# The NIME Outlook for the World Economy

A Medium-Term Outlook for the World Economy 2007-2013



January 2007



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### A Medium-Term Outlook for the World Economy: 2007-2013

The January 2007 issue of the NIME Outlook for the World Economy presents a 2007-2013 macroeconomic projection for the major areas of the world. The outlook was produced using NIME, the Belgian Federal Planning Bureau's macroeconometric world model. This issue also includes a number of essential stochastic results concerning the new world economic outlook. The major technical assumptions behind the outlook as well as a brief description of the NIME model are presented in the appendix.

In the *euro area*, real GDP is projected to rise at an average annual rate of 1.8 per cent over the 2007-2013 period. Growth in the euro area should stem from the components of domestic demand, with no significant contribution to GDP growth from net exports. Economic growth is set to slacken as of 2010 as the growth in the labour supply begins to decline due to the area's rapidly ageing population. Consumer price inflation should average 2 per cent per annum, rising over the last years of the projection horizon as the expansion of final demand outpaces potential output growth. The nominal short-term interest rate is projected to rise from a year average level of 4 per cent in 2007 to 4.9 per cent in 2013. The euro's nominal effective exchange rate is projected to appreciate on average by 2.7 per cent per year over 2007-2013 due to a combination of higher average inflation in the rest of the world and a relative decline in foreign interest rates. Substantial progress is expected with respect to fiscal consolidation over the projection horizon; indeed the area's fiscal deficit should decline from 1.9 per cent of GDP in 2007 to a shortfall of 0.9 per cent of GDP in 2013.

Over the 2007-2013 period, GDP growth averages 3 per cent per annum for the group of countries comprising the United Kingdom, Sweden and Denmark. Real GDP in the United States is expected to rise at an average annual rate of 2.6 per cent over the same period. However, growth will most likely be somewhat erratic as, under current US laws and policies, significant tax cut provisions are scheduled to expire throughout the projection period, leading to a particularly large cut in domestic demand growth in 2011. The US fiscal deficit should gradually disappear and give way to a budget surplus of 0.3 per cent of GDP by 2013, while the country's external imbalances should remain high over the 2007-2013 period. Real GDP in Japan is expected to progress at an average annual rate of 2.2 per cent over the 2007-2013 period. Consumer price inflation should reach a year average rate of 0.2 per cent in 2007 and average 1.3 percent over the projection horizon. Japan's growth momentum should fall off noticeably as the ageing of the country's population leads to a decline in the labour supply.

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### **Executive Summary of the 2007-2013 NIME Outlook for the World Economy**

#### Introduction

This January 2007 issue of the "NIME Outlook for the World Economy" (NEO) presents readers with a macroeconomic outlook for the major areas of the world economy for the period 2007-2013. The outlook was prepared using the latest version of the Belgian Federal Planning Bureau's NIME macro-econometric world model. It now constitutes an update to the August 2006 NEO, following the release of new data and the subsequent re-estimation of the model's parameter values.

This NEO builds on the data provided in the European Commission's November 2006 AMECO database, which accompanies its November 2006 Economic Forecasts. These forecasts provided us with first approximations for overall economic activity in 2006. However, as preliminary estimates for 2006 are revised and gradually give way to final data, we have adjusted the Commission's November 2006 estimates for 2006 so as to better reflect known developments in the world economy and in financial markets through December 2006. What's more, although the NIME model is basically medium-term oriented, we have now also integrated the most recent information stemming from leading indicators and short-term estimates into our projection for the year 2007. The NIME model then goes on to provide us with a coherent model-based outlook for the major economic areas of the world over the whole 2007-2013 period.

The NEO ends with an appendix outlining the main assumptions underlying the outlook presenting the NIME model's basic structure. The assumptions, which reflect the essential the underlying determinants of model's projections, differ from one area to another, reflecting current macroeconomic trends and leading to sometimes significant medium-term differences in forecasts between different areas of the world economy.

Finally, we draw the reader's attention to the fact that the Federal Planning Bureau's short-term forecasts and medium-term projections for the Belgian economy are not based on world economic outlooks produced with the NIME model but make use of a variety of data sources and methods.

### Summary of the 2007-2013 Economic Outlook

World output growth in 2006 was underpinned mainly by the solid performance of the economies of the United States (US) and major emerging market countries such as China and India, accompanied by an upswing of growth in Europe and Japan. In 2007, despite a cooling of real gross domestic product (GDP) growth in the euro area and in the US, world economic activity is expected to remain firm and to become increasingly broad-based. Oil prices are generally in decline and should no longer weigh negatively on world growth prospects; at the same time, the global cycle of monetary tightening that was observed in 2006 should continue to help avert any second-round wage and price effects and keep inflation expectations sufficiently well anchored.

Looking ahead, steady worldwide output growth is projected over the entire 2007-2013 period. Throughout the projection horizon, output growth is primarily supported by robust productivity growth, with the noticeable exception of the euro area where labour productivity growth remains stubbornly around the 1 per cent mark. Inflation remains generally contained, due to the noticeable upward trend in nominal interest rates in the European Union and Japan. The projection also indicates that demographic developments will crimp growth prospects, as the working-age population exhibits steady declines in both the EU and Japan.

In the euro area, real GDP is projected to rise at an average annual rate of 1.8 per cent over the 2007-2013 period. Growth in the euro area should build on the components of domestic demand, with no significant contribution to GDP growth stemming from net foreign trade. Moreover, economic growth is set to slacken as of 2010 as the growth in the labour supply begins to decline due to the area's rapidly ageing population. Consumer price inflation - as measured by the change in the deflator of private consumption - should average 2 per cent per annum, rising over the last years of the projection horizon as the expansion in demand outpaces potential output growth. The nominal short-term interest rate is projected to rise from a year average level of 4 per cent in 2007 to 4.9 per cent in 2013. The euro's nominal effective exchange rate is projected to appreciate on average

by 2.7 per cent per year over 2007-2013 due to a combination of higher average inflation in the rest of the world and declining foreign interest rates. Substantial progress is expected with respect to fiscal consolidation over the projection horizon; indeed the area's fiscal deficit should decline from 1.9 per cent of GDP in 2007 to just 0.9 per cent of GDP in 2013.

Real GDP growth in the Western non-euro EU Member States<sup>1</sup> is projected to average 3 per cent per annum over the 2007-2013 period; at the same time, consumer prices are expected to rise at an average annual rate of 2.2 per cent. The area's growth is projected to be predominantly based on domestic demand, as the contribution of net exports to overall GDP growth is generally nil. The area's nominal short-term interest rate is expected to rise from a year average level of 4.4 per cent in 2007 to 4.8 per cent at the end of the period. Progress in the consolidation of the area's fiscal position is projected over the first years of the projection, but these advances are expected to be reversed as of 2011 with the deficit-to-GDP ratio rising to 2 per cent in 2013.

In the United States, GDP growth is expected to average 2.6 per cent per annum over 2007-2013. Growth is expected to rise to 3.3 per cent in 2009 and to dip to just 2.1 per cent in 2011 in the wake of expiring tax cuts. The economy should then regain traction with GDP growth progressing to 2.6 per cent in 2013. Net exports should continue to turn out negative through 2010, but should then provide a small positive contribution to growth between 2011 and 2013. Domestic demand growth weakens between 2009 and 2011 as, under current US laws and policies, significant tax cut provisions are slated to expire. Consumer price inflation is projected to average 2.1 per cent per annum over the projection period, while the nominal short-term interest rate is projected to come out at an average annual level of 4.3 per cent. The dollar's nominal effective exchange rate appreciates at an average annual rate of 2.5 per cent due to the higher average inflation rate in the rest of the world. As tax cuts expire over the projection period, the US fiscal deficit gradually disappears, giving way to a budget surplus of 0.3 per cent of GDP in 2013. Finally, in the absence of any major shock to the external value of the dollar, the US current account-to-GDP ratio is projected to slowly increase and to come out at 6.4 per cent at the end of the projection period.

The objective risks surrounding the current medium-term outlook can be inferred directly from the NIME model's structure and from the observed historical fluctuations in economic variables. These risks have been assessed through stochastic simulation and are presented in the form of confidence intervals linked to various outcomes. The analysis of the projection's underlying risk structure reveals for instance that the 95 per cent confidence interval around GDP growth in the euro area for 2007 lies between 1.4 and 2.9 per cent. The stochastic results also indicate that throughout the projection period, there exists only a very low probability that GDP growth in the euro area will exceed 2.9 per cent, or that it will fall below 0.2 per cent. In comparison, GDP growth in the United States is unlikely to exceed 4.1 per cent or to fall below 1.5 per cent. The stochastic evaluation of the risks underlying the NIME outlook can be accompanied by an appreciation of other, less quantifiable, uncertainties currently weighing on the short- to medium-term prospects of the world economy. The current major downside uncertainty - in the light of its potential to affect worldwide economic sentiment and activity - can be seen in a possible hard landing of the US economy, bringing about abrupt and sharp exchange rate realignments which could lead to higher worldwide interest rates and lower growth prospects.

Japanese real GDP is projected to rise at an average annual rate of 2.2 per cent over 2007-2013. However, this period average conceals a distinctly declining growth profile. Indeed, the country's growth rate tumbles from a peak of 2.8 per cent in 2009 to just 1.2 per cent in 2013 as Japan's population, working-age population and labour force all embark on a steady trend decline. Japanese consumer prices are currently expected to rise by 0.2 per cent in 2007, after falling uninterruptedly for eight straight years; they are subsequently projected to increase at an average annual rate of 1.3 per cent over the 2007-2013 period. The Japanese short-term interest rate averaged 0.3 per cent in 2006 and it is projected to reach 0.8 per cent in 2007. The short-term rate should continue to rise and reach 4.2 per cent in 2013 on the back of mounting inflation linked to increasingly sharp capacity constraints. Assuming unchanged fiscal policy, Japan's fiscal deficit is expected to fall from 5.1 per cent of GDP in 2007 to 4.5 per cent of GDP in 2011; the fiscal shortfall should then increase once again due to rising public sector wages and transfers to households.

The "Western non-euro EU Member States" comprise Denmark, Sweden and the United Kingdom.

#### **Summary World Area Table - Main results**

	2006	2007	2008	2009	2010	2011	2012	2013	Average 2007-2013	Average 2000-2006
I. Euro area									200. 20.0	2000 2000
1. Gross domestic product	2.6	2.1	1.8	2.0	1.7	1.7	1.6	1.5	1.8	1.9
Deflator of private consumption	2.1	1.8	1.8	1.8	2.0	2.1	2.2	2.3	2.0	2.1
3. Unemployment rate (level, % of civilian labour force)	8.0	7.6	7.4	7.3	7.3	7.4	7.5	7.6	7.5	8.3
4. Short-term interest rate (level)	3.1	4.0	3.9	3.9	4.1	4.3	4.6	4.9	4.3	3.1
5. Nominal effective exchange rate (+: depreciation)	0.1	-1.9	-2.1	-2.4	-2.7	-3.0	-3.2	-3.4	-2.7	-2.2
6. Government net lending (level, % of GDP)	-2.0	-1.9	-1.6	-1.3	-1.0	-0.9	-0.9	-0.9	-1.2	-2.1
7. Current account (level, % of GDP)	-0.1	0.9	1.2	1.3	1.3	1.1	0.9	0.6	1.0	0.3
II. Western non-euro EU Member States										
Gross domestic product	2.8	2.8	2.9	3.3	3.3	3.0	2.8	2.6	3.0	2.6
2. Deflator of private consumption	2.4	2.3	1.7	1.8	2.0	2.2	2.4	2.6	2.2	1.9
3. Unemployment rate (level, % of civilian labour force)	5.5	5.3	5.1	4.8	4.7	4.7	4.8	4.8	4.9	5.2
4. Short-term interest rate (level)	4.3	4.4	4.3	4.2	4.3	4.4	4.6	4.9	4.4	4.3
5. Nominal effective exchange rate (+: depreciation)	-0.2	-1.0	-1.5	-1.5	-1.4	-1.5	-1.7	-1.9	-1.5	-1.2
6. Government net lending (level, % of GDP)	-1.5	-1.8	-1.6	-1.3	-1.2	-1.2	-1.5	-2.0	-1.5	-0.5
7. Current account (level, % of GDP)	-1.0	-1.2	-1.4	-1.6	-1.9	-2.3	-2.6	-2.9	-2.0	-0.6
III. United States										
Gross domestic product	3.4	2.6	2.7	3.2	2.8	2.1	2.4	2.6	2.6	2.7
Deflator of private consumption	3.1	2.3	2.1	2.0	2.1	2.1	2.0	2.0	2.1	2.4
3. Unemployment rate (level, % of civilian labour force)	4.7	4.7	4.6	4.3	4.3	4.8	5.1	5.1	4.7	5.1
4. Short-term interest rate (level)	5.2	4.9	4.7	4.5	4.4	4.2	4.0	3.8	4.4	3.4
5. Nominal effective exchange rate (+: depreciation)	0.5	-1.8	-2.6	-2.8	-2.8	-2.7	-2.6	-2.4	-2.5	0.0
6. Government net lending (level, % of GDP)	-2.2	-1.8	-1.4	-1.3	-1.0	-0.2	0.3	0.3	-0.7	-2.6
7. Current account (level, % of GDP)	-6.5	-5.9	-6.0	-6.1	-6.2	-6.2	-6.3	-6.3	-6.2	-5.0
IV. Japan										
Gross domestic product	2.4	2.9	2.5	2.8	2.3	2.1	1.8	1.2	2.2	1.8
Deflator of private consumption	-0.1	0.2	0.6	1.2	1.7	1.9	2.0	1.9	1.3	-0.9
3. Unemployment rate (level, % of civilian labour force)	4.3	4.2	4.2	4.2	4.2	4.3	4.3	4.4	4.2	4.8
Short-term interest rate (level)	0.3	8.0	1.3	1.9	2.5	3.1	3.7	4.2	2.5	0.2
5. Nominal effective exchange rate (+: depreciation)	6.5	2.1	0.9	-0.2	-1.5	-3.3	-5.2	-6.9	-2.0	0.5
6. Government net lending (level, % of GDP)	-5.6	-5.1	-4.8	-4.6	-4.5	-4.5	-4.6	-4.8	-4.7	-7.0
7. Current account (level, % of GDP)	3.5	4.2	4.9	5.5	5.9	5.9	5.8	5.4	5.4	3.3
V. Eastern EU Member States										
1. Gross domestic product	6.2	4.7	4.8	4.8	4.6	4.4	4.3	4.2	4.5	4.5
2. Deflator of private consumption	1.9	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	6.7
3. Short-term interest rate (level)	4.4	6.6	7.0	6.7	6.9	7.1	7.4	7.8	7.1	9.5
4. Nominal effective exchange rate (+: depreciation)	-2.1	-0.2	-0.4	-0.4	-0.5	-0.5	-0.6	-0.6	-0.4	0.9
5. Current account (level, % of GDP)	-3.2	-3.3	-3.0	-3.1	-3.3	-3.8	-4.3	-4.9	-3.7	-3.5
VI. Rest of the world										
1. Gross output	6.9	5.5	5.6	5.6	5.5	5.5	5.4	5.3	5.5	6.0
2. Output deflator	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.9
3. Nominal effective exchange rate (+: depreciation)	-1.2	2.1	3.1	3.7	4.2	4.8	5.4	5.9	4.2	1.8
4. Price of oil (Brent, \$US/bbl)	67.3	64.9	68.0	67.8	67.1	66.4	65.8	65.6	66.5	38.1

All figures are year-on-year average growth rates, unless otherwise noted.

