WORKING PAPER

2-05

The NIME Economic Outlook for the World Economy

2005 - 2011

Also in this issue: the Lisbon Strategy

E. Meyermans
P. Van Brusselen

January 2005

Federal
Planning Bureau
Economic analyses and forecasts

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This Working Paper presents the 2005-2011 macroeconomic outlook for the major areas of the world. The outlook was produced using NIME, the Belgian Federal Planning Bureau's (FPB) macroeconometric world model. The Working Paper also features an assessment of the progress made towards the Lisbon goals for growth and employment in the euro area. The major technical assumptions of this outlook as well as a description of the NIME model are presented in appendix.

The **euro area** economy is projected to grow by 2.1 per cent in 2005. Growth is driven by a further rise in private consumption, sustained growth in enterprise sector investment and by net export growth. In 2006, employment and net exports continue to underpin overall GDP growth, which comes out at 2.5 per cent. On average, the euro area economy grows by 2.2 per cent per annum over the projection period, while the unemployment rate falls to 7.5 per cent in 2011. Inflation remains below the ECB's 2 per cent ceiling up to 2009, but then picks up to come out at 2.1 per cent in 2011. Short-term interest rates rise from 2.4 per cent in 2005 to 4.3 per cent in 2011. Overall fiscal deficits fall from 2.9 per cent of GDP in 2005 to 1.8 per cent of GDP in 2011, while the area's debt-to-GDP ratio declines from 71.6 per cent to 68.8 per cent over the same period. The euro's nominal effective exchange rate appreciates by an average 2.4 per cent per annum between 2005 and 2011.

Over 2005-2011, GDP growth averages 2.9 per cent for the group of countries comprising the **United Kingdom**, **Sweden** and **Denmark** and 3.3 per cent for the **New EU Member States**. The **United States**' economy expands by an average rate of 3.1 per cent, though fiscal and external imbalances persist. GDP growth in **Japan** comes out on average at 2 per cent per annum, as the Japanese economy moves out of deflation in 2006. The **rest of the world**'s output rises at an average rate of 4.6 per cent, while its prices rise by 5.5 per cent per annum over the 2005-2011 period.

This Working Paper also features an assessment of the progress made by the euro area regarding the EU's **Lisbon Objectives** for growth and employment. The outlook highlights that without an acceleration of structural reforms, the euro area will most likely fail to reach the Lisbon goals for growth and employment by 2010. Further simulations illustrate the scope and limitations of different policy options that might be considered in view of reaching the stated objectives. However, when considering the possible budgetary implications of the new measures, the simulations underscore the difficulty of reconciling the goals of higher growth and full employment, with short-term fiscal adjustment.

Finally, the reader should be aware that this outlook does not necessarily constitute the reference scenario for work carried out at the FPB. A case in point are the FPB's short-term forecasts and medium-term projections for the Belgian economy, for which the underlying international economic scenario is traditionally based on various sources. It should also be noted that this outlook does not incorporate the most recent information from short-term business cycle indicators that would allow to revise ameco forecasts for the years 2004 and 2005. However, these revisions will be incorporated in the Federal Planning Bureau's forthcoming "Economic Budget".

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Executive Summary of the 2005-2011 NIME World Economic Outlook

Introduction

This Working Paper presents a medium-term macroeconomic outlook for the major economic areas of the world. The outlook was prepared using NIME, the Belgian Federal Planning Bureau's (FPB) macroeconometric world model. The Working Paper also features an assessment of the euro area's progress towards the European Union's Lisbon goals for growth and employment, a brief description of the NIME model and an appendix outlining the major technical assumptions of this outlook.

This outlook extends the previous NIME World Economic Outlook's horizon from 2010 to 2011 and it updates the previous outlook following the release of new data, the re-estimation of the model's equations and a refinement of the model's demographic assumptions. The latter are now firmly based on the United Nations' most recent "World Population Prospects". Indeed, the new projection now integrates the slowdown in world population growth rates, as well as the ageing phenomenon, especially in areas such as Japan and, to a lesser extent, the euro area.

The outlook presented in this Working Paper builds on the latest Economic Forecasts of the European Commission. Indeed, the NIME model is basically medium-term-oriented and is thus calibrated to replicate the business cycle data for 2004 as presented in the EC's Autumn 2004 Economic Forecasts. However, as explained in the technical appendix, the AMECO data for 2004 have been updated for developments in financial markets up to the end of 2004. The NIME outlook then goes on to provide a coherent model-based outlook up to 2011 for the major economic areas of the world[1].

Finally, the reader should be aware that this outlook does not necessarily constitute the reference scenario for work carried out at the FPB. A case in point are the FPB's short-term forecasts and medium-term projections for the Belgian economy, for which the underlying international economic scenario is traditionally based on various sources.

1. It should be noted that this outlook does not incorporate the most recent information from short-term business cycle indicators that would allow to revise AMECO forecasts for the years 2004 and 2005. However, these revisions will be incorporated in the Federal Planning Bureau's forthcoming "Economic Budget".

Summary of the 2005-2011 Economic Outlook

In 2004, economic growth became increasingly broad-based, while inflation remained low across the major economic areas of the world. For the 2005-2011 period, growth generally remains robust, while inflation is tempered by the gradual tightening of monetary policy. However, important fiscal and external imbalances persist in some areas and their possible disorderly unwinding poses a serious downward risk to the outlook.

In the euro area, gross domestic product (GDP) growth picked up in 2004, underpinned by renewed growth in investment, strong private consumption and rising net exports. During the 2005-2011 period, real GDP growth averages 2.2 per cent per annum, reflecting balanced growth in all components of domestic demand and a moderate positive contribution of net exports. Inflation, as measured by the change in the area's GDP deflator, levels off at 1.5 per cent at the end of the period, while consumer price inflation edges up to 2.1 per cent in 2011. These inflationary pressures arise following weak growth in the working-age population, which tends to reduce potential output growth, while relatively strong overall population growth continues to fuel steady growth in private consumption. In order to curb this inflationary buildup, short-term interest rates are raised from 2.4 per cent in 2005 to 4.3 per cent in 2011. The euro area's nominal effective exchange rate appreciates on average by 2.4 per cent per annum during the 2005-2011 period, reflecting higher inflation and smaller interest rate hikes in the other major areas of the world. Employment growth picks up in 2005 and remains strong thereafter. However, working-age population growth falters by the end of the projection period, raising the employment rate from 64.7 per cent of the working-age population in 2004, to 68.1 per cent in 2011. Robust output growth, falling unemployment and sustained real wage growth raise government income more than government expenditure, despite the ageing population. The euro area's public deficit gradually falls from an estimated 2.9 per cent of GDP in 2004, to 1.8 per cent in 2011. Simultaneously, the government gross debt ratio falls from 71 per cent of GDP in 2004 to 68.8 per cent of GDP in 2011.

In 2004, real GDP of the Western non-euro EU Member States grew by an estimated 3.1 per cent, fuelled by strong domestic spending, but with a negative contribution to growth coming from the area's net exports. In 2005, investment growth, especially government investment growth, remains strong. However, private consumption falls back while the negative contribution to growth from net exports increases further, reducing real GDP growth to 2.6 per cent. After 2005, growth in domestic spending remains robust, but net exports pick up and also start to provide a positive contribution to overall growth. As a consequence, the area's real GDP grows on average by 2.9 per cent over the 2005-2011 period. Over the same period, the area's GDP deflator increases on average by 1.7 per cent, while nominal short-term interest rates are raised from 4 per cent in 2004 to 4.9 per cent in 2011. The nominal effective exchange rate appreciates on average by 1.9 per cent per annum over the 2005-2011 period, primarily reflecting a lower average rate of inflation than in the other areas of the world. Finally, the government budget deficit falls from an estimated 2.1 per cent of GDP in 2004 to 1 per cent of GDP in 2011.

Building on vigorous capital investment and strong private consumption, GDP growth of the New EU Member States continued to rise in 2004. Between 2005 and 2011, output growth remains strong and GDP rises by an annual average rate of 3.3 per cent. Robust domestic demand fuels consumer price inflation, which picks up in 2004 and 2005, before levelling off at 2 per cent in 2011.

In the United States, real GDP growth is estimated to have come out at 4.5 per cent in 2004, primarily driven by vigorous growth in domestic demand. Robust demand conditions pushed consumer price inflation up from 1.9 per cent in 2003 to 2.4 per cent in 2004, while the short-term interest rate rose from 1.2 per cent to 1.5 per cent. In 2005, GDP growth falters and comes out at 3.7 per cent, as investment growth falls from an unsustainable 9.2 per cent in 2004 to just 4.2 per cent in 2005. Between 2006 an 2010, growth in gross fixed capital formation converges to more sustainable levels while strong employment and real wage growth ensure that private consumption growth remains robust, notwithstanding rising income tax rates. Then, in 2011, new steep tax hikes cut into real GDP growth, which is reduced to just 1.9 per cent. Monetary policy moves to a more neutral stance. After a 2.2 percentage point rate hike between 2004 and 2005, U.S. short-term interest rates move from 1.5 per cent in 2004 to 4.8 per cent in 2011. Over the 2005-2011 period, in the absence of any major exchange rate realignment, the contribution of net exports to GDP growth remains globally negative. Over this period, the U.S. nominal effective exchange rate appreciates on average by 2.4 per cent a year, mainly reflecting higher inflation rates in the rest of the world. The U.S. fiscal deficit reaches 3.3 per cent of GDP in 2010 but subsequently falls to 2.8 per cent in 2011, in the wake of the sharp rise in tax rates.

Japanese real GDP rose by an estimated 4.2 per cent in 2004, bolstered by high enterprise investment, rising private consumption and surging exports. In 2005, GDP growth decelerates to just 2.6 per cent, as growth in private consumption and enterprise investment slows down and the contribution of net exports to growth falls slightly. Consumer price deflation comes to an end in 2006, as the Bank of Japan's zero-interest-rate policy, supplemented by a policy of quantitative easing, finally brings an end to years of deflation. In subsequent years, the outlook for Japan is largely determined by the steady decline in its active population. As strain appears on the growth of productive capacity, a switch from external to domestic demand emerges through a gradual appreciation of the Yen. Japanese government fiscal imbalances persist over the horizon of the outlook, as no further corrective measures are assumed to be taken.

The rest of the world's output is estimated to have grown by an impressive 6.1 per cent in 2004. Growth subsequently falls to 4.8 per cent in 2005 and 4.3 per cent in 2006, before recovering to reach an average of 4.7 per cent over the 2007-2011 period. Inflation reaches 5.5 per cent in 2004 and maintains this level throughout the projection's horizon. The currencies of the rest of the world depreciate on average by 3.8 per cent against those of the other major economic areas over the 2005-2011 period, reflecting the on average higher inflation rate.

Summary World Area Table - Main results

	03	04	05	06	07	08	09	10	11
I. Euro area									
1. Gross domestic product	0.5	2.1	2.1	2.5	2.2	2.2	2.1	2.0	2.0
2. GDP deflator	2.1	2.0	1.3	1.7	1.6	1.6	1.5	1.5	1.5
3. Unemployment rate (level, % of labour force)	8.5	8.5	8.0	7.6	7.3	7.3	7.4	7.5	7.5
4. Short-term interest rate (level)	2.3	2.1	2.4	2.9	3.3	3.6	3.9	4.1	4.3
5. Nominal effective exchange rate (+: depreciation)	-12.1	-4.7	-1.0	-1.3	-2.2	-2.7	-3.1	-3.3	-3.5
II. Western non-euro EU Member States									
1. Gross domestic product	1.9	3.1	2.6	3.0	3.1	3.1	3.0	3.0	2.8
2. GDP deflator	2.5	2.5	1.9	1.5	1.5	1.7	1.8	1.8	1.9
3. Unemployment rate (level, % of labour force)	5.0	5.0	5.1	5.2	5.1	5.0	5.0	5.0	5.0
4. Short-term interest rate (level)	3.5	4.0	4.2	4.2	4.3	4.4	4.5	4.7	4.9
5. Nominal effective exchange rate (+: depreciation)	-1.6	-4.4	-3.7	-2.2	-1.6	-1.4	-1.4	-1.4	-1.5
III. New EU Member States									
1. Gross domestic product	3.6	4.7	3.4	3.3	3.4	3.4	3.4	3.3	3.3
2. GDP deflator	2.1	4.3	3.6	3.1	3.0	2.9	2.9	2.8	2.8
3. Nominal effective exchange rate (+: depreciation)	-3.9	-2.4	-0.4	-0.4	-0.5	-0.6	-0.7	-0.9	-0.9
IV. Unites States									
1. Gross domestic product	3.1	4.5	3.7	3.2	3.4	3.4	3.1	3.0	1.9
2. GDP deflator	1.8	2.2	2.5	1.9	1.6	1.6	1.7	1.8	1.8
3. Unemployment rate (level, % of labour force)	5.6	5.1	5.3	5.3	5.6	5.8	6.0	6.3	7.8
4. Short-term interest rate (level)	1.2	1.5	3.7	4.4	4.6	4.6	4.7	4.8	4.8
5. Nominal effective exchange rate (+: depreciation)	7.0	5.1	-2.6	-2.9	-2.7	-2.4	-2.2	-2.0	-2.2
V. Japan									
1. Gross domestic product	2.4	4.2	2.6	2.3	2.4	2.2	1.9	1.6	1.2
2. GDP deflator	-2.5	-2.6	-0.5	0.4	1.0	1.5	1.8	2.0	2.1
3. Unemployment rate (level, % of labour force)	5.1	4.6	4.3	3.9	3.6	3.4	3.3	3.2	3.3
4. Short-term interest rate (level)	0.1	0.1	0.4	0.8	1.4	1.9	2.5	3.0	3.5
5. Nominal effective exchange rate (+: depreciation)	-2.6	-3.4	0.6	0.9	-0.5	-1.8	-3.2	-4.3	-4.9
VI. Rest of the world									
1. Output	5.8	6.1	4.8	4.3	4.7	4.8	4.7	4.6	4.5
2. Output deflator	5.4	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
3. Nominal effective exchange rate (+: depreciation)	6.8	3.1	3.0	2.8	3.4	3.8	4.2	4.6	4.9

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

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

The New EU Member States comprises Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia and Slovenia, plus Bulgaria and Romania.

The Euro Area

Recent economic developments

The euro area's real GDP is estimated to have grown by 2.1 per cent in 2004, rebounding after three years of tepid growth during which GDP rose on average by a meagre 1 per cent per annum. The recovery was driven by renewed growth in gross fixed capital formation, vigorous growth in private consumption and, especially, a strong turnaround in net exports.

Domestically, the rebound in activity was mainly characterized by the 3.1 per cent rise in gross fixed capital spending in the business sector, which follows the strong growth in private sector output and favourable financing conditions.

Private consumption growth is estimated to have increased from 1 per cent in 2003 to 1.5 per cent in 2004, while investment in residential buildings rebounded to 2 per cent in 2004, after falling by 0.3 per cent the year before. An increase in household real disposable income and sustained low interest rates were the main driving forces behind these higher household outlays.

Euro area exports are estimated to have risen by 6.4 per cent in 2004, largely due to a strong 5.3 per cent increase in foreign effective demand. Import growth jumped from 1.8 per cent in 2003 to 6.3 per cent in 2004, reflecting a strong rise in domestic final demand and a further 2.7 per cent fall in euro-denominated import prices in 2003. On balance, net exports contributed 0.1 percentage points to GDP growth in 2004, after reducing GDP growth by 0.6 percentage points the year before.

Total employment is estimated to have been somewhat less resilient, growing at only 0.5 per cent in 2004, despite a 2.9 per cent increase in private sector output. However, a pick-up in productivity growth and a 1.3 per cent fall in overall unit labour costs, set the conditions for strong future growth in labour demand. As the labour force increased by 0.5 per cent, the unemployment rate stayed at 8.5 per cent of the labour force.

Despite a fall in unit labour costs and the appreciation of the nominal effective exchange rate, euro area inflation remained at a relatively high rate of 2 per cent in 2004. After having fallen in 2003, in line with the sharp appreciation of the nominal effective exchange rate, export and import prices rose respectively by 1.8 and 1.2 per cent in 2004.

