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Economic Growth Remains Low, but Stable

Medium-term Forecast of the Austrian Economy Until 2024

Economic Growth Remains Low, but Stable. Medium-term Forecast of the Austrian Economy Until 2024

The global economy has been gradually weakening since the first half of 2018. It is predicted that growth will remain sluggish in the coming years. The Austrian economy is expected to grow by 1.4 percent per year on average in the forecast period 2020-2024 (2015-2019 +1.9 percent p.a.), slightly (+0.1 percentage point) stronger than the euro area average. The tax reliefs for private household incomes (family bonus and measures to support low-income earners in 2020 and 2021) will continue to support consumer demand. The average growth of private consumption over the forecast period is predicted at 1.5 percent p.a. (2015-2019 +1.2 percent p.a.). The moderate but stable expansion will allow a steady increase in employment of 1.0 percent p.a. (2015-2019 +1.7 percent p.a.) and the unemployment rate will remain at around 7½ percent. In the medium term, price increases according to the consumer price index will be moderate at 1¾ percent p.a., and the inflation differential to the euro area is expected to remain at around ¼ percentage point. Based on the forecast of nominal economic growth at +3.2 percent p.a. and the assumed economic policy measures, the fiscal balance of public households will remain positive over the forecast period at around ½ percent of nominal GDP. As a result, the government debt ratio (general government debt as a percentage of nominal GDP) is predicted to fall to around 56 percent by 2024.

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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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Economic developments in major trading partner countries are of paramount importance for a small, export-oriented economy like Austria. Following a slowdown in the years 2019 and 2020, we expect only a small further weakening of international business activity, affecting the domestic economy for the period 2020-2024. The optimistic first half of 2019, when compared with the euro area average (Ederer, 2019), and the expansionary impact of new fiscal measures boosting household incomes from 2020 onwards will sustain private consumption and domestic demand, thereby dampening adverse knock-on effects from abroad.

The forecast accounts for the policy measures adopted between June and September 2019 that target low-income private households (notably for retired persons). In addition, the outlook rests on a no-policy-change assumption¹.

¹ WIFO projections generally rely on a no-policy-change assumption that takes into account only legislated laws and regulations. In certain cases, measures not yet formally adopted are included, such as drafts in an advanced stage of the negotiation or decision process (draft acts circulated for consultation or government proposals for which a stable parliamentary majority appears most likely) that are sufficiently specified to allow a quantitative assessment of their impact.

Based on the anticipated business cycle, the general government account will be in surplus over the forecast horizon, with overall public debt declining both in absolute terms and as a share of nominal GDP.

Up until 2020, the medium-term forecast for the international economy and Austria incorporates the WIFO short-term forecast of October 2019 (Ederer, 2019). The medium-term assessment for the world economy for the years from 2021 to 2024 is based on scenarios developed using the Oxford Economics Global Economic Model². Based on this external scenario and the assumptions concerning domestic economic policy, the present forecast for Austria has been developed using the WIFO Macroeconomic Model (Baumgartner – Breuss – Kaniowski, 2005).

1. The international environment

1.1 USA

From a rate of 2.3 percent in 2019 and 1.8 percent in 2020, GDP growth is likely to moderate to an annual 1.8 percent over the medium term. The US economy will benefit from strong fundamentals: labour supply will continue to grow steadily, largely due to second-generation immigrants; relative unit labour cost will remain close to a 30-year low; the private household debt/income ratio has receded almost to its long-term average, and fiscal policy is unlikely to become restrictive. Moreover, following several years of sluggishness, labour productivity growth is expected to pick up. Inflation has been low ever since the economic and financial market crisis of 2008-09. The core inflation will hardly exceed the Fed's 2-percent target, given slackening GDP growth, a flattening Phillips curve (i.e. the relation between wage growth and unemployment) and stable inflation expectations. Nevertheless, financial markets will continue to remain a risk factor. The currently observed low yield differential between long-term government bond yields and short-term interest rates foreshadows a cyclical turnaround within the next one to three years.

The economies of Austria's major trading partners are expected to grow slower in the next years than on average during the last five-year period. For Germany, we expect average GDP growth at 1.1 percent per year, for the USA 1.8 percent (each ½ percentage point less than for 2015-2019) and for the CEEC 5.2.3 percent (-1.6 percentage points). The weaker outlook lowers Austria's export prospects accordingly.

1.2 Euro area

Both the global financial and economic crisis of 2009 and the ensuing debt crisis have lowered economic growth in the euro area for years. After a real GDP growth in the euro area by 1.2 percent and 1.3 percent in 2019 and 2020 respectively, medium-term growth is expected by 1¼ percent p.a. Potential output should expand by 1.2 percent per year, higher by 0.2 percentage points than in the first post-crisis decade, but lower by 0.6 percentage points than during the ten-year period preceding the crisis. While the availability of credit has improved in the last few years, banks still hold plenty of non-performing loans in their balance sheets, which constrains new lending, more efficient allocation of capital and has a dampening effect on investment. In addition, the long-lasting high unemployment levels have diminished qualifications of jobseekers. Coupled with a decline in the working age population this tightens labour supply, despite rising labour force participation.

The strong export-dependence of economic growth may prove to be a drawback in times of spreading protectionism. Notably an open trade war with the USA would be extremely detrimental to the euro area economy. Also the withdrawal of the UK from the EU clouds the medium-term growth outlook. The estimates of Oberhofer – Pfaffermayr (2018), Bisciari (2019) and of Felbermayr – Gröschl – Steininger (2018) suggest for the EU 27 (EU without the UK) 0 to 0.8 percentage points lower medium- and long-term growth of real GDP or private consumption. Such losses are expected to be unevenly spread, with Ireland and other small EU countries with strong historical ties to the UK like Malta, Cyprus or the Benelux countries being more strongly affected than others.

² The Oxford Economics Global Economic Model comprises a total of 80 countries, among them China, the USA, most EU member countries, India, Japan, Russia and Brazil in a highly disaggregated form.

Monetary policy in the euro area reverted to expansion by spring 2019, since inflation remains well below target and business activity slackens. The ECB will keep securities purchased between March 2015 and December 2018 in its portfolio and replace maturing papers with new purchases to equal amount. In addition, the ECB will launch from November 2019 a new unlimited purchase programme to the tune of 20 billion € per month. Last September, the Bank cut the interest rate for the deposit facility to –0.5 percent. No increase in key interest rates should be expected until the end of 2021. We assume for the present forecast a first increase in 2022, followed by a steady rise until 2024. The 3-month interest rate is expected to steadily increase from –0.4 percent in 2019 to +1.4 percent in 2024. With the implicit tightening of monetary conditions, euro area long-term interest rates are expected to increase. Hence, the yield on German 10-year central government bonds (benchmark) will rise from –0.3 percent in 2019 to 2¼ percent in 2024.

From November 2019, the ECB will resume its asset purchase programme. Key interest rates are unlikely to be raised before 2022 at the earliest.

1.3 Germany

We expect the Germany economy to grow by 0.5 percent in 2019, 1.2 percent in 2020. The annual growth rate of real GDP in the medium term is expected to average at 1.1 percent. Potential output is set to expand by 1.1 percent per year, broadly in line with the euro area average. The momentum may decelerate over time, largely due to a declining working-age population. Despite the extremely low unemployment, upward pressure on wages has so far been weak. Cost push inflation is also unlikely to flare up in a medium-term. The cooperative behaviour of employers and trade unions and the fear of production being outsourced towards Eastern Europe, should keep wage drift under control. Under the rule of the "debt brake", the government will aim at balanced general government budgets for the years to come, allowing a further decline in the debt ratio. A risk derives from the current structural change in the automobile sector: exhaust emission standards are being tightened worldwide, which squeezes demand for combustion engine cars.

1.4 Italy

From quasi-stagnation (0.1 percent in 2019), Italy's GDP is projected to head up to 0.4 percent in 2020 and 0.6 percent annually on average in the medium term (average 2015-2019 +0.9 percent). Structural problems and unfavourable credit conditions prevent the growth of the capital stock. The working age population is declining, and overall productivity will improve only marginally. Italy is exposed to considerable risk from international financial markets. Given the high public debt, confidence sentiments have a strong influence on economic developments. Some progress has been made in recent years towards consolidating the banking sector, as the write-off of bad loans and rising share values revived credit growth. The medium-term outlook remains nevertheless fragile, not least because the establishment of a government backed by a stable parliamentary majority that could address the necessary productivity-enhancing reforms is doubtful. This, together with an inefficient judiciary, hampers innovation and investment, with adverse effects on aggregate demand and the long-term growth potential.

1.5 East-central Europe

Poland's economy is set to expand by 4.2 percent in 2019, 3.2 percent in 2020 and 2.4 percent p.a. thereafter. Potential growth will decelerate somewhat for demographic reasons, as the working-age population shrinks, aggravated by a lowering of the retirement age. Overall, the Polish economy benefits from sound fundamentals in catching-up towards the advanced economies in Western Europe. Unlike other countries in the region, the banking sector has largely been spared from non-performing loans.

