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The Austrian Economy in 2021

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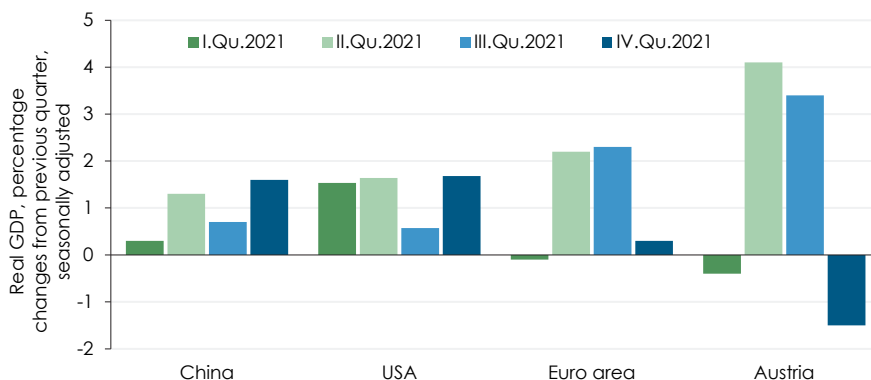
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- The global economy recovered from the COVID-19-related slump in 2021, although the pandemic continued to affect economic activity at home and abroad.
- Due to the asynchronous COVID-19 waves and the differences in economic and health policies, the business cycle was regionally heterogeneous.
- At the beginning as well as at the end of 2021, the Austrian federal government once again implemented health policy measures in response to the increased incidence of infections.
- The two lockdowns shaped the dynamics during the year, especially in the sectors accommodation and food service activities, trade, transportation and other services. Private consumer demand developed similarly in 2021.
- The rapid recovery of global industrial production increasingly led to supply bottlenecks from spring 2021 onwards, which also dampened production in Austria.
- The labour market recovered quickly, and in addition to employment, the number of job vacancies also rose sharply in 2021.
- Due to rising commodity prices, inflation increased markedly, especially at the end of the year.

Economic growth in selected global regions in 2021



"The economic development in 2021 was again influenced by the COVID-19 pandemic. In Austria, the dynamics over the year were volatile compared to international terms. This mainly reflects the high importance of the tourism sector for the domestic economy, reacting quickly to changes in health policy measures."

The COVID-19-induced slump was followed by a global recovery in 2021, although the dynamics over the year were heterogeneous (Source: Eurostat, OECD, Statistics Austria, Macrobond).

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The COVID-19 pandemic and its consequences continued to shape the development of the global economy in 2021. Regionally, economic activity was heterogeneous, although the rapid recovery in industrial production resulted in supply bottlenecks and sharp price increases in many areas. The domestic economy expanded again, although economic activity fluctuated once more strongly over the year and was largely influenced by the COVID-19 health care policy measures. With the economic recovery, average hours worked also increased, which had a positive effect on per capita incomes. Together with improved consumer confidence and savings reserves from the previous year, this increased households' willingness to spend. Rising raw material prices had an inflationary effect, causing the Consumer Price Index to rise significantly, particularly at the end of 2021.

JEL-Codes: E32, E66 • **Keywords:** Business cycle

This article analyses economic developments in Austria and the world, with a focus on domestic income, consumption and price developments. A detailed analysis of the monetary and financial markets can be found in [Url \(2022\)](#). Reports on the development of industry, foreign trade and the labour market will follow in issue 5/2022 of the WIFO-Monatsberichte.

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Regionally asynchronous COVID-19 waves, supply bottlenecks and high commodity prices slowed down the global economic recovery in 2021.

1. World economy in 2021 under the sign of the pandemic and its impact

The development of the global economy in 2021 was also shaped by the COVID-19 pandemic. In the USA, economic activity was hardly affected in the winter half-year 2020-21, but in the third quarter of 2021, the acceleration of the infection dampened the economy. In Japan, COVID-19 outbreaks also slowed growth in the summer. In the euro area, on the other hand, the economy recovered quickly from the pandemic-related stagnation in winter 2020-21.

While GDP in the USA was already higher in the summer of 2021 than in the fourth quarter of 2019 before the outbreak of the pandemic, it did not reach the pre-crisis level in

the euro area and Japan until the end of 2021. In China, on the other hand, GDP had already exceeded the pre-crisis level in 2020. Although local COVID-19 outbreaks repeatedly led to sometimes drastic, albeit regionally limited, official restrictions there, China's economic weakness in 2021 was mainly due to the downturn in the real estate sector and the decline in construction investment, both of which were related to the tightening of financing regulations for real estate companies.

Global industrial production, which had suffered greatly from the widespread closures in spring 2020, was hardly dependent on the

infection event in 2021. The slump at that time was quickly compensated – faster than in the financial market and economic crisis of 2008-09 – so that the level of world industrial production in 2021 was already above

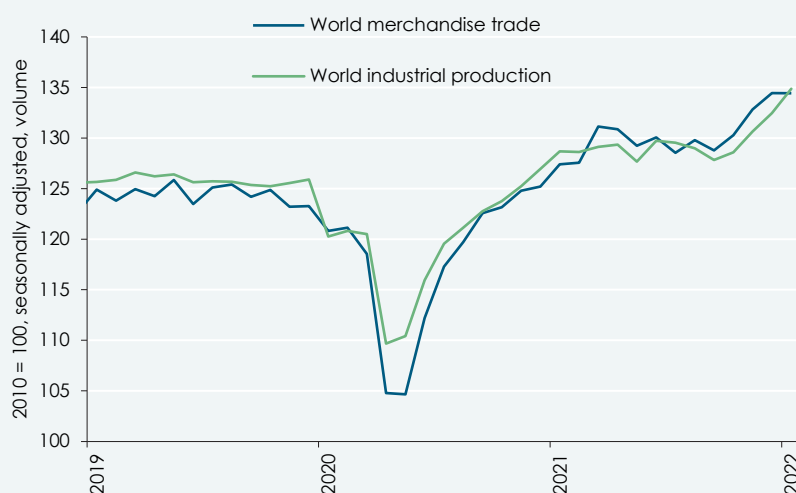
the pre-crisis level again. Global freight transport volumes were already higher in spring 2021 than before the COVID-19 crisis (Figure 1).

Table 1: **Economic growth of Austria's most important trading partners**

	Percentage shares 2020		2017	2018	2019	2020	2021
	Austria's exports of goods	World GDP ¹	GDP volume, percentage change from previous year				
EU 27	67.6	15.0	+ 2.8	+ 2.1	+ 1.8	- 5.9	+ 5.3
Euro area	52.0	12.1	+ 2.6	+ 1.8	+ 1.6	- 6.4	+ 5.3
Germany	30.5	3.4	+ 2.7	+ 1.1	+ 1.1	- 4.6	+ 2.9
Italy	6.2	1.9	+ 1.7	+ 0.9	+ 0.5	- 9.0	+ 6.6
France	4.3	2.3	+ 2.3	+ 1.9	+ 1.8	- 7.9	+ 7.0
CEEC 5 ²	14.9	1.8	+ 4.6	+ 4.7	+ 4.1	- 3.7	+ 5.3
Hungary	3.5	0.2	+ 4.3	+ 5.4	+ 4.6	- 4.7	+ 7.1
Czech Republic	3.6	0.3	+ 5.2	+ 3.2	+ 3.0	- 5.8	+ 3.3
Poland	3.9	1.0	+ 4.8	+ 5.4	+ 4.7	- 2.5	+ 5.7
USA	6.5	15.9	+ 2.3	+ 2.9	+ 2.3	- 3.4	+ 5.7
Switzerland	5.5	0.5	+ 1.6	+ 2.9	+ 1.2	- 2.4	+ 3.7
UK	2.9	2.2	+ 2.1	+ 1.7	+ 1.7	- 9.4	+ 7.5
China	2.7	18.3	+ 6.9	+ 6.7	+ 6.0	+ 2.2	+ 8.1
Total ³							
PPP-weighted ⁴		52	+ 4.0	+ 4.0	+ 3.4	- 2.4	+ 6.5
Export-weighted ⁵	85		+ 2.8	+ 2.4	+ 1.9	- 5.4	+ 5.4

Source: Eurostat, Macrobond, OECD, WIFO calculations. – ¹ PPP-weighted. – ² Czech Republic, Hungary, Poland, Slovenia, Slovakia. – ³ EU 27, USA, Switzerland, UK, China. – ⁴ Weighted by GDP at purchasing power parities 2020. – ⁵ Weighted by shares of Austrian goods export in 2020.