In 2004, monetary policy remained accommodative, as the nominal short-term interest rate fell from 2.3 per cent in 2003 to 2.1 per cent in 2004, lowering real interest rates still further. Long-term interest rates decreased slightly, down from 4.2 per cent in 2003 to 4.1 per cent in 2004.

The fiscal stance in the euro area continued to deteriorate, as the fiscal deficit is expected to have risen to 2.9 per cent of GDP, compared to 2.7 per cent the year before. Gross government debt increased from 70.7 per cent of GDP in 2003, to 71 per cent of GDP in 2004.

Net exports and employment pick up in 2005

In 2005, euro area GDP growth is underpinned by a further rise in private consumption, sustained growth in business investment and relatively robust export growth, but a fall in inventory demand tempers overall GDP growth, which once again comes out at 2.1 per cent.

Private consumption growth increases by 2.2 per cent in 2005, as it continues to pick up from the low levels of the previous years, bolstered by a 1.5 per cent increase in household disposable income. This rise in disposable income is itself largely due to a 0.6 per cent increase in real take-home wages, combined with a 1 per cent rise in employment.

Business investment rises by 3.4 per cent in 2005, further recovering from past low investment rates and benefiting from strong output growth, although they are somewhat tempered by the rise in interest rates.

The area's export growth declines from 6.4 per cent in 2004 to 5.7 per cent in 2005, primarily reflecting a fall in foreign effective demand from 5.3 per cent in 2004 to 4.3 per cent in 2005. The 1.5 per cent depreciation of the area's real effective exchange rate provides only a very limited support to exports, as exchange rate fluctuations need time before translating into changes in export volumes. At the same time, import growth falls from 6.3 per cent in 2004 to 4.7 per cent in 2005, as output growth levels off and import prices rise by 2.4 per cent. Nevertheless, net exports continue to post a positive 0.3 percentage points contribution to overall GDP growth.

After 2004's tepid rise in employment, labour demand increases by a full 1 per cent in 2005, as hiring responds only slowly to output growth and the decline in unit labour costs. As the labour force increases by only 0.4 per cent, the unemployment rate falls from 8.5 per cent of the labour force in 2004 to 8 per cent in 2005. At the same time, the euro area employment rate - defined as the ratio of total employment over working-age population - rises from 64.7 per cent of working-age population in 2004 to 65.2 per cent in 2005.

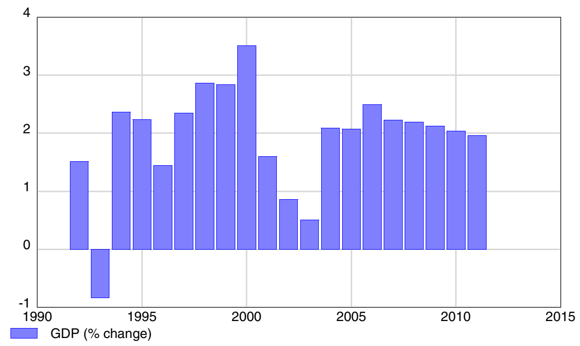
Nominal wages grow by 2.3 per cent, slightly up from the 2.1 per cent the year before, but as consumer price inflation slows down, real take-home wages increase by 0.7 per cent, compared to only 0.1 per cent the year before. At the same time, real producer wages increase by 1 per cent, reflecting a smaller increase in producer prices than in consumer prices. Nevertheless, overall unit labour costs fall slightly.

After having been stuck at 2 per cent over the previous couple of years, consumer price inflation in the euro area finally declines to 1.6 per cent in 2005, as a combination of falling unit labour costs, rising interest rates and the appreciation of the nominal effective exchange rate all lead to a reduction in inflationary pressures.

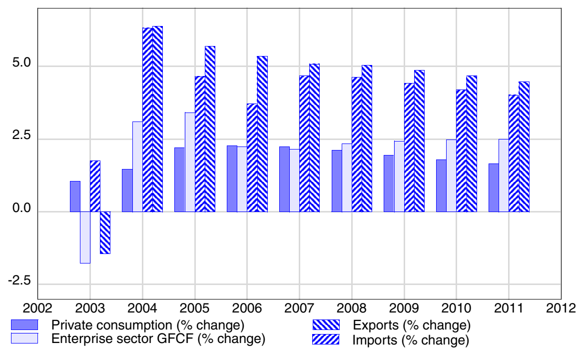
Short-term interest rates are raised from 2.1 per cent in 2004 to 2.4 per cent in 2005, as they lie significantly below their neutral levels and as growth in demand outstrips growth in potential output. Simultaneously, long-term interest rates increase from 4.1 per cent in 2004 to 4.2 per cent in 2005. These nominal rate hikes, combined with the deceleration of inflation, lead to a significant rise in real interest rates.

With government outlays growing as fast as government revenue, the 2005 public sector net borrowing requirement once again comes out at 2.9 per cent of GDP. This pushes government gross debt up, from 71 per cent of GDP in 2004 to 71.6 per cent of GDP in 2005.

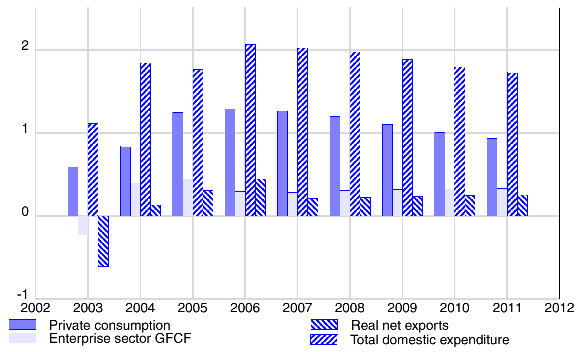
Graph 1 - Gross domestic product in the euro area



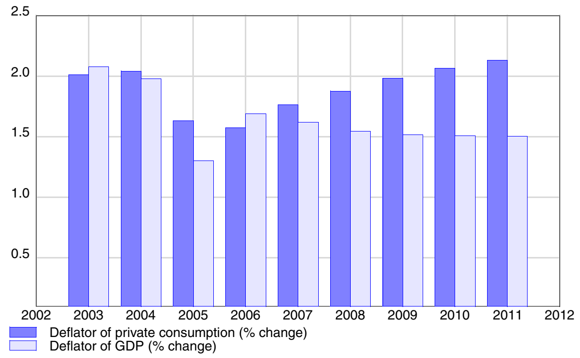
Graph 2 - Selected components of demand in the euro area



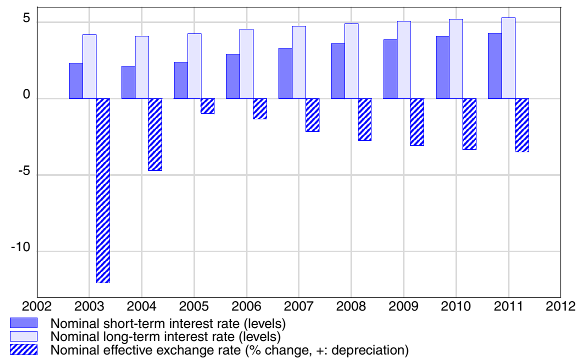
Graph 3 - Contributions to real GDP growth in the euro area *(percentage points)*



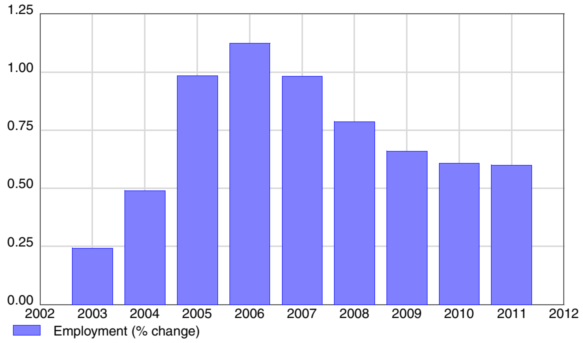
Graph 4 - Price deflators in the euro area



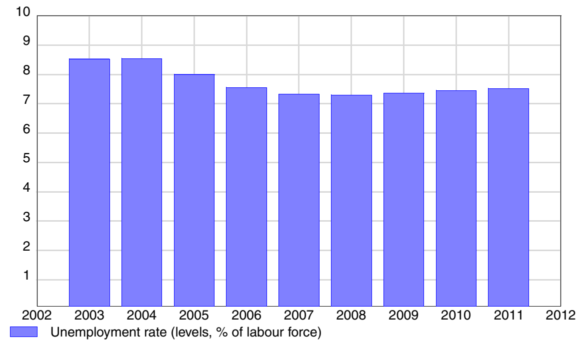
Graph 5 - Interest and exchange rates in the euro area



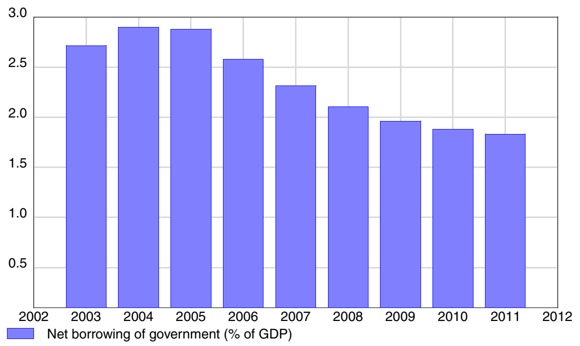
Graph 6 - Employment in the euro area



Graph 7 - Unemployment rates in the euro area



Graph 8 - Net borrowing of government in the euro area



Balanced growth up to 2011

Over the 2006-2011 period, GDP growth in the euro area averages 2.2 per cent per annum, notwithstanding its faltering working-age population growth. During this period, domestic demand is driven by strong private consumption and vigorous business investment, while external trade continues to contribute significantly to growth.

Private consumption growth remains strong over the 2006-2011 period, coming out at an average rate of 2 per cent, thereby tracking the steady 1.9 per cent average growth rate of household real disposable income.

Thanks to the strong and sustained private sector output growth and the moderate real interest rates, business investment growth remains robust over the 2006-2011 period, averaging 2.4 per cent a year. As of 2006, inventory demand flattens out, thereby offsetting its negative contribution to GDP growth in 2005 and producing a temporary rebound in the growth rate of 2006.

Euro area exports grow at 4.9 per cent per annum over the 2006-2011 period, mainly led by a 4 per cent average increase in foreign effective demand. Imports grow by 4.3 per cent over the period, as they respond to the steady growth in domestic output, as well as to the moderate rise in import prices. The rise in euro-denominated import prices is kept in check by the 2.7 per cent average appreciation of the area's nominal effective exchange rate. At the same time, in an attempt to remain competitive in world markets, euro area exporters keep export price growth limited.

Total employment continues to grow strongly in 2006 and 2007, mainly as a result of robust private sector output growth and falling unit labour costs. However, as consumer prices rise more quickly than producer prices, real producer wages come under pressure as households seek compensation for their rising cost-of-living. This leads to an average 0.5 per cent rise in overall unit labour costs as of 2008. This, in turn, reduces employment growth, which rises on average by just 0.7 per cent a year. At the same time, growth in working-age population stalls, raising the employment rate in the euro area from 65.8 per cent in 2006 to 67.7 per cent in 2010 and 68.1 per cent in 2011, while the unemployment rate settles at 7.5 per cent in 2011.

As potential output growth in the private sector trails behind growth in effective demand - partly reflecting a declining share of the working-age population in total population - inflationnary pressures build up and consumer price inflation increases from 1.6 per cent in 2006 to 2.1 per cent in 2011. Consequently, short-term interest rates are raised from 2.9 per cent in 2006 to 4.3 per cent in 2011, while long-term interest rates rise from 4.5 per cent in 2006 to 5.3 per cent in 2011.

Despite steadily rising employment, real wages and output, government revenue increases only slightly faster than outlays, reducing net borrowing of government from 2.9 per cent of GDP in 2005 to 1.8 per cent of GDP in 2011. Nevertheless, robust nominal GDP growth allows for a fall in the public debt-to-GDP ratio, from 71.6 per cent in 2005 to 68.8 per cent in 2011.

The Western Non-Euro EU Member States

Recent economic developments

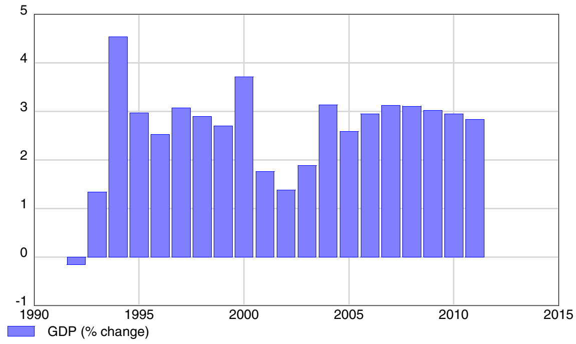
Real GDP growth of the Western non-euro European Union Member States[1] is expected to have accelerated from 1.9 per cent in 2003 to 3.1 per cent in 2004, thanks to a strong rise in private consumption and investment and despite a further worsening of the contribution of net exports.

In 2004, private consumption in this area is estimated to have grown by 3.1 per cent, up from 2.2 per cent the year before. Consumption growth tracked the 3.4 per cent rise in household real disposable income, which results largely from the 2.6 per cent rise in real take-home wages and a 0.5 per cent increase in total employment.

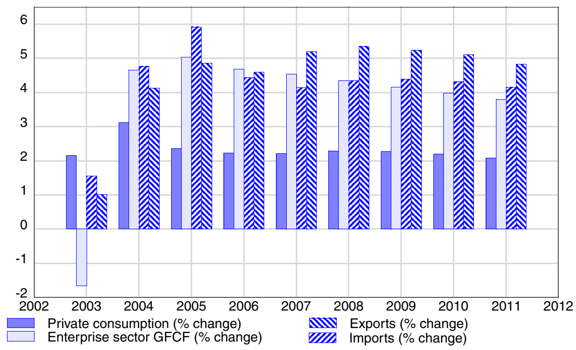
After three consecutive years of decline, business investment is expected to have risen by 4.7 per cent in 2004, reflecting strong output growth. At the same time, investment in residential buildings and government investment kept on rising sharply, coming out at 8.2 and 9 per cent, respectively. Investments in residential buildings continued to benefit from favourable financing conditions, while high public sector investments were aimed at improving public sector services.

1. "Western Non-Euro EU Member States" comprises Denmark, Sweden and the United Kingdom (UK).