GDP growth in Hungary is projected at 4.8 percent in 2019, 3.0 percent in 2020 and 2.4 percent p.a. beyond. Like in Poland, the expansion of the productive potential is constrained by a declining working-age population. The medium-term performance will depend on the extent to which the convergence process towards Western Europe benefits from the strong inflow of EU subsidies. The latter should allow productivity to advance considerably faster than on average during the last ten years.

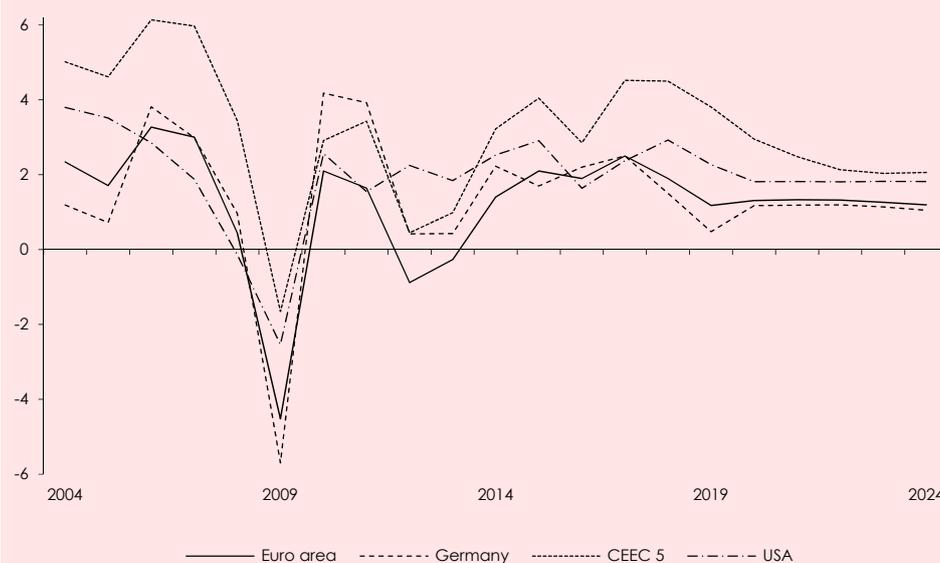
Table 1: International economy

	Percentage shares 2018		Ø 2009-2014	Ø 2014-2019	Ø 2019-2024	2019	2020	2021	2022	2023	2024
	Austria's exports of goods	World GDP ¹	GDP volume, percentage changes from previous year								
EU 28			+ 1.1	+ 2.1	+ 1.5	+ 1.5	+ 1.5	+ 1.6	+ 1.5	+ 1.5	+ 1.4
EU 27	67.1	14.0	+ 0.9	+ 2.2	+ 1.5	+ 1.6	+ 1.6	+ 1.5	+ 1.5	+ 1.4	+ 1.3
Euro area	52.0	11.4	+ 0.8	+ 1.9	+ 1.3	+ 1.2	+ 1.3	+ 1.3	+ 1.3	+ 1.3	+ 1.2
Germany	30.1	3.2	+ 2.2	+ 1.7	+ 1.1	+ 0.5	+ 1.2	+ 1.2	+ 1.2	+ 1.1	+ 1.1
Italy	6.5	1.8	- 0.4	+ 0.9	+ 0.6	+ 0.1	+ 0.4	+ 0.5	+ 0.7	+ 0.7	+ 0.7
France	4.3	2.2	+ 1.2	+ 1.5	+ 1.4	+ 1.3	+ 1.3	+ 1.5	+ 1.5	+ 1.4	+ 1.4
CEEC 5 ²	14.6	1.6	+ 2.2	+ 3.9	+ 2.3	+ 3.8	+ 3.0	+ 2.5	+ 2.1	+ 2.0	+ 2.1
Czech Republic	3.8	0.3	+ 1.1	+ 3.6	+ 1.9	+ 2.7	+ 2.0	+ 1.8	+ 1.9	+ 1.9	+ 1.8
Hungary	3.4	0.2	+ 1.4	+ 3.9	+ 2.4	+ 4.8	+ 3.0	+ 2.6	+ 2.3	+ 2.0	+ 2.0
Poland	3.2	0.9	+ 3.0	+ 4.2	+ 2.4	+ 4.2	+ 3.2	+ 2.7	+ 2.2	+ 2.0	+ 2.1
USA	7.1	15.2	+ 2.1	+ 2.4	+ 1.8	+ 2.3	+ 1.8	+ 1.8	+ 1.8	+ 1.8	+ 1.8
Switzerland	5.0	0.4	+ 2.0	+ 1.7	+ 1.5	+ 0.8	+ 1.5	+ 1.3	+ 1.8	+ 1.3	+ 1.8
UK	2.8	2.2	+ 2.0	+ 1.7	+ 1.7	+ 1.0	+ 1.2	+ 1.8	+ 1.9	+ 1.8	+ 1.8
China	2.7	18.7	+ 8.6	+ 6.6	+ 5.5	+ 6.2	+ 5.8	+ 5.7	+ 5.6	+ 5.3	+ 5.1
Total ³											
PPP-weighted ⁴		51	+ 3.7	+ 3.8	+ 3.1	+ 3.5	+ 3.2	+ 3.2	+ 3.1	+ 3.0	+ 2.9
Export weighted ⁵	85		+ 1.4	+ 2.2	+ 1.7	+ 1.7	+ 1.7	+ 1.7	+ 1.7	+ 1.6	+ 1.6
			Ø 2010-2014	Ø 2015-2019	Ø 2020-2024	2019	2020	2021	2022	2023	2024
<i>Forecast assumptions</i>											
Crude oil prices											
Brent, \$ per barrel			102	57	61	66	63	60	60	60	60
Exchange rate											
\$ per euro			1.33	1.13	1.10	1.12	1.10	1.10	1.10	1.10	1.10
Key interest rate											
ECB main refinancing rate ⁶ , percent			0.8	0.0	0.4	0.0	0.0	0.0	0.3	0.5	1.1
10-year government bond yields Germany, percent			1.9	0.2	0.7	- 0.3	- 0.5	- 0.1	0.5	1.4	2.3

Source: Statistics Austria, Oxford Economics Forecasting, WIFO calculations. – ¹ PPP-weighted. – ² Czech Republic, Hungary, Poland, Slovenia, Slovakia. – ³ EU, USA, Switzerland, China. – ⁴ Forecast weighted by GDP at purchasing power parities in 2018. – ⁵ Forecast weighted by shares of Austrian goods exports in 2018. – ⁶ Minimum bid rate.

Figure 1: Economic development of selected regions

GDP volume, percentage changes from previous year



Source: Statistics Austria, Oxford Economics Forecasting, WIFO calculations. CEEC 5: Czech Republic, Hungary, Poland, Slovenia, Slovakia.

The growth of real GDP in the Czech Republic (projected at 2.7 percent in 2019, 2.0 percent in 2020 and 1.9 percent p.a. 2020-2024) will be dampened by the demographic factor in the medium term. The country has greatly benefitted from the integration into the supply chains of the German motor car industry. Yet, excessive dependence on the automobile sector may also imply a medium-term risk, as cars and vehicle components account for some 20 percent of total Czech exports.

1.6 Oil prices and exchange rate

Underlying the forecast is the assumption of the reference price for crude oil abating from 66 \$ per barrel on average in 2019 to 63 \$ in 2020 and further to 60 \$, thereby remaining well below the 80 \$ average of the last ten years. By way of a technical assumption, the exchange rate is set at a constant 1.10 \$ per euro over the entire forecast horizon.

2. Growth to remain slow in Austria

2.1 Private consumption sustains domestic demand

Over the whole projection period, the economic downturn abroad will exert a dampening effect on exports and investment of domestic firms and thus on the overall economic activity in Austria. Private consumption will remain a pillar of the domestic economy in the next years. Thanks to the gains in disposable income, demand from private households will cushion the cyclical downswing especially in 2020 and 2021. For the period from 2020 to 2024, the projections for GDP components add up to an overall annual growth rate of 1.4 percent (2015-2019 +1.9 percent p.a.). The favourable performance of domestic private consumption also explains the positive growth differential of 0.1 percent per year vis-à-vis the euro area average. In nominal terms, GDP is expected to increase at an average 3.2 percent per year (2015-2019 +3.7 percent p.a.).

For Austria's export industries, the growth outlook for the euro area, the CEEC 5 and the USA (see section 1) is an important key, since the three regions together account for over 60 percent of total exports³. The projection of Austrian export-weighted annual GDP growth for these major trading partners is 1½ percent per year (2015-2019 +2.3 percent). Given the subdued international prospects, exports will probably expand by no more than 2.4 percent in volume per year, 1½ percentage points less than in the previous five-year period.

The moderation of domestic economic activity will also dampen imports, mainly via the cyclically sensitive and largely imported machinery and equipment investment goods. The import-dampening effect is to some extent mitigated by resilient consumption demand, such that overall imports may rise by 2.5 percent p.a. (2015-2019 +3.8 percent) and thus slightly faster than exports. While net exports, with an estimated nominal surplus of 14 billion €, will remain positive over the forecast period, their contribution to GDP growth is set to be neutral.