Slovenia became a full member of the euro area on 1 January 2007. For practical purposes however, the NIME model of the euro area continues to represent the 12 Member States that composed the euro area up to 2007. Slovenia remains integrated within the NIME model's aggregate for the Eastern EU Member States.

The "Eastern EU Member States" comprise Bulgaria, Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovakia and Slovenia.

The "Western non-euro EU Member States" comprise Denmark, Sweden and the United Kingdom.

### The Euro Area

After a year of sturdy economic growth in 2006, GDP growth in the euro area is projected to come out at 2.1 per cent in 2007, while the deflator of private consumption should progress at a rate of 1.8 per cent. The area's growth profile is largely based on a further rise in employment, on now positive real wage developments, on generally more restrictive monetary conditions and on a significant positive contribution to growth from net exports. Over the 2007-2013 period, the euro area's real GDP growth is projected to come out at an average annual rate of 1.8 per cent. Consumer price inflation averages 2 per cent over the projection horizon. The nominal short-term interest rate rises from a year average level of 4 per cent in 2007 to 4.9 per cent in 2013, thus allowing to contain a build-up of inflationary pressures. Assuming no policy changes, the area's fiscal shortfall is projected to gradually decline from a deficit of 1.9 per cent of GDP in 2007 to a deficit of just 0.9 per cent of GDP in 2013.

In 2007 net exports are expected to pick up the slack as the euro area's domestic demand cools

Real GDP growth in the euro area<sup>1</sup> is expected to weaken significantly in 2007 as domestic demand growth stumbles, falling from 2.6 per cent in 2006 to 2.1 per cent in 2007. However, the area's economic activity should be underpinned by a strong contribution to growth from its net export position, following the noticeable effective depreciation of the euro over the 2005-2006 period.

In 2007, private consumption should increase by 1.6 per cent, down from the particularly high 2 per cent progression of 2006. Euro area consumer spending is upheld by both sturdy employment gains and real income growth. Growth in household real disposable income is forecast to come out at 1.5 per cent, primarily reflecting a strong increase in private sector employment and a rise in the rate of workers' real take-home compensation.

After rising by an impressive 8.4 per cent in 2006, euro area exports should post another strong 5.8 per cent rise in 2007, reflecting robust foreign demand and the significant depreciation of the area's real effective exchange rate over the 2005-2007 period. The area's real effective exchange rate depreciated by 4 per cent in 2005 and by a further 1.9 per cent in 2006. Although the area's nominal trade-weighted exchange rate is now expected to appreciate by 1.9 per cent in 2007, moderate export price growth should allow the real effective exchange rate to weaken by a further 0.1 per cent in 2007. Euro area import growth is expected to stumble in 2007, receding from 7.8 per cent in 2006 to only 3.3 per cent; import growth is restrained by a slowdown in the area's private sector output growth and by the lagged effects of the strong rise in import prices over the two previous years. On balance, the area's net exports should contribute a significant 0.6 percentage point to real GDP growth on the year, up from 0.2 percentage point in 2006.

Total employment in the euro area increased markedly in 2006, rebounding by 1.4 per cent on the year after a period of rather tepid growth from 2002 through 2005. Employment is projected to rise by a further 1.2 per cent in 2007, bolstered by the continued decline in real unit labour costs since 2004. Moreover, job creation should once again outpace the expansion of the labour force, leading to a reduction in the unemployment rate from 8 per cent of the labour force in 2006 to 7.6 per cent in 2007.

Though nominal labour compensation rates rose in 2005 and 2006, real take-home compensation declined by 0.7 per cent in both years. In 2007, nominal compensation is projected to increase by 2.3 per cent, leading this time to a modest 0.4 per cent rise in the rate of real take-home labour compensation. In 2006, labour productivity rose by

Business sector investment should rise by 1.9 per cent in 2007, tracking the decline in private sector output growth and suffering from more restrictive financing conditions. Public sector investment should rise by 1.4 per cent after a particularly strong 2.9 per cent progression in 2006. Growth in residential investment is expected to soften, coming out at 0.2 per cent in 2007 after rising by 4.6 per cent in 2006. All in all, the rate of expansion of the euro area's total gross fixed capital expenditure is projected to tumble from a high of 4.2 per cent in 2006 to just 1.5 per cent in 2007.

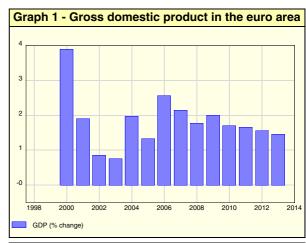
Slovenia became a full member of the euro area on 1 January 2007. For practical purposes however, the NIME model of the euro area continues to represent the 12 Member States that composed the euro zone up to 2007 and Slovenia remains integrated within the NIME model's aggregate for the Eastern EU Member States. In 2006, Slovenia's GDP was equal to about 0.35% of euro area GDP; the exclusion of Slovenia from the aggregate for the euro area will thus not affect projection results in any significant manner.

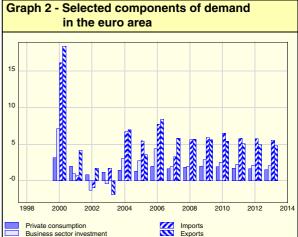
1.1 per cent for the economy as a whole and by an impressive 2.2 per cent in the private sector. Consequently, economy-wide real unit labour costs fell by 0.9 per cent, and by 2.2 per cent in the private sector. In 2007, real wage growth is projected to remain relatively contained, progressing less rapidly than labour productivity and thus further reducing real unit labour costs by 0.7 per cent.

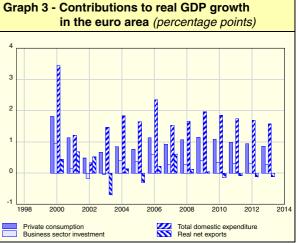
Consumer price inflation, as measured by the change in the deflator of private consumption expenditure, has consistently come out above the 2 per cent mark since 2003. This stems from both the steady rise in the price of oil and the gradual disappearance of slack in the economy over the period. In 2007, inflation is expected to come out at 1.8 per cent; this remains close to, but now noticeably below, the 2 per cent upper limit of the ECB's definition of price stability. This slight moderation in euro area inflation comes as domestic demand growth weakens in the face of rising real interest rates, and against the backdrop of a 4 per cent decline in the euro-denominated price of oil.

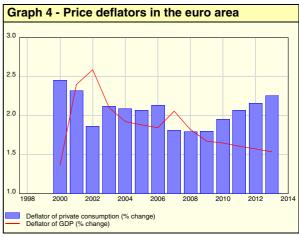
Over the 2003-2006 period, underlying inflationary pressures tended to re-emerge as slack in the economy was gradually worked away and as oil prices soared. This led the ECB to begin to mop up excess liquidity, removing any unwarranted monetary accommodation that followed from the sharp fall in interest rates since 2000. The nominal short-term interest rate came out at a year average level of 3.1 per cent in 2006. The continued normalisation of the monetary policy stance is expected to lead to a nominal short-term rate of 4 per cent in 2007. The real short-term interest rate - deflated by the change in the deflator of private consumption - should come out at a year average level of 2.2 per cent in 2007. The rise in the real short-term rate is significant and above the 1.7 per cent average level at which it stood between 1996 and 2006, reflecting significant monetary firming in 2007. The nominal long-term interest rate should also rise in 2007 and settle at a year average level of 4.4 per cent.

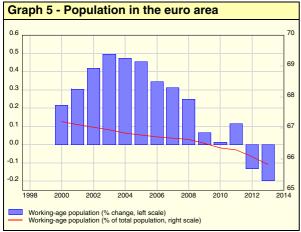
In 2007, government revenue is expected to progress somewhat more rapidly than aggregate government expenditure. However, the difference between the rise in outlays and income is relatively small; hence the euro area's public sector net borrowing requirement is forecast to shrink only moderately from 2 per cent of GDP in 2006 to 1.9 per cent of GDP in 2007.



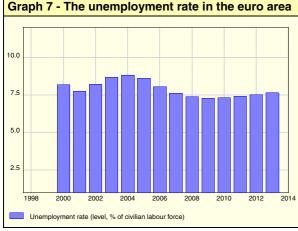














Declining working-age population and robust consumer demand raise concerns about the euro area's medium-term inflation prospects

Looking ahead, a sturdy rise in private consumption is projected to push effective demand up above potential output over the 2008-2013 period. Though demand will eventually be crimped by rising consumer prices and real interest rates, the declining rate of expansion of the labour supply will at the same time hinder the rise in potential output and generate persistent supply constraints. Moreover, strong domestic demand and unfavourable terms of trade developments will also lead to a decline in the euro area's current account surplus.

Over the 2008-2013 period as a whole, the euro area's real GDP is projected to progress at an average annual rate of 1.7 per cent. However, the area's growth rate trends downward over the period, peaking at a round 2 per cent in 2009 and then falling to 1.5 per cent in 2013 due to a steady decline in the growth rate of the area's working-age population.

Between 2008 and 2013, domestic demand is mainly driven by private consumption and investment. Private consumption growth is projected to remain relatively resilient over the 2008-2013 period, coming out at an average annual rate of 1.8 per cent. Private consumption growth is underpinned mainly by the steady 0.7 per cent average rise in total employment, accompanied by a 1.1 per cent average annual rise in the rate of real take-home labour compensation.

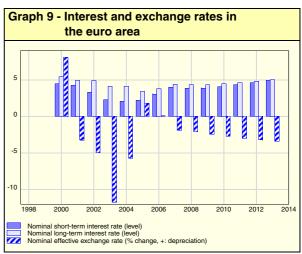
Despite the more restrictive financing conditions characterising the 2008-2013 period, growth in business sector gross fixed capital formation is projected to come out at an average rate of 2.3 per cent per annum over period. Though this result is unimpressive compared to the 4.4 per cent rise in investment in 2006, it remains significantly higher than the 1 per cent average annual rise in business investment that was noted through the period 2001-2005. Investment is bolstered mainly by the sustained private sector output growth. Household investment in residential buildings is expected to rebound from a weak 0.2 per cent rise in 2007 and progress at an average rate of 1 per cent per annum between 2008 and 2013. All in all, economy-wide gross fixed capital formation is projected to increase at an average annual rate of 1.9 per cent over the 2008-2013 period.

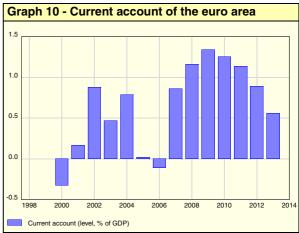
Notwithstanding the noticeable appreciation of the area's nominal effective exchange rate as of 2007, the euro area's exports should progress by a sturdy 5.7 per cent in 2008 on the back of a relatively steady growth in foreign demand. Over the 2008-2013 period, export growth should fall off as foreign effective demand softens and as the area's trade-weighted exchange rate appreciates. After going through a downturn in 2007, euro area import growth is projected to rebound and progress at an average annual rate of 5.8 per cent over the 2008-2013 period in response to both the regular rise in domestic demand and the 2.8 per cent average annual nominal effective appreciation of the euro. In a context of significant nominal effective exchange rate appreciation and softening foreign demand, export price growth is put under increasing pressure and declines from 1.2 per cent in 2008 to only 0.1 per cent in 2013. Euro-denominated import prices are slashed in 2007 as the euro embarks on a trend appreciation; however, they gradually recover as exporters to the euro area cautiously pocket the windfall profit stemming from the realignment of exchange rates. All in all, net exports make no significant contribution to the area's overall GDP growth rate over the projection period, as the positive contributions that are projected between 2007 and 2009 subsequently give way to marginally negative contributions.

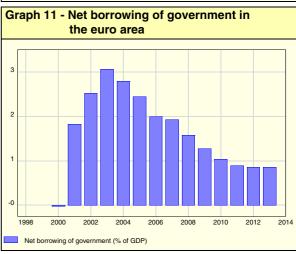
Euro area employment is expected to expand at best tepidly over the 2008-2013 period. Annual job creation should decline from 1.1 per cent growth in 2008 to just 0.4 per cent growth in 2013. Employment gains should dwindle as real wage costs rise and lead to regular increases in real unit labour costs, and as domestic demand growth is curtailed by the rise in consumer prices and real interest rates. Aggregate output is projected to remain consistently above potential output levels over 2009-2013, driving up consumer prices. At the same time, positive output growth and declining labour supply increments bring the unemployment rate down, emboldening workers to make increased wage claims. The higher real rates of labour compensation drive wage costs up above the gains in labour productivity. This raises real unit labour costs as of 2008 for the euro economy as a whole and as of 2011 for the business sector.

Consumer price inflation is projected to rise from 1.8 per cent in 2008 to 2.3 per cent in 2013. Inflation is expected to be fuelled by low unemployment rates, which underpin real disposable income and household consumption expenditure; and by falling private sector potential output growth which

trails behind growth in final demand in the wake of the euro area's underlying demographic developments. Nominal short-term interest rates are projected to rise once again after 2009 as monetary authorities endeavour to maintain price stability through an increasingly restrictive monetary policy. The area's nominal short-term interest rate rises from a year average level of 3.9 per cent in 2008 to 4.9 per cent in 2013, pushing up the real short-term interest rate from 2.1 per cent to 2.7 per cent over the same period. The nominal long-term interest rate rises from 4.3 per cent in 2008 to 5 per cent at the end of the projection horizon.







In a context of rising employment and generally firm economic activity, the euro area's automatic fiscal stabilisers allow government revenue to progress more rapidly than public spending. The euro area's consolidated fiscal deficit is thus projected to recede from 1.6 per cent of GDP in 2008 to 0.9 per cent of GDP in 2013.

### The Western Non-Euro EU Member States

Real GDP growth in the Western non-euro EU Member States progressed by 2.8 per cent in 2006. Growth is expected to remain resilient at 2.8 per cent in 2007 and to average 3 per cent per annum over the entire 2007-2013 period. The area's economic performance builds on sturdy domestic demand, while net exports provide no significant contribution to growth. During the projection period, consumer price inflation is projected to come out at an average annual rate of 2.2 per cent. Inflation should remain relatively subdued over the 2007-2009 period but then pick up as labour supply constraints restrain potential output growth to a pace systematically below that of domestic demand.

Growth holds firm in 2007 as a rise in net exports compensates for a weaker domestic demand

Real GDP growth in the Western non-euro European Union Member States<sup>1</sup> is projected to remain resilient in 2007, equalling the performance of 2006 and coming out once again at 2.8 per cent. In 2006 real GDP growth was mainly supported by surging investment in residential buildings, a massive spike in public sector investment and strong private consumption expenditure. In 2007, household consumption should remain relatively firm, while a sharp cut in the growth rates of household and enterprise sector gross fixed capital formation is expected to lead to a substantial reduction in the growth of total economy investment.

Private consumption growth is projected to fall from 2.5 per cent in 2006 to 2.2 per cent in 2007 in the wake of tepid employment gains, accompanied however by a relatively resilient increase in the rate of real take-home labour compensation.