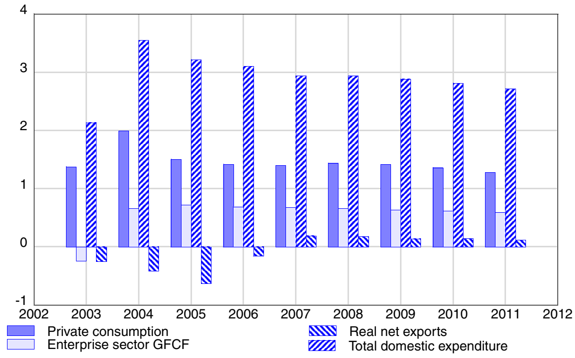
Graph 9 - Gross domestic product in the Western non-euro EU Member States



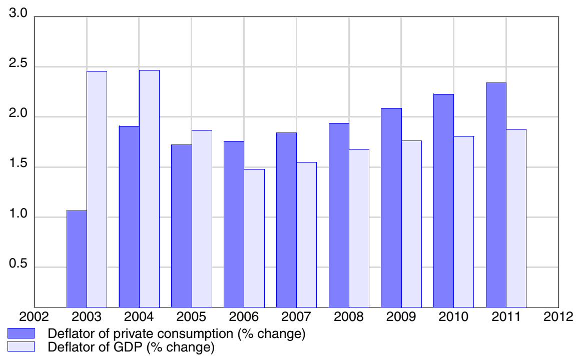
Graph 10 - Selected components of demand in the Western non-euro EU Member States



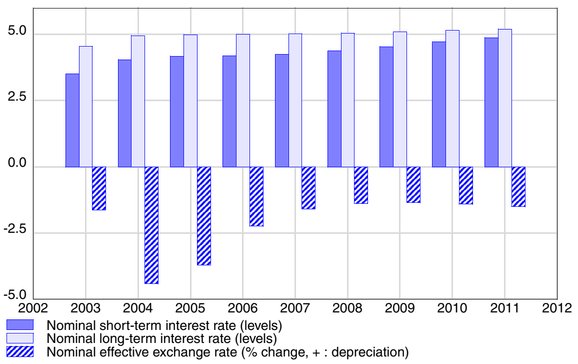
Graph 11 - Contributions to real GDP growth in the Western non-euro EU Member States *(percentage points)*



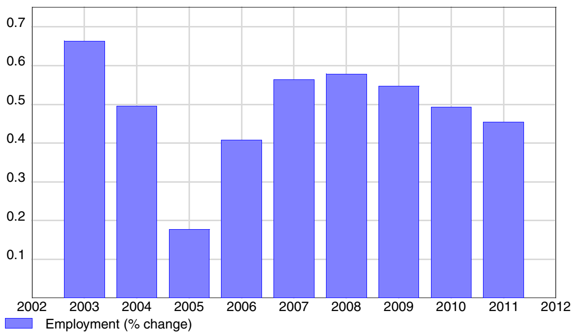
Graph 12 - Price deflators in the Western non-euro EU Member States



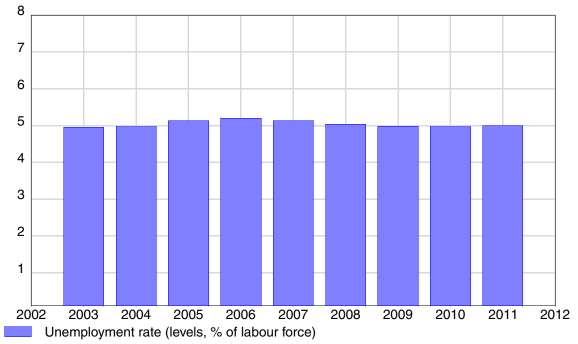
Graph 13 - Interest and exchange rates in the Western non-euro EU Member States



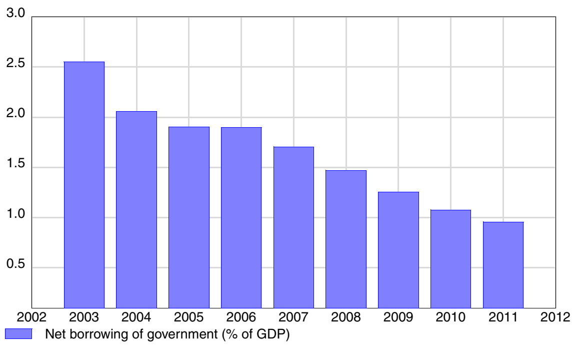
Graph 14 - Employment in the Western non-euro EU Member States



Graph 15 - Unemployment rate in the Western non-euro EU Member States



Graph 16 - Net borrowing of government in the Western non-euro EU Member States



Export growth jumped from 1 per cent in 2003 to 4.1 per cent in 2004, due to a more robust foreign effective demand, although export growth was tempered by the 1.3 per cent appreciation of the area's real effective exchange rate. Imports rebounded even more vigorously, rising from 1.6 per cent in 2003 to 4.8 per cent, in response to rising private sector output and falling relative import prices. On balance, net exports reduced overall GDP growth by 0.4 percentage points in 2004, compared to just 0.2 percentage points in 2003.

As total employment and the labour force both increased by 0.5 per cent in 2004, the unemployment rate remained stable at 5 per cent of the labour force.

The area's GDP deflator rose by 2.5 per cent in 2004, unchanged relative to 2003, while the consumer price deflator was up by 1.9 per cent, compared to just 1.1 per cent the year before.

The build-up of inflationary pressures in private consumption and investment led the monetary authorities to increase short-term interest rates from 3.5 per cent in 2003 to 4 per cent in 2004. Simultaneously, long-term rates rose from 4.5 per cent in 2003 to 5 per cent in 2004.

In 2004, nominal government revenue grew at a faster pace than total government outlays, leading to a decline in the government net borrowing requirement, from 2.6 per cent of GDP in 2003 to 2.1 per cent of GDP in 2004.

Negative net exports reduce GDP growth in 2005

In 2005, GDP in the Western non-euro EU Member States rises by 2.6 per cent, led by a robust domestic demand, though growth is once again hampered by a negative 0.6 percentage points contribution from net exports and a somewhat less buoyant private consumption.

Private consumption growth slows to 2.4 per cent in 2005, partly correcting for the above-trend growth of the previous year, but still boosted by a 3.5 per cent growth in household real disposable income. The rise in household income stems mainly from a 3.2 per cent rise in real take-home wages and a 0.2 per cent rise in total employment.

Total gross fixed capital formation continues to contribute vigorously to the area's overall GDP growth, with business sector capital investment growth accelerating from 4.7 per cent in 2004 to 5 per cent in 2005. Overall public sector investment increases from 9 per cent in 2004 to 11.2 per cent in 2005, once again led by substantial public sector spending on infrastructure and public services. Conversely, growth in residential investment falls back from 8.2 per cent in 2004, to a more sustainable 4.7 per cent rise in 2005.

Export growth rises from 4.1 per cent in 2004 to 4.9 per cent in 2005, mainly reflecting the further adjustment of exports to significant past increases in foreign effective demand. Adjusting to the past appreciation of the area's effective exchange rate as well as to rising output, imports post a 5.9 per cent increase in 2005. This then leads to a notable increase in the area's current account deficit, which jumps from 0.6 per cent of GDP in 2004 to a full 1 per cent of GDP in 2005.

With private sector output growing at 3.7 per cent and real private sector producer wages rising by 4.2 per cent, labour demand increases by a paltry 0.2 per cent. At the same time, the labour supply rises by 0.3 per cent, leading to an unemployment rate of 5.1 per cent of the labour force in 2005.

Though consumer price inflation falls from 1.9 per cent in 2004 to 1.7 per cent in 2005, private sector potential output growth lags behind growth in domestic demand, leading the monetary authorities to raise short-term interest rates from 4 per cent in 2004 to 4.2 per cent in 2005. The long-term rate remains fixed at 5 per cent.

In 2005, as government income increases more quickly than government expenditures, net borrowing of government falls from 2.1 per cent of GDP in 2004 to 1.9 per cent of GDP in 2005.

Net exports contribute to GDP growth as of 2006

The area's GDP growth averages 3 per cent per annum over the 2006-2011 period. Domestic demand contributes on average 2.9 per cent to total GDP growth, while net exports make a limited, positive average contribution of 0.1 percentage point to GDP growth between 2006 and 2011.

Private consumption rises on average by 2.2 per cent over the 2006-2011 period, reflecting a 2.9 per cent average growth in real disposable income and a 2.1 per cent average increase in total available means, which includes assets as well as expected future non-asset income. The rise in real disposable income mainly stems from a 0.5 per cent average rise in employment and a 2.4 per cent rise in real take-home wages.

Total gross fixed capital investment increases by 4.1 per cent over the 2006-2010 period, in the wake of robust output growth and moderate interest rates.

Exports rise on average by 5.1 per cent over the 2006-2011 period, mainly due to relatively high foreign effective demand. Imports grow on average by 4.3 per cent per annum, as a result of robust domestic output growth and moderate increases in import prices. The current account-to-GDP ratio gradually closes, coming out at 0.4 per cent of GDP in 2011.

Labour demand as well as labour supply grow on average by 0.5 per cent over the 2006-2011 period, thus keeping the unemployment rate at 5 per cent of the labour force.

Consumer price inflation accelerates slightly, rising from 1.7 per cent in 2005 to 2.3 per cent in 2011, as effective demand grows somewhat faster than private sector potential output. At the same time, GDP inflation levels off at 1.9 per cent at the end of the period.

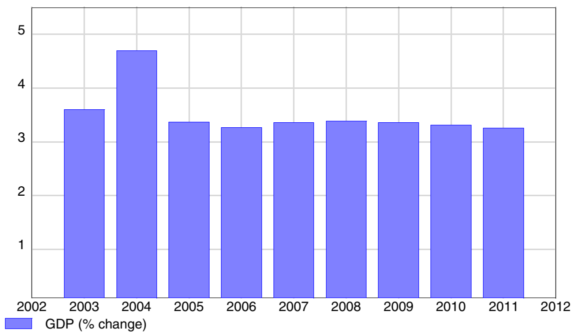
In order to keep inflationary pressures at bay, short-term interest rates are raised from 4.2 per cent in 2006 to 4.9 per cent in 2011. Long-term interest rates remain almost unchanged, yielding a rate of 5.2 per cent in 2011.

Robust growth in domestic demand and more sustainable rates of public sector investment over the 2006-2011 period, result in a fiscal deficit that declines from 1.9 per cent of GDP in 2006 to 1 per cent of GDP in 2011.

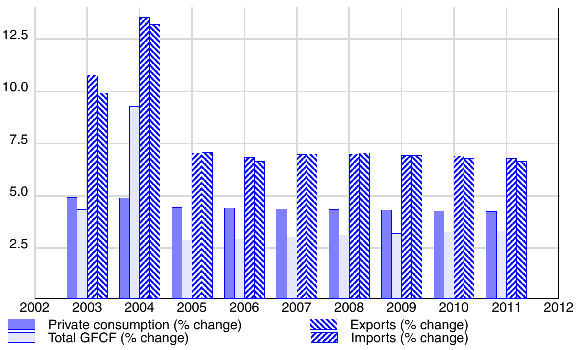
The New EU Member States

In 2004, the New EU Member States'[1] real GDP is estimated to have increased by 4.7 per cent, compared to a 3.6 per cent rise the year before. This rise was, to a large extent, caused by strong growth in gross fixed capital formation, which accelerated from 4.4 per cent in 2003 to 9.3 per cent in 2004, in preparation of EU enlargement by May 2004. Private consumption growth stabilised at 4.9 per cent, while public consumption growth fell from 2.7 per cent in 2003 to 1.9 per cent in 2004.

Graph 17 - Gross domestic product in the New EU Member States



Graph 18 - Selected components of demand in the New EU Member States



In line with higher domestic demand, but also stimulated by the easing of customs formalities after EU enlargement, import growth rose from 10.7 per cent in 2003 to 13.5 per cent in 2004. However, the jump in export growth was equally impressive, as exports grew by 13.2 per cent in 2004, after posting a 9.9 per cent growth rate in 2003. This high export growth reflects continued robust growth in foreign effective demand and easier access to EU markets. Nevertheless, compared to 2003, the contribution of net exports remained basically unchanged, as net exports subtracted 1.1 percentage points from overall GDP growth in 2004.

In 2004, consumer price inflation reached an estimated 3.7 per cent, up from an exceptionally tame 1 per cent the year before. This surge in inflation largely reflects strong growth in domestic demand, as well as higher oil prices. Nominal interest rates continued on their downward path, reaching 7.8 per cent at the short end of the yield curve and 8.2 per cent at the long end. At the same time, the area's nominal effective exchange rate appreciated by 2.4 per cent, primarily due to higher effective foreign inflation, while the area's currencies depreciated on average by 2.5 per cent against the euro.

In 2005, real GDP growth of the New EU Member States falls back to a more sustainable 3.4 per cent growth rate. The contribution of domestic demand to GDP growth falls from 5.8 percentage points in 2004 to 3.9 percentage points in 2005, as private consumption growth declines from 4.9 per cent in 2004 to 4.4 per cent in 2005 and investment growth dives from 9.3 per cent in 2004 to a more sustainable 2.9 per cent in 2005. However, compared to 2004, the negative contribution of net exports to GDP growth is more than halved, coming out at just -0.5 percentage points, so that the overall real GDP growth comes out fairly robust.

Assuming no further policy slippages and a close adherence to growth and stability-oriented macroeconomic policies, real GDP growth of the area averages 3.3 per cent per annum over the 2006-2011 period, compared to 2.2 per cent in the euro area over the same period. During this period, growth in the New EU Member States is mainly underpinned by a robust 4.3 per cent average increase in private consumption and a 3.2 per cent average increase in gross fixed capital formation. However, this moderate investment growth rate should not conceal the fact that investment funds are reallocated to support the still incomplete structural shift to a modern service-oriented market economy. While, on average, total domestic demand adds 4 percentage points to GDP growth over the 2006-2011 period, net exports cut into GDP growth by 0.6 percentage points on average.

As demand pressures subside and the nominal effective exchange rate further appreciates, consumer price inflation recedes to 2.7 per cent in

1. "New EU Member States" includes here Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia and Slovenia, plus Bulgaria and Romania.

2005 and comes out at an average of 2.2 per cent per annum over the 2006-2011 period, compared to 1.9 per cent in the euro area. Moreover, as inflationary pressures ebb, short-term interest rates fall from 7.8 per cent in 2004 to 6 per cent in 2005 and level off at 5.1 per cent in 2011, compared to 4.3 per cent in the euro area in 2011. Long-term interest rates decrease from 8.2 per cent in 2004 to 5.6 per cent in 2011, compared to 5.3 per cent in the euro area in 2011. Finally, over the 2006-2011 period, the area's currencies depreciate against the euro at an annual average rate of 2.4 per cent, while the nominal effective exchange rate appreciates on average by 0.7 per cent, reflecting the higher foreign effective inflation rate and an unchanged real effective exchange rate.

The United States

Recent economic developments

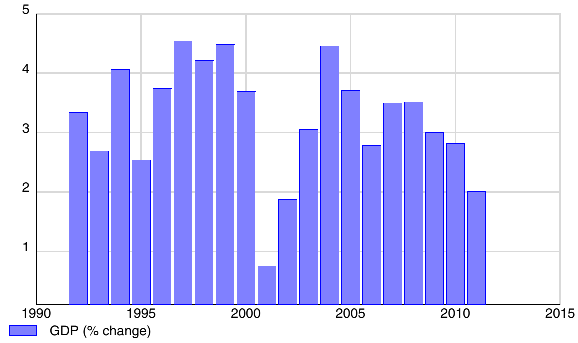
U.S. GDP growth accelerated for the third straight year in 2004, coming out at an estimated 4.5 per cent, compared to an already strong 3.1 per cent growth in 2003. Domestic demand was driven by rising investment and robust private consumption, contributing 5.2 per cent to GDP growth, while net exports are estimated to have reduced the overall growth rate by 0.8 percentage points.

Rebounding from the low - and even negative - growth rates of the 2001-2003 period, business sector gross fixed capital formation is estimated to have risen by a brisk 9.7 per cent in 2004, compared to 3.7 per cent in 2003. Growth in residential investment remained strong, coming out at 10.9 per cent, compared to 8.8 per cent the year before.

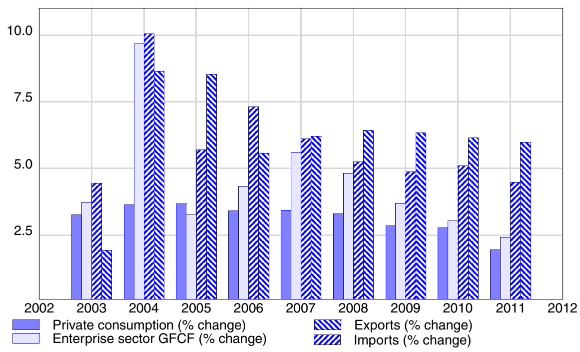
Private consumption growth rose by an estimated 3.6 per cent in 2004, up from 3.3 per cent the year before. Private consumption benefited from a 3.8 per cent rise in household real disposable income, which contributed to an overall 3.9 per cent increase in household total available means.

U.S. exports performed well in 2004, growing by an estimated 8.6 per cent, as they recovered from low growth rates in previous years. Exports were boosted by the 5.1 per cent increase in foreign effective demand, combined with a 5.1 per cent depreciation of the U.S. nominal effective exchange rate. Imports grew by 10.1 per cent in 2004, largely reflecting a strong 5.5 per cent increase in private sector output.