Figure 1: **Developments in global international trade and industrial production in 2021**



Source: CBP Netherlands, Macrobond.

The rapid and strong recovery in global demand for goods and the shift in private consumption from services to (durable) goods all led to supply shortages, which in turn led to strong price increases for raw materials, intermediate goods and finished goods. As supply could not keep up with the rapid increase in industrial demand, world market

prices for raw materials and intermediate products rose sharply. Energy commodity prices in particular rose significantly from mid-2020 onwards, exceeding pre-crisis levels at the turn of 2020-21 and reaching new highs in almost all areas in the course of 2021 (Figure 2).

Figure 2: Development of commodity and energy prices

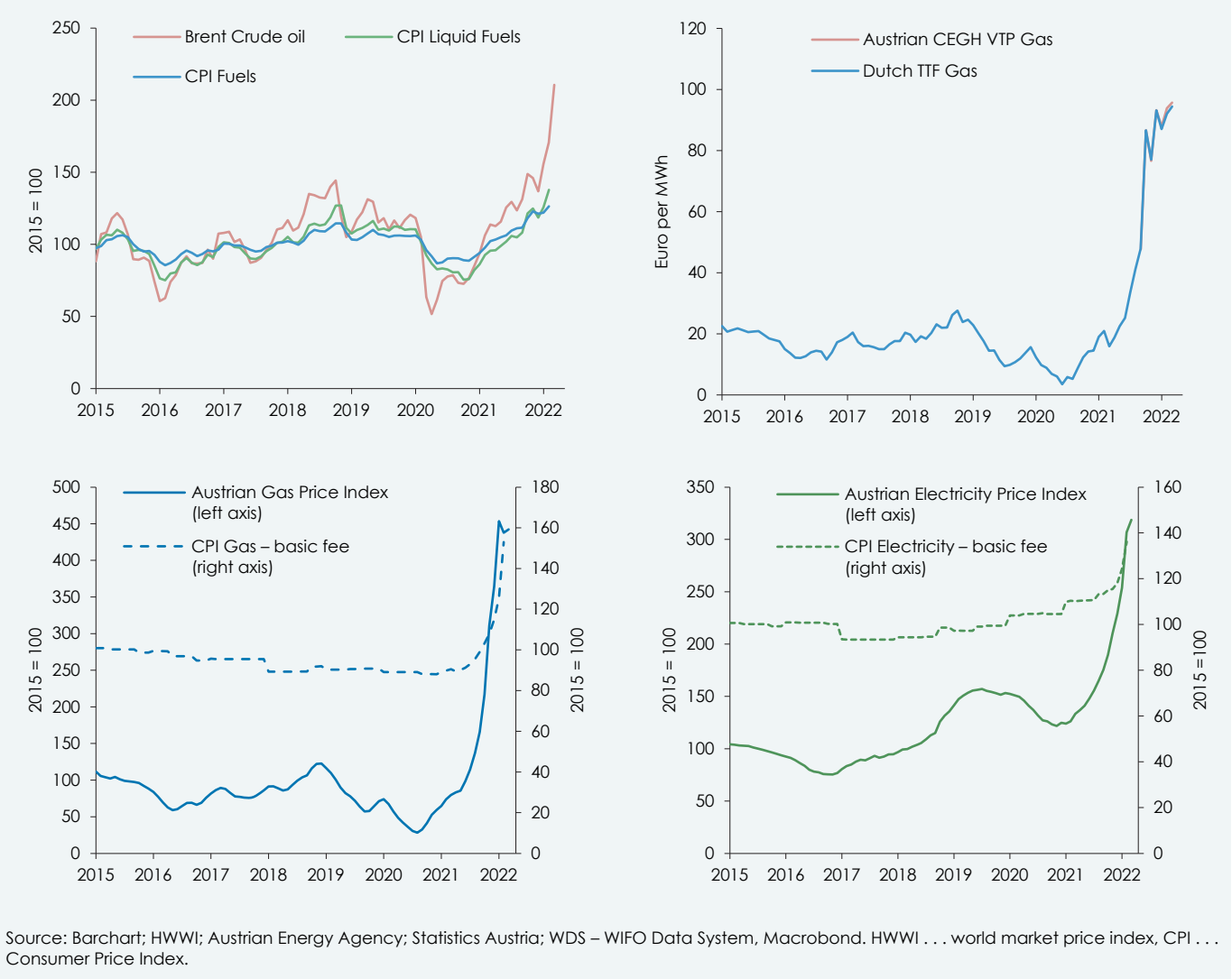
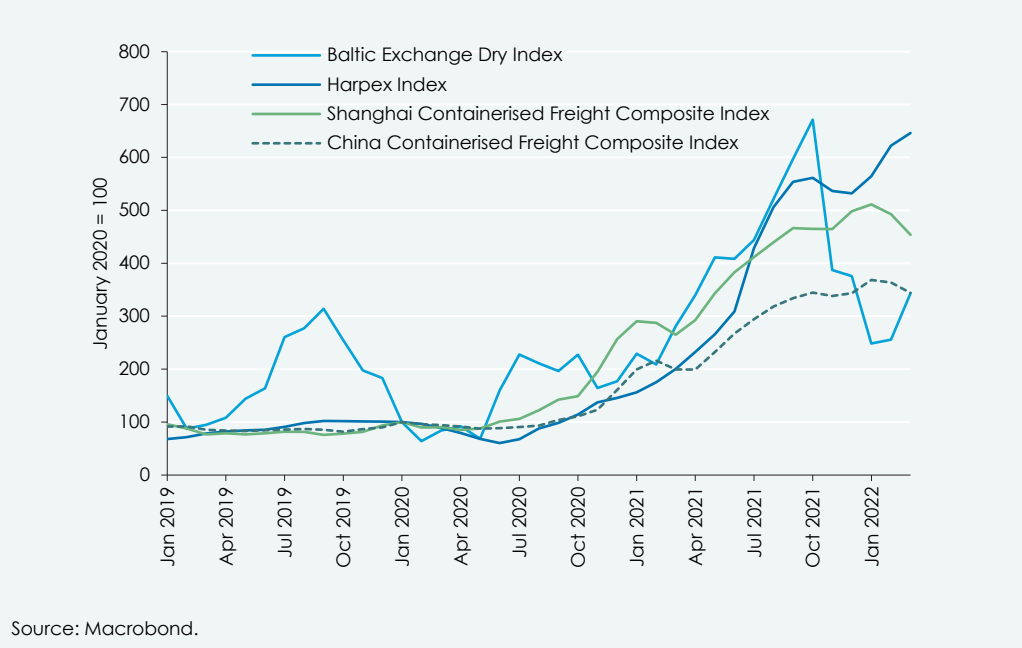


Figure 3: International transport and container freight costs



In addition, regional capacity bottlenecks emerged in international shipping, exacerbating the gap between global supply and demand for goods. Together with other complications such as port closures in China and an extraordinary increase in transport costs (Figure 3), this led to global industrial production and trade in goods stagnating at a high level for much of 2021. From autumn onwards, however, the global economy picked up again after the backlog in container transport had eased somewhat.

