

Stefan Ederer, Serguei Kaniovski, Hans Pitlik, Thomas Url

Slow Upturn Following Soft Patch in 2012

Medium-term Forecast of the Austrian Economy until 2016

In the coming five years economic growth in Austria will be driven largely by dynamic foreign trade. Whereas private consumption expenditure will grow steadily, public spending cuts will dampen government consumption expenditure. Favourable export expectations spur investment into machinery and equipment, but construction investment will also grow faster than recently. Despite increasing employment tensions in the labour market will remain, as the labour supply is growing simultaneously. The inflation rate will be slightly above the ECB's target.

The authors are thankful to Karl Aiginger and Marcus Scheiblecker for useful and constructive comments. The data were processed and analysed with the assistance of Christine Kaufmann • E-mail addresses: Stefan.Ederer@wifo.ac.at, Serguei.Kaniovski@wifo.ac.at, Hans.Pitlik@wifo.ac.at, Thomas.Url@wifo.ac.at

Until mid-2011 the Austrian economy was recovering from the economic and financial crisis of 2008 and 2009. GDP expanded markedly. This trend was mainly driven by very dynamic exports owing to the strong global economic upswing, especially in the Asian and Latin American emerging economies. In this situation companies substantially raised their investment into machinery and equipment.

During the forecast period from 2012 until 2016 the expansion will be less dynamic than most recently (Table 1). Real GDP is expected to grow by 1.6 percent per year on average. Thus, the Austrian economy will expand considerably more slowly than on average during the 10 years before the financial and economic crisis. The downturn already became apparent during the second half of 2011 and will continue in 2012. The pace of the expansion is not expected to accelerate, thus gradually closing the output gap (relative deviation of actual output from trend output), before 2014. At 1.6 percent trend output growth of the Austrian economy will be ½ percentage point below the growth rate of the 10 years preceding the financial crisis.

The Austrian business cycle is determined by world economic developments. The crisis in the European Monetary Union will only permit a sluggish expansion of the European economy during 2012 and 2013 with trends diverging strongly between the North and the South of the EU (*Schulmeister, 2012*). At the same time the USA and the emerging economies are stimulating world trade. As a consequence global economic activity will gain momentum from mid-2012 onwards. During 2012-2016 value added of OECD countries will grow by an average annual 2 percent, expanding slightly more slowly than in the five years preceding the crisis (+2.1 percent per year). World trade – measured in terms of exports of goods – is expected to increase by an average of 6.2 percent per year during the forecast period.

On average exports will expand by 5.5 percent per year. Imports to Austria will increase by 5.1 percent per year. The Austrian economy will continue to benefit from the favourable trend of international trade. Net exports will remain positive, but will be lower than in the past five years. Investment into machinery and equipment typically shows the strongest response to the economic outlook. Its growth will not accelerate markedly until in 2014 reaching an average growth rate of 3.3 percent during 2012-2016. By contrast, the increase of construction investment will remain limited. Private households' consumption expenditure will expand only slightly during

the forecast period. At the same time the savings ratio will increase markedly again converging towards its long-term average.

Table 1: Main results

	Ø 2001-2006	Ø 2006-2011	Ø 2011-2016	2011	2012	2013	2014	2015	2016
Year-to-year percentage changes									
Gross domestic product									
Volume	+ 2.2	+ 1.3	+ 1.6	+ 3.2	+ 0.4	+ 1.6	+ 2.0	+ 2.2	+ 2.1
Value	+ 3.9	+ 3.1	+ 3.4	+ 5.5	+ 2.7	+ 3.2	+ 3.6	+ 3.8	+ 3.8
Consumer prices	+ 1.8	+ 2.2	+ 2.1	+ 3.3	+ 2.1	+ 1.9	+ 2.1	+ 2.3	+ 2.2
Gross wages and salaries per employee, volume ¹	+ 0.4	+ 0.1	+ 0.5	- 0.6	+ 0.8	- 0.1	+ 0.6	+ 0.7	+ 0.7
Persons in active dependent employment ²	+ 0.6	+ 1.0	+ 0.9	+ 1.9	+ 0.6	+ 0.4	+ 1.0	+ 1.1	+ 1.1
In percent									
Unemployment rate									
Eurostat definition ³	4.7	4.3	4.6	4.2	4.5	4.7	4.7	4.6	4.4
National definition ⁴	7.0	6.6	7.3	6.8	7.1	7.4	7.4	7.3	7.1
As a percentage of GDP									
Net exports	4.2	4.9	3.7	3.8	3.7	3.8	3.8	3.7	3.6
General government financial balance (Maastricht definition)	- 2.0	- 2.7	- 2.5	- 3.3	- 3.0	- 2.8	- 2.6	- 2.2	- 1.9
As a percentage of disposable income									
Household saving ratio	9.2	10.0	8.1	7.5	7.3	7.6	8.1	8.5	9.0
Year-to-year percentage changes									
Potential output, volume	+ 2.0	+ 1.7	+ 1.6	+ 1.7	+ 1.6	+ 1.6	+ 1.6	+ 1.6	+ 1.5
As a percentage of Potential output									
Output gap, volume	0.5	0.8	- 0.6	0.0	- 1.2	- 1.2	- 0.8	- 0.2	0.4

Source: Statistics Austria, WIFO calculations. – ¹ Excluding employers' contributions, employees according to National Accounts definition. – ² Excluding parental leave and military service. – ³ According to Eurostat Labour Force Survey, percent of total labour force. – ⁴ According to Public Employment Service Austria, percent of total labour force excluding self-employed.