Growth in business sector gross fixed capital formation is projected to stumble in 2007,

progressing by just 2 per cent as compared with a rise of 4.8 per cent in 2006. This relatively weaker growth of investment in 2007 is an adjustment to the marked 4.6 per cent average rise of investment over the 2004-2006 period; it also stems from the significant slowdown in private sector output, which progressed by an exceptional 6.5 per cent in 2006 and should rise by a more moderate 3.5 per cent in 2007. After expanding at an average annual rate of 7 per cent over the 2002-2006 period, household investment in residential buildings is expected to slow to 0.9 per cent in 2007. This relatively low rise in residential investment comes in reaction to the high rates of investment over the previous years and to the rise in real interest rates. Public sector investment is expected to increase by a staggering 14.2 per cent in 2007, after rising by an already massive 11 per cent the year before. All in all, the area's aggregate gross fixed capital formation is expected to post a 3.3 per cent increase in 2007, coming after a 6.2 per cent surge in investment in 2006.

In 2006, net exports of the Western non-euro EU area contributed negatively to real GDP growth. For the first time since 2000, net foreign trade's contribution to growth in 2007 turns slightly positive, coming out at 0.1 percentage point. This turnaround comes as growth in both export and import volumes fall from their massive progression of more than 15 per cent in 2006 to 6 and 5.5 per cent, respectively. It is the somewhat sharper decline of imports in 2007 that leads to the unexpectedly positive contribution of net exports.

Total employment rose at an average annual pace of 0.9 per cent over 2000-2006. Employment growth is projected to slow to 0.4 per cent in 2007 as the economy continues to absorb the significant number of jobs created over the previous years. Though wage costs rise, they remain moderate and well below the rise in labour productivity, pushing down economy-wide real unit labour costs by 0.6 per cent. Private sector real unit labour costs decline by 1.5 per cent in 2007, marking a sixth consecutive yearly decline. Private sector labour productivity rises by 3.1 per cent in 2007, which is a strong performance - considerably above the 2.9 per cent average rise noted over the 1995-2006 period - but down somewhat from the exceptional 5.5 per cent increase of the previous year. Though net job creation in 2007 is relatively moderate, it is still higher than the 0.2 per cent rise in the labour supply. Hence the unemployment rate is expected to decline from 5.5 per cent of the labour force in 2006 to 5.3 per cent in 2007.

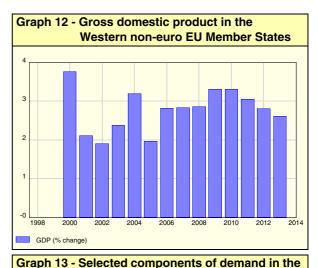
The "Western non-euro EU Member States" comprise Denmark, Sweden and the United Kingdom.

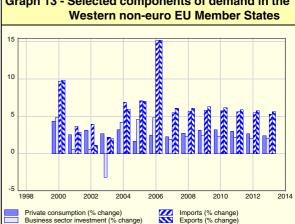
In 2006, the rise in the deflator of private consumption expenditure was no higher than 2.4 per cent, despite the 22.2 per cent rise in the price of oil (denominated in the area's domestic currency). Domestic inflationary tensions remained subdued as potential output lay noticeably above aggregate demand and as the unemployment rate remained above the economy's natural rate of unemployment. The price of oil is expected to decline in 2007; at the same time, less slack is expected to remain in the economy: the output gap is projected to narrow and the unemployment rate should edge down a notch as domestic demand growth outpaces the rise in potential output. All in all, consumer price inflation is thus expected to come out at a year average level of 2.3 per cent in 2007.

The 170 per cent rise in the price of oil between 2002 and 2006 led to a steady rise of inflation over the 2003-2006 period, prompting monetary authorities to tighten their monetary policy stance; indeed, the area's nominal short-term interest rate rose from a year average level of 3.5 per cent in 2003 to 4.3 per cent in 2006. With real interest rate levels at 1.9 per cent in 2006, the area's monetary policy stance can still be viewed as accommodative. Hence the nominal short-term interest rate is expected to rise further and reach 4.4 per cent in 2007, returning to a more neutral real rate of 2.3 per cent (deflated by the price index of private sector output). The area's long-term interest rate should follow suit, rising from a nominal year average level of 4.2 per cent in 2006 to 4.5 per cent in 2007.

The area's nominal effective exchange rate is projected to appreciate by 1.1 per cent in 2007 as inflation stabilises and real interest rates increase. The area's real trade-weighted exchange rate, on the other hand, depreciates by 0.6 per cent in 2007, as export prices progress by a relatively mild 1.4 per cent on the year.

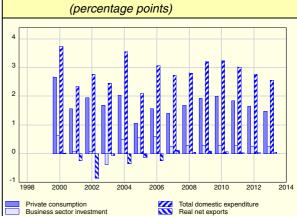
In 2006, a substantially stronger rise in fiscal revenues than in outlays reduced the area's budget deficit to 1.5 per cent of GDP. In 2007, public sector nominal income and expenditure are expected to progress at an identical pace, thus pushing the fiscal shortfall back up to 1.8 per cent of GDP.

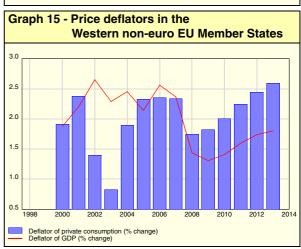


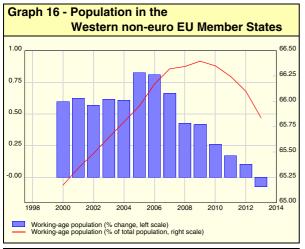


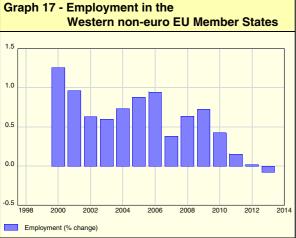
Graph 14 - Contributions to real GDP growth in the

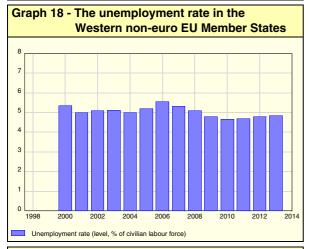
Western non-euro EU Member States

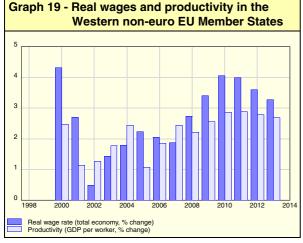












# Demographic trends weigh on an otherwise sound domestic-led economic expansion over 2008-2013

Real GDP of the Western non-euro EU Member States is expected to grow at an average rate of 3 per cent over the 2008-2013 period. This is substantially higher than the expected GDP growth for the euro area (1.7 per cent), Japan (2.1 per cent) and even the United States (2.7 per cent) over the same period. This relatively high average growth rate is made possible thanks to an economy-wide 2.7 per cent average rise in labour productivity, accompanied by a 0.2 per cent average rise in the labour supply. However, the profile of potential output growth declines over the projection horizon as the growth in the trend labour supply drops from 0.4 per cent in 2008 to -0.1 per cent in 2013, highlighting the medium- to long-term economic effects of an ageing population. Over the 2008-2013 period, the economy is driven by a heady expansion of domestic demand, while net exports make only a marginal contribution to overall GDP growth.

Private consumption expenditure is projected to rise on average by 2.8 per cent per annum over the 2008-2013 period. Though sturdy, this progression is somewhat milder than the 3 per cent average annual expansion of consumption that was noted over the 1995-2006 period. Consumption is underpinned by generally declining real short-term interest rates and a solid progression in the rate of real take-home labour compensation. However, the rise in total real household means is stymied toward the end of the projection period as employment growth is constrained by the ever weaker progression of the labour supply.

After falling off from a growth rate of 4.8 per cent in 2006 to 2 per cent in 2007, business sector gross fixed capital formation is projected to climb back above the 2 per cent mark and to increase at an average annual rate of 2.2 per cent over 2008-2013. However, business sector investment growth weakens as of 2010 due to the declining growth rate of private sector output and steady increases in real interest rates (deflated by the price index of private sector output). All in all, economy-wide gross fixed capital formation is projected to progress at an average annual rate of 2.2 per cent over the 2008-2013 period, losing momentum after 2010 in line with overall economic activity.

From 2008 to 2013, consolidated net exports make no significant contribution to the area's GDP growth. The area's exports of goods and services are projected to progress at an average annual rate of 6 per cent over the period, while imports should rise on average by 5.6 per cent per annum over the same period. The gradual decline in export growth follows the decline in foreign effective demand; exports are only little affected by the continued nominal effective exchange rate appreciation, which is effectively mitigated by the very modest rise in export prices which even leads to an average real exchange rate depreciation of 0.3 per cent per annum over 2008-2013.

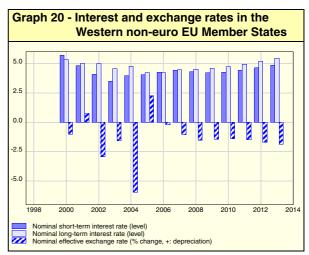
Total employment is projected to rise at an average annual rate of 0.3 per cent over the 2008-2013 period. After dipping to a growth rate of only 0.4 per cent in 2007, private sector job creation picks up, climbing to a growth rate of 0.7 per cent in 2009. Employment growth is then expected to fall off markedly due to declining private sector output growth, rising real unit labour costs and, by 2013, an absolute decline in the area's labour force. Over the 2008-2010 period, total employment expands at a faster tempo than the labour force, bringing about a fall in the unemployment rate from 5.1 per cent of the labour force in 2008 to 4.7 per cent in 2011. The unemployment rate subsequently moves back up to 4.8 per cent of the labour force in 2013 as low unemployment brings upward pressure to bear on real unit labour costs and finally quells growth in labour demand.

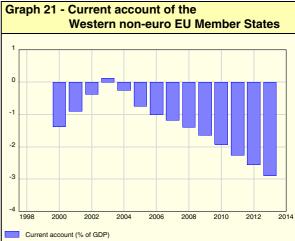
Consumer price inflation is projected to average 2.1 per cent per annum between 2008 and 2013. However, inflationary pressures increase markedly, breaking through the 2 per cent threshold from 2010 through 2013. Inflation becomes noticeably more entrenched after 2010, as the growth in the area's final effective demand consistently outpaces the rise in private sector potential output.

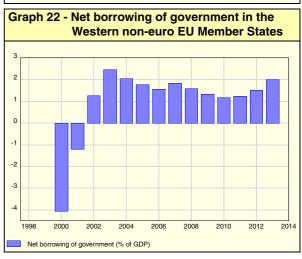
The area's average nominal short-term interest rate edges down over the 2008-2009 period, as inflation remains relatively tame. However, as of 2010 the area's monetary authorities respond to the mounting inflationary pressures by tightening their policy stance: the nominal short-term interest rate subsequently rises from a year average level of 4.2 per cent in 2009 to 4.8 per cent in 2013. The nominal long-term interest rate follows suit and rises from a year average level of 4.6 per cent in 2009 to 5.4 per cent in 2013.

The area's relatively high interest rates and moderate inflation lead to a regular appreciation of its nominal effective exchange rate, which strength-

ens at an average annual rate of 1.6 per cent over the 2008-2013 period. At the same time, the area's real trade-weighted exchange rate depreciates by an average 0.3 per cent per annum over the period due to the very limited increases in export prices. As the area's consolidated net foreign trade position remains relatively constant in volume terms over the projection period while its terms of trade deteriorate continually, the area registers regular increases in its current account deficit. The deficit more than doubles, rising from 1.4 per cent of GDP in 2008 to 2.9 per cent of GDP in 2013.







The area's fiscal position is projected to improve over the 2007-2010 period as fiscal revenue rises more rapidly than public outlays. However, the area's fiscal shortfall should deteriorate as of 2011 owing to a steep rise in transfers to households, coming on the back of an ageing population.

### **The United States**

Real GDP in the United States (US) is expected to expand at an average annual rate of 2.6 per cent over the 2007-2013 period. However, annual rates of economic activity should exhibit significant variations as tax provisions originally enacted between 2001 and 2005 gradually expire. As past oil price increases are gradually worked out of the economy, inflation is projected to settle at a year average level of 2.1 per cent over the projection horizon, even as nominal short-term interest rates decline from a year average level of 4.9 per cent in 2007 to 3.8 per cent in 2013. The budget deficit is expected to gradually disappear, moving from a shortfall of 2.2 per cent of GDP in 2007 to a surplus of 0.3 per cent of GDP in 2013. Assuming no sharp and unexpected drop in the external value of the dollar, the US current account deficit should continue to rise slowly and reach a level of 6.3 per cent of GDP in 2013.

Growth stumbles in 2007 while the decline in the oil price tempers persistent inflationary pressures

US GDP is forecast to increase at a year average rate of 2.6 per cent in 2007, slipping markedly down from the 3.4 per cent growth rate that the US economy achieved in 2006. The significant moderation in GDP growth comes in the wake of a significant decline in both growth in private consumption expenditure and economy-wide gross fixed capital investment. While in 2006 the country's net exports reduced GDP growth by 0.2 percentage point, net foreign trade should have no significant impact on the US's overall growth rate in 2007.

Private consumption growth is forecast to fall from 3.2 per cent in 2006 to just 2.4 per cent in 2007. This significant decline in the progression of consumer spending comes as households are faced with a slowdown in job creation, sharp real interest rate hikes and rising tax liabilities. Household disposable income is however underpinned by still robust real wage increases as wage claims are bolstered by the country's continued low rate of unemployment. Tax liabilities are expected to rise sharply in

2007, chiefly due to a decline in the exemption amounts accepted under the alternative minimum tax (AMT), thus increasing the overall number of taxpayers who are subject to the AMT in 2007.

Business sector gross fixed capital formation should expand by a somewhat more tempered 4.5 per cent in 2007, well below the 6.6 per cent annual average rise of investment over the 2004-2006 period. Investment continues to be underpinned by the exceptionally high growth rates of private sector output over the previous couple of years. After a marked cooling of the US housing market that led to a 3.6 per cent decline in residential investment in 2006, household investment in residential buildings is expected to turn around in the latter half of 2007 while continuing to post a slight year average decline over 2007. Public sector investment should rise by 1.5 per cent in 2006. All in all, US aggregate gross fixed capital investment should rise by a modest 2.9 per cent in 2007, down from 4 per cent in 2006.

US export growth is expected to moderate just a bit in 2007, progressing by 7.2 per cent on the year. This is slightly down from the 8.6 per cent rise in 2006, following a more tempered rise in foreign effective demand and an appreciation of the country's trade-weighted exchange rate. Import growth is projected to fall from 6.6 per cent in 2006 to 4.7 per cent in 2007, reflecting the milder private sector output growth and the strong effective depreciation of the dollar from 2002 to 2006. On balance, net foreign trade is not expected to contribute to the country's GDP growth in 2007. However, the US current account balance should benefit from a positive terms of trade effect linked in part to a decline in the price of oil. Hence the current account deficit should decline from 6.5 per cent of GDP in 2006 to 5.9 per cent of GDP in 2007.

