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Update of the Medium-term Forecast of the Austrian Economy 2019 to 2023

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The global economy reached its business cycle peak in 2018 and growth is likely to slow in the coming years. Over the forecast period 2019-2023, the Austrian economy is expected to grow by 1.6 percent p.a. (2014-2018 +1.8 percent p.a.), slightly stronger than the euro area average. The income tax relief for private households granted by the family bonus will support consumer demand in 2019 and especially in 2020. Over the forecast period, private consumption is expected to grow at an annual rate of 1.6 percent (2014-2018 +1.0 percent p.a.). Employment will expand faster than labour supply up to 2020 as a result of the economic conditions and the unemployment rate will remain at 7.3 percent. However, from 2021 labour supply will again grow faster than demand, so that the unemployment rate will rise to 7.5 percent by the end of the forecasting period. Inflationary pressure will remain moderate in the medium term, and the positive inflation differential with the euro area should continue to narrow, but not reverse. WIFO expects an average consumer price inflation rate of 1.8 percent p.a. Based on the projected economic outlook and the assumed economic policy conditions, the overall fiscal balance will remain positive over the forecasting period and even improve slightly. As a result, the public debt ratio (general government debt as a percentage of nominal GDP) will fall by around 17½ percentage points as compared with 2018 to below 57 percent by 2023.

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This article summarises the results of the update of the WIFO Medium-term Forecast 2019-2023 for the Austrian economy of October 2018 (*Baumgartner – Kaniovski et al.*, 2018). Until 2020, the projections build upon the WIFO Economic Outlook of March 2019 (*Schiman*, 2019). Data released after 22 March 2019, such as those from Statistics Austria on the government and the household account (published on 28 March and 1 April 2019, respectively), could not be taken on board for the present projections. 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 2019. • For definitions used see "Methodological Notes and Short Glossary", http://www.wifo.ac.at/wwadocs/form/WIFO-BusinessCycle Information-Glossary.pdf

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A gradual slowdown of the global business activity is expected for the forecast period 2019 to 2023, of which the Austrian economy cannot (completely) detach itself. The comparatively favourable starting position in 2019 (*Schiman*, 2019) and expansion of social benefits with the introduction of the family bonus[1] will stem the downward external trend in 2019 and more so in 2020, thereby mitigating the domestic cyclical downturn. Trend output growth over the forecast period is projected at an average 1¾ percent p.a.; starting from 0.9 percent in 2018, the positive output gap should close by 2023. Based on this economic scenario and the no-policy-change assumption underlying the forecast[2], the general government balance will exhibit a slightly

[1] The family bonus (Familienbonus) is an income tax credit for families with children. A economic assessment of the effects of the family bonus is offered by *Baumgartner – Fink et al.* (2018).

[2] WIFO forecasts are based on a no-policy-change assumption that generally incorporates only legal acts already adopted. In certain cases, measures not yet formally decided are included, e.g. if negotiations or

rising surplus and the government debt ratio should drop below 60 percent of nominal GDP at the forecast horizon.

1. International framework conditions

About 85 percent of Austrian exports go to the EU, the USA, China and Switzerland. On the basis of Oxford Economics global forecast 2019-2023 of February 2019, the overall demand of the aforementioned group of countries, weighted by Austrian export shares, will expand by an annual 2½ percent or more. From this an average annual growth of Austrian exports of 3.3 percent is expected.

The assumption for crude oil prices is derived from medium-term market expectations, as reflected by futures quotations for Brent until 2023. Accordingly, the reference price is set to fall from an average 71 $ per barrel in 2018 to 60 $ in 2023, thereby remaining below the level of the past ten years (80 $).

The exchange rate of the dollar against the euro is assumed to rise slightly to 1.22 $ per euro by the end of the projection period. This reflects the conjecture that the short-term interest rate differential between the euro area and the USA will narrow over the next few years, as the US Central Bank is expected not raise the Federal Funds rate, while the ECB, in the course of the normalisation of its monetary stance, increases its main refinancing rate (for the first time since September 2014 from the current zero lower bound) in several steps to 1½ percent by 2023.

Since the medium-term forecast of October 2018, the ECB has announced two important monetary policy moves: first, its intention to not raise the main refinancing rate until the end of 2019 at the earliest; and second, to launch from September 2019 for 1½ years a new (third) credit programme for EU banks, with a maturity of 2 years (TLTRO III, targeted long-term refinancing operations). Against this background, the forecast for short- and long-term market rates has to be revised significantly. For 2023, euro area 3-months interest rates are assumed at 1½ percent (against 2.4 percent in October), and the secondary market yield for German 10-year government bonds at 2½ percent (previously 3.4 percent).