The consumer price index will rise by an annual average of 2.1 percent during 2012-2016. Thus inflationary pressure will remain muted during the whole of the forecast period. Trend growth of unit labour costs, usually the key domestic inflation factor, will be weak. However, import prices will increase markedly due to the rising cost of energy, thus raising the domestic inflation rate. This trend is enhanced by the depreciation of the euro.

Despite the weak upturn new jobs will be created. However, the labour supply will expand markedly at the same time, because the participation rate is increasing due to the growing labour demand and the decrease of the number of workers retiring early. In addition, the number of foreign workers will increase markedly, partly due to legalisation, partly due to enhanced immigration. The latter is mainly a consequence of the opening of the labour market to individuals from Bulgaria and Romania. Thus, at an average of 7.3 percent the unemployment rate will be considerably higher during the years from 2012 until 2016 than before.

This medium-term forecast is based on WIFO's current short-term economic forecast of December 2011 (Scheiblecker, 2012, in this issue). It rests on the international framework of WIFO's medium-term global forecast (Schulmeister, 2012, in this issue). The calculations were carried out using WIFO's macro model (Baumgartner – Breuss – Kaniovski, 2005).

**Slow upturn starting
in 2014**

In 2012 and in 2013, the global economy will expand only slowly gaining noticeable momentum only from 2014 onwards. On average, annual economic growth in the USA and in the euro area will reach 2.1 percent and 1.4 percent, respectively, during the forecast period 2012-2016 (Table 2). In the new EU member countries economic activity is expected to expand by an average of 3.3 percent per year. The world economy will continue to benefit strongly from the dynamic expansion in the Asian and Latin American emerging economies. In the OECD countries GDP will grow by an average of 2.0 percent per year during the period from 2012 until 2016. World trade, measured in terms of real exports of goods, is expected to increase by 6.2 percent per year. Starting from \$ 110 per barrel in 2011 crude oil prices will decline slightly in 2012, but return to this level by 2016. Prices of non-energy commodities will decrease by 1.9 percent per year on average. In addition, it is assumed that the euro will continuously depreciate vis-à-vis the dollar and reach an exchange rate of \$ 1.22 per euro in 2016.

Table 2: International fundamentals

	Ø 2001-2006	Ø 2006-2011	Ø 2011-2016
Year-to-year percentage changes			
Gross domestic product, volume			
Euro area	+ 1.8	+ 0.5	+ 1.4
23 OECD countries ¹	+ 2.3	+ 0.4	+ 2.0
	Ø 2002-2006	Ø 2007-2011	Ø 2012-2016
Dollar per Euro			
Exchange rate	1.16	1.39	1.26
		Dollar per barrel	
Oil price			
Brent	42.3	84.1	102.2

Source: EU, OECD, WIFO calculations. – ¹ EU 15 (excluding Austria), Island, Norway, Switzerland, Turkey, Australia, Japan, Canada, New Zealand, USA.

Figure 1: Growth of real GDP

Percentage changes from previous year



Source: EU, OECD, WIFO calculations.

In 2012, the Austrian economy will grow only moderately. The expansion will only gain some momentum in the coming years. On average real GDP will expand by

1.6 percent per year during the forecast period. Nominal aggregate output will increase by an average of 3.4 percent. Table 3 summarises the trends of the expenditure aggregates of the national accounts.

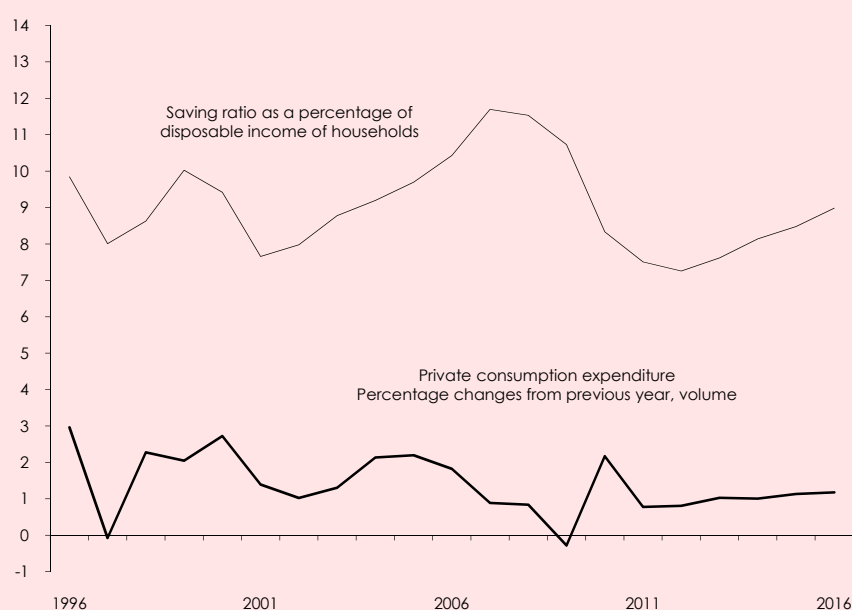
Due to the close international integration of the Austrian economy its cyclical performance is crucially influenced by global economic developments. Owing to the dynamic market expansion and its favourable competitiveness position Austria's exports are growing fast. On average during the period from 2005 until 2010 unit labour costs in manufacturing increased by about 0.5 percent per year in Austria, whereas they rose by 1.6 percent in Germany and by an average of 1.2 percent for EU trade partners. As a consequence, the competitiveness of the Austrian manufacturing sector increased markedly (*Ederer – Hölzl, 2011*). Unit labour costs in the total economy are expected to increase by 1.9 percent per year during the forecast period, which is 0.2 percentage point below the growth rate of the five preceding years. Parallel to the slight depreciation of the euro vis-à-vis the dollar the competitiveness of the Austrian export sector will improve steadily. At the same time this leads to a worsening of the terms of trade. The ensuing loss of purchasing power dampens import growth, so that net exports will remain positive.