Investment in machinery and equipment (including "miscellaneous" investment) is expected to increase by 3.2 percent in 2019, still benefitting from favourable business conditions. The downswing will dampen the cyclically highly sensitive demand for investment goods to an average 1.6 percent per year (2015-2019 +4.7 percent p.a.).

Private residential investment should further profit from population growth (by a cumulated +2.3 percent for the period 2020-2024 according to Statistics Austria, ST.AT), the rising number of private households (+3.2 percent according to ST.AT) and the continued strong upward drift of real estate prices (ST.AT house price index 2011-2018 +5.7 percent p.a.). Going forward, we assume a stronger expansion of residential construction than in the past (2010-2018 +1.4 percent p.a., 2001-2018 excluding 2009 +0.3 percent p.a.). Based on the medium-term investment plans of the Federal Real Estate Agency (BIG), the Motorway Financing Ltd. (Asfinag) and the Austrian Federal

Driven by private consumption growth of 1.5 percent annually, the Austrian economy will grow at an average 1.4 percent per year from 2020 to 2024.

³ Data on nominal imports of goods and services from the three target group countries according to balance of payments.

Railways (ÖBB), civil engineering investment is expected to continue to develop rather sluggish. Hence, total construction activity is likely to increase at a moderate annual rate of 1¼ percent from 2020 to 2024.

Table 2: Main results

	Ø 2009-2014	Ø 2014-2019	Ø 2019-2024	2019	2020	2021	2022	2023	2024
	Year-to-year percentage changes								
Gross domestic product									
Volume	+ 1.2	+ 1.9	+ 1.4	+ 1.7	+ 1.4	+ 1.4	+ 1.4	+ 1.3	+ 1.3
Value	+ 3.0	+ 3.7	+ 3.2	+ 3.6	+ 3.2	+ 3.2	+ 3.2	+ 3.2	+ 3.1
Consumer prices	+ 2.3	+ 1.5	+ 1.8	+ 1.6	+ 1.7	+ 1.8	+ 1.8	+ 1.8	+ 1.8
GDP deflator	+ 1.7	+ 1.7	+ 1.8	+ 1.9	+ 1.7	+ 1.8	+ 1.8	+ 1.8	+ 1.8
Gross wages and salaries total ¹	+ 3.1	+ 4.0	+ 3.0	+ 4.4	+ 2.7	+ 3.0	+ 3.1	+ 3.1	+ 3.1
Per capita, volume ²	- 0.4	+ 0.8	+ 0.3	+ 1.2	+ 0.1	+ 0.3	+ 0.3	+ 0.4	+ 0.4
Employees ³	+ 1.2	+ 1.7	+ 0.9	+ 1.5	+ 0.9	+ 0.9	+ 0.9	+ 0.9	+ 0.9
Persons in active dependent employment ⁴	+ 1.1	+ 1.7	+ 1.0	+ 1.6	+ 1.0	+ 1.0	+ 1.0	+ 1.0	+ 0.9
	Ø 2010-2014	Ø 2015-2019	Ø 2020-2024	2019	2020	2021	2022	2023	2024
	Percent								
Unemployment rate									
Eurostat definition ⁵	5.1	5.3	4.6	4.6	4.6	4.6	4.6	4.6	4.7
National definition ⁶	7.3	8.3	7.5	7.4	7.5	7.5	7.5	7.5	7.6
	As a percentage of GDP								
Net exports	3.0	3.7	3.3	3.7	3.5	3.3	3.2	3.2	3.1
General government financial balance (Maastricht definition)	- 2.8	- 0.5	+ 0.5	+ 0.6	+ 0.4	+ 0.5	+ 0.6	+ 0.6	+ 0.5
Cyclically-adjusted budget balance									
Method of the European Commission ⁷	- 2.4	- 0.5	+ 0.4 ⁸	+ 0.1	+ 0.2	+ 0.4	+ 0.5	+ 0.6	-
WIFO method ⁹	- 2.3	- 0.5	+ 0.4	- 0.0	- 0.0	+ 0.3	+ 0.5	+ 0.6	+ 0.7
Structural budget balance									
Method of the European Commission ⁷	- 1.8	- 0.4	+ 0.4 ⁸)	+ 0.1	+ 0.2	+ 0.4	+ 0.5	+ 0.6	-
WIFO method ⁹	- 1.7	- 0.4	+ 0.4	- 0.0	- 0.0	+ 0.3	+ 0.5	+ 0.6	+ 0.7
Gross public debt	82.5	77.9	61.3	69.6	66.7	63.9	61.2	58.6	56.3
	As a percentage of disposable income								
Household saving ratio	8.1	7.4	7.6	7.6	7.8	7.7	7.6	7.5	7.5
	Ø 2009-2014	Ø 2014-2019	Ø 2019-2024	2019	2020	2021	2022	2023	2024
	Year-to-year percentage changes								
Trend output, volume									
Method of the European Commission ⁷	+ 0.9	+ 1.5	+ 1.6 ¹⁰	+ 1.8	+ 1.8	+ 1.7	+ 1.5	+ 1.5	-
WIFO method ⁹	+ 1.0	+ 1.4	+ 1.7	+ 1.6	+ 1.7	+ 1.8	+ 1.6	+ 1.6	+ 1.6
	Ø 2010-2014	Ø 2015-2019	Ø 2020-2024	2019	2020	2021	2022	2023	2024
	As a percentage of trend output								
Output gap, volume									
Method of the European Commission ⁷	- 0.7	- 0.0	+ 0.2 ⁸	+ 0.8	+ 0.4	+ 0.3	+ 0.1	± 0.0	-
WIFO method ⁹	- 0.8	- 0.0	+ 0.2	+ 1.1	+ 0.8	+ 0.4	+ 0.2	- 0.1	- 0.4

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 benefits 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 October 2019, parametrisation according to the forecast of the European Commission of May 2019. – ⁸ Ø 2020-2023. – ⁹ WIFO estimate based on the WIFO forecast of October 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. – ¹⁰ Ø 2019-2023.

The stronger increase in private households' disposable income in 2020 and 2021 is due to recently introduced fiscal measures. Since January 1, 2019 households with children eligible for child benefits have been able to claim a family bonus – a tax credit on their wage or income tax liabilities. A portion of dependent employees may receive the family bonus already in 2019 via their employer's payroll accounting (Fink – Rocha-Akis, 2018, Baumgartner et al., 2018). But the full effect of the family bonus will only become effective as from 2020 when the tax relief will also be noticeable for those households that claim it via their annual income tax-assessment. The forecast

assumes a tax relief on household income of 631 million € for 2020, 173 million € for 2021 and 149 million € for 2022⁴.

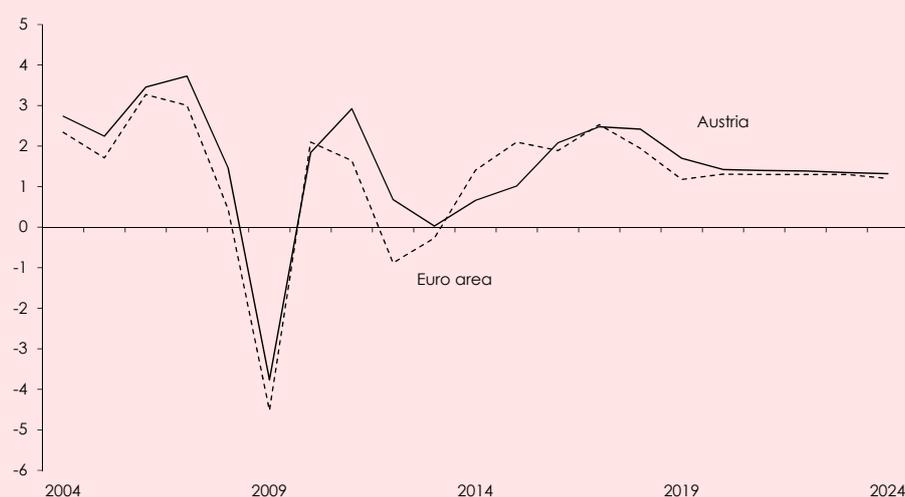
Table 3: Components of aggregate demand, volume

	Ø 2009-2014	Ø 2014-2019	Ø 2019-2024	2019	2020	2021	2022	2023	2024
	Year-to-year percentage changes								
Consumption expenditure									
Private households ¹	+ 0.6	+ 1.2	+ 1.5	+ 1.5	+ 1.6	+ 1.6	+ 1.5	+ 1.4	+ 1.4
General government	+ 0.3	+ 1.2	+ 1.1	+ 1.3	+ 0.9	+ 1.1	+ 1.1	+ 1.1	+ 1.1
Gross fixed capital formation	+ 1.2	+ 3.4	+ 1.5	+ 2.9	+ 1.5	+ 1.6	+ 1.5	+ 1.4	+ 1.3
Machinery and equipment ²	+ 2.5	+ 4.7	+ 1.6	+ 3.2	+ 1.6	+ 1.8	+ 1.6	+ 1.6	+ 1.4
Construction	- 0.3	+ 2.0	+ 1.3	+ 2.6	+ 1.3	+ 1.4	+ 1.4	+ 1.2	+ 1.2
Domestic demand	+ 1.0	+ 1.9	+ 1.4	+ 1.7	+ 1.5	+ 1.5	+ 1.4	+ 1.4	+ 1.3
Exports	+ 4.7	+ 3.9	+ 2.4	+ 2.3	+ 2.3	+ 2.3	+ 2.4	+ 2.4	+ 2.4
Imports	+ 4.4	+ 3.8	+ 2.5	+ 2.4	+ 2.5	+ 2.6	+ 2.6	+ 2.5	+ 2.4
Gross domestic product	+ 1.2	+ 1.9	+ 1.4	+ 1.7	+ 1.4	+ 1.4	+ 1.4	+ 1.3	+ 1.3

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

Figure 2: Growth of real GDP in Austria and the euro area

GDP volume, percentage changes from previous year



Source: Statistics Austria, WIFO calculations.