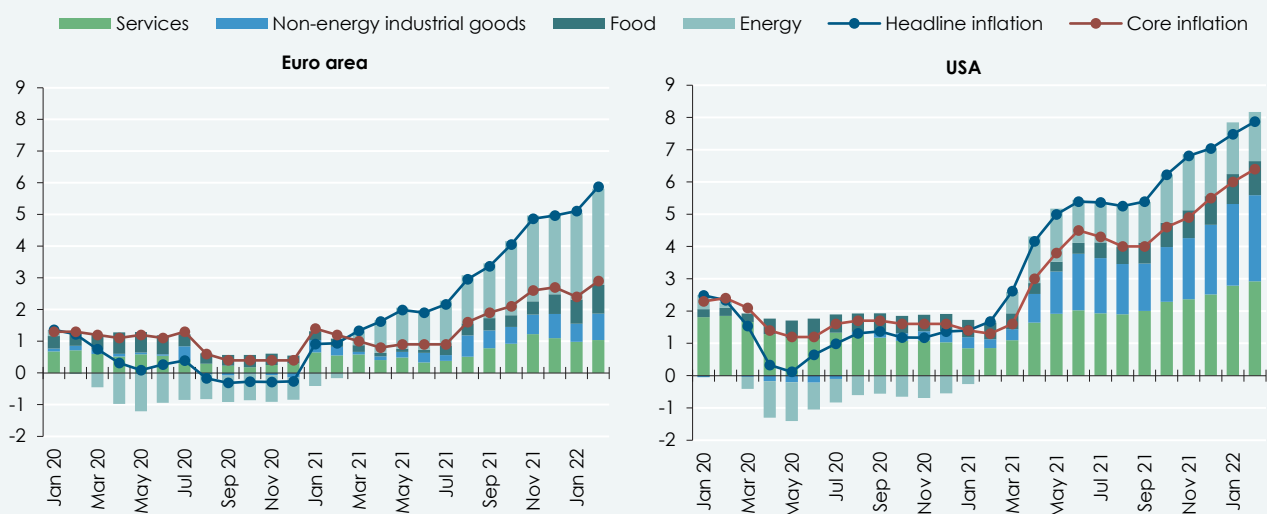
The German economy was particularly hard hit by the international supply difficulties, and its recovery in 2021 was far too weak to compensate for the crisis-induced slump in 2020. A major factor in Germany's disproportionate impact is likely to be the high importance of the automotive industry. Since

microchips are indispensable in the final production of cars, the German automotive industry suffered particularly strong from the shortage of intermediate products. The downward trend in German industrial production, which had already begun in 2018, therefore continued until autumn 2021. After that, the industry in Germany also benefitted from the renewed upturn in the global economy.

Industrial raw materials prices reached a temporary peak in spring 2021, whereas the increase in energy prices further continued in the course of the year. In particular, the price for natural gas had multiplied. The rise in commodity prices had a direct impact on consumer prices; inflation rose strongly in both the USA and the euro area (Figure 4).

Figure 4: Inflation in the euro area and the USA by component

Contribution to headline inflation in percentage points



Source: Eurostat, U.S. Bureau of Labor Statistics, Macrobond, WIFO calculations.

Monetary policy thus came under increasing pressure as it continued to be expansive and stimulate the economy. However, key interest rates in the euro area have not been changed since autumn 2019. In the course of its bond purchase programme in effect since 2015, the ECB purchased bonds with a net volume of 20 billion € per month in 2021. In addition, under the Pandemic Emergency Purchase Programme (PEPP), which has been in place since March 2020, bonds worth 70 billion € per month were purchased

on average in 2021. Inflation in the euro area accelerated noticeably in the course of 2021. A change in monetary policy strategy that came into effect in 2021 gives the ECB greater leeway to react to inflation: the target value for inflation was raised from "below but close to 2 percent" to 2 percent and is no longer understood as an upper limit, but rather as a mean value (symmetry), so that inflation above the target value is also temporarily permissible.

2. Austria: economic recovery in the second year of the COVID-19 crisis

2.1 GDP development shaped by lockdowns, catch-up effects and robust industrial activity

After the drastic slump in Austrian economic output in 2020, GDP grew by 4.5 percent in

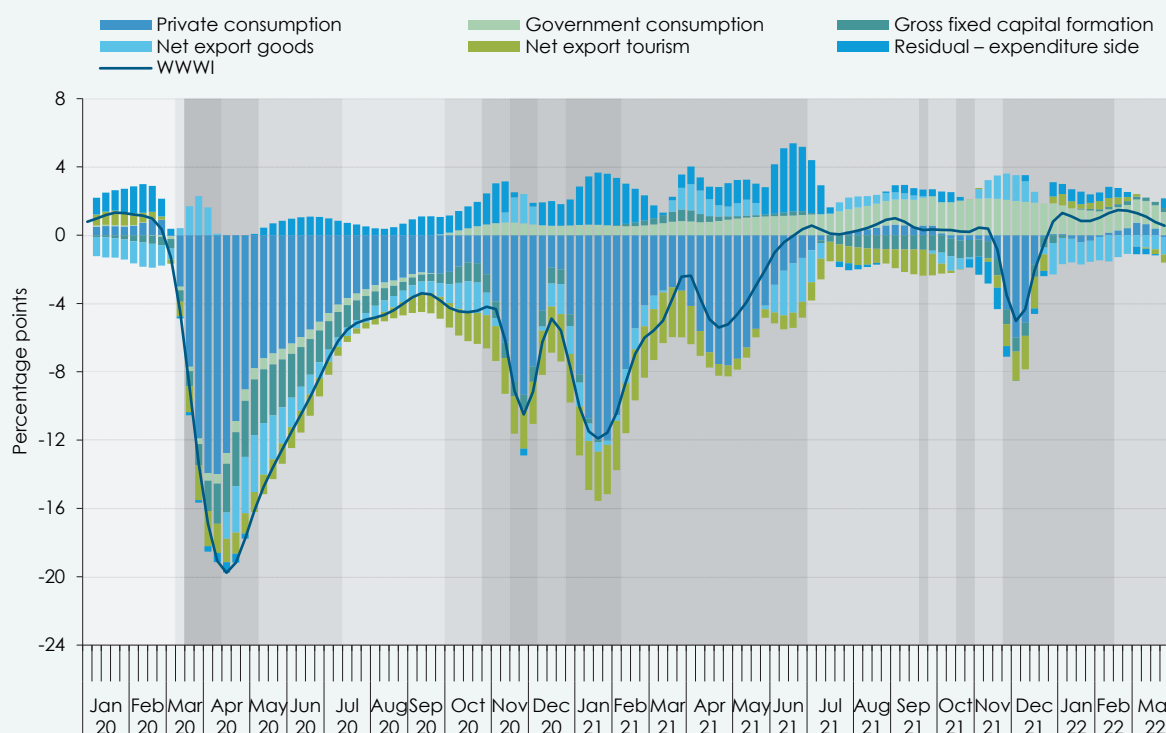
real terms in 2021 compared to the previous year (+6.3 percent in nominal terms). Economic activity fluctuated significantly over the year. In the first months of 2021, measures to contain the COVID-19 pandemic dampened domestic economic

The economic dynamics in Austria in 2021 were also characterised by health policy measures to contain the COVID-19 pandemic.

development. From 26 December 2020 to 8 February 2021, the third full lockdown was in place. In certain sectors of the economy, such as restaurants, hotels as well as arts and entertainment, the restrictions remained in

place until 19 May 2021. There were also regional differences in the duration of the regulatory restrictions¹. In the course of the second quarter, the restrictions were relaxed throughout Austria.

Figure 5: **Weekly WIFO Economic Index (WWWI) – sub-components of the expenditure side**



Source: Statistics Austria; University of Oxford, Blavatnik School of Government; WIFO. The grey areas show the intensity of the health policy measures taken in Austria to contain the COVID-19 pandemic according to the Blavatnik School of Government's Stringency Index. This index is presented in five intensity levels: no or low restrictions . . . light grey: below 20, 20 to 40, 40 to 60, 60 to 80, severe constraints . . . dark grey: above 80.