Table 3: Components of aggregate demand, volume

	Ø 2001-2006	Ø 2006-2011	Ø 2011-2016	2011	2012	2013	2014	2015	2016
	Year-to-year percentage changes								
Consumption expenditure									
Private households ¹	+ 1.7	+ 0.9	+ 1.0	+ 0.8	+ 0.8	+ 1.0	+ 1.0	+ 1.1	+ 1.2
General government	+ 1.4	+ 1.6	+ 0.6	+ 1.5	+ 0.5	+ 1.0	+ 0.5	+ 0.6	+ 0.6
Gross fixed capital formation	+ 0.5	+ 0.2	+ 2.2	+ 5.6	+ 0.9	+ 1.5	+ 2.5	+ 2.9	+ 3.2
Machinery and equipment	+ 0.4	+ 2.0	+ 3.3	+ 11.0	+ 1.5	+ 2.0	+ 4.0	+ 4.4	+ 4.7
Construction	+ 0.1	- 1.4	+ 1.1	+ 1.0	+ 0.4	+ 1.0	+ 1.2	+ 1.4	+ 1.7
Domestic demand	+ 1.6	+ 1.0	+ 1.2	+ 3.0	+ 0.6	+ 1.3	+ 1.3	+ 1.4	+ 1.5
Exports	+ 6.1	+ 1.9	+ 5.5	+ 7.5	+ 2.8	+ 5.3	+ 6.7	+ 6.6	+ 6.0
Imports	+ 5.0	+ 1.4	+ 5.1	+ 7.5	+ 3.4	+ 5.1	+ 5.8	+ 5.7	+ 5.4
Gross domestic product	+ 2.2	+ 1.3	+ 1.6	+ 3.2	+ 0.4	+ 1.6	+ 2.0	+ 2.2	+ 2.1

Source: Statistics Austria, WIFO calculations. – ¹ Including private non-profit institutions serving households.

Figure 2: Private consumption and saving ratio



Source: Statistics Austria, WIFO calculations.

With the economic slowdown in the course of 2011 investment into machinery and equipment perceptibly lost momentum. This soft patch will not be overcome before 2014. During 2012-2016 investment into machinery and equipment will expand by an annual average of 3.3 percent. Construction investment will remain weak during the whole forecast period. The pace of expansion is not expected to accelerate until the end of the forecast period. Following a sharp decline during the financial and economic crisis, construction investment is expected to grow by an annual average of 1.1 percent over the forecast horizon. Owing to the expansionary monetary policy of the European Central Bank the costs of external financing will remain low. A general tightening of loan conditions for businesses is not expected. Further, no tax reforms are foreseeable which would permanently change financing costs of investment. Thus, user cost of capital will remain low (Kaniowski, 2002).

Consumption expenditure of private households will show a dampened trend during the forecast period. They are expected to increase by an annual average of 1 percent, hardly gaining any momentum by the end of the forecast horizon. Real disposable income of private households will expand by 1.3 percent per year during 2012-2016 (nominal increase +3.6 percent). In addition, the savings ratio will rise steadily to 9 percent at the end of the forecast period. In recent years it declined from 11.5 percent of disposable income (2008) to 7.5 percent (2011), but will converge towards its long-term average of 11 percent (1976-2011) again. Private households' savings are composed of the non-consumed share of disposable income and occupational pension entitlements of the current year. At 6.6 percent the share of pension entitlements in savings will remain roughly constant during the period from 2012 until 2016. Due to the increase of the savings ratio the long-term downward trend of the share of consumption in GDP will continue. Between 2011 and 2016 the consumption ratio will decrease by 0.4 percentage points to 53.4 percent of GDP.