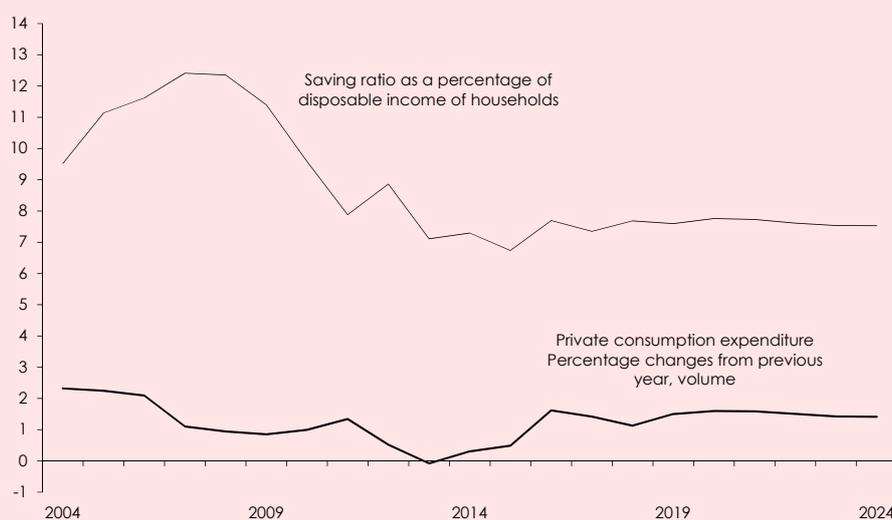
Between July and September 2019, the Austrian Parliament adopted various measures in favour of low-income households, particularly of retired persons⁵; at the same time, the option of early retirement from age 62 at deduction-free benefit level for persons having accumulated 45 years of contributions has been reinstated. Part of the implicit budgetary cost will be counter-financed by extra revenue (mainly relating to VAT liability). Based on compilations of all measures taken, provided by the Parliamentary Budget Office and the Ministry of Finance, WIFO estimates its relief for

⁴ The figures for 2021 and 2022 are based on the assumption that not all dependent employees will submit their income tax assessment already in the first year (a delay up to 5 years being granted). Furthermore, the total amount of the family bonus increases slightly every year due to annual wage increases. Employed people who are not able to take full benefit of the bonus because their incomes are too low can then claim a slightly higher bonus (up to the statutory ceiling of 1,500 € per child until age 18 and 750 € for children over 18 enrolled in education). If fully taken up, the overall amount of the family bonus is estimated at about 1.5 billion €.

⁵ The most important measures were pension increases above the inflation compensation for low-income retirees, higher tax credits for commuters and retired persons, a reduction in social security contributions for self-employed persons and farmers and a valorisation of nursing care benefits (section 2.4).

private households at a total of 860 million € in 2020, 659 million € in 2021 and 152 million € in 2022. Together with earlier-decided tax reliefs (family bonus), private disposable income receives a sustained fiscal boost in 2020 of 1,491 million € (0.7 percent of nominal disposable household income), 832 million € (0.4 percent) in 2021 and 301 million € (0.1 percent) in 2022. If second-round and multiplier effects are also taken into account, the increase in household disposable income in 2020 will be 0.9 percent; in 2023, the level household disposable income might be 1½ percent higher than in a situation without the described measures⁶.

Figure 3: Consumption expenditure and saving ratio of private households



Source: Statistics Austria, WIFO calculations.

Fiscal measures adopted for the period 2020-2022 – a brief assessment of their macroeconomic impact

The fiscal measures adopted in 2018 and between July and September 2019, respectively, that will take their permanent effects in 2020 to 2022 (also including the lagged impact of the family bonus) will relieve private households by 1,491 million € in 2020 (equivalent to 0.7 percent of nominal disposable income), by an additional 832 million € in 2021 (0.4 percent) and by a further 301 million € (0.1 percent) in 2022. Taking into account the agreed counter-financing measures, the additional annual net relief for the overall economy amounts to 1,402 million € in 2020 (0.4 percent of nominal GDP), 683 million € in 2021 (0.2 percent) and 241 million € (0.1 percent) in 2022. At the onset, general government budget balance will deteriorate to the extent of the net relief.

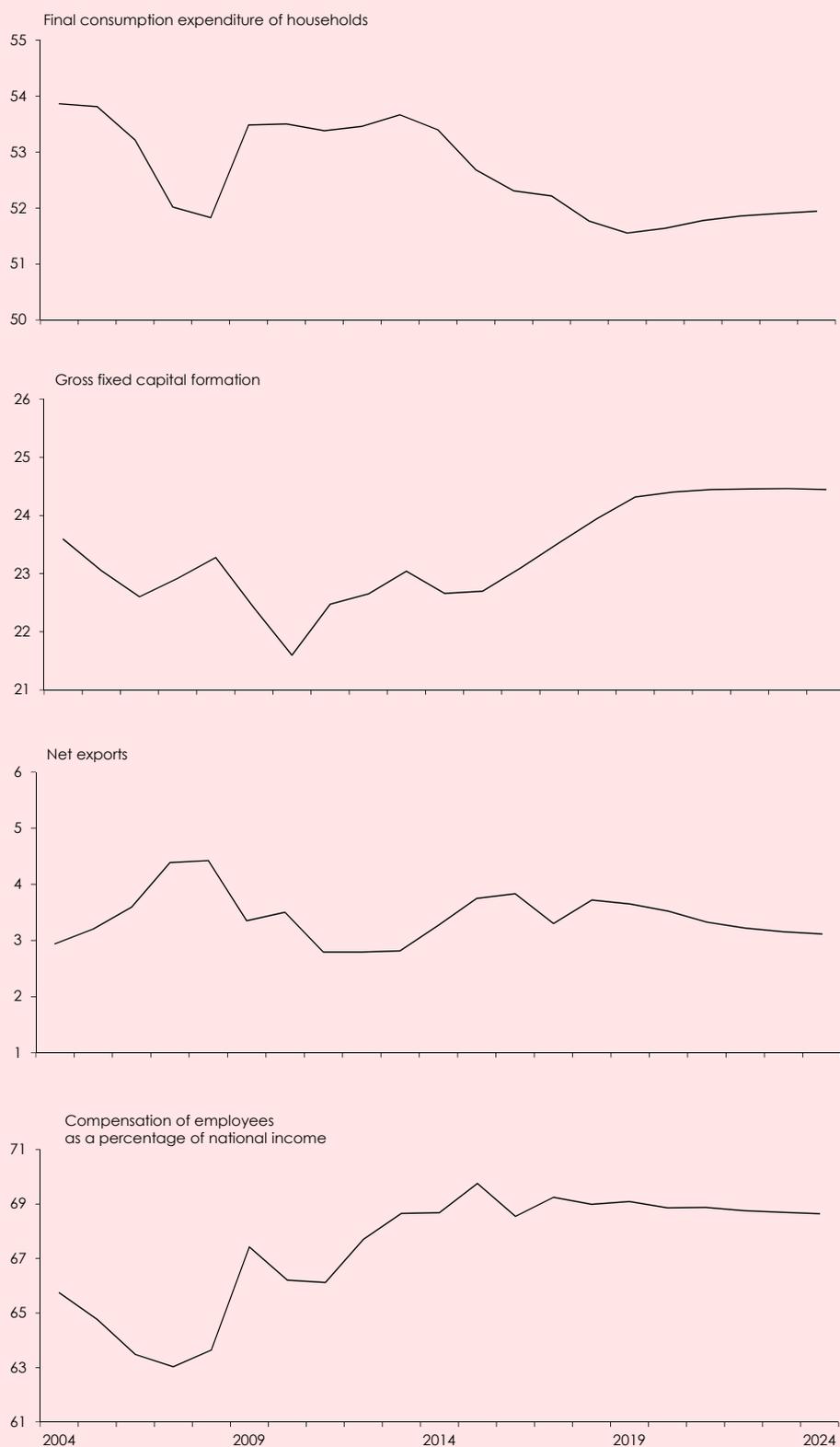
Considering the reaction channels observed in past years and implemented in WIFO Macromod (feedbacks, second-round and multiplier effects), the economic policy measures will generate an expansionary impact on economic activity in Austria which is estimated at ¼ percent of real GDP in 2020. In 2023 the level of real GDP is expected to be ½ percent higher than without these measures. The employment effect until 2023 is estimated at 19,500 jobs (nearly +0.5 percent), while the cumulative increase in consumer prices by 2021 might be 0.1 percent (without any further inflationary impact thereafter).