The supply restrictions associated with the COVID-19 measures dampened household consumption as well as sales in trade and other service sectors, causing GDP to contract in the first quarter of 2021 (-0.4 percent vs. above the previous quarter). With the comprehensive easing of regulatory restrictions in mid-May, the affected service sectors strongly expanded their economic activity, causing GDP to rise by 4.1 percent in the second quarter. The recovery continued in the third quarter, when the official restrictions were largely eased.

severe as in previous lockdown phases and was replaced by a rapid recovery.

This is also reflected in the Weekly WIFO Economic Index (WWWI), which was already above the level of the reference period (average week in 2019) at the turn of the year 2021-22. Domestic economic activity mainly benefitted from the start of the high season in winter tourism. Although the dynamics weakened slightly in January, the WWWI was still above the pre-crisis level in the first weeks of 2022 (Figure 5).

The activity level of the Austrian economy was also subject to fluctuations in 2021, although no longer as strongly as in the previous year.

In autumn, the infection figures rose again, which led to renewed official measures from the beginning of November 2021 (lockdown for unvaccinated persons from calendar week 45, fourth general lockdown in calendar weeks 47 to 49). As a result, domestic economic output fell again (fourth quarter of 2021 -1.5 percent compared to the previous quarter). However, the slump was not as

As in the previous year, household consumption expenditure and the external balance of travel were particularly sensitive to the tightening and easing of health policy measures in 2021 and contributed significantly to the volatility of economic activity.

Private consumption (including non-profit institutions serving households) increased by

¹ In Vorarlberg, the first openings of food service activities occurred as early as 15 March. Another complete lockdown in April was limited to eastern Austria.

3.3 percent in 2021 compared to the previous year, when the government measures had influenced the development even more significantly. Due to increased demand from the public sector in the area of health (e.g. expansion of testing and vaccination infrastructure) as well as additional staff recruitment in the social and health sectors, public consumption demand grew particularly significantly (+6.7 percent). Thus, consumption as a whole increased by 4.4 percent. Companies also increased their demand again. Gross fixed capital formation in 2021 was 4.0 percent above the previous year's level, with growth in all sub-sectors (equipment investment +4.7 percent, construction investment +3.1 percent, other investment – predominantly intellectual property such as research and development as well as computer programmes and copyrights +4.9 percent).

Foreign trade developed dynamically in 2021, so that the declines from the previous year were more than compensated for. Exports increased by 12.7 percent. Exports of both, goods and services contributed to this increase. However, the growth of goods exports lost momentum from the middle of the year onwards in the wake of burgeoning supply chain problems. The performance of services exports was affected by volatile travel exports, especially in the first half of 2021. Overall, imports grew at a slightly higher rate of 14.5 percent than exports, and here too the momentum in goods weakened in the second half of the year. Thus, foreign trade dampened GDP growth throughout 2021. The domestic demand components, on the other hand, made a positive contribution to growth (Table 3).

Table 2: Development of aggregate demand
Volume (chain-linked series)

	2018	2019	2020	2021
	Percentage change from previous year			
Final consumption expenditure	+ 1.1	+ 0.9	- 6.3	+ 4.4
Households ¹	+ 1.1	+ 0.7	- 8.5	+ 3.3
General government	+ 1.2	+ 1.5	- 0.5	+ 6.7
Gross capital formation	+ 6.1	- 0.2	- 4.6	+ 6.0
Gross fixed capital formation	+ 4.4	+ 4.8	- 5.2	+ 4.0
Machinery and equipment ²	+ 1.3	+ 4.3	- 8.7	+ 4.7
Construction	+ 5.6	+ 4.0	- 3.7	+ 3.1
Other investment ³	+ 6.9	+ 7.3	- 3.2	+ 4.9
Domestic demand	+ 2.5	+ 0.7	- 5.8	+ 5.1
Exports	+ 5.1	+ 3.4	- 10.8	+ 12.7
Imports	+ 5.3	+ 2.0	- 9.4	+ 14.5
Gross domestic product	+ 2.5	+ 1.5	- 6.7	+ 4.5

Source: Statistics Austria; WDS – WIFO Data System, Macrobond. – ¹ Including non-profit institutions serving households. – ² Including weapon systems. – ³ Mainly intellectual property products (research and development, computer programmes, copyrights).

Table 3: Growth contribution of demand components to GDP, volume

	2018	2019	2020	2021
	Percentage points			
Final consumption expenditure	+ 0.8	+ 0.6	- 4.5	+ 3.1
Households ¹	+ 0.6	+ 0.3	- 4.4	+ 1.7
General government	+ 0.2	+ 0.3	- 0.1	+ 1.4
Gross capital formation	+ 1.5	- 0.0	- 1.2	+ 1.6
Gross fixed capital formation	+ 1.0	+ 1.2	- 1.3	+ 1.0
Machinery and equipment ²	+ 0.1	+ 0.3	- 0.7	+ 0.4
Construction	+ 0.6	+ 0.4	- 0.4	+ 0.4
Other investment ³	+ 0.3	+ 0.4	- 0.2	+ 0.3
Domestic demand	+ 2.4	+ 0.6	- 5.6	+ 5.0
Exports	+ 2.8	+ 1.9	- 6.0	+ 6.5
Imports	- 2.7	- 1.0	+ 4.9	- 7.0
Gross domestic product	percent + 2.5	+ 1.5	- 6.7	+ 4.5

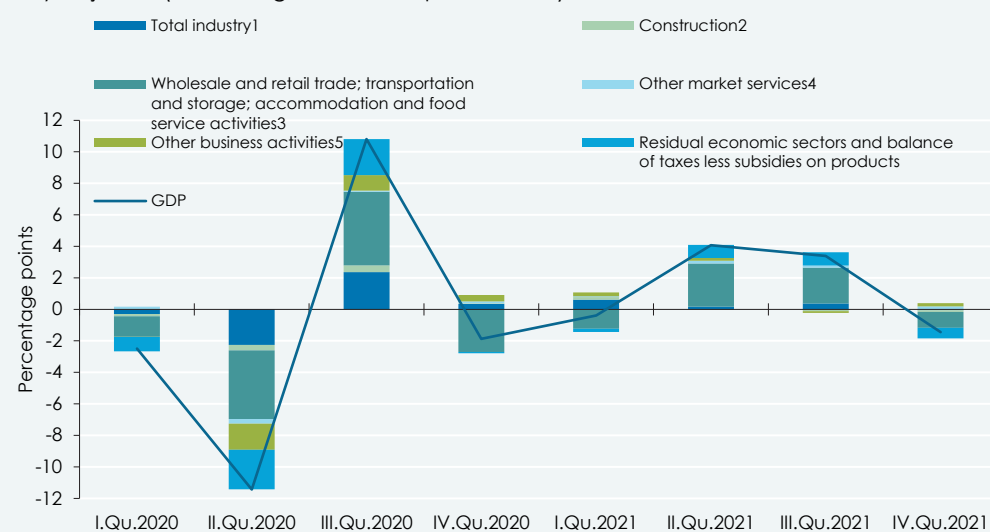
Source: Statistics Austria; WDS – WIFO Data System, Macrobond. – ¹ Including non-profit institutions serving households. – ² Including weapon systems. – ³ Mainly intellectual property products (research and development, computer programmes, copyrights).

After the 2020-21 winter season was almost completely cancelled, domestic tourism recovered over the summer months. In late autumn, however, the fourth COVID-19 wave again dampened the recovery. Overall, a mixed tourism balance was thus

recorded: the number of overnight stays fell by 18.7 percent in 2021 compared to the first crisis year of 2020 (Fritz & Burton, 2022), with the loss of the high-revenue months of January to March in particular having a strong negative impact on the annual balance.

Figure 6: **Growth contribution of the economic sectors to GDP, real**

Contribution to the change compared to the previous quarter, seasonally and working day adjusted (according to Eurostat specification)



Source: Statistics Austria, WIFO. – ¹ NACE B to E. – ² NACE F. – ³ NACE G to I. – ⁴ NACE J to L. – ⁵ NACE M and N.

