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The Austrian Economy 2018 to 2022

Update of the Medium-term Forecast

The Austrian Economy 2018 to 2022. Update of the Medium-term Forecast

Following the financial and economic crisis leading to the recession of 2008-09, and the sluggish economic activity between 2012 and 2015 (+0.7 percent p.a.), economic growth gained sustained momentum from mid-2016. For 2017 and 2018, WIFO expects annual GDP growth of 2.9 and 3.2 percent, respectively. An average annual increase of 2.1 percent is expected for the forecast period 2018 to 2022, up from a modest +1.3 percent p.a. recorded for 2013 to 2017. The expected rate would thereby exceed the euro area average by $\frac{1}{4}$ percentage point. The favourable external business environment will stimulate export growth (+4.1 percent p.a.) and encourage investment in new machinery and equipment. Rising disposable household income will allow private consumption to gain $1\frac{1}{2}$ percent per year, after +0.7 percent p.a. in the previous five-year period. Buoyant growth in 2018 and 2019 will stimulate job creation beyond the increase in the labour force and lead to lower unemployment. However, from 2020 onwards, labour supply may again grow in excess of demand, with the unemployment rate edging up from 7.3 percent in 2019 to 7.6 percent in 2022. Inflation remains moderate over the medium term, and the inflation differential vis-à-vis the euro area average should narrow. The Consumer Price Index is expected to increase at an average 1.9 percent per year. Under our assumptions for future business conditions and policy settings, the general government account may reach balance as from the middle of the forecast period, both in headline (Maastricht) and structural terms. As a result, the ratio of government debt to nominal GDP would fall to around 63 percent by 2022, down by 20 percentage points from 2016.

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This article summarises the results of the March 2018 update of the WIFO Medium-term Forecast 2018 to 2022 for the Austrian Economy of October 2017 (*Baumgartner et al.*, 2017). Until 2019, the projections build upon the WIFO Economic Outlook of March 2018 (*Ederer*, 2018B). Data published after 12 March 2018 (such as e.g. information concerning the federal budget for 2018 and 2019 published by the Federal Ministry of Finance on 21 March 2018, the strategy report concerning the Federal Finance Framework until 2022 and the Stability Programme until 2022 as well as information concerning the government account (27 March 2018) and the budget account (29 March 2018) published by Statistics Austria) could not be included in this forecast. The calculations have been carried out using the WIFO macroeconomic model (*Baumgartner – Breuss – Kaniovski*, 2005). The international cyclical scenario was developed in a WIFO simulation of the Oxford Economic Forecasting (OEF) model, based on modified WIFO assumptions which depart from OEF's baseline global outlook of February 2018. For definitions used see "Methodological Notes and Short Glossary", <https://www.wifo.ac.at/wwadocs/form/WIFO-BusinessCycle-Information-Glossary.pdf>

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1. International economic recovery continues

In its current economic forecast for the year 2018 (*Ederer*, 2018B), the WIFO outlook on the international economy is more favourable than in autumn 2017 (*Scheiblecker*, 2017, *Baumgartner et al.*, 2017). In particular, a stronger economic performance for the USA is expected for the current year (rate of change of real gross domestic product for 2018 in October 2017 +2.1 percent; in March 2018 +2.5 percent). This is due to the strong consumer demand as well as the dynamic investment activity, which should receive further impulses from the reduction of corporate income taxes. The

outlook for the euro area (average annual rate of change in real gross domestic product 2018 to 2022 +1.8 percent) and for the CEEC 5 (+2.8 percent p.a.) remains unchanged since October 2017.

