90th Euroconstruct Conference: European Construction Market Outlook until 2023 – Austrian Construction Market Development

Country Report Austria

Michael Klien, Michael Weingärtler

November 2020
Austrian Institute of Economic Research

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The COVID-19 crisis caused the Austrian economy to suffer its worst slump since World War II. The declines are concentrated in the second quarter of 2020, where the economic and social life was at times severely restricted by the lockdown. However, the recovery was faster compared to previous crises. The particularly strong momentum of the pandemic is also clearly visible in the construction industry. With the construction site closures in March, production dropped sharply. However, the recovery was just as rapid and stronger than in other sectors. This underlines the good starting position of the Austrian construction industry before the breakout of the pandemic. By summer 2020, production activity had already returned to the previous year's level. The rapid recovery and good order situation should also ensure stable, but weaker growth rates in the coming years.

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2020/355/S/WIFO project no: 3809

Medieninhaber (Verleger), Herausgeber und Hersteller: Österreichisches Institut für Wirtschaftsforschung,
1030 Wien, Arsenal, Objekt 20 • Tel. (+43 1) 798 26 01-0 • https://www.wifo.ac.at/ • Verlags- und Herstellungsort: Wien

Verkaufspreis: 240 € • Download 240 €: https://www.wifo.ac.at/wwa/pubid/66698

90th EUROCONSTRUCT Conference o 23–24 November 2020, Munich, Germany

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1. Summary and Conclusions

The Corona crisis caused the **Austrian economy** to suffer its worst slump since the Second World War. The declines are concentrated in the second quarter of 2020, where the economic and social life was at times severely restricted by the lockdown. Growth forecasts for the year as a whole are around -7%. However, as abruptly as the pandemic came, the recovery was all the more rapid. The second half of the year was much stronger again.

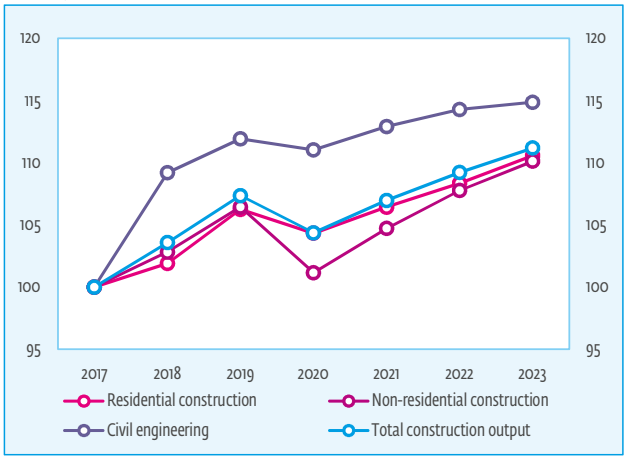
The particularly strong momentum of the corona crisis is also visible very strongly in the construction industry. With the construction site closures in March, production dropped sharply. However, the recovery was just as rapid and stronger than in other sectors. This underlines the good starting position of the Austrian construction industry before the start of the pandemic. By summer 2020, production activity had already returned to the previous year's level. The rapid recovery and good order situation should also ensure stable, but weaker growth rates in the coming years.

Despite a slowdown, **residential construction** was a key growth driver for the Austrian construction industry in 2019. Corona-related production shortfalls will also lead to a negative result in residential construction in 2020 but are somewhat subdued and weaker than in other sectors of the economy. The coming years will be characterized by a consistent but less dynamic development, as the excess demand for housing is slowly being reduced. Due to the government programs for thermal refurbishment, somewhat stronger impulses are expected from the area of renovations in the coming years.

Construction activity in **non-residential construction** picked up in 2019 and the expected 2020 slowdown in growth turned into a strong decline because of the pandemic. This has a particularly negative impact on new construction in the industrial segment and in commercial construction even if the decline in 2020 is likely to be slightly smaller than expected in spring. The current uncertainties about the development path of the pandemic in autumn 2020 will have a negative impact on the investment decisions of companies in 2021. The rebound effect in non-residential construction will be correspondingly more restrained.