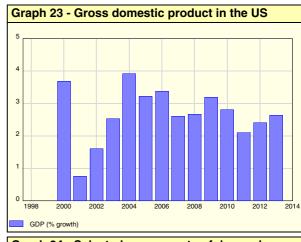
After having risen at a vigorous average rate of 1.5 per cent over the 2004-2006 period, total employment should build on the continued expansion of private sector output and rise by a modest 0.7 per cent in 2007. At the same time, the labour supply should also increase by 0.7 per cent, pinning the unemployment rate at 4.7 per cent of the civilian labour force. Moreover, the rate of real labour compensation in 2007 pursues on its upward course and rises by 1.8 per cent. This rise in labour compensation is slightly below the 1.9 per cent rise in labour productivity and pushes economy-wide real unit labour costs down by 0.3 per cent in 2007. Private sector real unit labour costs decline by 0.1

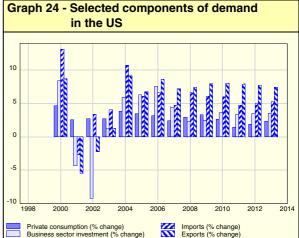
per cent on the year, following a 2.2 per cent rise in real labour costs and a robust 2.3 per cent increase in private sector labour productivity.

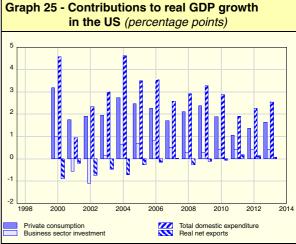
After rising by 23.4 per cent on the year in 2006, the price of oil is expected to decline by 3.5 per cent in 2007. Indeed, the price of Brent crude oil jumped from a year average level of 54.5 \$US/bbl in 2005 to 65.2 \$US/bbl in 2006, and can be expected to fall to a year average level of 64.9 \$US/bbl in 2007. On the back of the sharp decline in domestic demand and the reversal in the evolution of world oil prices, inflation - as measured by the change in the deflator of private consumption expenditure - is projected to fall from 3.1 per cent in 2006 to 2.3 per cent in 2007. Underlying inflationary tensions do not disappear however, as very little slack remains in the economy and growth in final aggregate demand outpaces the rise in the country's aggregate potential output.

Over the course of 2007, US monetary authorities are expected to adopt a negative bias in what can otherwise be viewed as a now relatively neutral policy stance. Monetary authorities should begin to gradually loosen any unwarranted monetary restriction as oil prices fall and as steady gains in labour productivity reduce real unit labour costs. The nominal short-term interest rate is projected to come out at a year average level of 4.9 per cent in 2007, slightly down from the 5.2 per cent average level of 2006. At the same time, the marked decline in inflation raises the real short-term rate, which jumps from a year average level of 2.2 per cent in 2006 to 2.7 per cent in 2007. In the light of the remaining potential for an inflationary build-up, the nominal long-term interest rate does not decline, holding firm at a year average level of 4.8 per cent in 2007. US monetary policy is thus generally viewed to be entering a phase of cautious nominal easing, while interest rates are forecast to rise year-on-year in Europe and Japan.

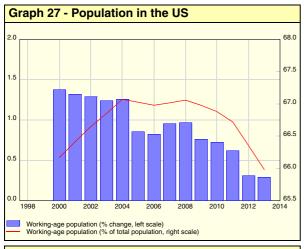
The combination of moderate inflation and relatively high US interest rates in 2007 is projected to exert significant pressure on the external value of the dollar, bringing about a 1.8 per cent nominal effective appreciation of the currency's exchange rate. This would be the first appreciation of the dollar's trade-weighted exchange rate since 2001. Though the dollar is projected to appreciate significantly in trade-weighted terms, its value should remain relatively steady against the euro area's currency, at 1.261 dollars per euro.

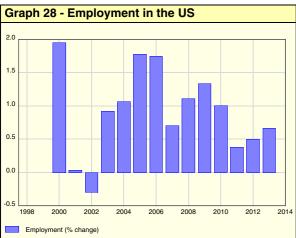


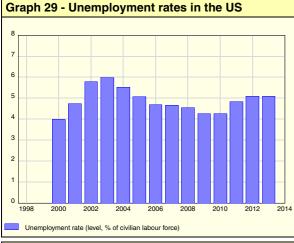














The US current account deficit came out at a historically high level of 6.5 per cent of GDP in 2006. Thanks to continued robust export growth and a sudden and strong positive terms of trade effect in 2007, the deficit should decline and come out at 5.9 per cent of GDP on the year. This persistently large current account deficit will continue to pose a significant risk to the external value of the US currency, carrying with it the constant threat of a sudden and abrupt reversal of market sentiment with respect to the US currency.

In 2005 and 2006, unexpectedly large jumps in fiscal revenues reduced the US federal budget deficit from 4.6 per cent of GDP in 2004 to just 2.2 per cent of GDP in 2006. The reduced budgetary shortfall in 2006 is linked mainly to increased income from individual income tax receipts and strong corporate income tax revenues. In 2007, public outlays are expected to rise with the bulk of the mandatory spending increase going to the Social Security, Medicaid and Medicare programmes. However, the increase in fiscal revenues in 2007 should continue to be strong, owing to the expected reduction in the exemption amounts for the alternative minimum tax (AMT), which will greatly increase the number of taxpayers subject to the AMT as of 2007. As the rise in revenues should once again outpace the rise in outlays, the US fiscal deficit should decline to 1.8 per cent of GDP in 2007.

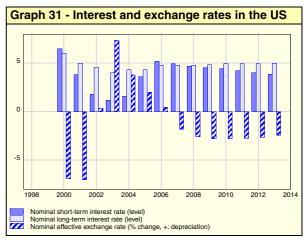
# The scheduled expiration of tax reductions curtail the US economy's medium-term growth prospects

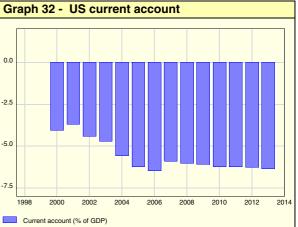
GDP growth in the US is projected to follow a somewhat erratic and declining trend over the projection period. The slide in the projected growth rate of GDP comes about as the cautious policy firming by monetary authorities in 2005 and 2006 puts the US economy on the path to continued growth without any excessive buildup of inflationary pressures and as tax cut provisions begin to expire according to the current schedule. GDP is projected to progress at an average pace of 2.6 per cent per annum over 2008-2013. In 2008, GDP growth is projected to come out at 2.7 per cent as domestic demand is affected by relatively high real interest rates and by the rise in the number of taxpayers who are subject to the alternative minimum tax (AMT), while net exports trim the overall GDP growth rate by 0.3 percentage point. Growth is further expected to be adversely affected by a sharp tax hike in 2011 which will reduce GDP growth to 2.1 per cent; growth will subsequently rebound and come out at 2.6 per cent in 2013.

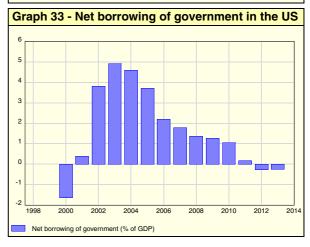
Over the 2008-2013 period, private consumption is projected to expand at an average annual rate of 2.5 per cent. Over 2008-2010, consumption is underpinned by an average annual rise in employment of 0.8 per cent, accompanied by rising real rates of labour compensation that allow for a 2.9 per cent average annual rise in household real disposable income. However, the expiration of a number of significant tax cut provisions at the end of December 2010 is set to curtail the growth of household real disposable income in 2011; household consumption expenditure growth tumbles to 1.5 per cent in 2011 before jumping back to 2.3 per cent in 2013.

Business sector gross fixed capital formation progresses at an average annual rate of 3.1 per cent over the 2008-2013 period. After its unsustainable 6.1 per cent average growth rate over the 2004-2007 period, growth in business investment plummets to just 2.2 per cent in 2008 under the combined effects of relatively high real interest rates and the previous year's less vigorous rise in private sector output. Subsequently, business sector investment growth bounces back, progressing at an average annual rate of 3.3 per cent between 2009 and 2013. Household investment in residential buildings is expected to progress moderately over the projection period, rising at an average annual rate of 2.1 per cent between 2008 and 2013. Public sector investment is projected to progress at an average pace of 2.3 per cent over the same period. In consequence, the rise in economy-wide gross fixed capital formation slows to 2.2 per cent in 2008, before bouncing back up to an average annual rate of 2.9 per cent over 2009-2013.

Net exports are projected to provide no significant average contribution to overall GDP growth over the projection horizon. Notwithstanding the more rapid progression of exports than imports, net foreign trade should have a slightly negative impact on GDP growth over the 2008-2010 period in the wake of nominal effective exchange rate appreciations. Between 2011 and 2013, net exports are expected to provide a positive - albeit marginal contribution to growth as import growth falls off due to tepid private sector output growth. The evolutions of export and import prices lead to a regular decline in US terms of trade, as dollar-denominated import prices progress more quickly than export prices. All in all, the changes in terms of both volumes and prices lead to a relative stabilisation of the US current account deficit, which is projected to come out at an average level of 6.2 per cent of GDP over the 2008-2013 period.







Employment growth averages 1.1 per cent per annum over the 2008-2010 period, underpinned by relatively strong domestic demand and well-contained private sector real unit labour costs. Employment growth then tumbles from 1 per cent in 2010 to just 0.4 per cent in 2011, as the scheduled expiration of a number of significant tax cuts at the end of 2010 curtails the rise of household real disposable income and weighs on private consumption expenditure. The tax increases peak in 2011, leading to a limited 0.3 per cent growth in

the private sector rate of real take-home compensation, while real private sector wage costs jump by 2.6 per cent and produce a temporary spike in real unit labour costs. Over the 2008-2013 period, the US labour supply increases on average by 0.9 per cent per annum. This rise in the labour force, combined with a 0.8 per cent average annual rise in total employment, pushes the US unemployment rate up from 4.6 per cent of the civilian labour force in 2008 to 5.1 per cent in 2013.

Both private sector producer price inflation and consumer price inflation remain relatively subdued over the 2008-2013 period. Consumer prices post an average annual increase of 2.1 per cent, while the private sector output price increases on average by 1.9 per cent per annum. Inflation remains quite tame as the rise in taxes effectively limits growth in household real disposable income and as the price of oil falls from 68 \$US/bbl in 2008 to 65.6 \$US/bbl in 2013.

The nominal short-term interest rate is projected to trend downward over the 2008-2013 period, slipping from a year average level of 4.7 per cent in 2008 to 3.8 per cent in 2013. As inflation expectations for the coming years are assumed to remain well-anchored, the nominal long-term interest rate remains relatively stable around 4.9 per cent over the same period. In real terms - deflated by the index of household consumption expenditure - the short-term interest rate peaks at 2.7 per cent in 2007, then declines to 1.9 per cent in 2013. The real long-term rate follows a slight upward trend over the projection period, rising from a year average level of 2.7 per cent in 2008 to a full 3 per cent at the end of the projection period.

In light of the relatively high US interest rates and the milder inflation in the US than abroad, the dollar's nominal effective exchange rate is set to appreciate at an average annual rate of 2.7 per cent over 2008-2013. Due to the exceptionally tame progression of US export prices, the dollar's real effective exchange rate is however projected to depreciate on average by 0.6 per cent per annum over the same period. These outcomes crucially hinge on the assumption of unchanged risk premia on the dollar exchange rate, implying no abrupt and sharp reversal in market sentiment regarding the dollar, nor any significant retrenchment vis-à-vis the dollar by Asian central banks and Middle Eastern oil exporters, who have been major buyers of US financial assets in recent years.

Over the 2008-2013 period, fiscal revenue is projected to progress noticeably, chiefly due to the reduction of the exemption amounts for the AMT and the slated expiration of tax cut provisions originally enacted in the Economic Growth and Tax Relief Reconciliation Act (EGTRRA) of 2001 and the Jobs and Growth Tax Relief Reconciliation Act of 2003 (JGTRRA). The unaltered implementation of current fiscal laws and policies is projected to eliminate the US fiscal deficit by 2012 and lead to a budget surplus of 0.3 per cent of GDP in 2013.

#### Japan

The recent strong performance of the Japanese economy should continue unabated in 2007 with real GDP progressing by a strong 2.9 per cent on the year. Over the 2007-2013 period, GDP is expected to expand at an average annual rate of 2.2 per cent. However, a steady decline in both population and working-age population will undoubtedly weigh on the country's economic growth throughout the projection period. Consumer price inflation is expected to finally turn out positive at 0.2 per cent in 2007. Over the entire 2007-2013 period, consumer price inflation should average 1.3 per cent per annum. However, the risk of a return to deflation subsists as the simultaneous move to a neutral monetary policy stance and toward greater fiscal restraint could cripple the incipient domestic recovery and bring Japan back into a deflationary spiral.

Sustained strong economic growth and positive consumer price inflation are expected in 2007

Japanese real GDP is projected to continue to expand rapidly in 2007, growing by an impressive 2.9 per cent after rising by an already substantial 2.4 per cent in 2006. Growth is expected to be primarily supported by private consumption and business sector gross fixed capital formation. However, net exports should again provide a strong contribution to the economy's growth rate. More crucially, Japan is expected to finally shake off an eight-year streak of deflation in 2007.

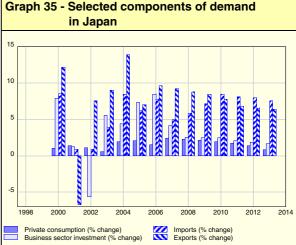
Private consumption growth is forecast to accelerate from 1.5 per cent in 2006 to 2.4 per cent in 2007 as real household disposable income is boosted by the rapid progression of real labour compensation rates, which build on the large and sustained gains in labour productivity over the 2000-2007 period.

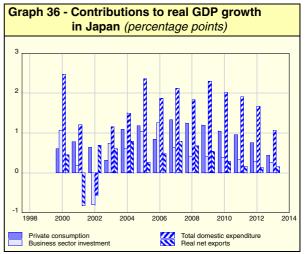
Total economy gross fixed capital formation should progress by a robust 3 per cent in 2007, compared with a 4 per cent increase in 2006. Investment in 2007 is expected to be particularly bolstered by a sharp 5.8 per cent progression of household investment in residential buildings, which continues to gain momentum after a prolonged 2.5 per cent average yearly decline over the 1996-2005 period. Residential investment rebounds from its previously declining trend as the economic recovery gathers pace, as real interest rate levels remain moderate and as household real disposable income progresses substantially. Business sector investment is also expected to rise significantly in 2007, posting a 4.1 per cent rise on the year. Public sector investment should pursue on its steadily declining course since 2000 and yield a further 3.4 per cent on the year.

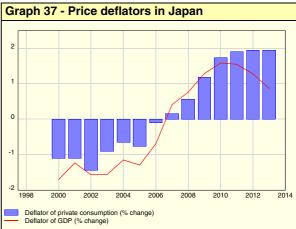
Japanese imports and exports of goods and services both progressed strongly in 2006, driven by robust foreign demand and two consecutive years of effective exchange rate depreciation. In 2007, exports should rise by an impressive 9.2 per cent, benefiting from strong rise in foreign effective demand and a further depreciation of the country's exchange rate. Import growth should fall off significantly however, increasing by just 4.9 per cent on the year as import demand is adversely affected by the rapid progression of import prices over the three previous years. As export growth edges up while import growth becomes more subdued, the contribution of net foreign trade to Japan's overall GDP growth rises to a weighty 0.8 percentage point.