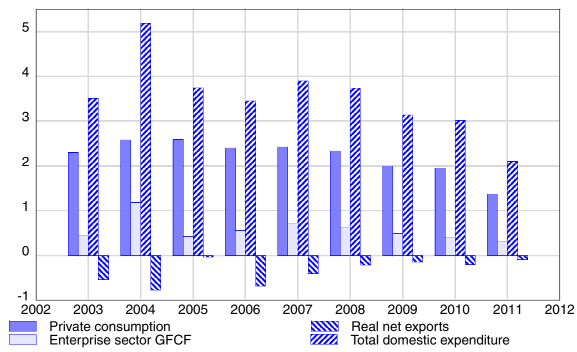
Graph 19 - Gross domestic product in the U.S.



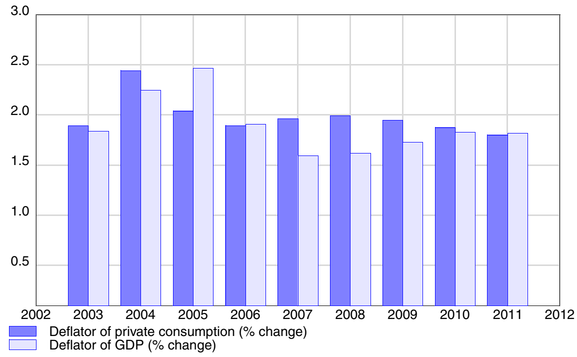
Graph 20 - Selected components of demand in the U.S.



Graph 21 - Contributions to real GDP growth in the U.S.
(percentage points)

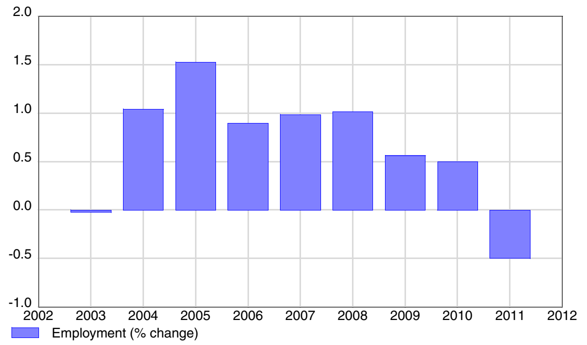


Graph 22 - Price deflators in the U.S.

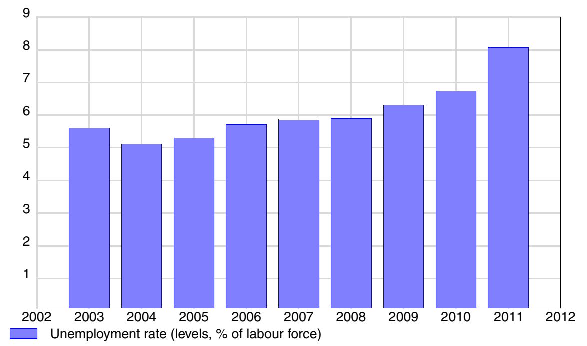


Employment was finally on the rise in 2004, slowly reversing the course of the "jobless recovery" of the preceding years. Total employment increased by 1 per cent, while the labour supply increased by 0.5 per cent, leading to a decline in the unemployment rate from 5.6 per cent in 2003, to 5.1 per cent in 2004. At the same time, the economy-wide labour productivity growth remained strong, rising by 3.4 per cent.

Graph 23 - Employment in the U.S.



Graph 24 - Unemployment rates in the U.S.



Monetary and fiscal policies continued to be accommodative. Nominal short-term interest rates stood at an average 1.5 per cent in 2004, up by 0.3 percentage points from the previous year, though real rates continued to be negative. Long-term interest rates increased, from 4 per cent in 2003 to 4.3 per cent in 2004. The U.S. government budget deficit is expected to have reached 4.2 per cent of GDP in 2004, as growth in government income outpaced growth in outlays.

Net exports improve temporarily in 2005

After the growth spurt of 2004, U.S. GDP increases by a more moderate 3.7 per cent in 2005. This lower growth reflects a slowdown in gross fixed capital formation and public consumption. However, as import growth falters in response to lagged exchange rate depreciations, net exports no longer weigh on overall real GDP growth, after having constituted a major drag on economic growth for many years.

Total gross fixed capital formation rises by 4.2 per cent in 2005, which is down sharply from the 9.2 per cent increase the year before. Growth in business investment slackens after the unsustainably high growth rates of the past years and the rising interest rates and comes out at 3.3 per cent, compared to 9.7 per cent the year before. Growth in residential investment falls from 10.9 per cent in 2004 to 7 per cent in 2005, largely reflecting a spike in financing costs.

Private consumption growth edges slightly up to 3.7 per cent, as it is still sustained by past gains in income and asset wealth, despite the fact that contemporanous disposable income growth falls off and interest rates increase sharply.

In 2005, U.S. exports increase once again by an impressive 8.5 per cent, largely building on strong growth in foreign effective demand and a strong depreciation of the U.S. dollar over the previous years. Import growth slows down from a very high 10.1 per cent in 2004 to a more sustainable 5.7 per cent in 2005, as it adjusts to lower output growth and strong increases in import prices during the previous years. On balance, the U.S. current account deficit-to-GDP ratio falls by 0.6 percentage points to 4.9 per cent of GDP in 2005.

Building on its 1 per cent growth in 2004 and on falling unit labour costs, total employment increases by 1.5 per cent in 2005. However, with the labour supply expanding by 1.7 per cent, the unemployment rate comes out at 5.3 per cent in 2005, up from 5.1 per cent the year before.

GDP price inflation increases from 2.2 per cent in 2004 to 2.5 per cent in 2005, while consumer price inflation falls from 2.4 per cent in 2004 to 2 per cent in 2005, indicating that the fall in external demand leaves some slack in the domestic goods market.

The U.S. monetary authorities increase the pace of monetary tightening by raising the nominal short-term interest rates from 1.5 per cent in 2004 to 3.7 per cent in 2005. At the same time, the nominal long-term interest rates increase from 4.3 per cent in 2004 to 5 per cent in 2005. This interest rate hike is much larger than the rise in interest rates in other areas of the world and thus leads to a 2.6 per cent appreciation of the U.S. nominal effective exchange rate in 2005.

In 2005, the gradual expiration of a number of tax cut provisions leads to an increase in fiscal revenue, while at the same time growth in discretionary spending outside defence and homeland security is capped. As a result, the U.S. federal budget deficit falls from 4.2 per cent of GDP in 2004 to 3.9 per cent of GDP in 2005.

Robust growth during the 2006-2010 period, but GDP growth stumbles as taxes rise sharply in 2011

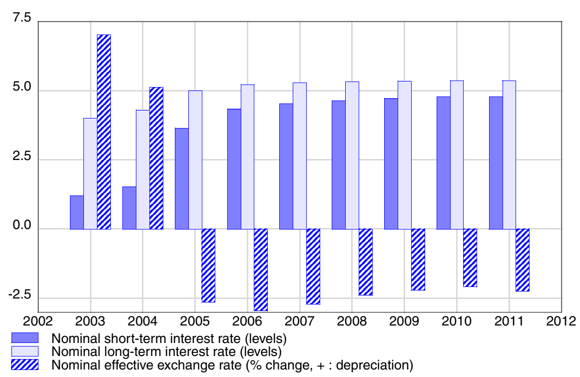
In 2006, GDP growth temporarily slips to 3.2 per cent, as net exports dip and provide a negative 0.8 contribution to overall economic growth. GDP growth rebounds in 2007, coming out at 3.4 per cent, but starts to fall again in 2009 as taxes continue to increase and the tightening of monetary policy produces its full impact on the U.S. economy. In 2011, as taxes are raised sharply once again, GDP growth falls to a mere 1.9 per cent.

Private consumption grows at an average rate of 3.3 per cent over the 2006-2010 period, underpinned by a steady increase in household real disposable income. This strong increase in disposable income follows from an average 1.9 per cent growth in real take-home wages, accompanied by an average 0.9 per cent growth in total employment. However, as tax rates are increased, real disposable income growth falls from 3.6 per cent in 2010 to a more modest 2.4 per cent in 2011. This weighs on private consumption growth, which falls from 3 per cent in 2010 to 1.9 per cent in 2011.

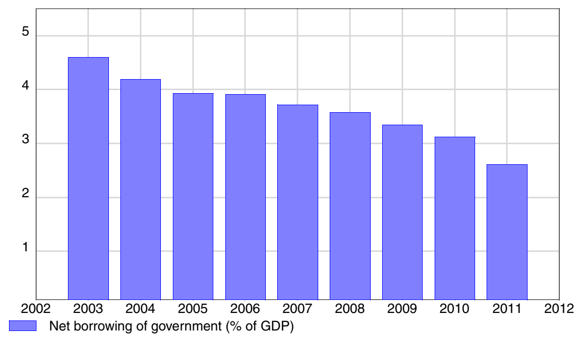
During the 2006-2011 period, business investment rises at an average rate of 4 per cent. Growth in business sector investment is strong during the first years of this period, as it is fuelled by strong growth in private sector output and labour productivity. However, as taxes increase and economic growth slows, business investment growth decelerates, falling from 3.2 per cent in 2010 to 2.4 per cent in 2011.

The deterioration of the U.S.'s net export position in 2006 is due to both a significant decline in export growth, which falls from 8.5 per cent in 2005 to 5.6 per cent in 2006 and to a marked increase in the country's import growth, which jumps from 5.7 per cent in 2005 to 7.7 per cent in 2006. U.S. trade reacts to the dollar's significant nominal effective appreciation, as the dollar rises by 2.6 per cent in 2005 and by 2.9 per cent in 2006, while domestic demand remains strong and effective foreign demand grows at a somewhat less vigorous pace than over the previous years. All in all, U.S. exports rise on average by 6.1 per cent per annum over the 2006-2011 period. This strong export performance can be pinned on the stable growth of foreign effective demand and moderate increases in dollar-denominated export prices. U.S. import growth decelerates from 7.7 per cent in 2006 to 4.4 per cent in 2011, reflecting to a large extent the slowdown in private sector output. On balance, the U.S. current account deficit remains high, at an average of 5.4 per cent of GDP over 2006-2011.

Graph 25 - Interest and exchange rates in the U.S.



Graph 26 - Net borrowing of government in the U.S.



Labour demand grows on average by 0.9 per cent per annum over the 2006-2010 period, while the labour supply increases by 1.1 per cent per annum. Simultaneously, the unemployment rate rises from 5.3 per cent in 2006 to 6.3 per cent in 2010. In 2011, the unemployment rate jumps to 7.8 per cent, reflecting the fall in aggregate demand and the rising natural rate of unemployment, due to the federal income tax rate hikes. During the 2006-2011 period, growth in real private sector producer wage costs accelerates from 2.4 per cent in 2006 to 3.4 per cent in 2011, partly because households try to shift the burden of the income tax hikes to the private sector. At the same time, overall productivity increases on average by 2.3 per cent, but picks up at the end of the projection horizon as the fall in employment growth is sharper than the fall in output growth.

Over the 2006-2011 period, private sector producer price inflation and consumer price inflation remain subdued, posting average increases of 1.7 per cent and 1.9 per cent respectively. These rather tame inflation rates indicate that monetary and fiscal policies succeed in keeping aggregate demand growth in line with the slowdown in private sector potential output growth. Indeed, in a continued effort to pre-empt a resurgence of inflation, nominal short-term interest rates are raised from 4.4 per cent in 2006 to 4.8 per cent in 2011. The U.S. nominal effective exchange rate appreciates by an average annual rate of 2.4 per cent, primarily due to higher inflation rates in other world areas.

Notwithstanding the rise in government outlays for unemployment benefits and higher interest payments on debt, it appears that robust GDP growth, combined with rising tax rates and a curb on discretionary public expenditures, are sufficient to reduce the fiscal deficit from 4.1 per cent of GDP in 2006 to 3.3 per cent of GDP in 2010. In 2011, as tax rates are once again substantially increased, government revenue surges and the deficit-to-GDP ratio falls to just 2.8 per cent.

Japan

Recent economic developments

In 2004, Japanese GDP growth is estimated to have accelerated sharply, rising by 4.2 per cent, compared to 2.4 per cent the year before[1]. GDP was mainly driven by a high 10.8 per cent rise in enterprise investment, a 3.1 per cent increase in private consumption, but also by net exports which contributed 1.1 percentage points to the overall GDP growth. However, public demand, especially public gross fixed capital formation, continued to weigh on the economy.

After increasing by 8.8 per cent in 2003, business investment rose by an estimated 10.8 per cent in 2004, thus remaining strong after the low investment of the 2001-2002 period and benefiting from the falling relative prices of capital goods.

After declining for several years, investment in residential buildings finally returned to positive growth, while public sector investment continued its downward spiral, posting a strong decline as large fiscal imbalances put public outlays under ever mounting pressure.

Private consumption growth picked up in 2004, growing by an estimated 3.1 per cent after increasing by a meagre 0.8 per cent in 2003. Private consumption benefited from a 3.4 per cent rise in disposable income and a 2.4 per cent increase in total household means. Disposable income growth was supported by an estimated 0.9 per cent increase in employment, a 0.4 per cent increase in the real take-home wage and rising other net income.

Japanese exports rose by 10.1 per cent in 2003, followed by an estimated further 15.5 per cent rise in 2004. This particularly strong rise in exports results from the continuous depreciation of the Japanese real effective exchange rate and the accelerating growth of foreign effective demand. Import growth picked up in 2004, rising by 8.9 per cent, after posting a 5 per cent growth rate the year before.

Employment is estimated to have risen by 0.9 per cent in 2004, reflecting strong output growth and falling unit labour costs. As the labour force increased by 0.4 per cent, the unemployment rate fell from 5.1 per cent of the labour force in 2003 to 4.6 per cent in 2004.

Consumer prices continued their downward spiral, falling by 1.3 per cent in 2004, after a 1.4 per cent fall the year before. At the same time, Japanese monetary authorities kept nominal short-term interest rates constant at their lower bound, so that almost no progress was made in lowering real interest rates in Japan.

Japan's nominal effective exchange rate appreciated by 2.6 per cent in 2003 and by another 3.4 per cent in 2004. However, as domestic prices contin-

1. The methodology of the Japanese national accounts has been revised recently. The figures for Japan in this outlook refer to the previous methodology.

ued to fall in the face of rising foreign effective output prices, the real effective exchange rate moved in the opposite direction, depreciating by 4.7 per cent in 2003, then by another 3.4 per cent in 2004.

Though slightly down from the two previous years, net borrowing of government came out at 7.1 per cent of GDP in 2004, compared to 7.5 per cent in 2003.

Vigorous private consumption growth, but faltering investments in 2005

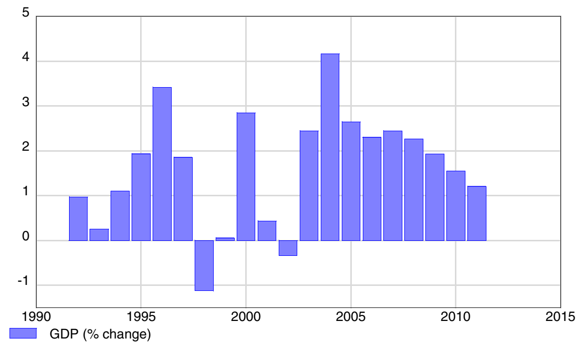
After growing by a brisk 4.2 per cent in 2004, GDP growth falters and settles at a more modest 2.6 per cent in 2005. GDP growth decelerates as private consumption weakens somewhat, enterprise investment converges to a more sustainable growth rate and the contribution to growth of net exports decreases slightly.

In 2005, private consumption growth slows down to 2.6 per cent, reflecting a retreat from the unsustainably high growth rate of the previous year, as well as lower growth in disposable income and other household means. Despite a strong 2.8 per cent increase in real take home wages, growth in real disposable income slows as growth in employment and other income weakens. High real wage growth springs from past and current gains in labour productivity, compounded by low real wage growth in the past.