Figure 3: Output gap

As a percentage of potential output, volume



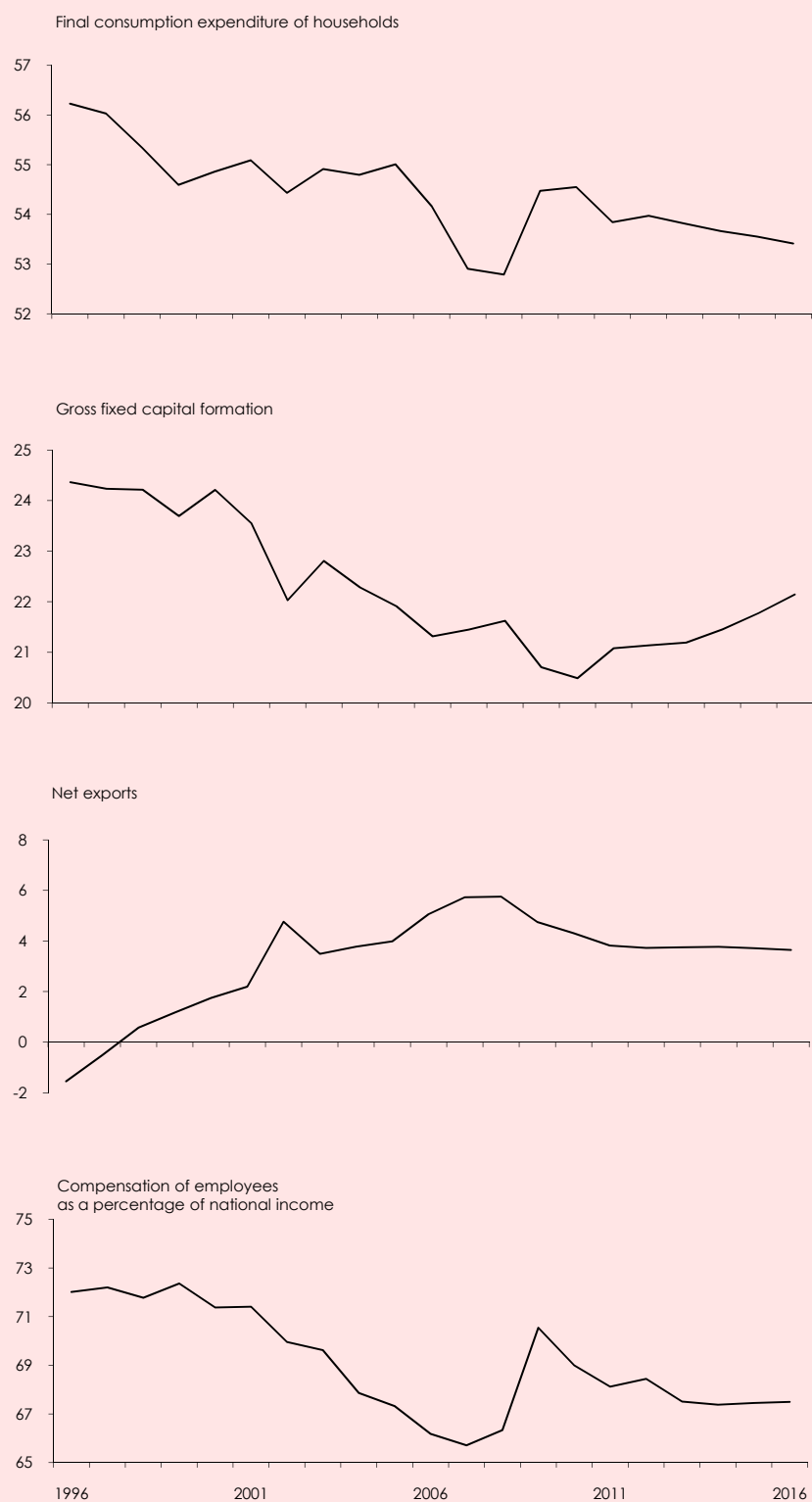
Source: Statistics Austria, WIFO calculations.

During the 10 years prior to the financial and economic crisis trend output grew by an annual average of 2.1 percent. Since then the pace of the expansion has slowed markedly due to the weak investment activity. This trend will continue during the forecast period: owing to the moderate increase of gross fixed capital formation an average annual growth rate of trend output of 1.6 percent will be observed between 2011 and 2016. As a consequence of the upswing the output gap measuring capacity utilisation of the whole economy has already been closed (Figure 3). The

soft patch in 2012 and the slow expansion in subsequent years will result in a renewed underutilisation of capacity in 2012 and in 2013. This gap will begin to close only with the acceleration of growth from 2014 onwards.

Figure 4: Expenditure on GDP and income

As a percentage of GDP, at current prices



Source: Statistics Austria, WIFO calculations.

Calculation of trend output

In this forecast trend output is calculated by means of a Hodrick-Prescott filter (Hodrick – Prescott, 1997). This is a mathematical smoothing procedure which separates the long-term trend of a time series from its cyclical component. The cyclical component of real GDP reflects the business cycle. The European Commission uses this method in its calculations of trend output and of the structural deficit (European Commission, 2006). The Hodrick-Prescott filter is a purely technical procedure independent of any economic theory or econometrics. One disadvantage of the thus calculated trend component consists in the fact, that the observations at the beginning and at the end of the time series are distorted.