2. Private consumption sustains domestic demand

2.1 Family bonus enhences income and consumption

International economic activity will lose momentum over the forecast period. As a consequence, growth of exports (2019-2023 +3.3 percent p.a. in volume; 2014-2018 +3.6 percent p.a.) and investment in Austria (2019-2023 +1.7 percent p.a. in volume; 2014-2018 +2.7 percent p.a.) is set to moderate, and with it overall GDP. Private consumption, however, will continue to provide firm support (2019-2023 +1.6 percent p.a. in volume; 2014-2018 +1.0 percent p.a.). The family bonus introduced on 1 January 2019 adds to growth of disposable income of private households in 2019 and 2020, thereby dampening the impact of the cyclical slowdown on consumer spending (*Baumgartner – Fink et al.,* 2018).

With the gains in household disposable income, the private saving ratio should rise to 7.5 percent, up by 0.3 percentage points from 2018, since typically only half of the additional income translates into higher consumption in the short term. Thereafter, the saving ratio may abate to 6.9 percent by 2023.

The increase in private consumption by a projected 1.6 percent p.a. will allow overall GDP in Austria to grow by an equal annual rate of 1.6 percent between 2019 and 2023.

The flatter growth profile from 2019 onwards dampens the cyclically highly sensitive demand for new machinery and equipment (including miscellaneous investment: 2019-2023 +2.0 percent p.a.; 2014-2018 +3.8 percent p.a.). Private residential construction receives continued stimulus from population growth (projected by Statistics Austria at a cumulated 2½ percent over the entire 2019-2023 period) and the

legislation processes have reached an advanced stage (draft legal acts in evaluation, Ministerial Council decisions, if a stable parliamentary majority makes their adoption likely) and the proposals are sufficiently specified to allow a quantitative assessment.

unabated increase of real estate prices (2011-2018 +5.7 percent p.a. according to Statistics Austria's house price index). The medium-term investment plans of the Federal Real Estate Agency (BIG; Bundesimmobiliengesellschaft), the Motorway and Expressway Financing Agency (Asfinag) and Austrian Federal Railways (OeBB) suggest a more cautious outlook for the civil engineering. Therefore, total construction activity is expected to expand only moderately in 2019-2023 with an annual increase of +1.3 percent.

Table 1: Main results

	Ø 2008-2013	Ø 2013-2018	Ø 2018-2023	2018	2019	2020	2021	2022	2023
	Year-to-year percentage changes								
Gross domestic product									
Volume	+ 0.3	+ 1.8	+ 1.6	+ 2.7	+ 1.7	+ 1.8	+ 1.7	+ 1.6	+ 1.4
Value	+ 2.0	+ 3.6	+ 3.5	+ 4.4	+ 3.8	+ 3.7	+ 3.4	+ 3.3	+ 3.1
Consumer prices	+ 2.0	+ 1.5	+ 1.8	+ 2.0	+ 1.7	+ 1.8	+ 1.8	+ 1.8	+ 1.8
GDP deflator	+ 1.7	+ 1.7	+ 1.8	+ 1.6	+ 2.0	+ 1.9	+ 1.7	+ 1.7	+ 1.7
Gross wages and salaries total[1]	+ 2.7	+ 3.6	+ 3.2	+ 4.7	+ 4.0	+ 3.1	+ 3.1	+ 3.0	+ 2.9
Per capita, volume[2]	– 0.2	+ 0.5	+ 0.3	+ 0.5	+ 0.8	+ 0.3	+ 0.3	+ 0.2	+ 0.1
Employees[3]	+ 0.9	+ 1.6	+ 1.1	+ 2.2	+ 1.5	+ 1.0	+ 1.0	+ 1.0	+ 0.9
Persons in active dependent employment[4]	+ 0.7	+ 1.5	+ 1.2	+ 2.5	+ 1.6	+ 1.1	+ 1.1	+ 1.0	+ 0.9
	Ø 2009-2013	Ø 2014-2018	Ø 2019-2023	2018	2019	2020	2021	2022	2023
	Percent								
Unemployment rate									
Eurostat definition[5]	5.0	5.5	4.6	4.9	4.6	4.6	4.6	4.7	4.7
National definition[6]	7.1	8.5	7.3	7.7	7.3	7.3	7.3	7.4	7.5
	As a percentage of GDP								
Net exports	3.1	3.5	4.3	3.6	3.9	4.3	4.4	4.5	4.5
General government financial balance (Maastricht definition)	– 3.3	– 1.2	+ 0.9	± 0.0	+ 0.4	+ 0.7	+ 0.9	+ 1.0	+ 1.1
Cyclically-adjusted budget balance									
Method of the European Commission[7]	– 2.8	– 1.0	+ 0.7	– 0.5	+ 0.1	+ 0.4	+ 0.7	+ 0.9	+ 1.1
WIFO method[8]	– 2.6	– 0.8	+ 0.5	– 0.5	– 0.0	+ 0.3	+ 0.6	+ 0.8	+ 1.0
Structural budget balance									
Method of the European Commission[7]	– 2.6	– 0.6	+ 0.7	– 0.5	+ 0.1	+ 0.4	+ 0.7	+ 0.9	+ 1.1
WIFO method[8]	– 2.4	– 0.4	+ 0.5	– 0.5	– 0.0	+ 0.3	+ 0.6	+ 0.8	+ 1.0
Gross public debt	81.6	80.8	63.0	73.9	70.0	66.2	62.8	59.6	56.5
	As a percentage of disposable income								
Household saving ratio	9.0	7.2	7.2	7.2	7.4	7.5	7.3	7.1	6.9
	Ø 2008-2013	Ø 2013-2018	Ø 2018-2023	2018	2019	2020	2021	2022	2023
	Year-to-year percentage changes								
Trend output, volume									
Method of the European Commission[7]	+ 0.9	+ 1.5	+ 1.8	+ 1.9	+ 1.9	+ 1.9	+ 1.9	+ 1.7	+ 1.6
WIFO method[8]	+ 1.0	+ 1.4	+ 1.8	+ 1.7	+ 1.7	+ 1.9	+ 1.9	+ 1.8	+ 1.7
	Ø 2009-2013	Ø 2014-2018	Ø 2019-2023	2018	2019	2020	2021	2022	2023
	As a percentage of trend output								
Output gap, volume									
Method of the European Commission[7]	– 1.0	– 0.5	+ 0.3	+ 0.9	+ 0.7	+ 0.5	+ 0.4	+ 0.2	± 0.0
WIFO method[8]	– 1.2	– 0.7	+ 0.5	+ 0.9	+ 0.9	+ 0.8	+ 0.5	+ 0.4	+ 0.1

