# Economic recovery in 2016 after four years of weak growth

Economic outlook for Austria from 2016 to 2018 (June 2016)

#### Christian Ragacs, Klaus Vondra<sup>1</sup>

#### 1 Executive summary

According to its economic outlook of June 2016, the Oesterreichische Nationalbank (OeNB) expects the Austrian economy to stage a modest recovery, with GDP growth accelerating to 1.6% in 2016 after four years with growth rates below 1%. The increase in growth is driven in particular by two special domestic factors which both generate growth by stimulating demand: the coming into force of the income tax re-

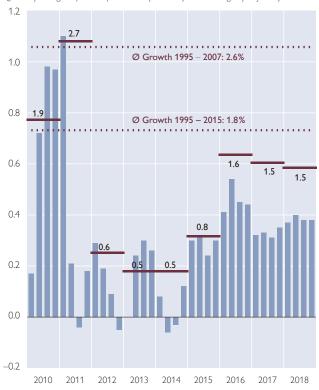
form in January 2016 and the deficitfinanced expenditure on asylum seekers and recognized refugees. For both 2017 and 2018, GDP growth is currently projected to reach 1.5%. Compared with its previous economic outlook of December 2015, the OeNB has thus revised downward its growth forecast for 2016 and 2017 by 0.3 percentage points. HICP inflation is expected to reach 1.0% in 2016, reflecting low oil and commodity prices, but will

Chart 1

#### Main results of the forecast

#### Real GDP growth

Quarterly change to previous period in % (seasonally and working day-adjusted)



#### Harmonised Index of Consumer Prices (HICP)

Annual change in %



#### Unemployment rate



Cutoff date for data: May 18, 2016

Source: WIFO, Statistics Austria, OeNB June 2016 outlook

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climb thereafter, to 1.7% in 2017 and 1.9% in 2018. The unemployment rate (Eurostat definition) will rise to 6.0% in 2016 and peak at 6.1% in 2017, before easing back slightly to 6.0% in 2018.

In early 2016, growth in the world economy was hit by the further decline in oil and commodity prices and by the turmoil in Chinese equity markets and its fallout on global equity markets. The widely anticipated further slowdown in the pace of economic growth in China and other emerging markets did not occur, however. In the end, growth in emerging markets – particularly in China – in both the fourth quarter of 2015 and the first quarter of 2016 was in line with expectations prevailing in December 2015. By contrast, growth in the major industrialized economies of the U.S.A., Japan and the United Kingdom in late 2015 and in early 2016 undershot expectations more or less considerably. Despite the confluence of a range of stimulating effects, global GDP growth is projected to remain below average at under 3% in 2016.

Austrian GDP growth will accelerate to well above 1% for the first time in four years. In view of the very modest pace of growth in the world economy, the recovery of the Austrian economy is attributable to two special domestic factors: the income tax reform that took effect in early 2016 and the additional (deficit-financed) public expenditure on refugees. These two factors will support GDP growth in 2016 by stimulating private and government consumption. The positive effects of the income tax reform will materialize gradually in the course of 2016. Compared with the December 2015 outlook, the assessment of the reform's impact remains fundamentally unchanged, as does the fact that some of the compensatory measures designed

to finance the tax reform must not be taken into account according to ESCB rules, which means that the impact on growth will tend to be overestimated. By contrast, the extent of the impact of additional public expenditure on refugees was revised downward compared with the December 2015 outlook. The simulation calculations now reflect the maximum intake of asylum applications announced by the Austrian government for the period from 2016 to 2018, which is visibly lower than the assumptions of December 2015. In addition, low inflation will contribute to a significant rise in real disposable income, causing both private consumption and the saving ratio to increase markedly in

In the area of investment in equipment, whose cycle leads the business cycle, growth had accelerated already in the course of 2015. By early 2016, investment in equipment was exceeding the levels attained in early 2008 in all subsegments. In other words, the economic crisis was over in this area. By contrast, investment in housing and, particularly, civil engineering continues to remain below pre-crisis levels. Housing investment should gather momentum in both 2017 and 2018 in view of the housing initiative announced by the government, whereas growth in investment in equipment is expected to taper off. As a result, the investment cycle is therefore expected to remain muted on the whole. The contribution made by net exports to GDP growth will even be negative in 2016, as import growth will exceed export growth due to the high import share of investment and private consumption. Once the special economic factors subside, causing growth in consumer demand to soften again, and once the investment cycle tapers off as expected, import growth will slacken

in 2017, while export growth should continue to pick up until 2018. As a result, the contribution of net exports to GDP growth will be positive in both

2017 and 2018, despite small losses in export market shares.

As in recent years, labor market growth will be marked by a steep rise

Table 1

OeNB June 2016 outlook for Austria – ke	y results¹						
	2015	2016	2017	2018			
Economic activity	Annual change in % (real)						
Gross domestic product (GDP)	+0.8	+1.6	+1.5	+1.5			
Private consumption	+0.3	+1.3	+1.1	+0.9			
Government consumption	+1.3	+1.4	+1.0	+1.1			
Gross fixed capital formation	+0.3	+2.1	+2.0	+1.8			
Exports of goods and services	+2.1	+3.4	+3.9	+4.2 +3.9			
Imports of goods and services	+2.2   +4.3   +3.6						
	% of nominal						
Current account balance	+2.6	+2.8	+3.1	+3.4			
Contribution to real GDP growth	Percentage p	oints					
Private consumption	+0.1	+0.7	+0.6	+0.5			
Government consumption	+0.3	+0.3	+0.2	+0.2			
Gross fixed capital formation	+0.1	+0.5	+0.5	+0.4			
Domestic demand (excluding changes in inventories)	+0.5	+1.4	+1.2	+1.1			
Net exports	+0.0 +0.3	-0.3 +0.4	+0.3 +0.0	+0.3 +0.0			
Changes in inventories (including statistical discrepancy)			+0.0	+0.0			
Prices	Annual change in %						
Harmonised Index of Consumer Prices (HICP)	+0.8	+1.0	+1.7	+1.9			
Private consumption expenditure (PCE) deflator	+1.1	+1.2	+1.8 +1.7	+1.9			
GDP deflator Unit labor costs in the total economy	+1.0 +1.5	+1.6 +0.8	+1.7	+1.9 +1.4			
Compensation per employee (at current prices)	+1.6	+1.3	+1.5	+2.0			
Compensation per hour worked (at current prices)	+1.8	+1.5	+1.7	+2.3			
Import prices	-0.4	-0.8	+1.6	+1.7			
Export prices	+1.0	+0.4	+1.6	+1.8			
Terms of trade	+1.4	+1.2	+0.0	+0.2			
Income and savings							
Real disposable household income	-0.7	+2.3	+0.9	+0.7			
	% of nominal	disposable hous	sehold income				
Saving ratio	6.9	7.5	7.3	7.1			
Labor market	Annual chang	e in %					
Payroll employment	+1.1	+1.5	+1.1	+1.0			
Hours worked (payroll employees)	+0.9	+1.3	+0.9	+0.7			
	% of labor su	otoly					
Unemployment rate (Eurostat definition)	5.7	6.0	6.1	6.0			
			0.1	3.0			
Public finances	% of nominal						
Budget balance (Maastricht definition)	-1.2	-1.8	-1.5	-1.1			
Government debt	86.2	84.5	82.8	80.9			

Source: 2015: WIFO, Eurostat, Statistics Austria; 2016 to 2018: OeNB June 2016 outlook.

<sup>&</sup>lt;sup>1</sup> The outlook was drawn up on the basis of seasonally and working day-adjusted national accounts data (trend-cycle component: flash-estimate Q1 16). The data differ, in the method of seasonal adjustment, from the quarterly data series published by Eurostat in fall 2014 following the switch to the ESA 2010. The data published by Eurostat are much more volatile and can in part not be interpreted from an economic perspective. The values for 2015 deviate also from the nonadjusted data released by Statistics Austria.

in labor supply over the entire forecast horizon, reflecting the growing number of recognized asylum seekers and other migrants as well as the rising share of older and female labor force participants. Despite persistently high employment growth, unemployment, will continue to climb in both 2016 and 2017 and only drop slightly in 2018. Owing to the renewed fall in oil prices in early 2016, inflation will continue to ease until mid-2016 before rebounding slowly thereafter. Against this backdrop, average HICP inflation is expected to be 1.0% in 2016 and to climb to 1.9% by 2018. In view of the aforementioned special factors, the general government budget balance will deteriorate to -1.8% of GDP in 2016 and subsequently improve to −1.1% of GDP by 2018. The government debt ratio will shrink to 80.9% of GDP by 2018.

#### 2 Technical assumptions

This forecast is the OeNB's contribution to the June 2016 Eurosystem staff macroeconomic projections. The forecast horizon ranges from the first quarter of 2016 to the fourth quarter of 2018. The cutoff date for all assumptions on the performance of the global economy, interest rates, exchange rates and crude oil prices was May 18, 2016. The OeNB used its macroeconomic quarterly model to prepare these projections, which are based on national accounts data (trend-cycle component, adjusted for seasonal and working-day effects) provided by the Austrian Institute of Economic Research (WIFO). These data differ from the quarterly series published by Eurostat since the changeover to the European System of Accounts (2010) in fall 2014 in that the latter are solely seasonal and working-day adjusted and therefore include an irregular component, which may be highly volatile. Annual growth for

2015, which is calculated on the basis of seasonally-adjusted quarterly data, deviates from the annual growth figure released by Statistics Austria, as the latter is prepared on the basis of nonseasonally-adjusted data. National accounts data were fully available up to the fourth quarter of 2015. The data for the first quarter of 2016 are based on the GDP flash estimate, which does not cover all national accounts aggregates. The short-term interest rates used for the forecast horizon are based on market expectations for the three-month EURIBOR: -0.3% for each of the years 2016 to 2018. Long-term interest rates reflect market expectations for tenyear government bonds, and have been set at 0.5% (2016), 0.7% (2017) and 0.9% (2018). The exchange rate of the euro vis-à-vis the U.S. dollar is assumed to remain at a constant USD/ EUR 1.14. The projected path of crude oil prices is based on futures prices. An oil price of USD 43.4, 49.1 and 51.3 per barrel Brent is assumed for the years 2016 to 2018, respectively. The prices of commodities excluding energy are also based on futures prices over the forecast horizon.