Table 4: **Gross value added at basic prices**

Volume (chain-linked series)

	2018	2019	2020	2021
	Percentage change from previous year			
Agriculture, forestry and fishing	+ 3.7	- 0.1	- 3.1	+ 6.4
Total industry ¹	+ 3.9	+ 0.5	- 6.3	+ 9.0
Manufacturing	+ 4.3	+ 0.6	- 7.0	+ 8.7
Construction	+ 1.1	- 1.6	- 3.0	+ 3.0
Wholesale and retail trade	+ 4.2	+ 2.0	- 4.2	+ 7.3
Transportation and storage	+ 2.1	+ 0.4	- 13.0	+ 6.5
Accommodation and food service activities	+ 1.0	+ 0.6	- 40.1	- 15.9
Information and communication	+ 8.2	+ 7.9	- 1.7	+ 3.6
Financial and insurance activities	+ 3.1	+ 4.4	+ 5.1	+ 2.3
Real estate activities	+ 1.3	+ 0.3	+ 0.3	+ 1.4
Other business activities ²	+ 3.8	+ 4.3	- 8.1	+ 7.7
Public administration ³	+ 0.9	+ 1.1	- 3.7	+ 2.3
Other service activities ⁴	+ 0.2	+ 0.8	- 19.7	+ 1.3
Total gross value added ⁵	+ 2.7	+ 1.4	- 6.8	+ 4.4
Gross domestic product at market prices	+ 2.5	+ 1.5	- 6.7	+ 4.5

Source: Statistics Austria; WDS – WIFO Data System, Macrobond. – ¹ Mining and quarrying; manufacturing; electricity, gas, steam and air conditioning supply; water supply; sewerage, waste management and remediation activities (NACE B to E) – ² Professional, scientific and technical activities; administrative and support service activities (NACE M and N). – ³ Including compulsory social security, defence; education; human health and social work activities (NACE O to Q). – ⁴ Including arts, entertainment, sport and recreation; personal services; private households (NACE R to U). – ⁵ Before deduction of subsidies and attribution of taxes on products.

Value added in the sector accommodation and food service activities decreased by 15.9 percent in 2021 (2020 -40.1 percent). In contrast, the other sectors affected by the

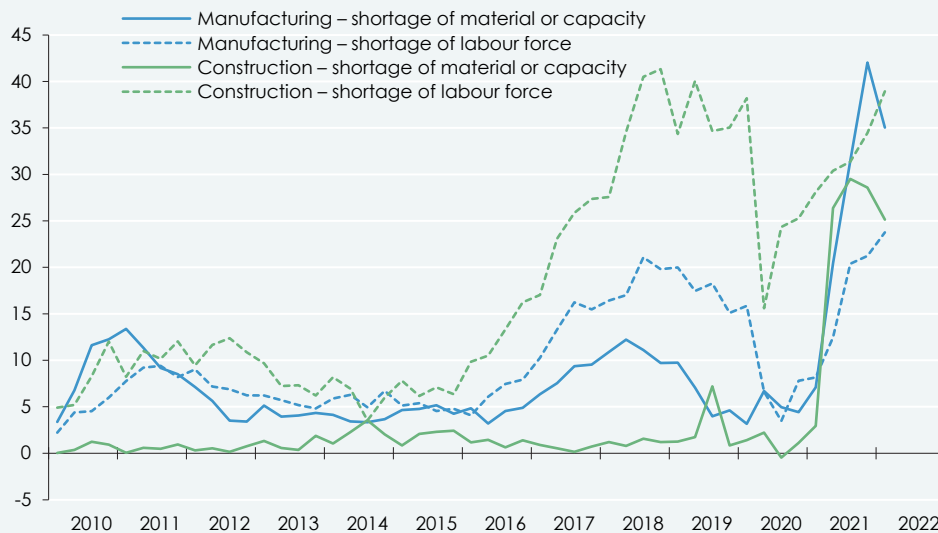
health policy measures recorded increases after the declines in 2020: in the sector trade, value added increased by 7.3 percent (after -4.2 percent 2020), in

transportation by 6.5 percent (after –13.0 percent), in other services, which include personal service activities and arts and entertainment, by 1.3 percent (after –19.7 percent). During the year, the first half of the year in particular was characterised by strong growth compared to the previous quarters. Capacity and supply bottlenecks in raw materials and intermediate products dampened the upswing in the industrial economy.

As in the euro area, domestic industry developed very favourably in the first three quarters of 2021, but lost momentum in the fourth quarter. The recovery of the global economy increasingly led to bottlenecks in intermediate products from spring 2021 onwards, which subsequently also burdened the Austrian industrial economy. Overall, value added in manufacturing rose by 8.7 percent in 2021 (after –7.0 percent in 2020). In the construction industry, growth was 3.0 percent (after –3.0 percent).

Figure 7: **Production constraints in manufacturing and construction**

Share of enterprises affected as a percentage of all reporting enterprises, seasonally adjusted



Source: WIFO-Konjunkturtest (business cycle survey). In order to ensure the comparability of the time series during the year, seasonally adjusted values are shown. Negative values cannot be excluded due to the seasonal adjustment procedure "Dainties". These are statistical artefacts.

The results of the WIFO-Konjunkturtest (business cycle survey) of April 2021 showed for the first time a significant increase in the share of companies in manufacturing and construction that reported a shortage of materials or capacity as the primary obstacle to production. This trend intensified in the subsequent surveys. In manufacturing, an all-time high of 42 percent was reported at year-end 2021. Labour force shortages also became increasingly important, especially in construction. Similar high levels have also been observed there directly before the onset of the COVID-19 crisis in spring 2020. Despite these impediments, the situation and expectations indices in 2021 were at very high levels in both construction and manufacturing.

The national budget in 2021 was again burdened by increased expenditure in connection with the COVID-19 pandemic. In addition to fiscal policy support measures for companies and private individuals, expenditures for testing and vaccination infrastruc-

ture also increased public expenditure (+4.4 percent or +9.4 billion €). On the revenue side, the economic upswing had a positive effect (+8.7 percent or +16.1 billion €), especially on taxes and social contributions. As a result, the public deficit fell to 5.9 percent of nominal GDP in 2021 (after 8.0 percent in 2020). Public debt rose again and was 18.1 billion € higher at the end of 2021 than at the end of 2020, at 334.1 billion €. With nominal GDP rising, the debt ratio declined by 0.5 percentage points to 82.8 percent of GDP.

The upswing led to a rapid recovery on the labour market. Since March 2021, the number of employed persons in active employment rose again year-on-year, with an annual average increase of 2.5 percent (after –2.0 percent in 2020). In parallel, the unemployment rate fell to 8.0 percent (after 9.9 percent in 2020).

The number of vacancies registered with the Public Employment Service Austria (AMS)

The economic recovery increased government revenues in 2021 and led to an easing on the labour market; government spending nevertheless increased again.

also increased significantly in the course of 2021 and reached a new peak of more than 120,000 at the end of the year, seasonally adjusted. Measured against the total labour supply, the share of vacancies was only similarly high during the economic boom at the beginning of the 1970s (Schiman, 2021).

2.2 Development of collectively agreed minimum wages weak in 2021

Economic developments have an impact on the effective wage development with a certain delay via the wage-setting process. The development of wages and salaries in 2021 was significantly influenced by the wage agreements in autumn 2020 and the following months. The second half of 2020 was marked by the economic recovery, with the number of actively dependent employees in 2021 reaching or exceeding the level of 2019 at 3.73 million. However,

collective wage bargaining was oriented towards the low 2020 Consumer Price Index and there was general uncertainty about the further course of the COVID-19 pandemic and possible renewed lockdown measures. Against this background, the social partners agreed on wage adjustments for 2021, which in most cases were significantly lower than the long-term average and essentially only compensated for the inflation of the past year. In the associations of the metal industry, whose wage settlement traditionally kicks off the autumn wage round, the bargaining partners set an increase of 1.45 percent in actual wages and salaries for 2021. The increase was thus less than half of the previous year's settlement. In the public sector, the wage settlement was also significantly lower than the previous year at 1.45 percent. In the following months, the wage settlements continued at a similar level.