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 2019, parametrisation according to the forecast of the European Commission of November 2018. – [8] WIFO estimate based on the WIFO forecast of March 2019 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.

On the basis of these prospects for the major demand components, overall GDP is set to grow by an average 1.6 percent per year (2014-2018 +1.8 percent p.a.). The level of real GDP in 2023 is found to be higher by 0.3 percent compared with a situation without the private net income gains from the family bonus (*Baumgartner – Fink et al.*, 2018). The relatively favourable trend of domestic private consumption also explains the projected growth advantage vis-à-vis the euro area average. Nominal GDP should increase at an annual rate of 3.5 percent (2014-2018 +3.6 percent p.a.).

Table 2: International fundamentals

	Ø 2008-2013	Ø 2013-2018	Ø 2018-2023
		Year-to-year percentage changes	
Gross domestic product, volume			
USA	+ 1.1	+ 2.4	+ 1.9
Euro area	− 0.4	+ 1.9	+ 1.5
	Ø 2009-2013	Ø 2014-2018	Ø 2019-2023
		$ per €	
Exchange rate	1.35	1.17	1.18
		$ per barrel	
Oil price, Brent	94.5	64.1	62.4

Source: Eurostat, WIFO calculations.

Table 3: Components of aggregate demand, volume

	Ø 2008-2013	Ø 2013-2018	Ø 2018-2023	2018	2019	2020	2021	2022	2023
				Year-to-year percentage changes					
Consumption expenditure									
Private households[1]	+ 0.7	+ 1.0	+ 1.6	+ 1.6	+ 1.7	+ 1.7	+ 1.6	+ 1.6	+ 1.5
General government	+ 0.7	+ 1.0	+ 0.7	+ 0.2	+ 0.7	+ 0.5	+ 0.7	+ 0.7	+ 0.7
Gross fixed capital formation	− 0.2	+ 2.7	+ 1.7	+ 3.3	+ 2.3	+ 1.8	+ 1.5	+ 1.4	+ 1.3
Machinery and equipment[2]	+ 1.4	+ 3.8	+ 2.0	+ 3.7	+ 2.8	+ 2.4	+ 1.8	+ 1.7	+ 1.5
Construction	− 2.0	+ 1.4	+ 1.3	+ 2.8	+ 1.8	+ 1.2	+ 1.1	+ 1.1	+ 1.0
Domestic demand	+ 0.4	+ 1.7	+ 1.4	+ 1.9	+ 1.3	+ 1.4	+ 1.5	+ 1.5	+ 1.4
Exports	+ 0.9	+ 3.6	+ 3.3	+ 4.4	+ 3.1	+ 3.6	+ 3.5	+ 3.3	+ 3.1
Imports	+ 1.2	+ 3.6	+ 3.0	+ 2.8	+ 2.5	+ 3.0	+ 3.3	+ 3.2	+ 3.1
Gross domestic product	+ 0.3	+ 1.8	+ 1.6	+ 2.7	+ 1.7	+ 1.8	+ 1.7	+ 1.6	+ 1.4