## 3 Forecasts for the global economy downgraded again

The global economic outlook continued to deteriorate in early 2016. While emerging market prospects had deteriorated already in late 2015, the growth forecasts for the major developed economies had to be downgraded as well in early 2016. Persistent geopolitical conflicts such as those in Syria or Ukraine, and the fear of terrorism in Europe, are giving rise to a high degree of uncertainty that is being further heightened by two factors: first, the imminent U.S. presidential election and its outcome and, second, a related possible reorientation in U.S. foreign trade

policy. "Brexit", or the potential withdrawal of the United Kingdom from the EU, also adds to uncertainty. The gradual exit of the U.S.A from its expansionary monetary policies is also inducing global uncertainty particularly as regards future exchange rate developments between the U.S. dollar and the euro or Japanese yen and in respect of further capital outflows from emerging markets. Moreover, the lifting of global economic sanctions against Iran and its resumption of oil exports will weigh on global oil prices, increasing economic pressures on oil-producing countries the economic and political consequences of which are hard to predict. In addition, the transformation of China into a service economy will shift global trade flows and result in further migrations of both production capacity and value chains. Global GDP growth in the fourth quarter of 2015 and in the first quarter of 2016, which continued to lag behind expectations, and the bleaker growth outlook – owing to heightened global uncertainty prompted a downward revision in global GDP growth and global trade. Compared with the December 2015 outlook, global GDP growth is not expected to pick up in 2016, while global export growth is even expected to go down slightly.

The recovery of the *U.S.* economy has been stagnating. Growth was lagging behind expectations in late 2015 and early 2016, reflecting primarily weaker growth in gross fixed capital formation and exports. Growing momentum in housing investment could not offset shrinking investment in both equipment and commercial construc-

tion. The strong U.S. dollar is continuing to dampen export growth.2 Given its poor start to the new year, GDP growth is expected to be more sluggish in 2016 than in 2015 and although it is projected to accelerate in 2017 and 2018 compared with 2016, real GDP growth will remain well below 3%. Japanese GDP growth likewise lags behind the projections of the December 2015 outlook, having contracted in the fourth quarter of 2015 against expecta-Following an unexpectedly strong increase of 0.4% in the first three months of 2016,<sup>3</sup> Japanese output growth is projected to be very weak during the rest of 2016. In 2016 as a whole, real GDP growth will prove to be marginally positive provided that growth in the first quarter of 2016 is confirmed. For 2017 and 2018, the projections indicate only modest GDP growth. Finally, the growth forecasts had to be revised downward also for United Kingdom, for both 2016 and 2017, compared with the December 2015 outlook. In this connection, a potential "Brexit" is casting shadows that are reflected primarily in investment restraint. In sum, the growth outlook for developed economies for 2016 was slashed by 0.6% percentage points, to a mere 1.5%, compared with the assumptions in the OeNB's December 2015 economic outlook.

As for emerging markets, their growth prospects were downgraded by just 0.4 percentage points, to 3.8%. Turmoil in *China's* equity markets gave rise to pronounced pressures to devalue the Chinese renminbi. Serious jitters about China's future economic growth and the resulting impact on the global

Overall, however, the slowdown in growth momentum should be interpreted with caution, as it could be distorted downward due to the insufficient seasonal adjustment of official figures. Similar problems occurred in recent years primarily in the first quarter.

<sup>&</sup>lt;sup>3</sup> Unlike developments in the U.S.A., however, seasonal adjustment is likely to be distorted upward in Japan.

economy were reflected in huge losses on Japanese, U.S. and European stock exchanges. The central bank of the People's Republic of China intervened in favor of the Chinese currency, thereby calming market turmoil. Although growth expectations were cut, they were only lowered to a real GDP growth rate of 6%, i.e. the Chinese economy still appears to be set for a soft landing. By contrast, the economic outlook for India was barely revised, with growth predicted to reach some  $7 \frac{1}{2} \%$  over the forecast horizon. In other words, India's growth advantage over China will widen. In Russia, the recession which commenced in 2015 will continue in 2016 (-1.4%), but a modest upturn in the economy is expected for 2017 and 2018. Thus, the forecast remained almost unchanged on December 2015. By contrast, the recession in *Brazil* is projected to deepen to -3.5% in 2016, rather than -2.1% as anticipated in December 2015, despite the country hosting the Olympic Games this year. The growth outlook for 2017 remains unchanged, however. For Central and Eastern European countries, however, the economic outlook was revised upward. These countries are currently on track to robust growth with annual expansion rates of around 31/2%. Each and every demand component - particularly, private consumption – is sustaining growth in this region.

In the *euro area*, a number of factors fueling growth benefited the economy and will continue to do so. These factors include historically low key interest rates, the Eurosystem's expanded asset purchase program (APP), a further decrease of already low oil and commodity prices and short-term economic impetus from the intake of refugees. While the economic recovery in the euro area gathered momentum in

the first quarter of 2016, with GDP increasing by as much as 0.6% compared with the fourth quarter of 2015, the renewed slump in oil prices again led to negative HICP inflation of -0.2% year on year in both February and April 2016 for the euro area as a whole. As a result, the inflation forecast for 2016 was revised down from 1.0% (Eurosystem staff projections of December 2015) to 0.1% in March 2016 (ECB staff projections). This in turn increased concerns that inflation expectations might drop or become deanchored over the medium to long term. In view of this situation, the ECB adopted additional monetary policy measures to safeguard price stability in March 2016. These measures include a further cut in key interest rates and the decision to expand the monthly purchases under the APP to a volume of EUR 80 billion (from previously EUR 60 billion), to include euro-denominated, investment-grade, euro area (nonbank) corporate bonds in the APP and to conduct a new round of targeted longer-term refinancing operations (TLTROs II). These steps taken by the ECB are intended to increase bank lending to the nonfinancial private sector in order to strengthen the momentum of economic recovery in the euro area and to accelerate the return of inflation to levels below, but close to 2%.

In terms of output growth developments, a long-term stabilization is emerging in the euro area eight years after the outbreak of the financial and economic crisis. Except for Greece, which will continue to struggle with a mild recession in 2016 as in the previous year, all other euro area countries will register positive real GDP growth for a second year in a row. That said, the strength of economic growth differs between the individual euro area countries. The economic output of

Ireland, Malta, Luxembourg, Slovakia and Spain is currently growing at an above-average rate. As before, unresolved structural problems are curbing GDP growth in Finland and Italy. In France and Belgium, economic recovery is suffering from the repercussions of the terrorist attacks, which are reflected in lower consumer spending

owing to two factors: first, restrained investment demand (postponed investment plans due to heightened uncertainty) and, second, less revenue from tourism for both Paris and Brussels. Finally, Finland as well as the Baltic states are suffering from the protracted recession in Russia and the EU's export sanctions against Russia.

				Table 2
Underlying global economic conditions				
	2015	2016	2017	2018
Gross domestic product	Annual chang	e in % (real)		
World excluding the euro area U.S.A.	+3.1 +2.4	+3.1 +1.9	+3.7 +2.5	+3.8 +2.3
Japan Asia excluding Japan	+0.5 +6.0	-0.1 +5.9	+0.4 +5.9	+0.4 +5.9
Latin America United Kingdom CESEE EU Member States¹ Switzerland	-0.2 +2.3 +3.5 +0.9	+0.2 +2.0 +3.4 +1.2	+2.2 +2.2 +3.2 +1.6	+2.8 +2.3 +3.1 +1.8
Euro area <sup>2</sup>	+1.6	+1.6	+1.7	+1.7
World trade (imports of goods and services) World World excluding the euro area Growth of euro area export markets (real) Growth of Austrian export markets (real)	+1.9 +0.7 +0.6 +3.3	+2.5 +1.8 +2.0 +3.1	+4.0 +3.5 +3.5 +4.2	+4.3 +4.0 +4.0 +4.5
Prices	Price level			
Oil price in USD/barrel (Brent) Three-month interest rate in % Long-term interest rate in % USD/EUR exchange rate Nominal effective exchange rate (euro area index)	52.4 0.0 0.7 1.11 92.34	43.4 -0.3 0.5 1.13 94.98	49.1 -0.3 0.7 1.14 95.31	51.3 -0.3 0.9 1.14 95.31
Source: Eurosystem. <sup>1</sup> Bulgaria, Croatia, Czech Republic, Hungary, Poland and Romania. <sup>2</sup> 2016 to 2018: Results of the Eurosystem's June 2016 projections.				

## 4 Austria: Growth in 2016 driven by domestic demand

## 4.1 Special factors supporting increase in private consumption

In Austria, real disposable household income shrank in five out of the seven previous years, falling by 2.1% between 2012 and 2015 alone. Real private consumption grew by 0.3% in this period – albeit accompanied by a fall in the saving ratio from 9.2% to 6.9%.