Total Construction Output by Sector from 2017 to 2023

index 2017=100



Source: EUROCONSTRUCT (90th Conference)

Civil engineering has benefited from investments in transport infrastructure over the last two years. The volume of civil engineering work also fell in 2020 as a result of the pandemic. However, the declines were much less severe than in the construction sectors described above, with railway construction in particular having a stabilising effect. The current railway framework plan also shows significant increases in investment in the coming years. Other priorities include the development of gigabit networks (telecom) and the expansion of renewable energy sources and of power networks (energy).

Overall, a decline in **total construction** output in Austria is expected at a real rate of 2.8%. This will therefore be significantly lower than in the economy as a whole. Provided that there are no further restrictions due to the pandemic in 2021, a rebound in the construction industry is currently forecasted in 2021 with construction volumes that could already be above the pre-crisis level by the end of 2022.

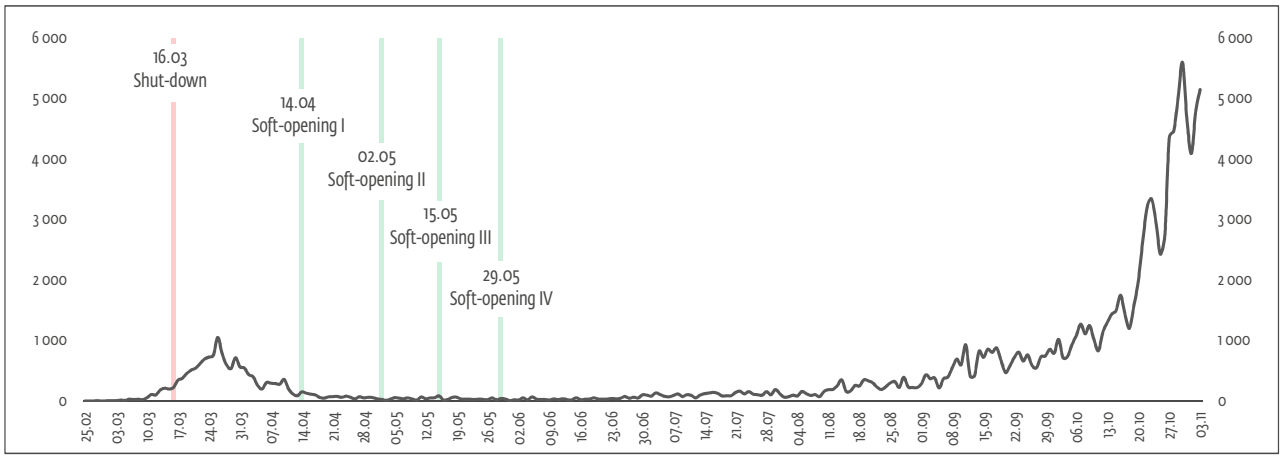
2. Macro-economic Outlook

The Corona crisis has led to an abrupt slump in Austria's economic output. Although the first signs of weakness already appeared in 2019, primarily in the area of manufacturing, the economic slowdown in spring 2020 was unprecedented. A mix of changes in the behaviour of the population (avoidance of potentially dangerous activities) and state-imposed measures (shut-down) led to Austria's deepest economic slump since the Second World War.

In addition to the speed of the collapse, the very different sectoral involvement is also a specific feature of the corona crisis. Sectors such as tourism and accommodation were hit much harder than services or construction.

With the improvement of the health situation, the first significant easing of official measures already took place from May 2020. In summer 2020, for example, it was possible to resume essential activities in the accommodation and catering sector – while observing hygiene and safety measures. Accordingly, the situation improved in practically all sectors of the economy, and a very rapid recovery followed.

Number of Covid-19 cases in Austria over time



S: Federal Ministry of Social Affairs, Health, Care and Consumer Protection (Coronavirus Dashboard), Nov 2020. | Soft-opening I: Opening of small business and construction suppliers - Soft-opening II: Opening of larger malls and certain personal services - Soft-opening III: Opening of restaurants and small hotels - Soft-opening IV: Opening of hotels; certain cultural events and venues

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However, the health situation deteriorated in autumn in Austria, as well as in practically all of Europe: from September 2020 onwards, at first slowly, but in October, the deterioration became more pronounced (see chart "Number of Covid19 cases in Austria over time"). Several neighbouring countries have already taken renewed lockdown measures as in spring. In Austria, such measures have recently been considered, but have not yet been taken. In addition to the national measures, the measures of neighbouring countries and trading partners are clearly also important for Austria. Especially the travel warnings of some (EU) countries have potentially great implications for Austria.