Table 1: Main results

	Ø 2007-2012	Ø 2012-2017	Ø 2017-2022	2017	2018	2019	2020	2021	2022
	Year-to-year percentage changes								
Gross domestic product									
Volume	+0.6	+1.3	+2.1	+2.9	+3.2	+2.2	+1.9	+1.6	+1.5
Value	+2.3	+3.0	+3.9	+4.5	+4.9	+4.0	+3.7	+3.6	+3.4
Consumer prices	+2.3	+1.5	+1.9	+2.1	+1.9	+1.9	+1.9	+1.9	+1.9
GDP deflator	+1.7	+1.7	+1.8	+1.5	+1.7	+1.8	+1.8	+1.9	+1.9
Gross wages and salaries total ¹	+3.3	+3.3	+3.7	+3.9	+4.5	+3.8	+3.6	+3.5	+3.2
Per capita, volume ²	-0.2	+0.5	+0.6	-0.1	+0.7	+0.8	+0.5	+0.4	+0.4
Employees ³	+1.2	+1.3	+1.2	+1.8	+1.8	+1.1	+1.1	+1.1	+0.9
Persons in active dependent employment ⁴	+0.9	+1.2	+1.2	+2.0	+1.9	+1.1	+1.1	+1.1	+0.9
	Ø 2008-2012	Ø 2013-2017	Ø 2018-2022	2017	2018	2019	2020	2021	2022
	Percent								
Unemployment rate									
Eurostat definition ⁵	4.7	5.6	5.1	5.5	5.2	5.0	5.0	5.1	5.1
National definition ⁶	6.8	8.5	7.5	8.5	7.7	7.3	7.4	7.5	7.6
	As a percentage of GDP								
Net exports	3.4	3.3	4.3	3.4	3.8	4.2	4.4	4.5	4.6
General government financial balance (Maastricht definition)	-3.2	-1.6	+0.1	-0.8	-0.3	+0.1	+0.2	+0.3	+0.3
Cyclically-adjusted budget balance									
Method of the European Commission ⁷	-3.0	-1.1	-0.2	-0.6	-0.7	-0.4	-0.1	+0.1	+0.3
WIFO method ⁸	-3.0	-0.9	-0.4	-0.6	-0.9	-0.8	-0.5	-0.1	+0.1
Structural budget balance									
Method of the European Commission ⁷	-2.8	-0.8	-0.2	-0.6	-0.7	-0.4	-0.1	+0.1	+0.3
WIFO method ⁸	-2.8	-0.6	-0.4	-0.6	-0.9	-0.8	-0.5	-0.1	+0.1
Gross public debt	78.8	82.4	69.2	79.5	75.7	72.3	69.0	65.9	63.3
	As a percentage of disposable income								
Household saving ratio	10.0	7.0	6.8	6.5	6.3	6.8	6.8	7.0	6.9
	Ø 2007-2012	Ø 2012-2017	Ø 2017-2022	2017	2018	2019	2020	2021	2022
	Year-to-year percentage changes								
Trend output, volume									
Method of the European Commission ⁷	+1.0	+1.4	+2.2	+1.8	+2.0	+2.1	+2.4	+2.3	+2.2
WIFO method ⁸	+1.2	+1.3	+1.9	+1.5	+1.7	+1.8	+2.1	+2.1	+2.0
	Ø 2008-2012	Ø 2013-2017	Ø 2018-2022	2017	2018	2019	2020	2021	2022
	As a percentage of trend output								
Output gap, volume									
Method of the European Commission ⁷	-0.3	-0.9	+0.5	-0.4	+0.8	+0.8	+0.6	+0.3	±0.0
WIFO method ⁸	-0.4	-1.2	+0.9	-0.3	+1.1	+1.5	+1.2	+0.7	+0.2

Source: Main Association of the Austrian Social Security Institutions, Statistics Austria, WIFO calculations. – ¹ Excluding employers' contributions. – ² Employees according to National Accounts definition, deflated by CPI. – ³ According to National Accounts definition. – ⁴ Excluding persons in valid employment contract receiving child care benefit or being in military service. – ⁵ According to Eurostat Labour Force Survey, as a percentage of total labour force. – ⁶ According to Public Employment Service Austria, as a percentage of total labour force excluding self-employed. – ⁷ WIFO estimate based on the WIFO forecast of March 2018, parametrisation according to the forecast of the European Commission of November 2017. – ⁸ WIFO estimate based on the WIFO forecast of March 2018 according to the production function approach of the European Commission, however with greater smoothing of the trend output and without restrictions concerning the closing of the output gap.

The cyclical upturn stimulates international energy demand. Brent crude oil futures prices for 2018 are forecast to be higher in March 2018 (67 \$ per barrel) than in October 2017 (52.5 \$). In addition, their dynamics changed significantly: in autumn 2017, market participants expected an increase from 52.5 \$ in 2017 to 57 \$ in 2022. However, market expectations now turned to a decrease from 67 \$ to 60 \$. This might be based on a changed assessment of crude oil production in the USA (shale oil, fracking), which should be profitable at prices in excess of 60 \$ per barrel, and can be adjusted relatively quickly. The WIFO forecast therefore assumes a decrease in the price of crude oil (Brent) from 67 \$ per barrel in 2018 to 60 \$ in 2022. The exchange rate of the euro against the dollar is updated from March 2018 until 2022 with a value of 1.23 \$

per euro, as a technical assumption (October 2017: average exchange rate 2018 to 2022 1.15 \$ per euro).