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

2.2 Trend output and the output gap

According to the calculation method applied by the European Commission, trend growth for the period from 2019 to 2023 amounts to 1.8 percent p.a., which is 0.3 percentage points higher than for the preceding five-year period (2014-2018 +1.5 percent p.a.). Compared with the medium-term forecast of October 2018 (2019-2022 +2.1 percent; *Baumgartner – Kaniovski et al.*, 2018), there has been a downward revision of trend growth by 0.3 percentage points. This is due to a downward revision of the dynamics of the labour force from 2021 onwards (demographic projections from Statistics Austria of November 2018). Starting from +0.5 percent of trend output in 2020, the positive output gap will close until 2023, in line with the technical assumption (Figure 1). The European Commission forecast of last autumn anticipated for Austria an average output gap of 0.4 percent of trend output, at a mean trend output growth of 1.9 percent p.a. (*European Commission,* 2018).

One drawback of the European Commission method is the exaggerated cyclical behaviour of trend output, resulting from an imperfect cyclical adjustment of the input variables (*Maidorn,* 2018). The technical assumption of the output gap closing towards the end of the forecast horizon may, in connection with a projection of trend output, imply unrealistic trajectories for real GDP. The WIFO variant of a calculation following the Commission methodology differs by a less pro-cyclical path of labour input and an endogenous output gap that is derived from the forecasts of real GDP and of trend output for the entire forecast period.

The alternative WIFO estimate yields a similar result as the method that mimics the Commission approach more closely. For the period from 2019 to 2023, trend growth is projected likewise at 1.8 percent p.a. The output gap narrows towards the end of the forecast period, without closing entirely. Accordingly, the Austrian economy will continue to find itself in a phase of above-average but declining capacity utilisation in the next five years.

On the method of trend output calculation

Trend output describes the long-term trend of growth and serves to assess the position of an economy in the business cycle: cyclical variations are defined by the output gap as the deviation of real GDP from trend output. The output gap enters into the calculation of the structural budget balance in order to evaluate the sustainability of public finances.

Since trend output is an unobserved variable, it has to be estimated by means of econometric models from data that can be observed. The method developed by the European Commission for the assessment of trend output combines a macroeconomic production function and time series models with unobserved components. In contrast to purely statistical filter methods, the production function concept as a structural approach allows an interpretation of the results and with policy conclusions (*Cotis – Elmeskov – Mourougane*, 2005). The procedure decomposes real GDP into a cyclical and a trend component. For this purpose, the time series for capital and labour inputs are adjusted for short-term cyclical variations. Equilibrium on the labour market is defined by the NAWRU concept (non-accelerating wage rate of unemployment; *Hristov – Raciborski – Vandermeulen*, 2017. The trend of the unemployment rate is estimated by taking structural labour market indicators into account. The labour input is derived from the working age population, the labour force participation ratio, the average hours worked per capita and the NAWRU. Time series for the labour force participation and the average hours worked are cyclically adjusted. Next to labour input, total factor productivity which is driven by technical progress, is the other key determinant of trend growth.