In the main variant of the WIFO medium-term forecast (October 2020), Austria's real GDP will decline by almost 7% in 2020. Employment falls by almost 2% and the unemployment rate rises to just under 10%. In 2021, a rebound effect (+4.4%) is observed, and in the following years the growth dynamics gradually flatten out (2025 +1.3%). Due to low investment activity and persistently high unemployment, trend growth weakens to +1% p. a. The following paragraphs are largely based on WIFO's medium-term forecast, as presented in (Baumgartner et al., 2020[1]).

Foreign trade. Exports already weakened in 2019 in line with the global economy. At the beginning of 2020, a slight recovery became apparent, which was abruptly ended by the COVID 19 crisis. Exports slumped massively, especially in the second quarter of 2020 (nominal goods exports April 23.7 %, May 25.4 %). A mix of supply-side export barriers (supply bottlenecks for imported primary products, but also health policy measures) and a decline in foreign demand (such as travel restrictions) led to a massive slump. A turnaround could already be observed in June (4.7%) and July (6.1%), and the export level was again significantly higher than in April and May. Forecast indicators relevant to the export economy (e.g. truck mileage) point to a further recovery in trade in goods for August and September. However, sentiment indicators are tending to signal a slowdown in the catch-up process in the coming months.

In 2021, exports of goods should rise sharply in line with the global economy (rebound effect), after which growth will slow steadily. The COVID 19 recession affects some of the Austrian main markets (France, Italy) above average, and especially the most important groups of goods for the Austrian export economy – machinery and vehicles, capital goods and metal goods. Exports of services (tourism) are also expected to pick up only tentatively in the coming years.

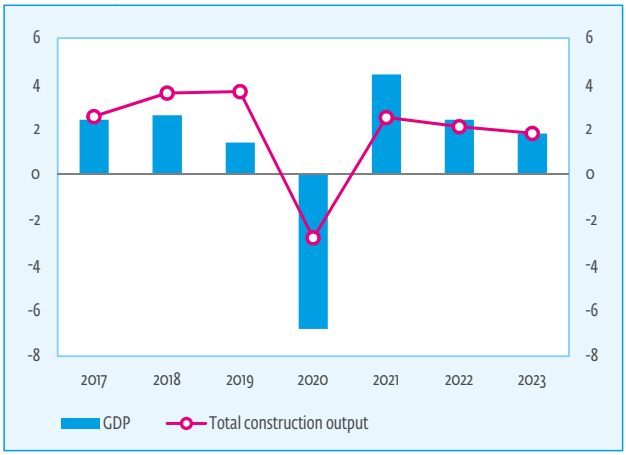
Consumption. The measures to contain the COVID 19 pandemic have resulted in the largest drop in consumption in decades. Affected are mainly services, semi-durable (e.g. clothing) and durable consumer goods (e.g. cars). Expenditure on everyday goods, on the other hand, is rising. At a rate of -6.8%, private household spending in 2020 is likely to be significantly lower than in the previous year, and despite certain catch-up effects, the propensity to consume will not return to pre-crisis levels until the end of the forecast horizon (2023).

Investments. The upheaval in the context of the COVID 19 pandemic will result in a sharp decline in investments in 2020. In particular, investments in equipment will be cut back in 2020 in view of the collapse in value added and the high level of uncertainty. In this environment, demand for equipment investments is expected to fall by 7.9% in 2020.

In contrast to investment in equipment, investment in construction will develop less erratically. Importantly, the recovery in the construction sector has been much more rapid. In June/July,

1 Baumgartner, J., Economic development in the wake of the COVID 19 crisis – Update of the Medium-term Forecast of the Austrian Economy 2021 to 2025, WIFO, 10/2020, Vienna.

GDP and Total Construction Output from 2017 to 2023
year to year change in %



Source: EUROCONSTRUCT (90th Conference)

employment levels were already back to those of the previous year (short-time working not included). Nor is it to be expected that the reluctance to invest, which mainly stems from the commercial construction sector, will have any direct impact on lower construction investments. Although the slump in the second quarter of 2020 was also massive, the annual growth rate will be around -3%. Nevertheless, it is likely that construction investments will be weaker than previously expected in 2021 and 2022 and that the pre-crisis level will only be reached towards the end of the forecast horizon (2023).

