The NIME Outlook for the World Economy

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

This August 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 includes a number of essential stochastic results relative to our new outlook, as well as an assessment of other less easily quantifiable risks that are currently seen to weigh on the outlook. The major technical assumptions behind the outlook and a brief description of the NIME model are presented in the appendix.

After a year of above-trend growth in 2006, *euro area* gross domestic product (GDP) growth is forecast to come out at a slightly more moderate 2.5 per cent in 2007; at the same time, the deflator of private consumption should progress at a rate of 1.9 per cent. Over the entire 2007-2013 period, the euro area's real GDP growth is projected to reach an average annual rate of 1.9 per cent. Growth should be underpinned primarily by robust domestic demand, but should wane in the wake of a declining working-age population. Consumer price inflation should remain contained and average of 1.9 per cent per annum over the projection period. Despite escalating inflationary pressures due to an ever-scarcer labour supply, inflation should remain under control through a tightening of monetary policy. The euro area's nominal trade-weighted exchange rate is expected to depreciate by 0.3 per cent in 2007 but to appreciate on average by 2.5 per cent per annum over the 2007-2013 period, due to a combination of higher average inflation in the rest of the world and rising interest rates in the euro area. Despite the euro area's ageing population and the increase in transfers to households that it should entail, continued fiscal consolidation is projected to push the area's fiscal position from a deficit of 1 per cent of GDP in 2007 to a surplus of 0.8 per cent of GDP in 2013. The euro area's macroeconomic fundamentals appear to be relatively well-oriented, leading to balanced medium-term growth prospects that are over-shadowed only by the medium- to long-term economic effects of its ageing population.

Over the 2007-2013 period, GDP growth averages 3.1 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 2.8 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 slated to expire throughout the projection period, leading to a particularly large cut in domestic demand growth in 2011. The US fiscal deficit should gradually decline and stand at a shortfall of only 0.3 per cent of GDP in 2013. The US's external imbalances should decline over the 2007-2013 period. Real GDP in Japan is expected to progress at an average annual rate of 1.3 per cent over the 2007-2013 period. Year-on-year consumer price inflation should remain around naught in 2007 and 2008, reach a yearly average rate of 0.5 per cent in 2009 and stand at 1.9 per cent by 2013. 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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Introduction

This August 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 macroeconometric world model. It constitutes an update to the January 2007 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 May 2007 AMECO database, which accompanied its May 2007 Economic Forecasts. These forecasts provided us with first approximations for overall economic activity in 2007. However, following a string of data updates and new releases since May 2007, we have adjusted the Commission's initial estimates for 2007 so as to better reflect recent historical data, new short-term analyses and leading indicators that provide us with new insights on the most probable course of the world economy through December 2007. The NIME model is then simulated through 2013 so as to provide us with a coherent model-based outlook for the major economic areas of the world over the entire 2007-2013 period.

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

Finally, the usual caveat applies with respect to our projection for the world economy: We draw the reader's attention to the fact that the short-term forecasts and medium-term projections that the Federal Planning Bureau provides for the Belgian economy do not make use of the coherent model-based projections produced with the NIME model and presented in our regular publications. Rather, they resort to a wide range of external data and expert opinions.

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 on the rise and should continue to weigh on world growth and inflation prospects; at the same time, the global cycle of monetary tightening that began in 2006 should continue to help avert any second-round wage and price effects and keep inflation expectations sufficiently well anchored.

Worldwide output growth is projected to progress steadily through 2013, though at a declining pace. Over the projection horizon, output growth should be 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 declines in both the EU and Japan at the end of the projection period.

In the *euro area,* real GDP is projected to rise at an average annual rate of 1.9 per cent over the 2007-2013 period. Growth in the euro area should build on the components of domestic demand, with a small negative contribution to GDP growth stemming from net foreign trade. Moreover, economic growth is set to fall below the period average from 2010 as 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 1.9 per cent per annum, held in check by a vigilant monetary policy while effective demand surpasses potential output levels. The nominal short-term interest rate is projected to rise from a year average level of 4.1 per cent in 2007 to 5.8 per cent in 2013. The euro's nominal effective exchange rate is projected to appreciate on average by 2.5 per cent per year over 2007-2013 due to a combination of higher average inflation in the rest of the world and interest rates in the euro area than in other parts of the world economy. Substantial progress is expected with respect to fiscal consolidation over the projection horizon; indeed the area's fiscal position is projected to return to balance in 2010 and remain in surplus thereafter.

Real GDP growth in the *Western non-euro EU Member States*[1] is projected to average 3.1 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 2.3 per cent. The area's growth is projected to be predominantly based on domestic demand, with a contribution of net exports to overall GDP growth that is of no more than 0.1 percentage point (p.p.) on average. The area's nominal short-term interest rate is expected to rise from a year average level of 5.3 per cent in 2007 to 7.1 per cent at the end of the period. Progress in consolidation of the area's fiscal position should lead to an overall budget surplus by 2010, which should then be sustained through 2013. The area's current account deficit is projected to rise from 1.9 per cent of GDP in 2007 to 2.3 per cent in 2011 and to level out thereafter.

In the *United States*, GDP growth is expected to average 2.8 per cent per annum over 2007-2013. Growth is expected to rise from an uninspiring 1.9 per cent in 2007 to 3.8 per cent in 2009, hit a trough of 2.1 in 2011 and rebound to 2.6 per cent in 2013 with the scheduled expiry of a number of significant tax cut provisions under current US laws and policies. Net exports should provide significant traction in 2007 and 2008 but then subtract an average 0.1 p.p. from growth between 2009 and 2013. Consumer price inflation is projected to average 2 per cent per annum over the projection period, while the nominal short-term interest rate is projected to register an annual average level of 4.7 per cent. In 2007, the dollar's nominal effective exchange rate is expected to depreciate by a massive 7.9 per cent, bringing it noticeably out of line with its fundamentals. As of 2008, the dollar should reverse course and appreciate in nominal effective terms by an average of 4.5 per cent per annum through 2013. As tax cuts expire over the projection period, the US fiscal deficit is projected to decline to just 0.3 per cent of GDP in 2013. Finally, the US current account deficit is projected to recede from 5.7 per cent of GDP in 2007 to just 4.6 per cent of GDP at the end of the projection period.

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

Japanese real GDP is projected to rise at an average annual rate of 1.3 per cent over the 2007-2013 period. However, this period average conceals a markedly declining growth profile. Growth is projected to show a sturdy progression of 2.4 per cent in both 2007 and 2008, but then tumble to just 0.4 per cent in 2013 as Japan's total population, working-age population and labour force all decline. Japanese consumer prices are currently expected to remain slightly negative or nil in 2007, and a similar result is currently pencilled in for 2008. Consumer price inflation should turn positive on a year average basis only as of 2009, with the deflator of private consumption rising by 0.5 per cent year-on-year; positive inflation should then become more firmly entrenched and reach 1.9 per cent in 2013. Japanese short-term interest rates should gradually normalise, rising from a year average level of 0.7 per cent in 2007 to 4.2 per cent in 2013, in the wake of escalating capacity constraints. Assuming that the government's current medium-term fiscal policy agenda is fully implemented, Japan should post a net primary fiscal surplus in 2010. The overall budget deficit is expected to fall from 3.8 per cent of GDP in 2007 to 3 per cent in 2009; the fiscal shortfall should then increase once again to 4.5 per cent in 2013 due to rising public sector wages, transfers to households and debt interest payments.

The *objective risks* surrounding the current medium-term outlook are of two types. First, there are risks linked to the statistical properties of the model that is used. These risks can be inferred directly from the NIME model's structure and from the observed historical fluctuations in economic variables. The analysis of the projection's underlying risk structure indicates that the 95 per cent confidence interval around GDP growth in the euro area for 2008 lies between 1.5 and 2.8 per cent. The analysis also shows 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 0.5 per cent. In comparison, GDP growth in the United States is unlikely to exceed 4.7 per cent or to fall below 1.1 per cent. This evaluation of the risks underlying the NIME outlook can be accompanied by an appreciation of other, less quantifiable, uncertainties currently weighing on our prospects for the world economy. In our view, the current major medium-term downside uncertainty - in light of its potential to curtail worldwide economic growth - can be seen in a continued sharp increase in world energy prices. A possible upside risk is currently seen in a possible underestimation of trend productivity growth, especially in the European Union and Japan.

Summary World Area Table - Main results

	2006	2007	2008	2009	2010	2011	2012	2013	Average 2007-2013	Average 2000-2006
I. Euro area										
1. Gross domestic product	2.7	2.5	2.1	1.9	1.6	1.8	1.7	1.7	1.9	1.9
2. Deflator of private consumption	2.0	1.9	2.1	1.8	1.8	1.9	1.9	1.9	1.9	2.1
3. Unemployment rate (level, % of civilian labour force)	7.9	7.3	7.0	6.9	6.8	6.8	6.9	7.0	6.9	8.3
4. Short-term interest rate (level)	3.1	4.1	4.3	4.4	4.7	5.0	5.4	5.8	4.8	3.1
5. Nominal effective exchange rate (+: depreciation)	0.0	0.3	-2.3	-2.4	-2.8	-3.2	-3.5	-3.8	-2.5	-2.3
6. Government net lending (level, % of GDP)	-1.6	-1.0	-0.7	-0.3	0.1	0.4	0.6	0.8	-0.0	-2.0
7. Current account (level, % of GDP)	-0.0	0.4	1.2	1.4	1.3	1.3	1.1	0.9	1.1	0.3
II. Western non-euro EU Member States										
1. Gross domestic product	2.9	3.0	2.8	3.1	3.4	3.3	3.1	2.8	3.1	2.6
2. Deflator of private consumption	2.2	2.3	2.0	1.9	2.2	2.4	2.5	2.6	2.3	1.8
3. Unemployment rate (level, % of civilian labour force)	5.4	5.1	4.7	4.4	4.3	4.4	4.6	4.6	4.6	5.2
4. Short-term interest rate (level)	4.3	5.3	5.4	5.5	5.8	6.2	6.7	7.1	6.0	4.3
5. Nominal effective exchange rate (+: depreciation)	-0.4	-2.0	-1.8	-2.4	-2.5	-2.7	-2.9	-3.0	-2.5	-1.3
6. Government net lending (level, % of GDP)	-1.5	-1.4	-1.0	-0.2	0.3	0.6	0.6	0.4	-0.1	-0.6
7. Current account (level, % of GDP)	-1.5	-1.9	-1.8	-2.1	-2.3	-2.3	-2.3	-2.2	-2.1	-0.7
III. United States										
1. Gross domestic product	2.9	1.9	3.5	3.8	3.0	2.1	2.3	2.6	2.8	2.7
2. Deflator of private consumption	2.8	2.1	2.2	1.9	2.0	2.0	2.0	2.0	2.0	2.3
3. Unemployment rate (level, % of civilian labour force)	4.6	4.7	4.4	4.3	4.2	5.0	5.4	5.5	4.8	5.1
4. Short-term interest rate (level)	5.2	5.3	4.9	4.6	4.5	4.5	4.5	4.6	4.7	3.4
5. Nominal effective exchange rate (+: depreciation)	0.4	7.9	-6.0	-5.8	-4.6	-3.7	-3.5	-3.3	-2.7	-0.1
6. Government net lending (level, % of GDP)	-2.6	-2.6	-2.1	-1.9	-1.5	-0.7	-0.3	-0.3	-1.4	-2.6
7. Current account (level, % of GDP)	-6.0	-5.7	-5.3	-5.4	-5.4	-5.1	-4.8	-4.6	-5.2	-4.9
IV. Japan										
1. Gross domestic product	2.2	2.4	2.4	1.6	1.0	0.7	0.7	0.4	1.3	1.7
2. Deflator of private consumption	-0.3	-0.1	-0.0	0.5	1.1	1.6	1.9	1.9	1.0	-0.9
3. Unemployment rate (level, % of civilian labour force)	4.1	4.1	4.1	4.3	4.5	4.8	4.9	5.1	4.5	4.8
4. Short-term interest rate (level)	0.3	0.7	1.7	2.8	3.5	4.0	4.2	4.2	3.0	0.1
5. Nominal effective exchange rate (+: depreciation)	6.4	7.2	0.5	-1.9	-4.3	-5.2	-5.5	-5.5	-2.1	0.4
6. Government net lending (level, % of GDP)	-4.6	-3.8	-3.0	-3.0	-3.1	-3.4	-3.9	-4.5	-3.5	-6.7
7. Current account (level, % of GDP)	4.0	4.1	4.6	4.9	4.9	4.5	3.9	3.4	4.3	3.2
V. Eastern EU Member States										
1. Gross domestic product	6.2	5.7	6.4	6.5	6.0	5.6	5.4	5.3	5.8	4.3
2. Deflator of private consumption	1.2	3.8	3.9	4.0	4.1	4.2	4.2	4.3	4.1	6.6
3. Short-term interest rate (level)	3.6	4.1	5.3	6.3	7.1	7.8	8.4	8.9	6.8	7.7
4. Nominal effective exchange rate (+: depreciation)	-3.3	-2.8	-1.7	-2.2	-2.5	-2.5	-2.5	-2.5	-2.4	0.4
5. Current account (level, % of GDP)	-3.5	-3.0	-1.5	-1.4	-1.8	-2.4	-3.1	-3.8	-2.4	-3.7
VI. Rest of the world										
1. Gross output	7.4	6.8	7.0	6.8	6.7	6.6	6.6	6.5	6.7	6.2
2. Output deflator	4.8	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.8
3. Nominal effective exchange rate (+: depreciation)	-0.9	-4.8	5.9	6.6	6.9	6.9	7.2	7.3	5.1	2.2
4. Price of oil (Brent, $US/bbl)	66.2	67.7	70.9	70.3	70.0	69.8	69.6	69.4	69.7	38.0

US data for 2006 depart from source AMECO data following the release on 27 July 2007 of the annual revision of the NIPAs.

All figures are year-on-year growth rates of yearly averages, unless otherwise noted.

Slovenia became a full member of the euro area on 1 January 2007. On 10 July 2007, the Council of the European Union decided to allow Cyprus and Malta to join the euro area as of 1 January 2008. For practical purposes however, the NIME model of the euro area continues to represent the twelve Member States that composed the euro zone up to 2007. Cyprus, Malta and Slovenia remain integrated within the NIME model's aggregate representing the twelve Eastern EU Member States.

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

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

The Euro Area

After a year of above-trend growth in 2006, GDP growth in the euro area is currently forecast to register a slightly more moderate rate of 2.5 per cent in 2007. The deflator of private consumption should rise by 1.9 per cent. The area's growth in 2007 is largely underpinned by the robust performance of private consumption, building on strong employment growth and real wage increases. Growth also benefits from a significant contribution from net exports, notwithstanding the recent strong appreciation of the euro against the US dollar. Over the 2007-2013 period, the euro area's growth is projected to progress at an average annual rate of 1.9 per cent. Consumer price inflation should also average 1.9 per cent over the projection horizon. The nominal short-term interest rate should rise from a yearly average level of 4.1 per cent in 2007 to 5.8 per cent in 2013, thus effectively limiting a build-up of inflationary pressures. Under current budgetary policies, the area's fiscal shortfall is projected to gradually decline from 1 per cent of GDP in 2007 to a surplus of 0.8 per cent of GDP in 2013. The area's current account is forecast to shift to a net surplus in 2007; this surplus should persist through 2013 and average 1.1 per cent of GDP over the projection period.

In 2007 both a positive contribution from net exports and a resilient domestic demand are expected to underpin euro area GDP growth

Real GDP growth in the euro area[1] is expected to remain firm at 2.5 per cent in 2007, in the wake of a 2 per cent rise in private consumption expenditure. The area's economic activity should be further underpinned by an impressive 0.3 percentage point (p.p.) contribution to growth from its net export position, notwithstanding an expected 7.5 per cent year-on-year appreciation of the euro against the $US.

In 2007, private consumption should increase by 2 per cent, up from an already significant increase of 1.8 per cent in 2006. Euro area consumer spending is bolstered by both sturdy employment gains and real income growth. Growth in household real disposable income is forecast to rise by 2.4 per cent on the year, primarily reflecting a strong increase in private sector employment and a rise in the rate of workers' real take-home compensation.

Business sector investment should rise by a limited 3 per cent in 2007. Investment is set to under-perform with respect to the still strong private sector output, in the wake of the turbulence that rocked world financial markets in August 2007, leading to an upward repricing of risk and tighter lending practices. Growth in residential investment is also expected to decline, coming out at 2 per cent in 2007 after rising by 4.9 per cent in 2006. Public sector investment should progress at a pace of 4 per cent, identical to the previous year. All in all, the rate of expansion of the euro area's total gross fixed capital expenditure is projected to decline from a high of 4.7 per cent in 2006 to a more moderate 2.9 per cent in 2007.

After rising by an impressive 9.8 per cent in real terms in 2006, euro area exports should post another substantial 8.1 per cent rise over 2007. This strong export performance reflects sustained foreign demand and the significant effective depreciation of the euro over the 2005-2007 period. The area's real effective exchange rate depreciated by 4.2 per cent in 2005 and 2.8 per cent in 2006, and is forecast to lose another 2.2 per cent of its value in 2007. The area's nominal trade-weighted exchange rate is currently expected to depreciate by a slim 0.3 per cent in 2007, while appreciating by 7.5 per cent against the $US. Euro area import growth is expected to rise in 2007 by 7.1 per cent. While this is still a strong progression, it is down somewhat from the 8.8 per cent growth rate of 2006 as import growth is restrained by the lagged effects of the strong relative import price increase over the 2005-2006 period. On balance, the area's net exports are slated to contribute a significant 0.3 p.p. to real GDP growth on the year, unchanged from the 0.3 p.p. contribution of 2006.

Total employment in the euro area is set to increase markedly in 2007, progressing by 1.5 per cent after a 1.4 per cent rise in 2006. Employment is forecast to be bolstered in 2007 by a combination of sturdy output growth and a further decline in real unit labour costs. Moreover, total job creation should once again significantly outpace the expansion of the labour force, leading to a reduction in the unemployment rate from 7.9 per cent of the civilian labour force in 2006 to 7.3 per cent in 2007.

1. Slovenia became a full member of the euro area on 1 January 2007. On 10 July 2007, the Council of the European Union decided to allow Cyprus and Malta to join the euro area as of 1 January 2008. For practical purposes however, the NIME model of the euro area continues to represent the twelve Member States that composed the euro zone up to 2007. Cyprus, Malta and Slovenia remain integrated within the NIME model's aggregate representing the twelve Eastern EU Member States.

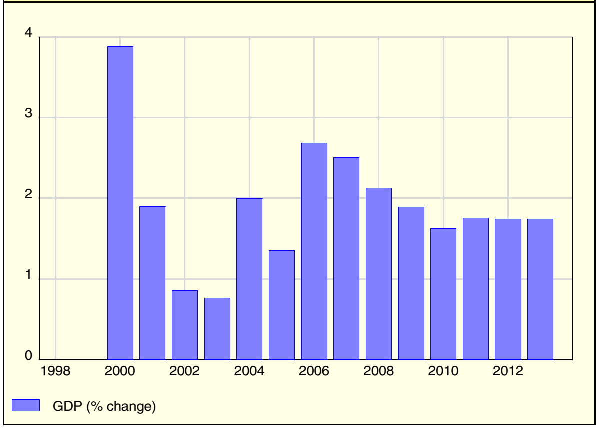
Though nominal rates of labour compensation rose in 2005 and 2006, real rates of take-home compensation fell in both years. In 2007, nominal compensation rates are slated to increase by 2.4 per cent, leading to a modest 0.5 per cent rise in the rate of real take-home labour compensation. Real wage costs are projected to remain relatively contained, progressing much less than the expected 1.3 per cent rise in economy-wide labour productivity; hence real unit labour costs are expected to decline by 0.8 per cent in 2007.

Consumer price inflation, as measured by the change in the deflator of private consumption, has consistently come out above the 2 per cent mark throughout the 2003-2006 period. This stems from both the steady rise in the price of oil and the gradual take-up of slack in the economy over the period. In 2007, inflation is expected to reach 1.9 per cent. 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 4.9 per cent decline in the euro-denominated price of oil.

