+ 2.9	+ 2.3	+ 2.1
Slovakia	+ 1.8	+ 3.0	+ 5.9	+ 3.3	+ 2.9	+ 1.0	+ 3.3	+ 3.9	+ 4.3	+ 3.0	+ 3.1
Hungary	+ 0.2	+ 4.3	+ 3.9	– 0.7	+ 0.9	– 0.6	+ 1.6	+ 3.3	+ 3.6	+ 3.3	+ 2.2
Russia	– 8.8	+ 3.4	+ 6.8	+ 2.6	+ 3.8	+ 4.2	+ 3.8	+ 3.9	+ 4.4	+ 4.2	+ 4.1
China	+ 12.4	+ 8.3	+ 10.6	+ 10.5	+ 9.5	+ 8.0	+ 9.2	+ 9.1	+ 8.8	+ 7.9	+ 8.6
India	+ 6.2	+ 5.6	+ 7.6	+ 8.0	+ 7.1	+ 7.2	+ 9.2	+ 9.3	+ 8.6	+ 7.7	+ 8.4
OPEC	+ 2.1	+ 2.0	+ 5.8	+ 4.2	+ 4.1	+ 5.3	+ 4.9	+ 4.6	+ 4.4	+ 4.5	+ 4.7
Africa	+ 2.4	+ 3.5	+ 4.6	+ 3.9	+ 3.6	+ 4.0	+ 5.1	+ 5.2	+ 4.9	+ 4.7	+ 4.8
Latin America	+ 4.0	+ 2.1	+ 3.8	+ 4.1	+ 5.0	+ 3.5	+ 4.3	+ 4.3	+ 4.3	+ 4.1	+ 4.1

Source: Oxford Economics, WIFO. – [1] 29 OECD countries. – [2] Bulgaria, Czech Republic, Hungary, Poland, Romania, Slovakia.

Uncertainty factors of the forecast

Every forecast using an econometric model implies that the reaction patterns of companies, households and economic policy to changes of economic variables observed in the past will prevail also in the future. This assumption is particularly problematic at present as the current situation is characterised by problems that have not occurred in the base period of the model (since 1980). These problems include, among others, CDS speculation, its effects on levels of interest rates on government bonds and the acute debt crises of several euro countries, but also the increased consolidation efforts by almost all EU countries despite an already noticeable economic slowdown.

Given that the inevitable shortcomings of econometric forecasting methods are therefore of particular consequence after a severe financial-market and economic crisis, and, in addition, given that new problems have arisen for the solution of which economic policy has no experience, the present model forecast is likely to be too optimistic rather than too pessimistic in its assessment of the global economic outlook for the years ahead.

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Crisis of European Monetary Union Dampens Global Growth Momentum. Medium-term Forecast for the World Economy Until 2016 – Summary

The forecast for the world economy until 2016 is based on a global econometric model (Oxford Model). The forecast rests on the assumption that the uncertainty surrounding the resolution of the interest rate and debt crisis in the euro area will persist for some time. Therefore, the euro exchange rate vis-à-vis the dollar is expected to weaken slightly (to $ 1.23) until 2016. In 2012, the oil price (Brent) will fall (to $ 95 per barrel), owing to the international economic slowdown. However, it will return to about $ 110 by 2016. Over the forecast period, the prices of non-oil commodities are expected to decline slightly (–1.9 percent per year), not least as a consequence of the appreciation of the dollar. Both in the USA and in Europe average interest rates during the forecast period will be at their lowest levels in more than 60 years.

As soon as the economic weakness of 2012 is overcome, these conditions will facilitate a strong upturn of the world economy. It is assumed that the enhanced efforts to cut spending in the EU will not protract the economic slump, but will rather contribute to calming the financial markets. World trade is expected to grow by almost 6 percent per year, only slightly more slowly than during the 15 years preceding the onset of the financial crisis. Over the medium term, US exports will expand more rapidly than its imports. The model forecasts the opposite trend, i.e., a higher growth rate of imports than of exports, for the surplus countries Germany, Japan, China, Russia and the OPEC. The current account imbalances are therefore likely to diminish over the medium run. After 2012, world output will recover noticeably, increasing on average by 4.1 percent per year until 2016. As in the past 20 years, total output will expand slightly more rapidly in the USA (+2.1 percent per year) than on average in all industrialised countries, but somewhat more slowly in the euro area and in Japan (1.4 percent and 1.6 percent per year, respectively). At a growth rate of 3.2 percent, the economic momentum is expected to be noticeably stronger in the six largest new EU countries than in the EU as a whole (1.7 percent per year). China and India will continue to record the highest economic growth (8.6 percent and 8.4 percent per year, respectively). For the other developing and emerging economies, the model forecasts growth rates of 4.7 percent (OPEC), 4.1 percent (Latin America) and 4.8 percent (Africa).