Contrary to what had been widely announced and expected in 2006, it now appears that the reports of the death of deflation in Japan were greatly exaggerated. The deflator of private consumption expenditure in 2006 declined for an eighth consecutive year, even though the fall of inflation in 2006 was a mere 0.1 per cent. Many analysts of the Japanese economy<sup>1</sup> now expect positive year-on-year consumer price inflation to reappear in the course of 2007. Our current medium-term projection for Japan is produced assuming that inflation does indeed turn positive in 2007, reaching a year average rate of 0.2 per cent.

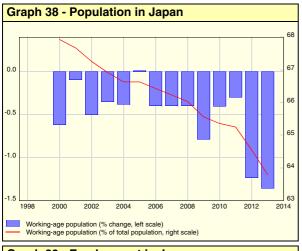


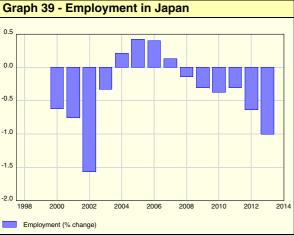


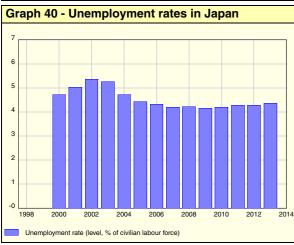




See: Bank of Japan, "Monthly Report of Recent Economic and Financial Developments", January 2007. http://www.boj.or.jp/en/index.htm









Growth in total employment was up by 0.4 per cent in 2006, while the labour supply progressed by only 0.3 per cent on the year. In 2007, job creation should be more severely constrained, rising by a paltry 0.1 per cent as the 0.4 per cent decline in the country's working-age population brings labour supply growth to a grinding halt. Already low, the unemployment rate edges down to 4.2 per cent of the labour force in 2007, bringing renewed pressure to bear on potential output growth and heightening wage claims. Indeed, ever scarcer labour resources lead to a sharp rise in the nominal rates of labour compensation, which increase by 2.3 per cent in 2007. The economy-wide real rate of take-home labour compensation rises by 2.1 per cent, while overall labour productivity progresses by 2.8 per cent. Hence total economy real unit labour costs post a 0.9 per cent decline on the year.

In 2006, the Bank of Japan put an end to its policy of massive quantitative easing and began to normalise its monetary policy stance, raising the short-term interest rate under the expectation that in 2006 the country's economy would be placed on a firm footing and have moved out of deflation. Assuming a positive 0.2 per cent annual rate of consumer price inflation in 2007, Japan's nominal short-term interest rate is projected to continue to rise and to come out at a year average level of 0.8 per cent in 2007. This should lead to a 0.2 percentage point rise in the real short-term rate, which edges up to a year average level of 0.6 per cent. The nominal long-term interest rate is expected to rise from 1.8 per cent in 2006 to 2.2 per cent in 2007. The return to positive rates of inflation and the still significantly higher nominal interest rates abroad allow for a further 2.1 per cent depreciation of Japan's nominal effective exchange rate.

The strong rise in the country's net export position, accompanied in 2007 by a now favourable evolution of its terms of trade, account for the significant increase in the country's current account position, with a surplus that rises from 3.5 per cent of GDP in 2006 to 4.2 per cent of GDP in 2007.

## Medium-term growth prospects are dented by mounting pressures from an ageing population

Over the 2008-2013 period, Japan's real GDP is projected to progress at an average annual rhythm of 2.1 per cent. However, demographic developments should constrain GDP growth to a regularly declining trend; growth is projected to tumble from 2.8 per cent in 2009 to a tepid 1.2 per cent in

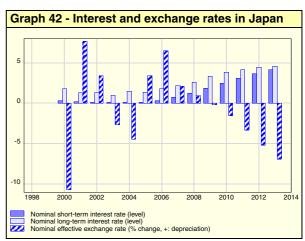
2013. Economic growth should continue to be based firmly on the expansion of domestic demand, while the positive contribution to growth of the country's net exports is expected to weaken noticeably throughout the projection period.

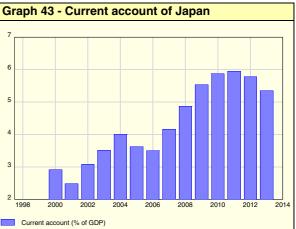
Growth in household consumption should decline from an annual rate of 2.3 per cent in 2008 to an uninspiring 0.8 per cent in 2013. Consumption growth is crimped by a sharp 0.5 per cent average annual decline in total employment, which stems from the fall in the country's working-age population. Consumer spending continues to progress solely on the back of rising rates of real labour compensation, which allows in turn for the continued positive - albeit declining - growth rates of total household real disposable income.

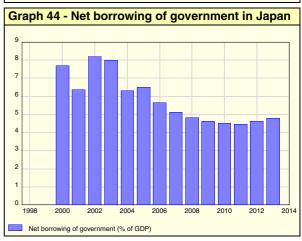
Enterprise sector gross fixed investment is projected to contribute significantly to the country's growth over 2008-2013, rising at an average annual rate of 2.2 per cent. However, the gradual fall in the rate of growth of private sector output is set to curtail the rise in gross fixed capital formation from 2010 through 2013. Business sector investment growth peaks at 2.6 per cent in 2008 and declines to just 1.7 per cent in 2013. Household investment in residential buildings is projected to grow on average by a strong 4.5 per cent per annum over the 2008-2013 period, underpinned by relatively low interest rates in the early years of the projection period and by a strong progression in household real disposable income. Public sector investment is projected to break with a nine year decline, turning positive in 2009 and rising at an average annual rate of 1.5 per cent over the 2008-2013 period. Over 2008-2013, economy-wide gross fixed investment rises at an average annual rate of 2.4 per cent; however, its rate of expansion declines from 3.3 per cent in 2009 to no more than 1.6 per cent in 2013.

The contribution of net exports to the growth rate of GDP declines from 0.7 percentage point in 2008 to just 0.2 per cent in 2013, averaging out at 0.3 percentage point per annum over the 2008-2013 period. The waning contribution of net exports over the projection horizon is due to declining export growth, which is constrained by the falling growth rate of private sector output, and the rapid appreciation of the country's effective exchange rate. Export growth reaches 8.8 per cent in 2008 and then falls off to a more modest 6.4 per cent rise in 2013. After slipping to 4.9 per cent in 2007, import growth rebounds to 8.5 per cent in 2010 before falling off to 7.6 per cent in 2013. Positive net exports, accompanied by generally favourable

terms of trade developments, raise the country's current account surplus from 4.9 per cent of GDP in 2008 to 5.9 per cent of GDP in 2010 and 2011. The current account surplus then dips to 5.4 per cent of GDP in 2013 as net export growth declines and as the country's terms of trade deteriorate noticeably.







From 2008 through 2013, Japanese working-age population is projected to decline sharply, falling at an average annual pace of 0.7 per cent. Assuming that current trends in labour productivity and labour participation rates remain relatively stable over the projection horizon, the fall in working-age population is expected to lead to a significant decline in the economy's production capacity and

underpin wage growth as firms vie for ever scarcer labour resources. However, inflation and robust productivity gains keep real unit labour costs under control. Private sector real unit labour costs fall over the entire projection period due to strong increases in labour productivity; economy-wide unit labour costs fall over 2008-2012 but rise in 2013 as economy-wide productivity gains fall below the rise in real wage costs.

Inflation is assumed to turn positive in 2007, then rise gradually to a peak of 2 per cent in 2012 before falling back to 1.9 per cent in 2013. Assuming that productivity growth, demographic developments and labour participation rates continue along current trends, the rise in private sector potential output will undoubtedly trail behind the rise of final demand and lead to heightened inflationary tensions. Real wage costs are not projected to contribute to inflation significantly as private sector real unit labour costs decline over the projection period. Consumer price inflation should average 1.5 per cent a year over 2008-2013, while the deflator of GDP should rise on average by 1.2 per cent per annum over the same period.

The still extremely accommodative real interest rates in the early years of the projection period, accompanied by rapidly escalating inflationary tensions, are expected to push Japanese monetary authorities to steadily increase nominal short-term interest rates through 2013. The nominal short-term rate should rise from a year average level of 1.3 per cent in 2008 to 4.2 per cent in 2013, implying a rise in the real short-term rate from an accommodative 0.7 per cent in 2008 to a more restrictive level of 2.2 per cent in 2013. The nominal long-term interest rate should follow suit and rise from a level of 2.6 per cent in 2008 to 4.6 per cent at the end of the projection period.

The regular rise in interest rates and relatively low inflation compared with foreign inflation rates is projected to lead to strong effective exchange rate appreciations over the latter years of the projection period. From 2008 through 2013, Japan's nominal effective exchange rate appreciates on average by 2.7 per cent per year, while the moderate rise in export prices limits the real exchange rate appreciation to an average of 1.3 per cent per annum.

The government's fiscal outlook should continue to improve through 2010. Over this period, fiscal restraint allows growth in total revenue to progress more rapidly than public spending. This

is reflected by a declining budget deficit, which slides from 4.8 per cent of GDP in 2008 to 4.5 per cent of GDP in 2011. As of 2012, growth in revenues falls off as the pace of economic expansion falters; at the same time, public spending rises on the back of a strong progression in transfers to households. This once again places the deficit on an upward course, leaving it at 4.8 per cent of GDP in 2013. This development underscores the importance of a resolute and longer-term approach to Japanese fiscal consolidation.

#### **The Eastern EU Member States**

Real GDP growth in the Eastern EU Member States<sup>1</sup> is projected to reach 4.7 per cent in 2007 and should come out at an average annual rate of 4.5 per cent over the 2007-2013 period. The area's rate of growth is firmly underpinned by a robust expansion of both household private consumption expenditure and aggregate gross fixed capital formation. The area's negative net export position should increasingly weigh on the rate of GDP growth. Inflation is expected to remain well-contained, with the deflator of private consumption increasing at an average annual rate of 2.1 per cent over 2007-2013.

# Robust consumer spending and investment should continue to drive the area's output growth in 2007

The Eastern Member States of the European Union are once again forecast to post a high rate of GDP growth in 2007; GDP should rise by 4.7 per cent on the year, down from 6.2 per cent in 2006 but still well above the 2.1 per cent growth rate forecast for the euro area in 2007. Growth in private consumption expenditure is forecast at 4.8 per cent in 2007. The continued pursuit of real convergence with the western Member States of the European Union is highlighted by the particularly high growth rates of aggregate gross fixed capital formation. Indeed, gross fixed investment is projected to progress by an impressive 7 per cent in 2007. At the same time, the area's overall economic growth should also be underpinned by a 3.2 per cent rise in overall public consumption. On balance, total domestic expenditure is expected to account for 5.3 percentage points on the year's overall rate of GDP growth.

<sup>1.</sup> The "Eastern EU Member States" comprise Bulgaria, Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovakia and Slovenia.

In 2007, the area's consolidated net external trade balance is once again expected to turn out negative, contributing a negative 0.6 percentage point to the area's overall rate of GDP growth. Exports should rise by a massive 10.2 per cent in 2007 as the area's real trade-weighted exchange rate depreciates for the second year in a row. Import volumes are expected to track the evolution of final aggregate demand and progress by 10.5 per cent on the year.

On the whole, the Eastern EU Member States should see their nominal effective exchange rate appreciate by 0.2 per cent in 2007, marking the fourth consecutive yearly appreciation.

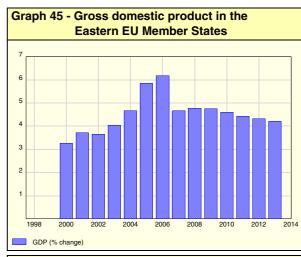
# Robust domestic demand growth leads to a steady widening of the area's current account deficit

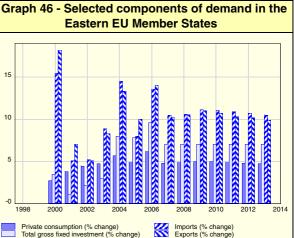
Real GDP of the Eastern EU Member States is projected to expand at an average annual rate of 4.5 over 2008-2013, far outstripping the 1.7 per cent growth of the euro area over the same period. The area's GDP growth is bolstered by a positive 5.5 percentage point average annual contribution from domestic demand, while net exports crimp overall GDP growth with a negative average annual contribution of 0.9 percentage point.

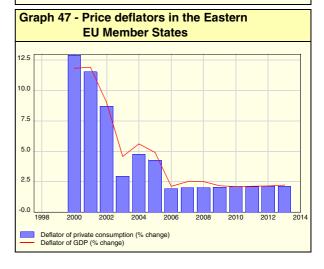
Private consumption is projected to expand on average by 4.9 per cent per annum over the 2008-2013 period. Household consumption expenditure increases at a relatively rapid pace as the area's consumption patterns tend to catch up with average consumption levels in the rest of the European Union.

Consumer price inflation is projected to stabilise around an average rate of 2.1 per cent per annum over the 2008-2013 period. The rise in domestic prices should remain generally well-contained as the area's nominal effective exchange rate follows a trend appreciation which tends to undermine inflationary tensions and as the monetary authorities strive to meet the required inflation, interest rate and exchange rate targets that will open the way to the full integration of the Eastern EU Member States' economies into the euro area.

Growth in economy-wide gross fixed capital formation averages 7 per cent per annum between 2008 and 2013. These high growth rates for capital investment reflect the continued efforts that are made to facilitate the ongoing transition of the area to a modern service-oriented market economy.







The area's nominal effective exchange rate is projected to appreciate by an average of 0.5 per cent per annum over the 2008-2013 period. At the same time, as the rise in domestic export prices remains more subdued than the rise in foreign effective prices, the area's real effective exchange rate is expected to depreciate at an average rate of 0.1 per cent per annum over 2008-2013. This real effective exchange rate depreciation should however prove to be very insufficient to curb the area's widening consolidated current account deficit, which is projected to jump from 3 per cent of GDP in 2008 to 4.9 per cent of GDP in 2013.

#### The Rest of the World

In 2006, gross output of the rest of the world progressed by 6.9 per cent, nearly equalling the stunning 7 per cent growth rates achieved in each of the two preceding years. Output growth should fall off to a somewhat cooler 5.5 per cent in 2007, expanding at an average annual rate of 5.5 per cent over the 2007-2013 period. Inflation is projected to remain relatively subdued, at an average annual rate of 4.7 per cent over the same period.

## Robust average output growth and stable inflation are projected over the 2007-2013 period

After achieving peak growth rates of 7 and 6.9 per cent respectively in 2005 and 2006, output growth in the rest of the world is now projected to decline to a more measured rate of 5.5 per cent in 2007. The current projection for the area comprising the "rest of the world" assumes that, in the absence of any major shocks to this area's economies, economic activity should stabilise around its trend rate of growth, progressing at an annual average pace of 5.5 per cent over the 2007-2013 period.

The projection also assumes that the rate of inflation in the rest of the world will stabilise at a year average level of 4.7 per cent over the projection horizon, consolidating the declining trend in world inflation that has been manifest since the mid-1990s.

Export growth from the rest of the world is projected to cool, declining from 8 per cent in 2006 to 3.5 per cent in 2007. Exports should progress at an average annual pace of 5 per cent over the entire 2007-2013 period. Import growth is expected to decline from 10.3 per cent in 2006 to a somewhat more tempered 7.4 per cent in 2007, progressing at an average annual rate of 6.3 per cent over the entire projection period.