Structural methods for the estimation of trend output are an alternative to the Hodrick-Prescott filter (Giorno – Richardson – van den Noord, 1995, Kaniovski et al., 2008). In contrast to the latter they use additional information on the production technology and the input factors of production. The most important factors of production are labour and capital. In addition fuels and other intermediate products can be taken into account. A key determinant of long-term growth consists in technical progress which also has to be modelled in a structural approach (Aghion – Howitt, 2009).

From 2004 until 2008 real GDP expanded noticeably faster in Austria than in the euro area on average (+0.6 percentage points). The downturn in the year of recession was also less pronounced in Austria. Over the forecast horizon the growth advantage will persist, albeit to a significantly lesser extent (+0.2 percentage points). This is particularly due to the following factors:

- Austria is among the EU countries with an above-average per capita income, a high degree of specialisation in knowledge intensive sectors, above-average expenditures on research and development in relation to GDP as well as high-quality export goods. These qualities also foster an above-average economic growth in the medium term (Janger et al., 2011).
- During the forecast period the economies of the new EU member countries in Central and Eastern Europe will grow faster than the euro area as a whole. The growth differential will amount to 1.9 percentage points (Schulmeister, 2012). Due to its proximity to this market and its close economic integration with this region the Austrian economy is in a good position to benefit more strongly from this favourable trend.
- Owing to the favourable trend of unit labour costs the competitiveness of the Austrian industry vis-à-vis its trade partners in the EU improved substantially in the past 10 years (Ederer – Hölzl, 2011). This advantage will persist in the future and contribute to Austria's dynamic export performance.
- As a consequence of high government debt and the crisis of confidence with respect to public finances, austerity packages have been enacted in numerous euro area countries. These will dampen growth in the respective countries. By international comparison the resulting consolidation requirement for Austria is lower, so that the ensuing negative demand effects will turn out smaller.

Despite the weak economic growth employment in the private sector will expand noticeably, whereas it is expected to stagnate in the public sector. Between 2011 and 2016 the number of employees is expected to increase by an annual average of 0.9 percent, which is much faster than in the pre-crisis period from 2001 until 2006 (Table 4). To a considerable extent this increase is caused by the growth of part-time employment. During the past ten years the average number of hours worked per employee declined by 0.6 percent per year. In recent years this trend even accelerated. This was only partly due to subsidised short time work schemes during the most recent recession. The general trend towards part-time employment will continue, not least because employment growth is centred in the service sector, where part-time employment corresponds to the employers' flexibility requirements. On the part of labour supply this trend is supported by the increase of employees with a

**Persistent positive
growth differential with
the euro area**

**No easing of labour
market tensions**

higher inclination towards part-time employment (young persons in training, working-age women and elderly employees approaching retirement). The lack of full-time child care and high marginal tax rates for lower incomes reinforce this tendency. A detailed analysis of this phenomenon, which has been increasingly observed since 2005, seems necessary.

Table 4: Labour market, income

	Ø 2002-2006	Ø 2007-2011	Ø 2012-2016	2011	2012	2013	2014	2015	2016
In percent									
Unemployment rate									
Eurostat definition ¹	4.7	4.3	4.6	4.2	4.5	4.7	4.7	4.6	4.4
National definition ²	7.0	6.6	7.3	6.8	7.1	7.4	7.4	7.3	7.1
Year-to-year percentage changes									
	Ø 2001-2006	Ø 2006-2011	Ø 2011-2016	2011	2012	2013	2014	2015	2016
Persons in active dependent employment ³	+ 0.6	+ 1.0	+ 0.9	+ 1.9	+ 0.6	+ 0.4	+ 1.0	+ 1.1	+ 1.1
Registered unemployed	+ 3.2	+ 0.7	+ 2.0	- 1.2	+ 6.1	+ 4.4	+ 2.2	- 1.3	- 1.2
Productivity ⁴	+ 1.5	+ 0.2	+ 0.7	+ 1.2	- 0.4	+ 0.8	+ 1.0	+ 1.0	+ 0.9
Gross wages and salaries ⁵	+ 2.9	+ 3.8	+ 3.6	+ 4.8	+ 3.7	+ 2.4	+ 3.7	+ 4.2	+ 4.1
Per employee, volume ⁶	+ 0.4	+ 0.1	+ 0.5	- 0.6	+ 0.8	- 0.1	+ 0.6	+ 0.7	+ 0.7
Unit labour costs, total economy	+ 0.6	+ 2.1	+ 1.9	+ 1.4	+ 3.3	+ 0.8	+ 1.6	+ 1.9	+ 2.0

Source: Federation of Austrian Social Security Institutions, Statistics Austria, WIFO calculations. – ¹ According to Eurostat Labour Force Survey, percent of total labour force. – ² According to Public Employment Service Austria, percent of total labour force excluding self-employed. – ³ Excluding parental leave and military service. – ⁴ Real GDP per employment (dependent and self-employed according to National Accounts definition). – ⁵ Excluding employers' contributions. – ⁶ Employees according to National Accounts definition.

Figure 5: Labour market trends



Source: Labour Market Service, WIFO calculations. – ¹ As a percentage of total labour force exclusive self-employed; according to Public Employment Service Austria. – ² As a percentage of total labour force; according to Eurostat Labour Force Survey. – ³ Persons in employment as a percentage of population of working age (15 to 64 years).