Short- and long-term interest rates for 2018 to 2022 are expected to increase slightly less quickly than expected in the October 2017 forecast. The Bond Purchase Programme of the ECB is assumed to expire in September 2018. This will reduce the demand pressure on prices of long-term fixed-interest securities and increase their effective yield. The ECB key interest rates are not expected to be raised until the end of 2018 (deposit rate), and autumn 2019 (main refinancing rate), respectively. Hence, interest rates in the euro area are expected to adjust towards its long-term averages. However, monetary normalisation is expected to be gradual. By the end of the forecast period the long-term average interest rate level from before the financial market and economic crisis is unlikely to be reached.

Table 2: International fundamentals

	Ø 2007-2012	Ø 2012-2017 Year-to-year percentage changes	Ø 2017-2022
Gross domestic product, volume			
USA	+ 0.6	+ 2.2	+ 1.9
Euro area	- 0.3	+ 1.5	+ 1.8
	Ø 2008-2012	Ø 2013-2017 \$ per €	Ø 2018-2022
Exchange rate	1.37	1.20	1.23
		\$ per barrel	
Oil price, Brent	92.2	71.6	62.6

Source: Eurostat, WIFO calculations.

2. Domestic demand supported by private consumption

Supported by favourable international developments, economic growth in Austria gains further momentum this year (+3.2 percent). For the period 2018 to 2022, GDP growth of 2.1 percent per year is expected (WIFO forecast of October 2017 +2.0 percent p.a.; 2013 to 2017 +1.3 percent p.a.). Thus, it will be about ¼ percentage point above the euro area average. The more favourable economic performance in Austria is mainly attributable to the stronger momentum in 2018 (Ederer, 2018B). Exports (in volume terms) are expected to increase by 4.1 percent per year from 2018 to 2022, which is about 1¼ percentage points more than in the preceding five-year period. Based on the forecast of Oxford Economic Forecasting of February 2018, the increase of the market share of the Austrian export industry should be slightly higher than for the average of the euro countries over the forecast period. As imports (+3.7 percent p.a.) will grow more moderate than exports, the contribution of net exports to economic growth will remain positive.

Gross fixed capital formation in machinery and equipment (including other equipment) will continue to grow strongly at 5.2 percent in 2018, due to the favourable economic situation. It is expected that the growth cycle will peak in 2018. Thus, fixed capital investment dynamics will weaken in the following years. Effects of the measures mentioned in the government programme (Federal Chancellery, 2017, Federal Ministry of Finance, 2018) in the area of corporate taxation were not taken into account in this forecast, as to date, neither their scope nor their time frame has been sufficiently specified.

Population growth and the associated increase in the number of private households (cumulated over the period 2018 to 2022, +3.2 percent), as well as the high level of real estate prices (+5.8 percent p.a. over the period of 2010 to 2017 according to Statistics Austria's house price index) will continue to drive private residential construction activity. For civil engineering, however, the medium-term outlook based on investment plans of the Federal Real Estate Agency (BIG; Bundesimmobiliengesell-

schaft), ASFINAG (Autobahnen- und Schnellstraßen- Finanzierungs-Aktiengesellschaft) and Austrian Federal Railways (OeBB) remains subdued. At +1.4 percent p.a., total construction activity will increase only moderately over the forecast period (+0.6 percent from 2013 to 2017).

Table 3: Components of aggregate demand, volume

	Ø 2007-2012	Ø 2012-2017	Ø 2017-2022	2017	2018	2019	2020	2021	2022
	Year-to-year percentage changes								
Consumption expenditure									
Private households ¹	+ 0.9	+ 0.7	+ 1.5	+ 1.4	+ 1.8	+ 1.6	+ 1.6	+ 1.4	+ 1.4
General government	+ 1.2	+ 1.3	+ 1.2	+ 1.1	+ 1.1	+ 1.2	+ 1.2	+ 1.2	+ 1.1
Gross fixed capital formation	- 0.2	+ 2.1	+ 2.3	+ 4.8	+ 3.5	+ 2.5	+ 2.1	+ 1.8	+ 1.7
Machinery and equipment ²	+ 1.0	+ 3.4	+ 3.1	+ 6.7	+ 5.2	+ 3.4	+ 2.6	+ 2.2	+ 2.0
Construction	- 1.6	+ 0.6	+ 1.4	+ 2.6	+ 1.6	+ 1.5	+ 1.5	+ 1.3	+ 1.3
Domestic demand	+ 0.6	+ 1.3	+ 1.8	+ 2.6	+ 2.6	+ 1.7	+ 1.7	+ 1.5	+ 1.4
Exports	+ 1.2	+ 2.9	+ 4.1	+ 5.7	+ 5.5	+ 4.5	+ 3.8	+ 3.4	+ 3.2
Imports	+ 1.3	+ 3.0	+ 3.7	+ 5.4	+ 4.6	+ 3.8	+ 3.7	+ 3.3	+ 3.1
Gross domestic product	+ 0.6	+ 1.3	+ 2.1	+ 2.9	+ 3.2	+ 2.2	+ 1.9	+ 1.6	+ 1.5

Source: Statistics Austria, WIFO calculations. – ¹ Including private non-profit institutions serving households. – ² Including weapon systems and other equipment.