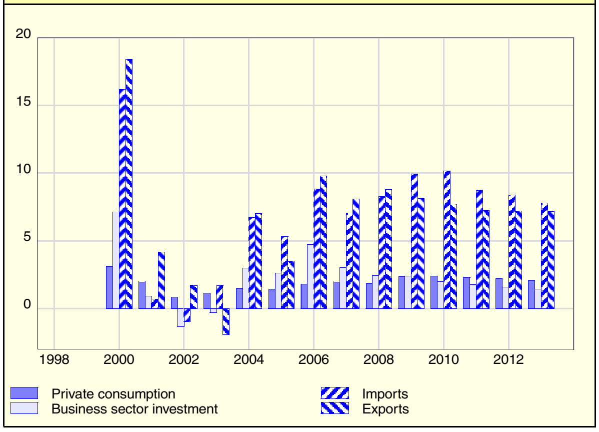
Over the 2003-2006 period, underlying inflationary pressures tended to re-emerge as slack in the economy was gradually worked away and as oil prices soared. This led the European Central Bank to begin to mop up excess liquidity, gradually removing any unwarranted monetary accommodation that followed from the sharp fall in interest rates since 2000. The normalisation of the monetary policy stance is expected to lead to a nominal short-term rate of 4.1 per cent in 2007. The real short-term interest rate - deflated by the change in the deflator of private consumption expenditure - should register a yearly average level of 2.3 per cent in 2007. The real short-term rate should thus rise significantly above its 1.1 per cent yearly average level of 2006, reflecting the current firming of monetary policy. The nominal long-term interest rate should follow suit and settle at a yearly average level of 4.4 per cent in 2007, leaving the real long-term rate at 2.6 per cent for the year.

Government current revenue is expected to progress more rapidly in 2007 than aggregate government current expenditure, as national budget authorities in the euro area strive to fulfil their obligations under the European Union's Stability and Growth Pact. Hence the euro area's public sector net borrowing requirement is forecast to continue to shrink, totalling a mere 1 per cent of GDP in 2007 after having tumbled from a full 3 per cent of GDP in 2003.

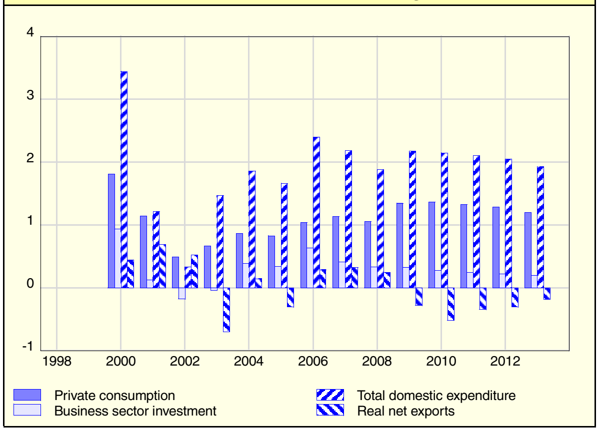
Graph 1 - Gross domestic product in the euro area



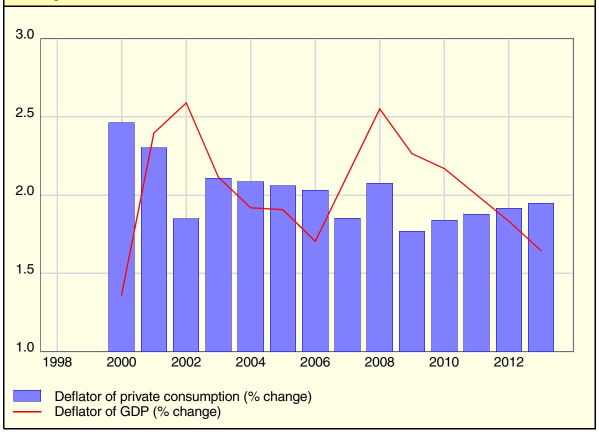
Graph 2 - Selected components of demand in the euro area



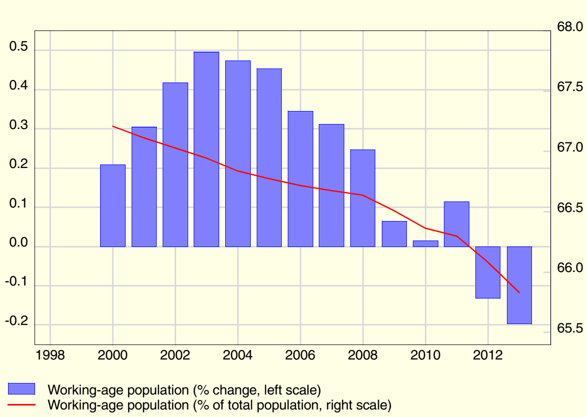
Graph 3 - Contributions to real GDP growth in the euro area *(percentage points)*



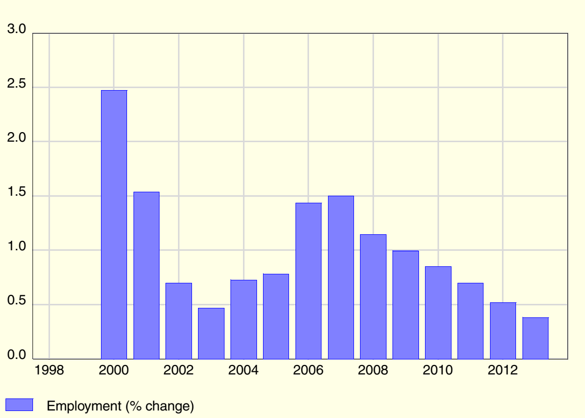
Graph 4 - Price deflators in the euro area



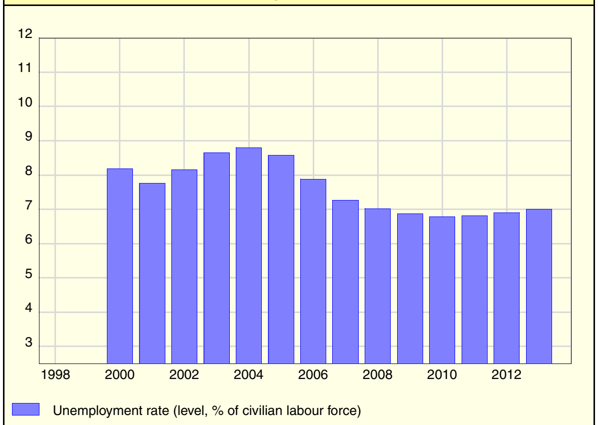
Graph 5 - Population in the euro area



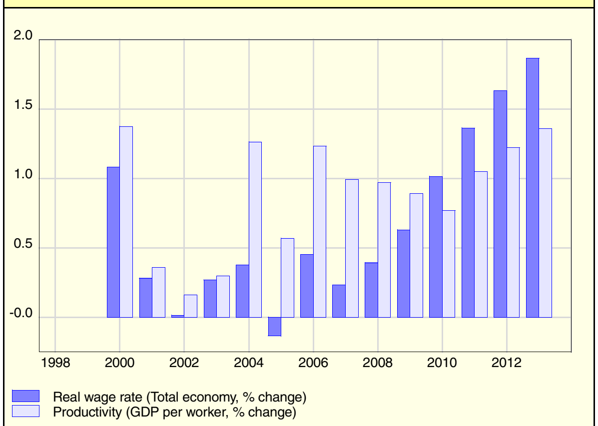
Graph 6 - Employment in the euro area



Graph 7 - The unemployment rate in the euro area



Graph 8 - Real wages and productivity in the euro area



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 above potential output over the 2008-2013 period. Though demand will eventually begin to fall off due to the tightening of monetary policy, the declining rate of expansion of the labour supply will at the same time hinder the rise of potential output and add to demand-induced supply constraints. Moreover, strong domestic demand and a steady appreciation of the euro area's real trade-weighted exchange rate will also lead to persistent negative contributions to growth from the euro area's net foreign trade.

Over the 2008-2013 period as a whole, the euro area's real GDP is projected to progress at an average annual rate of 1.8 per cent. The area's growth rate thus falls off from the distinctly above-trend growth rates of the 2006-2008 period. Total domestic demand is projected to average 2.1 per cent over 2008-2013, while net exports should contribute an average negative 0.2 p.p. to the area's growth rate.

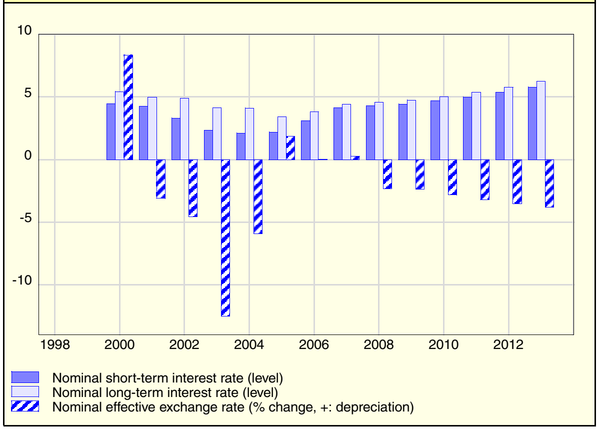
Between 2008 and 2013, the area's domestic demand is driven mainly by private consumption expenditure and investment. Private consumption growth is projected to remain relatively resilient over the 2008-2013 period, progressing at an average rate of 2.2 per cent per annum. Private consumption growth is underpinned mainly by the steady 0.8 per cent average annual rise in employment, accompanied by a 1.3 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, business sector gross fixed capital formation is projected to rise at a modest average pace of 1.9 per cent per annum. Business investment growth peaked at 4.8 per cent in 2006, in the wake a significant pick-up in output and after the below-trend investment period spanning the years 2001-2003. Investment growth now appears to be set on a gradually declining course over the 2008-2013 period, as real interest rates rise and as employment constraints lead to increased real unit labour costs. Household investment in residential buildings notched up an impressive 4.9 per cent expansion in 2006 and is forecast to expand at the less heady pace of 2 per cent in 2007. Residential investment is then projected to dip below trend to a growth rate of 1.4 per cent in 2008 before picking up and progressing at an average rate of 1.7 per cent per year between 2008 and 2013. All in all, economy-wide gross fixed capital formation is projected to increase at a moderate clip, averaging 2 per cent annual growth over the 2008-2013 period.

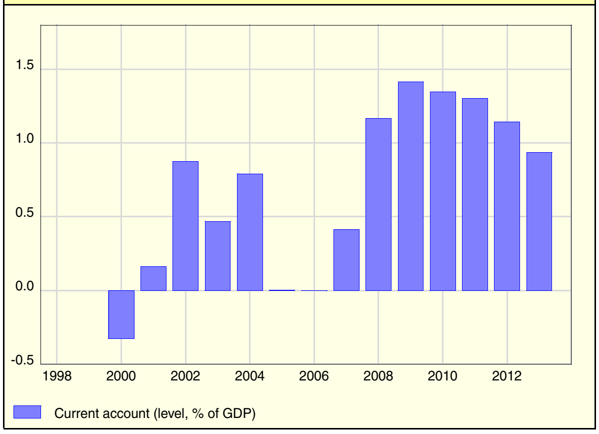
Over 2005-2007, the euro area's nominal effective exchange rate underwent moderate depreciation. This depreciation was accompanied by tempered export prices, leading to a somewhat stronger depreciation of the area's real trade-weighted exchange rate. However, these evolutions contrast markedly with the current behaviour of the dollar/euro exchange rate; indeed, in 2007 the dollar is currently expected to depreciate by 7.5 per cent on the year against the euro, thus losing approximately 51 per cent of its value against the euro since 2001. At its current mid-August level of 1.37 dollars per euro, our assessment is that the dollar/euro rate is now significantly out of line with its fundamentals. The dollar is thus projected to return to more neutral values against the euro, appreciating throughout the projection period and coming out at an average level of 1.28 dollars per euro over the 2008-2013 period.

After a period of exceptional export growth over 2006-2007, 2008 looks set to be yet another bumper year for euro area exports. These should progress by 8.8 per cent in volume terms, benefiting from the euro currency's significant trade-weighted depreciation over the 2005-2007 period. The area's exports should progress at an average annual pace of 7.7 per cent over the entire 2008-2013 period. Euro area import growth is also projected to remain vigorous over the projection horizon, progressing at an average annual rate of 8.9 per cent over the 2008-2013 period in response to both the strong progression of domestic demand and the 0.9 per cent average annual real effective appreciation of the euro. All in all, the area's net exports provide a negative average yearly contribution to GDP growth of 0.2 p.p. over the projection period, as the positive contributions of foreign trade disappear after 2008. In a context of significant effective exchange rate appreciation and a gradual softening of foreign demand, export price growth is put under increasing pressure and is expected to shrink from 2.1 per cent in 2008 to only 0.2 per cent in 2013. Euro-denominated import price increases should be slashed to just 0.4 per cent in 2008 and remain well-contained throughout the projection period as the euro follows its trend appreciation. However, import prices then recover as euro area importers gradually translate the realignment of exchange rates into higher prices and windfall profits.

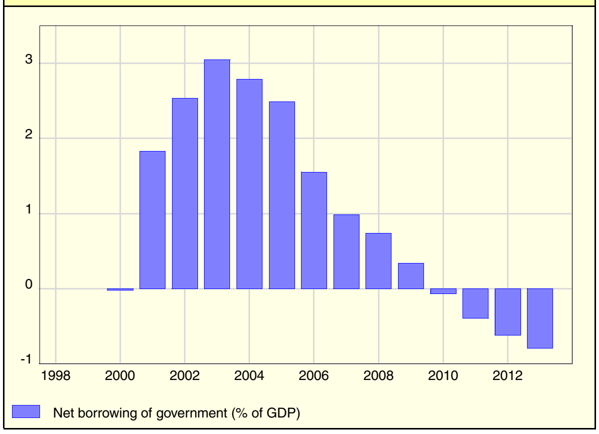
Graph 9 - Interest and exchange rates in the euro area



Graph 10 - Current account of the euro area



Graph 11 - Net borrowing of government in the euro area



Euro area employment is expected to expand at a rate of at least 1 per cent in both 2008 and 2009, on the back of continued robust domestic demand and declining economy-wide real unit labour costs. Employment growth should then taper off between 2010 and 2013 as economic activity falls back to somewhat lower trend growth rates, as rising real interest rates weigh increasingly on household and business expenditure plans and as rising real wage costs tend to catch up with labour productivity increases. Effective aggregate output is projected to remain consistently above potential output levels over 2008-2013, driving up inflationary pressures that can only be stifled by a persisting rise in real interest rates. At the same time, steadily rising output combined with ever-smaller increases in the labour supply push the unemployment rate down to 6.8 per cent of the civilian labour force by 2010. The unemployment rate will subsequently embark on an upward course, reaching 7 per cent of the civilian labour force in 2013 as employment expands less rapidly than the labour supply. The expansion of the euro area's working-age population has been on a steadily declining path since 2004. Active-age population numbers are expected to reach their maximum in 2011 and to decline thereafter, thereby reducing the rise in the labour supply and paving the way for future absolute declines in the labour force. Assuming that these changes are not met by compensatory increases in labour productivity growth through capital deepening and/or an increase in total factor productivity growth, these medium-term demographic trends herald a gradual decline in the euro area's medium-term trend output growth and heightened inflationary tensions.

Consumer price inflation is projected to remain stable, averaging 1.9 per cent per annum over the 2008-2013 period. As supply constraints linked to the decline in the working-age population begin to materialise, this well-contained inflation can only be obtained through ever-higher real interest rates. Nominal short-term interest rates are projected to rise from 4.3 per cent in 2008 to 5.8 per cent in 2013 as monetary authorities endeavour to maintain price stability through an increasingly restrictive monetary policy. The rise in the nominal interest rate pushes up the real short-term interest rate from 2.2 per cent in 2008 to 3.9 per cent in 2013. The nominal long-term interest rate looks set to rise from 4.6 per cent in 2008 to 6.3 per cent at the end of the projection period.

In a context of generally firm economic activity and well-established commitments to budgetary discipline, the euro area's consolidated fiscal position is projected to swing into surplus as of 2010. This favourable evolution of the area's public finances stems mainly from the assumption of continued restraint on the expenditure side, accompanied by high implicit tax income elasticity and declining interest charges on public debt thanks to a continued structural primary budget surplus. Strict adherence to the fiscal policies in place should then ensure that these surpluses will be maintained through 2013.

Finally, after having shifted into surplus in 2007, the euro area's current account balance is projected to post a yearly average surplus of 1.2 per cent of GDP over the 2008-2013 period.

The Western Non-Euro EU Member States

Real GDP growth in the Western non-euro EU Member States is expected to progress by 3 per cent in 2007. Over the entire 2007-2013 period, real GDP should continue to expand at a brisk average annual rate of 3.1 per cent. The area's strong economic performance is driven mainly by domestic demand, while net exports provide only an average 0.1 percentage point contribution to growth. Over the projection horizon, consumer price inflation is projected to attain an average annual rate of 2.3 per cent, as strong inflationary pressures are contained through high real interest rate levels. The area's consolidated budget deficit is projected to give way to mild surpluses as of 2010 following continued restraint on the side of government expenditures.

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

In 2007 real GDP growth in the Western non-euro European Union Member States is currently forecast to reach a full 3 per cent, surpassing only slightly the 2006 growth rate of 2.9 per cent. Surging investment was the mainstay of growth in 2006, contrary to 2007 where a somewhat softer rise in business investment should be offset by stronger consumption growth and the disappearance of the previous year's negative contribution to overall GDP growth from the area's net exports.

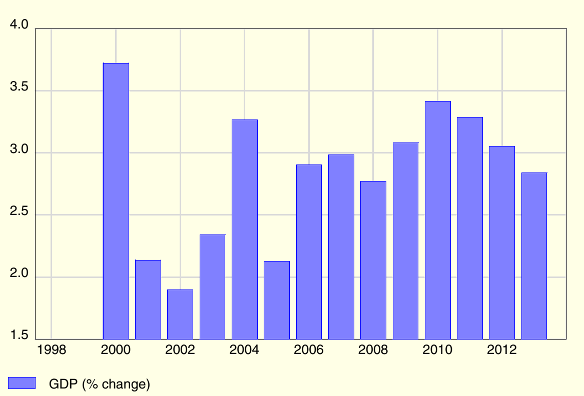
Backed by strong gains in real take-home rates of labour compensation and a steady rise in employment, private consumption growth is projected to accelerate from 2.2 per cent in 2006 to 2.5 per cent in 2007. Despite this improvement, consumer spending should still under-perform compared to the 2000-2006 period when average annual private consumption growth stood at 2.8 per cent.

Although growth in gross fixed capital formation should remain significantly above its 2000-2006 period average of 3.7 per cent, economy-wide investment growth is projected to stumble from 7.1 per cent in 2006 to 5.4 per cent in 2007. Less favourable investment conditions, such as higher real interest rates in 2007 and a normalisation of investment rates back toward long-term investment trends, should affect both residential investment and business sector capital expenditure. Residential investment growth is projected to ease from an impressive 8.8 per cent increase in 2006 to a slightly more moderate rise of 5.1 per cent in 2007. Growth in business sector capex should fall from 7.5 per cent in 2006 to 5 per cent in 2007. Business investment is forecast to weaken in the face of somewhat lower private sector output growth, tighter conditions in financial markets, and firms' downward adjustment of investment from their past unsustainably high rates. Public sector investment is expected to expand by 8.8 per cent in 2007 after rising by only 2.7 per cent the year before.