The expansionary effect on demand, output and employment will rise tax and social contribution revenues and lower public spending. Thus, the initial deterioration of the general government budget balance is expected to decrease to 964 million € in 2020 (0.3 percent of nominal GDP), 1,187 million € in 2021 and 1,048 million € in 2022.

⁶ These figures result from a simulation with WIFO Macromod, assuming that the behavioural parameters (in particular consumer demand of households in the lower third income tier) remain unchanged.

Figure 4: Expenditure on GDP and income

As a percentage of GDP, value



Source: Statistics Austria, WIFO calculations.

These substantial income gains will on the one hand increase private consumption, primarily in 2020 and 2021, and on the other hand will lead to rise in the saving ratio in 2020, as only about 60 percent of additional disposable income will immediately

channel into consumption. The household saving ratio is expected to rise by 0.2 percentage points to 7.8 percent and to slightly decline in the following years to 7.5 percent by 2024. Private consumption is expected to expand by an annual 1.5 percent in real terms over the period 2020-2024 (2015-2019 +1.2 percent p.a.) and thereby contribute some 57 percent of overall GDP growth.

The impact of the net fiscal relief (predominantly benefitting private households) taking effect over the forecast period on the level of real GDP is estimated to be +¼ percent in 2020 and around +½ percent in 2024.

Trend output and output gap

Business cycle reflects variations in the degree of productive capacity utilisation of an economy around its long-term growth path that is described by potential output or trend output. The output gap as the relative deviation of actual real GDP from trend output indicates the economy's position in the business cycle.

The output gap is an important indicator for fiscal policy, which aims at smoothing cyclical variations and ensuring the sustainability of public finances over the entire business cycle. The output gap enters the calculation of the cyclically adjusted or the structural budget balance.

The method developed by the European Commission for the estimation of trend output builds upon a production function that describes the transformation of capital and labour input into value added or real GDP (Havik *et al.*, 2014). To this end, labour input and productivity (TFP) are adjusted for cyclical variations.

The method of the European Commission produces a forecast of trend output until 2023. The estimates for the trend of TFP and the NAWRU¹ derive from the WIFO short-term forecast until 2020. For 2021-2023, trend output is projected by means of an econometric extrapolation of the TFP trend and an assumption for the course of the NAWRU. An additional technical assumption provides for the output gap closing by the end of the five-year projection period 2019-2023.

The production function approach offers insight into the determinants of economic growth (Cotis – Elmeskov – Mourougane, 2005, *EU IFIs*, 2018). Among the drawbacks of the specific implementation selected by the European Commission are a high degree of volatility and especially an excessively cyclical behaviour of the trend estimates. The high volatility and sensitivity to major data revisions make budgetary planning more difficult (Maidorn, 2018, *EU IFIs*, 2018). Due to the excessive cyclical pattern (changes in trend output are closely correlated with those of actual real GDP), the output gap and the fiscal scope in periods of cyclical downturn tend to be under-estimated. Moreover, the assumption of the output gap closing by the end of the forecast period may prove unrealistic.

In view of the above shortcomings, WIFO implements an alternative procedure that differs from the European Commission method in two ways: first, the labour force participation rate and hours worked per employee are being smoothed to a greater extent, which reduces the cyclical sensitivity of trend output and reinforces that of the output gap; second, instead of being forced to close by the forecast horizon, the output gap is defined endogenously by the projection of real GDP and trend output. Besides, the alternative estimate includes one more year into the forecast period (2020-2024).

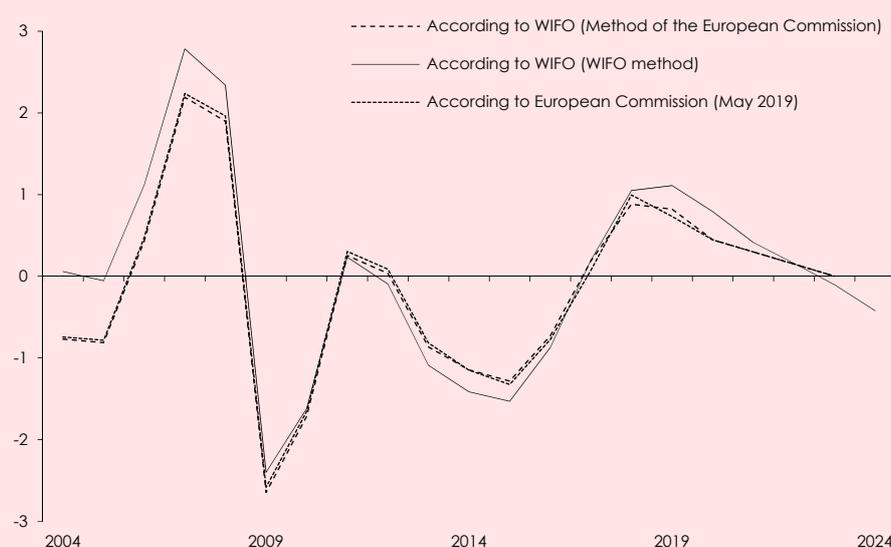
¹ "Non-accelerating wage rate of unemployment": i.e., the lowest rate of unemployment at which no sustained upward pressure on wages arises.

The methodology of the European Commission estimates the annual growth rate of trend GDP of 1.6 percent between 2020 and 2023, which is 0.1 percentage point higher than in the previous five-year period. Since 2017, the aggregate capacity utilisation in the Austrian economy was above its long-term average (Figure 5). Starting from 0.8 percent of trend output in 2019, the output gap will close until 2023, according to the explicit assumption. Compared with the estimate of March 2019 (Baumgartner – Kaniovski, 2019), trend growth is revised down by 0.1 percentage point for 2023. An additive decomposition suggests about equal contributions to trend growth from TFP and capital accumulation (Table 4). The average output gap for the period 2020-2023 is 0.2 percent of trend output.

The reduction of the output gap mirrors the cyclical downswing. Average growth of real GDP of +1.4 percent p.a. falls short of medium-term trend growth of 1.6 percent annually.

Figure 5: Output gap

Volume, as a percentage of trend output



Source: European Commission, WIFO calculations. WIFO method... WIFO estimate based on the WIFO forecast of October 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. Method of the European Commission... WIFO estimate based on the WIFO forecast of October 2019, parametrisation according to the forecast of the European Commission of May 2019.

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

		Ø 2010-2014	Ø 2015-2019	Ø 2020-2024	2019	2020	2021	2022	2023	2024
<i>Method of the European Commission¹</i>										
GDP, volume (implicit)	year-to-year percentage changes	+ 1.2	+ 1.9	+ 1.4 ²	+ 1.7	+ 1.4	+ 1.5	+ 1.4	+ 1.3	–
Trend output	year-to-year percentage changes	+ 0.9	+ 1.5	+ 1.6 ²	+ 1.8	+ 1.8	+ 1.7	+ 1.5	+ 1.5	–
Labour	percentage points	+ 0.1	+ 0.6	+ 0.4 ²	+ 0.6	+ 0.6	+ 0.5	+ 0.3	+ 0.2	–
Capital	percentage points	+ 0.5	+ 0.6	+ 0.6 ²	+ 0.7	+ 0.6	+ 0.6	+ 0.6	+ 0.6	–
Total factor productivity	percentage points	+ 0.3	+ 0.3	+ 0.6 ²	+ 0.5	+ 0.5	+ 0.6	+ 0.6	+ 0.7	–
Output gap, volume	as a percentage of trend output	– 0.7	– 0.0	+ 0.2 ²	+ 0.8	+ 0.4	+ 0.3	+ 0.1	± 0.0	–
<i>WIFO method³</i>										
GDP, volume	year-to-year percentage changes	+ 1.2	+ 1.9	+ 1.4	+ 1.7	+ 1.4	+ 1.4	+ 1.4	+ 1.3	+ 1.3
Trend output	year-to-year percentage changes	+ 1.0	+ 1.4	+ 1.7	+ 1.6	+ 1.7	+ 1.8	+ 1.6	+ 1.6	+ 1.6
Labour	percentage points	+ 0.2	+ 0.5	+ 0.4	+ 0.5	+ 0.6	+ 0.5	+ 0.4	+ 0.3	+ 0.3
Capital	percentage points	+ 0.5	+ 0.6	+ 0.6	+ 0.7	+ 0.7	+ 0.6	+ 0.6	+ 0.6	+ 0.6
Total factor productivity	percentage points	+ 0.3	+ 0.3	+ 0.6	+ 0.5	+ 0.5	+ 0.6	+ 0.6	+ 0.7	+ 0.7
Output gap, volume	as a percentage of trend output	– 0.8	– 0.0	+ 0.2	+ 1.1	+ 0.8	+ 0.4	+ 0.2	– 0.1	– 0.4
<i>European Commission estimate (spring 2019)</i>										
GDP, volume	year-to-year percentage changes	+ 1.2	+ 2.0	+ 1.7 ²	+ 1.5	+ 1.6	+ 1.9	+ 1.7	+ 1.6	–
Trend output	year-to-year percentage changes	+ 0.9	+ 1.6	+ 1.9 ²	+ 1.8	+ 1.9	+ 2.1	+ 1.9	+ 1.8	–
Labour	percentage points	+ 0.1	+ 0.6	+ 0.5 ²	+ 0.6	+ 0.6	+ 0.7	+ 0.5	+ 0.4	–
Capital	percentage points	+ 0.5	+ 0.6	+ 0.6 ²	+ 0.6	+ 0.6	+ 0.6	+ 0.6	+ 0.6	–
Total factor productivity	percentage points	+ 0.3	+ 0.4	+ 0.7 ²	+ 0.6	+ 0.7	+ 0.7	+ 0.8	+ 0.8	–
Output gap, volume	as a percentage of trend output	– 0.6	– 0.1	+ 0.2 ²	+ 0.7	+ 0.4	+ 0.3	+ 0.1	± 0.0	–