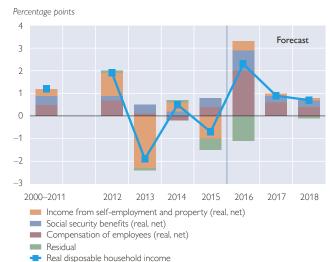
The weakness of consumer demand and the underlying slowdown in real disposable income growth were caused by a confluence of factors. First, inflation was relatively high compared with the business cycle. Second, robust employment growth in per-capita terms masks the creation of many part-time jobs. Third, the employment of Austrian nationals fell from end-2012 to mid-2015. Buoyant growth in employment was

#### **Private consumption**

### Disposable household income, private consumption and saving ratio

#### Annual change in % % of disposable household income 9.0 **Forecast** 3 8.5 8.0 7.5 7.3 7.0 6.9 6.5 60 2013 2014 2015 2017 2018 Private consumption (left-hand scale) Real disposable household income (left-hand scale) Saving rate (right-hand scale) Source: WIFO, Statistics Austria, OeNB June 2016 outlook.

#### Contributions to growth of real disposable household income



Note: The residual results from statistical discrepancies in the national accounts flash estimate. Details in Fenz, G. and M. Schneider. 2015. Austrian economy to grow at same pace as euro area economy in 2016 and 2017. In: Monetary Policy & the Economy Q4 15. OeNB. 17.

driven solely by foreign labor, which comprises a significant share of commuters whose consumer propensity in Austria is marginal.

Owing to continued robust employment growth, which has been increasingly based on domestic employees working full time, and to higher wage settlements for 2018, nominal compensation of employees will grow robustly over the forecast horizon. Investment income and mixed income accruing to self-employed households will continue to make positive contributions to growth in household income in line with the economic cycle. Yet above all the expected steep rise in nominal disposable household income will be driven by two domestic special effects. First, the income tax reform that took effect in early 2016 offers significant tax relief for households and, second, public expenditure on asylum seekers and recognized refugees is sustaining nominal household income (both directly via the income of both refugees and persons active in refugee care provision in Austria such as additional teaching staff, and indirectly via macroeconomic multiplier effects).

In addition to these special effects, relatively low inflation will favor growth in real disposable household income in 2016, which will increase at a faster-than-average rate of 2.3%. Fairly robust growth in real disposable household income of almost 1% is also anticipated for both 2017 and 2018. The saving ratio, which has long exhibited a falling trend, is expected to increase temporarily in 2016 since people are going to save some of the additional income generated by the tax reform. In 2017 and 2018, however, the savings ratio is expected to resume its decline. Private consumption will nevertheless soar in 2016 and make a significant contribution to GDP growth in all three years of the forecast period. With annual growth of 1.3% (2016), 1.1%

(2017) and 0.9% (2018), growth in real private consumption is likely to well exceed the levels seen in recent years.<sup>4</sup>

## 4.2 Investment growth in 2016 sustained by investment in equipment

Growth in gross fixed capital formation was very sluggish at 0.3% in 2015 as a whole, but the intrayear momentum was promising: On a quarterly basis, gross fixed capital formation has been advancing since the first quarter of 2015. Growth has been sustained primarily by investment in equipment. In a more detailed analysis, we find growth in investment in "information and communications technology" and

"other machines" to have picked up as early as 2014, while growth in investment in the "vehicles segment" was back in positive territory in early 2015. By the first quarter of 2016, growth in all three segments for the first time exceeded the levels of quarterly growth prevailing in the first quarter of 2008 (prior to the outbreak of the economic crisis). In 2016 as a whole, investment in equipment stands to grow by as much as 3.9%. By contrast, positive growth stimuli from housing and civil engineering investment were absent in 2015. While the persistent stagnation in civil engineering does not come as a surprise, since it is largely financed via the public sector and hence suffers from

Table 3

## Determinants of Austrian households' nominal income and development of private consumption in Austria

	2015	2016	2017	2018	
	Annual change in %				
Payroll employment Wages and salaries per employee Compensation of employees Property income Self-employment income and operating surpluses (net)	+1.1 +1.6 +2.7 +0.2 -0.5	+1.5 +1.3 +2.8 +1.3 +2.7	+1.1 +1.5 +2.6 +2.4 +2.5	+1.0 +2.0 +3.0 +2.8 +2.8	
	Contribution to households' disposable income in percentage points				
Compensation of employees Property income Self-employment income and operating surpluses (net) Net transfers less direct taxes¹	+2.2 +0.0 -0.1 -1.4	+2.4 +0.2 +0.4 +1.8	+2.2 +0.3 +0.4 -0.1	+2.6 +0.3 +0.5 -0.6	
	Annual chang	e in %			
Disposable household income (nominal) Consumption deflator Disposable household income (real) Private consumption (real)	+0.4 +1.1 -0.7 +0.3	+3.6 +1.2 +2.3 +1.3	+2.8 +1.8 +0.9 +1.1	+2.6 +1.9 +0.7 +0.9	
	% of nominal	disposable hous	ehold income		
Saving ratio	6.9	7.5	7.3	7.1	
	% of nominal	GDP			
Consumption ratio	53.2	52.8	52.7	52.4	

Source: 2015: WIFO. Statistics Austria; 2016 to 2018: OeNB June 2016 outlook.

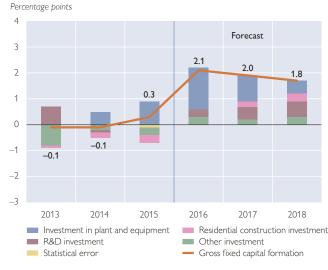
<sup>&</sup>lt;sup>1</sup> Negative figures indicate an increase in (negative) net transfers less direct taxes. while positive figures indicate a decrease.

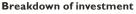
 $<sup>^4</sup>$  Average annual growth in real private consumption was a mere 0.2% in the period from 2012 to 2015.

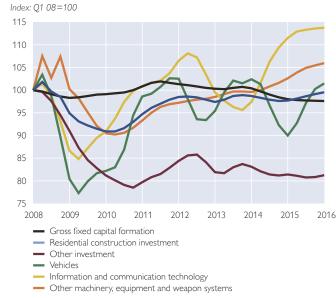
Chart 3



#### Contributions to investment growth







Source: WIFO, OeNB June 2016 outlook.

the saving efforts made at all levels of government, the continued slump in housing investment is hard to explain. A high demand for accommodation, related steep increases in property prices and — in historical terms — extremely favorable refinancing conditions would have suggested significant growth in housing investment.

According to the OeNB's June 2016 outlook, investment growth will be determined by a different momentum in investment in equipment and construction investment. Growth in investment in equipment is set to decline, from 3.9% (2016) to 1.7% (2018). Given accelerating growth, improving leading indicators for investment, high levels of corporate financial assets and favorable external financing conditions, this is in fact rather a cautious forecast. Yet, the cautious forecast reflects the disproportionately low growth rate recorded for investment over the previous three

years, which was not fully in line with fundamentals: Investment growth was distorted by negative sentiment, which is expected to subside only gradually over the forecast horizon. Running counter to the trend in investment in equipment, housing investment growth is likely to pick up over the forecast horizon. The housing initiative adopted by the government should have an impact over the next years, thus adding further impetus to growth. However, the exact timing of the trend reversal in housing investment growth is hard to estimate due to the lengthy housing investment cycle, which means this forecast for housing investment entails a high degree of uncertainty. All things considered, the investment cycle looks very modest with annual growth ranging between 2.1% (2016) and 1.8% (2018). The investment ratio will remain constant at around 22%.

Source: WIFO.

				Table 4	
Investment activity in Austria					
	2015	2016	2017	2018	
	Annual chan	ge in %			
Total gross fixed capital formation (real)	+0.3	+2.1	+2.0	+1.8	
of which: investment in plant and equipment residential construction investment nonresidential construction investment and other investment investment in research and development	+2.7 -1.6 -1.1 +0.2	+3.9 +0.0 +1.1 +1.6	+3.1 +0.9 +0.8 +2.4	+1.7 +1.8 +1.3 +2.8	
public sector investment private sector investment	+2.4 +0.0	+1.3 +2.3	+1.2 +2.2	+0.8 +2.0	
	Contribution to the growth of gross fixed capital formation in percentage points				
Investment in plant and equipment Residential construction investment Nonresidential construction investment and other investment Investment in research and development	+0.9 -0.3 -0.3 +0.0	+1.4 +0.0 +0.3 +0.3	+1.1 +0.2 +0.2 +0.5	+0.6 +0.3 +0.3 +0.6	
Public sector investment Private sector investment	+0.3 +0.0	+0.2 +2.0	+0.2 +1.9	+0.1 +1.7	
	Contribution to real GDP growth in percentage p				
Total gross fixed capital formation Changes in inventories	+0.1 +0.0	+0.5 +0.4	+0.5 +0.0	+0.4 +0.0	
	% of nomina	I GDP			
Investment ratio	22.2	22.1	22.2	22.3	

#### 4.3 Growth in goods exports strengthens export performance

Source: 2015: WIFO; 2016 to 2018: OeNB June 2016 outlook

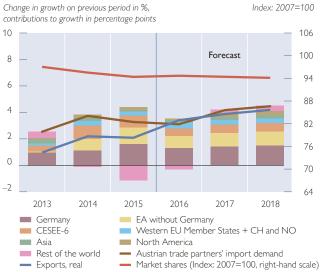
After fairly low average growth in total real exports in both 2012 and 2013 (1.3%), average export growth steadily accelerated to 2.1% in 2014 and 2015. Driven by goods exports, export growth gathered even more momentum in the course of 2015, which will continue in 2016 and 2017. Accordingly in these years, average growth in total real exports will accelerate to 3.6%. In 2018, export growth will reach 4.2%. These figures imply a strong recovery compared with recent years, while suggesting a rather subdued recovery compared with the latest economic boom in the period from 2004 to 2007 when average annual growth was 7.5% in real terms.