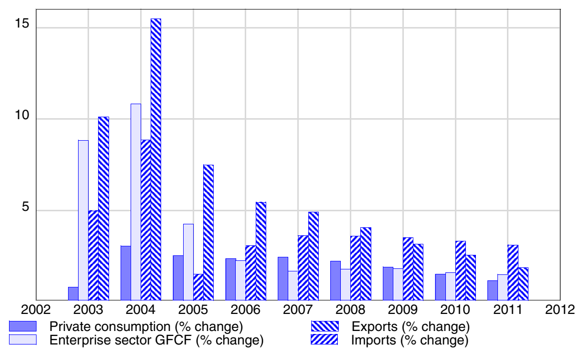
Growth in total gross fixed capital formation plummets from 3.7 per cent in 2004 to 1.3 per cent in 2005. Business investment dives from 10.8 per cent in 2004 to just 4.3 per cent in 2005, as the very high investment rates of the two previous years succeeded in bringing the productive capital stock into line with its optimal level. Investment in residential buildings gains momentum, but government investment continues to tumble in 2005, falling by up to 12 per cent.

Exports rise by a brisk 7.5 per cent, but this progression is markedly down from the high 15.5 per cent rise in 2004. This drop in export growth follows the fall in foreign effective demand growth, which decreases from 5.1 per cent in 2004 to 4.2 per cent in 2005. Import growth falls to a scant 1.5 per cent in 2005, caused by the slowdown in domestic activity and lagged strong rises in import prices.

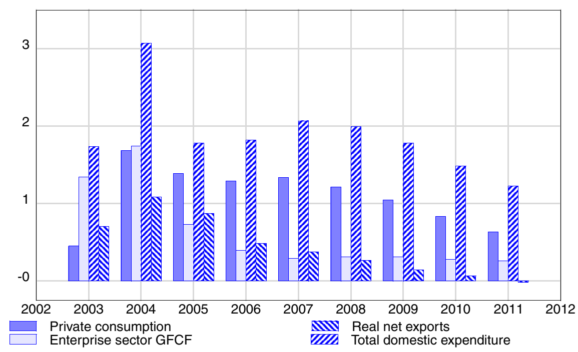
Graph 27 - Gross domestic product in Japan



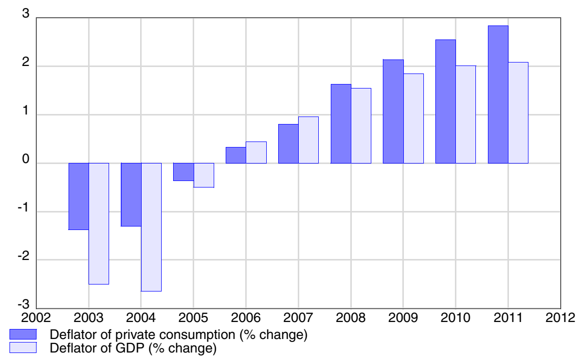
Graph 28 - Selected components of demand in Japan



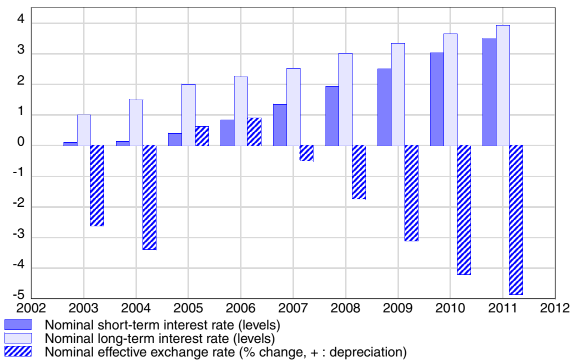
Graph 29 - Contributions to real GDP growth in Japan *(percentage points)*



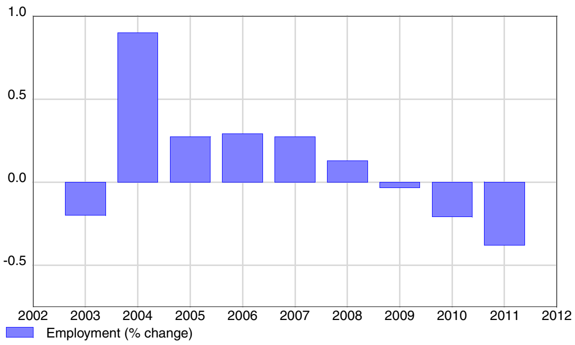
Graph 30 - Price deflators in Japan



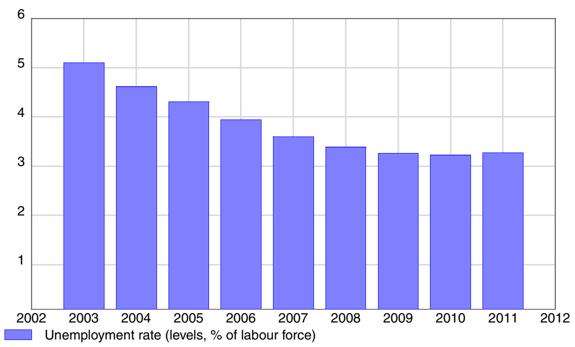
Graph 31 - Interest and exchange rates in Japan



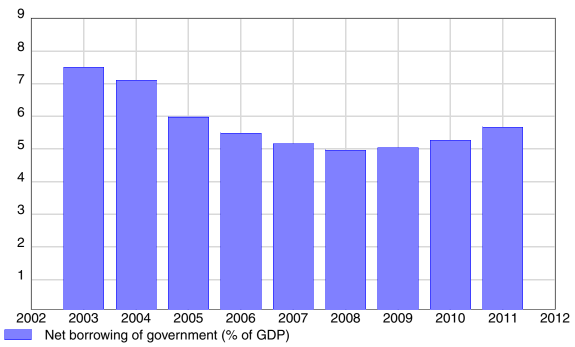
Graph 32 - Employment in Japan



Graph 33 - Unemployment rates in Japan



Graph 34 - Net borrowing of government in Japan



In 2005, total employment grows by 0.3 per cent, compared to a 0.9 per cent increase the year before. This slowdown stems from a combined fall in output growth and rising unit labour costs, which had been falling in the previous years. However, as the labour force decreases by 0.1 per cent, the unemployment rate drops from 4.6 per cent in 2004 to 4.3 in 2005.

Prices continue to fall in 2005, but their decline is now measured. Indeed, consumer prices fall by 0.4 per cent, following a 1.3 per cent decline the previous year. The GDP deflator falls by 0.5 per cent, after having fallen by 2.6 per cent in 2004.

The nominal short-term interest rates are raised from 0.1 per cent in 2004 to 0.4 per cent in 2005, as monetary policy is tightened in anticipation of an imminent return to positive inflation. At the same time, long-term interest rates increase from 1.5 per cent in 2004 to 2 per cent in 2005.

In 2005, government revenue is boosted by strong real wage growth, while faltering public capital investment limits government expenditure growth. On balance, this leaves net public sector borrowing at 6 per cent of GDP, down from 7.1 per cent in 2004.

Consumer price inflation reappears as of 2006

Over the 2006-2011 period, Japan's GDP growth reaches an annual average rate of 1.9 per cent. Economic growth is driven first and foremost by private consumption and investment in residential buildings, while the contribution of net exports declines markedly. Moreover, in accordance with recent forecasts and statements by the Japanese authorities, this outlook assumes that the previous zero-interest-rate policy, supplemented by a policy of quantitative easing, succeeds in generating positive inflation (expectations) as of 2006. Thus, after declining by 0.4 per cent in 2005, consumer prices bottom-out and rise by 0.3 per cent in 2006, followed by further regular price increases up to 2011.

Private consumption rises by 2.4 per cent in 2006 and comes out at 1.2 per cent in 2011, while averaging 2 per cent per annum over the 2006-2011 period. At the end of the period, private consumption growth is tempered by declining growth in expected future labour income, linked to the strong decline in the labour force, declining real asset wealth caused by a rising price level and increasing interest rates and by steady increases in relative consumer prices. Consumer prices increase faster than the general price level, as demand grows faster than private sector potential output.

Business investment rises on average by moderate 1.8 per cent over the 2006-2011 period, as the labour force contracts and interest rates are on the rise.

After the particularly high export growth of the previous years, Japanese export growth falls back and comes out at an average annual rate of 3.7 per cent between 2006 and 2011. At the same time, imports rise on average by 3.4 per cent over the 2006-2010 period.

As population growth stagnates and ageing becomes more apparent, the Japanese labour force starts to contract over the 2006-2011 period. However, as the employment rate simultaneously increases, there is no decline in total employment before the year 2010. At the same time, overall labour productivity growth falters as growth in demand and output weaken more rapidly than growth in employment. Moreover, rising relative consumer prices and falling unemployment rates put upward pressure on real producer wages, leading to a sharp rise in unit labour costs.

Higher inflation abroad, as well as a steady narrowing of the interest rate differential, lead to an average 2.3 per cent appreciation of Japan's nominal effective exchange rate over the 2006-2011 period. Moreover, after an initial depreciation of the real effective exchange rate, the real exchange rate appreciates by the end of the outlook, thereby initiating a gradual reduction in the country's current account surplus.

As inflation picks up and interest rates remain well below their equilibrium levels, the monetary authorities increase nominal short-term rates from 0.8 per cent in 2006 to 3.5 per cent in 2011. The long-term rates move from 2.3 per cent in 2006 to 3.9 per cent in 2011.

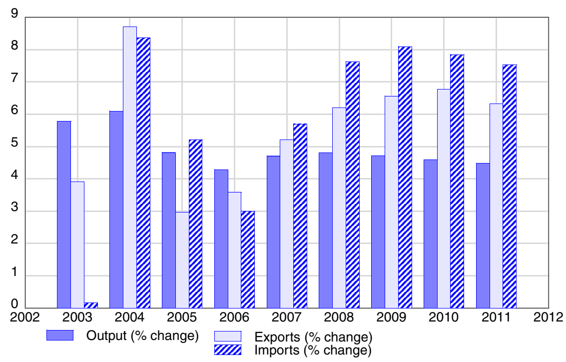
The Japanese fiscal deficit narrows slightly during the 2006-2008 period, but then starts to widen again as of 2009, largely due to the effects of a rapidly ageing population.

The Rest of the World

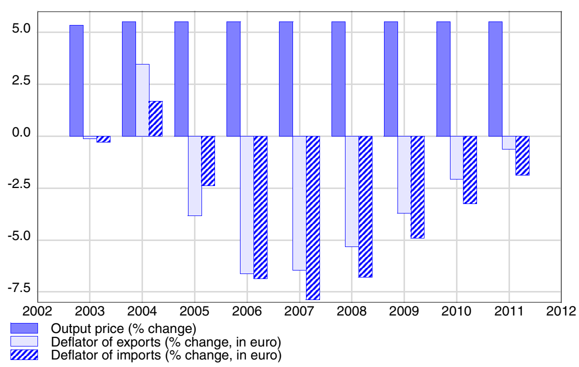
Sustained growth and stable inflation

In the rest of the world, output growth rose notably over the 2001-2003 period, jumping from 3.8 per cent in 2001 to 5.8 per cent in 2003. Nevertheless, the area's output growth further accelerated in 2004, as it is estimated to have risen by a strong 6.1 per cent due to sustained productivity growth, low nominal and real interest rates and gains in the terms of trade. At the same time, the rest of the world saw its consolidated import growth jump from 0.2 per cent in 2003 to a massive 8.4 per cent in 2004, as its real exchange rate appreciated by 7.5 per cent in 2003, followed by another 5.1 per cent appreciation in 2004. However, export growth simultaneously increased from 3.9 per cent in 2003 to 8.7 per cent in 2004, so that the area as a whole continued to post a comfortable surplus on its current account. Inflation remained relatively moderate, at 5.5 per cent in 2004, which is only slightly higher than the year before.

Graph 35 - Output and trade in the rest of the world



Graph 36 - Price deflators in the rest of the world



Assuming no major shocks to the areas' economies, output is expected to grow by 4.8 per cent in 2005, before levelling off at a 4.6 per cent average annual growth rate over the 2006-2011 period. At the same time, inflation remains moderate, as prices grow on average by 5.5 per cent over the 2005-2011 period. The area's imports grow at an average rate of 6.6 per cent per annum over the same period, outstripping export growth performance, which reaches an annual average growth rate of 5.8 per cent. Nevertheless, as the terms of trade continue to improve, the area's current account posts surpluses right up to the end of the projection period. The area's nominal effective exchange rate depreciates at an annual average rate of 4 per cent over the 2005-2011 period, primarily reflecting much higher inflation in the rest of the world than in the other major currency areas.

Risks to the NIME World Economic Outlook

Developments in the rest of the world continue to constitute the major source of uncertainty and risk relative to the current outlook. Indeed, a sharp and prolonged increase in the price of oil may significantly reduce the growth prospects of the major economic areas[1]. Furthermore, the current stability in foreign exchange markets is, to a large extent, determined by the willingness of the Asian monetary authorities, especially the central banks of China and Japan, to continue to accumulate U.S. treasury securities in order to peg their currency to the U.S. dollar at potentially undervalued rates. If these central banks abruptly start to diversify away from U.S. assets, a disorderly unwinding of the large external imbalances of the U.S. economy could not be excluded. However, on the other hand, a further liberalisation of capital flows in China could induce the Chinese private sector to diversify into foreign assets, thereby possibly offsetting the exchange rate movements caused by the sale of dollar assets by the Chinese monetary authorities. Finally, the current outlook for the rest of the world is based on the implicit assumption that the Chinese economy experiences a "soft landing" in the medium-term. A "hard landing" of the Chinese economy could push growth rates significantly below trend and lead to important adverse spill-over effects on the economic performance of the other areas.

Finally, it should be noted that the risks mentioned above should not be considered as being entirely independent from each other. For example, the current strong growth in China is to a large extent fuelled by an investment boom, which in turn is fed by cheap credit arising from the Chinese central bank's operations in foreign exchange markets. If this source of cheap credit were to come to an abrupt end, a hard landing of the Chinese economy as well as major realignments of foreign exchange rates could not be excluded; at the same time, a slumping Chinese economy could significantly lower demand and prices for oil and other raw materials.