The increase of the disposable income of private households (+1.7 percent p.a. in real terms) will be about 1½ percentage points higher than the average of 2013 to 2017. This development is mainly driven by the increase in gross wages and salaries (+3.7 percent p.a. in 2018 to 2022, +0.6 percent p.a. in per capita real terms; +3.3 percent p.a. in 2013 to 2017). In addition, private household earnings of self-employed persons (mixed-income including operating surplus) will develop slightly more favourable over the forecast horizon than they did over the previous five years (+3.6 percent p.a.; +3.3 percent p.a. in 2013 to 2017). Plans for reducing the tax bracket burden in the Austrian personal income tax system, although being discussed for some time, are not taken into account in the forecast as they are not yet sufficiently specified.

The increase of private households income due to the tax reform 2016, led to a temporarily increase in the savings ratio by 1 percentage point up to 7.9 percent in 2016, as about half of the additional income flows into consumption in the short-run. After a decline to 6.5 percent in the year 2017, it should stabilise at around 6¼ percent over the forecast period.

The rise in household income, in particular wage income, will also strengthen consumer demand. Private consumption (in volume terms) will increase by 1½ percent per year in 2018 to 2022 (+0.7 percent p.a. in 2013 to 2017).

3. Trend growth increases

According to WIFO estimates based on the method of the European Commission (with EC-parametrisation of November 2017), trend growth in Austria will be 2.2 percent p.a. for 2018 to 2022. Hence, it will significantly exceed the trend growth of the preceding five-year period (+1.4 percent p.a. for 2013 to 2017). Based on this estimate, the Austrian economy in 2018 will be in a phase of cyclical over-utilisation characterised by a positive output gap. Following the methodological guidelines and assumptions of the European Commission, the positive output gap will close from +0.8 percent of trend output in 2018 until 2022 ("Method of the European Commission" in the Tables 1 and 4).

Past experience shows that the European Commission trend output estimates tend to be excessively procyclical, thus underestimating cyclical fluctuations. As a consequence, WIFO presents an alternative calculation of the trend output ("WIFO method" in the Tables 1 and 4), which modifies the production function approach of the European Commission in two important respects:

- The labour force participation rate and the average working hours per capita are smoothed to a greater extent over time¹. Consequently, the WIFO-trend growth estimate also becomes smoother and shows lower procyclicality. According to this alternative estimate, trend growth will be 1.9 percent p.a. in the years from 2018 to 2022. That is about ¼ percentage point below the trend growth based on the European Commission method. As a direct consequence, this will result in a larger (in absolute terms) output gap (2018: 1.1 percent of the trend output).
- The forecast does not assume that the output gap will be closed by the end of the forecast period (as assumed by the European Commission method). The output gap based on the WIFO method is endogenously determined as the difference between the projected real GDP and the alternative trend output estimate described above.

Based on the WIFO method, the output gap (in percent of the trend output) will decrease from 1.1 percent in 2018 to 0.2 percent in 2022.