Faster growth rates are unlikely because of the moderate growth outlook of Austria's trading partners. Switzerland, the United Kingdom and France were Austria's only trading partners whose import forecasts - and thus demand for Austrian exports - were revised up compared with the December 2015 outlook. The import demand of other major Austrian export markets and thus the sales prospects of Austrian exports to these markets have deteriorated. The bleaker outlooks Germany, the U.S.A, Romania, Russia, Brazil and China will particularly dampen demand for Austrian goods in 2016, and the outlook for Germany will continue to do the same in 2017. The trend in Austrian exports to Europe regaining momentum – identifiable for the past several months in external trade statistics — is expected to continue in both 2016 and 2017.

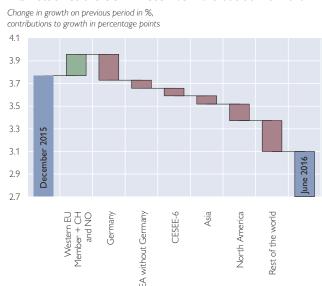
Chart 4

**Exports** 

#### Export growth and external demand



#### Revisions of contributions to growth of Austrian export markets since the OeNB December 2015 outlook for 2016



Source: ECB, OeNB (presentation and calculation).

Note: EA=euro area.

Following a loss of price competitiveness accompanied by a loss of export market shares in recent years, Austria will regain some market shares in 2016. However, the slight gains of market shares will be primarily a consequence of robust export growth at the end of 2015 exceeding import growth on Austrian export markets. Renewed minor losses in market shares are anticipated for both 2017 and 2018. Austrian exporters are increasingly affected by competition from East European suppliers within European production chains: a phenomenon that has been evident these past few years due to losses in market shares of core segments of Austrian industry (metal goods and vehicles) in Germany, Austria's most important sales market.

The current account surplus narrowed to 1.5% in 2012, the lowest level seen since 2001. It has since improved steadily, reaching an estimated surplus of 2.6% of GDP in 2015. This steady improvement is attributable to several factors. First, the goods balance has been strengthening considerably, reflecting above all the trend in crude oil prices, which made energy imports cheaper. The goods balance stood at 0.8% of GDP in 2015 – its highest level since 2007. Excellent growth in tourism is strongly driving the improvement in the services balance, amid lackluster growth in business-related services. In line with the projected pick-up in export growth, the current account surplus will gradually continue to widen until 2018.

Growth and price developments in Austria	a's foreign	trade				
	2015	2016	2017	2018		
Exports	Annual chang	e in %				
Competitor prices in Austria's export markets Export deflator Changes in price competitiveness Import demand on Austria's export markets (real) Austrian exports of goods and services (real) Austrian market share	+2.1 +1.0 +1.1 +3.3 +2.1 -1.2	-2.6 +0.4 -2.9 +3.1 +3.4 +0.3	+2.1 +1.6 +0.5 +4.2 +3.9	+2.0 +1.8 +0.1 +4.5 +4.2 -0.3		
Austrian market snare Imports	-1.2	+0.3	-0.3	-0.3		
International competitor prices on the Austrian market Import deflator Austrian imports of goods and services (real)	+2.4 -0.4 +2.2	-2.0 -0.8 +4.3	+1.6 +1.6 +3.6	+1.6 +1.7 +3.9		
Terms of trade	+1.4	+1.2	+0.0	+0.2		
	Percentage po	oints of real GDI	D			
Contribution of net exports to GDP growth	+0.0	-0.3	+0.3	+0.3		
	% of nominal GDP					
Export ratio Import ratio	53.8 49.3	54.1 49.4	55.3 50.4	56.8 51.5		

Table 6

#### Austria's current account

Source: 2015: WIFO. Eurosystem; 2016 to 2018: OeNB June 2016 outlook

	2015	2016	2017	2018
	% of nominal GDF			•
Balance of trade Balance of goods Balance of services	4.2	4.4	4.6	5.0
	0.8	1.1	1.2	1.4
	3.5	3.3	3.4	3.6
Balance of primary income	-0.6	-0.6	-0.6	-0.6
Balance of secondary income	-1.0	-1.0	-1.0	-1.0
Current account	2.6	2.8	3.1	3.4

Source: 2015: OeNB; 2016 to 2018: OeNB June 2016 outlook.

Box 1

#### Development of public finances from 2015 to 2018<sup>1</sup>

In 2015, the general government balance rose by some  $1\frac{1}{2}$  percentage points to -1.2% of GDP, reflecting above all a reduction in capital transfers from 1.6% of GDP (reorganization of Hypo Alpe Adria Bank) to 0.5% of GDP (especially the repeal of the Act on Restructuring Measures for Hypo Alpe Adria Bank) under the bank rescue package. In addition, public finances benefited from relatively robust revenue growth, which was also supported by announcement effects with a view to tax increases in 2016 (particularly, in respect of the income tax on dividends). According to the European Commission, Austria "exceeded" its medium-term budgetary target of a structural balance of -0.45% of GDP in 2015. However, the government debt ratio rose to just above 86% of GDP owing to various different deficit-neutral events in connection with bank restructurings (transfer of assets of Kommunalkredit Austria to "bad bank" KA Finanz AG, reclassification of newly founded immigon portfolioabbau ag under the public sector, advance payments by the government to Bavaria).

<sup>&</sup>lt;sup>1</sup> Prepared by Lukas Reiss, Economic Analysis Division, lukas.reiss@oenb.at.

For 2016, the budget balance is expected to deteriorate significantly to some -1.8% on the back of the tax reform, in particular.<sup>2</sup> In addition, expenditure related to refugee migration will rise in 2016 — albeit less steeply than projected in the OeNB's December 2015 outlook, as the figures have been realigned with the maximum intake of asylum applications announced by the government. At the same time, the further decline in interest payments and capital transfers to banks (and their creditors) will have a positive impact on the budget balance.

For 2017 and 2018, a neutral fiscal policy stance is anticipated, as no major new consolidation measures are forthcoming and as some minor reform measures (payroll tax cuts, etc.) will start to deliver. Thanks to a further drop in interest payments and to growing revenues on the back of the economy's recovery, the nominal budget balance is expected to continue improving.

The government debt ratio will start to shrink in 2016 and is expected to fall to some 81% of GDP by the end of the forecast horizon, reflecting fairly low budget deficits and relatively high nominal GDP growth as well as asset disposals by the "bad banks" immigon and KA Finanz AG. As regards HETA Asset Resolution AG, however, its debt is expected to be constant over the forecast horizon. A debt restructuring plan accepted by creditors would reduce the debt significantly (among other things, via a possible reduction in HETA's currently large cash inventories).

<sup>2</sup> According to ESCB rules, measures to combat tax and social security fraud were not included in the main scenario of the OeNB's projections. Furthermore, the announcement effects for investment income tax from 2015 will cease in 2016.

## 5 Unemployment to rise further in 2016 and 2017

In 2015, total employment continued to climb as in previous years despite the weakness of the economy. The number of employed persons grew by 0.7%, and the number of hours worked increased by 0.4%. Employment growth for payroll employees was even more striking. Their number rose by 1.1% and that of their hours worked by 0.9%. The difference between both employment parameters primarily reflects a further increase in the share of parttime employees, which reached a record historical high of 28.2% in 2015.5

Employment will continue to rise (payroll employees: 1.5%, hours worked: 1.3%), given the buoyant economic recovery anticipated in 2016. Healthy employment data and the fast-growing number of job vacancies in the first quarter of 2016 confirm this assessment. Additional jobs will also be created in 2017 (1.1%) and 2018 (1.0%). Total work in terms of hours worked will increase significantly, albeit at a slower pace (2017: +0.9%; 2018: +0.7%).

Labor supply will continue to expand markedly over the forecast horizon (chart 5<sup>6</sup>) for a number of reasons.

<sup>&</sup>lt;sup>5</sup> The share of male part-time employees stood at 9.8% and the female share at 47.8% (Statistics Austria). Both male and female shares have risen in 2015. In 2004, the share of (both male and female) part-time payroll employees stood at 20.5% (Statistics Austria; comparisons going back further in time are not feasible owing to a change in data collection).

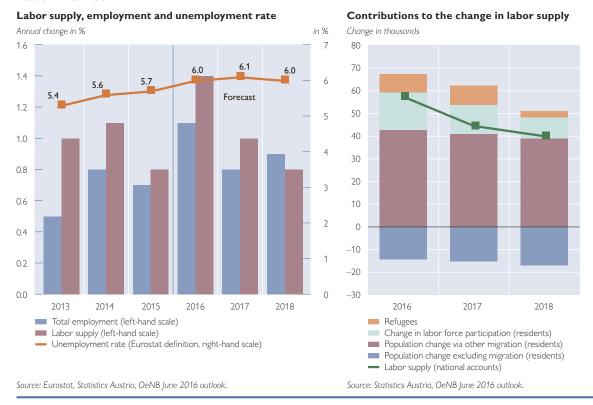
The dark blue and red bar in the right-hand figure of chart 5 represent the population forecast by Statistics Austria of November 2015 and the extrapolated employment rates according to the Austrian microcensus, respectively. The dark blue bar represents the forecast variant "excluding migration" and therefore indicates how the resident population would develop in the absence of migration. The red bars show the main variant of the population forecast that includes migration (but excludes refugees). The light blue bars stand for the impact of employment growth for a given population. The impact on the labor supply by persons having the right of asylum (represented by the orange bars) is based on the OeNB's own calculations.