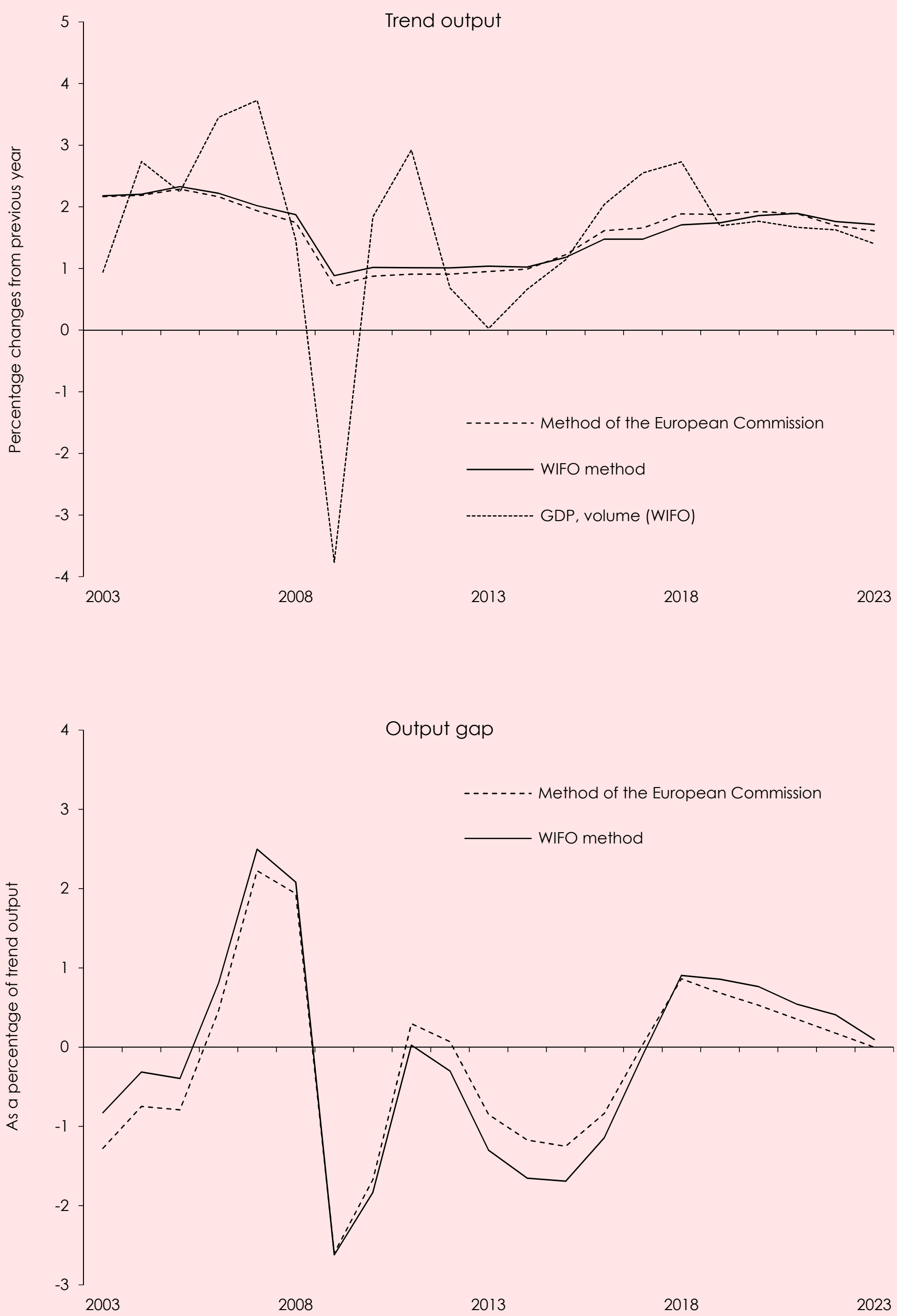
The method of the European Commission offers a medium-term projection of trend output that describes the transition from short-term cyclical fluctuations to a medium-term growth path. It is assumed that the output gap, the deviation of GDP from trend output, and the employment gap, defined as deviation of the unemployment rate from NAWRU, are closed at the end of the five-year forecast period. The estimates for the trend of total factor productivity and the NAWRU are based on historical data and the WIFO economic forecast up to 2020. For 2021 to 2023, trend output is projected by means of an econometric extrapolation of the trend of total factor productivity and a technical assumption of the NAWRU trend.