Outlook and forecast risk. The macroeconomic scenario presented does not assume a renewed lockdown in Austria. Should a second wave of COVID-19 infections require a new lockdown, economic output in Austria could slump much more sharply in 2020, and the recovery in the following years could also be more muted. The pessimistic scenario of the WIFO medium-term forecast expects a decline in real GDP of more than 9% and in employment of 2.2% (see table "WIFO's Mid-Term Forecasts – Pessimistic Scenario"). Details on the assumptions of this risk scenario are presented in Baumgartner et al. 2020.

WIFO's Mid-Term Forecasts – Pessimistic Scenario
annual percentage change, in real terms, in %

	2020	2021	2022	2023
Gross domestic product, real growth	– 9.3	0.4	4.8	2.2
Employment, growth rate	– 2.2	0.1	2.0	1.7
Unemployment rate (Eurostat def.)	5.7	6.2	5.6	5.4

Source: Statistics Austria. WIFO-forecasts (October 2020).

Against the background of a significantly weaker economic environment, construction investments would clearly also be lower. A protracted recession would most directly weaken investment in other building construction (commercial and industrial, but also hotel and restaurant businesses). However, the greater the impact on household incomes via unemployment and a decline in employment, the more pressure could be exerted on the hitherto very stable housing construction sector. Due to counter-cyclical policy measures, as has been practiced in the past in coping with economic crises in Austria, civil engineering would probably be the least negatively affected by a prolonged recession.

Key Macroeconomic Indicators in Austria 2019 to 2023
annual percentage change, in real terms, in %

	2019	2020	2021	2022	2023
Gross domestic product	1,4	-6,8	4,4	2,4	1,8
Private consumption	0,8	-6,8	5,5	2,5	1,6
Public consumption	1,5	1,1	1,0	1,0	0,8
Investment, equipment	4,0	-5,6	3,7	2,7	2,2
Investment, construction	3,6	-2,8	2,5	2,1	1,8
Exports	2,9	-12,4	6,1	4,8	4,2
Imports	2,4	-10,6	5,6	4,7	4,0

Source: Statistics Austria. WIFO-forecasts (October 2020).

3. Housing Market

Residential construction in Austria was already affected by a decline in growth before Corona. The weakening population growth and the strong expansion of housing supply in recent years are responsible for the fact that residential construction in Austria will expand less strongly in the coming years. Although the growth rates of new residential construction will recover to some extent from the corona shock in 2021, further growth in the years 2022 and 2023 will be below 2% across the board. In contrast, the outlook is more optimistic with regard to renovation: increased government measures to achieve climate targets will lead to higher growth rates in this area than in previous years.

The following comments are based on the assumption that the corona effects in residential construction are of a temporary nature. Most visible, if at all, are price effects in the real estate sector, but this also has to do with the high level of uncertainty in the corona crisis. By contrast, no significant changes in long-term development trends are assumed for construction output and real construction investments. For instance, the forecasts do not imply that the corona pandemic triggers a population decline in urban and more dense areas.

Population and residential construction activity. The population growth in Austria in 2019 was 0.5% (43,800 persons), slightly above the growth of 2018.

After several years of declining dynamics, population growth has thus stabilized for the third year in a row in the range between 0.4% and 0.6%. For the coming years the population forecasts are again slightly lower at around 0.4%, and in any case below the high growth rates of 2015, 2016 and 2017.

The declining population dynamics will also be reflected in lower building permits. From 67,000 units in 2017, their highest level in 30 years, these fell quite sharply by over 10,000 units in 2018 to 56,000. However, in the course of last year there was a strong countermovement, with building permits again reaching a value of over 60,000 units. According to preliminary figures from Statistics Austria, the value in 2019 will be 63,200 units. As with the swings in 2016 and 2017, the increases are concentrated in the provinces of Vienna (+4,500) and Styria (+2,100). Other provinces such as Lower Austria or Upper Austria, on the other hand, show renewed declines compared to previous years.