First, net "traditional" migration of foreign labor is set to continue, attracting above all some 40,000 additional workers per year from the "new" EU Member States, to whom the Austrian labor market was opened up in 2011 and 2014. Second, the labor supply will be boosted by the higher employment rate of older workers, which is rising on the back of previous pension reforms, and as well as by the growing number of female labor force participants. This effect will initially amount to well over 10,000 employees per year but will then weaken somewhat in 2017 and 2018. Third, persons granted the right to asylum in Austria will also add to the

labor supply.7 Their number is assumed to be somewhat less than 10,000 persons per year for 2016/17, which is well below the number of employed and registered unemployed persons granted asylum who receive a means-tested minimum income. The comparatively low number of the latter group can be attributed to the fact that the unemployment statistics are based on the Eurostat definition of unemployment, as required. Accordingly, labor supply is also calculated in line with Eurostat definitions and is based on the expected results of the household surveys carried out by the Austrian microcensus. The extent to which and the time from

Chart 5

#### **Labor market**



The December 2015 forecast projected 80,000, 85,000 and 50,000 asylum seekers for 2015, 2016 and 2017, respectively. The number of asylum seekers was underestimated for 2015 (approximately 88,000). For the years 2016 to 2018, the OeNB's June 2016 economic outlook bases its projections of asylum seeker numbers on the maximum intake of new asylum applications announced by the government (2016: 37,500; 2017: 35,000 and 2018: 30,000).

I	а	b	le	/

Labor market development in Austria						
	2015	2016	2017	2018		
	Annual change in S	%				
Total employment (no. of people) Payroll employees of which: Public sector employees Self-employed	+0.7 +1.1 +0.0 -1.9	+1.1 +1.5 +0.4 -1.4	+0.8 +1.1 +0.2 -0.8	+0.9 +1.0 -0.1 -0.3		
<b>Total hours worked</b> of which: Payroll employees Self-employed	+0.4 +0.9 -2.1	+0.7 +1.3 -1.6	+0.5 +0.9 -1.1	+0.5 +0.7 -0.5		
Labor supply Registered unemployed	+0.8 +3.0	+1.4 +3.7	+1.0 +3.3	+0.8 +0.9		
	% of labor supply					
Unemployment rate (Eurostat definition)	5.7	6.0	6.1	6.0		

when recognized asylum seekers are officially covered by the Austrian microcensus is subject a high degree of uncertainty. At all events, however, significant lag effects and distortions to

the downside can be expected.8

Source: 2015: WIFO, Statistics Austria: 2016 to 2018: OeNB lune 2016 outlook

By contrast, the demographic trend in Austria's domestic population over the forecast horizon as a whole will dampen labor supply growth. Excluding migrations and with the given propensity for gainful employment, labor supply would contract annually by between 10,000 and 20,000 persons.

Although the recovery of the Austrian economy is gaining considerable momentum, unemployment will continue to rise in 2016 to 6.0%, owing to healthy labor supply growth, in particular. Unemployment will also keep growing in 2017 (6.1%) before falling back to its 2016 level in 2018 (6.0%).

# 6 External and domestic costs factors to accelerate Austrian inflation from 1.0% in 2016 to 1.9% in 2018

Inflation as measured by the Harmonized Index of Consumer Prices (HICP) has fallen from 1.4% to 0.6% (April) since early 2016. This phenomenon is attributable to several developments. First, a fall in energy costs (primarily, fuel and heating oil); second, a significant price downtrend in nonenergy industrial goods (primarily, clothing) in March and April 2016; and, third, slowing price growth for services since early 2016. Core inflation (excluding energy and unprocessed food) eased from 2.1% in January 2016 to 1.4% in April 2016.

HICP inflation will tick up from 0.8% (2015) to 1.0% (2016), 1.7% (2017) and 1.9% (2018) over the forecast horizon. Until July 2016, however, headline inflation is expected to trend

The national unemployment rate is based on data provided by Public Employment Service Austria. The rise in the national unemployment rate (not included in the OeNB's June 2016 economic outlook) will in any case be much higher than the rise in the unemployment rate as defined by Eurostat.

Table 8

Price, cost, productivity and prof	Price, cost, productivity and profit indicators for Austria					
	2015	2016	2017	2018		
	Annual change in	%		'		
Harmonised Index of Consumer Prices (HICP) HICP energy HICP excluding energy	+0.8 -7.5 +1.7	+1.0 -6.0 +1.6	+1.7 +1.6 +1.7	+1.9 +1.6 +1.9		
Private consumption expenditure deflator Investment deflator Import deflator Export deflator Terms of trade GDP deflator at factor cost	+1.1 +0.9 -0.4 +1.0 +1.4 +1.6	+1.2 +0.9 -0.8 +0.4 +1.2 +1.8	+1.8 +1.6 +1.6 +1.6 +0.0 +1.7	+1.9 +1.9 +1.7 +1.8 +0.2 +1.8		
Collective wage and salary settlements Compensation per employee Hourly compensation per employee Labor productivity per employee Labor productivity per hour Unit labor costs	+2.2 +1.6 +1.8 +0.1 +0.4 +1.5	+1.6 +1.3 +1.5 +0.5 +0.9 +0.8	+1.7 +1.5 +1.7 +0.7 +1.0 +0.9	+2.2 +2.0 +2.3 +0.6 +0.9 +1.4		
Profit margins <sup>1</sup>	+0.1	+1.0	+0.9	+0.5		

Source: 2015: WIFO, Statistics Austria; 2016 to 2018: OeNB June 2016 outlook.

down since prices in the energy sector will slump substantially during these months compared with 2015. From August 2016, inflation – driven by commodity price increases for energy and metals - will accelerate considerably. On the demand side, inflation will be driven primarily by nonenergy industrial goods. The rise in inflation over the remaining forecast horizon is attributable to both external and domestic factors. Both import prices of commodities (primarily, energy) and prices of imported goods are trending up. Domestic factors for the uptrend in inflation are the hike in VAT under the tax reforms that took effect in 20169 and buoyant consumption growth compared with previous years. Although the output gap will not close over the forecast horizon, it will be narrower than in 2015 (-0.7%) at -0.3% to -0.2% (2016–2018), which means the resulting price-dampening effect will

become increasingly less significant. At 1.7%, core inflation (excluding energy) already well exceeded headline HICP inflation in 2015. It will exhibit a flat inflationary trend at 1.6% in 2016 and at 1.7% in 2017 and only rise to 1.9% in 2018.

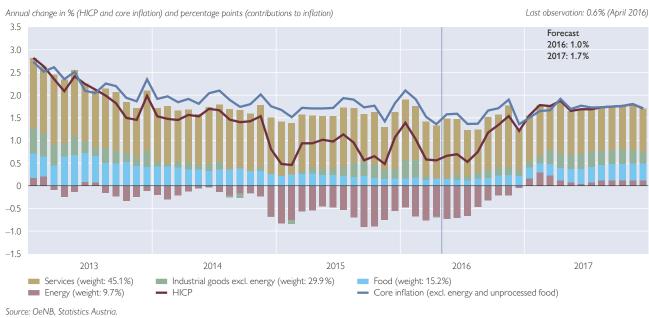
Low inflation of 0.8% in 2015 was a key criterion in the wage settlements for 2016 that have been concluded to date (e.g. public sector: +1.3%, trade and metal workers: +1.5%). These figures imply an increase in collectively bargained wages of 1.5%, which means growth in wage settlements will be much lower than in 2015 (2.2%). In view of low inflation in 2016 and rising unemployment, only a modest uptick in inflation to 1.7% is expected for 2017. Although the wage drift, which reflects not only sectoral shifts in employment to low wage sectors and a growing share of part-time employees but also the position in the economic cycle, will

<sup>&</sup>lt;sup>1</sup> GDP deflator divided by unit labor costs.

<sup>&</sup>lt;sup>9</sup> The increase in VAT on accommodation services was introduced in May 2016.

Chart 6





remain negative for the forecast horizon as a whole, it will become weaker due to relatively more robust GDP growth compared with the previous years. Gross compensation per employee will therefore increase in nominal terms by 1.3% (2016), 1.5% (2017)

and 2.0% (2018). In real terms, this corresponds to near stagnation in both 2016 and 2018 (0.1% respectively) and to a slight decline in 2017 (-0.3%). However, when adjusted for the impact of the tax reform, the net result for 2016 is actually a sharp rise. In real

T	h		a
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Compensation of employees				
	2015	2016	2017	2018
	Annual change i	n %	1	1
Gross wages and salaries <sup>1</sup>				
In nominal terms  Consumption deflator In real terms	+2.7 +1.1 +1.6	+1.2	+2.6 +1.8 +0.8	+3.0 +1.9 +1.1
Per person employed (nominal)				
Collectively agreed wages and salaries <sup>1</sup> Wage drift Compensation of employees <sup>2</sup> Per person employed (real)	+2.2 -0.6 +1.6 +0.5	-0.3 +1.3	+1.7 -0.2 +1.5 -0.3	+2.2 -0.2 +2.0 +0.1
Per hour (gross, nominal) Per hour (gross, real)	+1.8 +0.7		+1.7 -0.1	+2.3 +0.3
	% of nominal GL	OP .		
Wage ratio	48.4	48.2	47.9	47.8

Source: 2015: WIFO, Statistics Austria; 2016 to 2018: OeNB June 2016 outlook.

<sup>&</sup>lt;sup>1</sup> Overall economy.

<sup>&</sup>lt;sup>2</sup> Including employers' social security contributions.

terms, compensation per employee after taxes will climb by 2.7%. A smaller increase is expected for 2017 (0.1%). Per capita net wages will edge down slightly in 2018 (-0.2%).