Finally, after appreciating by 3.3 per cent and 1.2 per cent respectively in 2005 and 2006, the rest of the world's currencies are projected to reverse course and generally depreciate by 2.1 per cent in 2007. The area's nominal effective exchange rate is further projected to follow a steady trend depreciation averaging 4.2 per cent per annum over the entire 2007-2013 period. This trend depreciation of rest of the world's currencies comes mainly on the back of relatively lower rates of inflation in the other major economic areas of the world.

# Main uncertainties surrounding the 2007-2013 projection

Though this world economic outlook presents a relatively benign medium-term trajectory, there does appear to be a number of current concerns with respect to the short- to medium-term prospects of the world economy. In our view, the most prominent of these concerns, in terms of its potentially disruptive effects on the world economy, remains a possible abrupt and disorderly unwinding of the current significant trade and financial imbalances between regions of the world.

#### Massive global trade imbalances

The year 2006 brought a widening of the world's trade imbalances. The deficit on the US current account was accompanied by particularly large current account surpluses in Japan and the rest of the world. Clearly, the US deficit will eventually have to be resorbed, most probably through a reduction in domestic demand growth combined with an effective depreciation of the dollar. Such an adjustment could occur gradually through appropriate efforts at policy coordination; or more suddenly with an unexpected reversal in market sentiment, accompanied by an abrupt retrenchment by the Asian central banks and Middle Eastern oil exporting countries, which have been major buyers of US financial assets in recent years.

Though continued and resolute efforts are being made to avert abrupt and uncoordinated adjustments to trade and financial flows, and even if such occurrences can be qualified as "low probability events", they cannot be completely ruled out. Indeed, a hard landing of the US economy in the wake of the bursting of the US housing bubble could still materialise. Such a hard landing could trigger a sudden depreciation of the dollar, which could lead to a run on the dollar as more and more creditors decide to bail out of their dollar-denominated assets. Such a move could prompt the US monetary authorities to attempt to defend the dollar by raising interest rates, tipping the economy into recession. Widespread exchange rate instability could spill over into the world's real economy as countries heavily dependent on exports to the US find themselves faced with a protectionist backlash and caught up in a world-wide economic downturn.

### **Detailed World Area Tables - The Euro Area**

	2006	2007	2008	2009	2010	2011	2012	2013	Average 2007-2013
I. Aggregate demand and supply									2007-2013
1. Private consumption	2.0	1.6	1.9	2.0	1.9	1.7	1.6	1.5	1.8
2. Government consumption	2.0	1.4	1.3	1.7	1.7	1.9	1.9	1.8	1.7
Gross fixed capital formation	4.2	1.5	1.6	2.3	2.0	1.8	1.8	1.7	1.8
. of which business sector	4.4	1.9	2.0	2.9	2.5	2.3	2.1	2.1	2.3
4. Exports	8.4	5.8	5.7	5.6	5.4	5.1	4.9	4.8	5.3
5. Imports	7.8	3.3	5.6	5.9	6.5	5.8	5.7	5.5	5.5
Gross domestic product	2.6	2.1	1.8	2.0	1.7	1.7	1.6	1.5	1.8
7. Private sector value added	2.8	2.3	1.9	2.1	1.8	1.7	1.6	1.4	1.8
Private sector gross output	3.7	2.5	2.6	2.9	2.7	2.5	2.5	2.4	2.6
9. Output gap (deviation of GDP from trend GDP, in %)	-0.6	-0.1	-0.0	0.3	0.3	0.3	0.3	0.4	0.2
10. Contributions to real GDP growth									
a. Total domestic expenditure	2.2	1.5	1.7	2.0	1.9	1.7	1.7	1.6	1.7
b. Net exports	0.2	0.6	0.1	0.0	-0.1	-0.1	-0.1	-0.1	0.0
II. Deflators									
Private consumption	2.1	1.8	1.8	1.8	2.0	2.1	2.2	2.3	2.0
Gross fixed capital formation	3.0	2.3	1.7	1.3	1.0	0.9	8.0	0.7	1.2
. of which business sector	2.5	2.1	1.7	1.4	1.1	0.9	0.7	0.5	1.2
3. Exports	1.8	1.5	1.2	1.0	0.7	0.5	0.3	0.1	0.7
4. Imports	4.5	0.2	0.9	8.0	0.9	1.1	1.1	1.2	0.9
5. Gross domestic product	1.8	2.1	1.8	1.7	1.6	1.6	1.6	1.5	1.7
Private sector value added	1.8	2.0	1.8	1.7	1.7	1.6	1.6	1.5	1.7
7. Private sector output	2.2	1.7	1.6	1.5	1.4	1.4	1.4	1.4	1.5
III. Financial Markets									
1. Short-term interest rate (level)	3.1	4.0	3.9	3.9	4.1	4.3	4.6	4.9	4.3
2. Long-term interest rate (level)	3.8	4.4	4.3	4.3	4.5	4.6	4.8	5.0	4.6
3. Spot exchange rate, euro/\$US (level x 100)	79.7	79.3	79.3	79.2	79.0	78.6	78.1	77.3	78.7
4. Spot exchange rate, euro/\$US (+: depreciation)	-0.9	-0.5	-0.0	-0.1	-0.2	-0.5	-0.7	-1.0	-0.4
5. Nominal effective exchange rate (+: depreciation)	0.1	-1.9	-2.1	-2.4	-2.7	-3.0	-3.2	-3.4	-2.7
6. Real effective exchange rate (+: depreciation)	1.9	0.1	-0.0	-0.2	-0.2	-0.2	-0.2	-0.2	-0.1
IV. Labour Market									
1. Labour supply	0.8	8.0	0.9	0.8	8.0	0.7	0.6	0.5	0.7
2. Employment	1.4	1.2	1.1	0.9	0.7	0.6	0.5	0.4	8.0
. of which private sector	1.4	1.3	1.2	1.0	8.0	0.6	0.5	0.4	8.0
3. Unemployment rate (level, % of civilian labour force)	8.0	7.6	7.4	7.3	7.3	7.4	7.5	7.6	7.5
4. Nominal rate of labour compensation, private sector	2.2	2.4	2.8	3.1	3.4	3.5	3.5	3.6	3.2
5. Real take-home rate of labour compensation, private sector	-0.6	0.5	0.9	1.2	1.4	1.4	1.3	1.3	1.2
6. Real producer wage rate, private sector	0.0	0.7	1.3	1.6	1.9	2.0	2.1	2.2	1.7
7. Labour productivity (GDP per worker)	1.1	0.9	0.7	1.1	1.0	1.0	1.1	1.1	1.0
V. Household sector									
1. Total real means	1.7	1.5	1.5	1.4	1.1	0.9	8.0	0.6	1.1
. of which real disposable income	1.6	1.5	1.6	1.8	1.8	1.7	1.7	1.6	1.7
2. Net saving by households (level, % of disposable income)	8.7	8.6	8.4	8.4	8.4	8.5	8.7	8.9	8.5
VI. Fiscal sector									
1. Net lending (+) or borrowing (-) (% of GDP)	-2.0	-1.9	-1.6	-1.3	-1.0	-0.9	-0.9	-0.9	-1.2
2. Government gross debt (% of GDP)	69.5	68.6	67.8	66.7	65.5	64.3	63.2	62.2	65.5
VII. International environment									
1. Foreign effective output	6.3	4.6	4.7	4.9	4.8	4.6	4.5	4.4	4.6
2. Foreign effective output price	3.7	3.6	3.4	3.3	3.3	3.3	3.3	3.3	3.4
3. Foreign effective short-term interest rate (level)	4.5	4.7	4.6	4.5	4.5	4.4	4.3	4.3	4.5
4. Current account (level, % of GDP)	-0.1	0.9	1.2	1.3	1.3	1.1	0.9	0.6	1.0
VIII. Memo items									
	0.4	0.4	0.0	0.0	0.0				
Total population	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.3

All figures are year-on-year average growth rates, unless otherwise noted.

Slovenia became a full member of the euro area on 1 January 2007. For practical purposes however, the NIME model of the euro area continues to represent the 12 Member States that composed the euro area up to 2007 and Slovenia remains integrated within the NIME model's aggregate for the Eastern EU Member States. In 2006, Slovenia's GDP was equal to about 0.35% of euro area GDP; the exclusion of Slovenia from the NIME aggregate for the euro area will thus not affect projection results in any significant manner.

Exports and imports: consolidated trade flows.

The real effective exchange rate of the area is defined here as the ratio of the area's foreign effective output price to its export price, measured in the area's own currency.

## **Detailed World Area Tables - The Western Non-Euro EU Member States**

	2006	2007	2008	2009	2010	2011	2012	2013	Average 2007-2013
I. Aggregate demand and supply									2007-2013
Private consumption	2.5	2.2	2.7	3.1	3.2	3.0	2.7	2.4	2.8
2. Government consumption	1.9	3.5	3.4	3.9	3.8	3.6	3.6	3.5	3.6
3. Gross fixed capital formation	6.2	3.3	2.3	2.5	2.5	2.2	2.0	1.8	2.4
. of which business sector	4.8	2.0	2.3	2.4	2.3	2.2	2.1	2.0	2.2
4. Exports	15.2	6.1	6.1	6.3	6.2	5.9	5.8	5.6	6.0
5. Imports	15.1	5.5	5.7	5.8	5.8	5.6	5.5	5.3	5.6
6. Gross domestic product	2.8	2.8	2.9	3.3	3.3	3.0	2.8	2.6	3.0
7. Private sector value added	3.2	2.6	2.6	3.2	3.2	2.9	2.7	2.4	2.8
Private sector gross output	6.5	3.5	3.6	4.0	4.0	3.8	3.6	3.4	3.7
9. Output gap (deviation of GDP from trend GDP, in %)	-1.8	-1.3	-1.0	-0.5	0.1	0.5	0.7	0.9	-0.1
10. Contributions to real GDP growth									
a. Total domestic expenditure	3.1	2.7	2.8	3.2	3.2	3.0	2.8	2.6	2.9
b. Net exports	-0.2	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.1
II. Deflators									
1. Private consumption	2.4	2.3	1.7	1.8	2.0	2.2	2.4	2.6	2.2
2. Gross fixed capital formation	2.7	2.4	1.9	1.5	1.2	1.0	8.0	0.7	1.4
. of which business sector	2.1	1.8	1.5	1.2	1.0	0.9	0.7	0.7	1.1
3. Exports	2.7	1.4	1.1	1.0	0.9	0.9	1.0	1.0	1.1
4. Imports	3.1	1.8	1.5	1.6	1.7	1.7	1.7	1.8	1.7
5. Gross domestic product	2.6	2.4	1.4	1.3	1.4	1.6	1.7	1.8	1.7
6. Private sector value added	2.5	2.3	1.5	1.3	1.4	1.6	1.7	1.8	1.7
7. Private sector output	2.5	2.1	1.4	1.4	1.4	1.6	1.7	1.7	1.6
III. Financial Markets									
Short-term interest rate (level)	4.3	4.4	4.3	4.2	4.3	4.4	4.6	4.9	4.4
2. Long-term interest rate (level)	4.2	4.5	4.5	4.6	4.7	4.9	5.2	5.5	4.8
Spot exchange rate, local/euro (+: depreciation)	-0.1	0.4	0.1	0.4	0.6	0.7	0.7	0.6	0.5
4. Nominal effective exchange rate (+: depreciation)	-0.2	-1.0	-1.5	-1.5	-1.4	-1.5	-1.7	-1.9	-1.5
5. Real effective exchange rate (+: depreciation)	0.4	0.6	0.3	0.4	0.5	0.4	0.1	-0.1	0.3
IV. Labour Market									
1. Labour supply	1.3	0.2	0.4	0.4	0.3	0.2	0.1	-0.0	0.2
2. Employment	0.9	0.4	0.6	0.7	0.4	0.2	0.0	-0.1	0.3
. of which private sector	1.0	0.4	0.7	0.9	0.5	0.2	0.0	-0.1	0.4
3. Unemployment rate (level, % of civilian labour force)	5.5	5.3	5.1	4.8	4.7	4.7	4.8	4.8	4.9
Nominal rate of labour compensation, private sector	5.3	3.7	4.0	4.7	5.6	5.7	5.3	5.0	4.9
Real take-home rate of labour compensation, private sector	2.6	1.1	1.9	2.8	3.6	3.4	2.8	2.3	2.6
6. Real producer wage rate, private sector	2.4	1.6	2.6	3.3	4.1	4.1	3.6	3.2	3.2
7. Labour productivity (GDP per worker)	1.8	2.4	2.2	2.6	2.9	2.9	2.8	2.7	2.6
V. Household goster									
V. Household sector  1. Total real means	3.3	2.2	2.2	2.2	1.9	1.7	1.5	1.3	1.9
. of which real disposable income	2.8	2.3	3.0	3.5	3.9	3.7	3.4	3.1	3.3
Net saving by households (level, % of disposable income)	0.8	0.9	1.2	1.7	2.4	3.2	4.0	4.8	2.6
VI Figure contar									
VI. Fiscal sector	1 5	1.0	1.6	1.0	1.0	1.0	1.5	2.0	1 5
<ol> <li>Net lending (+) or borrowing (-) (% of GDP)</li> <li>Government gross debt (% of GDP)</li> </ol>	-1.5 42.9	-1.8 42.6	-1.6 42.4	-1.3 41.9	-1.2 41.1	-1.2 40.5	-1.5 40.2	-2.0 40.5	-1.5 41.3
2. Government gross debt (% of GDP)	42.9	42.0	42.4	41.9	41.1	40.5	40.2	40.5	41.3
VII. International environment									
Foreign effective output	5.1	3.9	4.0	4.2	4.0	3.8	3.8	3.7	3.9
Foreign effective output price	3.4	3.1	3.0	2.9	2.9	2.9	2.8	2.8	2.9
3. Foreign effective short-term interest rate (level)	3.9	4.4	4.2	4.2	4.3	4.3	4.3	4.4	4.3
4. Current account (level, % of GDP)	-1.0	-1.2	-1.4	-1.6	-1.9	-2.3	-2.6	-2.9	-2.0
VIII. Memo items									
1. Total population	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.4
2. Working-age population (% of total population)	66.2	66.3	66.3	66.4	66.3	66.2	66.1	65.8	66.2

All figures are year-on-year average growth rates, unless otherwise noted.

The "Western non-euro EU Member States" includes Denmark, Sweden and the United Kingdom.

Exports and imports: consolidated trade flows.

The real effective exchange rate of the area is defined here as the ratio of the area's foreign effective output price to its export price, measured in the area's own currency.