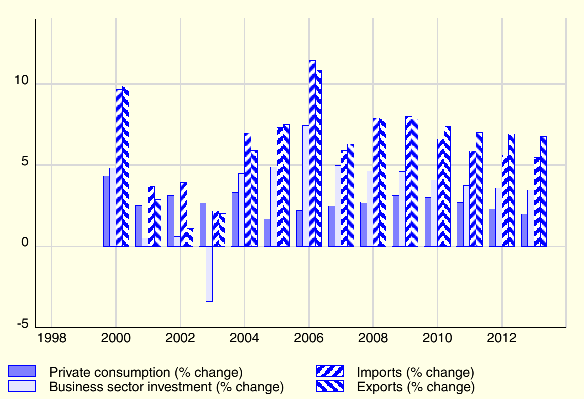
After a period of negative contributions to real GDP growth from 2001 to 2006, net foreign trade is expected to have no significant impact on the area's GDP growth rate in 2007. This comes as real exports increase slightly more rapidly in 2007 than import volumes, curtailing the progression of the area's negative net export balance. As the negative net export balance is small compared to the area's domestic demand, the rise in the area's domestic demand should lead to a sharp decline of net exports in per cent of GDP. Export growth progresses by 6.3 per cent in 2007, down from a whopping 10.9 per cent rise in 2006[1]. Exports progress at a pace slightly above the 5.7 per cent average of the 2000-2006 period, on the back of robust foreign demand and the real effective exchange rate depreciation of 2005-2006. Import volumes are forecast to rise by 5.9 per cent in 2007, down also from the 11.4 per cent increase of 2006 and back to a growth rate that is more in line with the 6.5 per cent average rise noted over the 2000-2006 period. Import demand is tempered in 2007 by a less robust rise in domestic expenditure and by an increase in foreign export prices that is only partly offset by the trade-weighted exchange rate appreciation in 2007.

[1] External trade figures for the United Kingdom for 2006 were affected by specific reporting problems, making it difficult to obtain meaningful and accurate export and import data for the year.

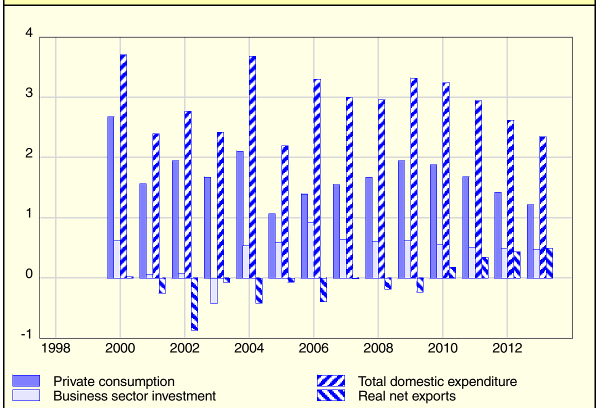
Graph 12 - Gross domestic product in the Western non-euro EU Member States



Graph 13 - Selected components of demand in the Western non-euro EU Member States

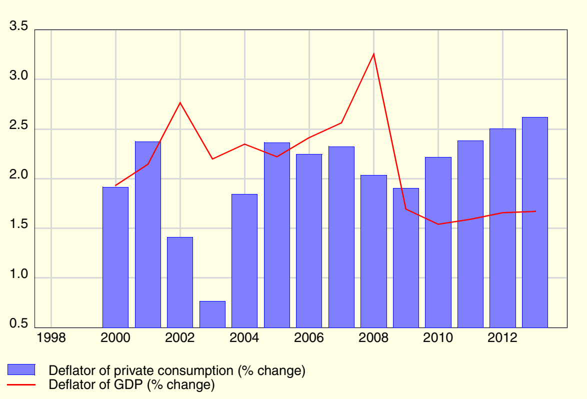


Graph 14 - Contributions to real GDP growth in the Western non-euro EU Member States *(percentage points)*

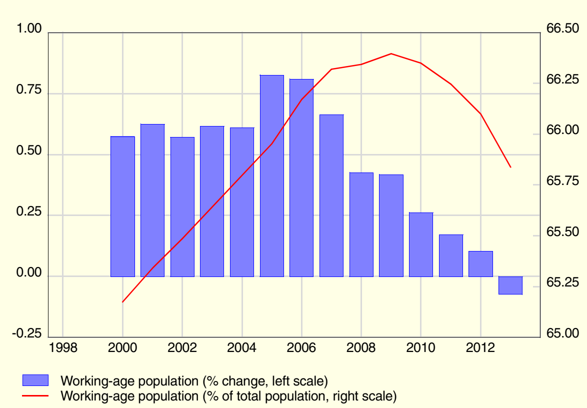


In 2007, growth in total employment is expected to match the 1 per cent increase of 2006. Employment should benefit from the reductions in unit labour costs, brought about by marked increases of labour productivity and by relatively moderate real wage increases. Indeed, during the 2000-2006 period, private sector labour productivity expanded on average by 2.8 per cent per annum; productivity is currently expected to progress by another 3.2 per cent in 2007. Real private sector wage costs, on the other hand, rose by only 2.1 per cent per annum over the 2000-2006 period; however, they are expected to jump by 2.9 per cent in 2007. In contrast to the firm rise in total employment, the labour supply is forecast to expand at a lower rate of 0.6 per cent in 2007, bringing the unemployment rate down from 5.4 per cent of the civilian labour force in 2006 to 5.1 per cent in 2007.

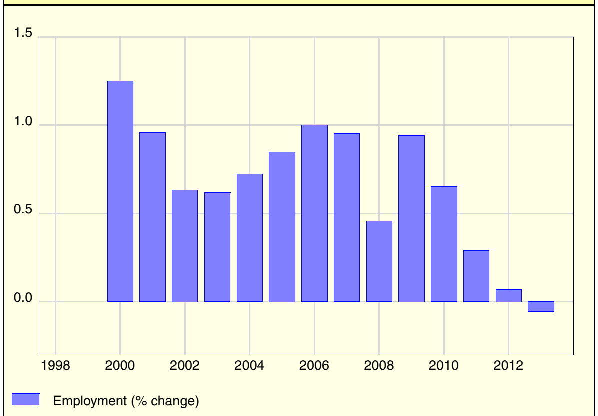
Graph 15 - Price deflators in the Western non-euro EU Member States



Graph 16 - Population in the Western non-euro EU Member States



Graph 17 - Employment in the Western non-euro EU Member States



In 2007, overall government expenditure is expected to progress by 4.7 per cent, unchanged from 2006. At the same time, the progression of overall government income is forecast to slow somewhat, dropping from a growth rate of 6.1 per cent in 2006 to a still healthy growth rate of 5.3 per cent in 2007. As income progresses slightly more rapidly than outlays, the area's overall government budget deficit is expected to shrink, declining from a shortfall of 1.5 per cent of GDP in 2006 to 1.4 per cent of GDP in 2007.

In 2006, the deflator of private consumption rose by 2.2 per cent. Domestic inflationary tensions remained subdued as optimal output levels stayed above the level of effective aggregate demand and as the unemployment rate hovered above the economy's trend rate of unemployment. Though the dollar price of oil is once again set to increase in 2007, the price of oil denominated in the area's local currency is forecast to decline due to the local currency's sharp appreciation against the US dollar over 2007. However, as rates of capacity utilisation edge up and as the unemployment rate declines, consumer price inflation is expected to edge up a notch to a year average level of 2.3 per cent in 2007. Inflation should however remain relatively well contained due to the significant rise in real interest rates over 2007.

On a yearly average basis, nominal short-term interest rates in the Western non-euro EU countries have been rising since 2003. Inflation offset part of this rise in real short-term rates, which increased only as of 2005. In 2007, the area's monetary authorities are expected to continue to tighten their policy stance, raising short-term interest rates from a yearly average level of 4.3 per cent in 2006 to 5.3 per cent in 2007. At the same time, the real short-term rate should increase from 2 per cent in 2006 to 3 per cent in 2007. This more restrictive monetary policy stance is aimed at anchoring inflation expectations at levels compatible with the authorities' medium-term inflation objectives, as the economy adjusts to the past rise in oil prices (in local currency terms, oil prices jumped by approximately 112 per cent between 2002 and 2006) and heads for possible medium-term supply-side constraints that threaten to generate rapidly escalating inflationary pressures.

With still well contained inflationary pressures coming on the back of rising real interest rates, the nominal effective exchange rate of the area is projected to appreciate by a significant 2 per cent in 2007. This trade-weighted appreciation comes as the US dollar is expected to continue to lose ground against other major world currencies such as the British pound and the euro throughout 2007. The area's real effective exchange rate however should appreciate by just a slim 0.1 per cent as export prices progress by only a mild 1.2 per cent in 2007, down from 1.9 per cent in 2006.

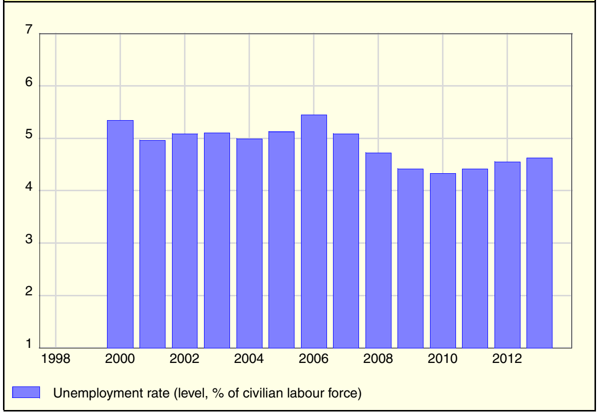
Demographic trends weigh on an otherwise sound domestic-led economic expansion over 2008-2013

After a drop in GDP growth in the Western non-euro EU Member States to 2.8 per cent in 2008, growth looks set to rise above the 3 per cent mark over the four subsequent years and to edge down to 2.8 per cent in 2013. These robust growth rates can be attributed to continuous gains in labour productivity, while the trend decline in the area's working-age population gradually reduces the potential contribution to growth stemming from the labour supply. Domestic demand growth is projected to ease after 2010; however, the economic slack should be taken up by a steady rise in exports and the subsequent positive contributions to growth from net foreign trade. All in all, real GDP of the Western non-euro EU Member States over the 2008-2013 period is projected to progress at a healthy clip, posting an average annual growth rate of 3.1 per cent.

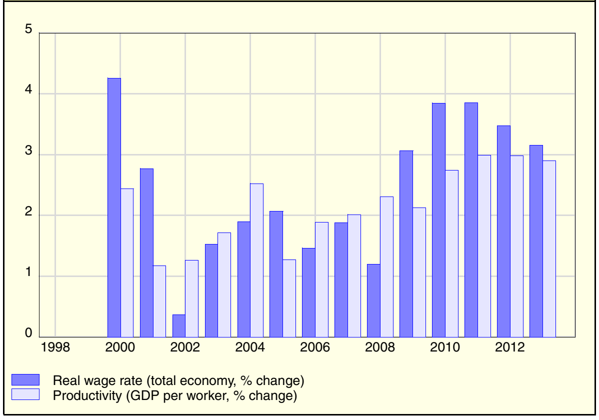
Over the 2008-2013 period, private consumption is expected to grow at a yearly average rate of 2.6 per cent. Private consumption expenditure growth increases from 2.5 per cent in 2007 to a high of 3.1 per cent in 2009, before falling off to just 2 per cent in 2013. This moderation in the expansion of household consumption expenditure toward the end of the projection horizon is due to the combined effects of an ever-weaker rise in the area's working-age population and a strong rise in final demand, which lead to increasingly severe capacity constraints. As these supply-side constraints materialise, building up particularly quickly in the private sector, they pave the way for heightened inflationary pressures that drive up consumer prices and real interest rates, and that reduce the growth of labour demand, of real take-home wage rates and, ultimately, of consumer spending.

After the hefty 5.4 per cent rise in economy-wide gross fixed capital expenditure forecast for 2007, aggregate capital spending is expected to wane over the remainder of the projection period. Gross fixed capital investment should progress by 4.4 per cent in 2008 and subsequently decline to just 3 per cent in 2013. This projected slow-down in aggregate investment growth should come mainly on the back of a deceleration of business investment. Indeed, the progression of business capex is expected to be influenced negatively by the coming absolute decline in the area's working-age population and the faltering expansion of the labour supply, which will make continued high investment rates unnecessary to maintain a steady capital stock per worker. Investment also suffers from the rise in real interest rates, which increase as monetary authorities act to restrain rising inflation. Residential investment growth should also decline from a peak of 5.4 per cent in 2009 to 1.8 per cent in 2013. Government fixed capital expenditure is projected to progress at a relatively steady average annual pace of 2.7 per cent over the 2008-2013 period.

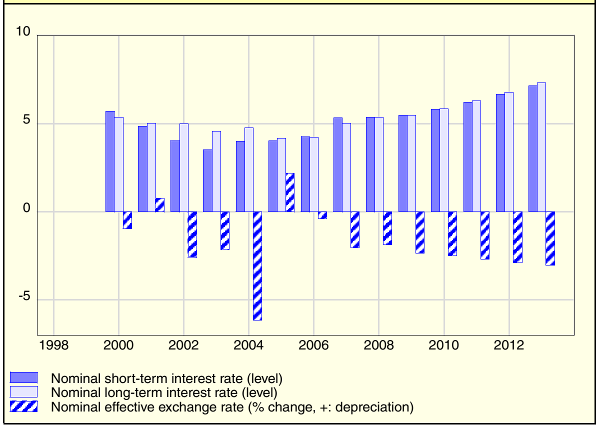
Graph 18 - The unemployment rate in the Western non-euro EU Member States



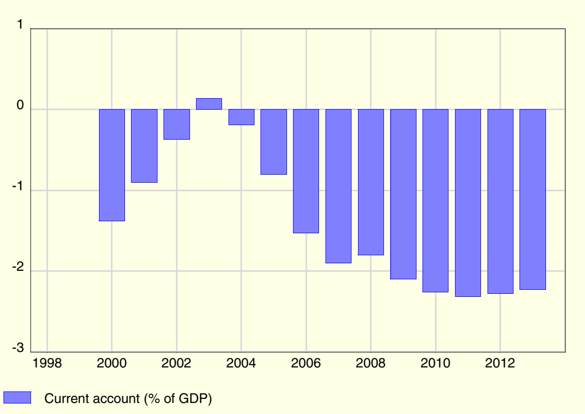
Graph 19 - Real wages and productivity in the Western non-euro EU Member States



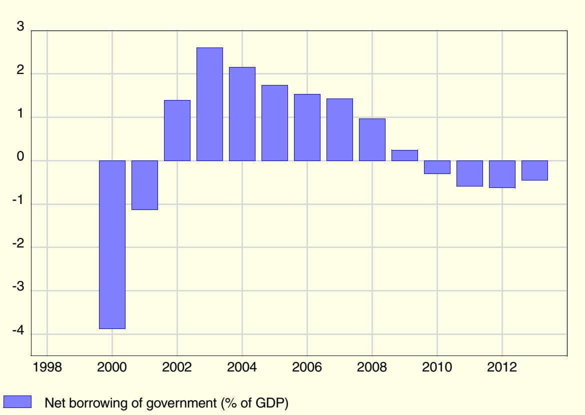
Graph 20 - Interest and exchange rates in the Western non-euro EU Member States



Graph 21 - Current account of the Western non-euro EU Member States



Graph 22 - Net borrowing of government in the Western non-euro EU Member States



In 2008 and 2009, the area's net exports are not projected to provide any positive support to overall GDP growth. Contributions are set to remain negative as the net export position is forecast to show a negative score in 2007 and as export and import volumes progress at a similar pace in 2008 and 2009. After 2009, import growth should wane in the wake of the more moderate expansion of domestic demand. Import growth in volume is projected to decline from a round 8 per cent in 2009 to 5.5 per cent in 2013. Export growth is also expected to decline, albeit at a somewhat more moderate pace, falling from a growth rate of 7.9 per cent in 2008 to 6.8 per cent in 2013. The progression of export volumes is limited by a more moderate expansion of foreign demand and by pressure from a noticeable appreciation of the area's nominal trade-weighted exchange rate, which is no longer fully offset by a compression of export prices over the 2009-2013 period. Export price growth should average a slim 0.8 per cent per annum between 2008 and 2013, weighed down by the effective exchange rate appreciation. Import prices look set to rise at a faster tempo, progressing by 1.4 per cent per year over the same period as importers benefit from the drift in the exchange rate to adjust the domestic price of imports.

Over the period 2008-2010, growth in total employment is expected to outpace expansion of the labour supply in the Western non-euro EU Member States. Employment growth is projected to be underpinned over the 2008-2010 period by strong GDP growth and real wage costs that generally evolve at a more restrained pace than labour productivity. The area's unemployment rate is thus projected to decline from 5.1 per cent of the civilian labour force in 2007 to only 4.3 per cent of the labour force in 2010. Economy-wide real unit labour costs tend to rise as of 2009 as low unemployment rates lead to heightened wage claims. In the private sector however, vigorous labour productivity growth should mitigate the effect of rising wage costs on unit labour costs throughout the projection period. The overall upward drift in unit labour costs dampens labour demand as of 2011, just as the continually smaller increases in the labour force weigh more heavily on the expansion of the labour supply. Hence, the area's unemployment rate is projected to edge up once again, moving from a rate of 4.3 per cent of the civilian labour force in 2010 to 4.6 per cent in 2013.

Inflation rates in the area are projected to recede from 2.3 per cent in 2007 to 1.9 per cent in 2009. From 2010 onwards, consumer price inflation is further projected to follow an upward trend, reaching a high of 2.6 per cent in 2013 as optimal levels of aggregate output trail systematically behind aggregate demand and as the area's unemployment rate remains somewhat below the area's natural rate of unemployment. On average, consumer price inflation is projected to stand at 2.3 per cent per annum over the 2008-2013 period.

Interest rates are expected to edge up in 2008 and 2009, thus helping to alleviate inflationary pressures while leading to a slight rise in real interest rates. Escalating inflationary tensions over the 2010-2013 period are subsequently projected to lead monetary authorities to considerably tighten their monetary policy stance. Indeed, in an attempt to stave off the rise in consumer prices and to stabilise inflation expectations, the monetary authorities should raise the nominal short-term interest rate from 5.4 per cent in 2008 to 7.1 per cent in 2013. Given the relatively gradual rise in interest rates and the lags in the effects of changes in monetary policy, inflation is not fully brought under control over the 2010-2013 period; the continued price increases thus effectively mitigate the rise in nominal rates as the real short-term interest rate rises from 3.4 per cent in 2008 to only 4.6 per cent in 2013. The nominal long-term interest rate tracks the rise in the short-term rate, jumping from a level of 5.4 per cent in 2008 to 7.3 per cent in 2013.

The high and rising interest rates in the Western non-euro EU countries are expected to affect international differentials in real interest rates and be conducive to a regular appreciation of the area's nominal trade-weighted exchange rate. Indeed, our projection indicates that the area's nominal effective exchange rate should appreciate at an average pace of 2.5 per cent per annum over the 2008-2013 period. The real effective exchange rate should however exhibit a slight temporary depreciation over 2008 owing to the rapid downward adjustment of export prices. The further tepid rise in export prices should then only partly offset the nominal appreciation of the exchange rate, limiting the real appreciation to an average 0.4 per cent per annum over 2008-2013.

Over the 2008-2013 period, the area's consolidated current account position is expected to remain generally unchanged, at an average deficit of 2.2 per cent of the area's GDP. The deficit is first projected to progress, rising from a shortfall of 1.8 per cent in 2008 to 2.3 per cent in 2011 in the wake of a relatively stable negative net export volume and a negative terms of trade effect. In spite of the steady nominal effective exchange rate appreciation, the current account deficit should then embark on a gradual decline and come out at 2.2 per cent of GDP in 2013 as negative net export volumes gradually disappear; however, this gradual rebalancing act is hampered by continued headwinds from the strongly negative evolution of the area's overall terms of trade.

A generally resilient economic activity between 2008 and 2011 should provide an environment of relatively low unemployment, where fiscal revenues tend to progress more rapidly than government outlays. These trends should lead to the gradual erosion of the government consolidated budget deficit and pave the way to a net fiscal surplus as of 2010. Government net lending is thus projected to shift from a shortfall of 1 per cent of GDP in 2008 to a surplus of 0.4 per cent of GDP in 2013. The overall fiscal position should show an average surplus of 0.1 per cent of GDP over the 2008-2013 period.