Table 5: Development of the collectively agreed minimum salaries

	Weighting	Index of Agreed Minimum Wages 2016	
		Total employees 2020	Total employees 2021
		Percentage changes from previous year	
Overall Index of Agreed Minimum Wages	1,000,000	+ 2.3	+ 1.7
Excluding civil servants	837,726	+ 2.3	+ 1.8
Craft and trades	196,327	+ 2.5	+ 1.8
Industry	163,994	+ 2.4	+ 1.9
Trade and commerce	127,187	+ 2.3	+ 1.5
Transport and traffic	54,763	+ 2.0	+ 2.2
Tourism and leisure	49,712	+ 1.1	+ 1.7
Banking and insurance	37,035	+ 2.2	+ 1.6
Information and consulting	67,321	+ 2.3	+ 1.5
Civil servants	162,274	+ 2.4	+ 1.4

Source: Statistics Austria; WDS – WIFO Data System, Macrobond; WIFO calculations.

On a weighted average, the wage settlements led to an increase in the Index of Agreed Minimum Wages of 1.7 percent; compared to the previous year, the increase was thus about half as large (Table 5). The public sector, which is included in the index with a weight of about one-sixth, recorded an increase of 1.4 percent, in industry (weight also about one-sixth) it was 1.9 percent. In the service areas, the growth rates were in line with the overall economic average; only in the area of transport and traffic was the development higher, at +2.2 percent. However, this area is only included in the index with a weight of 5.5 percent.

The collectively agreed minimum wages express a hypothetical wage development that deviated from the effective development in both 2020 and 2021 (Table 6). On the one hand, the cyclical change in effective per capita working hours affects per

capita incomes. Across all sectors, the average weekly working time of employees was 27.7 hours in 2021. Compared to the previous year, there was a significant increase in average working hours and thus a positive effect on per capita incomes. On the other hand, the instrument of short-time work also supported incomes in 2021: on average, around 470,000 people were on short-time work in 2021, whose income losses due to the reduction in working hours were largely compensated by the public sector. Overall, gross wages and salaries per capita increased by 3.0 percent in 2021, which is significantly higher than the collectively agreed minimum wages. However, due to the rise in consumer prices, the corresponding real wage increase was only 0.2 percent. Net wages per capita also developed similarly; in real terms they increased by 0.3 percent (according to the WIFO forecast of March 2022).

Net incomes developed moderately in 2021.

Table 6: **Development of wages and salaries**

	2019	2020	2021
	Percentage changes from previous year		
Wages and salaries, total			
Gross	+ 4.4	- 0.4	+ 5.5
Net ¹	+ 4.5	+ 0.4	+ 5.6
Employees ²	+ 1.5	- 2.3	+ 2.4
Wages and salaries per capita ³			
Gross nominal	+ 2.9	+ 2.0	+ 3.0
Gross real ⁴	+ 1.4	+ 0.6	+ 0.2
Net nominal ¹	+ 3.0	+ 2.8	+ 3.1
Net real ^{1,4}	+ 1.4	+ 1.3	+ 0.3
Hours worked per capita ³			
	+ 0.5	- 7.2	+ 3.3
Wages and salaries per hour worked			
Gross nominal	+ 2.3	+ 9.9	- 0.2
Gross real ⁴	+ 0.8	+ 8.4	- 3.0
Net nominal ¹	+ 2.4	+10.7	- 0.1
Net real ^{1,4}	+ 0.9	+ 9.2	- 2.9

Source: Statistics Austria; WDS – WIFO-Data-System; Macrobond. – ¹ 2021: according to the WIFO Economic Forecast of March 2022. – ² National Accounts definition (jobs). – ³ Per employee (according to National Accounts definition). – ⁴ Deflated by the Consumer Price Index (CPI).

If the working hour is chosen as the reference point for the analysis of income development, both the gross and net figures for 2021 show a decline in wages and salaries against the previous year. In 2020, short-time work support was used as an individual wage substitute for the loss of working hours in around 1.25 million cases (Bock-Schappelwein & Famira-Mühlberger, 2022). As short-time work benefits are part of monthly payments, the high take-up in 2020 led to an exceptionally strong increase in income per hour actually worked and compensated by the employer (+9.9 percent). In 2021, the loss of working hours, which was largely compensated by the short-time work allowance, was significantly lower than in the previous year, which also led to a decrease in hourly earnings per hour actually worked. The dynamics of hourly wages and salaries in 2021 was thus driven more by the change in hours worked than by the development of monthly wages and salaries.

2.3 Recovery of consumer demand – trade sales strong again

According to preliminary data from Statistics Austria, in 2021 the consumption expenditure of domestic private households (including non-profit institutions serving households) was 3.3 percent higher in real terms than in the previous year (Table 7). In nominal terms, this corresponds to an increase of 5.8 percent. However, the strong slump of 2020 was not compensated, which means that consumer spending in 2021 was still lower than in the pre-crisis year 2019 (nominally -3.7 billion €, price-adjusted -10.3 billion €).

In 2021, the development of private consumption was again characterised by the COVID-19 pandemic and the health policy measures to curb it. Renewed temporary closures of retail and service businesses as well as access restrictions in shops, pubs or to sports and cultural events led to a decline in consumption, especially in the first and fourth quarter. Travel behaviour (including choice of holiday destination, duration or type of holiday) also continued to be affected by the COVID-19 pandemic. However, the overall weakness in consumer demand was not as pronounced in 2021 as it was in 2020, intensified take-away and click-and-collect offerings, among other factors, supported the demand. Nevertheless, in addition to the restrictions in consumption options, uncertainty about further developments also remained in 2021, which meant that once again more was saved than in "normal" years. Although the household savings rate fell to 11.8 percent (2020: 14.4 percent), it remained at a high level in a long-term comparison and well above the figure for 2019 (8.5 percent).

Income supporting measures from the previous year were partially continued, such as short-time work support, the hardship fund and the revenue shortfall bonus for self-employed. On the other hand, one-off payments such as the child bonus, Corona family hardship fund or subsidies for unemployment benefits were no longer granted in 2021. In total, real disposable income in 2021 was slightly above the previous year's level (+0.3 percent; nominally +2.8 percent), according to preliminary figures from Statistics Austria.

With consumer demand recovering while disposable household incomes remained stable, the savings rate fell to 11.8 percent. The continuation of short-time work and other fiscal policy measures supported household incomes in 2021.

Despite renewed health policy measures, consumer demand expanded compared to the historic slump in 2020.

Table 7: **Private consumption, personal disposable income, consumption rate**

	Private consumption ¹		Personal disposable income		Consumption rate ²
	Nominal	Real ³	Nominal	Real ³	
	Year-to-year percentage changes				
Ø 2009-2013	+ 3.1	+ 0.7	+ 1.9	- 0.5	+ 1.2
Ø 2013-2017	+ 2.8	+ 1.1	+ 2.9	+ 1.2	- 0.2
Ø 2017-2021	+ 0.9	- 1.0	+ 2.2	+ 0.3	- 1.2
2018	+ 3.2	+ 1.1	+ 3.3	+ 1.2	- 0.1
2019	+ 2.4	+ 0.7	+ 3.4	+ 1.6	- 0.9
2020	- 7.2	- 8.5	- 0.7	- 2.0	- 6.6
2021	+ 5.8	+ 3.3	+ 2.8	+ 0.3	+ 3.0

Source: Statistics Austria, WIFO calculations. – ¹ Domestic consumption including non-profit institutions serving households. – ² Consumption as a percentage of personal disposable income. – ³ Chain-linked series.

The breakdown of consumer demand by type of goods (Table 8) shows above all a strong increase in spending on durable consumer goods. Due to the increased saving activity in 2020, which resulted primarily from the non-existent or limited consumption options (COVID-19 "forced saving"), many private households expanded their savings. This, together with the stable income development and the increased consumer confidence, is likely to have led to a higher willingness to spend or catch-up purchases again in 2021, at least for furniture, household appliances, clothing or sports equipment. On the other hand, new registrations of conventionally powered passenger cars (petrol and diesel vehicles) again fell sharply, while new registrations of alternatively powered passenger cars continued to rise strongly. Spending on used cars increased in 2021, compensating for the previous year's decline.