Despite the rebound in 2019, the structural decline in population dynamics is also expected to be mirrored in declining building permits. Data for the first two quarters of 2020 suggests a sizeable reduction in building permits (-17.6%). Although part of this decline is attributable to the lockdown in spring, which also affected public administration and therefore procedures for building permits and building negotiations, a two digit decline has to be expected. The forecast for 2020 predicts that building permits will again fall below the 60,000 unit mark, to roughly 55,800 units. Until the end of the forecast period building permits will remain above 50,000 units.

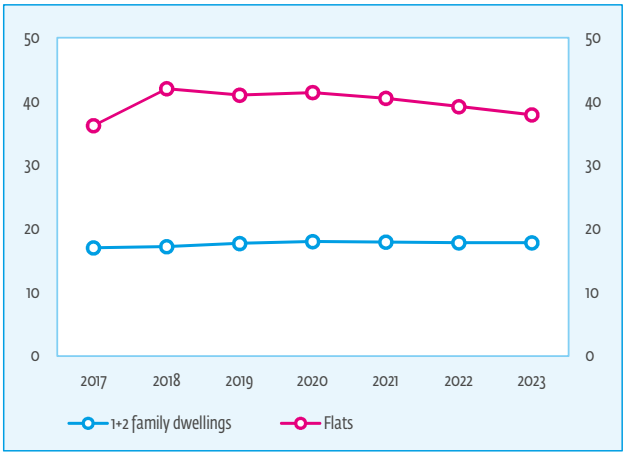
The downward trend is concentrated on multi-storey buildings whereas permits for one and two family houses will basically remain stagnant around their 2020 level.

Regional Building Permits in New Residential Buildings
number, in thousands

	2016	2017	2018	2019	2020Q1	2020Q2
Burgenland	1,643	1,963	1,814	1,869	363	697
Carinthia	2,802	2,542	2,219	2,772	1,006	578
Lower Austria	10,424	10,726	8,952	8,452	1,646	2,082
Upper Austria	9,246	8,510	9,095	8,563	1,507	2,243
Salzburg	3,354	3,122	2,713	2,786	491	597
Styria	9,401	9,540	8,885	11,022	1,736	2,369
Tyrol	4,955	5,255	4,846	5,669	636	974
Vorarlberg	3,030	3,512	2,955	2,963	620	739
Vienna	15,149	22,305	14,678	19,107	2,923	3,429
Austria	60,004	67,475	56,157	63,203	10,928	13,708

Source: Statistics Austria (October 2020).

Housing Completions from 2017 to 2023
in thousands



Source: EUROCONSTRUCT (90th Conference)

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Property prices and transactions.

The corona pandemic has not created a downward drag on real-estate prices. On the contrary, the latest data from the Austrian National Bank suggests that prices grew stronger during the pandemic than in the quarters before. Compared to an annual growth of 3.9% in 2019 and 3.4% in the first quarter 2020, the data for the second quarter 2020 estimates an increase of 5.2%. The upswing in house prices should, however, only be temporary as the strong expansion of supply in the housing market is expected to stabilize prices in the medium run.

In contrast to the first quarter, the price increases during the pandemic were driven by Austria without Vienna, which experienced an increase of almost 7%. Real-estate prices in Vienna remained flat, increasing from 3.9% to 4.1% from the first to the second quarter 2020.

House prices
annual percentage change, in %

		2017	2018	2019	2020Q1	2020Q2
Austria	Total	3.8	6.9	3.9	3.4	5.2
Vienna	Total	1.5	5.2	4.9	3.9	4.1
	1+2 Family Houses	2.5	0.9	3.0	10.4	11.7
	Flats	1.4	5.5	4.9	3.4	3.6
	New flats	1.8	5.3	5.9	5.3	5.4
	Used flats	0.8	6.4	3.8	2.0	2.3
Austria without Vienna	Total	4.9	8.5	2.6	2.8	6.8
	1+2 Family Houses	1.9	8.6	2.0	3.3	10.6
	Flats	5.8	8.5	2.9	2.5	4.6
	New flats	2.1	8.1	2.3	3.5	7.2
	Used flats	5.9	9.7	3.4	1.8	2.6

Source: OeNB (2020), Prof. Wolfgang Feilmayr. Department for spatial planning. TU Vienna.