Table 4: Growth contributions of the input factors to trend output

		Ø 2008-2012	Ø 2013-2017	Ø 2018-2022	2017	2018	2019	2020	2021	2022
<i>WIFO estimate: method of the European Commission¹</i>										
GDP, volume (implied)	year-to-year percentage changes	+ 0.6	+ 1.3	+ 2.3	+ 2.9	+ 3.2	+ 2.2	+ 2.1	+ 2.0	+ 1.9
Trend output	year-to-year percentage changes	+ 1.0	+ 1.4	+ 2.2	+ 1.8	+ 2.0	+ 2.1	+ 2.4	+ 2.3	+ 2.2
Labour	percentage points	+ 0.0	+ 0.4	+ 0.7	+ 0.6	+ 0.6	+ 0.6	+ 0.9	+ 0.8	+ 0.6
Capital	percentage points	+ 0.5	+ 0.5	+ 0.7	+ 0.6	+ 0.6	+ 0.6	+ 0.7	+ 0.7	+ 0.7
Total factor productivity	percentage points	+ 0.5	+ 0.4	+ 0.8	+ 0.6	+ 0.7	+ 0.8	+ 0.8	+ 0.9	+ 0.9
Output gap, volume	as a percentage of trend output	- 0.3	- 0.9	+ 0.5	- 0.4	+ 0.8	+ 0.8	+ 0.6	+ 0.3	± 0.0
<i>WIFO estimate: WIFO method²</i>										
GDP, volume	year-to-year percentage changes	+ 0.6	+ 1.3	+ 2.1	+ 2.9	+ 3.2	+ 2.2	+ 1.9	+ 1.6	+ 1.5
Trend output	year-to-year percentage changes	+ 1.2	+ 1.3	+ 1.9	+ 1.5	+ 1.7	+ 1.8	+ 2.1	+ 2.1	+ 2.0
Labour	percentage points	+ 0.1	+ 0.4	+ 0.5	+ 0.3	+ 0.3	+ 0.3	+ 0.6	+ 0.6	+ 0.4
Capital	percentage points	+ 0.5	+ 0.5	+ 0.6	+ 0.6	+ 0.6	+ 0.6	+ 0.6	+ 0.6	+ 0.6
Total factor productivity	percentage points	+ 0.5	+ 0.4	+ 0.8	+ 0.6	+ 0.7	+ 0.8	+ 0.8	+ 0.9	+ 0.9
Output gap, volume	as a percentage of trend output	- 0.4	- 1.2	+ 0.9	- 0.3	+ 1.1	+ 1.5	+ 1.2	+ 0.7	+ 0.2
<i>Estimate of the European Commission (autumn 2017)</i>										
GDP, volume	year-to-year percentage changes	+ 0.6	+ 1.2	+ 2.0	+ 2.6	+ 2.4	+ 2.3	+ 1.8	+ 1.8	+ 1.7
Trend output	year-to-year percentage changes	+ 1.0	+ 1.3	+ 2.0	+ 1.8	+ 2.1	+ 2.0	+ 2.0	+ 2.0	+ 1.8
Labour	percentage points	+ 0.0	+ 0.4	+ 0.6	+ 0.7	+ 0.9	+ 0.7	+ 0.6	+ 0.6	+ 0.4
Capital	percentage points	+ 0.5	+ 0.5	+ 0.6	+ 0.6	+ 0.6	+ 0.6	+ 0.6	+ 0.6	+ 0.6
Total factor productivity	percentage points	+ 0.5	+ 0.4	+ 0.7	+ 0.5	+ 0.6	+ 0.7	+ 0.7	+ 0.8	+ 0.8
Output gap, volume	as a percentage of trend output	- 0.3	- 0.7	+ 0.2	- 0.2	+ 0.1	+ 0.4	+ 0.3	+ 0.1	± 0.0

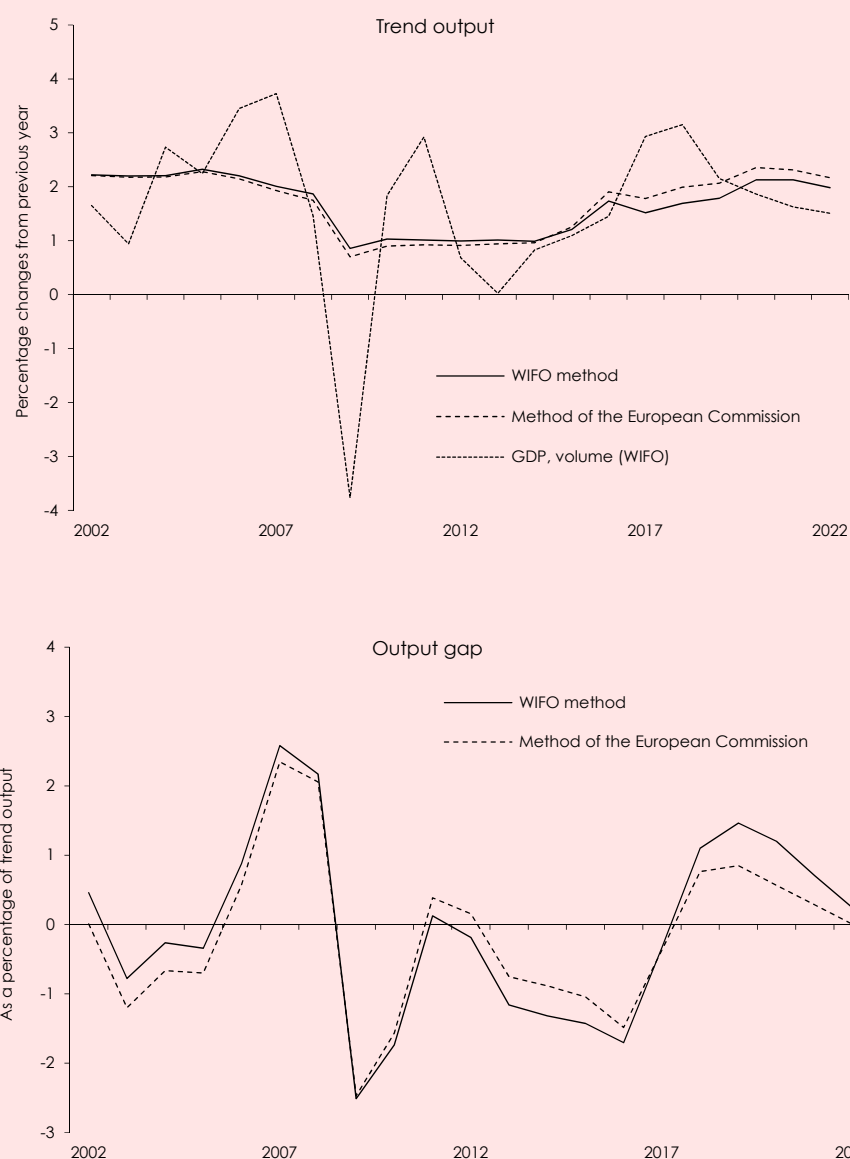
Source: European Commission, Statistics Austria, WIFO calculations. – ¹ WIFO estimate based on the WIFO forecast of March 2018, parametrisation according to the forecast of the European Commission of November 2017. – ² WIFO estimate based on the WIFO forecast of March 2018 according to the production function approach of the European Commission, however with greater smoothing of the trend output and without restrictions concerning the closing of the output gap.