Austrian HICP inflation stood at 0.8% in 2015 as a whole, which was well below its level in 2014 (1.5%). However, this means it also remained well above inflation in the euro area (0.0%) and in Germany (0.1%) in 2015. This gap is primarily a result of price increases in Austria's services sector and hikes in administered prices. Although these inflation differentials will gradually narrow over the remaining forecast horizon, they will continue to subsist until 2018, albeit to a smaller extent.

#### 7 Risks to growth are neutral

In 2016 and 2017, the primary domestic downside risk to the Austrian economy stems from the impact of the tax reform that came into force in early 2016. According to ESCB rules for fiscal projections, some of the compensatory measures designed to finance the tax reform (in particular, administrative savings and measures to combat tax and social security fraud) must not be taken into account in computing the economic outlook. If the tax measures should turn out to be fully effective, GDP growth would be more than 0.2 percentage points weaker in 2016. According to the OeNB's June 2016 economic outlook, the tax reform will also have specific repercussions on the saving behavior of private households. Specifically, the tax reform was assumed to temporarily drive up the saving ratio in 2016 – contrary to its longer-term downtrend - through a rise in household income triggered by wage and income tax cuts. The risks to this development are considered to be neutral, however. Investment, by contrast, is subject to two major risk factors. The investment in equipment cycle is expected to come to a gradual end over the forecast horizon. Although the strength of this cycle dovetails with both historical experience and the fact that investment in equipment leads the business cycle, a more pronounced cycle would have been expected owing to the protracted sluggishness and now broad-based recovery of the economy, as a result of which the forecast entails an "upside risk". The development of housing investment is subject to major uncertainties. Property price increases regained significant momentum during 2015, demand for accommodation continues to remain high and the housing initiative should have an impact in the forecast period. All these signs suggest the possibility of a stronger housing investment cycle.

The external risks to this forecast continue to point to the downside. The still unresolved conflicts in the Middle East and in North Africa are having a direct impact on Europe. The risks are twofold: first, the danger of terrorist attacks and, second, the risk of refugees coming to Europe. The risk of growth momentum in China slowing more rapidly would not only affect the closely related emerging markets in Asia but also have a direct impact on the world economy. By contrast, the risks arising from a sudden increase in the U.S. key interest rate have decreased after the weaker than expected U.S. economy reduced the number of anticipated hikes in the key interest rate, thereby mitigating the fallout on emerging economies. Although the potential exit of the United Kingdom from the EU depending on the outcome of the June 2016 referendum represents a downside risk in the short term, its direct impact on Austria is considered to be minimal.

#### 8 GDP revised down on December 2015 outlook

The underlying assumptions on the international environment have changed to some extent since December 2015. In nominal terms, crude oil prices are even lower than they were in December 2015. The projected market price of crude went down by USD 8.8 per barrel Brent for 2016, and by USD 8.4 for 2017. Short-term interest rates continued to fall slightly in the wake of monetary policy measures in December 2015 and March 2016 (by 10 basis points for 2016 and by 20 basis points 2017). Long-term interest rates specific to Austria went down by 50 basis points (2016) and 60 basis points (2017). The nominal effective exchange rates in export markets deteriorated by 1.6 percentage points for 2016, while remaining unchanged on the December 2015

forecast for 2017. In real terms, however, the weaker development of the world economy – particularly, that of global trade – also dampens domestic growth. Austrian export markets are now expected to expand more slowly, by 0.7 percentage points in 2016 and by and 0.4 percentage points in 2017. Compared with the December 2015 outlook, competitor prices in Austrian export markets dropped visibly (by 3.4 percentage points) for 2016, while remaining almost unchanged for 2017 (–0.1 percentage point).

The effects of the revised external assumptions were simulated using the OeNB's macroeconomic model. Table 11 lists the reasons for revising the outlook in detail. Apart from the impact of changed external assumptions, they are attributable to the impact of new data and to a residual. The influence of "new

Table 10

#### Change in the external economic conditions since the December 2015 outlook

	June 201	6		Dec. 2015		Difference		
	2016	2017	2018	2016	2017	2016	2017	
	Annual c	hange in %		'	'			
Growth of Austria's export markets Competitor prices on Austria's export markets Competitor prices on Austria's import markets	+3.1	+4.2	+4.5	+3.8	+4.6	-0.7	-0.4	
	-2.6	+2.1	+2.0	+0.8	+2.2	-3.4	-0.1	
	-2.0	+1.6	+1.6	+0.8	+1.9	-2.8	-0.3	
	USD per	barrel (Br	ent)					
Oil price	43.4	49.1	51.3	52.2	57.5	-8.8	-8.4	
	Annual change in %							
Nominal effective exchange rate (exports)  Nominal effective exchange rate (imports)	-1.8 -1.1	+0.0 -0.1	+0.0 +0.0	-0.2 -0.1	+0.0 +0.0	−1.6 −1.0	+0.0 -0.1	
	%							
Three-month interest rate Long-term interest rate	-0.3 0.5	-0.3 0.7	-0.3 0.9	-0.2 1.0	-0.1 1.3	-0.1 -0.5	-0.2 -0.6	
	Annual c	hange in %	<u> </u>					
U.S. GDP (real)	+1.9	+2.5	+2.3	+2.7	+2.6	-0.8	-0.1	
	USD/EU	R						
USD/EUR exchange rate	1.13	1.14	1.14	1.09	1.09	+0.04	+0.05	
Source: Eurosystem.								

data" includes the effects of the revisions of both the historical data already available at the time of the previous economic outlook (i.e. data up to the third quarter of 2015) and the forecasting errors of the previous outlook for the periods now published for the first time (i.e. data for the fourth quarter of 2015 and the first quarter of 2016). The residual includes revised expert judgments about the development of domestic variables, such as government consumption or wage settlements, as well as any changes to the model.

Compared with the December 2015 outlook, the growth prospects have been revised down by 0.3 percentage points for both for 2016 and 2017. The changes to the external economic environment would result in a downward mechanical revision of GDP growth by 0.1 percentage point for

2016, and 0.2 percentage points for 2017. The revision of historical data and the forecasting error of the previous outlook for quarterly periods now published for the first time require a modest downward revision for 2016. The assumptions about the number of asylum applications for the period from 2016 to 2018 were corrected downward compared with the December 2015 outlook. As a result, additional public expenditure is lower and positive multiplier effects on GDP growth are correspondingly smaller than assumed in the December 2015 outlook. Finally, the delay of the housing initiative announced by the Federal government also signifies a slight downward revision for 2016. The downward revision of inflation in 2016 essentially reflects lower energy prices.

Table 11

Breakdown of revisions to the OeNE	outlook									
	BIP		HVPI							
	2016	2017	2016	2017						
	Annual change in %									
Outlook of June 2016 Outlook of December 2015 Difference	+1.6 +1.9 -0.3	+1.5 +1.8 -0.3	+1.0 +1.3 -0.3	+1.7 +1.7 +0.0						
Caused by:	Percentage points									
External assumptions  New data <sup>1</sup> of which: revisions to historical data up to Q3 15  projection errors for Q4 15 and Q1 16	-0.1 -0.1 +0.0 -0.1	-0.2 × x	-0.2 -0.1 +0.0 -0.1	+0.0 +0.0 +0.0 +0.0						
Other changes <sup>2</sup>	-0.2	-0.1	+0.0	+0.0						

Source: OeNB outlooks of June 2016 and December 2015.

Note: Due to rounding, the sum of growth contributions subject to individual revisions may differ from the total revision

<sup>1 &</sup>quot;New data" refer to data on GDP and/or inflation that have become available since the publication of the preceding OeNB outlook.

<sup>&</sup>lt;sup>2</sup> Different assumptions with respect to trends in domestic variables such as wages and salaries, government consumption, effects of tax measures, other changes in assessments and model changes.

Table 12

	Actual figures	Outlook of	June 2016		Difference December outlook	
	2015	2016	2017	2018	2016	2017
Economic activity	Annual change	in % (real)		,		
Gross domestic product (GDP) Private consumption Government consumption Gross fixed capital formation Exports of goods and services Imports of goods and services	+0.8 +0.3 +1.3 +0.3 +2.1 +2.2	+1.6 +1.3 +1.4 +2.1 +3.4 +4.3	+1.5 +1.1 +1.0 +2.0 +3.9 +3.6	+1.5 +0.9 +1.1 +1.8 +4.2 +3.9	-0.3 -0.5 +0.5 +0.4 -1.4 -0.4	-0.3 -0.5 -0.1 -0.6 -0.9 -1.5
	% of nominal Gl	OP .				
Current account balance	+2.6	+2.8	+3.1	+3.4	+0.0	+0.0
Contribution to real GDP growth	Percentage poin	ts				
Private consumption Government consumption Gross fixed capital formation Domestic demand (excl. changes in inventories) Net exports Changes in inventories (incl. statistical discrepancies)	+0.1 +0.3 +0.1 +0.5 +0.0 +0.3	+0.7 +0.3 +0.5 +1.4 -0.3 +0.4	+0.6 +0.2 +0.5 +1.2 +0.3 +0.0	+0.5 +0.2 +0.4 +1.1 +0.3 +0.0	-0.3 +0.1 +0.1 -0.1 -0.5 +0.3	-0.2 +0.0 +0.0 -0.4 +0.2 -0.1
Prices	Annual change i	in %				
Harmonised Index of Consumer Prices (HICP) Private consumption expenditure (PCE) deflator GDP deflator Unit labor costs in the overall economy Compensation per employee (at current prices) Compensation per hour worked (at current prices) Import prices Export prices Terms of trade	+0.8 +1.1 +1.0 +1.5 +1.6 +1.8 -0.4 +1.0 +1.4	+1.0 +1.2 +1.6 +0.8 +1.3 +1.5 -0.8 +0.4 +1.2	+1.7 +1.8 +1.7 +0.9 +1.5 +1.7 +1.6 +1.6	+1.9 +1.9 +1.9 +1.4 +2.0 +2.3 +1.7 +1.8 +0.2	-0.9 -0.6 -0.2 -0.4 -0.7 -0.6 -2.6 -1.5 +1.2	-0.3 -0.1 -0.2 -0.6 -0.8 -0.7 -0.3 -0.3
Income and savings Real disposable household income	-0.7	+2.3	+0.9	+0.7	-0.5	-0.7
•	% of households		sable income	7.1	_0.5 _1.1	-1.3
Saving ratio	Annual change i		7.3	7.1	-1.1	-1.3
Labor market Payroll employment Hours worked (payroll employees)	+1.1 +0.9	+1.5 +1.3	+1.1 +0.9	+1.0 +0.7	+0.4 +0.3	+0.1 +0.0
	% of labor supp	·		4.0	102	107
Unemployment rate (Eurostat definition) <sup>1</sup>	5.7	6.0	6.1	6.0	+0.3	+0.6
Public finances Budget balance Government debt	% of nominal GI -1.2 86.2	−1.8 84.5	-1.5 82.8	-1.1 80.9	+0.0 +0.7	-0.1 +1.2
Source: 2015 (actual figures): WIFO. Statistics Austria. OeNB: OeNB outlook	s of lune 2016 and D	ecember 2015.				