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

		Ø 2009-2013	Ø 2014-2018	Ø 2019-2023	2018	2019	2020	2021	2022	2023
WIFO estimate: method of the European Commission[1]										
GDP, volume (implied)	year-to-year percentage changes	+ 0.3	+ 1.8	+ 1.6	+ 2.7	+ 1.7	+ 1.8	+ 1.7	+ 1.5	+ 1.4
Trend output	year-to-year percentage changes	+ 0.9	+ 1.5	+ 1.8	+ 1.9	+ 1.9	+ 1.9	+ 1.9	+ 1.7	+ 1.6
Labour	percentage points	+ 0.0	+ 0.6	+ 0.5	+ 0.8	+ 0.7	+ 0.7	+ 0.6	+ 0.3	+ 0.2
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	+ 0.4	+ 0.4	+ 0.7	+ 0.5	+ 0.6	+ 0.6	+ 0.7	+ 0.7	+ 0.8
Output gap, volume	as a percentage of trend output	– 1.0	– 0.5	+ 0.3	+ 0.9	+ 0.7	+ 0.5	+ 0.4	+ 0.2	± 0.0
WIFO estimate: WIFO method[2]										
GDP, volume	year-to-year percentage changes	+ 0.3	+ 1.8	+ 1.6	+ 2.7	+ 1.7	+ 1.8	+ 1.7	+ 1.6	+ 1.4
Trend output	year-to-year percentage changes	+ 1.0	+ 1.4	+ 1.8	+ 1.7	+ 1.7	+ 1.9	+ 1.9	+ 1.8	+ 1.7
Labour	percentage points	+ 0.1	+ 0.5	+ 0.5	+ 0.6	+ 0.5	+ 0.6	+ 0.6	+ 0.4	+ 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	+ 0.4	+ 0.4	+ 0.7	+ 0.5	+ 0.6	+ 0.6	+ 0.7	+ 0.7	+ 0.8
Output gap, volume	as a percentage of trend output	– 1.2	– 0.7	+ 0.5	+ 0.9	+ 0.9	+ 0.8	+ 0.5	+ 0.4	+ 0.1
Estimate of the European Commission (autumn 2018)										
GDP, volume	year-to-year percentage changes	+ 0.3	+ 1.8	+ 1.7	+ 2.7	+ 2.0	+ 1.8	+ 1.8	+ 1.6	+ 1.6
Trend output	year-to-year percentage changes	+ 0.9	+ 1.5	+ 1.9	+ 2.0	+ 2.0	+ 2.1	+ 2.0	+ 1.8	+ 1.7
Labour	percentage points	+ 0.0	+ 0.6	+ 0.6	+ 0.9	+ 0.7	+ 0.7	+ 0.6	+ 0.4	+ 0.3
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	+ 0.4	+ 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	– 0.9	– 0.4	+ 0.4	+ 0.8	+ 0.8	+ 0.5	+ 0.3	+ 0.2	± 0.0

Source: European Commission, Statistics Austria, WIFO calculations. – [1] WIFO estimate based on the WIFO forecast of March 2019, parametrisation according to the forecast of the European Commission of November 2018. – [2] WIFO estimate based on the WIFO forecast of March 2019 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.

Figure 1: Trend output and output gap



Source: European Commission, Statistics Austria, WIFO calculations. Method of the European Commission . . . WIFO estimate based on the WIFO forecast of March 2019, parametrisation according to the forecast of the European Commission of November 2018. WIFO method . . . WIFO estimate based on the WIFO forecast of March 2019 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.

2.3 Unemployment remains high

Overall output growth at an annual average of 1.6 percent will allow dependent active employment (as defined by the Main Association of the Austrian Social Security Institutions – Hauptverband der österreichischen Sozialversicherungsträger) to expand at a rate of 1.2 percent p.a. (2014-2018 +1.5 percent p.a.). In 2019 and 2020, job creation will also be elevated by the economic stimulus of the family bonus (*Baumgartner – Fink et al.*, 2018).

The unemployment rate (according to Public Employment Service (AMS) definition) will remain at 7.3 percent until 2021. With GDP growth easing and labour force growth slightly accelerating, the jobless rate will rise to 7.5 percent by the end of the forecast period. The number of registered unemployed persons is forecast at 320,000 in 2023.

The decline in the unemployment rate from 8.5 percent in 2017 to 7.3 percent in 2019 is the result the very strong economy. Until 2021, the unemployment rate will remain at 7.3 percent. Thereafter, it will increase again due to the dampening of labour demand as a result of the economic slowdown, but also due to the increase in labour supply (including the opening of the labour market for Croatian nationals in mid-2020). Until 2023 the unemployment rate is expected to rebound to around 7.5 percent of the dependent labour force (Public Employment Service definition) or 4.7 percent of the total labour force (Eurostat definition). For 2023, the number of registered unemployed persons is projected at around 320,000.

Despite the stagnation of the working age population (according to the demographic projections by Statistics Austria of November 2018), labour supply is set to increase by 1 percent per year (+42,700 p.a.; 2014-2018 +1.5 percent p.a.). This is explained by further rising labour force participation of women and older people (due to the restricted access to early retirement since 2014)[3] and the inflow of foreign workers.

The access of foreign workers will abate from over 54,000 in 2018 to nearly 26,000 in 2023. Since the domestic population of working age remains broadly constant, the share of foreigners in total employment will rise from 20.6 percent in 2018 (when foreigners accounted for 62 percent of the overall employment increase) to 23 percent in 2023, taking more than 70 percent of the new jobs created.

2.4 Inflation remains stable

Unit labour cost for the economy as a whole, the key determinant of domestic cost pressure, is expected to increase at an annual rate of 1.4 percent between 2019 and 2023. However, gross real wages per capita (+0.3 percent p.a.) may continue to lag behind labour productivity growth (+0.5 percent p.a.). Labour costs should thus hardly exert inflationary pressure. The forecast assumes no changes in excise duties.