The United States

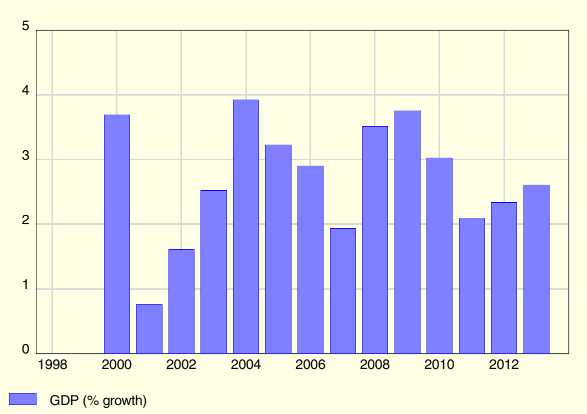
Real GDP in the United States (US) is expected to expand at an average annual rate of 2.8 per cent over the 2007-2013 period. However, annual rates of economic activity should exhibit significant variations as tax provisions originally enacted between 2001 and 2005 gradually expire. As oil price increases gradually work through the economy, inflation is projected to settle at an average yearly level of 2 per cent over the projection horizon, even as nominal short-term interest rates decline from a year average level of 5.3 per cent in 2007 to 4.6 per cent in 2013. The US budget deficit is expected to decline, slipping from a shortfall of 2.6 per cent of GDP in 2007 to a deficit of 0.3 per cent of GDP in 2013. Assuming the absence of any sharp and unexpected drop in the external value of the dollar, the US current account deficit should shrink from 5.7 per cent of GDP in 2007 to a level of 4.6 per cent of GDP in 2013.

Economic activity in 2007 should wane in the wake of the fallout from the turmoil in the US housing sector and as world oil prices continue to increase

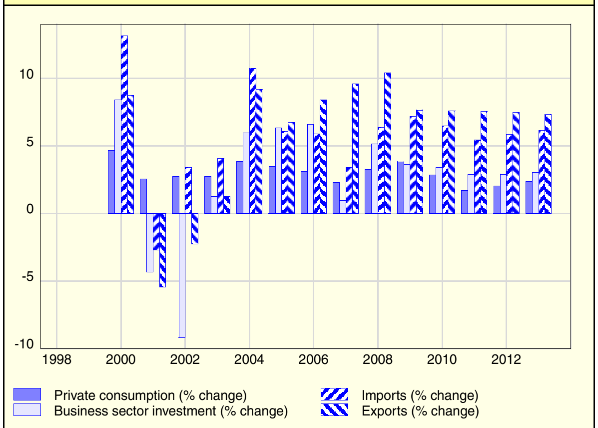
US GDP is currently forecast to increase at a year average rate of 1.9 per cent in 2007, slipping from the 2.9 per cent growth rate registered by the US economy in 2006. The moderation in GDP growth comes in the wake of a decline in private consumption expenditure due to rising oil prices and tighter access to credit. Economy-wide gross fixed capital investment is also significantly curtailed, due to the current turmoil on world financial markets, which has generally tightened access to credit. While in 2006 the country's net exports reduced GDP growth by 0.1 p.p., net foreign trade should now have a significant positive impact of 0.5 p.p. on the US overall growth rate in 2007.

Private consumption growth is forecast to decline from 3.1 per cent in 2006 to 2.3 per cent in 2007. This milder progression of consumer spending comes as households are faced with a slowdown in job creation, 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), which increases the overall number of taxpayers who are subject to the AMT in 2007.

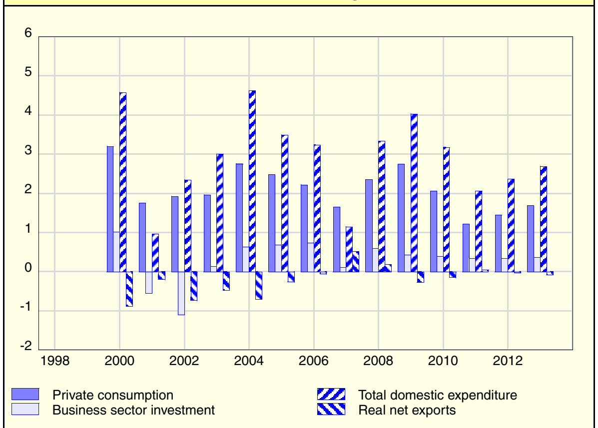
Graph 23 - Gross domestic product in the US



Graph 24 - Selected components of demand in the US



Graph 25 - Contributions to real GDP growth in the US *(percentage points)*



Business sector gross fixed capital investment is currently expected to be significantly curtailed in 2007, in the face of persisting strong headwinds from the current turmoil that has spilled over from the US housing market into world financial markets. Indeed, credit risks linked to the lack of information surrounding the securitisation of US subprime mortgage-backed debt have been undergoing tough reappraisals and access to credit has been significantly tightened. In light of these ongoing events, business sector gross fixed capital formation should expand at a tepid pace of 1 per cent in 2007. Investment also bears the weight of higher real interest rates as nominal rates edge up on a year average basis while producer price inflation becomes more moderate. After a marked cooling of the US housing market that led to a 4.6 per cent decline in household fixed investment in residential buildings in 2006, household residential investment is currently expected to post an even stronger year-on-year decline of 16.5 per cent in 2007. Overall government gross fixed investment should rise by 4.1 per cent in 2007. All in all, in 2007 the massive fall in residential investment and tepid business investment should push US aggregate gross fixed capital investment down by 3 per cent on the year.

US export growth is expected to edge up in 2007, progressing by a high 9.6 per cent on the year. This is up from an already strong 8.4 per cent rise in 2006, and comes mainly on the back of the continued moderate rise in foreign effective demand and the very significant depreciation of the US currency since 2002. Import growth is projected to taper off from 5.9 per cent in 2006 to 3.4 per cent in 2007, reflecting mainly the milder growth in domestic demand. Meanwhile, the strong effective depreciation of the dollar in 2007 has little effect on import volumes as importers move to compress dollar-denominated prices so as to remain competitive with domestic prices. On balance, net foreign trade should turn around and contribute a substantial 0.5 p.p. to the country's GDP growth in 2007. The US current account balance should benefit also from an exceptionally positive terms of trade effect in 2007 linked to the modest rise in import prices following the strong effective depreciation of the dollar; the current account deficit should decline from 6 per cent of GDP in 2006 to 5.7 per cent of GDP in 2007.

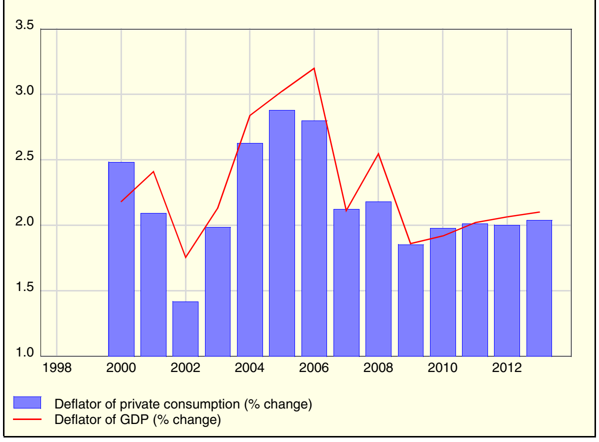
After having risen at a vigorous average rate of 1.8 per cent over the 2005-2006 period, total employment in 2007 should track the dip in the growth of domestic demand and progress by a slim 1.3 per cent on the year. The progression of employment is also hampered by the rise in real wage costs that is expected to stem from the very moderate rise in private sector producer prices, made possible by the milder 2.3 per cent year-on-year increase in oil prices that is currently pencilled in for 2007. Real private sector wage costs should rise by 2.4 per cent while labour productivity is expected to increase by 0.9 per cent, leading to a 1.5 per cent rise in private sector unit labour costs. The labour supply should increase by 1.4 per cent in 2007, pinning the unemployment rate at 4.7 per cent of the civilian labour force. The rate of economy-wide real take-home labour compensation in 2007 rises by 1.1 per cent; however, real economy-wide labour costs progress by 2 per cent. This rise in total labour costs is well below the 0.6 per cent rise in labour productivity and pushes economy-wide real unit labour costs up by 1.4 per cent in 2007.

After rising by 21.4 per cent (11.7 $US) on the year in 2006, oil futures markets are currently pencilling in an average year-on-year rise of 6.8 per cent (1.5 $US) for the price of oil over 2007. Indeed, the price of Brent crude oil jumped from a year average level of 54.5 $US/bbl in 2005 to 66.2 $US/bbl in 2006, and can be expected to come out at a year average level of 67.7 $US/bbl in 2007. On the back of the tempered rise in domestic demand and the continued hike in world oil prices, inflation - as measured by the change in the deflator of private consumption expenditure - is projected to fall from 2.8 per cent in 2006 to 2.1 per cent in 2007. Underlying inflationary tensions do not disappear however, as only limited slack remains in the economy and the very tight labour market conditions could lead to wage and price increases.

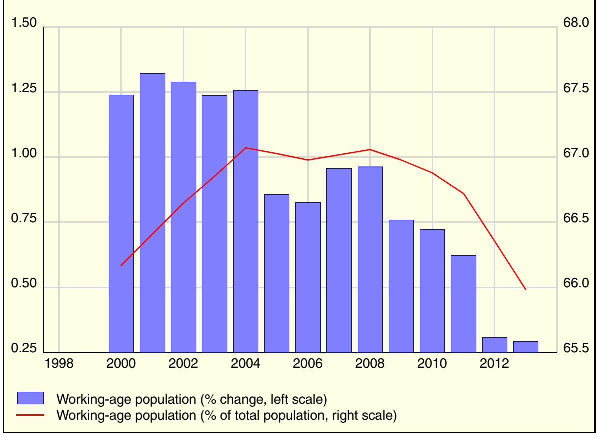
Over the course of 2007, US monetary authorities are expected to maintain what can be viewed as a now relatively neutral policy stance. Indeed, the possible monetary tightening bias that could result from rising oil prices and tight labour markets is generally taken to be offset by an expected economic slow-down over the second half of the year 2007 and by well-contained consumer price inflation. The nominal short-term interest rate is forecast to hit a yearly average level of 5.3 per cent in 2007, slightly up from the 5.2 per cent average 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 2.4 per cent in 2006 to 3.2 per cent in 2007. In light of the remaining potential for an inflationary build-up, the nominal long-term interest rate remains pinned at a yearly average level of 4.8 per cent in 2007. US monetary policy is thus generally viewed to be on hold and basically data dependant, while interest rates are forecast to rise year-on-year in Europe and Japan.

In the absence of interest rate hikes looming in the near future, given the current expectations of a slow-down of the US economy in the second half of 2007 and the increasing weight of the euro as a currency used for international transactions and in currency reserves, and following the fallout from the US housing market crisis that led to the recent high volatility and repricing of risk in US financial markets, the external value of the dollar has been severely tested throughout the first half of 2007. Indeed, since March 2007, the dollar has lost significant ground against major European currencies, falling from a high of 1.3094 $US/euro in early March to a low of 1.3831 $US/euro in July 2007. The dollar also fell against the Chinese yuan, declining from 7.7454 yuan/dollar in March 2007 to a temporary - and exceptional - low of 7.0655 yuan/dollar in July. Financial markets are currently expecting the dollar's slide to continue through 2007. On a year-on-year basis, the US currency is expected to depreciate in 2007 by 7.9 per cent in nominal trade-weighted terms. The real effective depreciation of the dollar should be even more pronounced, as the muted rise in US export prices looks set to ensure a real effective depreciation of 9.5 per cent on the year.

Graph 26 - Price deflators in the US

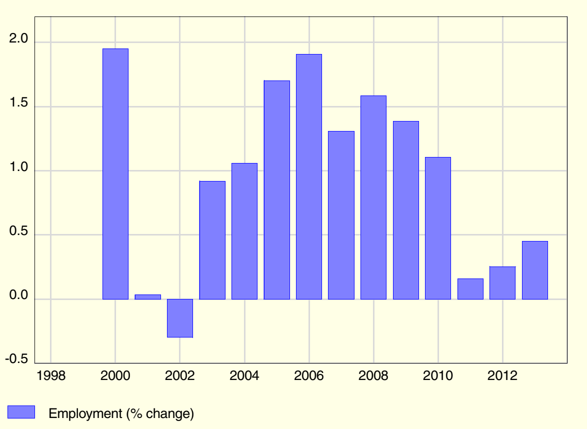


Graph 27 - Population in the US

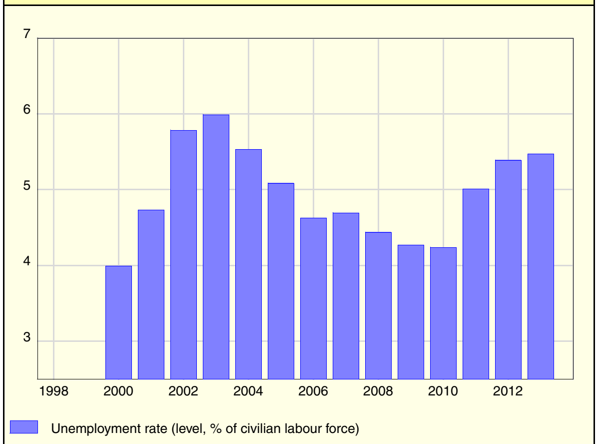


The US current account deficit came out at a high level of 6 per cent of GDP in 2006. In 2007, thanks to continued robust export growth, a dip in import growth and an unexpectedly positive terms of trade effect, the current account deficit is forecast to decline and come out at 5.7 per cent of GDP on the year.

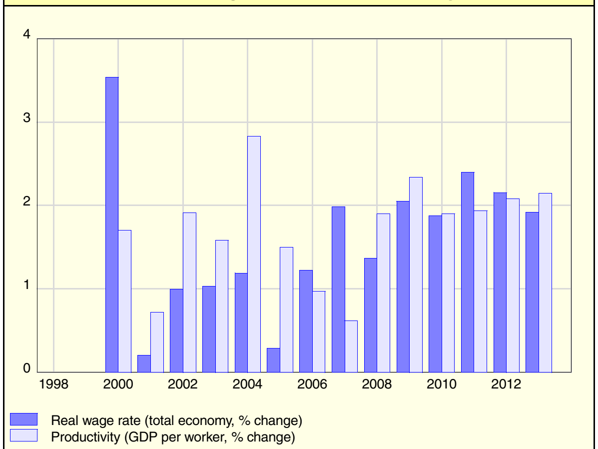
Graph 28 - Employment in the US



Graph 29 - Unemployment rates in the US



Graph 30 - Real wages and productivity in the US



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 2.6 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 relatively strong, owing to the expected reduction in the exemption amounts for the alternative minimum tax (AMT), which will increase the number of taxpayers subject to the AMT as of 2007. The rise in expenditures in 2007 is forecast to be somewhat slower than the progression of government income; however, all in all the US fiscal deficit is expected to remain basically unchanged at 2.6 per cent of GDP.

The scheduled expiration of a number of fiscal provisions will dent the US economy's growth over the 2008-2013 period

GDP growth in the US is projected to follow a somewhat volatile 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 between 2005 and 2007 puts the US economy on the path to continued growth without any excessive build-up of inflationary pressures and as a number of fiscal provisions begin to expire according to the current schedule. GDP is projected to progress at an average pace of 2.9 per cent per annum over 2008-2013. GDP growth is projected to rebound vigorously from its lacklustre performance of 2007 and come out at respectively 3.5 per cent and 3.8 per cent in 2008 and 2009. Growth should be buoyant as residential investment recovers from its woes and as business investment picks up once again, while private consumption remains generally firm. Domestic demand falters over the 2010-2012 period as the scheduled expiry of provisions in current tax laws lead to a rise in both personal and corporate tax liabilities. However, the economy is then projected to regain traction as the initial effects of the tax hikes dissipate; GDP growth subsequently rises, reaching 2.6 per cent in 2013. Net exports are projected to provide another positive impact on GDP growth in 2008, providing a 0.2 p.p. contribution to the overall US growth rate. The positive contributions from net exports are then expected to wane and give way to negative contributions, eroding annual growth rates by an average of 0.1 p.p. over the 2009-2013 period.

Over the 2008-2013 period, private consumption is projected to progress at an average annual rate of 2.7 per cent. Over this period, consumption is underpinned by an average annual rise in employment of 0.8 per cent, accompanied by rising real wages that allow for a 2.8 per cent average annual rise in household real disposable income.

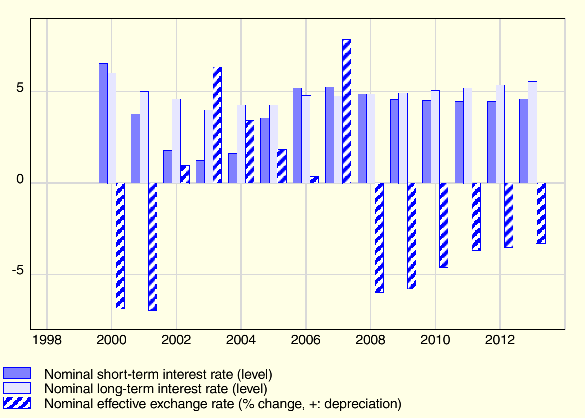
However, the expiration of a number of significant fiscal provisions at the end of December 2010 is set to curtail the growth of household real disposable income in 2011; household consumption expenditure growth is thus projected to tumble to just 1.7 per cent in 2011 before rebounding to 2.4 per cent in 2013.

Business sector gross fixed capital formation progresses at an average annual rate of 3.5 per cent over the 2008-2013 period. After its noticeably above-trend, unsustainable, 6.3 per cent average annual growth rate over the 2004-2006 period and the dip in 2007, growth in business investment is set to rebound and progress by a hefty 5.2 per cent in 2008. This pick-up in investment follows from the combined effects of the rise in private sector output growth and the fall in real interest rates as producer price inflation edges up while nominal short-term rates tend to ease. Subsequently, business sector investment growth remains sturdy, progressing at an average annual clip of 3.2 per cent between 2009 and 2013. The current decline in household investment in residential buildings is expected to bottom out early next year; given the sharp drop in household residential investment over 2007, this should allow for only a very limited 0.5 per cent year-on-year progression in 2008. Residential investment is further projected to pursue its rebound and progress strongly in 2009, catching up on the losses incurred over 2006 and 2007. Investment in residential buildings is expected to reach an average annual growth rate of 5 per cent over the 2008-2013 period. As public sector investment is projected to progress at an annual average pace of 2.4 per cent over the same period, the rise in economy-wide gross fixed capital formation should come out at 3.7 per cent over the entire 2008-2013 period.

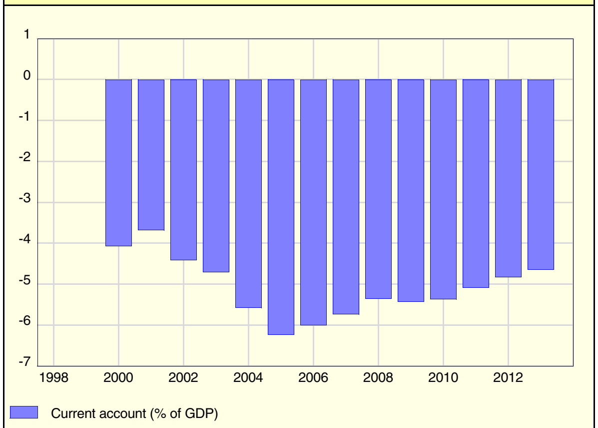
Net exports are projected to once again underpin GDP growth in 2008 with a positive 0.2 p.p. contribution. However, they should then turn around as of 2009 and reduce growth by an average 0.1 p.p. per annum through 2013. Indeed, as net exports in volume stand at a negative 4.9 per cent of US GDP in 2007, the strong progression of exports over the 2008-2013 period proves to be insufficient to offset the effect of the rise of real imports on the country's overall net export position. US export volumes are projected to increase at a strong pace of 8 per cent per annum over the 2008-2013 period. This comes in the wake of the massive 9.5 per cent real effective dollar depreciation that is expected in 2007 and that should be only gradually eroded by an average real effective exchange rate appreciation of 2.6 per cent per annum between 2008 and 2013. It also builds on a robust and stable foreign effective demand, progressing at a yearly average rate of 5.5 per cent over the same period. Though US import growth rises to 7.2 per cent in 2009 after its 2007 slowdown, it subsequently tends to decline over the remainder of the projection period as the nominal effective dollar appreciation loses momentum and as import price inflation picks up. Thought the evolution of export and import prices leads to a slight deterioration in US terms of trade in both 2008 and 2009, this proves to be only a temporary phenomenon as the terms of trade increase over the 2010-2013 period. All in all, the changes in the terms of trade and in net trade volumes lead to a gradual decline of the US current account deficit, which is projected fall from a deficit of 5.7 per cent of GDP in 2007 to a shortfall of 4.6 per cent of GDP in 2013.