Source: European Commission, Statistics Austria, WIFO calculations. – ¹ WIFO estimate based on the WIFO forecast of October 2019, parametrisation according to the forecast of the European Commission of May 2019. – ³ Ø 2020-2023. – ² WIFO estimate based on the WIFO forecast of October 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.

The alternative WIFO estimate of potential output growth 1.7 percent p.a. between 2020 and 2024 is slightly above the estimate based on the European Commission method. The output gap narrows towards the forecast horizon, reaching –0.4 percent of trend output in 2024 (Figure 5). The decomposition of trend growth for the alternative estimate indicates the rising importance of the TFP contribution in the future (Table 4).

Since trend output corresponds to the level of output at which inflation remains stable, a negative output gap signals under-utilisation of aggregate productive capacity and easing of inflationary pressure.

2.2 Unemployment rate remains stable but high in a long-term perspective

The projected real GDP growth of 1.4 percent p.a. for the period from 2020 to 2024 will enable the number of active dependent employees to increase on average by an average 1.0 percent per year. With an expected L-shaped cyclical profile, the labour demand will weaken slightly over the forecast period. From the stimulus of disposable private income on economic activity, employment growth is expected to benefit at about +0.1 percentage points per annum from 2020 to 2023.

The working age population will be shrinking by 0.1 percent per year over the medium term. However, labour supply is projected to rise at an annual average 0.9 percent (+38,800 persons p.a.), due to a further increase in the participation of the female and elderly labour force as well as a raising inflow of foreign labour (driven i.a. by the opening of the Austrian labour market to Croatian nationals in July 2020 and an expected further increase of foreign commuters, mainly to the eastern border regions). Given the still sizeable wage gap, Austria remains an attractive destination for workers from the CEEC⁷. All these forces will offset the decline in the domestic population under age 50 as predicted by Statistics Austria in its population projection of November 2018.

Figure 6: Labour market trends



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

⁷ See on this OECD, Average annual wages, https://stats.oecd.org/Index.aspx?DataSetCode=AV_AN_WAGE. In 2018, with the exception of Slovenia (–26 percent), the average per-capita wages, in full-time equivalents and adjusted for purchasing power, for all countries in Central-Eastern European countries were between 43 and 52 percent below those in Austria.

Table 5: Labour market, income

	Ø 2010-2014	Ø 2015-2019	Ø 2020-2024	2019	2020	2021	2022	2023	2024
	Percent								
Unemployment rate									
Eurostat definition ¹	5.1	5.3	4.6	4.6	4.6	4.6	4.6	4.6	4.7
National definition ²	7.3	8.3	7.5	7.4	7.5	7.5	7.5	7.5	7.6
	Ø 2009-2014	Ø 2014-2019	Ø 2019-2024	2019	2020	2021	2022	2023	2024
	Year-to-year percentage changes								
Employees ³	+ 1.2	+ 1.7	+ 0.9	+ 1.5	+ 0.9	+ 0.9	+ 0.9	+ 0.9	+ 0.9
Persons in active dependent employment ⁴	+ 1.1	+ 1.7	+ 1.0	+ 1.6	+ 1.0	+ 1.0	+ 1.0	+ 1.0	+ 0.9
Self-employed ⁵	+ 1.6	+ 1.3	+ 0.6	+ 0.6	+ 0.6	+ 0.6	+ 0.6	+ 0.6	+ 0.6
Registered unemployed	+ 4.2	- 1.1	+ 1.5	- 3.2	+ 2.3	+ 2.0	+ 0.8	+ 0.9	+ 1.4
Productivity ⁶	+ 0.2	+ 0.5	+ 0.5	+ 0.3	+ 0.6	+ 0.6	+ 0.5	+ 0.5	+ 0.5
Gross wages and salaries total ⁷	+ 3.1	+ 4.0	+ 3.0	+ 4.4	+ 2.7	+ 3.0	+ 3.1	+ 3.1	+ 3.1
Per employee, volume ⁸	- 0.4	+ 0.8	+ 0.3	+ 1.2	+ 0.1	+ 0.3	+ 0.3	+ 0.4	+ 0.4
Unit labour costs, total economy	+ 1.6	+ 1.7	+ 1.6	+ 2.4	+ 1.1	+ 1.6	+ 1.6	+ 1.7	+ 1.7

Source: Main Association of the Austrian Social Security Institutions, Statistics Austria, WIFO calculations. – ¹ According to Eurostat Labour Force Survey, as a percentage of total labour force. – ² According to Public Employment Service Austria, as a percentage of total labour force excluding self-employed. – ³ According to National Accounts definition. – ⁴ Excluding persons in valid employment contract receiving child care benefits or being in military service. – ⁵ According to WIFO, including family workers. – ⁶ Real GDP per employment (dependent and self-employed according to National Accounts definition). – ⁷ Excluding employers' contributions. – ⁸ Employees according to National Accounts definition, deflated by CPI.

The new entry to early retirement diminished from 38,400 persons in 2013 to 22,700 in 2015 (due to measures making early retirement less attractive). It has rebounded since (28,850 persons in 2018) and may rise further until 2024 (and beyond), as more baby boomers reach the age of (early) retirement⁸. The reintroduction in 2020 of a deduction free early retirement at the age 62 with a long pension insurance period (at least 45 contribution years of which no more than 5 years are credited for childcare) is unlikely to cause a significant decline in the participation rate of older workers and hence in overall labour supply: first, the eligible population of persons with employment career of 45 years (i.e. an uninterrupted working period from the age 17 to 62) without periods of only partial insurance is rather small, since civil servants are not covered by the regulation⁹; second, part of the eligible population has in the past years opted for early retirement from age 62, despite (non-negligible) benefit reductions. Assuming no change in individual behaviour, the relaxed eligibility conditions will have only a limited effect.

In the first nine months of 2019, the number of foreign employees increased by 48,475 (to a total of 799,090), less than in the same period of the previous year (January to September 2018 +55,324; 2018 in total +54,381). The share of foreigners workers in total employment stood at 21.0 percent. Nearly 80 percent of the overall increase in employment were foreign workers. Since the end of the transition period for the free access to the Austrian labour market for citizens from the new EU member countries in 2011 (EU accession 2004) or 2014 (EU accession 2007), the inflow of foreign labour has risen swiftly, most recently from Bulgaria and Romania (Eppel et al., 2018).

Over the forecast horizon, foreign labour is projected to increase by 29,300 persons per year (as compared with 41,800 p.a. from 2015 to 2019), accounting for 83 percent of total employment growth by 2024. The share of foreign workers will by then have reached 24 percent.

The rate of unemployment (according to the Labour Market Service definition) will for cyclical reasons edge up to 7.5 percent in 2020. Employment growth is likely to remain stable at 1.0 percent per year. The number of registered unemployed is expected to reach 325,000 in 2024.

⁸ According to the main scenario of Statistics Austria's population projection of November 2018, the relevant age group for early retirement (females of age 50 to 59 and males from 55 to 64 years) is predicted to be 19 percent larger in 2020 and almost 21 percent more in 2024 than in 2013, the year before restrictions of access to early retirement were introduced. The share of persons receiving early retirement benefits in the age-group defined above dropped from 3.5 percent in 2013 to 1.9 percent in 2015. For the period 2020-2024, the figure is projected at a constant 2.3 percent.

⁹ For civil servants, the eligible population would be larger, due to steadier careers in the public sector and because of the statutory retirement age of 65 years also for female civil servants. Yet, there are legal concerns, whether the present regulation is in accordance with the constitutional principle of equal treatment. Should the law be repealed, the eligible population would be significantly larger.

Thanks to the still favourable cyclical conditions, the number of unemployed will abate to 302,000 on average 2019, still up by 40,000 from 2009, the year of the deepest recession in the post-war era. Going forward, the number of unemployed persons is forecast to reach 325,000 in 2024. However, over the projection period the unemployment rate is expected to remain broadly constant at 7.5 percent of the dependent labour force (Labour Market Service definition) and 4.6 percent of the total labour force (Eurostat definition), respectively.