The difference between the two output gap estimates is shown in Figure 1. The dynamics are quite similar for both concepts – the estimated output gap will decrease over the forecast horizon, but the magnitudes differ: the output gap estimate based on the WIFO method, will be larger over the entire forecasting period.

A decomposition of the trend growth estimates shows that the contributions of the total factor productivity (TFP) and the capital accumulation to trend growth are quantitatively similar in both concepts. According to the WIFO method, the contribution of the labour volume to trend growth is lower than in the calculations following the European Commission method. The reason behind this difference is a slightly stronger decline of the average hours worked (due to greater smoothing), and a smaller rise of the labour force participation rate, resulting in a slower increase in the labour volume.

¹ For the alternative trend output calculation, WIFO uses the smoothing parameter of 100 commonly used for annual data for the HP-filter, in order to smooth the labour force participation rate and the average hours worked. The European Commission sets this parameter at a value of 10. As a result, the EC estimates show greater fluctuations in these smoothed series and, thus their trend output shows a higher cyclicality.

Figure 1: Trend output and output gap



Q: European Commission, Statistics Austria, WIFO calculations. Method of the European Commission . . . WIFO estimate based on the WIFO forecast of March 2018, parametrisation according to the forecast of the European Commission of November 2017. WIFO method . . . WIFO estimate based on the WIFO forecast of March 2018 according to the production function approach of the European Commission, however with greater smoothing of the trend output and without restrictions concerning the closing of the output gap.

4. Rise in unemployment slows down

Higher economic growth will allow for an expansion of active dependent employment (according to the definition of the Main Association of the Austrian Social Security Institutions, +1.2 percent p.a. in 2018 to 2022 as well as in the previous five-year period). Together with a slightly less dynamic increase in the labour supply of dependent employees (+0.9 percent p.a. in 2018 to 2022; +1.4 percent p.a. in 2013 to 2017) this will ease labour market pressure. The decline in the unemployment rate from 8.5 percent in 2017 to 7.7 percent in 2018 can be attributed to the stronger economic performance (GDP growth of +3.2 percent in 2018). The discontinuation of the "Employment Bonus" should have only minor negative effects on labour demand, as significant windfall gain effects were already assumed. However, the suspension of the "Initiative 20,000" would make it more difficult for long-term unemployed persons to

find a job (in its economic forecast of December 2017, WIFO estimated the effect of this measure for 2018 at 5,000 to 6,000 additional jobs for long-term unemployed persons; Ederer, 2018A, p. 12).

The increase in employment of foreign citizens is expected to decline from about +47,000 in 2017 to +27,000 in 2022. As the domestic working age population is stagnating, the share of foreign workers in total employment will rise from 19.5 percent in 2017 (where foreign employees accounted for two thirds of the increase in total employment) to a share of about 23 percent by 2022 and will account for as much as 80 percent of the increase in total employment.