Employment growth is projected to average 0.8 per cent per annum over the 2008-2013 period, underpinned by a relatively resilient domestic demand and by generally well-contained private sector real unit labour costs. However, employment growth is uneven over the 2008-2013 period. Indeed, private sector employment progresses at an average pace of 1.4 per cent per annum over 2008-2010; private employment growth then tumbles to 0.2 per cent over 2011-2013, as the scheduled expiration of a number of significant fiscal measures as of December 2010 curtails the rise of household real disposable income and weighs on private consumption expenditure, while raising nominal wage claims, real wage costs and real unit labour costs. The effects of the tax hikes will peak in 2011, leading to a temporary 0.5 per cent spike in economy-wide real unit labour costs. Unit labour costs decline again as of 2012 in the private sector, thanks to vigorous labour productivity growth; they begin to fall on an economy-wide basis only in 2013. Over the 2008-2013 period, the US labour supply increases on average by 1 per cent per annum. The 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 4.4 per cent of the civilian labour force in 2008 to 5.5 per cent of the labour force in 2013. The rise in the labour supply tends to fall off over the projection period under the combined effects of the ever-smaller growth of the working-age population, and due to the disincentive effects of the tax hikes on labour force participation.

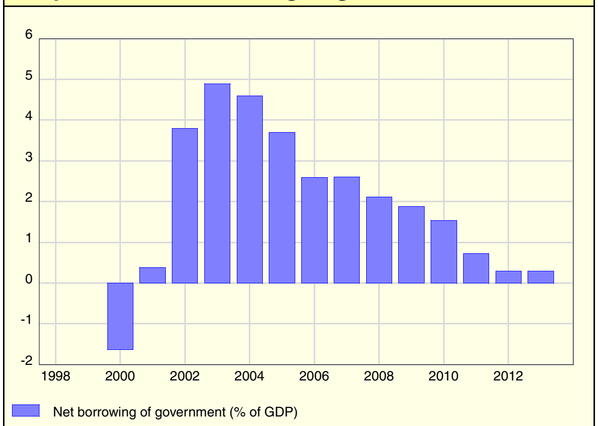
Graph 31 - Interest and exchange rates in the US



Graph 32 - US current account



Graph 33 - Net borrowing of government in the US



Both private sector producer price inflation and consumer price inflation - as measured by, respectively, the change in the deflators of private sector output and private consumption expenditure - remain relatively subdued over the 2008-2013 period. Both the private sector output price and consumer prices post an average increase of 2 per cent per annum. Consumer price inflation remains subdued as the rise in tax liabilities of households effectively limits growth in household real disposable income, and as the removal of unwarranted monetary accommodation as of 2007 effectively limits the rise of final domestic demand. Production costs benefit from generally declining real unit labour costs and from the decline of oil prices; indeed, the price of oil is projected to fall from 70.9 $US/bbl in 2008 to 69.4 $US/bbl in 2013.

After peaking at a yearly average level of 5.3 per cent in 2007, the US nominal short-term interest rate is projected to trend downward marginally over the 2008-2013 period, edging down from a year average level of 4.9 per cent in 2008 to 4.6 per cent in 2013. As inflation expectations for the coming years are assumed to remain well-anchored despite the presence of incipient inflationary pressures, the nominal long-term interest rate is projected to rise from 4.9 per cent in 2008 to 5.6 per cent in 2013. In real terms - deflated by the price index of household consumption expenditure - the short-term interest rate should fall from its high of 3.2 per cent in 2007 to 2.6 per cent in 2013. The real long-term rate is projected to follow a slight upward trend over the projection period, exhibiting a more pronounced term structure than what was seen in 2006 and 2007; the real long-term rate should rise from a yearly average level of 2.7 per cent in 2008 to 3.5 per cent at the end of the projection period.

The US dollar is currently expected to depreciate dramatically in 2007, falling year-on-year by 7.9 per cent in nominal trade-weighted terms and by 7.5 per cent against the euro. Our analysis suggests that an exchange rate of 1.38 dollars/euro, as observed in late July 2007, is unjustified by the macroeconomic fundamentals of the economies of the US and its partners (i. e. differentials between US interest rates and foreign rates, inflation differentials, and these economies' relative medium-term growth prospects). Indeed, our current projection indicates that the dollar should appreciate against the euro and return to an exchange rate of around 1.2932 dollars/euro in 2013, a rate more in line with the macro fundamentals. The US dollar should follow a similar course against other major currencies: after its strong and sudden depreciation in 2007, the dollar's nominal trade-weighted exchange rate is projected to appreciate at a yearly average rate of 4.5 per cent over the 2008-2013 period. Due to the moderate progression of US export prices, the dollar's real effective exchange rate is also projected to appreciate, albeit at a somewhat milder tempo of 2.6 per cent per annum over the 2008-2013 period. These outcomes crucially hinge on the assumption of unchanged risk premia on the dollar exchange rate over the medium term, 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.

The US president's budgetary proposals for fiscal year 2008, transmitted to Congress in February 2007, requested the extension of a number of tax provisions originally enacted in the Economic Growth and Tax Relief Reconciliation Act (EGTRRA) of 2001 and the Jobs and Growth Tax Relief Reconciliation Act (JGTRRA) of 2003. The adoption of these proposals would have significant effects throughout the 2008-2013 period. To date however, this budget request has not been enacted. Our current projection for US fiscal outlays and income are thus made under the assumption of the unaltered implementation of current fiscal laws and policies. 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 fiscal provisions originally enacted in EGTRRA and JGTRRA. This should lead to a gradual reduction in the US fiscal deficit, which should post a modest shortfall of 0.3 per cent of GDP by 2013.

Japan

The recent strong performance of the Japanese economy should continue unabated in 2007 with real GDP progressing by a brisk 2.4 per cent on the year. Over the 2007-2013 period, GDP is expected to expand at an average annual rate of 1.3 per cent. However, a steady decline in total population, working-age population and labour force is undoubtedly set to weigh on the country's economic growth throughout the projection period. Consumer price inflation is currently not expected to become significantly positive on a year-on-year basis before 2009. Over the entire 2007-2013 period, consumer price inflation should average 1 per cent per annum. However, the simultaneous shift to a less accommodative monetary policy stance while the government imposes fiscal restraint in order to reach its target of a primary budget balance by 2011 could threaten the current domestic recovery and push Japan back into a deflationary spiral.

Buoyant economic growth in 2007 is underpinned by firm domestic demand and positive net exports

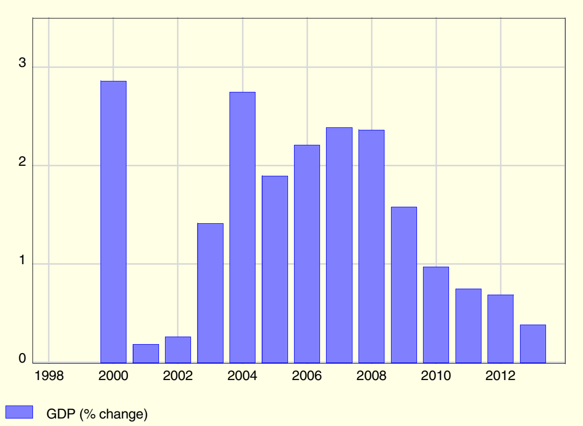
Japanese real GDP is projected to continue to expand at a healthy clip in 2007, growing by an impressive 2.4 per cent after registering a substantial 2.2 per cent growth in 2006. Growth is expected to be primarily supported by private consumption and business sector gross fixed capital formation. However, net exports should again provide a significant 0.3 p.p. contribution to the economy's growth rate, even though this achievement is somewhat more limited than the massive 0.8 p.p. contribution to growth in 2006.

Private consumption growth is forecast to accelerate from 0.9 per cent in 2006 to 1.6 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.

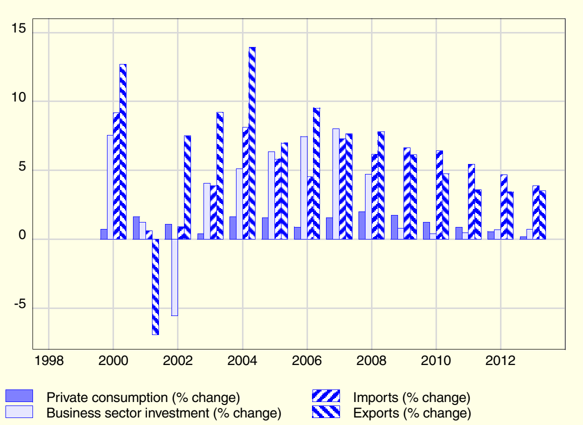
Economy-wide gross fixed capital formation should continue to progress in 2007, rising by a hefty 5.2 per cent, compared with a slim 0.3 per cent average increase over the 2000-2006 period. Business sector investment in 2007 is expected to be particularly buoyant, notching up a massive 8 per cent progression on the year, on the back of robust increments in final demand. After a prolonged 2.5 per cent average yearly decline over the 1996-2005 period, household investment in residential buildings should continue to gain traction and progress by a full 2 per cent on the year. Residential investment rebounds from its previously negative trend as the economic recovery moves to firmer ground, as real interest rate levels remain moderate and as household real disposable income progresses substantially. Public sector investment should pursue its course of steady decline since 2000 and yield a further 2.3 per cent on the year.

Japanese export volumes progressed by a strong 9.5 per cent in 2006, driven by robust foreign demand and moderate export prices accompanied by two consecutive years of effective exchange rate depreciation. In 2007, Japan's nominal and real trade-weighted exchange rates are forecast to depreciate significantly and allow for a robust 7.6 per cent rise in exports. Imports progressed at a somewhat tepid pace of 4.5 per cent in 2006, faced with modest growth in domestic demand and sharply rising import prices due to a combination of exchange rate depreciation and increases in world oil prices. Import volumes should rebound significantly in 2007, progressing by 7.3 per cent as domestic demand picks up and as the rise in import prices becomes somewhat more subdued. Indeed, yen-denominated oil prices in 2006 rose by more than 28 per cent and total import prices rose by 11 per cent. Import prices are expected in 2007 to progress at a relatively less heady pace of 5.4 per cent as foreign prices rise less markedly in the wake of more moderate increases in oil prices. The marked exchange rate depreciation in 2007 should also lead to a significant 6.1 per cent rise in Japanese export prices. In 2007, export volumes progress once again more rapidly than imports, leading to a positive 0.3 p.p. contribution to the growth rate of GDP, down from 0.8 p.p. in 2006.

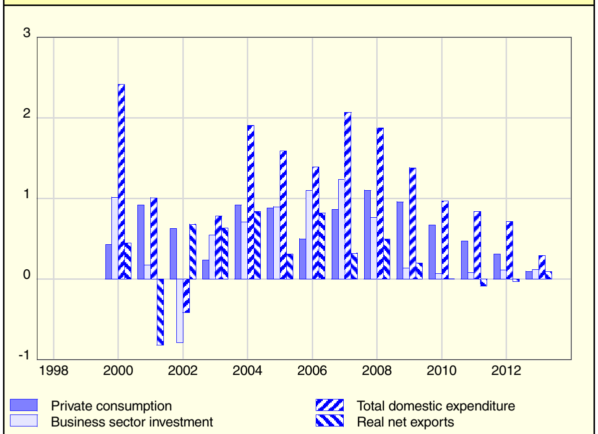
Graph 34 - Gross domestic product in Japan



Graph 35 - Selected components of demand in Japan



Graph 36 - Contributions to real GDP growth in Japan *(percentage points)*



This positive, albeit more limited, result for net export volumes in 2007 is accompanied by a slight rise in Japan's terms of trade and a strong rise in Japanese nominal GDP, leading to an overall current account surplus of 4.1 per cent of GDP.

Contrary to what had been widely expected since early 2006, it now appears that the Japanese economy is having difficulties moving out of its stint of deflation. In 2006, consumer price inflation - as measured by the change in the deflator of private consumption expenditure - stood at a negative 0.3 per cent while the GDP deflator fell by 0.9 per cent. The deflator of private consumption expenditure in 2006 declined for the eighth consecutive year. Building on the recent analyses of Japan's monetary authorities, we currently assume continued inflationary weaknesses through 2007 and into 2008, with a return to firm positive rates of inflation on a year-on-year basis only as of 2009. In 2006, the massive 28 per cent rise in yen-denominated oil prices partly fed through into private sector producer prices; yen-denominated oil prices in 2007 are expected to rise by no more than 3.5 per cent, leading to a much more limited 1.1 per cent rise in private sector output prices.

Growth in total employment is forecast to progress by 0.3 per cent in 2007, down a notch from the 0.4 per cent rise in 2006. Both total population and working-age population began to decline in 2006 and these trends are set to continue throughout the projection horizon. However, the labour supply is expected to continue to increase in 2007, rising by 0.3 per cent on the year, before also embarking on a trend decline. As the rise in the labour supply in 2007 is set to match the rise in employment, Japan's unemployment rate should remain unchanged at 4.1 per cent of the civilian labour force. The continued low rate of unemployment and the significant decline in real unit labour costs since 2006 are forecast to heighten demands for real wage increases. Indeed, the economy-wide real rate of labour compensation should increase in 2007 by 1.3 per cent. However, with labour productivity progressing at a rate of 2.1 per cent, economy-wide real unit labour costs should still fall by 0.8 per cent on the year. Unit labour costs should decline by an even more significant 2.2 per cent in the private sector, where real wage costs are set to increase by just 0.5 per cent while labour productivity is expected to rise by an impressive 2.7 per cent.

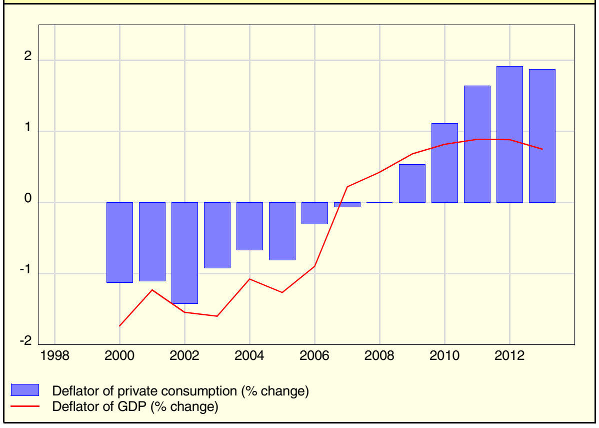
In 2006, the Bank of Japan put an end to its policy of massive quantitative easing and began to normalise its monetary policy stance, raising the short-term interest rate from approximately naught to 0.25 per cent in July 2006 under the expectation that in 2006 the country's economy would have moved out of deflation. It further raised its main policy rate to 0.50 per cent in February 2007 and has kept it constant ever since. The end of Japan's zero interest rate policy led to a rise in the money market short-term interest rate to a year average level of 0.3 per cent in 2006. The nominal short-term rate is currently expected to come out at a yearly average level of 0.7 per cent in 2007. Assuming a -0.1 per cent rate of consumer price inflation in 2007, Japan's real short-term interest rate is projected to rise to a yearly average level of 0.8 per cent on the year. The nominal long-term interest rate is expected to remain steady at 1.8 per cent in 2007. Japan's nominal trade-weighted exchange rate depreciated by 6.4 per cent in 2006 and is expected to post a 7.2 per cent depreciation in 2007. The Japanese currency is expected to slide even more sharply against the euro, losing 8.9 per cent of its value on a year-on-year basis. This marked slide in the external value of the yen stems from the effects of international interest rate differentials unfavourable to the yen, currency arbitrage mechanisms such as the recently much publicised "carry trade", and the relatively weak medium-term growth prospects of the Japanese economy.

Since 2005, the Japanese government has strived to rein in its ballooning budget deficit and debt, effectively managing to reduce the government deficit from 6.4 per cent of GDP in 2005 to an expected shortfall of only 3.8 per cent of GDP in 2007. This determined drive toward fiscal consolidation should be pursued over the coming years, as laid out in the Abe government's 2007 Economic and Fiscal Reform ("Basic Policies") agenda.

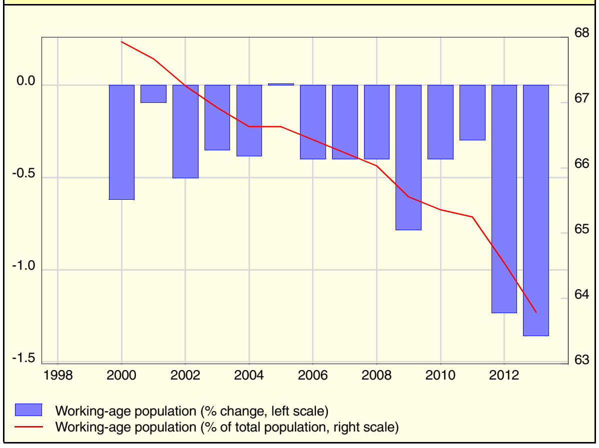
Medium-term growth prospects are dire due to escalating pressures from an ageing population

Over the 2008-2013 period, Japan's real GDP is projected to progress at an average pace of 1.1 per cent per annum. However, demographic developments should increasingly constrain GDP growth, setting it on a regularly declining trend. Indeed, GDP growth is projected to plummet from 2.4 per cent in 2008 to an anaemic 0.4 per cent in 2013. As GDP growth rates decline, growth rates of GDP per capita also tumble over the 2008-2013 period, albeit somewhat less markedly. Indeed, total population is expected to decline at an average rate of 0.1 per cent per annum over the 2008-2013 period, while the labour supply should contract on average by 0.5 per cent per year over the same period. Assuming that labour productivity growth will continue to evolve along current trends, this indicates that an increasingly small share of Japan's population will bear the burden of producing the country's goods and services, paving the way for chronic domestic supply constraints as domestic demand systematically exceeds optimal productive capacity. At the same time, GDP growth should be increasingly based on the expansion of Japan's domestic demand, as the significant positive contributions to growth from the country's real net exports disappear after 2010.