Source: 2015 (actual figures): WIFO, Statistics Austria, OeNB; OeNB outlooks of June 2016 and December 2015.

#### **Annex: detailed result tables**

Table 13

#### Demand components (real prices)

Chained volume data (reference year = 2010)

	2015	2016	2017	2018	2015	2016	2017	2018
	EUR millio	on			Annual ch			
Private consumption	161,703	163,787	165,608	167,125	0.3	1.3	1.1	0.9
Government consumption	61,808	62,677	63,283	64,006	1.3	1.4	1.0	1.1
Gross fixed capital formation	68,883	70,356	71,789	73,092	0.3	2.1	2.0	1.8
of which: investment in plant and equipment	24,175	25,124	25,901	26,331	2.7	3.9	3.1	1.7
residential construction investment	12,640	12,644	12,758	12,987	-1.6	0.0	0.9	1.8
nonresidential construction investment and other investment	18,480	18,681	18,833	19,077	-1.1	1.1	0.8	1.3
Changes in inventories (incl. statistical discrepancies)	3,425	4,814	4,777	4,846	×	×	×	X
Domestic demand	295,819	301,635	305,456	309,069	0.8	2.0	1.3	1.2
Exports of goods and services	170,369	176,171	182,987	190,652	2.1	3.4	3.9	4.2
Imports of goods and services	156,233	162,933	168,812	175,413	2.2	4.3	3.6	3.9
Net exports	14,136	13,238	14,175	15,239	×	×	×	X
Gross domestic product	309,955	314,872	319,631	324,309	0.8	1.6	1.5	1.5

Source: 2015: WIFO; 2016 to 2018: OeNB June 2016 outlook.

Table 14

#### **Demand components (current prices)**

	2015	2016	2017	2018	2015	2016	2017	2018		
	EUR millior	)			Annual change in %					
Private consumption	179,671	184,255	189,726	195,169	+1.3	+2.6	+3.0	+2.9		
Government consumption	67,687	69,562	70,831	72,465	+3.1	+2.8	+1.8	+2.3		
Gross fixed capital formation	74,558	76,850	79,693	82,710	+1.2	+3.1	+3.7	+3.8		
Changes in inventories (incl. statistical discrepancies)	_563	301	539	526	X	X	X	×		
Domestic demand	321,353	330,967	340,789	350,870	+1.1	+3.0	+3.0	+3.0		
Exports of goods and services	181,015	187,857	198,228	210,344	+3.1	+3.8	+5.5	+6.1		
Imports of goods and services	165,821	171,546	180,570	190,785	+1.8	+3.5	+5.3	+5.7		
Net exports	15,194	16,311	17,658	19,559	×	×	×	×		
Gross domestic product	336,547	347,278	358,447	370,429	+1.8	+3.2	+3.2	+3.3		

Source: 2015: WIFO; 2016 to 2018: OeNB June 2016 outlook.

Table 15

#### **Demand components (deflators)**

	2015	2016	2017	2018	2015	2016	2017	2018
	2010 = 10	00			Annual cha			
Private consumption Government consumption Gross fixed capital formation Domestic demand (excl. changes in inventories)	111.1 109.5 108.2 110.1	112.5 111.0 109.2 111.4	114.6 111.9 111.0 113.2	116.8 113.2 113.2 115.2	+1.1 +1.8 +0.9 +1.2	+1.2 +1.3 +0.9 +1.2	+1.8 +0.8 +1.6 +1.6	+1.9 +1.2 +1.9 +1.8
Exports of goods and services Imports of goods and services Terms of trade	106.2 106.1 100.1	106.6 105.3 101.3	108.3 107.0 101.3	110.3 108.8 101.4	+1.0 -0.4 +1.4	+0.4 -0.8 +1.2	+1.6 +1.6 +0.0	+1.8 +1.7 +0.2
Gross domestic product	108.6	110.3	112.1	114.2	+1.0	+1.6	+1.7	+1.9

Source: 2015: Eurostat; 2016 to 2018: OeNB June 2016 outlook.

Table 16

Labor market												
	2015	2016	2017	2018	2015	2016	2017	2018				
	Thousands			Annual change in %								
Total employment of which: private sector Payroll employment (national accounts definition)	4,296.7 3,619.7 3,737.0	4,345.0 3,665.5 3,792.9	4,380.9 3,700.2 3,833.5	4,418.3 3,738.5 3,872.6	+0.7 +0.8 +1.1	+1.1 +1.3 +1.5	+0.8 +0.9 +1.1	+0.9 +1.0 +1.0				
	% of the labor supply											
Unemployment rate (Eurostat definition)	5.7	6.0	6.1	6.0	×	×	×	×				
	EUR per real unit of output x 100											
Unit labor costs (economy as a whole) <sup>1</sup>	60.4	60.9	61.4	62.3	+1.5	+0.8	+0.9	+1.4				
	EUR thousand per employee											
Labor productivity (economy as a whole) <sup>2</sup>	72.1	72.5	73.0	73.4	+0.1	+0.5	+0.7	+0.6				
	EUR thousand											
Compensation per employee (real) <sup>3</sup>	39.2	39.2	39.1	39.1	+0.5	+0.1	-0.3	+0.1				
	At current prices in EUR thousand											
Compensation per employee (gross)	43.6	44.1	44.8	45.7	+1.6	+1.3	+1.5	+2.0				
	At current p	rices in EUR i	million									

162,854 | 167,447 | 171,838 | 177,049 | +2.7 | +2.8 | +2.6 | +3.0

Source: 2015: WIFO, Statistics Austria; 2016 to 2018: OeNB June 2016 outlook.

Total gross compensation of employees

<sup>&</sup>lt;sup>1</sup> Gross wages and salaries divided by real GDP.

<sup>&</sup>lt;sup>2</sup> Real GDP divided by total employment.

 $<sup>^3</sup>$  Gross wages and salaries per employee divided by private consumption expenditure deflator.

Current account											
	2015 2016		2017	2018	2015	2016	2017	2018			
	in Mio EUR				% of nominal GDP						
Balance of trade	14,265.0	15,351.1	16,662.5	18,527.5	4.2	4.4	4.6	5.0			
Balance of goods	2,636.0	3,781.2	4,433.2	5,272.7	0.8	1.1	1.2	1.4			
Balance of services	11,629.0	11,570.0	12,229.3	13,254.8	3.5	3.3	3.4	3.6			
Balance on income	-2,183.0	-2,200.0	-2,200.0	-2,200.0	-0.6	-0.6	-0.6	-0.6			
Balance of transfer payments	-3,446.0	-3,400.0	-3,480.0	-3,600.0	-1.0	-1.0	-1.0	-1.0			
Balance on current account	8,636.0	9,751.1	10,982.5	12,727.5	2.6	2.8	3.1	3.4			

Source: 2015: OeNB; 2016 to 2018: OeNB June 2016 outlook.