A decline in demand was observed in 2021 in non-durable consumer goods, which also includes food and beverages. This can be

seen as a countermovement to the strong increase in 2020, when goods for daily use were in greater demand due to reduced mobility. Services, which have fallen sharply in 2020 due to consumption cuts in gastronomy, travel and sports, culture and leisure, increased slightly in 2021 (+0.5 percent).

Domestic consumption stagnated (+0.2 percent in real terms). National consumption rose much more strongly (+3.5 percent in real terms). To calculate this, domestic consumption is expanded to include expenditures made abroad by Austrian residents and reduced by the consumption expenditures of non-residents in Austria. While the latter declined mainly in the first quarter of 2021 (important part of the winter season) due to closed accommodation facilities (full year 2021 -29.8 percent), consumption abroad by persons resident in Austria increased strongly (+81.1 percent). Compared to the previous year, travel imports increased in 2021, especially in the summer months and in the fourth quarter.

Table 8: **Development of private consumption in a longer-term comparison**

Volume (chain-linked series)

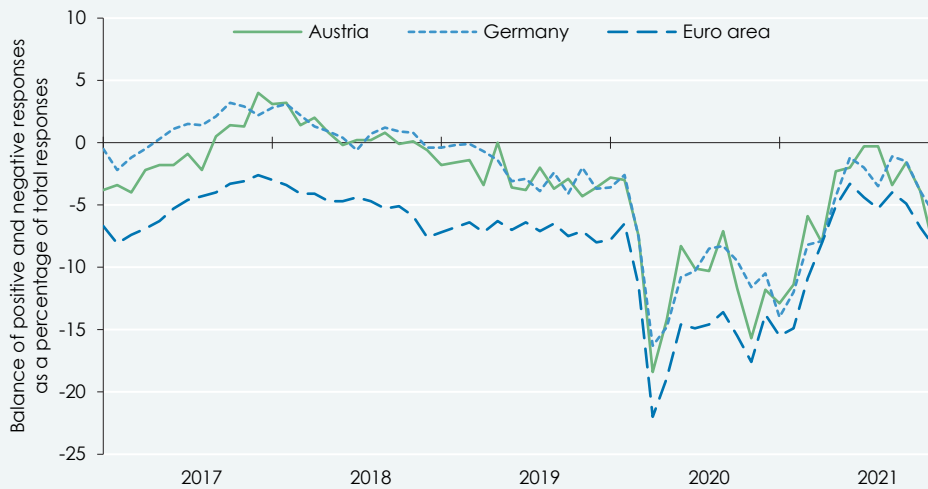
	Ø 2009-2013	Ø 2013-2017	Ø 2017-2021	2018	2019	2020	2021
	Year-to-year percentage changes						
Domestic consumption	+ 0.8	+ 1.0	- 1.9	+ 1.1	+ 0.7	- 9.2	+ 0.2
Durable consumer goods	+ 0.5	+ 1.3	+ 1.8	+ 0.9	+ 0.2	- 3.2	+ 9.5
Semi-durable consumer goods	+ 1.6	+ 1.7	- 2.9	+ 1.0	- 0.0	- 13.7	+ 2.0
Non-durable consumer goods	+ 0.1	+ 0.5	- 0.6	+ 0.5	+ 0.2	+ 1.2	- 4.4
Services	+ 1.0	+ 1.0	- 3.0	+ 1.4	+ 1.1	- 14.2	+ 0.5
Consumption by non-residents in Austria	+ 0.4	+ 2.4	- 19.5	+ 4.2	+ 2.3	- 43.9	- 29.8
Consumption abroad by Austrian residents	- 3.0	+ 4.1	- 7.8	+ 7.3	+ 2.0	- 63.6	+ 81.1
National consumption¹	+ 0.6	+ 1.0	- 1.0	+ 1.1	+ 0.6	- 8.7	+ 3.5
Consumption by non-profit institutions serving households	+ 1.9	+ 3.0	+ 0.0	+ 1.2	+ 2.6	- 3.7	+ 0.2
National consumption including non-profit institutions serving households	+ 0.7	+ 1.1	- 1.0	+ 1.1	+ 0.7	- 8.5	+ 3.3
Durable consumer goods	+ 0.5	+ 1.4	+ 1.9	+ 1.0	+ 0.3	- 2.6	+ 9.5
National consumption excluding durable consumer goods	+ 0.7	+ 1.0	- 1.3	+ 1.1	+ 0.7	- 9.1	+ 2.7

Source: Statistics Austria, WIFO calculations. – ¹ Domestic consumption reduced by consumption of non-residents in Austria and expanded by consumption abroad of Austrian residents.

Consumer confidence, whose development followed the course of the COVID-19 pandemic and the lockdown phases, improved significantly in the first half of 2021: the seasonally adjusted balance of the harmonised EU consumer confidence indicator stood at -12.9 percentage points in January 2021 during the third lockdown, the value rose continuously in the following months. The interim low in April reflected the "eastern lockdown" in Vienna, Lower Austria and

Burgenland. This was followed by a recovery of consumer confidence until the summer (to as low as -0.3 percentage points in July and August), before it fell again in autumn and dropped to -8.7 percentage points in December during the fourth lockdown. The development in Austria was like that in Germany and the euro area, whereby the recovery in Austria was more pronounced in the middle of the year (Figure 8).

Figure 8: Development of the seasonally adjusted consumer climate indicator



Source: Eurostat. Arithmetic average of the balance of positive and negative responses as a percentage of total responses on the past and future financial situation of the household, the view on the future general economic situation and on planned major purchases. Seasonally adjusted by Eurostat using dainties.

After partly drastic turnover and volume losses in 2020, most trade sectors recovered in 2021, whereby the development was determined by the official closures. Trade recorded a 4.7 percent increase in volume in 2021 (turnover +11.2 percent). The growth was spread across all sectors, with particularly strong increases in trade and repair of motor vehicles. The increase was mainly concentrated on the first half of the year, after a slump in demand for new and used cars in the first half of 2020. In 2021, volume of trade and repair of motor vehicles and motorcycles rose by 9.2 percent (turnover +12.1 percent). Volume of wholesale trade grew by 4.6 percent in 2021 (turnover +14.9 percent); the entire year was characterised by a positive trend.

Volume in the retail trade (except motor vehicles and motorcycles) rose by 3.0 percent, turnover by 5.1 percent. However, a heterogeneous development was observed in the individual sectors: while retail sale of food and tobacco and drugstores achieved only

moderate increases in volume compared to the previous year (+0.5 percent, +1.7 percent in turnover), retail sale of non-food products developed better (volume +4.7 percent, turnover +6.4 percent). The development in the area of pharmacies and cosmetics was particularly positive (volume +9.6 percent, turnover +11.5 percent). Other sub-sectors of the retail trade, such as sports, clothing and shoes, DIY stores and electrical household appliances, also developed well in 2021 and benefitted in part from catch-up effects. An increase in volume was also recorded in mail-order and online shopping.

Employment in wholesale and retail as well as repair of motor vehicles and motorcycles expanded again in 2021 (+0.7 percent after -1.7 percent in 2020; Table 9). This applies to both retail trade (+1.1 percent) and wholesale trade (+0.4 percent), but not to wholesale and retail trade and repair of motor vehicles and motorcycles (-0.6 percent).