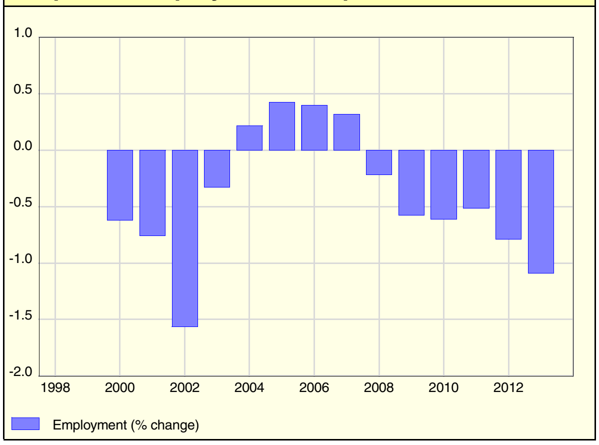
Graph 37 - Price deflators in Japan



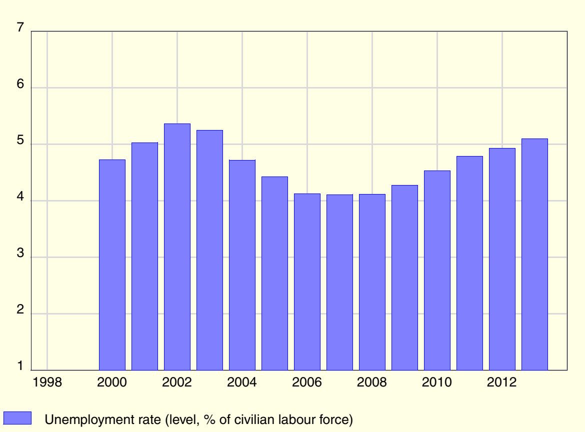
Graph 38 - Population in Japan



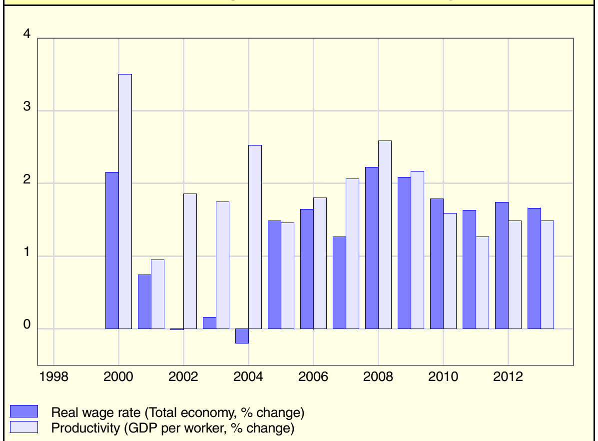
Graph 39 - Employment in Japan



Graph 40 - Unemployment rates in Japan



Graph 41 - Real wages and productivity in Japan



Household consumption expenditure should continue to expand briskly in 2008, progressing by a full 2 per cent on the year. Private consumption growth is then projected to gradually decline to a paltry 0.2 per cent in 2013. Consumption growth is crimped by the ever-smaller increases in household real disposable income. The tepid evolution of household real income, in turn, stems mainly from the steadily declining level of employment, which is eroded by the fall in working-age population. Economy-wide real take-home rates of labour compensation continue to rise throughout the 2008-2013 period, on the back of low unemployment rates which are conducive to increased wage claims. Increases in real wage costs outstrip the rise in labour productivity as of 2010, leading to increases in economy-wide unit labour costs. However, private sector real unit labour costs continue to edge down throughout 2008-2013, as the 1.9 per cent average rise in real private sector wage costs over the period is accompanied by a 2.3 per cent average rise in labour productivity.

After posting an expected 8 per cent rise in 2007, business sector gross fixed investment is projected to progress by a less spectacular but still robust 4.7 per cent in 2008. Business investment is then projected to progress at a steadily weaker pace, averaging an annual growth rate of just 1.3 per cent over the 2008-2013 period. The increase in business sector investment is projected to weaken as, under our baseline assumption of unchanged trend labour productivity growth in Japan, the decline in private sector employment that is brought about by the overall decline in Japan's population automatically leads to capital deepening without the need for further efforts geared toward increasing the productive capital stock. Hence, business sector capex growth dips to just 0.4 per cent in 2010 before stabilising at 0.7 per cent in the latter years of the projection horizon. Household investment in residential buildings is projected to continue on its current modest rebound and rise to 3.8 per cent in 2009. Residential investment is then projected to lose momentum, posting only a mild increase of 0.5 per cent by the end of the 2008-2013 period. Throughout the 2008-2013 period, residential investment is projected to increase at an average annual pace of 2.5 per cent. In line with the Japanese government's medium-term fiscal strategy, public sector investment is projected to continue to decline in the wake of the ongoing efforts to reduce expenditures and achieve a medium-term primary budget surplus. Over 2008-2013, economy-wide gross fixed investment is projected to fall off sharply from its 5.2 per cent rise in 2007. Total fixed investment should progress by 3.7 per cent in 2008 and increase by no more than 0.4 per cent in 2013. Over the whole 2008-2013 period, economy-wide gross fixed capital expenditure is projected to rise at an average annual rate of 1.2 per cent.

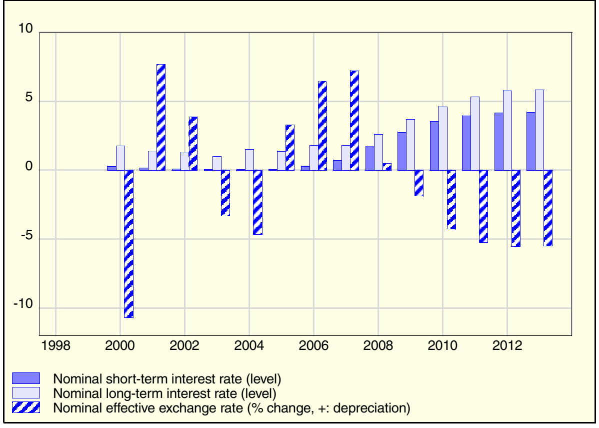
The contribution of net exports to the growth rate of Japan's GDP should come out at a positive and strong 0.5 p.p. in 2008 and then slip to a more modest 0.2 p.p. in 2009. Net exports are further projected to provide no significant contribution to the GDP growth rate over the 2010-2013 period. The absence of any further positive contribution to growth from net exports over the latter part of the projection period comes as export growth posts more noticeable declines than import growth. Indeed, the rise in export volumes is increasingly constrained by domestic supply constraints, leading to a greater share of domestic output being absorbed by domestic demand, by a marked exchange rate appreciation over the projection horizon, and by a slight trend decline in foreign demand. Export growth peaks at 7.8 per cent in 2008 and then falls off to a more modest 3.5 per cent rise in 2013. Though import growth tends to track the trend decline in growth rates of Japanese domestic output, it is also relatively underpinned by the shortcomings of domestic supply as the country turns to imports to offset its domestic constraints. After rising by 6.6 per cent in 2009, import growth falls off to just 3.9 per cent in 2013.

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 noticeable declines in the economy's production capacity and to underpin wage growth as firms vie for ever scarcer labour resources. However, incipient inflationary pressures are expected to be kept in check by relatively restrictive real interest rates; given the productivity gains, real unit labour costs should then remain generally under control. Private sector real unit labour costs fall over the entire projection period due to relatively strong increases in labour productivity brought about by the trend decline in employment. Economy-wide unit labour costs are projected to continue to post limited declines in 2008 and 2009, but to subsequently turn around and rise at an average annual rate of 0.2 per cent as economy-wide labour productivity growth trails behind the rise in total economy real wage costs.

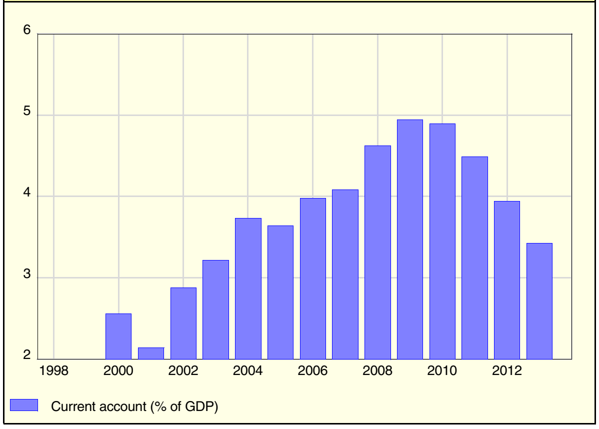
In line with the most recent analyses of the Bank of Japan, our current inflation projection for Japan is based on the assumption that consumer price inflation - as measured by the change in the deflator of private consumption expenditure - will come out nil or slightly negative in 2007. Our analysis leads us further to assume that inflation should remain at zero per cent on a year-on-year basis in 2008, and then rise gradually as of 2009. Our current projection indicates that, in 2009, inflation should stand at 0.5 per cent on the year. The rise in consumer prices should then pick up and progress at an average annual pace of 1.2 per cent over the entire 2008-2013 period.

Japanese real interest rates remain very accommodative in the first two years of the projection period. However, 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 in final demand and lead to heightened inflationary tensions. Consumer price inflation should remain under control, staying within the upper limit of the Bank of Japan's inflation comfort zone, as real short-term interest rates are gradually increased from 1.7 per cent in 2008 to 4.2 per cent in 2013. Nominal long-term rates should track the rise in short-term interest rates, pushing up the real long-term interest rate to 4 per cent in 2013.

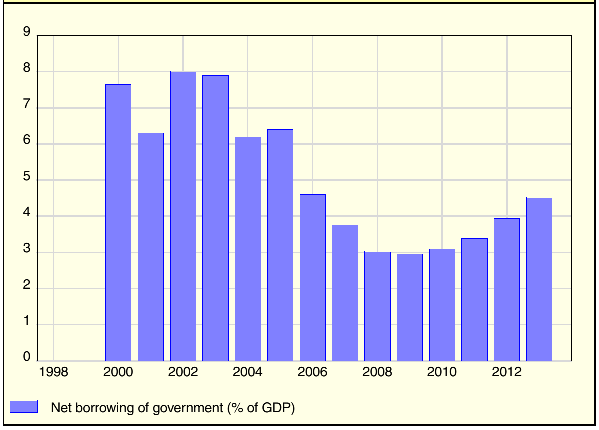
Graph 42 - Interest and exchange rates in Japan



Graph 43 - Current account of Japan



Graph 44 - Net borrowing of government in Japan



The regular rise in Japanese 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 2009 through 2013, Japan's nominal effective exchange rate appreciates on average by 4.5 per cent per annum, while the decline in export prices limits the real exchange rate appreciation to an average of 1.3 per cent per annum.

The fundamental framework and principles behind Japan's current drive to achieve a sustainable medium-term fiscal position were laid out in the Council on Economic and Fiscal Policy's "Course and Strategy for the Japanese Economy" of December 2006. The government's current integrated reform plans adhere to this medium-term strategy, proposing an integrated reform of government expenditures and revenues in order to reach a primary budgetary surplus by fiscal year 2011. On the basis of this reform package, and assuming its continued and full implementation throughout the 2007-2011 period, our projection indicates that the Japanese government's fiscal outlook should continue to improve through 2010 [1]. In the first years of the projection period, the rise in government revenue should outpace the rise in expenditures as overall government consumption of goods and services, and government investment are significantly curtailed. The primary budget deficit is projected to shrink from a shortfall of 1 per cent of GDP in 2007 to a slight surplus by 2011. The overall budget deficit should simultaneously decline from 3.8 per cent of GDP in 2007 to 3 per cent of GDP in 2009. However, our projection indicates that the expected rise in interest rates should drive up interest payments on government debt; at the same time, expenditure should come under increasing pressure as transfers to households rise as a result of the ageing of Japan's population. Hence, the government's overall budget deficit is projected to rise again as of 2010, while the primary budget surplus of 2011 should give way to new primary deficits as of 2012.

Over the 2008-2010 period, similar average increases in export and import volumes and the generally favourable terms of trade developments lead to a rise in the country's current account surplus, which edges up from 4.1 per cent of GDP in 2007 to 4.9 per cent of GDP in 2010. This upward movement is then reversed as of 2011 as import volumes progress relatively more quickly than exports and as overall terms of trade begin to decline. Hence, Japan's current account surplus declines, totalling a more modest 3.4 per cent of GDP in 2013.

1. See the Japanese government's "Economic and Fiscal Reform 2007" of 19 June 2007. Internet: http://www.keizai-shimon.go.jp/english/publication/pdf/070628_basic_policies_summary.pdf

The Eastern EU Member States

Real GDP growth of the Eastern EU Member States is projected to decelerate from an impressive 6.2 per cent in 2006 to 5.7 per cent in 2007, and then rebound to a heated 6.4 per cent rise in 2008. GDP growth is projected to stand at an average annual rate of 5.9 per cent over the entire 2007-2013 period. Domestic demand should remain the mainstay of the area's economic growth, while net exports continue to constitute a drag on the area's overall GDP growth rate through 2010. Consumer price inflation is expected to rise on average by 4.1 per cent per annum over the 2007-2013 period, as the very robust progression of domestic demand - geared toward both private consumption and investment purposes - in the Eastern EU Member States propels this area's economies on a path that should ultimately lead to economic convergence with the other countries of the European Union.

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

After expanding at an exceptional pace of 6.2 per cent in 2006, real GDP growth of the Eastern EU Member States[2] is expected to decelerate to a slightly more moderate pace of 5.7 per cent in 2007. The decline in GDP growth stems mainly from a significantly larger negative contribution of net exports to GDP growth in 2007, and from a very mild decline in growth of private consumption expenditure. Indeed, in 2006 export and import volumes progressed at the staggering pace of 14.2 per cent and 14.8 per cent, respectively. In 2007, export growth should fall to 11 per cent, while import growth is forecast to decline to 12.7 per cent, thereby increasing the negative contribution to growth of net foreign trade from -1.1 p.p. in 2006 to -1.7 p.p. in 2007. Total domestic expenditure, on the other hand, is expected to provide unaltered support to GDP growth, as a slight decline in consumption growth is offset by a slightly stronger increase in gross fixed capital formation. The progression of total gross fixed investment should continue unabated, rising by 11.9 per cent in 2007 as the pursuit of real convergence with the other countries of the European Union continues unabated. All in all, total domestic demand should contribute a massive 7.3 p.p. to the growth rate of overall GDP in 2007.

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

Strong import demand and a steady exchange rate appreciation lead to a widening current account deficit for the eastern European Union countries

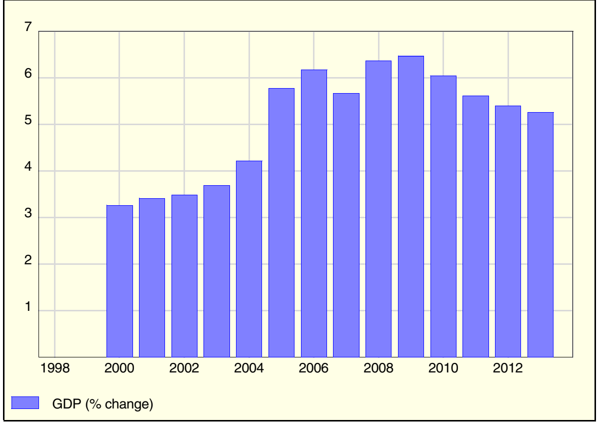
Real GDP of the Eastern EU Member States is projected to expand at an average annual rate of 5.9 per cent between 2008 and 2013, far outstripping the euro area growth rate of 1.8 per cent over the same period. The area's GDP growth is firmly underpinned by a positive 6 p.p. average annual contribution from domestic demand, while the eastern countries' consolidated net exports are projected to subtract on average 0.1 p.p. from the area's rate of GDP growth.

Private consumption is projected to progress at an average annual pace of 5.1 per cent between 2008 and 2013. Private consumption expenditure is set to increase from a growth rate of 6.4 per cent in 2007 to an exceptional 6.9 per cent in 2009. It is then expected to fall off significantly from these unsustainable rates of expansion and to come out at a much more moderate 3.1 per cent in 2013.

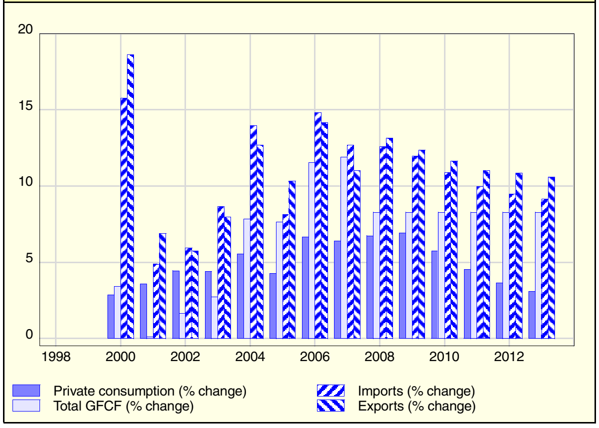
Growth in economy-wide gross fixed capital expenditure is projected to average a stunning 8.3 per cent per annum between 2008 and 2013. These high growth rates for capital investment reflect once again the continued efforts that are made to facilitate the ongoing transition of the area to a modern service-oriented market economy.

The deflator of private consumption is expected to follow a gradual but steady upward trend over the projection period. Indeed, inflation is forecast to rise from 3.8 per cent in 2007 to 3.9 per cent in 2008, and to finally come out at 4.3 per cent in 2013. The rate of inflation in the eastern countries of the EU tends to become more marked as the economies of this area are faced with a heady economic expansion, giving rise to inflationary tensions as they progress on their path toward real convergence with the other economies of the European Union. Nominal convergence occurs through both a rise in the aggregate price level and steady appreciation of the area's nominal effective exchange rate. The rise in inflation is accompanied by significant increases in both nominal and real interest rates, as the area's monetary authorities attempt to reign in domestic demand so as to keep inflation under control. The projection indicates however that, in the medium term, it should prove difficult to achieve any significant convergence of inflation rates and interest rates with the euro area as long as the area's economic policies remain geared mainly toward the expansion of domestic demand and output and the achievement of rapid real convergence with the rest of the European Union.

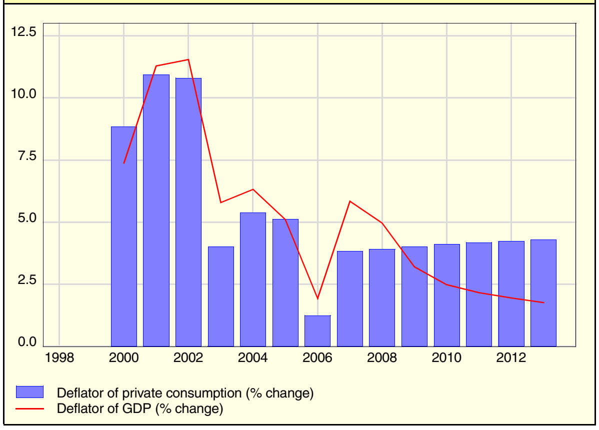
Graph 45 - Gross domestic product in the Eastern EU Member States



Graph 46 - Selected components of demand in the Eastern EU Member States



Graph 47 - Price deflators in the Eastern EU Member States



The Rest of the World

The rate of expansion of gross output of the rest of the world is forecast to decline slightly from a stunning 7.4 per cent in 2006 to 6.8 per cent in 2007. Output growth should progress at an average annual rate of 6.7 per cent over the entire 2007-2013 period. Inflation in the rest of the world is projected to remain relatively contained, registering an average annual rate of 4.9 per cent over the projection period. The currencies of this area are projected to depreciate at an average rate of 5.1 per cent per annum in nominal trade-weighted terms.

Robust output growth, stable inflation and a regular effective depreciation of the area's exchange rate are projected over the 2007-2013 period

After achieving whopping growth rates of 7.2 per cent in 2005 and 2006, and rising to a stunning 7.4 per cent in 2006, output growth in the rest of the world is currently projected to edge down to a slightly more measured rate of 6.8 per cent in 2007. Our current projection for the aggregate "rest of the world" [1] area assumes that, in the absence of any major shocks to this area's economies, economic activity should gradually converge towards its trend rate of growth and expand at an average annual pace of 6.7 per cent over the 2007-2013 period.

Export growth from the rest of the world is forecast to cool, declining from 7.5 per cent in 2006 to a still vigorous 5.7 per cent in 2007. Exports should progress at an average annual pace of 6.7 per cent over the entire 2007-2013 period. Import growth is expected to decline from a massive 11.2 per cent in 2006 to a somewhat more tempered 9.9 per cent in 2007, and to progress at an average annual rate of 7.6 per cent over the entire 2007-2013 period.

The projection also indicates that the rate of inflation in the rest of the world should stabilise at a yearly average level of 4.9 per cent over the projection horizon, consolidating the trend decline in world inflation that has been manifest since the mid-1990s. The price of domestically-denominated exports should rise over the projection period at an average rate of 4.9 per cent per year. However, given the trend depreciation of the area's currencies, this is projected to translate into an average price decline of 0.3 per cent per annum in euro-denominated export prices. The local price of imports should rise on average by 5.3 per cent per annum over the 2007-2013 period.

Finally, after appreciating by 2.8 per cent and 0.9 per cent respectively in 2005 and 2006, a synthetic aggregate representing an average of this area's currencies is expected to appreciate by a further strong 4.8 per cent over 2007. The general appreciation of the area's currencies is forecast to total 1.5 per cent against the euro and a much more significant 8.4 per cent against the US dollar. The area's exchange rate is then projected to reverse course as of 2008 and to depreciate in nominal effective terms by 6.8 per cent per annum throughout the 2008-2013 period. This trend depreciation results mainly from the influence of interest rate and inflation differentials between the "rest of the world" area and the other major economic regions.