2.3 Inflationary pressure remains low

The attacks on Saudi-Arabia's major oil production site in September 2019 caused a temporary outage of over 50 percent of Saudi and 5 percent of world crude oil production. On 16 September, the first trading day after the attacks, commodity futures exchanges experienced an instantaneous overshooting of the reference price (Brent, in dollar per barrel) by over 20 percent from the previous trading day. By noon, however, about half of the price jump had already been corrected, and at the end of that week quotations were only 5½ \$ above the six-week average preceding the attacks. This incident has therefore no further influence on the baseline scenario of the present forecast.

Based on the quotations for futures contracts¹⁰ of end-September, we assume for 2020 a reference price of 63 \$ per barrel, easing with the moderation of global economic activity to a stable 60 \$ for the years from 2021 to 2024. By means of a random-walk assumption, the euro/dollar exchange rate is extrapolated at a rate of 1.1 \$ per euro over the entire forecast horizon.

Table 6: Prices

	Ø 2009-2014	Ø 2014-2019	Ø 2019-2024	2019	2020	2021	2022	2023	2024
	Year-to-year percentage changes								
Consumer prices	+ 2.3	+ 1.5	+ 1.8	+ 1.6	+ 1.7	+ 1.8	+ 1.8	+ 1.8	+ 1.8
Implicit price indices									
Private consumption	+ 2.3	+ 1.7	+ 1.8	+ 1.7	+ 1.7	+ 1.8	+ 1.8	+ 1.8	+ 1.8
Exports	+ 1.6	+ 0.7	+ 1.2	+ 1.0	+ 0.7	+ 1.1	+ 1.3	+ 1.5	+ 1.5
Imports	+ 2.2	+ 0.6	+ 1.3	+ 1.0	+ 0.8	+ 1.3	+ 1.4	+ 1.6	+ 1.6
Gross domestic product	+ 1.7	+ 1.7	+ 1.8	+ 1.9	+ 1.7	+ 1.8	+ 1.8	+ 1.8	+ 1.8

Source: Statistics Austria, WIFO calculations.

From 2020 onwards, the tobacco tax will be raised in annually. Because of the low weight of tobacco products in the CPI commodity basket, the impact on the overall inflation rate is negligible. Equally small is the effect of the extension of VAT liability to online trade, when compared with total sales (approximated by nominal private consumption). Beyond this, no further changes in indirect taxes are assumed in the forecast.

The private demand stimulus from expansionary fiscal measures should add 0.1 percentage point to the annual inflation rate for 2020. A comparatively stronger inflationary pressure will still emanate from administered prices (2015-2019 +2 percent) which are predominantly set by as public authorities and include, among other items, the public fee covered in the CPI goods and services basket.

Based on the projections for inflation, productivity and employment, nominal wages per capita are expected to advance by 2.1 percent per year. Unit labour cost for the overall economy, the key factor for domestic cost pressure and export prices, are forecast to increase by 1.6 percent p.a. reflecting also the outlook for GDP and employment growth. At +0.3 percent, gross real wages per capita will still trail behind labour productivity (+0.5 percent p.a.). Hence, wage costs are unlikely to unfold a

¹⁰ The quotations of futures contracts traded on commodity futures exchanges reflect the average price expectations of market participants for a particular commodity on the specific trading day for the terminal date of the contract.

major upward pressure on inflation and are not expected to trigger a wage-price spiral.

For the period 2020-2024 we anticipate inflation at an annual average of 1¾ percent, both for the CPI and the GDP deflator. The sizeable inflation gap observed since 2011 vis-à-vis Germany (on average 2011-2018 +0.5 percentage points p.a.; average January to September 2019 +0.1 percentage point, September +¼ percentage point) and the euro area average (2011-2018 +0.6 percentage points p.a.; January to September 2019 +0.3 percentage points, September +0.4 percentage points) was lower in early 2019, but widened again thereafter. Over the forecast period, an average inflation differential vis-à-vis the euro area of approximately +¼ percentage point is expected to persist.

2.4 Resilient business activity generates budget surplus

The key changes of the fiscal projection from the WIFO forecast of March 2019 result from the parliamentary decisions taken between July and September, the somewhat weaker business outlook and modified prospects for interest rates. Ahead of the general elections of end-September, the Austrian Parliament took several decisions with substantial repercussions for the government budget.

On the expenditure side, the following measures have been taken on board for the forecast: the 2020 adjustment of retirement benefits in excess of the inflation rate for low and middle incomes, annual inflation adjustment of nursing care allowance, deduction-free retirement benefit after 45 years of contribution, abolition of the one-year waiting period for the annual adjustment of retirement benefits, compensation of tax liability for minimum pensions, extension of measures provided for by the Labour Market Promotion Act and higher subsidies for the media.

In addition, several expansionary measures were taken on the revenue side: an increase in the retiree tax credit, reimbursement of social security contributions and of the commuter tax credit, cuts in health insurance contributions for self-employed and farmers, measures in the area of environmental protection, simplified lump-sum income taxation for small enterprises, a higher ceiling for immediate write-off of low-value assets and tax allowances or possibly reimbursement of the car registration tax for handicapped persons.

The budgetary impact of these measures is partly offset by counter-financing measures: a raise in the tobacco tax plus the implicit VAT revenue increase, imputation ceilings in the case of re-establishment of a firm, VAT liability for low-value supplies and online platforms, revenues from a new digital tax, notification requirement for online platforms and reporting obligations and other measures to combat fraud.

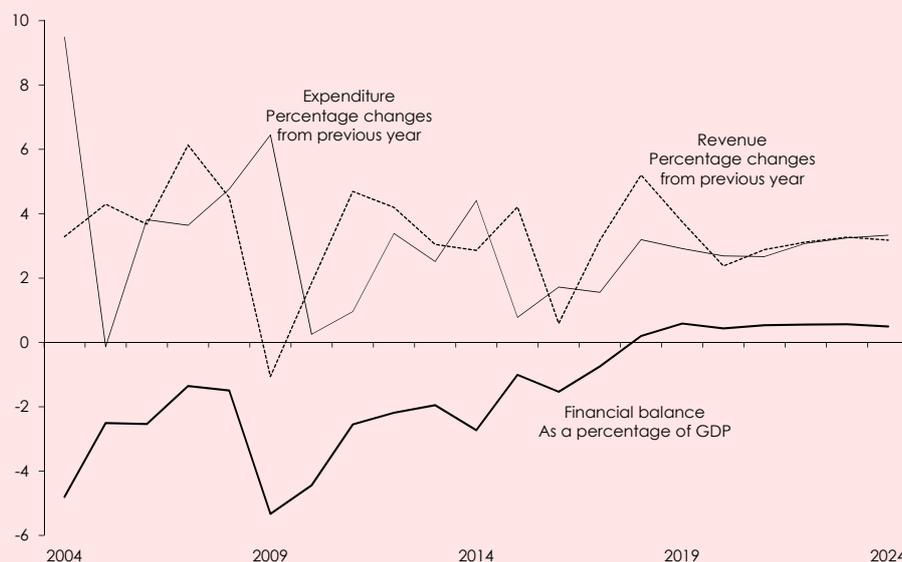
The overall impact of the measures adopted from July to September 2019 on the major budgetary components is summarised in Table 8. The partial counter-financing dampens to some extent the effect on tax revenue in 2020, such that the shortfall will mainly kick in from 2021 onwards. The extra spending, mainly on monetary social benefits, adds up to 640 million € in 2020 (mainly due to the adjustment of retirement benefits) and 100 million € in each of the subsequent years. The budget balance deteriorates by around 770 million € in 2020 and by an additional 500 and 100 million € respectively in 2021 and 2022; as from 2023, the net effect of the tax/benefit adjustments on the budget balance should remain broadly stable. While the forecast incorporates the recent policy decisions whose impact stretches over the entire period, it rests on a no-policy-change assumption for the years from 2020 onwards (see footnote 1). Hence, due to the lack of quantitative details, the short-term cost and medium-term saving resulting from the merger of social security agencies could not be considered. The same holds, *a fortiori*, for the plans of an incoming new federal government and the budgetary implications of a government programme still to be negotiated. The present scenario therefore essentially describes the starting situation the new government is going to face.

Based on the underlying cyclical profile and the discretionary policy measures, the general government account will be in surplus in the next few years. Both government revenue and expenditure are projected to grow at an average annual pace of 3.0 percent from 2020 to 2024. Contrary to the WIFO projection of last March

Government revenue is projected to expand by an annual 3.0 percent over the forecast horizon. The trend rate is only 0.4 percentage points below the one for 2015-2019, as business activity is set to weaken only moderately.

suggesting a steady improvement of the budget balance (in the Maastricht definition), the present forecast anticipates a broadly flat surplus of 0.6 percent of GDP and 0.4 percent in 2019 and 2020 respectively, keeping within the range of 0.5 and 0.6 percent of GDP in the years beyond.

Figure 7: Revenue, expenditure and financial balance (according to Maastricht) of general government



Source: Statistics Austria, WIFO calculations.