Likewise, import prices should not add to inflation: first, crude oil futures quotations point to slightly easing price expectations of market participants' (see section 1). Second, the upward drift of commodity world market prices in euro will ebb under the impact of the cyclical slowdown from over 3 percent in 2019 to below 1 percent in 2023.

Prices (as measured by the CPI or the GDP deflator) will go up by an average 1.8 percent per year over the period from 2019 to 2023. The considerable inflation gap observed since 2011 vis-à-vis Germany and the euro area average (2011-2017 +0.6 percentage points p.a. against Germany, +0.7 percentage points p.a. against the euro area) has significantly narrowed during 2018. Service prices (including administered prices) will nevertheless keep rising faster in Austria, maintaining an inflationary gap of 0.1 to 0.25 percentage points over Germany and the euro area.

The increase in real wages per capita (+0.3 percent p.a.; 2014-2018 +0.5 percent p.a.) and in employment (according to the definition of national accounts +1.1 percent p.a.; 2014-2018 +1.6 percent p.a.) will decline more strongly in the course of the economic slowdown than inflation will increase compared to the previous five-year period. The increase in gross wages and salaries of 3.2 percent per year over the forecast period will therefore be slower than in the period 2014 to 2018 (+3.6 percent p.a.).

2.5 Budgetary surplus creates scope for tax cuts

In 2018, for the first time in more than 40 years a balanced general government budget (according to the Maastricht definition) was achieved[4]. The favourable

[3] According to the main scenario of Statistics Austria's demographic projections of November 2018, the relevant age group – women between 50 to 59 years and men aged 55 to 64 years – will be 17 (21) percent higher in 2019 (2023) than in 2013, the year before tighter rules for the access to early retirement became effective. The share of persons in early retirement in the relevant age group as defined above, fell from 3.5 percent in 2013 to 1.9 percent in 2015. For the forecast period 2019-2023, a marginal increase from 2.2 to 2.3 percent is extrapolated.

[4] The government balance notification released by Statistics Austria on 28 March 2019 (Maastricht balance +0.1 percent of GDP in 2018) differs slightly from the latest WIFO estimate (of 22 March 2019) of a balanced

outcome was mainly due to persistently strong revenues from taxes and social contributions, but also to strict budget execution, moderate growth of social expenditure and a sustained decline in public debt service because of low interest rates. For the period 2019-2023, government spending is projected to progress at an annual average rate of 2.5 percent, somewhat less than the +2.9 percent assumed in the medium-term WIFO forecast of October 2018. The projection for revenue growth of 3.0 percent p.a. from 2019 till 2023 remains broadly unchanged (October 2018 forecast +3.1 percent). Consequently, the anticipated budget path shows a steady improvement of the general government balance from +0.4 percent of GDP in 2019 to +1.1 percent of GDP in 2023.

The fiscal relief for private households from the family bonus is incorporated into the projections for the government balance and for aggregate demand to the amount of 600 million € in 2019, rising to about 1.25 billion € in 2020 (*Baumgartner – Fink et al.,* 2018). Other fiscal measures not yet sufficiently specified by the cut-off date of the forecast, such as the envisaged tax reform from 2020 onwards, providing for cuts in wage and income taxation, public health insurance contributions and possibly corporate income taxation, have not been included in the forecast. Short-term costs and medium-term gains from the already decided merger of social security institutions are difficult to assess to date and could not be taken into account. Hence, the projected path of fiscal surpluses broadly defines the scope for potential reductions in the overall tax burden, without compromising the target of a balanced general government budget[5].

The revenue projection for the period 2019 to 2023 is based on a no-policy change assumption over the entire forecast horizon. The underlying favourable development of employment and private consumption has a positive impact on public revenues from taxes and other public charges. Despite the introduction of the family bonus, wage tax revenues are set to increase by 4.7 percent p.a. The dynamics of corporate income taxes, due to its higher cyclical sensitivity, will moderate from an average +8.5 percent p.a. between 2014 and 2018 to +3.4 percent for the period 2019 to 2023). Growth of social contribution revenues will ease from an annual 3.6 percent (2019-2023) to 3.2 percent (2014-2018). The VAT revenues should rise in line with nominal private consumption, at an annual rate of 3½ percent. Overall, the projection implies a moderate decline in the government revenue ratio from 48.5 percent of GDP in 2018 to 47.5 percent in 2023. The ratio is thus 0.6 percentage points higher as compared to the medium-term WIFO forecast of October 2018, partly due to the projected slower nominal GDP growth. The overall tax-to-GDP ratio, i.e. the sum of tax and actual social contribution revenues (according to ESA 2010) as a percentage of GDP, falls from 42.1 percent in 2018 to 41.6 percent by 2023. Without factoring in the envisioned tax reform, it is thus 1.6 percentage points above the stated fiscal target of 40 percent of GDP.