Main uncertainties surrounding the 2007-2013 projection

A number of risks - both upside and downside - appear to weigh on our current medium-term world economic outlook. In the short run, the recent turmoil in the US subprime loans market and its spillover into world financial markets could lead to an overestimation of short-term growth. In the medium run, our assessment is that the main risks are twofold. First, we see a potential downside risk to world GDP growth linked to the evolution of world oil prices. Second, we see a distinct upside risk to GDP growth linked to a possible structural increase in trend labour productivity growth in both the euro area and Japan.

In the short term current headwinds from the turmoil in the US subprime loans market could spill over into a global credit crunch and affect growth

The US housing sector has been facing marked difficulties for quite some time now, with house prices falling, investment slowing down and mortgage rates currently on the rise. In particular, the subprime mortgage market has recently faced severe turmoil as rising interest rates have led to foreclosures and widespread repricing of credit risks. Recently, securitisation has led to a spillover of financial difficulties from US housing markets to broader US - and world - financial markets. Finan-

1. The 25 largest economic areas that are included in the NIME model's "rest of the world" are the following, by decreasing size of current $US GDP in 2006: PR China (mainland), Canada, Brazil, Russia, South Korea, India, Mexico, Australia, Turkey, Switzerland, Indonesia, Saudi Arabia, Norway, South Africa, Argentina, Iran, Thailand, Hong Kong PRC, Venezuela, United Arab Emirates, Malaysia, Chile, Israel, Colombia and Singapore.

cial institutions worldwide, with stakes in collateralised debt obligations containing US subprime mortgage-backed securities, have been hit by a sharp tightening of credit conditions and have been faced with a near shut-down of markets for these products. In mid-August of this year, central banks stepped in to ensure adequate liquidity in money markets in an attempt to head off a full-blown credit crunch. However, to date, the risks of a liquidity and credit meltdown have not all dissipated, due partly to limits in prudential and supervisory practices with regards to certain institutions (such as hedge funds) and asset classes (such as mortgage-backed securities) [1]. If a widespread credit crunch were to materialise, it could weigh significantly on private consumption and investment decisions and curtail GDP growth prospects throughout the 2007-2008 period.

Permanently higher oil prices could stifle growth

Over the last four years, oil prices have been constantly on the rise. From slightly above 16 dollars a barrel ($US/bbl) in November 2001, Brent oil prices have risen to more than 78 $US/bbl in July 2007. Long-dated Brent futures prices currently indicate that oil prices are not expected to fall in any significant manner over the projection period. In the short term, seasonal oil price increases are likely in the wake of the beginning of the hurricane season in the Gulf of Mexico and with the coming onslaught of the winter season. However, there are also reasons to think that oil price increases could also have already become more entrenched and of a structural nature. Capacity constraints stemming from increased demand play a role in the price hikes. However, capacity constraints could also come increasingly from supply side factors. Indeed, it is widely accepted that fossil fuels are a non-renewable resource that will eventually deplete. In particular, light crudes with low sulphur contents, such as the reference West Texas Intermediate in the US and North Sea Brent in Europe are rapidly becoming more costly to extract and their levels of production are currently in decline[2]. Hence, the widening discrepancy between marginal demand and supply is not only a consequence of a short-term increase in demand stemming from a booming world economy, but is increasingly the result of the gradual depletion of the lightest and sweetest streams of crude oil. In the absence of clear alternatives to conventional fossil fuels which remain essential for transport purposes, this can only lead to increasingly high oil prices which could curtail medium-term world economic growth.

An increase in trend productivity growth could lead to higher-than-projected rates of GDP growth and offset the adverse economic effects of declining working-age populations in Europe and Japan

In our view, another important but positive risk surrounding the current outlook is the future path of trend labour productivity growth and its influence on future rates of GDP growth. For the euro area this risk currently seems to be slightly tilted to the upside. At the Spring European Council in Lisbon in March 2000 and at subsequent European Councils, European leaders developed a comprehensive strategy to make the European Union "the most dynamic and competitive knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion, and respect for the environment" by 2010 [3]. In the wake of the recent strong growth revival in Germany, most other euro area countries also recorded buoyant economic activity. The unexpectedly strong growth performance of the European Union has raised speculations about whether structural changes are currently underway and whether the Lisbon Strategy is finally paying off. In Japan, the evolution of labour productivity growth is also a major current issue. The absolute trend decline in Japan's working-age population over the projection horizon acts as a serious impediment to the country's long-run growth prospects. The current outlook's central scenario projects that Japan's GDP growth rate should come out at 1 per cent in 2010 and fall to a paltry 0.4 per cent in 2013. What is more, the confidence intervals around these results also indicate that there is a distinct possibility that GDP growth will slip into the negative as of 2010 unless trend labour productivity growth is increased. In order to compensate for the country's declining labour supply, the Japanese government has begun to implement structural reforms aimed at boosting labour productivity growth. If all of the planned reforms are effectively pushed through, our projection results could thus understate Japanese medium-term growth prospects.

1. On the recent spate of financial turbulence, see for instance Buiter, Willem and Sibert, Anne: "Central banks in a time of crisis: a preliminary scorecard". Internet: http://maverecon.blogspot.com/2007/08/central-banks-in-time-of-crisis.html
2. For an in-depth overview of the oil peak analysis see: United States Government Accountability Office (2007), "Crude Oil: Uncertainty about Future Oil Supply Makes It Important to Develop a Strategy for Addressing a Peak and Decline in Oil Production", Report to Congressional Requesters, February 2007.
3. The Kok report of November 2004 rephrased the strategic goal, aiming to make the EU economy a "single, competitive, dynamic knowledge-based economy that is among the best in the world". For more details regarding the Lisbon Strategy, see for instance http://ec.europa.eu/growthandjobs/key/index_en.htm

Detailed World Area Tables - The Euro Area

	2006	2007	2008	2009	2010	2011	2012	2013	Average 2007-2013
I. Aggregate demand and supply									
1. Private consumption	1.8	2.0	1.9	2.4	2.4	2.3	2.2	2.1	2.2
2. Government consumption	2.1	1.9	1.9	1.9	1.9	2.1	2.1	2.1	2.0
3. Gross fixed capital formation	4.7	2.9	2.1	2.1	1.9	1.7	1.6	1.5	2.0
. of which business sector	4.8	3.0	2.4	2.4	2.0	1.8	1.6	1.5	2.1
4. Exports	9.8	8.1	8.8	8.2	7.7	7.3	7.2	7.2	7.8
5. Imports	8.8	7.1	8.3	10.0	10.2	8.7	8.4	7.8	8.6
6. Gross domestic product	2.7	2.5	2.1	1.9	1.6	1.8	1.7	1.7	1.9
7. Private sector value added	2.9	2.7	2.4	2.0	1.6	1.7	1.7	1.7	2.0
8. Private sector gross output	4.0	3.6	3.5	3.7	3.5	3.4	3.4	3.3	3.5
9. Output gap (deviation of GDP from trend GDP, in %)	-0.1	0.5	0.8	0.9	0.7	0.6	0.5	0.4	0.6
10. Contributions to real GDP growth									
a. Total domestic expenditure	2.5	2.0	1.9	2.2	2.1	2.1	2.1	1.9	2.0
b. Net exports	0.3	0.3	0.2	-0.3	-0.5	-0.3	-0.3	-0.2	-0.2
II. Deflators									
1. Private consumption	2.0	1.9	2.1	1.8	1.8	1.9	1.9	1.9	1.9
2. Gross fixed capital formation	2.7	2.4	2.4	2.1	1.9	1.7	1.6	1.4	1.9
. of which business sector	2.0	2.1	2.2	2.2	2.1	2.0	1.8	1.6	2.0
3. Exports	1.0	1.9	2.1	1.9	1.6	1.1	0.7	0.2	1.4
4. Imports	4.1	0.8	0.4	0.4	0.6	0.8	0.9	1.0	0.7
5. Gross domestic product	1.7	2.1	2.6	2.3	2.2	2.0	1.8	1.6	2.1
6. Private sector value added	1.7	2.2	2.5	2.5	2.2	2.0	1.9	1.6	2.1
7. Private sector output	2.0	1.9	2.0	1.9	1.7	1.6	1.5	1.3	1.7
III. Financial Markets									
1. Short-term interest rate (level)	3.1	4.1	4.3	4.4	4.7	5.0	5.4	5.8	4.8
2. Long-term interest rate (level)	3.8	4.4	4.6	4.7	5.0	5.4	5.8	6.3	5.2
3. Spot exchange rate, euro/$US (level x 100)	79.6	74.1	76.1	78.0	78.8	78.7	78.2	77.3	77.3
4. Spot exchange rate, euro/$US (+: depreciation)	-0.9	-7.0	2.7	2.5	1.0	-0.1	-0.6	-1.1	-0.4
5. Nominal effective exchange rate (+: depreciation)	0.0	0.3	-2.3	-2.4	-2.8	-3.2	-3.5	-3.8	-2.5
6. Real effective exchange rate (+: depreciation)	2.8	2.2	-0.7	-0.9	-1.0	-1.0	-0.9	-0.8	-0.4
IV. Labour Market									
1. Labour supply	0.7	0.8	0.9	0.8	0.8	0.7	0.6	0.5	0.7
2. Employment	1.4	1.5	1.1	1.0	0.8	0.7	0.5	0.4	0.9
. of which private sector	1.4	1.5	1.2	1.1	0.9	0.7	0.5	0.4	0.9
3. Unemployment rate (level, % of civilian labour force)	7.9	7.3	7.0	6.9	6.8	6.8	6.9	7.0	6.9
4. Nominal rate of labour compensation, private sector	2.3	2.7	3.0	3.0	3.3	3.5	3.6	3.6	3.3
5. Real take-home rate of labour compensation, private sector	-0.9	0.8	0.8	1.2	1.5	1.6	1.6	1.6	1.3
6. Real producer wage rate, private sector	0.4	0.9	1.1	1.1	1.6	1.9	2.1	2.3	1.6
7. Labour productivity (GDP per worker)	1.2	1.0	1.0	0.9	0.8	1.1	1.2	1.4	1.0
V. Household sector									
1. Total real means	1.1	2.4	1.9	2.0	1.7	1.5	1.2	1.0	1.7
. of which real disposable income	0.9	2.4	1.8	2.2	2.2	2.2	2.2	2.1	2.2
2. Net saving by households (level, % of disposable income)	8.4	8.9	8.9	8.8	8.7	8.7	8.7	8.9	8.8
VI. Fiscal sector									
1. Net lending (+) or borrowing (-) (% of GDP)	-1.6	-1.0	-0.7	-0.3	0.1	0.4	0.6	0.8	-0.0
2. Government gross debt (% of GDP)	69.2	67.1	64.8	62.5	60.2	57.6	54.9	52.3	59.9
VII. International environment									
1. Foreign effective output	6.2	5.4	5.9	5.8	5.6	5.3	5.2	5.2	5.5
2. Foreign effective output price	3.7	3.8	3.9	3.5	3.4	3.4	3.4	3.4	3.6
3. Foreign effective short-term interest rate (level)	4.5	4.9	4.9	4.8	4.9	5.0	5.1	5.3	5.0
4. Current account (level, % of GDP)	-0.0	0.4	1.2	1.4	1.3	1.3	1.1	0.9	1.1
VIII. Memo items									
1. Total population	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.3
2. Working-age population (% of total population)	66.7	66.7	66.6	66.5	66.4	66.3	66.1	65.8	66.3

All figures are year-on-year growth rates of yearly averages, unless otherwise noted.

Slovenia became a full member of the euro area on 1 January 2007. On 10 July 2007, the Council of the European Union decided to allow Cyprus and Malta to join the euro area as of 1 January 2008. For practical purposes however, the NIME model of the euro area continues to represent the twelve Member States that composed the euro zone up to 2007. Cyprus, Malta and Slovenia remain integrated within the NIME model's aggregate representing the twelve Eastern EU Member States.

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									
1. Private consumption	2.2	2.5	2.7	3.1	3.0	2.7	2.3	2.0	2.6
2. Government consumption	2.1	1.9	2.2	2.5	2.8	2.8	2.7	2.7	2.5
3. Gross fixed capital formation	7.1	5.4	4.4	4.5	4.0	3.6	3.3	3.0	4.1
. of which business sector	7.5	5.0	4.6	4.6	4.1	3.8	3.6	3.5	4.2
4. Exports	10.9	6.3	7.9	7.8	7.4	7.0	6.9	6.8	7.2
5. Imports	11.4	5.9	7.9	8.0	6.6	5.9	5.6	5.5	6.5
6. Gross domestic product	2.9	3.0	2.8	3.1	3.4	3.3	3.1	2.8	3.1
7. Private sector value added	3.1	3.4	3.0	3.1	3.4	3.2	2.9	2.7	3.1
8. Private sector gross output	5.4	4.1	4.5	4.6	4.4	4.1	3.8	3.6	4.2
9. Output gap (deviation of GDP from trend GDP, in %)	-1.2	-1.0	-0.6	-0.5	-0.1	0.3	0.5	0.7	-0.1
10. Contributions to real GDP growth									
a. Total domestic expenditure	3.3	3.0	3.0	3.3	3.2	2.9	2.6	2.3	2.9
b. Net exports	-0.4	-0.0	-0.2	-0.2	0.2	0.3	0.4	0.5	0.1
II. Deflators									
1. Private consumption	2.2	2.3	2.0	1.9	2.2	2.4	2.5	2.6	2.3
2. Gross fixed capital formation	2.2	2.5	2.5	2.4	2.0	1.7	1.4	1.1	1.9
. of which business sector	0.6	2.1	2.6	2.5	2.1	1.7	1.3	1.0	1.9
3. Exports	1.9	1.2	0.9	0.7	0.7	0.8	0.9	0.9	0.9
4. Imports	2.7	1.3	0.2	1.1	1.7	1.8	1.8	1.7	1.4
5. Gross domestic product	2.4	2.6	3.3	1.7	1.5	1.6	1.7	1.7	2.0
6. Private sector value added	2.2	2.5	3.2	1.9	1.6	1.6	1.6	1.6	2.0
7. Private sector output	2.2	2.1	2.2	1.5	1.5	1.6	1.6	1.6	1.7
III. Financial Markets									
1. Short-term interest rate (level)	4.3	5.3	5.4	5.5	5.8	6.2	6.7	7.1	6.0
2. Long-term interest rate (level)	4.2	5.0	5.4	5.5	5.8	6.3	6.8	7.3	6.0
3. Spot exchange rate, local/euro (+: depreciation)	-0.2	-1.8	0.0	-0.4	-0.2	-0.1	-0.1	0.0	-0.4
4. Nominal effective exchange rate (+: depreciation)	-0.4	-2.0	-1.8	-2.4	-2.5	-2.7	-2.9	-3.0	-2.5
5. Real effective exchange rate (+: depreciation)	1.0	-0.1	0.5	-0.0	-0.2	-0.6	-0.9	-1.1	-0.3
IV. Labour Market									
1. Labour supply	1.3	0.6	0.1	0.6	0.6	0.4	0.2	0.0	0.4
2. Employment	1.0	1.0	0.5	0.9	0.7	0.3	0.1	-0.1	0.5
. of which private sector	1.0	0.9	0.4	1.1	0.7	0.3	0.0	-0.1	0.5
3. Unemployment rate (level, % of civilian labour force)	5.4	5.1	4.7	4.4	4.3	4.4	4.6	4.6	4.6
4. Nominal rate of labour compensation, private sector	3.8	5.1	4.6	5.0	5.6	5.6	5.1	4.7	5.1
5. Real take-home rate of labour compensation, private sector	0.9	2.9	2.3	3.0	3.3	3.1	2.6	2.1	2.7
6. Real producer wage rate, private sector	1.4	2.9	2.3	3.4	4.0	4.0	3.5	3.1	3.3
7. Labour productivity (GDP per worker)	1.9	2.0	2.3	2.1	2.7	3.0	3.0	2.9	2.6
V. Household sector									
1. Total real means	2.8	3.5	2.3	2.3	1.8	1.4	1.2	1.0	1.9
. of which real disposable income	2.3	2.6	2.9	3.6	3.7	3.6	3.2	2.9	3.2
2. Net saving by households (level, % of disposable income)	0.8	0.9	1.1	1.5	2.3	3.2	4.2	5.1	2.6
VI. Fiscal sector									
1. Net lending (+) or borrowing (-) (% of GDP)	-1.5	-1.4	-1.0	-0.2	0.3	0.6	0.6	0.4	-0.1
2. Government gross debt (% of GDP)	43.4	42.7	41.2	39.6	37.4	35.1	32.8	31.0	37.1
VII. International environment									
1. Foreign effective output	5.4	4.8	5.1	5.1	4.9	4.7	4.7	4.6	4.8
2. Foreign effective output price	3.3	3.2	3.3	3.1	3.1	3.0	3.0	2.9	3.1
3. Foreign effective short-term interest rate (level)	3.9	4.5	4.5	4.5	4.6	4.7	4.9	5.1	4.7
4. Current account (level, % of GDP)	-1.5	-1.9	-1.8	-2.1	-2.3	-2.3	-2.3	-2.2	-2.1
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 growth rates of yearly averages, 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									
1. Private consumption	3.1	2.3	3.3	3.8	2.9	1.7	2.0	2.4	2.6
2. Government consumption	1.8	2.4	1.9	2.3	2.5	2.5	2.4	2.2	2.3
3. Gross fixed capital formation	2.9	-3.0	3.8	5.2	4.1	2.5	3.0	3.6	2.7
. of which business sector	6.6	1.0	5.2	3.7	3.4	2.9	2.9	3.0	3.1
4. Exports	8.4	9.6	10.4	7.7	7.6	7.6	7.5	7.3	8.2
5. Imports	5.9	3.4	6.4	7.2	6.5	5.5	5.9	6.1	5.8
6. Gross domestic product	2.9	1.9	3.5	3.8	3.0	2.1	2.3	2.6	2.8
7. Private sector value added	3.2	2.0	3.6	3.8	3.0	1.9	2.2	2.6	2.7
8. Private sector gross output	3.6	2.2	4.1	4.4	3.6	2.5	2.9	3.2	3.3
9. Output gap (deviation of GDP from trend GDP, in %)	0.7	-0.5	0.0	0.7	0.8	0.5	0.5	0.6	0.4
10. Contributions to real GDP growth									
a. Total domestic expenditure	3.3	1.2	3.3	4.0	3.2	2.1	2.4	2.7	2.7
b. Net exports	-0.1	0.5	0.2	-0.3	-0.1	0.0	-0.0	-0.1	0.0
II. Deflators									
1. Private consumption	2.8	2.1	2.2	1.9	2.0	2.0	2.0	2.0	2.0
2. Gross fixed capital formation	3.5	1.9	2.5	2.7	2.4	2.1	2.0	2.1	2.2
. of which business sector	4.0	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
3. Exports	3.4	2.3	1.0	0.8	1.3	2.2	2.4	2.3	1.8
4. Imports	4.0	1.8	1.3	1.1	1.1	1.2	1.3	1.5	1.3
5. Gross domestic product	3.2	2.1	2.5	1.9	1.9	2.0	2.1	2.1	2.1
6. Private sector value added	3.3	1.8	2.6	1.8	2.0	2.1	2.1	2.2	2.1
7. Private sector output	3.4	1.8	2.4	1.7	1.9	1.9	2.0	2.0	2.0
III. Financial Markets									
1. Short-term interest rate (level)	5.2	5.3	4.9	4.6	4.5	4.5	4.5	4.6	4.7
2. Long-term interest rate (level)	4.8	4.8	4.9	4.9	5.1	5.2	5.4	5.6	5.1
3. Spot exchange rate, $US/euro (level x 100)	125.6	135.0	131.4	128.2	126.9	127.0	127.8	129.3	129.4
4. Spot exchange rate, $US/euro (+: depreciation)	0.9	7.5	-2.7	-2.5	-1.0	0.1	0.6	1.2	0.5
5. Nominal effective exchange rate (+: depreciation)	0.4	7.9	-6.0	-5.8	-4.6	-3.7	-3.5	-3.3	-2.7
6. Real effective exchange rate (+: depreciation)	0.8	9.5	-3.4	-3.0	-2.4	-2.3	-2.3	-2.1	-0.8
IV. Labour Market									
1. Labour supply	1.4	1.4	1.3	1.2	1.1	1.0	0.7	0.5	1.0
2. Employment	1.9	1.3	1.6	1.4	1.1	0.2	0.3	0.5	0.9
. of which private sector	1.9	1.3	1.7	1.5	1.2	0.0	0.2	0.5	0.9
3. Unemployment rate (level, % of civilian labour force)	4.6	4.7	4.4	4.3	4.2	5.0	5.4	5.5	4.8
4. Nominal rate of labour compensation, private sector	4.8	4.4	4.0	4.1	3.9	4.6	4.3	4.1	4.2
5. Real take-home rate of labour compensation, private sector	1.6	1.4	1.1	2.4	1.6	0.8	1.2	1.8	1.5
6. Real producer wage rate, private sector	1.3	2.4	1.5	2.3	2.0	2.6	2.3	2.0	2.2
7. Labour productivity (GDP per worker)	1.0	0.6	1.9	2.3	1.9	1.9	2.1	2.1	1.8
V. Household sector									
1. Total real means	2.3	3.2	3.2	2.7	2.2	1.7	1.6	1.7	2.3
. of which real disposable income	1.9	2.3	2.8	3.8	3.0	1.9	2.4	3.0	2.8
2. Net saving by households (level, % of disposable income)	1.4	1.9	1.6	1.7	2.0	2.2	2.6	3.3	2.2
VI. Fiscal sector									
Net lending (+) or borrowing (-) (% of GDP)	-2.6	-2.6	-2.1	-1.9	-1.5	-0.7	-0.3	-0.3	-1.4
VII. International environment									
1. Foreign effective output	6.0	5.7	5.8	5.6	5.5	5.4	5.3	5.2	5.5
2. Foreign effective output price	3.9	3.8	3.8	3.8	3.7	3.7	3.7	3.6	3.7
3. Foreign effective short-term interest rate (level)	3.6	4.2	4.3	4.4	4.5	4.6	4.7	4.9	4.5
4. Current account (level, % of GDP)	-6.0	-5.7	-5.3	-5.4	-5.4	-5.1	-4.8	-4.6	-5.2
VIII. Memo items									
1. Total population	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
2. Working-age population (% of total population)	67.0	67.0	67.1	67.0	66.9	66.7	66.4	66.0	66.7

All figures are year-on-year growth rates of yearly averages, unless otherwise noted.