Table 18

Quarterly outlook resu	lts															
	2016	2017	2018	2016				2017				2018				
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Prices, wages and costs	Annual	change	in %													
HICP	+1.0	+1.7	+1.9	+1.0	+0.6	+0.8	+1.4	+1.7	+1.7	+1.7	+1.8	+2.0	+1.8	+1.8	+1.8	
HICP (excluding energy)	+1.6	+1.7	+1.9	+1.8	+1.5	+1.5	+1.7	+1.6	+1.8	+1.8	+1.8	+2.0	+1.8	+1.9	+1.8	
Private consumption expenditure (PCE) deflator	+1.2	+1.8	+1.9	+1.1	+1.2	+1.3	+1.4	+1.6	+1.8	+2.0	+2.0	+2.0	+1.9	+1.9	+1.9	
Gross fixed capital formation				7							. 1.0			. 4.0	. 4.0	
deflator	+0.9	+1.6	+1.9	+0.7	+0.8	+0.9	+1.1	+1.3	+1.6	+1.8	+1.9	+1.9	+2.0	+1.9	+1.9	
GDP deflator	+1.6	+1.7	+1.9	+1.7	+1.0	+1.7	+1.9	+1.6	+1.5	+1.7	+1.9	+2.0	+2.0	+1.8	+1.7	
Unit labor costs	+0.8	+0.9	+1.4	+1.1	+1.0	+0.7	+0.5	+0.6	+0.6	+0.9	+1.2	+1.3	+1.4	+1.4	+1.4	
Nominal wages per employee	+1.3	+1.5	+2.0	+1.3	+1.4	+1.3	+1.3	+1.5	+1.4	+1.5	+1.7	+1.8	+2.0	+2.0	+2.1	
Productivity	+0.5	+0.7	+0.6	+0.2	+0.4	+0.5	+0.8	+0.9	+0.7	+0.6	+0.5	+0.5	+0.5	+0.6	+0.7	
Real wages per employee	+0.1	-0.3	+0.1	+0.2	+0.2	+0.0	-0.1	-0.1	-0.4	-0.4	-0.3	-0.1	+0.0	+0.1	+0.2	
mport deflator	-0.8	+1.6	+1.7	-1.3	-1.4	-0.7	+0.3	+1.1	+1.7	+1.7	+1.8	+1.8	+1.7	+1.7	+1.6	
Export deflator	+0.4	+1.6	+1.8	+0.3	+0.2	+0.3	+0.7	+1.2	+1.5	+1.7	+1.9	+1.9	+1.9	+1.8	+1.8	
Terms of trade	+1.2	+0.0	+0.2	+1.6	+1.6	+1.1	+0.4	+0.1	-0.1	+0.0	+0.1	+0.1	+0.2	+0.1	+0.2	
Economic activity	Annual	and/or o	quarterly	changes	s in % (re	eal)										
GDP	+1.6	+1.5	+1.5	+0.4	+0.5	+0.4	+0.4	+0.3	+0.3	+0.3	+0.3	+0.4	+0.4	+0.4	+0.4	
Private sector consumption	+1.3	+1.1	+0.9	+0.2	+0.7	+0.4	+0.3	+0.2	+0.2	+0.2	+0.2	+0.2	+0.3	+0.3	+0.3	
Public sector consumption	+1.4	+1.0	+1.1	+0.3	+0.3	+0.2	+0.2	+0.3	+0.3	+0.3	+0.3	+0.3	+0.3	+0.3	+0.3	
Gross fixed capital formation	+2.1	+2.0	+1.8	+0.4	+0.7	+0.7	+0.5	+0.4	+0.4	+0.4	+0.5	+0.5	+0.5	+0.4	+0.4	
Exports	+3.4	+3.9	+4.2	+0.8	+0.7	+0.9	+1.0	+1.0	+1.0	+1.0	+1.0	+1.1	+1.1	+1.1	+1.1	
Imports	+4.3	+3.6	+3.9	+0.9	+0.7	+0.9	+0.7	+1.0	+1.0	+1.0	+1.0	+1.0	+0.9	+1.0	+1.0	
	Contribution to real GDP growth in percentage points															
Domestic demand	+1.4	+1.2	+1.1	+0.3	+0.6	+0.4	+0.3	+0.3	+0.3	+0.2	+0.3	+0.3	+0.3	+0.3	+0.3	
Net exports	-0.3	+0.3	+0.3	+0.0	+0.0	+0.1	+0.2	+0.1	+0.1	+0.1	+0.1	+0.1	+0.1	+0.1	+0.1	
Changes in inventories	+0.4	+0.0	+0.0	+0.1	+0.0	+0.0	+0.0	+0.0	+0.0	+0.0	+0.0	+0.0	+0.0	+0.0	+0.0	
_abor market	% of la	bor supt	oly													
Jnemployment rate	·		,													
(Eurostat definition)	6.0	6.1	6.0	5.9	5.9	6.0	6.0	6.1	6.1	6.1	6.1	6.0	6.0	6.0	5.9	
	Annual	and/or o	quarterly	changes	s in %											
Total employment	+1.1	+0.8	+0.9	+0.4	+0.3	+0.2	+0.2	+0.2	+0.2	+0.2	+0.2	+0.2	+0.2	+0.2	+0.2	
of which: private sector	+1.3	+0.9	+1.0	+0.4	+0.3	+0.2	+0.2	+0.2	+0.2	+0.3	+0.3	+0.3	+0.2	+0.2	+0.2	
Payroll employment	+1.5	+1.1	+1.0	+0.5	+0.3	+0.3	+0.3	+0.2	+0.2	+0.3	+0.3	+0.3	+0.2	+0.2	+0.2	
, , , ,					s in % (re		3.5	. 5.2	J.2	. 5.5	0.5	0.5	. 5.2	0.2	. 0.2	
Additional variables	+2.3	+0.9	+0.7	+0.1	+1.3	+0.7	+0.3	+0.0	+0.0	+0.0	+0.1	+0.2	+0.2	+0.2	+0.2	
Real disposable household income			+0.7	+0.1	+1.3	+0.7	+0.3	+0.0	+0.0	+0.0	+0.1	+0.2	+0.2	+0.2	+0.2	
	% of re	al GDP														
Output gap	-0.3	-0.2	-0.2	-0.6	-0.4	-0.2	-0.1	-0.1	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	

Source: OeNB June 2016 outlook.

Note: Quarterly figures adjusted for seasonal and working-day variations.

Table 19

Comparison of o	current	econo	mic fo	recasts	for A	ustria							
	OeNB			WIFO		IHS		OECD		IMF		European Commission	
	June 201	6		March 20	March 2016		March 2016		June 2016		16	May 2016	
	2016	2017	2018	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017
Key results	Annual cl	hange in %		1	!	•	•			'	•	1	
GDP (real)	+1.6	+1.5	+1.5	+1.6	+1.6	+1.5	+1.5	+1.3	+1.6	+1.2	+1.4	+1.5	+1.6
Private consumption (real)	+1.3	+1.1	+0.9	+1.8	+1.4	+1.4	+1.2	+1.8	+1.2	×	×	+1.5	+1.4
Government consumption (real)	+1.4	+1.0	+1.1	+0.8	+0.7	+0.8	+0.5	+1.2	+0.8	×	×	+0.9	+0.7
Gross fixed capital formation (real)	+2.1	+2.0	+1.8	+1.7	+1.8	+1.8	+2.0	+2.0	+3.6	×	×	+1.8	+1.9
Exports (real)	+3.4	+3.9	+4.2	+2.7	+4.0	+2.8	+3.5	+3.4	+4.7	+2.9	+3.6	+2.6	+3.6
Imports (real) GDP per employee <sup>1</sup>	+4.3 +0.5	+3.6 +0.7	+3.9 +0.6	+2.9 +0.7	+3.8 +0.7	+3.0 +0.3	+3.4 +0.3	+4.3 -0.1	+5.2 +0.4	+3.0 ×	+3.7 ×	+2.7 +0.6	+3.2
GDP deflator	+1.6	+1.7	+1.9	+2.0	+1.6	+1.4	+1.6	+1.9	+1.8	+1.5	+1.7	+1.3	+1.7
CPI	×	×	×	+1.2	+1.8	+1.4	+1.9	×	×	×	×	×	×
HICP Unit labor costs	+1.0 +0.8	+1.7 +0.9	+1.9 +1.4	+1.2 +0.9	+1.8 +1.2	+1.5 +1.1	+1.9 +1.4	+1.0 +0.9	+2.0 +1.0	+1.4 ×	+1.8 ×	+0.9 +0.8	+1.7 +0.9
Payroll employment	+1.1	+0.8	+0.9	+1.2	+1.2	+1.2	+1.2	+1.5	+1.2	+1.1	+1.0	+0.9	+0.9
rayron employment	% of labo		. 0.7	11.2	11.2	11.2	. 1.2	11.5	7 1.2		7 1.0	. 0.7	. 0.7
Unemployment rate (Eurostat definition)	6.0	6.1	6.0	5.9	6.1	6.0	6.2	5.8	5.6	+6.2	+6.4	+5.9	+6.1
	% of norr	ninal GDP											
Current account	2.8	3.1	3.4	3.1	3.2	X	X	2.0	2.0	3.6	3.5	3.1	3.3
Budget balance (Maastricht definition)	-1.8	-1.5	-1.1	-1.7	-1.5	-2	-1.6	-1.6	-1.3	-1.8	-1.4	-1.5	-1.4
External assumptions													
Oil price in USD/barrel (Brent)	43.4	49.1	51.3	35.0	42.0	40.0	43.0	41.8	45.0	34.8	41.0	41.1	46.0
Short-term interest rate in %	-0.3	-0.3	-0.3	-0.2	-0.1	-0.2	-0.1	-0.2	-0.3	-0.3	-0.4	-0.2	-0.3
USD/EUR exchange rate	1.13	1.14	1.14	1.10	1.10	1.07	1.08	1.13	1.14	1.11	1.12	1.13	1.13
	Annual cl	hange in %											
Euro area GDP (real)	+1.6	+1.7	+1.7	+1.4	+1.6	+1.5	+1.6	+1.6	+1.7	+1.5	+1.6	+1.6	+1.8
U.S. GDP (real) World GDP (real)	+1.9 +2.9	+2.5 +3.4	+2.3 +3.5	+2.0 +3.1	+2.4 +3.4	+2.3	+2.3	+1.8 +3.0	+2.2 +3.3	+2.4 +3.2	+2.5 +3.5	+2.3 +3.1	+2.2
World GDP (real)	+2.9	+4.0	+4.3	+2.0	+2.5	+3.0	+3.5	+3.0	+3.3	+3.2	+3.5	+2.7	+3.2

Source: OeNB, WIFO, IHS, OECD, IMF, European Commission.

<sup>&</sup>lt;sup>1</sup> WIFO: Productivity per hour.