1. See the Focus on Oil Prices in Meyermans and Van Brusselen (2004).

Detailed World Area Tables - The Euro Area

	03	04	05	06	07	08	09	10	11
I. Aggregate demand and supply									
1. Private consumption	1.0	1.5	2.2	2.3	2.2	2.1	2.0	1.8	1.7
2. Government consumption	1.5	1.5	1.4	1.6	1.7	1.8	1.9	1.9	1.9
3. Gross fixed capital formation	-0.6	2.3	2.4	1.8	1.8	1.9	2.0	2.0	2.0
. of which enterprise sector	-1.8	3.1	3.4	2.2	2.2	2.3	2.4	2.5	2.5
4. Exports	-1.4	6.4	5.7	5.4	5.1	5.0	4.9	4.7	4.5
5. Imports	1.8	6.3	4.7	3.7	4.7	4.6	4.4	4.2	4.0
6. Gross domestic product	0.5	2.1	2.1	2.5	2.2	2.2	2.1	2.0	2.0
7. Private sector value added	0.4	2.2	2.3	2.7	2.4	2.3	2.2	2.1	2.0
8. Private sector output	0.6	2.9	2.7	2.9	2.8	2.7	2.6	2.5	2.4
9. Output gap (deviation of GDP from trend GDP, in %)	-2.2	-1.9	-1.3	-0.6	-0.3	-0.1	0.0	0.1	0.0
10. Contributions to real GDP growth									
a. Total domestic expenditure	1.1	1.8	1.8	2.1	2.0	2.0	1.9	1.8	1.7
b. Net exports	-0.6	0.1	0.3	0.4	0.2	0.2	0.2	0.2	0.2
II. Deflators									
1. Private consumption	2.0	2.0	1.6	1.6	1.8	1.9	2.0	2.1	2.1
2. Gross fixed capital formation	1.4	2.4	2.0	1.6	1.3	1.2	1.1	1.0	1.0
. of which enterprise sector	0.1	2.4	2.1	1.7	1.4	1.2	1.0	0.8	0.7
3. Exports	-1.3	1.8	1.4	1.1	0.8	0.7	0.5	0.4	0.4
4. Imports	-2.7	1.2	2.4	1.4	1.2	1.3	1.4	1.4	1.5
5. Gross domestic product	2.1	2.0	1.3	1.7	1.6	1.6	1.5	1.5	1.5
6. Private sector value added	2.1	2.0	1.2	1.7	1.6	1.6	1.5	1.5	1.5
7. Private sector output	1.3	1.8	1.4	1.6	1.5	1.5	1.5	1.5	1.5
III. Financial Markets									
1. Short-term interest rate (level)	2.3	2.1	2.4	2.9	3.3	3.6	3.9	4.1	4.3
2. Long-term interest rate (level)	4.2	4.1	4.2	4.5	4.8	4.9	5.1	5.2	5.3
3. Spot exchange rate, local/euro (level)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
4. Spot exchange rate, local/euro (+: depreciation)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5. Nominal effective exchange rate (+: depreciation)	-12.1	-4.7	-1.0	-1.3	-2.2	-2.7	-3.1	-3.3	-3.5
6. Real effective exchange rate (+: depreciation)	-7.7	-2.5	1.5	1.4	0.7	0.3	0.1	-0.0	-0.1
IV. Labour Market									
1. Labour supply	0.7	0.5	0.4	0.6	0.7	0.8	0.7	0.7	0.7
2. Employment	0.2	0.5	1.0	1.1	1.0	0.8	0.7	0.6	0.6
. of which private sector	0.2	0.5	1.0	1.2	1.1	0.8	0.7	0.6	0.6
3. Unemployment rate (level, % of labour force)	8.5	8.5	8.0	7.6	7.3	7.3	7.4	7.5	7.5
4. Employment rate (level, % of working-age population)	64.5	64.7	65.2	65.8	66.4	66.9	67.3	67.7	68.1
5. Nominal wage rate, private sector	2.3	2.1	2.3	3.0	3.5	3.7	3.7	3.6	3.5
6. Real take-home wage rate, private sector	0.7	0.1	0.7	1.4	1.7	1.7	1.6	1.5	1.4
7. Real producer wage rate, private sector	1.3	0.1	1.0	1.3	1.9	2.2	2.2	2.1	2.0
8. Labour productivity (GDP per employee)	0.3	1.6	1.1	1.4	1.2	1.4	1.5	1.4	1.4
V. Household sector									
1. Total real means	2.2	2.5	1.5	1.7	1.6	1.5	1.4	1.3	1.2
. of which real disposable income	0.9	2.4	1.5	1.8	2.0	2.0	1.9	1.8	1.7
2. Net saving by households (level, % of disposable income)	9.5	10.5	9.9	9.6	9.4	9.4	9.4	9.5	9.7
VI. Fiscal sector									
1. Net lending (+) or borrowing (-) (% of GDP)	-2.7	-2.9	-2.9	-2.6	-2.3	-2.1	-2.0	-1.9	-1.8
2. Government gross debt (% of GDP)	70.7	71.0	71.6	71.2	70.9	70.4	69.9	69.3	68.8
VII. International environment									
1. Foreign effective output	4.3	5.3	4.3	3.9	4.1	4.2	4.1	4.0	3.7
2. Foreign effective output price	3.6	4.1	3.9	3.8	3.8	3.9	3.9	3.9	3.9
3. Foreign effective short-term interest rate (level)	1.9	2.3	3.9	4.3	4.4	4.5	4.6	4.7	4.8
4. Current account (level, % of GDP)	0.3	0.7	1.0	1.4	1.6	1.8	1.9	1.9	1.9

All figures are year-on-year growth rates, unless specified otherwise.
The euro area includes Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal and Spain.

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

	03	04	05	06	07	08	09	10	11
I. Aggregate demand and supply									
1. Private consumption	2.2	3.1	2.4	2.2	2.2	2.3	2.3	2.2	2.1
2. Government consumption	2.6	2.8	2.8	3.3	3.1	3.0	3.0	3.1	3.2
3. Gross fixed capital formation	1.3	5.7	5.7	4.9	4.3	4.1	4.0	3.8	3.6
. of which enterprise sector	-1.7	4.7	5.0	4.7	4.5	4.3	4.2	4.0	3.8
4. Exports	1.0	4.1	4.9	4.7	5.2	5.3	5.2	5.1	4.8
5. Imports	1.6	4.8	5.9	4.5	4.1	4.3	4.4	4.3	4.1
6. Gross domestic product	1.9	3.1	2.6	3.0	3.1	3.1	3.0	3.0	2.8
7. Private sector value added	1.9	3.2	2.7	2.9	3.1	3.1	3.0	3.0	2.8
8. Private sector output	1.8	3.7	3.7	3.4	3.5	3.5	3.5	3.4	3.2
9. Output gap (deviation of GDP from trend GDP, in %)	-1.4	-0.9	-0.7	-0.5	-0.2	0.0	0.1	0.1	-0.0
10. Contributions to real GDP growth									
a. Total domestic expenditure	2.1	3.5	3.2	3.1	2.9	2.9	2.9	2.8	2.7
b. Net exports	-0.2	-0.4	-0.6	-0.1	0.2	0.2	0.1	0.2	0.1
II. Deflators									
1. Private consumption	1.1	1.9	1.7	1.8	1.8	1.9	2.1	2.2	2.3
2. Gross fixed capital formation	1.3	2.4	1.8	1.4	1.1	1.0	0.9	0.9	0.9
. of which enterprise sector	-0.8	1.3	1.1	1.0	0.9	0.8	0.8	0.9	0.9
3. Exports	0.7	0.2	1.1	1.7	1.9	1.9	1.7	1.6	1.6
4. Imports	-0.0	-0.2	1.1	1.8	1.7	1.6	1.7	1.7	1.8
5. Gross domestic product	2.5	2.5	1.9	1.5	1.5	1.7	1.8	1.8	1.9
6. Private sector value added	2.0	2.4	1.9	1.5	1.6	1.7	1.8	1.8	1.9
7. Private sector output	1.5	1.7	1.5	1.5	1.6	1.6	1.6	1.7	1.8
III. Financial Markets									
1. Short-term interest rate (level)	3.5	4.0	4.2	4.2	4.3	4.4	4.5	4.7	4.9
2. Long-term interest rate (level)	4.5	5.0	5.0	5.0	5.0	5.1	5.1	5.2	5.2
3. Spot exchange rate, local/euro (level)	5.8	5.8	5.6	5.6	5.6	5.6	5.6	5.7	5.7
4. Spot exchange rate, local/euro (+: depreciation)	7.4	-0.7	-2.7	-1.1	-0.0	0.5	0.8	0.9	0.9
5. Nominal effective exchange rate (+: depreciation)	-1.6	-4.4	-3.7	-2.2	-1.6	-1.4	-1.4	-1.4	-1.5
6. Real effective exchange rate (+: depreciation)	0.6	-1.3	-1.7	-0.7	-0.3	-0.1	0.1	0.2	0.0
IV. Labour Market									
1. Labour supply	0.7	0.5	0.3	0.5	0.5	0.5	0.5	0.5	0.5
2. Employment	0.7	0.5	0.2	0.4	0.6	0.6	0.5	0.5	0.5
. of which private sector	0.7	0.5	0.2	0.4	0.6	0.6	0.6	0.5	0.5
3. Unemployment rate (level, % of labour force)	5.0	5.0	5.1	5.2	5.1	5.0	5.0	5.0	5.0
4. Nominal wage rate, private sector	2.5	4.9	5.7	4.3	4.2	4.6	4.8	4.8	4.7
5. Real take-home wage rate, private sector	0.9	2.6	3.5	2.5	2.3	2.6	2.7	2.6	2.3
6. Real producer wage rate, private sector	1.0	3.3	4.2	2.8	2.6	2.9	3.1	3.1	2.9
7. Labour productivity (GDP per employee)	1.2	2.6	2.4	2.6	2.5	2.5	2.5	2.5	2.4
V. Household sector									
1. Total real means	3.5	2.9	1.9	2.4	2.2	2.1	1.9	1.9	1.9
. of which real disposable income	2.8	3.4	3.5	3.0	2.9	3.0	3.0	2.9	2.7
2. Net saving by households (level, % of disposable income)	1.7	1.9	3.1	3.9	4.6	5.4	6.1	6.8	7.4
VI. Fiscal sector									
1. Net lending (+) or borrowing (-) (% of GDP)	-2.6	-2.1	-1.9	-1.9	-1.7	-1.5	-1.3	-1.1	-1.0
2. Government gross debt (% of GDP)	42.1	42.2	42.3	42.4	42.2	41.7	41.0	40.2	39.4
VII. International environment									
1. Foreign effective output	3.2	4.6	3.8	3.6	3.7	3.7	3.6	3.5	3.3
2. Foreign effective output price	3.0	3.5	3.2	3.3	3.2	3.2	3.2	3.2	3.2
3. Foreign effective short-term interest rate (level)	1.7	1.8	3.0	3.6	3.9	4.1	4.3	4.4	4.5
4. Current account (level, % of GDP)	-0.7	-0.6	-1.0	-1.2	-1.0	-0.8	-0.6	-0.5	-0.4

All figures are year-on-year growth rates, unless specified otherwise.
"Western non-euro EU Member States" includes Denmark, Sweden and the United Kingdom.

Detailed World Area Tables - The United States

	03	04	05	06	07	08	09	10	11
I. Aggregate demand and supply									
1. Private consumption	3.3	3.6	3.7	3.8	3.3	3.1	3.0	3.0	1.9
2. Government consumption	3.2	1.7	1.0	1.5	1.9	2.2	2.4	2.4	2.4
3. Gross fixed capital formation	4.4	9.2	4.2	5.0	5.4	4.7	4.1	3.6	2.1
. of which enterprise sector	3.7	9.7	3.3	4.5	5.6	4.7	3.8	3.2	2.4
4. Exports	1.9	8.6	8.5	5.6	6.2	6.4	6.3	6.2	6.0
5. Imports	4.4	10.1	5.7	7.7	6.0	5.1	5.0	5.3	4.4
6. Gross domestic product	3.1	4.5	3.7	3.2	3.4	3.4	3.1	3.0	1.9
7. Private sector value added	3.2	4.7	4.1	3.3	3.4	3.4	3.1	2.9	1.7
8. Private sector output	3.4	5.5	4.3	4.0	3.9	3.7	3.5	3.4	2.2
9. Output gap (deviation of GDP from trend GDP, in %)	-0.4	1.0	0.8	0.2	0.3	0.3	0.3	0.1	-0.1
10. Contributions to real GDP growth									
a. Total domestic expenditure	3.5	5.2	3.7	3.9	3.7	3.6	3.3	3.2	2.0
b. Net exports	-0.5	-0.8	-0.0	-0.8	-0.4	-0.2	-0.2	-0.2	-0.1
II. Deflators									
1. Private consumption	1.9	2.4	2.0	1.9	2.0	2.0	1.9	1.9	1.8
2. Gross fixed capital formation	1.2	2.8	2.0	1.2	0.9	1.2	1.6	2.0	2.0
. of which enterprise sector	-0.8	1.9	0.5	-0.4	-0.4	0.3	1.3	2.2	2.9
3. Exports	2.1	3.5	2.1	1.6	1.5	1.6	1.7	1.8	1.5
4. Imports	3.4	5.3	-0.3	1.2	2.2	2.2	2.0	1.7	1.5
5. Gross domestic product	1.8	2.2	2.5	1.9	1.6	1.6	1.7	1.8	1.8
6. Private sector value added	1.7	2.2	2.5	1.9	1.6	1.6	1.8	1.9	1.9
7. Private sector output	1.9	2.6	2.0	1.7	1.6	1.7	1.8	1.8	1.7
III. Financial Markets									
1. Short-term interest rate (level)	1.2	1.5	3.7	4.4	4.6	4.6	4.7	4.8	4.8
2. Long-term interest rate (level)	4.0	4.3	5.0	5.2	5.3	5.3	5.3	5.4	5.4
3. Spot exchange rate, local/euro (level x 100)	113.1	124.2	122.8	121.4	121.0	121.3	122.3	123.6	124.9
4. Spot exchange rate, local/euro (+: depreciation)	19.6	9.8	-1.1	-1.2	-0.4	0.3	0.8	1.1	1.0
5. Nominal effective exchange rate (+: depreciation)	7.0	5.1	-2.6	-2.9	-2.7	-2.4	-2.2	-2.0	-2.2
6. Real effective exchange rate (+: depreciation)	8.4	5.4	-1.0	-0.7	-0.3	-0.1	0.0	0.1	0.3
IV. Labour Market									
1. Labour supply	0.2	0.5	1.7	1.3	1.1	1.0	1.0	1.0	1.0
2. Employment	-0.0	1.0	1.5	1.4	0.8	0.8	0.7	0.7	-0.6
. of which private sector	-0.0	1.0	1.7	1.5	0.8	0.9	0.8	0.7	-0.9
3. Unemployment rate (level, % of labour force)	5.6	5.1	5.3	5.3	5.6	5.8	6.0	6.3	7.8
4. Nominal wage rate, private sector	3.7	4.3	4.6	4.1	4.6	4.4	4.4	4.4	5.2
5. Real take-home wage rate, private sector	2.4	1.4	2.2	2.2	1.9	2.0	2.0	2.1	1.4
6. Real producer wage rate, private sector	1.7	1.6	2.5	2.4	2.9	2.7	2.6	2.6	3.4
7. Labour productivity (GDP per employee)	3.1	3.4	2.1	1.8	2.5	2.5	2.4	2.3	2.5
V. Household sector									
1. Total real means	5.8	3.9	1.7	2.9	2.6	2.8	2.8	2.9	1.9
. of which real disposable income	3.9	3.8	3.7	3.9	3.5	3.6	3.5	3.6	2.4
2. Net saving by households (level, % of disposable income)	2.9	3.0	3.1	3.3	3.5	4.0	4.6	5.2	5.7
VI. Fiscal sector									
Net lending (+) or borrowing (-) (% of GDP)	-4.6	-4.2	-3.9	-4.1	-3.8	-3.7	-3.5	-3.3	-2.8
VII. International environment									
1. Foreign effective output	4.1	5.1	4.1	3.8	4.0	4.0	3.9	3.8	3.7
2. Foreign effective output price	3.4	3.8	3.8	3.9	3.9	4.0	4.0	4.0	4.0
3. Foreign effective short-term interest rate (level)	1.3	1.5	2.8	3.5	3.8	4.1	4.3	4.4	4.6
4. Current account (level, % of GDP)	-4.7	-5.5	-4.9	-5.2	-5.4	-5.5	-5.5	-5.5	-5.4