US data for 2006 depart from source AMECO data following the release on 27 July 2007 of the annual revision of the NIPAs.

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									
1. Private consumption	0.9	1.6	2.0	1.7	1.2	0.9	0.6	0.2	1.2
2. Government consumption	0.3	0.5	-0.4	1.0	0.9	1.4	1.4	0.6	0.8
3. Gross fixed capital formation	3.5	5.2	3.7	1.1	0.6	0.5	0.7	0.4	1.7
. of which business sector	7.5	8.0	4.7	0.8	0.4	0.5	0.7	0.7	2.3
4. Exports	9.5	7.6	7.8	6.1	4.8	3.6	3.4	3.5	5.3
5. Imports	4.5	7.3	6.2	6.6	6.4	5.5	4.7	3.9	5.8
6. Gross domestic product	2.2	2.4	2.4	1.6	1.0	0.7	0.7	0.4	1.3
7. Private sector value added	-0.3	2.5	2.8	1.6	0.9	0.6	0.5	0.3	1.3
8. Private sector gross output	0.2	3.0	3.2	2.2	1.6	1.2	1.1	0.8	1.9
9. Output gap (deviation of GDP from trend GDP, in %)	1.3	1.6	2.3	2.5	2.1	1.3	1.0	0.7	1.7
10. Contributions to real GDP growth									
a. Total domestic expenditure	1.4	1.9	1.9	1.4	1.0	0.8	0.7	0.3	1.1
b. Net exports	0.8	0.3	0.5	0.2	0.0	-0.1	-0.0	0.1	0.1
II. Deflators									
1. Private consumption	-0.3	-0.1	-0.0	0.5	1.1	1.6	1.9	1.9	1.0
2. Gross fixed capital formation	0.8	0.3	0.1	-0.1	-0.1	-0.1	0.1	0.2	0.1
. of which business sector	0.6	0.2	-0.0	-0.1	-0.1	-0.1	-0.1	0.0	-0.0
3. Exports	3.7	6.1	2.9	2.1	0.8	-0.4	-1.2	-1.7	1.2
4. Imports	11.0	5.4	0.5	-0.6	-0.9	-0.5	-0.2	0.1	0.5
5. Gross domestic product	-0.9	0.2	0.4	0.7	0.8	0.9	0.9	0.7	0.7
6. Private sector value added	1.6	0.2	0.3	1.0	0.9	0.9	0.9	0.7	0.7
7. Private sector output	2.9	1.1	0.4	0.9	0.8	0.9	0.9	0.8	0.8
III. Financial Markets									
1. Short-term interest rate (level)	0.3	0.7	1.7	2.8	3.5	4.0	4.2	4.2	3.0
2. Long-term interest rate (level)	1.8	1.8	2.6	3.7	4.6	5.3	5.8	5.8	4.2
3. Spot exchange rate, yen/euro (level)	146.0	159.0	162.2	162.0	159.0	155.3	151.9	149.1	156.9
4. Spot exchange rate, yen/euro (+: depreciation)	6.7	8.9	2.0	-0.1	-1.9	-2.3	-2.2	-1.8	0.4
5. Nominal effective exchange rate (+: depreciation)	6.4	7.2	0.5	-1.9	-4.3	-5.2	-5.5	-5.5	-2.1
6. Real effective exchange rate (+: depreciation)	6.5	4.4	1.2	-0.7	-1.9	-1.7	-1.2	-0.7	-0.1
IV. Labour Market									
1. Labour supply	0.1	0.3	-0.2	-0.4	-0.3	-0.3	-0.6	-0.9	-0.4
2. Employment	0.4	0.3	-0.2	-0.6	-0.6	-0.5	-0.8	-1.1	-0.5
. of which private sector	0.4	0.3	-0.2	-0.6	-0.6	-0.5	-0.8	-1.1	-0.5
3. Unemployment rate (level, % of civilian labour force)	4.1	4.1	4.1	4.3	4.5	4.8	4.9	5.1	4.5
4. Nominal rate of labour compensation, private sector	0.7	1.5	3.0	2.9	2.7	2.5	2.5	2.4	2.5
5. Real take-home rate of labour compensation, private sector	0.3	1.2	2.9	2.4	1.5	0.8	0.6	0.5	1.4
6. Real producer wage rate, private sector	-1.7	0.5	2.5	2.0	1.8	1.6	1.6	1.6	1.7
7. Labour productivity (GDP per worker)	1.8	2.1	2.6	2.2	1.6	1.3	1.5	1.5	1.8
V. Household sector									
1. Total real means	0.8	1.5	1.5	1.2	0.6	0.2	-0.2	-0.4	0.6
. of which real disposable income	0.6	1.4	2.3	2.2	1.9	1.6	1.4	1.0	1.7
2. Net saving by households (level, % of disposable income)	3.0	3.2	3.6	4.2	4.9	5.7	6.7	7.5	5.1
VI. Fiscal sector									
Net lending (+) or borrowing (-) (% of GDP)	-4.6	-3.8	-3.0	-3.0	-3.1	-3.4	-3.9	-4.5	-3.5
VII. International environment									
1. Foreign effective output	5.6	4.7	5.4	5.4	5.1	4.7	4.8	4.8	5.0
2. Foreign effective output price	3.8	3.4	3.6	3.3	3.3	3.3	3.3	3.3	3.3
3. Foreign effective short-term interest rate (level)	4.8	5.1	4.8	4.6	4.6	4.6	4.7	4.9	4.8
4. Current account (level, % of GDP)	4.0	4.1	4.6	4.9	4.9	4.5	3.9	3.4	4.3
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)	66.4	66.2	66.0	65.6	65.4	65.2	64.5	63.8	65.3
3. GDP per capita	2.3	2.5	2.5	1.6	1.1	0.9	0.8	0.6	1.4

All figures are year-on-year growth rates of yearly averages, 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									
1. Private consumption	6.7	6.4	6.7	6.9	5.7	4.5	3.6	3.1	5.3
2. Gross fixed capital formation	11.6	11.9	8.3	8.3	8.3	8.3	8.3	8.3	8.8
3. Exports	14.2	11.0	13.1	12.4	11.6	11.0	10.8	10.6	11.5
4. Imports	14.8	12.7	12.6	12.0	10.9	10.0	9.5	9.2	11.0
5. Gross domestic product	6.2	5.7	6.4	6.5	6.0	5.6	5.4	5.3	5.8
II. Deflators									
1. Private consumption	1.2	3.8	3.9	4.0	4.1	4.2	4.2	4.3	4.1
2. Gross fixed capital formation	1.9	4.1	2.6	1.8	1.7	1.9	2.0	2.1	2.3
3. Exports	1.1	3.4	4.6	1.9	0.7	0.1	-0.2	-0.3	1.5
4. Imports	1.4	0.7	2.0	2.0	2.0	2.0	2.0	2.0	1.8
5. Gross domestic product	1.9	5.8	5.0	3.2	2.5	2.2	1.9	1.8	3.2
III. Financial variables									
1. Short-term interest rate (level)	3.6	4.1	5.3	6.3	7.1	7.8	8.4	8.9	6.8
2. Long-term interest rate (level)	4.3	4.3	7.2	8.5	9.5	10.4	11.2	11.8	9.0
3. Nominal exchange rate, local/euro (+: depreciation)	-3.2	-3.0	-0.4	-0.9	-0.9	-0.8	-0.7	-0.5	-1.0
4. Nominal exchange rate, local/$US (+: depreciation)	-4.1	-9.8	2.3	1.6	0.1	-1.0	-1.3	-1.6	-1.4
5. Nominal effective exchange rate (+: depreciation)	-3.3	-2.8	-1.7	-2.2	-2.5	-2.5	-2.5	-2.5	-2.4
6. Real effective exchange rate (+: depreciation)	-1.6	-3.4	-3.4	-1.5	-0.7	-0.2	-0.0	0.1	-1.3
IV. International environment									
1. Foreign effective output	5.0	4.5	4.6	4.6	4.5	4.3	4.3	4.2	4.4
2. Foreign effective output price	2.8	2.7	2.8	2.7	2.6	2.5	2.4	2.4	2.6
3. Foreign effective short-term interest rate (level)	3.7	4.5	4.5	4.5	4.7	4.9	5.2	5.5	4.8
4. Current account (level, % of GDP)	-3.5	-3.0	-1.5	-1.4	-1.8	-2.4	-3.1	-3.8	-2.4

All figures are year-on-year growth rates of yearly averages, unless otherwise noted.

Slovenia became a full member of the euro area on 1 January 2007. On 10 July 2007, the Council of the European Union decided to allow Cyprus and Malta to join the euro area as of 1 January 2008. For practical purposes however, Cyprus, Malta and Slovenia remain integrated within the NIME model's aggregate representing the twelve Eastern EU Member States.

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
I. Aggregate demand and supply									
1. Gross output	7.4	6.8	7.0	6.8	6.7	6.6	6.6	6.5	6.7
2. Exports	7.5	5.7	5.4	8.6	8.2	6.7	6.4	5.9	6.7
3. Imports	11.2	9.9	8.1	7.7	7.3	7.0	6.7	6.4	7.6
II. Deflators									
1. Output	4.8	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
2. Exports, in euro	3.9	-0.0	-0.8	-0.4	-0.2	-0.4	-0.1	0.1	-0.3
3. Imports, in euro	-0.7	2.6	0.4	0.3	-0.0	-0.3	-0.7	-1.0	0.2
4. Price of oil (Brent, $US/bbl)	66.2	67.7	70.9	70.3	70.0	69.8	69.6	69.4	69.7
III. Financial variables									
1. Nominal exchange rate, local/euro (+: depreciation)	-0.0	-1.5	5.1	5.5	6.1	6.5	7.0	7.4	5.2
2. Nominal exchange rate, local/$US (+: depreciation)	-0.9	-8.4	8.0	8.2	7.2	6.4	6.3	6.2	4.8
3. Nominal effective exchange rate (+: depreciation)	-0.9	-4.8	5.9	6.6	6.9	6.9	7.2	7.3	5.1
4. Real effective exchange rate (+: depreciation)	-2.1	-1.2	3.8	3.3	2.7	2.4	1.9	1.3	2.0
IV. International environment									
1. Foreign effective output	3.6	3.3	4.0	4.0	3.6	3.0	3.1	3.1	3.5
2. Foreign effective output price	2.7	2.2	2.2	1.8	1.7	1.7	1.6	1.6	1.8
3. Foreign effective short-term interest rate (level)	5.2	5.3	4.9	4.6	4.5	4.5	4.5	4.6	4.7

All figures are year-on-year growth rates of yearly averages, 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.

The 25 largest economic areas that are included in the NIME model's "rest of the world" are the following, by decreasing size of current $US GDP in 2006 : PR China (mainland), Canada, Brazil, Russia, South Korea, India, Mexico, Australia, Turkey, Switzerland, Indonesia, Saudi Arabia, Norway, South Africa, Argentina, Iran, Thailand, Hong Kong PRC, Venezuela, United Arab Emirates, Malaysia, Chile, Israel, Colombia and Singapore.

95% confidence intervals for selected variables (variables in growth rates)

		2008	2009	2010	2011	2012	2013
	Confidence bounds	*Growth rates*					
The euro area							
	Upper bound	2.8	2.8	2.6	2.8	2.9	2.9
Gross domestic product	Sample mean	2.1	1.9	1.6	1.8	1.7	1.7
	Lower bound	1.5	1.0	0.7	0.7	0.6	0.5
	Upper bound	2.6	2.3	2.4	2.5	2.5	2.5
Deflator of private consumption	Sample mean	2.1	1.8	1.8	1.9	1.9	1.9
	Lower bound	1.6	1.2	1.3	1.3	1.3	1.4
The Western non-euro EU Member States							
	Upper bound	3.6	4.0	4.4	4.4	4.2	4.0
Gross domestic product	Sample mean	2.8	3.1	3.4	3.3	3.1	2.8
	Lower bound	2.0	2.1	2.4	2.2	1.9	1.8
	Upper bound	2.7	2.6	2.9	3.1	3.3	3.4
Deflator of private consumption	Sample mean	2.0	1.9	2.2	2.4	2.5	2.6
	Lower bound	1.4	1.2	1.5	1.6	1.7	1.9
The United States							
	Upper bound	4.3	4.7	3.9	3.0	3.3	3.5
Gross domestic product	Sample mean	3.5	3.8	3.0	2.1	2.3	2.6
	Lower bound	2.7	2.9	2.1	1.1	1.4	1.6
	Upper bound	2.5	2.2	2.3	2.4	2.4	2.5
Deflator of private consumption	Sample mean	2.2	1.9	2.0	2.0	2.0	2.0
	Lower bound	1.8	1.5	1.6	1.6	1.6	1.6
Japan							
	Upper bound	3.7	2.9	2.3	2.2	2.1	1.8
Gross domestic product	Sample mean	2.4	1.6	1.0	0.7	0.7	0.4
	Lower bound	1.1	0.3	-0.4	-0.7	-0.8	-1.1
	Upper bound	0.7	1.4	2.1	2.7	3.0	3.0
Deflator of private consumption	Sample mean	-0.0	0.5	1.1	1.6	1.9	1.9
	Lower bound	-0.7	-0.3	0.2	0.6	0.9	0.9

Euro area: Detailed probability distributions for selected variables

		2008	2009	2010	2011	2012	2013
	Growth rates (YoY)	*Probabilities*					
Real gross domestic product	> 3	1.6	2.1	1.0	2.9	3.7	3.7
	2.5 - 3.0	19.3	11.5	6.0	9.8	9.0	10.7
	2.0 - 2.5	42.3	29.9	20.0	22.1	24.4	20.8
	1.5 - 2.0	31.4	32.1	34.0	31.0	28.6	25.9
	1.0 - 1.5	5.2	19.7	25.4	22.7	20.5	21.9
	0.5 - 1.0	0.2	4.3	11.4	8.8	10.1	12.2
	0.0 - 0.5	0.0	0.4	2.0	2.6	3.3	4.0
	< 0	0.0	0.0	0.2	0.1	0.4	0.8
Deflator of private consumption	> 3	0.0	0.0	0.0	0.0	0.0	0.0
	2.5 - 3.0	11.0	0.7	2.1	2.8	4.0	7.5
	2.0 - 2.5	43.4	29.4	32.8	35.2	36.6	40.1
	1.5 - 2.0	43.3	45.7	42.6	45.8	45.9	42.8
	1.0 - 1.5	2.3	24.1	22.3	16.1	13.3	9.6
	0.5 - 1.0	0.0	0.1	0.2	0.1	0.2	0.0
	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

Underlying Technical Assumptions of the 2007-2013 NIME Economic Outlook

The August 2007 NIME Economic Outlook is produced with a version of the NIME model which is based on historical 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[1] provides historical data for the 1970-2006 period and forecasts for 2007 and 2008, as published in the European Commission's Spring 2007 Economic Forecasts.

Calibration of the projection for 2007

In mid-August 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, soft data, forecasts and futures data. It is on the basis of these revised estimates for 2007 that 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, Eurostat, and the latest 2005 revision of the United Nations' "World Population Prospects". The outlook's oil price scenario is based on long-dated oil price futures for Brent Crude, as quoted on the IntercontinentalExchange (ICE) global commodities market in mid-August 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 area	Western non-euro EU	United States	Japan
Labour productivity growth [a, b]	1.1	2.4	1.8	1.8
Equilibrium real interest rate	1.9	2.4	2.2	2.2
Secular inflation	1.9	1.8	2.2	1.0 [b]
Population growth [b]	0.3	0.4	0.9	-0.1
Trend labour supply growth [b]	0.6	0.4	0.8	-0.6
Price of oil (Brent, $US/bbl) [b]	69.7	69.7	69.7	69.7

[a] GDP per worker
[b] 2007-2013 average

The main changes that have been made to the long-term structural determinants of the model, as compared with the January 2007 edition, are the following. Trend labour productivity growth has been revised upward by 0.2 percentage point (p.p.) for the euro area; it has been reduced by 0.7 p.p. for Japan; it is unchanged for the Western non-euro EU Member States and for the US. The real natural rate of interest in the US is raised by 20 basis points. Trend labour supply growth is reduced by 0.2 p.p. for the US and the decline is increased by 0.1 p.p. for Japan. The world price of oil is raised from a period average of 66.5 $US/bbl to 69.7 $US/bbl.

Monetary and fiscal policies

With respect to the conduct of fiscal policy, we make a usual constant policy assumption. However, wherever 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 should expire over the projection horizon[2]. For Japan, we also assume that the government will effectively implement its medium-term fiscal package[3] and reach its target of a primary budgetary surplus by fiscal year 2011. With respect to monetary policy, we assume that short-term interest rates follow a Taylor rule, embedded in a partial adjustment scheme.

1. 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 *Spring 2007 Economic Forecasts* are available on the Commission's website. http://ec.europa.eu/economy_finance/publications/european_economy/forecasts_en.htm

2. See the US Congressional Budget Office's analysis: "An Analysis of the President's Budgetary Proposals for Fiscal Year 2008", March 2007. Internet: http://www.cbo.gov/Index.cfm

3. See the Japanese government's "Economic and Fiscal Reform 2007" of 19 June 2007. Internet: http://www.keizai-shimon.go.jp/english/publication/pdf/070628_basic_policies_summary.pdf

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 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.

De Smet, J. and Van Brusselen, P. (2007), "The NIME Outlook for the World Economy: 2007-2013", January 2007, Federal Planning Bureau, Brussels.