Until 2019 the unemployment rate will further decrease to 7.3 percent. However, it will tend to increase again in the following years due to on the one hand a slowdown in labour demand. On the other hand, the labour force tend to grow stronger as the Austrian labour market will open for Croatian citizens in July 2020. In the medium-term, the unemployment rate is forecast to increase to about 7.6 percent of the dependent labour force (as defined by the Public Employment Service Austria) or 5.1 percent of the labour force (Eurostat definition). In 2022, the number of unemployed persons is expected at about 320,000. Although the labour market trends in this outlook are more favourable than in October 2017, the level of unemployment remains still high by a longer-term comparison.

5. Inflation continues to be higher as the euro area average

Unit labour costs, the most important determinant of the domestic cost pressure, will increase by 1.6 percent per year in the period 2018 to 2022. As gross wages per capita (+0.6 percent p.a., in real terms) will continue to lag behind labour productivity (+0.8 percent p.a.), labour costs should not exert inflationary pressure.

An average annual price increase of 1.9 percent according to CPI and of 1.8 percent for the GDP deflator is expected for the period 2018 to 2022. The considerable inflation differential vis-à-vis Germany and the euro area since 2011 (0.7 percentage points p.a.), decreased slightly in the first quarter of 2018 and should continue to decrease over the forecast horizon. However, as prices of services (including administrative prices) are expected to continue to rise significantly in Austria, an inflation gap with Germany and the euro area is likely to remain.

6. Balanced budget within reach

The tax reform 2016, which was not fully offset by expenditure cuts, and additional expenditures related to refugees migration, caused the Maastricht balance to deteriorate to -1.6 percent of GDP in 2016. Benefitting from the favourable economic situation a significant improvement of the fiscal balance is expected over the forecast period. For 2017 and 2018 a general government budget deficit (according to the Maastricht definition) of 0.8 and 0.3 percent of GDP, respectively, is expected². Based on the economic outlook and on the "no policy change" assumption, a balanced budget could already be achieved in 2019³. This positive development will continue from 2020 to 2022, leading to a fiscal surplus of 0.3 percent of GDP by the end of the forecast period. The forecast assumes that all levels of administrative authority will re-

² The notification of the public sector, published by Statistics Austria on March 27, 2018 (Maastricht balance of -0.7 percent of GDP for 2017), could not be taken into account in this forecast (cut-off date March 12, 2018). However, this deviation has no influence on our assessment of public net lending for the years from 2018 to 2022.

³ In general, WIFO does not follow a strict "no policy change" assumption in their forecasts (this assumption would only consider resolutions in a legal form). In its application, WIFO also considers measures which are not yet formally adopted but are fairly advanced in the negotiation process (legal drafts in evaluation; in rare cases, also resolutions of the Council of Ministers), and are sufficiently detailed to enable a quantitative assessment.

frain from excessive short-term spending. Furthermore they follow a strict budget implementation in expenditure categories with a high degree of discretion (public intermediary consumption, subsidies) and for administrative expenditure.

The measures⁴ without direct funding adopted by the Austrian parliament in autumn 2017 are taken into account in the forecast. The family bonus envisioned by the federal government, any measures to reduce the burden of tax bracket effects of the personal income tax tariff as well as reforms of income and corporate taxation mentioned in the government programme are not included in the forecast.

The expected reduction of the Maastricht deficit can primarily be attributed to very favourable income and employment trends resulting in higher government revenues: over the period 2018 to 2022 the total government revenues (in nominal terms) will rise by 3.5 percent p.a. (+2.7 percent p.a. in 2013 to 2017). Nominal GDP is assumed to increase by 3.9 percent p.a., which results in a slightly declining tax ratio (indicator 2) from 41.9 percent (2017) to 41.6 percent of GDP in the year 2019 (thereafter unchanged)⁵.

A significant increase in public expenditures is expected due to demographic developments for monetary social benefits (+3.9 percent p.a. in 2018 to 2022; in particular expenditures for pensions and nursing care) and social benefits in kind (+4.2 percent p.a.). Employment in the public sector has significantly expanded in recent years, especially in the accommodation of refugees, justice and public security. In view of the preparation of the EU Council Presidency, a further increase in public sector employment is expected in 2018. Assuming continued wage moderation, expenditures for labour compensation in the public sector will increase by 2.8 percent p.a. The strict implementation of the numerous political announcements to limit public subsidies is assumed for the forecast period (increase in subsidies of +2.5 percent p.a.; ± 0.0 percent in 2022).

In addition to cyclically lower expenditure on unemployment benefits, the continuing decline in interest payments for public debt (-3.0 percent p.a.) contributes to reduce the fiscal deficit. The expected increase in long-term interest rates will have only small effects on the public debt service, as maturing government bonds can still be refinanced at lower interest rates.