This price development also fits together with the number of property transactions. In Vienna, both 2018 and 2019 again showed significant growth of 7.4% (number) and 7.9% (volume). In Austria as a whole, however, growth amounted to only 2.6% (number) and 3.4% (volume).

As far as real estate transactions are concerned, the first 6 months of 2020 were characterized by a 4.9% increase in the number of transactions, but stagnation in volume. The difference is even greater in Vienna, where an increase in the number of transactions of 7.0% is accompanied by a decrease in volume of -0.8%. This is an indication of the trend towards smaller apartments in Austria, and particularly in dense urban areas.

Real estate transactions
number in thousands, volume in billion Euro

		2016	2017	2018	2019	2020HY1
Austria	number	121,436	121,171	129,144	138,690	67,302
Vienna	number	19,490	21,378	22,325	22,912	11,177
Austria	volume	26.9	28.1	31.9	34.3	16.3
Vienna	volume	8.2	8.8	9.9	10.3	4.6

annual percentage change, in %

		2016	2017	2018	2019	2020HY1
Austria	number	+ 8.3	-0.2	+6.6	+7.4	+4.9
Vienna	number	+ 8.0	+9.7	+4.4	+2.6	+7.0
Austria	volume	+14.2	+4.7	+13.2	+7.9	0.0
Vienna	volume	+ 14.6	+6.6	+13.4	+3.4	-0.8

Source: RE/MAX-Immospiegel / IMMOunited GmbH, 2020. – Based on the official land register which covers new and existing buildings. Transactions cover all types of buildings (residential / non-residential) and land.

Housing subsidies.

Although no current data are available, it can be assumed that state subsidies (primarily at the level of the federal states) for residential construction will remain below the long-term average in 2020. In 2019, total funding for new construction was around 1.2 billion Euro. This is due to the still very favourable financing situation on the credit market. In this environment, loans from the federal states are of little interest to both institutional housing developers and private individuals. In addition, the share of private property developers whose access to housing promotion funds is limited has risen steadily in recent years. Against this background, no turnaround in the housing subsidy trend is expected from the current perspective, i.e. with continued favourable financing opportunities.

Public housing subsidies, new construction
volume, in million Euro

	2016	2017	2018	2019
Burgenland	54.2	53.7	44.4	56.3
Carinthia	71.6	74.1	68.9	59.8
Lower Austria	262.6	251.8	238.6	231.9
Upper Austria	136.6	143.5	143.4	148.1
Salzburg	134.5	109.4	93.6	82.1
Styria	167.4	160.1	154.2	147.5
Tyrol	188.6	199.2	172.2	185.5
Vorarlberg	91.3	105.8	115.0	110.2
Vienna	276.4	261.6	241.5	208.0
Austria	**1383.2**	**1359.2**	**1271.8**	**1229.3**

Source: Austrian Ministry of Finance (2020).

Residential renovation.

Residential renovation has traditionally been of lower importance to Austrian policy makers. Subsidy schemes were typically targeted towards new housing construction. In addition, rent regulations and rent control, which varies by federal state, made investment in the existing housing stock unattractive. The latest figures suggest that residential renovation, measured by share of units renovated in total housing stock, has been on a declining path since 2009 (UBA-IIBW, 2020). In 2018, roughly 1.4% of the total housing stock has been renovated. Considering the national target of a renovation rate of 3% (mission 2030), additional effort appears necessary.

The current government, a coalition government of the conservative and the green party, has made climate policies one of its main goals. To this aim, it has announced additional stimulus for renovation activities which have been embedded in the draft budgetary plans for 2021:

Federal government subsidies. Following the expansion of subsidies in the 2020 budget, the federal government plans to increase spending on ecological housing in 2021 as well. In concrete terms, the renovation offensive includes the continuation of the boiler replacement program „Raus aus Öl“, a subsidy program for thermal-energetic renovation and a special subsidy for decarbonization as well as new priority measures for low-energy or low-income households. For this purpose, an additional funding budget of around 100 million Euro has

been budgeted compared to 2020; the total funding budget amounts to around 220 million Euro.