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

Detailed World Area Tables - Japan

	03	04	05	06	07	08	09	10	11
I. Aggregate demand and supply									
1. Private consumption	0.8	3.1	2.6	2.4	2.5	2.2	1.9	1.5	1.2
2. Government consumption	1.0	1.6	1.4	1.5	1.2	1.4	1.6	1.7	1.8
3. Gross fixed capital formation	3.1	3.7	1.3	1.2	2.2	2.2	2.0	1.6	1.3
. of which enterprise sector	8.8	10.8	4.3	2.3	1.7	1.8	1.8	1.6	1.5
4. Exports	10.1	15.5	7.5	5.6	4.9	4.0	3.2	2.6	1.8
5. Imports	5.0	8.9	1.5	3.1	3.6	3.6	3.5	3.3	3.1
6. Gross domestic product	2.4	4.2	2.6	2.3	2.4	2.2	1.9	1.6	1.2
7. Private sector value added	2.2	3.7	3.6	2.4	2.6	2.3	2.0	1.5	1.1
8. Private sector output	2.5	4.2	3.4	2.5	2.7	2.5	2.1	1.7	1.3
9. Output gap (deviation of GDP from trend GDP, in %)	-2.7	-1.0	-0.4	-0.0	0.5	0.8	0.9	0.8	0.6
10. Contributions to real GDP growth									
a. Total domestic expenditure	1.7	3.1	1.8	1.8	2.1	2.0	1.8	1.5	1.2
b. Net exports	0.7	1.1	0.9	0.5	0.4	0.3	0.1	0.1	-0.0
II. Deflators									
1. Private consumption	-1.4	-1.3	-0.4	0.3	0.8	1.6	2.1	2.6	2.8
2. Gross fixed capital formation	-4.1	-3.0	-1.0	-0.1	0.5	0.9	1.2	1.4	1.4
. of which enterprise sector	-4.9	-3.6	-0.8	0.3	0.8	1.1	1.2	1.2	1.2
3. Exports	-4.2	-3.3	0.6	2.0	2.3	2.1	1.6	0.8	0.0
4. Imports	-1.9	3.1	0.2	-0.1	0.3	0.6	0.8	0.9	1.1
5. Gross domestic product	-2.5	-2.6	-0.5	0.4	1.0	1.5	1.8	2.0	2.1
6. Private sector value added	-2.6	-2.7	-0.3	0.5	1.0	1.6	1.9	2.1	2.1
7. Private sector output	-2.5	-2.1	-0.3	0.4	1.0	1.5	1.8	2.0	2.0
III. Financial Markets									
1. Short-term interest rate (level)	0.1	0.1	0.4	0.8	1.4	1.9	2.5	3.0	3.5
2. Long-term interest rate (level)	1.0	1.5	2.0	2.3	2.5	3.0	3.3	3.6	3.9
3. Spot exchange rate, local/euro (level)	131.0	134.3	135.7	137.6	138.5	138.5	137.0	134.3	130.9
4. Spot exchange rate, local/euro (+: depreciation)	10.9	2.6	1.0	1.4	0.7	-0.0	-1.1	-2.0	-2.5
5. Nominal effective exchange rate (+: depreciation)	-2.6	-3.4	0.6	0.9	-0.5	-1.8	-3.2	-4.3	-4.9
6. Real effective exchange rate (+: depreciation)	4.7	3.4	3.1	1.9	0.2	-0.9	-1.7	-2.1	-2.1
IV. Labour Market									
1. Labour supply	-0.3	0.4	-0.1	-0.1	-0.1	-0.1	-0.2	-0.2	-0.3
2. Employment	-0.2	0.9	0.3	0.3	0.3	0.1	-0.0	-0.2	-0.4
. of which private sector	-0.2	1.0	0.3	0.3	0.3	0.2	-0.0	-0.2	-0.4
3. Unemployment rate (level, % of labour force)	5.1	4.6	4.3	3.9	3.6	3.4	3.3	3.2	3.3
4. Nominal wage rate, private sector	-0.8	-1.3	2.7	3.1	3.8	4.5	4.8	4.8	4.7
5. Real take-home wage rate, private sector	0.7	0.3	3.1	2.8	3.0	2.8	2.6	2.2	1.8
6. Real producer wage rate, private sector	1.6	0.7	3.0	2.7	2.8	2.9	2.9	2.8	2.6
7. Labour productivity (GDP per employee)	2.6	3.2	2.4	2.0	2.2	2.1	2.0	1.8	1.6
V. Household sector									
1. Total real means	1.6	2.4	1.4	1.4	1.5	1.1	1.0	0.7	0.5
. of which real disposable income	1.0	3.4	2.6	2.7	2.9	2.8	2.7	2.4	2.1
2. Net saving by households (level, % of disposable income)	6.8	7.6	7.8	8.3	8.8	9.5	10.3	11.2	12.1
VI. Fiscal sector									
Net lending (+) or borrowing (-) (% of GDP)	-7.5	-7.1	-6.0	-5.5	-5.2	-5.0	-5.0	-5.3	-5.7
VII. International environment									
1. Foreign effective output	3.7	5.1	4.2	3.9	3.9	3.9	3.8	3.7	3.1
2. Foreign effective output price	3.0	3.5	3.1	3.1	3.0	3.0	3.0	3.1	3.0
3. Foreign effective short-term interest rate (level)	1.5	1.8	3.5	4.1	4.3	4.4	4.6	4.6	4.7
4. Current account (level, % of GDP)	3.2	3.3	3.7	4.2	4.7	4.9	5.0	4.9	4.6

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

Detailed World Area Tables - The New EU Member States

	03	04	05	06	07	08	09	10	11
I. Aggregate demand and supply									
1. Private consumption	4.9	4.9	4.4	4.4	4.4	4.3	4.3	4.3	4.3
2. Gross fixed capital formation	4.4	9.3	2.9	3.0	3.0	3.1	3.2	3.3	3.3
3. Exports	9.9	13.2	7.1	6.7	7.0	7.0	6.9	6.8	6.7
4. Imports	10.7	13.5	7.1	6.8	7.0	7.0	6.9	6.9	6.8
5. Gross domestic product	3.6	4.7	3.4	3.3	3.4	3.4	3.4	3.3	3.3
II. Deflators									
1. Private consumption	1.0	3.7	2.7	2.4	2.3	2.2	2.2	2.1	2.0
2. Gross fixed capital formation	0.6	2.5	3.5	2.6	2.3	2.3	2.4	2.4	2.4
3. Exports	0.8	2.7	4.0	3.4	3.4	3.2	3.1	3.1	3.1
4. Imports	0.1	1.5	2.4	2.4	2.4	2.4	2.4	2.4	2.4
5. Gross domestic product	2.1	4.3	3.6	3.1	3.0	2.9	2.9	2.8	2.8
III. Financial variables									
1. Nominal exchange rate (local/euro, + : depreciation)	7.9	2.5	1.4	1.5	2.1	2.5	2.7	2.9	3.0
2. Nominal effective exchange rate (+ : depreciation)	-3.9	-2.4	-0.4	-0.4	-0.5	-0.6	-0.7	-0.9	-0.9
3. Real effective exchange rate (+ : depreciation)	-0.7	-0.8	-0.1	0.6	0.4	0.4	0.4	0.4	0.3

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

“New EU Member States” includes here Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia and Slovenia, plus Bulgaria and Romania.

Detailed World Area Tables - The Rest of the World

	03	04	05	06	07	08	09	10	11
I. Aggregate demand and supply									
1. Output	5.8	6.1	4.8	4.3	4.7	4.8	4.7	4.6	4.5
3. Exports	3.9	8.7	3.0	3.8	5.1	6.1	6.6	6.9	6.3
4. Imports	0.2	8.4	5.2	2.9	5.7	7.6	8.0	7.8	7.5
II. Deflators									
1. Output	5.4	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
3. Exports, in euro	-0.1	3.5	-3.8	-6.6	-6.5	-5.3	-3.7	-2.1	-0.6
4. Imports, in euro	-0.3	1.7	-2.4	-6.8	-7.8	-6.8	-5.0	-3.3	-1.8
III. Financial variables									
1. Nominal exchange rate (local/euro, + : depreciation)	15.5	6.7	2.7	2.7	3.6	4.3	4.8	5.1	5.5
2. Nominal exchange rate (local/US$, + : depreciation)	-2.4	-2.7	3.8	3.9	4.0	4.0	4.0	4.1	4.4
3. Nominal effective exchange rate (+ : depreciation)	6.8	3.1	3.0	2.8	3.4	3.8	4.2	4.6	4.9
4. Real effective exchange rate (+ : depreciation)	-7.5	-5.1	5.9	8.7	8.1	6.7	5.0	3.3	1.9

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

The Lisbon Strategy for Growth and Employment in the Euro Area

The Lisbon Strategy and the euro area

At the Spring European Council in Lisbon in March 2000 and 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.

This ambitious strategy translates into the following two main macroeconomic objectives[1]. First, to ensure that the EU economy grows on average by 3 per cent in the years following 2000. Second, to re-establish the conditions for full employment, reflected in a 70 per cent EU employment rate by 2010. In addition, these objectives are to be flanked by the targets set out in the Maastricht Treaty and the Stability and Growth Pact, which include a 2 per cent ceiling on price increases in the euro area as a whole and a 3 per cent ceiling on fiscal deficit-to-GDP ratios, as well as a 60 per cent target for debt-to-GDP ratios of the individual Member States.

Echoing the concerns of the Report of the High Level Group chaired by former Dutch Prime Minister Wim Kok, the NIME World Economic Outlook shows that, without accelerating the pace of structural reform, the euro area will most likely not attain the Lisbon goals for growth and employment by 2010. Indeed, the outlook gives the euro area's GDP growth levelling off at 2 per cent in 2010, while the area's employment rate reaches 67.7 per cent of the working-age population. At the same time, the euro area's debt-to-GDP ratio reaches 69.4 per cent in 2010, while its deficit-to-GDP ratio comes out at 1.9 per cent in 2010[2]. Furthermore, the euro area's consumer price inflation breaches the 2 per cent ceiling set by the European Central Bank (ECB), as it increases gradually to 2.1 per cent in 2010.

1. For more details regarding the Lisbon Strategy, see for instance http://europa.eu.int/comm/lisbon_strategy/index_en.html. The Kok report of November 2004 rephrases the strategic goal, aiming to make the EU economy a "single, competitive, dynamic knowledge-based economy that is among the best in the world".
2. Strictly speaking, the Stability and Growth Pact only lays out fiscal targets at the level of the individual countries.

Towards the successful implementation of the Lisbon Strategy in the euro area

A programme aimed at increasing the employment rate and growth requires a bold set of measures. The employment rate could be increased by measures aimed at reducing the unemployment rate and increasing the labour force. Specifically, the unemployment rate could be lowered, for example by cutting taxes on labour, so reducing the disincentive that weighs on employers to create jobs and simultaneously fostering the employees' willingness to accept job offers. The labour force could be increased, for example by eliminating incentives for early retirement and by promoting programmes aimed at a better integration of school, vocational training and work, as well as of work and private life. Furthermore, raising productivity growth rates could be tackled by heightened efforts towards research and development (R&D) and by increased labour and product market competition through the promotion of greater openness and integration of the European economy.

In order to assess the size of the challenge that lies ahead for the euro area, the NIME model was used to make various simulations along the lines of the afore-mentioned policy options. These simulations are of a purely illustrative nature and do not necessarily reflect concrete policy proposals.

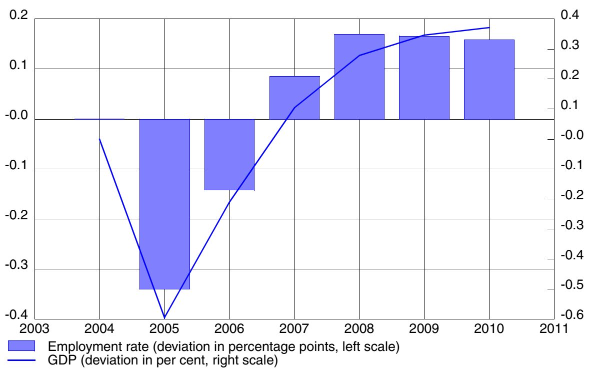
Effects of a 1 percentage point cut in the social security contribution rate of the euro area

In a first variant, the natural rate of unemployment is decreased through a permanent 1 percentage point cut in the social security contribution rate as of 2005. The loss of revenue is financed by an across-the-board cut in public outlays, including public sector employment, but excluding interest payments on public debt.

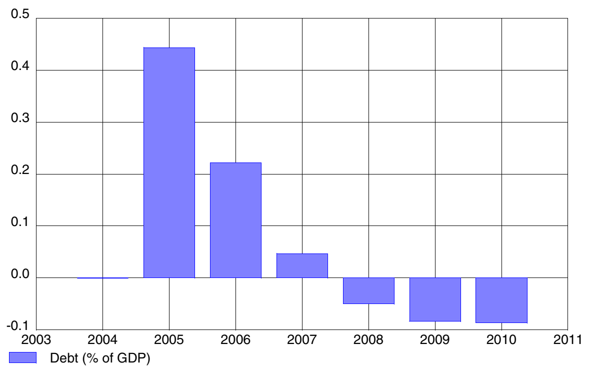
Briefly summarized, the simulations with the NIME model show the following. First, in 2005, the measure reduces the euro area's real GDP by 0.6 per cent, while the GDP deflator is almost unaffected, indicating that in the short-run, the deflationary effects of the cut in public outlays dominate the (expected) benefits of the tax cut, which include a higher take-home wage and higher employment.

It takes three years before GDP rises above its baseline level and by 2010 real GDP is about 0.4 per cent above its baseline. Furthermore, overall employment falls below baseline during the first two years, due to reduced public sector employment and the initial sluggish increase in private sector employment. As of 2007, private sector employment is able to compensate for the loss of public sector employment, mainly due to low real wage costs and the rebound in output. Hence, in 2010, total employment comes out about 0.2 per cent above baseline. The GDP deflator gradually falls to 0.2 per cent below baseline in 2010, as total demand fails to keep up with the increase in potential output. Finally, after initially deteriorating, the debt-to-GDP ratio falls to 0.1 percentage point below the baseline in 2010, as the deficit-to-GDP ratio is (by assumption) kept equal to its baseline level throughout the simulation.

Graph 37 - Euro area employment rates and GDP growth: Effects of a cut in the social security contribution rate *(deviation from baseline)*



Graph 38 - Euro area debt-to-GDP ratios in the euro area: Effects of a cut in the social security contribution rate
(deviation from baseline, in percentage points)



The simulation shows that although a cut in the social contributions rate could help in moving the euro area in the right direction, the magnitude of the necessary cut makes it difficult to rely on this measure alone and a set of flanking microeconomic measures could be required.

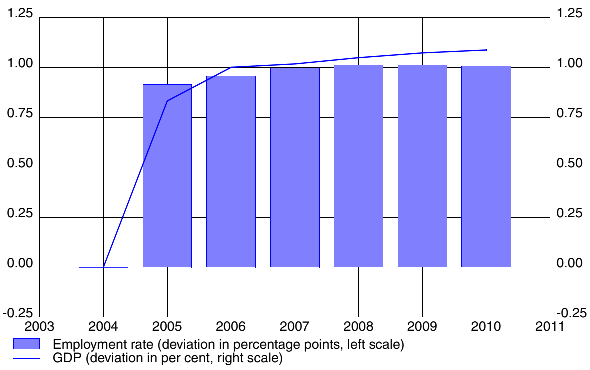
Effects of an autonomous increase in the euro area's labour force

The previous variant highlights that in order to reach the Lisbon objectives, microeconomic reforms are also required. One such a set of microeconomic policies could be aimed at raising the labour force. However, the modelling of such measures is beyond the scope of the current version of the NIME model. Therefore, the present analysis is limited to the simulation of the effects of an exogenous increase in the euro area's labour force, calibrated so as to increase the euro area employment rate by 1 per cent of the working-age population in 2010. Furthermore, it should be recognised that simply increasing the labour supply is, in itself, insufficient; this additional supply must also be effectively absorbed by the labour market, lest it lead only to a rise in unemployment. Therefore it would also be necessary, for example, to reduce labour market search costs, limit possible job-mismatches and foster entrepreneurship. But there again, the modelling of such microeconomic features is beyond the scope of the current version of the NIME model and these measures are treated here as an ad hoc shock to trend labour demand.

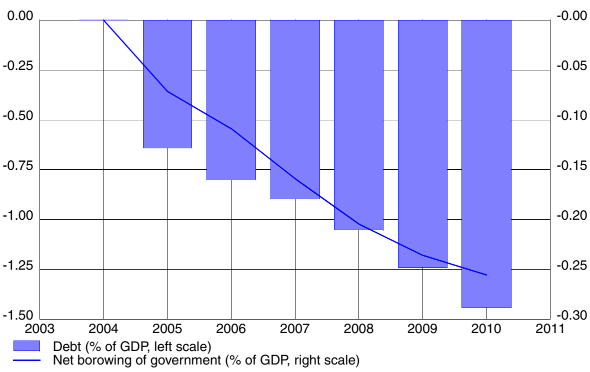
The simulations show that if such measures were to be implemented in 2005, real euro area GDP would increase by 0.8 per cent. This rise in GDP is made possible because domestic demand is immediately boosted by the expectation of higher future labour income and by a 0.13 percentage point cut in short-term interest rates, while at the same time external demand is underpinned by the depreciation of the real effective exchange rate. In subsequent years, real GDP increases further, reaching 1.1 per cent above baseline in 2010. This outcome primarily reflects higher (expected) household disposable income generated by the surge in employment. Throughout the simulation period, the general price level is only marginally affected and comes out at 0.2 per cent below baseline in 2010.