## **Detailed World Area Tables - The United States**

	2006	2007	2008	2009	2010	2011	2012	2013	Average 2007-2013
I. Aggregate demand and supply									
Private consumption	3.2	2.4	3.0	3.3	2.7	1.5	1.9	2.3	2.4
Government consumption	1.6	2.3	2.6	2.7	2.6	2.6	2.5	2.1	2.5
Gross fixed capital formation	4.0	2.9	2.2	2.7	3.2	2.6	2.8	3.0	2.8
. of which business sector	7.6	4.5	2.2	2.5	3.6	3.4	3.5	3.5	3.3
4. Exports	8.6	7.2	7.5	8.0	8.0	7.9	7.8	7.5	7.7
5. Imports	6.6	4.7	6.6	6.1	6.0	4.7	5.1	5.3	5.5
6. Gross domestic product	3.4	2.6	2.7	3.2	2.8	2.1	2.4	2.6	2.6
7. Private sector value added	3.6	2.7	2.7	3.2	2.8	2.0	2.3	2.6	2.6
8. Private sector gross output	4.0 0.2	3.0 0.4	3.3 0.3	3.7 0.7	3.3 0.7	2.5 0.1	2.8 0.0	3.1 0.2	3.1 0.3
<ol> <li>Output gap (deviation of GDP from trend GDP, in %)</li> <li>Contributions to real GDP growth</li> </ol>	0.2	0.4	0.5	0.7	0.7	0.1	0.0	0.2	0.5
a. Total domestic expenditure	3.5	2.6	2.9	3.3	2.9	1.9	2.3	2.6	2.6
b. Net exports	-0.2	0.0	-0.3	-0.1	-0.1	0.2	0.1	0.1	-0.0
2. Hot oxporto	0.2	0.0	0.0	0.1	0.1	0.2	0.1	0.1	0.0
II. Deflators									
1. Private consumption	3.1	2.3	2.1	2.0	2.1	2.1	2.0	2.0	2.1
2. Gross fixed capital formation	4.0	4.6	4.2	3.4	2.6	2.0	1.7	1.6	2.9
. of which business sector	4.4	5.1	4.5	3.6	2.7	2.1	1.9	1.9	3.1
3. Exports	3.4	2.8	1.1	0.2	-0.1	-0.1	0.1	0.4	0.6
4. Imports	4.6	0.7	1.7	1.6	1.7	1.7	1.7	1.8	1.5
5. Gross domestic product	3.2	3.4	2.4	2.1	1.9	1.8	1.7	1.7	2.1
Private sector value added	3.2	3.4	2.5	2.1	1.9	1.8	1.6	1.6	2.1
7. Private sector output	3.4	3.0	2.3	2.0	1.9	1.7	1.6	1.6	2.0
III. Financial Markets									
Short-term interest rate (level)	5.2	4.9	4.7	4.5	4.4	4.2	4.0	3.8	4.4
2. Long-term interest rate (level)	4.8	4.8	4.8	4.8	4.9	4.9	5.0	5.0	4.9
3. Spot exchange rate, \$US/euro (level x 100)	125.5	126.1	126.1	126.2	126.6	127.2	128.1	129.3	127.1
4. Spot exchange rate, \$US/euro (+: depreciation)	0.9	0.5	0.0	0.1	0.3	0.5	0.7	1.0	0.4
5. Nominal effective exchange rate (+: depreciation)	0.5	-1.8	-2.6	-2.8	-2.8	-2.7	-2.6	-2.4	-2.5
6. Real effective exchange rate (+: depreciation)	0.8	-1.0	-0.2	0.5	0.8	0.9	0.7	0.6	0.3
IV. Labour Market									
1. Labour supply	1.3	0.7	1.0	1.0	1.0	1.0	0.8	0.7	0.9
2. Employment	1.7	0.7	1.1	1.3	1.0	0.4	0.5	0.7	0.8
. of which private sector	1.7	0.7	1.1	1.4	1.0	0.3	0.5	0.7	0.8
3. Unemployment rate (level, % of civilian labour force)	4.7	4.7	4.6	4.3	4.3	4.8	5.1	5.1	4.7
4. Nominal rate of labour compensation, private sector	6.3	5.2	4.3	3.8	4.0	4.4	4.0	3.5	4.2
5. Real take-home rate of labour compensation, private sector	1.7	2.0	1.4	2.0	1.6	0.4	0.7	1.3	1.3
6. Real producer wage rate, private sector	2.7	2.2	1.9	1.7	2.1	2.6	2.3	1.9	2.1
7. Labour productivity (GDP per worker)	1.6	1.9	1.5	1.8	1.8	1.7	1.9	2.0	1.8
V. Household sector									
Total real means	3.7	3.3	2.9	2.5	2.1	1.8	1.8	1.9	2.3
. of which real disposable income	2.0	1.5	3.1	3.7	3.2	1.9	2.4	3.0	2.7
Net saving by households (level, % of disposable income)	1.0	0.2	0.4	0.8	1.4	1.8	2.3	2.9	1.4
VI. Fiscal sector									
Net lending (+) or borrowing (-) (% of GDP)	-2.2	-1.8	-1.4	-1.3	-1.0	-0.2	0.3	0.3	-0.7
VII. International environment									
Foreign effective output	5.9	4.6	4.7	4.8	4.7	4.6	4.5	4.4	4.6
Foreign effective output price	3.7	3.6	3.6	3.6	3.6	3.6	3.6	3.5	3.6
Foreign effective short-term interest rate (level)	3.6	4.0	4.0	4.0	4.1	4.2	4.1	4.1	4.1
4. Current account (level, % of GDP)	-6.5	-5.9	-6.0	-6.1	-6.2	-6.2	-6.3	-6.3	-6.2
VIII Marra Sarra									
VIII. Memo items 1. Total population	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Working-age population (% of total population)	67.0	67.0	67.1	67.0	66.9	66.7	66.4	66.0	66.7
2. Training age population (70 of total population)	01.0	07.0	07.1	07.0	00.3	00.7	00.4	00.0	00.7

All figures are year-on-year average growth rates, unless otherwise noted.

The real effective exchange rate of the country is defined here as the ratio of the country's foreign effective output price to its export price, measured in the country's own currency.

## **Detailed World Area Tables - Japan**

	2006	2007	2008	2009	2010	2011	2012	2013	Average 2007-2013
I. Aggregate demand and supply									
Private consumption	1.5	2.4	2.3	2.2	1.9	1.8	1.4	0.8	1.8
2. Government consumption	0.4	0.0	0.4	2.0	1.7	2.3	2.5	1.6	1.5
Gross fixed capital formation	4.0	3.0	2.4	3.3	2.9	2.4	2.1	1.6	2.5
. of which business sector	8.5	4.1	2.6	2.5	2.5	2.1	1.8	1.7	2.5
4. Exports	9.6	9.2	8.8	8.5	7.8	6.8	6.6	6.4	7.7
5. Imports	7.7	4.9	5.8	7.2	8.5	8.1	8.0	7.6	7.2
6. Gross domestic product	2.4	2.9	2.5	2.8	2.3	2.1	1.8	1.2	2.2
7. Private sector value added	2.5	3.3	2.7	3.0	2.4	2.1	1.7	1.2	2.3
8. Private sector gross output	3.1	3.5	3.0	3.5	3.1	2.8	2.6	2.1	2.9
9. Output gap (deviation of GDP from trend GDP, in %)	0.6	1.2	1.3	2.0	2.1	1.9	1.7	1.3	1.7
10. Contributions to real GDP growth									
a. Total domestic expenditure	1.8	2.1	1.8	2.3	2.0	1.9	1.7	1.1	1.8
b. Net exports	0.5	0.8	0.7	0.5	0.3	0.2	0.1	0.2	0.4
II. Deflators									
Private consumption	-0.1	0.2	0.6	1.2	1.7	1.9	2.0	1.9	1.3
2. Gross fixed capital formation	-0.1	0.2	0.2	0.3	0.5	0.6	0.7	0.6	0.4
. of which business sector	-0.3	0.0	0.2	0.3	0.6	0.8	0.8	0.7	0.5
3. Exports	5.7	2.9	3.1	3.1	2.7	1.7	0.4	-1.1	1.8
4. Imports	9.7	2.1	1.4	0.7	0.6	0.5	0.4	0.2	0.8
5. Gross domestic product	-0.7	0.4	0.8	1.3	1.6	1.5	1.3	0.9	1.1
6. Private sector value added	-0.8	0.3	0.8	1.5	1.7	1.6	1.3	0.9	1.2
7. Private sector output	0.7	0.6	1.0	1.5	1.7	1.7	1.4	1.0	1.3
III. Financial Markets									
1. Short-term interest rate (level)	0.3	0.8	1.3	1.9	2.5	3.1	3.7	4.2	2.5
2. Long-term interest rate (level)	1.8	2.2	2.6	3.3	3.8	4.2	4.4	4.6	3.6
3. Spot exchange rate, yen/euro (level)	146.0	151.4	155.5	158.4	159.6	158.3	154.4	148.3	155.1
4. Spot exchange rate, yen/euro (+: depreciation)	6.7	3.7	2.7	1.8	0.8	-0.8	-2.4	-3.9	0.3
5. Nominal effective exchange rate (+: depreciation)	6.5	2.1	0.9	-0.2	-1.5	-3.3	-5.2	-6.9	-2.0
6. Real effective exchange rate (+: depreciation)	4.6	2.8	1.1	-0.1	-1.1	-2.0	-2.7	-3.0	-0.7
IV. Labour Market									
1. Labour supply	0.3	-0.0	-0.1	-0.4	-0.3	-0.2	-0.6	-0.9	-0.4
2. Employment	0.4	0.1	-0.1	-0.3	-0.4	-0.3	-0.6	-1.0	-0.4
. of which private sector	0.4	0.2	-0.1	-0.3	-0.3	-0.3	-0.7	-1.0	-0.4
3. Unemployment rate (level, % of civilian labour force)	4.3	4.2	4.2	4.2	4.2	4.3	4.3	4.4	4.2
4. Nominal rate of labour compensation, private sector	0.8	2.6	3.0	3.4	3.9	3.8	3.6	3.2	3.4
5. Real take-home rate of labour compensation, private sector	0.5	2.4	2.4	2.2	2.1	1.9	1.6	1.3	2.0
6. Real producer wage rate, private sector	0.0	2.0	1.9	1.9	2.1	2.2	2.2	2.2	2.1
Labour productivity (GDP per worker)	1.9	2.8	2.7	3.2	2.7	2.4	2.5	2.3	2.6
V. Household sector									
Total real means	1.7	2.2	2.0	1.5	1.3	1.2	0.7	0.2	1.3
					2.3	2.2	2.1	1.6	2.2
. of which real disposable income  2. Net saving by households (level, % of disposable income)	1.5 3.8	2.3 3.8	2.3 4.0	2.4 4.3	4.8	5.4	6.2	7.0	5.1
VI. Fiscal sector	F 0	F 4	4.0	4.0	4.5	4.5	4.0	4.0	4.7
Net lending (+) or borrowing (-) (% of GDP)	-5.6	-5.1	-4.8	-4.6	-4.5	-4.5	-4.6	-4.8	-4.7
VII. International environment									
Foreign effective output	5.5	4.2	4.3	4.5	4.3	4.0	4.1	4.1	4.2
Foreign effective output price	3.8	3.6	3.3	3.2	3.1	3.1	3.1	3.1	3.2
3. Foreign effective short-term interest rate (level)	4.8	4.8	4.5	4.4	4.4	4.3	4.1	4.1	4.4
4. Current account (level, % of GDP)	3.5	4.2	4.9	5.5	5.9	5.9	5.8	5.4	5.4
VIII. Memo items									
1. Total population	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.2	-0.2	-0.1
2. Working-age population (% of total population)									

All figures are year-on-year average growth rates, unless otherwise noted.

The real effective exchange rate of the country is defined here as the ratio of the country's foreign effective output price to its export price, measured in the country's own currency.

### **Detailed World Area Tables - The Eastern EU Member States**

	2006	2007	2008	2009	2010	2011	2012	2013	Average 2007-2013
I. Aggregate demand and supply									
Private consumption	6.2	4.8	4.9	5.0	4.9	4.9	4.8	4.7	4.8
Gross fixed capital formation	9.6	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
3. Exports	14.0	10.2	10.5	11.0	10.7	10.3	10.2	9.9	10.4
4. Imports	13.6	10.5	10.6	11.1	11.1	10.9	10.7	10.5	10.8
5. Gross domestic product	6.2	4.7	4.8	4.8	4.6	4.4	4.3	4.2	4.5
II. Deflators									
1. Private consumption	1.9	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1
2. Gross fixed capital formation	2.8	2.3	1.9	1.7	1.8	1.9	2.0	2.1	2.0
3. Exports	0.6	2.4	2.9	2.4	2.2	2.2	2.1	2.1	2.3
4. Imports	1.6	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
5. Gross domestic product	2.1	2.5	2.5	2.2	2.1	2.1	2.2	2.2	2.2
III. Financial variables									
1. Short-term interest rate (level)	4.4	6.6	7.0	6.7	6.9	7.1	7.4	7.8	7.1
2. Long-term interest rate (level)	5.3	7.0	7.4	7.1	7.3	7.5	7.8	8.2	7.5
3. Nominal exchange rate, local/euro (+: depreciation)	-2.2	1.1	1.3	1.5	1.6	1.8	2.0	2.1	1.6
4. Nominal exchange rate, local/\$US (+: depreciation)	-3.1	0.6	1.2	1.4	1.4	1.3	1.2	1.1	1.2
5. Nominal effective exchange rate (+: depreciation)	-2.1	-0.2	-0.4	-0.4	-0.5	-0.5	-0.6	-0.6	-0.4
6. Real effective exchange rate (+: depreciation)	0.5	0.4	-0.3	0.1	0.2	0.2	0.2	0.2	0.2
IV. International environment									
1. Foreign effective output	5.3	3.9	4.0	4.2	4.1	3.9	3.9	3.8	4.0
2. Foreign effective output price	3.4	3.1	3.0	2.9	2.9	2.9	2.9	2.9	2.9
3. Foreign effective short-term interest rate (level)	4.0	4.4	4.2	4.2	4.3	4.3	4.3	4.4	4.3
4. Current account (level, % of GDP)	-3.2	-3.3	-3.0	-3.1	-3.3	-3.8	-4.3	-4.9	-3.7

All figures are year-on-year average growth rates, unless otherwise noted.

The "Eastern EU Member States" comprise Bulgaria, Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovakia and Slovenia.

Exports and imports: consolidated trade flows.

The real effective exchange rate of the area is defined here as the ratio of the area's foreign effective output price to its export price, measured in the area's own currency.

### **Detailed World Area Tables - The Rest of the World**

	2006	2007	2008	2009	2010	2011	2012	2013	Average 2007-2013
Aggregate demand and supply									
1. Gross output	6.9	5.5	5.6	5.6	5.5	5.5	5.4	5.3	5.5
2. Exports	8.0	3.5	5.6	5.2	5.8	4.8	4.9	5.0	5.0
3. Imports	10.3	7.4	6.8	6.5	6.2	5.9	5.7	5.5	6.3
II. Deflators									
1. Output	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
2. Exports, in euro	4.1	-0.6	1.6	1.9	2.0	2.0	1.9	1.8	1.5
3. Imports, in euro	0.6	1.1	1.6	1.4	1.1	0.7	0.3	-0.1	0.9
4. Price of oil (Brent, \$US/bbl)	67.3	64.9	68.0	67.8	67.1	66.4	65.8	65.6	66.5
III. Financial variables									
1. Nominal exchange rate, local/euro (+: depreciation)	-0.3	3.0	3.7	4.2	4.6	5.1	5.6	6.0	4.6
2. Nominal exchange rate, local/\$US (+: depreciation)	-1.2	2.5	3.6	4.1	4.3	4.6	4.8	4.9	4.1
3. Nominal effective exchange rate (+: depreciation)	-1.2	2.1	3.1	3.7	4.2	4.8	5.4	5.9	4.2
4. Real effective exchange rate (+: depreciation)	-2.6	1.8	-0.3	-0.6	-0.8	-0.7	-0.4	-0.3	-0.2
IV. International environment									
1. Foreign effective output	4.2	3.1	3.2	3.5	3.3	2.9	2.9	2.9	3.1
2. Foreign effective output price	2.4	2.1	1.9	1.7	1.7	1.7	1.6	1.5	1.7
3. Foreign effective short-term interest rate (level)	5.2	4.9	4.7	4.5	4.4	4.2	4.0	3.8	4.4

All figures are year-on-year average growth rates, unless otherwise noted.