The expenditure projection for the period from 2019 to 2023 implies a slight acceleration in the growth of monetary social benefits (+3.0 percent p.a.) vis-à-vis 2014-2018 (+2.3 percent p.a.). In view of the ageing population, higher public expenditures are expected for pensions and long-term care. Government consumption is foreseen to expand by an annual average 2.7 percent over the period. It is assumed that after relatively high wage settlements for the public sector for 2019 subsequent wage increases will be more moderate, in line with inflation. The number of employees in the public sector is likely to increase only modestly. Low interest rates will contribute to further easing the fiscal burden until 2020. As of 2021, increasing bond yields will gradually add to public debt service costs despite a declining government debt-to-GDP ratio.

The anticipated fiscal surplus and expected proceeds from the liquidation of assets or repayments of participation capital of HETA Asset Resolution AG, immigon portfolio liquidation AG, Österreichische Volksbanken AG and KA Finanz AG will result in a

budget (zero deficit). Due to the earlier cut-off date for information included in the forecast it could not be taken into account. However, this small discrepancy has no influence on the assessment of the fiscal balance until 2023.

[5] However, any expansionary macroeconomic repercussions of the tax cuts are not taken into account.

further reduction of government debt: by 2023 the debt-to-GDP ratio is projected to fall well below 60 percent.

The key policy target within the EU fiscal framework is the trend of the structural budget balance. Its projection crucially hinges on the determination of the macroeconomic output gap. Following the method of the European Commission, the structural budget balance will improve from –0.5 percent of GDP in 2018 to over +1 percent of GDP in 2023. Compared with the medium-term forecast of October 2018, the structural balance shows an improvement by around ½ percentage point.

3. Risks to the forecast

The international environment holds a number of downside risks for the present projections for the 2019-2023 period. While the trade conflict between the USA and China appears to have been settled, there is a danger that the USA may now focus of its trade policy agenda on the EU. Next to the EU, the USA is the most important trading partner for Austria's export-oriented economy, especially for investment goods. An increase in import tariffs or the introduction of other trade restrictions would thus also directly negatively affect Austria's export potential.

Economic developments in Italy, Austria's third-most important export destination, remain a key factor for trade prospects. Already in 2018, the country slipped into recession. Given the significant rise in long-term interest rates (in the context of the government change and the submission of its draft budgetary plan) and the high level of government debt, the scope for fiscal counter-action is extremely narrow. Any deepening of the recession would also have a direct impact on Austria's exports.

A further risk for the EU economy relates to the consequences of the UK's imminent withdrawal from the European Union. A severe restriction of bilateral economic relations in the event of a "hard Brexit", while hitting the British economy in the first place, would adversely affect also the rest of Europe (*Oberhofer – Pfaffermayr,* 2018, *Felbermayr – Gröschl – Steininger,* 2018).

Geopolitical conflicts in the Middle East as well as the tensions between Russia and the EU hold risks for the supply of engery, and as a consequence a significant rise of energy prices and inflation. Moreover, severe unrest in the Middle East or an increase in the tensions between Turkey and the EU may rekindle mass migration of refugees to Europe.

Should some the aforementioned downside risks for the global economy materialise, it would not only undermine export prospects, but weaken the outlook for growth of GDP, income and employment in Austria altogether.

The medium-term outlook for public finances also harbours an asymmetric risk of a markedly weaker outcome: first, in the event of a UK withdraws from the EU, Austria's net contribution to the EU budget is likely to increase. Second, the tax measures envisaged by the federal government (reform of the income tax rates, adjustment for fiscal drag, cut in the corporate income tax rate) have not been taken into account into the present forecast, since they are not specified in sufficient detail yet. Should these reform measures be (partly) implemented within the forecast period, household disposable income, private consumption, corporate profits and investment may turn out higher than projected, leading to higher employment and lower unemployment. As a result, stronger domestic demand would increase GDP growth, tax revenue and social contributions. The revenue shortfall (due to lower income and corporate taxation) would lower the anticipated fiscal surplus. The net effect on the general government balance would depend on the additional tax revenue generated on the one hand by the stronger economic performance, and on the other hand on any counter-financing measures (not yet specified).

Projected future fiscal surpluses and the reduction of government debt presented in this forecast are largely based on favourable revenue developments. Should economic activity be significantly weaker than assumed, government revenues would inevitably turn out lower and expenditures higher. As a consequence, the government balance would become less favourable than outlined in this projection.

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