The expansion of employment will coincide with an increase of the labour supply of similar size. 40 percent of the additional supply is due to the increasing number of foreign workers. Particularly in 2014, the discontinuation of interim regulations on labour market access for individuals from Bulgaria and Romania will cause an inflow of foreign workers. The rising labour market participation of elder workers accounts for

20 percent of the increase of the labour supply. 40 percent can be attributed to cyclical effects and other factors.

In line with the Austrian calculation method the unemployment rate declined to 6.8 percent of the labour force excluding the self-employed until 2011. Thus it was slightly higher than the average of the period from 2007 until 2011. 0.2 percentage points of the unemployment rate are explained by the inclusion of individuals receiving a means-tested minimum transfer among the registered unemployed (previously "non-working recipients of social assistance payments" – "erwerbsinaktive Sozialhilfebezieher"; annual average in 2011: 6,500 persons receiving the full payment, in 2010: 1,400 persons). This level shift is irrelevant for the trend of subsequent years.

The increase of the labour supply prevents an easing of tensions in the labour market despite a growing labour demand. By 2013 the unemployment rate is expected to increase to 7.4 percent and decline to 7.1 percent thereafter. Thus, the number of unemployed persons will exceed the level of 2011 by 25,700 at the end of the forecast period than in 2011. The unemployment rate in percent of the labour force according to Eurostat will increase from 4.2 percent (2011) to 4.7 percent (2013) and then decline to 4.4 percent by 2016.

In the past ten years real wages per employee rose 0.4 percentage points more slowly than productivity. This trend will continue to a lesser extent (Table 4). From 1976 until 2008 the share of compensation of employees in nominal GDP shrank by 5.9 percentage points to 49 percent. During the financial crisis part of this decline was reversed. On average during 2012-2016 this ratio will remain almost unchanged at slightly below 50 percent.

During the whole forecast period the increase of consumer prices will be limited (average in 2012-2016: 2.1 percent; Table 5). The forecast assumes that the crude oil price (Brent) will fall from \$ 110 per barrel in 2011 to \$ 95 in 2012 and subsequently rise to slightly below \$ 110 in 2016. Inflationary pressures will be largely external. The imported inflation is reinforced by the depreciation of the euro vis-à-vis the dollar. On average during 2012-2016 an exchange rate of \$ 1.26 per euro will be realised (Table 2). The depreciation of the euro and increases of commodity prices cause import prices to rise by 2.5 percent per year.

Moderate inflation

Table 5: Implicit price indices

	Ø 2001-2006	Ø 2006-2011	Ø 2011-2016	2011	2012	2013	2014	2015	2016
	Year-to-year percentage changes								
Private consumption	+ 1.8	+ 2.1	+ 2.2	+ 3.3	+ 2.1	+ 1.9	+ 2.3	+ 2.4	+ 2.3
Exports	+ 1.1	+ 1.3	+ 1.8	+ 3.2	+ 0.3	+ 1.2	+ 2.5	+ 2.9	+ 2.1
Imports	+ 1.1	+ 2.3	+ 2.5	+ 4.6	- 0.0	+ 1.6	+ 3.8	+ 4.2	+ 3.1
Gross domestic product	+ 1.6	+ 1.8	+ 1.7	+ 2.2	+ 2.3	+ 1.7	+ 1.6	+ 1.6	+ 1.6

Source: Statistics Austria, WIFO calculations.

The imported inflation will result in a divergence between the consumer price index (CPI) and the GDP deflator, because the CPI takes imported goods into account, whereas the GDP deflator measures price trends of domestic value added. At 1.7 percent the increase of the GDP deflator remains noticeably below that of other expenditure deflators over the forecast horizon.

In addition to the prices of energy and commodities, unit labour costs constitute the most important factor driving prices. As mentioned above, wage trends hardly affect inflation. The lack of demand is reflected in the underutilisation of capacity in the Austrian economy and will keep inflation down.

Since 2009 Austria, like the majority of EU countries, is subject to an excessive deficit procedure. For Austria the recommendation is to reduce the deficit ratio below 3 percent of GDP by 2013. The additional tightening of the regulations of the Stability and Growth pact laid down in the so-called "six-pack" will have an impact on the consolidation requirements as well as the medium-term consolidation path over the whole forecast horizon.