Exports and imports: consolidated trade flows.

The real effective exchange rate of the area is defined here as the ratio of the area's foreign effective output price to its export price, measured in the area's own currency.

95% confidence intervals for	selected varia	ables (v	ariables ir	n growth ra	ates)			
		2007	2008	2009	2010	2011	2012	2013
	Confidence bounds				Growth rat	'es		
The euro area								
	Upper bound	2.9	2.6	2.9	2.7	2.7	2.8	2.7
Gross domestic product	Sample mean	2.1	1.8	2.0	1.7	1.7	1.6	1.5
	Lower bound	1.4	0.9	1.1	0.7	0.6	0.4	0.2
	Upper bound	2.3	2.3	2.4	2.6	2.7	3.0	3.1
Deflator of private consumption	Sample mean	1.8	1.8	1.8	2.0	2.1	2.2	2.3
	Lower bound	1.3	1.3	1.2	1.3	1.4	1.5	1.5
The Western non-euro EU Member States								
	Upper bound	3.6	3.8	4.3	4.4	4.1	3.9	3.7
Gross domestic product	Sample mean	2.8	2.9	3.3	3.3	3.0	2.8	2.6
	Lower bound	2.0	1.9	2.3	2.4	2.0	1.7	1.5
	Upper bound	3.0	2.4	2.6	2.9	3.1	3.3	3.6
Deflator of private consumption	Sample mean	2.3	1.7	1.8	2.0	2.2	2.4	2.6
	Lower bound	1.7	1.0	1.0	1.2	1.4	1.6	1.7
The United States								
	Upper bound	3.3	3.5	4.1	3.7	3.0	3.3	3.5
Gross domestic product	Sample mean	2.6	2.7	3.2	2.8	2.1	2.4	2.6
	Lower bound	1.9	1.9	2.3	1.9	1.3	1.6	1.7
	Upper bound	2.6	2.5	2.4	2.5	2.5	2.5	2.4
Deflator of private consumption	Sample mean	2.3	2.1	2.0	2.1	2.1	2.0	2.0
	Lower bound	2.0	1.7	1.7	1.7	1.7	1.6	1.5
Japan								
	Upper bound	3.7	3.4	3.8	3.1	3.0	2.8	2.2
Gross domestic product	Sample mean	2.9	2.5	2.8	2.3	2.1	1.8	1.2
	Lower bound	2.1	1.6	2.0	1.4	1.1	0.9	0.2
	Upper bound	0.9	1.3	2.0	2.6	2.9	2.9	3.0
Deflator of private consumption	Sample mean	0.2	0.6	1.2	1.7	1.9	2.0	1.9
	Lower bound	-0.6	-0.2	0.3	0.8	0.9	1.0	0.9

Euro area: Detailed probabili	ty distribution	s for s	elected	d variat	oles			
		2007	2008	2009	2010	2011	2012	2013
	Growth rates (YoY)				Probabilities	3		
	> 3	2.0	0.5	3.1	1.9	1.7	2.7	2.0
	2.5 - 3.0	17.7	6.4	14.1	7.4	7.7	6.9	6.5
	2.0 - 2.5	41.4	25.7	32.6	20.1	21.8	17.1	15.4
Real gross domestic product	1.5 - 2.0	31.3	37.7	31.2	34.2	27.4	27.2	22.6
neal gross domestic product	1.0 - 1.5	6.9	22.7	15.2	24.4	26.3	24.2	27.7
	0.5 - 1.0	0.7	6.1	3.8	10.1	11.7	15.2	16.4
	0.0 - 0.5	0.0	0.8	0.0	1.9	3.0	5.5	6.6
	< 0	0.0	0.1	0.0	0.0	0.4	1.2	2.8
	> 3	0.0	0.0	0.0	0.3	0.9	3.7	7.0
	2.5 - 3.0	0.3	1.1	1.7	8.1	13.8	21.4	24.1
	2.0 - 2.5	32.3	29.1	27.9	40.6	41.5	38.7	38.8
Deflator of private consumption	1.5 - 2.0	49.8	52.6	48.8	39.1	36.4	30.6	24.8
Deliator of private consumption	1.0 - 1.5	17.6	17.1	20.7	11.6	7.2	5.5	5.2
	0.5 - 1.0	0.0	0.1	0.9	0.3	0.2	0.1	0.1
	0.0 - 0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	< 0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### **Underlying Technical Assumptions of the 2007-2013 NIME Economic Outlook**

The January 2007 NEO is produced with a version of the NIME model which is based on data from the most recent AMECO database of the European Commission, data from the Direction of Trade Statistics and the International Financial Statistics of the International Monetary Fund, and the World Population Prospects of the United Nations as well as demographic projections from various national sources. The AMECO database<sup>1</sup> provides historical and estimated data for the 1970-2005 period and forecasts for 2006, as published in the European Commission's Autumn 2006 Economic Forecasts.

#### Calibration of the projection for 2006 and 2007

At the end of January 2007, we updated the NIME model's data for variables such as GDP growth, oil prices, interest rates and exchange rates, on the basis of the latest available historical data, short-term indicators, forecasts and futures data. On the basis of these revised estimates for 2006 and after having integrated the most recent data from leading indicators and forecasts for 2007, we ran our macroeconometric model to generate the current projection for the entire 2007-2013 period.

#### Medium-term trends

The NIME model's underlying trend values, such as trend productivity growth (i.e. growth in private sector gross output per worker), the equilibrium real interest rate (i.e. the long-term nominal interest rate deflated by the consumer price index) and secular inflation (with the exception of secular inflation in Japan, which is assumed to rise gradually as of 2007), were set to their latest available estimates and maintained constant over the projection period. These estimates were obtained by applying a Hodrick-Prescott filter to the historical data. Trend values for population are based on the latest official data from national sources, from Eurostat, and from the latest 2004 revision of the United Nations' "World Population Prospects". The outlook's oil price scenario is based on oil price futures, as quoted in commodity markets in January 2007.

The table below shows the medium-term trend values for labour productivity growth, the equilibrium real interest rate, secular inflation, population growth, labour supply growth and the price of oil. These trend values are kept constant throughout the simulation period, except for oil prices and population data.

Main medium-term trend values for the							
2007-2013 World Economic Outlook							
	Euro	Western	United	Japan			
	area	non-euro	States				
		EU					
Labour productivity growth a, b	0.9	2.4	1.8	2.5			
Equilibrium real interest rate	1.9	2.5	2.0	2.2			
Secular inflation	1.9	1.9	2.2	1.3 <sup>b</sup>			
Population growth <sup>b</sup>	0.3	0.4	0.9	-0.1			
Trend labour supply growth <sup>b</sup>	0.6	0.3	1.0	-0.5			
Price of oil (Brent, \$US/bbl) b	66.5	66.5	66.5	66.5			
<sup>a</sup> GDP per worker <sup>b</sup> 2007-2013 average							

The main changes to the long-term variables as compared with the August 2006 edition are the following. Trend labour productivity growth has generally been revised upward by 0.1 to 0.4 percentage point (p.p.), except for the US where it has been revised down by 0.2 p.p. The real natural rate of interest in the US has fallen by 50 basis points. Secular inflation has been revised upward except for Japan. The price of oil has fallen from a period average of 73.4 \$US/bbl to 66.5 \$US/bbl.

Finally, due to the limited scope of the available data for the Eastern EU Member States, the 2007-2013 projections of this area's gross investment and public consumption are set equal to the 2003-2007 average of the values available in the latest AMECO database.

### Monetary and fiscal policies

With respect to the conduct of fiscal policy, we make use of a constant policy assumption. However, whenever possible, the anticipated effects of existing legislation are taken into account. This is of particular relevance for the United States where, under current laws and policies, various tax cut provisions are due to sunset over the projection horizon<sup>2</sup>. With respect to monetary policy, we assume that short-term interest rates follow a Taylor rule, embedded in a partial adjustment scheme.

The AMECO database is available on the Commission's website. http://ec.europa.eu/economy\_finance/indicators/annual\_macro\_economic\_database/ameco\_en.htm

The European Commission's *Autumn 2006 Economic Forecasts* are available on the Commission's website.

http://ec.europa.eu/economy\_finance/publications/european\_economy/forecasts\_en.htm

See the US Congressional Budget Office's latest outlook: "The Budget and Economic Outlook: Fiscal years 2008 to 2017", January 2007. Internet: http://www.cbo.gov/budget/budproj.shtml

### The NIME Model of the World Economy

The NIME model is a macroeconometric world model developed by economists at the Belgian Federal Planning Bureau. The model is used to make medium-term projections for the international economy, as well as to study the transmission mechanisms of economic policies and exogenous shocks.

In the current version of the NIME model, the world is divided into six blocs, i.e. the euro-12 area, the bloc consisting of the three Western non-euro EU Member States, the twelve Eastern EU Member States, the United States, Japan and a bloc representing the rest of the world. All of these areas are linked together through trade and financial flows. Data for the euro area is aggregated using ECU/euro exchange rates. Data for the Western and for the Eastern EU Member States are aggregated into synthetic currency units.

In all of these blocs but two, i.e. the Eastern EU Member States and the rest of the world, we distinguish a household sector, an enterprise sector, a government sector and a monetary sector. A similar set of behavioural equations and accounting identities is specified for each sector across blocs, while the parameter values of the equations are obtained using econometric techniques applied to the aggregated, annual data of the different blocs.

The household sector allocates its total available means over goods and services, real money balances, residential buildings and other assets as a function of the nominal interest rate, the real interest rate, the user cost of residential buildings and a scale variable. This scale variable consists of the household sector's assets (including bonds and residential buildings), its current income from assets, its current and expected future take-home labour income and its transfers. Error correction mechanisms and partial adjustment schemes are used to capture sluggish adjustment in household's expenditure plans. Moreover, households are liquidity-constrained in the short-run, implying that a fraction of its expenditures must be financed by disposable income.

The enterprise sector maximises its profits by hiring production factors and selling its output to final users. Gross output consists of goods for private consumption, investment and exports. There are three production factors: labour, fixed capital and intermediary imports. Error correction mechanisms and partial adjustment schemes are used to model the short-run demand for the production factors. In these demand schemes, the long-run factor demand equations are derived from a Cobb-Douglas production function with constant returns to scale.

Prices and wages are not fully flexible and clear the markets only in the long run. Moreover, country blocs are engaged in multilateral trade where importers are price setters and exporters are price takers, except for the price of oil which is determined outside the model. The (equilibrium) real wage rate is a weighted average of labour productivity and the reservation wage, while the natural rate of unemployment is determined by the gap between the take-home wage and the reservation wage of the employees.

Government income is determined by endogenous tax bases and predetermined tax rates, while its expenditures are to a large extent determined by the business cycle and trend growth. The automatic fiscal stabilisers operate on the expenditure side mainly through unemployment benefits and interest payments on government gross debt and, on the revenue side, mainly through direct wage income taxes, profit taxes, social security contributions and indirect taxes.

Short-term interest rates are set according to the Taylor principle. This implies that the monetary authorities increase (decrease) the short-term nominal interest rate more than proportionally to increases (decreases) in inflation, thus increasing (decreasing) real interest rates when inflationary pressures arise (subside). It also implies that the monetary authorities keep the short-term interest rate below (above) the equilibrium interest rate if demand is below (above) potential output. Long-term interest rates are determined by the term structure theory of interest rates. In this outlook, changes in an area's nominal effective exchange rate are determined by changes in the interest rate differential and the (expected) inflation differential. The risk premia in the financial markets are assumed to remain constant.

### **Selected NIME Studies and Publications**

#### Case studies, technical variants and outlooks

Meyermans and Van Brusselen (2005.b) assessed the impact of an oil price shock on the world economy, while Meyermans and Van Brusselen (2005.d) studied the interactions between monetary policy, asset prices and economic growth in the world economy over the 1995-2004 period. Meyermans and Van Brusselen (2006.b) use stochastic simulation to assess the risks surrounding a medium-term projection for the world economy. Finally, Meyermans and Van Brusselen (2004, 2005.a, 2005.c, 2006.a and 2006.c) used the NIME model to produce economic outlooks for the world economy for the periods 2004-2010, 2005-2011, and 2006-2012.

### Selected NIME publications

Meyermans, E. and Van Brusselen, P. (2000.a), "The NIME Model: Specification and Estimation of the Demand Equations of the Household Sector", Working Paper 8-00, Federal Planning Bureau.

Meyermans, E. and Van Brusselen, P. (2000.b), "The NIME Model: Specification and Estimation of the Enterprise Sector", Working Paper 10-00, Federal Planning Bureau.

Meyermans, E. and Van Brusselen, P. (2001), "The NIME Model: A Macroeconometric World Model", Working Paper 3-01, Federal Planning Bureau.

Meyermans, E. and Van Brusselen, P. (2004), "The NIME Economic Outlook for the World Economy: 2004-2010. Also in this issue: Oil Price Shocks", Working Paper 16-05, Federal Planning Bureau.

Meyermans, E. and Van Brusselen, P. (2005.a), "The NIME Economic Outlook for the World Economy: 2005-2011. Also in this issue: The Lisbon Strategy", Working Paper 02-05, Federal Planning Bureau.

Meyermans, E. and Van Brusselen, P. (2005.b), "The Macroeconomic Effects of an Oil Price Shock on the World Economy. A Simulation with the NIME Model", Working Paper 6-05, Federal Planning Bureau.

Meyermans, E. and Van Brusselen, P. (2005.c), "The NIME Economic Outlook for the World Economy: 2005-2011. Focus: Monetary Policy, Asset Prices and Economic Growth", August 2005, Federal Planning Bureau.

Meyermans, E. and Van Brusselen, P. (2005.d), "Monetary Policy, Asset Prices and Economic Growth in the World Economy over the 1995-2004 Period. A Counterfactual simulation with the NIME Model", Working Paper 17-05, Federal Planning Bureau.

Meyermans, E. and Van Brusselen, P. (2006.a), "The NIME Economic Outlook for the World Economy: 2006-2012. Focus: The macroeconomic effects of a shift from direct to indirect taxes in the euro area", January 2006, Federal Planning Bureau, Brussels.

Meyermans, E. and Van Brusselen, P. (2006.b), "An Evaluation of the Risks Surrounding the 2006-2012 NIME Economic Outlook. Illustrative Stochastic Simulations", Working Paper 2-06, Federal Planning Bureau.

Van Brusselen, P. (2006.c), "The NIME Outlook for the World Economy: 2006-2012. Focus: A Stochastic Appraisal of the NIME Outlook for the World Economy", August 2006, Federal Planning Bureau, Brussels.