Based on these assumptions it is expected that the increase in total expenditure will be slightly weaker (+3 percent p.a., +2.2 percent in 2013 to 2017) than the increase of the government revenue and GDP over the forecast period. As a result, the government spending ratio will decrease continuously.

The estimated structural balance (based on the WIFO estimate of the output gap according to the parametrisation of the European Commission of November 2017; chapter 3) will be around -0.6 and -0.7 percent of GDP in the period from 2016 to 2018. From 2019 onwards it will improve, so that a balanced budget in structural terms could be achieved already in 2019. A small structural surplus could be reached by the end of the forecast horizon⁶.

The favourable economic and budgetary development coupled with the expected proceeds from asset liquidations of state-owned bad banks (HETA Asset Resolution AG, KA Finanz AG, Immigon) will push the government debt closer to the Maastricht

⁴ This includes the "Initiative 20,000" and the "Employment Bonus" terminated or suspended in January 2018, the increase of the research premium, the waiver of the recourse to the assets of people in long-term care, the increase of the investment promotion premium, a special provision of funds for the National Foundation for Research, Technology and Development ("Nationalstiftung für Forschung, Technologie und Entwicklung"), municipal investment programmes, the reduction of the employer contribution to the Family Burden Equalisation Fund and halving of the aviation tax.

⁵ The tax ratio according to indicator 2 includes all taxes and actual compulsory social security contributions. The objective mentioned in the government programme of December 2017 to reduce the tax ratio to 40 percent is based on this definition.

⁶ An alternative calculation based on the output gap according to the WIFO method (chapter 3) results in a higher structural budget balance (-0.9 and -0.8 percent of GDP, respectively) for the years 2018 and 2019 due to a larger (positive) output gap. According to this calculation, a balanced structural budget could be seen one or two years later as of 2020 or 2021.

reference value of 60 percent of GDP (2016: 83.6 percent of GDP, 2022: 63.3 percent of GDP)⁷.

The projected economic growth will create fiscal room that should be used for implementing structural reforms in the public sector, in particular in the areas of health care, federalism reform and pensions.

7. Forecast risk assessment

The international economic and political environment carries downward risks for the global economy in the next years. A further extension of protectionist measures in the trade policy of the USA (towards China, but also towards the EU) and the expected countermeasures carry the risk of a trade war, with significant disadvantages for the global economy. Barriers to global trade would also have negative impacts on the production in the individual countries due to their dependency on highly interconnected global value chains.

On the other hand, the effects of the tax reduction in the USA on the economic growth could be higher than expected. Preliminary estimates of the cumulated effect on economic performance for the USA until 2020 range from +0.5 to +1.3 percent of GDP. However, their spill-over effect on the economic growth in the euro area is expected to be small (ECB, 2018, p. 20ff).

The economic impact of the UK's imminent withdrawal from the EU poses significant risks also for the economic development in the EU. A substantial reduction of economic relations between the UK and the EU due to a "hard Brexit", would have a negative impact primarily on the UK itself, but also repercussions on the economic outlook in other European countries.

Latent geopolitical conflicts in the Middle East and North Africa, as well as the tensions between Russia and the EU pose a risk for the supply of energy resources, which may result in higher energy prices and inflation. Furthermore, an increase of tensions in the Middle East or between Turkey and the EU could again ramp up migration flows to Europe.

The occurrence of these downward risks for the global economy would worsen the favourable environment for the Austrian export industry assumed in the forecast and dampen economic growth in Austria.

The measures envisaged by the federal government concerning family support (family bonus), the reduction of the tax bracket effects as well as announced reforms in income and corporate taxation were not taken into account in this forecast, as to few details on their nature are available. If these measures were (partially) implemented in the forecast period, then disposable household income and thus private consumption spending, profits, private investment and employment would tend to be higher and unemployment lower. The associated strengthening of the domestic demand would increase economic growth, tax revenues and social security contributions. The revenue shortfalls (family bonus, measures to reduce the income tax bracket effects, reductions of the income and corporate taxation) and the additional public expenditures would worsen the budget balance. The net effect on the general government balance depends on the one hand on the additional revenue generated due to higher economic growth and, on the other hand, on the offsetting cuts in government spending (which are currently not specified in detail). The present forecast of the fiscal path thus tends to be subject to an asymmetric risk of a less favourable development.

⁷ The notification by Statistics Austria of March 27, 2018 shows a gross debt for the public sector of 78.6 percent of GDP for 2017. The present outlook assumes for 2018 to 2022 a stock-flow adjustment of the government debts from revenues from the asset liquidations of bad banks of 7½ billion €.

8. References

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