Moderate consolidation will reduce budget deficit

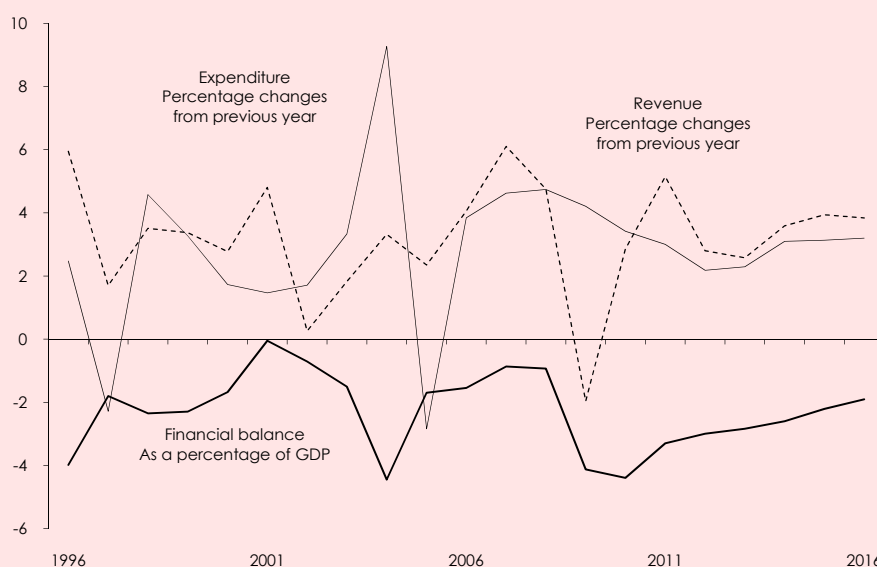
Table 6: General government

Current prices

	Ø 2001-2006	Ø 2006-2011	Ø 2011-2016	2011	2012	2013	2014	2015	2016
Year-to-year percentage changes									
Current revenue	+ 2.4	+ 3.3	+ 3.3	+ 5.1	+ 2.8	+ 2.6	+ 3.6	+ 3.9	+ 3.8
Current expenditure	+ 3.0	+ 4.0	+ 2.8	+ 3.0	+ 2.2	+ 2.3	+ 3.1	+ 3.1	+ 3.2
Gross domestic product	+ 3.9	+ 3.1	+ 3.4	+ 5.5	+ 2.7	+ 3.2	+ 3.6	+ 3.8	+ 3.8
	Ø 2002-2006	Ø 2007-2011	Ø 2012-2016	2011	2012	2013	2014	2015	2016
As a percentage of GDP									
General government financial balance (Maastricht definition)	- 2.0	- 2.7	- 2.5	- 3.3	- 3.0	- 2.8	- 2.6	- 2.2	- 1.9

Source: Statistics Austria, WIFO calculations.

Figure 6: Revenue, expenditure and financial balance (according to Maastricht) of general government



Source: Statistics Austria, WIFO calculations.

In 2013, the general government deficit will be below 3 percent of GDP again for the first time since 2008. In subsequent years it will decrease to 1.9 percent (2016). Current revenues will grow by 3.3 percent per year during the period from 2011 until 2016. This is equivalent to the average during the period from 2007 until 2011. The moderate upturn and the expansion of employment during the forecast period will have a positive effect on the expected revenue trends. By contrast, the increase of current expenditures will slow from 4.0 percent per year (2006-2011) to 2.8 percent (2011-2016). As a consequence the government expenditure ratio will fall below 50 percent again by 2016. This trend is based on the assumption that moderate and sustainable consolidation and reform measures are initiated and continued in vari-

ous spheres (pensions, administration, subsidies), so that spending growth is slowed in the medium term without excessively dampening economic activity.

From 2014 onwards the government debt ratio will start to decline. However, it will remain above 70 percent until the end of the forecast period and will thus remain significantly above the reference value of 60 percent of GDP. The objective defined in the national "debt brake" to achieve a structural budget balance of no less than –0.45 percent of GDP from 2017 onwards requires substantial further consolidation efforts in the future. To meet the long-term consolidation objectives of government budgets while at the same time eliminating barriers to growth, additional structural reforms (Reorganising and disentangling responsibilities as part of a reform of administration and government institutions, reform of fiscal equalisation, pension reform, health care reform) will be necessary, which might also bring about substantial economies.

This forecast is based on the assumption the crisis in the European Monetary Union will not escalate further and the world economy will return to a stable growth trend. It also expects no further extensive austerity packages in the euro area countries, so that growth in the euro area will not be dampened further in the short run (*Schulmeister, 2012*).

Further, it is assumed that the efforts of the European Banking Authority (EBA) to stabilise the banking sector will be successful. For systemically relevant banks in Europe the EBA has identified an additional requirement of core capital of a total of € 114.7 billion. This corresponds to a core capital ratio of 9 percent thus exceeding the requirements of Basel III. The transition period for an increase of core capital was initially scheduled to begin in January 2013 and to continue until 1 January 2015. Now the higher capital requirements already have to be met by mid-2012. Although, in the EBA's simulations, the Austrian systemically relevant financial institutions only showed potential write-downs due to the valuation of government bonds at market values of € 112 million, they must raise a total of € 3.9 billion to meet the higher capital requirements. The EBA justifies the extraordinary temporary capital requirements as a measure to strengthen confidence in the European financial system rather than a reserve to cushion valuation losses of European government bonds. It has announced a revision of the additional capital requirements for the case of a normalisation of the situation in bond markets (Press release of 8 December 2011). This medium-term forecast assumes that lending policies of domestic banks will not restrict companies' expected investments, housing construction or consumption plans of private households. If one or several of these assumptions proved incorrect, this would worsen the outlook.