The prospect of a stable general government surplus despite the fiscal benefits to private households is owed to the favourable revenue outlook: from 2020-2024, nominal government revenue is expected to increase by 3.0 percent p.a., only 0.4 percentage points less per year than during the 2015-2019 boom that has now ended. Wage tax receipts should expand by 4.4 percent p.a., less swiftly than in the earlier period due to the relief measures like the family bonus, but still propelled by resilient employment and income growth. The same goes for the receipts from social contributions, though the momentum should moderate from 4.1 percent p.a. (2015-2019) to 3.0 percent p.a. (2020-2024). Corporate tax revenue may prove less dynamic, slowing from an annual 9.6 to 3.9 percent. VAT revenue should rise with nominal private consumption; since the latter will be strengthened by the fiscal policy measures, the deceleration of revenue growth should prove minor, from 3.5 to 3.3 percent per year.

Overall, the projection implies a limited decline of the government revenue ratio from 48.9 percent of GDP in 2019 to 48.4 percent in 2024. The tax burden, i.e. total tax and social contribution revenue pursuant to ESA 2010 as percentage of GDP should stay quasi constant (2019: 42.5 percent, 2024: 42.4 percent).

Total government expenditure is projected to rise by 3 percent p.a., at the same pace as revenue. The expenditure ratio is set to subside from 48.3 percent of GDP in 2019 to 47.9 percent in 2024. Against the 2015-2019 period (+2.0 percent p.a.), trend spending growth will nevertheless gather considerable momentum. Especially social cash benefits will expand at an above-average pace of 3.5 percent p.a., notably the outlays for retirement benefits and nursing care. Social benefits in kind (+3.8 percent p.a.) may not rise significantly less than in the previous five-year period (+4.0 percent). New job creation in the public sector, while likely to abate overall, may still be lively, particularly for health care jobs. Assuming moderate wage settlements, the public sector wage bill should rise less over the next few years than in the previous period (+3.0 percent p.a. as compared with +3.4 percent).

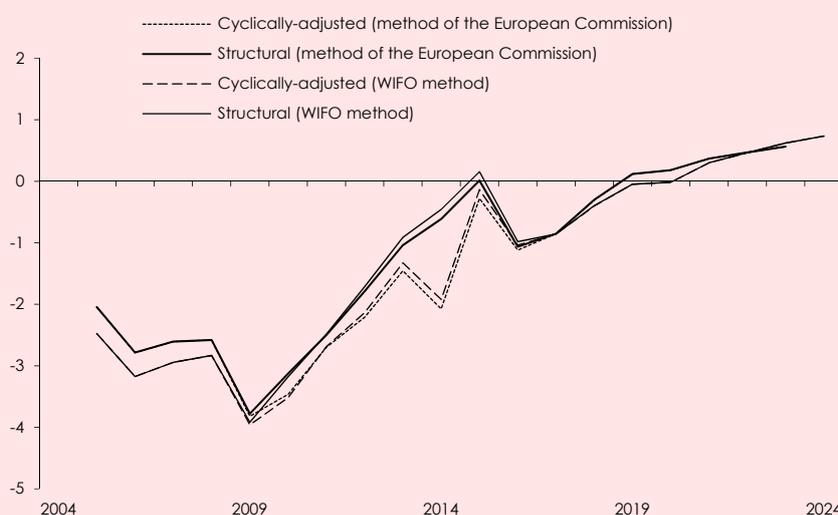
Interest cost will provide substantial relief for the government budget over the next years. With the ECB prolonging its expansionary monetary policy (negative interest

Trend growth of public expenditure will rise from an annual 2.0 percent during 2015-2019 to 3.0 percent in the next five years. The parliamentary decisions of last September give an extra boost to the already strong dynamics of social cash benefits. The fall in interest rates, while lowering debt service cost, will only partly offset the higher spending.

rates and asset purchases), we now expect a rebound of bond yields to set in later than what had been assumed last March. Accordingly, the projection for debt service cost has been revised down.

Figure 8: Cyclically-adjusted and structural budget balance

As a percentage of GDP



Source: WIFO calculations. WIFO method . . . WIFO estimate based on the WIFO forecast of October 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. Method of the European Commission . . . WIFO estimate based on the WIFO forecast of October 2019, parametrisation according to the forecast of the European Commission of May 2019.

Table 7: Government sector

	Ø 2009-2014	Ø 2014-2019	Ø 2019-2024	2019	2020	2021	2022	2023	2024
	Year-to-year percentage changes								
Current revenue	+ 3.3	+ 3.4	+ 3.0	+ 3.7	+ 2.4	+ 2.9	+ 3.1	+ 3.3	+ 3.2
Current expenditure	+ 2.3	+ 2.0	+ 3.0	+ 2.9	+ 2.7	+ 2.7	+ 3.1	+ 3.3	+ 3.3
Gross domestic product, value	+ 3.0	+ 3.7	+ 3.2	+ 3.6	+ 3.2	+ 3.2	+ 3.2	+ 3.2	+ 3.1
	Ø 2010-2014	Ø 2015-2019	Ø 2020-2024	2019	2020	2021	2022	2023	2024
	As a percentage of GDP								
General government financial balance (Maastricht definition)	- 2.8	- 0.5	+ 0.5	+ 0.6	+ 0.4	+ 0.5	+ 0.6	+ 0.6	+ 0.5
Cyclically-adjusted budget balance									
Method of the European Commission ¹	- 2.4	- 0.5	+ 0.4 ²	+ 0.1	+ 0.2	+ 0.4	+ 0.5	+ 0.6	-
WIFO method ³	- 2.3	- 0.5	+ 0.4	- 0.0	- 0.0	+ 0.3	+ 0.5	+ 0.6	+ 0.7
Structural budget balance									
Method of the European Commission ¹	- 1.8	- 0.4	+ 0.4 ²	+ 0.1	+ 0.2	+ 0.4	+ 0.5	+ 0.6	-
WIFO method ³	- 1.7	- 0.4	+ 0.4	- 0.0	- 0.0	+ 0.3	+ 0.5	+ 0.6	+ 0.7
Gross public debt	82.5	77.9	61.3	69.6	66.7	63.9	61.2	58.6	56.3

Source: Statistics Austria, WIFO calculations. – ¹ WIFO estimate based on the WIFO forecast of October 2019, parametrisation according to the forecast of the European Commission of May 2019. – ² Ø 2020-2023. – ³ WIFO estimate based on the WIFO forecast of October 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.

The structural government balance estimated based on the output gap calculated according to the European Commission method is set to improve steadily from 0.1 percent of GDP in 2019 to 0.6 percent of GDP in 2023.

The government debt ratio will abate from 69.6 percent in 2019 to 56.3 percent in 2024. Assuming cyclical stability and no change in fiscal policy, the debt ratio may drop below the Maastricht reference value of 60 percent of GDP over the forecast horizon.

Table 8: Lasting policy measures adopted between May and September 2019

	2020	Measures effective from		2023
		2021	2022	
Change from previous year in million €				
Revenue	- 106	- 425	+ 33	+ 107
Indirect taxes	- 4	+ 178	+ 43	+ 17
Direct taxes	- 2	- 603	- 10	+ 90
Social contributions	- 100	± 0	± 0	± 0
Expenditure	+ 665	+ 85	+ 125	+ 105
Social cash benefits	+ 635	+ 100	+ 125	+ 105
Change in budget balance				
Initial situation without second-round effects	- 771	- 510	- 92	+ 2
Overall financial relief	- 975	- 720	- 135	- 15
Overall counter-financing	+ 204	+ 210	+ 43	+ 17
Net financial relief	- 771	- 510	- 92	+ 2
As a percentage of GDP, nominal	0.21	0.14	0.02	0.00

Source: Parliamentary Budget Service compilation, information provided to Budgetary Committee by Federal Ministry of Finance. WIFO estimate.

3. Risks to the forecast

The international environment holds significant downside risks:

- Further protectionist moves in the current trade dispute between the USA and China, but also with the EU, and the expected retaliation hold the danger of further escalation of the conflict, inflicting major harm to the global economy. Given the worldwide linkage of value chains, further impediments to international trade are bound to have adverse effects on output across countries, further exacerbating the current cyclical downturn.
- The effects of the imminent UK exit from the EU remain an important risk for the EU economy. A disruptive retrenchment of a "hard Brexit" would foremost harm the UK, but also adversely affect its partners on the continent, particularly those with close economic ties with the UK.
- Latent geo-political conflicts in the Middle East and tensions between Russia and the EU pose a risk for energy supplies and/or energy prices and overall inflation. Besides, mounting tensions in the Middle East or between Turkey and the EU may provoke migration flows into Europe.

If such external risks were to materialise, export prospects for the Austrian economy would necessarily deteriorate, with negative repercussions for domestic GDP growth, employment and income gains as well as for tax revenue and thus tend to increase general government total expenditure. Because of Brexit, Austria's net contribution to the EU Budget will increase. The economic policy of the next federal government is still uncertain. Against this background, the probability of a less favourable development of public finances appears to be decidedly higher than a more favourable outcome.

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