Table 9: Development in trade

	Total (wholesale and retail trade; repair of motor vehicles and motorcycles)	Wholesale and retail trade and repair of motor vehicles and motorcycles	Wholesale trade (excluding motor vehicles and motorcycles)	Retail trade (excluding motor vehicles and motorcycles)
	Percentage changes from previous year			
Turnover of sales				
2019	+ 1.2	+ 0.6	+ 0.9	+ 2.1
2020	- 5.3	- 10.7	- 7.0	+ 0.1
2021	+ 11.2	+ 12.1	+ 14.9	+ 5.1
Volume of sales				
2019	+ 0.6	- 1.2	+ 0.6	+ 1.2
2020	- 4.8	- 12.5	- 5.3	- 0.2
2021	+ 4.7	+ 9.2	+ 4.6	+ 3.0
Prices (Ø 2015 = 100)				
2019	+ 0.7	+ 1.8	+ 0.4	+ 0.9
2020	- 0.5	+ 2.0	- 1.8	+ 0.4
2021	+ 6.1	+ 2.7	+ 9.7	+ 1.9
Employment				
2019	+ 0.2	+ 0.9	+ 0.9	- 0.4
2020	- 1.7	- 1.8	- 1.5	- 1.8
2021	+ 0.7	- 0.6	+ 0.4	+ 1.1

Source: Statistics Austria.

The rate of inflation reached an average of 2.8 percent in 2021, rising from 0.8 percent in January to 4.3 percent in December. Energy prices in particular rose sharply – mineral oil products by 17.6 percent.

2.4 Energy prices drive inflation

The significant price increases observed worldwide in the course of 2021 were to a large extent a direct reaction (base effects) to the economic upheavals in the wake of the COVID-19 pandemic: the global recession in spring 2020 was followed by a surprisingly strong economic recovery that lasted from summer 2020 to the first quarter of 2022. However, the supply of raw materials and intermediate products could not keep up with the rapidly growing demand from industry, which caused world market prices to rise significantly (see also Chapter 1). The upturn in consumer prices (according to the CPI) in 2021 was mainly due to the strong increase in energy prices (mineral oil products from spring, natural gas and electricity from summer and autumn 2021) and the prices of (durable) consumer goods. The inflation rate, which had been at 0.8 percent in January 2021, rose to 4.3 percent by December (annual average 2021: 2.8 percent, 2020: 1.4 percent, 2019: 1.5 percent; Baumgartner, 2021). Core inflation (excluding unprocessed food and energy) was 2.0 percent in 2021 (December 2.8 percent, Table 10).

The strong price increases on the world market for raw materials (timber, ores, crude oil), energy (processed mineral oil products, natural gas, electricity; Figure 2) and intermediate products (e.g. microchips) together with higher transport costs (container and truck traffic) drove up the prices for imported

goods and domestic producer prices. This was subsequently transmitted quickly to consumer prices for heating oil and fuels and (significantly) and with a delayed response to natural gas and electricity as well as industrial goods prices (consumer goods excluding food and energy) for consumers².

In the fourth quarter of 2021, around 44 percent of the price increase according to the CPI was attributable to the energy sector (1¼ percentage points; with a weight in the CPI basket of 7.3 percent), while it had still made a slightly negative contribution to inflation in the first quarter. For industrial goods (consumer goods; weight in the CPI basket 29 percent), the inflation contribution in the fourth quarter was 0.9 percentage points, after only 0.2 percentage points in the first quarter. The inflation contribution of services (weight 49 percent) remained unchanged in the course of the year at 1 percentage point.

Prices for food and luxury foodstuffs rose by only 1.2 percent in 2021. The significant increase in the price of domestic agricultural goods and, above all, world market prices for food only became visible in consumer prices at the beginning of 2022 (first quarter of 2022 +4.4 percent, Baumgartner & Sinabell, 2021).

According to the Harmonised Index of Consumer Prices (HICP), the inflation rate in Austria was 2.8 percent in 2021, lower than in

² Energy price increases over time (according to CPI): heating oil 2020 -22.5 percent, 2021 +21.3 percent, December 2021 +44.3 percent; fuels 2020 -12.6 percent, 2021 +17.3 percent, December 2021

+32.9 percent; natural gas 2020 -1.5 percent, 2021 +7.9 percent, December 2021 +27.8 percent; electricity 2020 +5.8 percent, 2021 +7.0 percent, December 2021 +12.4 percent.

Germany (+3.2 percent). This difference is mainly due to differences in the temporary VAT reductions, which in both countries from July 2020 in response to the COVID-19 crisis.

The differences related to the extent, duration, breadth and targeting of the measures³.

Table 10: **Development of the Consumer Price Index**

Breakdown according to the purpose of individual consumption

	2010	2015	2020	2021	December 2021
	Percentage change from previous year				
Total consumer price index	+ 1.9	+ 0.9	+ 1.4	+ 2.8	+ 4.3
Core inflation rate ¹	+ 1.2	+ 1.8	+ 1.9	+ 2.0	+ 2.8
Micro basket of goods and services (daily shopping)	+ 0.6	+ 1.1	+ 2.9	+ 2.6	+ 4.6
Mini basket of goods and services (weekly shopping)	+ 3.4	- 1.3	- 0.6	+ 5.7	+ 9.4
Administrated prices and tariffs	+ 0.9	+ 2.5	+ 1.6	+ 1.1	+ 1.1
COICOP main headings					
Food and non-alcoholic beverages	+ 0.5	+ 0.8	+ 2.3	+ 0.8	+ 1.7
Alcoholic beverages, tobacco	+ 2.0	+ 3.1	+ 1.2	+ 2.4	+ 3.3
Clothing and footwear	+ 1.1	+ 0.2	- 0.1	+ 0.7	+ 0.2
Housing, water, electricity, gas and other fuels	+ 2.6	+ 1.2	+ 2.3	+ 3.6	+ 5.4
Furnishing, household equipment and routine maintenance of the house	+ 1.2	+ 1.3	+ 0.9	+ 1.8	+ 2.1
Health	+ 1.6	+ 1.6	+ 2.0	+ 1.7	+ 2.4
Transport	+ 3.4	- 3.0	- 1.7	+ 6.6	+ 12.0
Communication	+ 1.9	+ 0.8	- 3.0	- 2.9	- 2.2
Recreation and culture	+ 0.8	+ 1.8	+ 1.7	+ 2.4	+ 4.1
Education	- 4.7	+ 2.6	+ 2.0	+ 1.9	+ 1.7
Restaurants and hotels	+ 1.1	+ 2.9	+ 3.1	+ 3.4	+ 4.3
Miscellaneous goods and services	+ 2.8	+ 2.0	+ 2.1	+ 1.3	+ 1.3
Special breakdown					
Unprocessed food ²	+ 2.0	+ 1.3	+ 3.5	+ 1.5	+ 2.2
Processed food ³	+ 0.1	+ 1.4	+ 1.3	+ 1.0	+ 2.0
Energy	+ 7.6	- 7.3	- 5.6	+ 12.3	+ 24.3
Industrial goods	+ 1.2	+ 0.5	+ 1.3	+ 2.0	+ 3.6
Services	+ 1.5	+ 2.5	+ 2.4	+ 2.2	+ 2.5
Harmonised Index of Consumer Prices (HICP)					
Austria	+ 1.7	+ 0.8	+ 1.4	+ 2.8	+ 3.8
Germany	+ 1.1	+ 0.7	+ 0.4	+ 3.2	+ 5.7
Euro area	+ 1.6	+ 0.2	+ 0.3	+ 2.6	+ 5.0

Source: Eurostat, Statistics Austria, WIFO calculations. – ¹ Excluding energy and unprocessed food (meat, fish, fruit, vegetables). – ² Seasonal goods, meat and sausage products. – ³ Including alcoholic beverages and tobacco.

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³ In Germany, VAT on (almost) all goods and services was reduced by around 2 percentage points. The reduction applied from 1 July 2020 and aimed to strengthen general purchasing power and thus support private consumption (Fuest et al., 2020). In Austria, VAT was reduced by an average of 8 percentage points to 5 percent for the economic sectors

of catering, accommodation and events, which were particularly affected by the pandemic, in the period from 1 July 2020 to 31 December 2021. The aim was to support the liquidity of these businesses; price reductions were not intended and were not observed (Loretz & Fritz, 2021).

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