Further, using an econometric forecast model leads to restrictions resulting from methodological problems. The WIFO-Macromod models empirical relationships in the way they determined Austria's economic trends on average in the past 30 years. During crises these relationships are difficult to quantify. For this reason model calculations can only approximately reflect the actual effects.

Risks to the forecast

Aghion, P., Howitt, P., *The Economics of Growth*, MIT Press, Cambridge, MA, 2009.

Baumgartner, J., Breuss, F., Kaniowski, S., "WIFO-Macromod – An Econometric Model of the Austrian Economy", in OeNB (Ed.), "Macroeconomic Models and Forecasts for Austria", Proceedings of OeNB Workshops, 2005, (5), S. 61-86.

Ederer, St., Hölzl, W., "Lohnstückkostenposition 2010 konjunkturbedingt verbessert", WIFO-Monatsberichte, 2011, 84(9), pp. 605-616, <http://www.wifo.ac.at/www/pubid/42533>.

European Commission, "Public Finances in the EMU 2006", European Economy, 2006, (3).

Giorno, C., Richardson, D., van den Noord, P., "Estimating potential output, output gaps and structural budget balance", OECD Economic Models and Forecasts, Working Papers, 1995, (157).

Hodrick, R., Prescott, E.C., "Postwar U.S. Business Cycles: An Empirical Investigation," *Journal of Money, Credit, and Banking*, 1997, 29(1), pp. 1-16.

Janger, J., Hölzl, W., Kaniowski, S., Kutsam, J., Peneder, M., Reinstaller, A., Sieber, S., Stadler, I., Unterlass, F., *Structural Change and the Competitiveness of EU Member States*, WIFO, Wien, 2011, <http://www.wifo.ac.at/www/pubid/42956>.

References

- Kaniovski, S., "Kapitalnutzungskosten in Österreich", WIFO-Monatsberichte, 2002, 75(5), pp. 339-346, <http://www.wifo.ac.at/www/pubid/21984>.
- Kaniovski, S., Pitlik, H., Steindl, S., Url, T., "A Decomposition of Austria's General Government Budget into Structural and Cyclical Components", WIFO Working Papers, 2008, (316), <http://www.wifo.ac.at/www/pubid/31859>.
- Scheiblecker, M., "Sovereign Debt Crisis Tightening Its Grip on the Real Economy. Economic Outlook for 2012 and 2013", Austrian Economic Outlook, 2012, 17(1), pp. 1-11, <http://www.wifo.ac.at/www/pubid/43512>.
- Schulmeister, St., "Krise der Europäischen Währungsunion dämpft weltweite Wachstumsdynamik. Mittelfristige Prognose der Weltwirtschaft bis 2016", WIFO-Monatsberichte, 2012, 85(1), pp. 37-49, <http://www.wifo.ac.at/www/pubid/43375>.

Slow Economic Upturn Following Soft Patch in 2012

Medium-term Forecast of the Austrian Economy until 2016 – Summary

During the forecast period 2012-2016 growth will be weaker than in the recent past. On average real GDP is expected to increase by 1.6 percent per year. Thus, the Austrian economy will expand at a slower pace than on average during the years preceding the financial and economic crisis. The cyclical slowdown already became apparent during the second half of 2011 and will continue in 2012. The expansion is not expected to regain momentum, gradually closing the output gap, before 2014. Between 2011 and 2016 trend output of the Austrian economy will grow by 1.6 percent, which is $\frac{1}{2}$ percentage point below the average growth rate of the five years preceding the financial crisis.

Exports will expand by an annual average of 5.5 percent during 2012-2016. Imports to Austria are expected to increase by 5.1 percent per year. The Austrian economy will continue to benefit from the favourable conditions in international trade. Net exports will remain positive though lower compared to the level of the five most recent years. Investment into machinery and equipment typically shows the strongest reaction to the economic outlook. Its growth is not expected to begin picking up noticeably until in 2014, averaging 3.3 percent during 2012-2016. The increase in construction investment will remain limited. Consumption expenditure of private households will expand only slightly during the forecast period. At the same time the savings ratio will increase markedly, converging slowly to its long-term average.

The consumer price index will rise by an annual average of 2.1 percent during 2012-2016. This means that inflationary pressure will remain weak during the forecast period. The trend in unit labour cost – a key domestic inflation factor – will be weak. By contrast, import prices will increase noticeably due to energy price hikes, thus raising the domestic inflation rate. This effect is enhanced by the depreciation of the euro.

Despite the weak upswing additional jobs will be created and labour supply will grow markedly. Owing to a decline of early retirement, labour market participation will also increase. In addition, the number of foreign workers will go up, partly due to legalisation and partly due to a stronger inflow of workers. Therefore, the average unemployment rate during 2012-2016 will be significantly higher at 7.3 percent than in the recent past.

In 2013, the deficit of the general government will be below 3 percent of GDP for the first time since 2008. In the following years it will shrink to 1.9 percent (2016). During the period from 2011 until 2016 revenues at current prices will increase by 3.3 percent per year. This is equivalent to the average from the period 2006 through 2011. By contrast, growth of current expenditures will slow from 4.0 percent (average 2006-2011) to 2.8 percent per year (2011-2016). As a consequence, the government expenditure ratio will fall below 50 percent of GDP by 2016.