The employment rate increases by 0.9 percentage points in 2005 and subsequently increases to a full 1 percentage point, as the inflow of new employees is smoothly absorbed into the workforce. The public deficit-to-GDP ratio of the euro area improves by 0.1 percentage point in 2005 and by 0.3 percentage points in 2010, due to increased tax revenue, the decline in overall transfers to households and also due to the fall in interest payments. In line with these improved fiscal deficits and a higher nominal GDP, the debt- to-GDP ratio falls by 0.6 percentage points in 2005 and reaches 1.4 percentage points below baseline in 2010.

Graph 39 - Euro area employment rates and GDP growth: Effects of an autonomous increase in the labour supply *(deviation from baseline)*



Graph 40 - Euro area fiscal deficit- and debt-to-GDP ratios: Effects of an autonomous increase in the labour supply
(deviation from baseline, in percentage points)

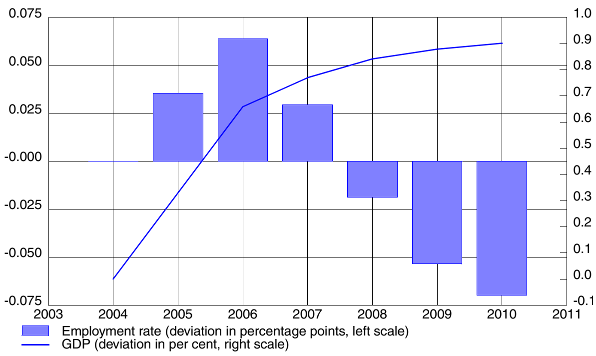


Effects of an increase in euro area productivity

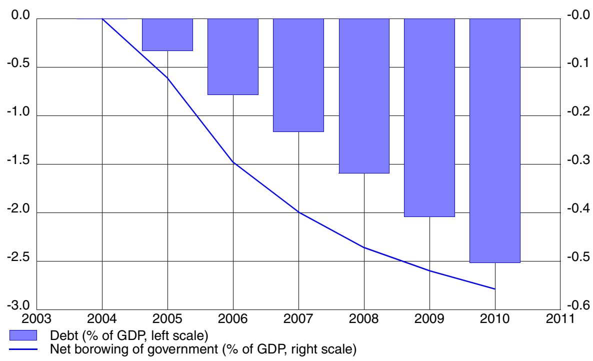
In its 2004 review of the EU economy[1], the European Commission evaluated several structural reforms that could have an impact on medium- and long-term growth. This study indicates that the deregulation of markets and higher R&D expenditure could provide significant medium-term stimulus. From this study, we estimate that if the euro area countries were to deregulate by about half of the existing gap relative to the US benchmark and if the business sector were to help reach the 3 per cent of GDP target for spending on R&D, the area's productivity could rise by up to 1 per cent in 2010.

1. "The EU Economy: 2004 Review" is available at the following internet address: http://europa.eu.int/comm/economy_finance/publications/european_economy/2004/ee604fullreport_en.pdf

Graph 41 - Euro area employment rates and GDP growth: Effects of an autonomous increase in labour productivity *(deviation from baseline)*



Graph 42 - Euro area fiscal deficit- and debt-to-GDP ratios: Effects of an autonomous increase in labour productivity
(deviation from baseline, in percentage points)



Once again, the NIME model was used to compute the macroeconomic effects of a variant in which we increase euro area labour productivity so as to raise contemporaneous labour productivity (real GDP per employee) by 1 per cent above baseline in 2010. For this exercise, we keep real fiscal outlays fixed to their baseline level, implying for instance that transfers to households do not increase in line with the rise in productivity. Also, we do not examine the underlying causes of this rise in productivity, nor do we factor in any of the possible fiscal costs associated with the implementation of potential programmes aimed at fostering productivity growth.

The simulation results show that this pick-up in productivity growth would raise real GDP by 0.9 per cent in 2010, while the employment rate would be only marginally affected. The fiscal deficit-to-GDP ratio falls by 0.1 percentage points in the first year and continues to improve thereafter, reaching 0.6 percentage points below the baseline in 2010. The fiscal stance improves immediately because public revenues increase, due to the increase in output and rising wages, while public outlays tend to decline relative to GDP. The debt-to-GDP ratio falls by 0.3 percentage points in the first year and by 2.5 percentage points in 2010.

Effects of a public expenditure cut in the euro area

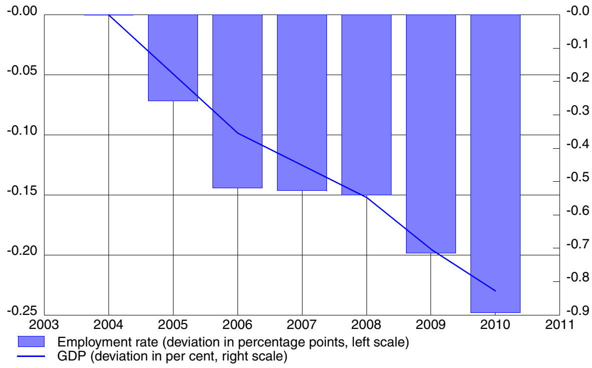
The measures implemented in the previous variants could require increased public outlays and certain public expenditure items might need to be reduced in order to finance these costs. Hence, in a last variant, the deflationary effects of a cut in public expenditure are gauged by simulating an across-the-board cut in public expenditure items (except interest payments), tailored to reduce the fiscal deficit-to-GDP ratio along a predetermined path. This predetermined path is calibrated so as to reduce the deficit-to-GDP ratio to 0.15 percentage points below baseline in 2005, before gradually reducing it further, down to a full 1 percentage point below baseline in 2010. In the long-run, such a measure leaves potential output unaffected, while long-run balance between demand and supply requires a switch from public to private demand through a change in relative prices.

The simulation shows that, on impact, such a cut in public spending depresses total demand, both directly through its impact on public investment and consumption and indirectly through its impact on household income and public employment. As the cuts increase over time, the negative effects on demand also rise. As a consequence, real GDP falls by 0.2 per cent in 2005 and continues its downward path, coming out at 0.8 per cent below baseline in 2010.

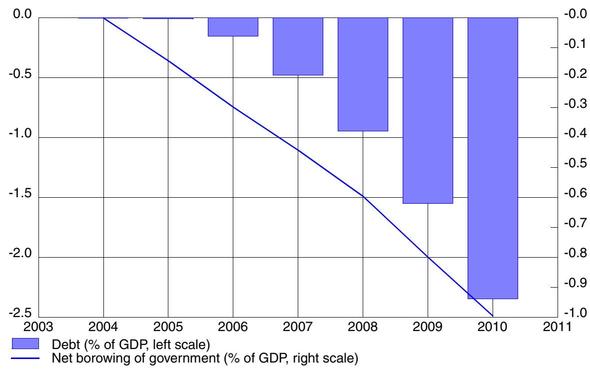
The autonomous cut in public employment immediately worsens the employment situation, as public employment falls by 0.5 per cent in 2005. In 2005, the unemployment rate increases by 0.1 percentage point, while the employment rate decreases by 0.1 percentage point. In 2010, the unemployment rate stands 0.26 percentage points above baseline, while the employment rate is 0.25 percentage points below baseline. The increase in private sector employment is very modest, despite the fall in the real producer wage rate. This sluggish reaction of the labour market is primarily explained by the slow pick-up in total effective demand. Real producer wage rates fall in line with the decline in labour productivity and the increase in the unemployment rate.

The debt-to-GDP ratio falls 0.9 percentage points in 2008 before reaching 2.3 percentage points below baseline in 2010. A sharper fall in this ratio is prevented only by the decline in nominal GDP, which falls 0.2 per cent below baseline in 2005, 0.7 per cent in 2008 and up to 1.2 per cent in 2010.

Graph 43 - Euro area employment rates and GDP growth: Effects of a cut in public expenditure
(deviation from baseline)



Graph 44 - Euro area fiscal deficit- and debt-to-GDP ratios: Effects of a cut in public expenditure
(deviation from baseline, in percentage points)



Are the Lisbon objectives still within reach?

The NIME World Economic Outlook highlights that without an acceleration of structural reforms, the euro area will most likely fail to reach the Lisbon goals for growth and employment by 2010. Further simulations illustrate the scope and limitations of different policy options that might be considered in view of reaching the stated objectives. However, when considering the possible budgetary implications of the new measures, the simulations underscore the difficulty of reconciling the goals of higher growth and full employment, with short-term fiscal adjustment.

Underlying Technical Assumptions of the 2005-2011 NIME Economic Outlook

This NIME World Economic Outlook is constructed with a version of the NIME model which is based on data from the most recent AMECO database of the European Commission, data from the Direction of Trade Statistics and the International Financial Statistics of the International Monetary Fund and the World Population Prospects of the United Nations (UN). The AMECO database provides the latest available estimates for 2004, as published in the European Commission's Autumn 2004 Economic Forecasts[1].

Initial conditions: 2004

Early January 2005, we updated the Commission's Autumn 2004 data on interest rates, exchange rates and oil prices and a first-run computation was made of the impact of these changes on the overall macroeconomic conditions for 2004. Once the initial conditions for 2004 had been determined, the model was simulated from 2005 to 2011.

Medium-term trend

The underlying medium-term trend values, such as trend productivity growth (i.e. growth in private sector output per employee), 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), were set to their latest available estimates and were held constant over the projection period. These estimates were obtained by applying a Hodrick-Prescott filter to the historical data series. Trend values for population are calibrated on the United Nations' most recent "World Population Prospects"[2]. Oil price projections are based on oil futures, as quoted on international commodity markets early January 2005.

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, population data and trend inflation in Japan, and for which the table shows the average over the 2005-2011 period.

Medium-term trend values for the 2005-2011 NIME World Economic Outlook

	Euro area	Western non-euro EU	United States	Japan
Labour productivity growth [a, b]	1.2	2.3	2.4	2.0
Equilibrium real interest rate	2.5	2.9	2.9	2.3
Secular inflation	1.9	1.9	1.9	0.4[b]
Population growth [b]	0.2	0.3	1.0	0.0
Trend labour supply growth [b]	0.7	0.5	1.0	-0.4
Price of oil (US$ per barrel) [b]	35.5	35.5	35.5	35.5

[a] GDP per employee.
[b] 2005-2011 average.

Monetary and fiscal policies

With respect to the conduct of fiscal policy, we use a constant policy assumption. However, whenever possible, the anticipated effects of existing legislation are taken into account. This is of particular relevance for the United States where, under current law, certain important tax cut provisions are assumed to sunset over the course of the simulation period[3]. With respect to monetary policy, we assume that short-term interest rates follow a Taylor rule, embedded in a partial adjustment scheme.

1. The Commission's Forecasts are available at the following internet address: http://europa.eu.int/comm/economy_finance/publications/european_economy/forecasts_en.htm
2. The UN's latest world population projections are available at the following internet address: http://www.un.org/esa/population/unpop.htm
3. See: The Brookings Institution, "Bush Administration Tax Policy: Revenue and Budget Effects", October 2004. Internet address: http://www.brookings.edu/views/articles/20041004orszaggale.pdf
See also: Congressional Budget Office, "The Budget and Economic Outlook: Fiscal Years 2006 to 2015", January 2005. Internet address: http://www.cbo.gov/ftpdocs/60xx%5Cdoc6060/01-25-BudgetOutlook.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 forecasts 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 area, the bloc consisting of the Western EU Member States that do not belong to the euro area, the New EU Member States, the United States, Japan and a bloc representing the rest of the world. All these country blocs are linked together by trade and financial flows. Data for the euro area is aggregated using ECU/euro exchange rates. Data for the Western non-euro EU Member States and the New EU Member States are aggregated in a common synthetic currency unit.

In all of these blocs but two, i.e. the New 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 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 the expenditure plans of the household sector. Moreover in the short-run the household sector is liquidity-constrained, implying that a fraction of its expenditures must be financed by disposable income.

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

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

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

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

NIME Studies and Publications

Case studies and technical variants

Several studies have been made with the NIME model[1]. Meyermans (2002.a and 2002.b) used the NIME model to investigate to what extent the working of the automatic fiscal stabilisers and monetary policy can contribute to the full realisation of potential output and price stability. Meyermans (2003) used the NIME model to assess the transmission of shocks from the United States to the euro area under alternative exchange rate policies. Meyermans (2004) studied how a cut in the social security contribution rate and an increase in the labour participation rate affect economic activity in the medium-term. Meyermans and Van Brusselen (2003) examined the impact on the Belgian international environment of a temporary worldwide autonomous drop in private consumption, a further monetary easing by the European Central Bank, a fiscal consolidation in the euro area and of a prolonged worldwide fall in stock markets. Finally, Meyermans and Van Brusselen (2004) used the NIME model to prepare an outlook for the world economy for the period ranging from 2004 until 2010.

Available NIME publications

Meyermans, E. (2002.a), “Automatic Fiscal Stabilisers in the Euro Area. Simulations with the NIME Model”, in Banca d'Italia (2002), The Impact of Fiscal Policy, pp. 389-416, (also available as Working Paper 5-02, Federal Planning Bureau, Brussels. Internet: http://www.plan.be/nl/pub/WP/detail_WP.php?pub=WP0205)

Meyermans, E. (2002.b), “Monetary Policy in the Euro Area. Simulations with the NIME Model”, in Bayar, A. and A. Dramais (eds., CD-ROM) (2002), EcoMod2002, International Conference on Policy Modeling, Proceedings, Brussels (also available as Working Paper 11-02, Federal Planning Bureau, Brussels. Internet: http://www.plan.be/nl/pub/WP/detail_WP.php?pub=WP0211)

Meyermans, E. (2003), “The International Transmission of Shocks. Some Selected Simulations with the NIME Model”, Working Paper 9-03, Federal Planning Bureau, Brussels. Internet: http://www.plan.be/nl/pub/WP/detail_WP.php?pub=WP0309

Meyermans, E. (2004), “The Macro-Economic Effects of Labour Market Reforms in the European Union. Some Selected Simulations with the NIME Model”, Working Paper 12-04, Federal Planning Bureau, Brussels. Internet: http://www.plan.be/nl/pub/wp/WP0412/WP0412en.pdf

Meyermans, E. and P. Van Brusselen (2000), “The NIME Model: Specification and Estimation of the Enterprise Sector”, Working Paper 10-00, Federal Planning Bureau, Brussels. Internet: http://www.plan.be/nl/pub/WP/detail_WP.php?pub=WP0010

Meyermans, E. and P. Van Brusselen (2000), “The NIME Model: Specification and Estimation of the Demand Equations of the Household Sector”, Working Paper 8-00, Federal Planning Bureau, Brussels. Internet: http://www.plan.be/nl/pub/WP/detail_WP.php?pub=WP0008

Meyermans, E. and P. Van Brusselen (2001), “The NIME Model: A Macroeconometric World Model”, Working Paper 3-01, Federal Planning Bureau, Brussels. Internet: http://www.plan.be/nl/pub/WP/detail_WP.php?pub=WP0103

Meyermans, E. and P. Van Brusselen (2003), “An Assessment of the Risks to the Medium-Term Outlook of the Belgian International Economic Environment. Simulations with the NIME Model”, Working Paper 12-03, Federal Planning Bureau, Brussels. Internet: http://www.plan.be/nl/pub/WP/detail_WP.php?pub=WP0312

Meyermans, E. and P. Van Brusselen (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, Brussels. Internet: http://www.plan.be/nl/pub/WP/detail_WP.php?pub=WP0416

1. The technical details concerning the NIME model are discussed in a number of papers, of which Meyermans and Van Brusselen (2000.a, 2000.b, and 2001) and Meyermans (2003 and 2004).