In addition to the renovation offensive, the 2021 budget also includes an expansion of the climate and energy fund. At 160 million Euro, the endowment is significantly higher than in 2020 (100 million Euro).

Subnational government subsidies. In addition to its own financing schemes, the federal government seeks to increase subnational renovation funding, which has been declining since 2010. From 2016 to 2019 subsidy related expenditures have decreased from 550 to 470 million Euro. Given the sheer importance of subnational funding and the gradual downward trend, associated changes could trigger much higher renovation rates. From the current perspective, however, we do not expect a turnaround in subnational funding activity. Only after a new fiscal equalization scheme has been reached – negotiations will not lead to a deal before 2022, more likely 2023 – we expect subnational activity to pick up.

Overall, the impulse from the federal government coupled with a decrease in new construction activity will lead to a slow but continuous uptick in residential renovation activity. Depending on how serious the government takes the climate targets for 2030, the increase in the following years might be even stronger. Moreover, should the corona crisis lead to a significant economic downturn, residential renovation has been used as an economic stimulus in the past in Austria.

Public housing subsidies, renovation
volume, in million Euro

	2016	2017	2018	2019
Burgenland	7.9	4.1	7.2	4.7
Carinthia	31.6	29.8	29.4	34.3
Lower Austria	119.5	113.0	114.7	102.7
Upper Austria	72.8	70.1	68.0	67.8
Salzburg	12.6	6.3	5.7	4.9
Styria	76.6	62.7	65.2	67.0
Tyrol	47.4	41.7	41.9	41.9
Vorarlberg	20.1	14.4	12.8	13.3
Vienna	163.5	159.2	147.8	131.4
Austria	**551.9**	**501.3**	**492.6**	**467.9**

Source: Austrian Ministry of Finance (2020).

4. Non-residential Market

Construction activity in non-residential construction was moderate for a longer period with a more dynamic development in 2018 and especially 2019, when output rose strongly. 2020 already showed signs of an economic slowdown, which will be more pronounced due to the outbreak of Covid-19. However, in the course of 2020 it became apparent that the downturn will be less than assumed in spring forecasts (EUROCONSTRUCT 2020/89). Construction activity resumed early after the first wave of the pandemic, labour markets improved rapidly and economic indicators also picked up again well before summer 2020. Overall, the current forecasts therefore assume only a smaller decline in construction activity in the non-residential construction sector of about 5.0% compared to the previous year. However, the situation remains tense due to the pandemic situation in autumn 2020. These will lead to further uncertainty, which will have a negative impact on 2021. The expected rebound effect in non-residential construction as a result of the overall economic recovery in 2021 is therefore also likely to be weaker. At present, growth in the construction industry is assumed to be at a rate of 3.5% in 2021 for non-residential construction as a whole and around 2.5% p.a. in the following years 2022/23. However, the uncertainty in forecasting has increased significantly due to the currently worsening health situation.

New non-residential construction by subsectors. Education.

Construction investments in educational facilities (schools, universities) and in kindergartens have recorded increases in new construction in recent years – most recently in 2019 of around 3.2%. The expansion of the construction volume in education was dampened by Covid-19 in 2020 and a further, stronger growth is expected in the following years.

In the area of schools, impetus is coming from the new School Development Plan 2020 (SCHEP 2020), which has been approved in summer 2020 with a construction relevant investment volume of 2.4 billion Euro. Throughout Austria, about 270 construction projects at federal schools are planned. The focus will be on the renovation of the building substance and adaptation measures to improve the school functions. To a small extent, however, it also includes the construction of new buildings where this becomes necessary due to the foundation of new schools (especially in conurbations) or, if new buildings are erected as replacement buildings, if existing school buildings cannot be renovated by economically justifiable means. In addition, increased investment activity on the part of BIG was budgeted for 2020. However, delays by Covid-19 must also be expected in this area.

Only a moderate growth in investment in the new educational construction at a rate of 0.8% is forecasted in 2020. A stronger investment activity starting from 2021 with a steadily increase towards 2023 will follow mainly because of the recently launched school development plan 2020 and the further expansion of all-day childcare facilities.

Info box education.

In 2019 about 860 million Euro were invested in new educational buildings and kindergartens in Austria. This amount is made up of expenditure at three different institutional levels, with the municipal level making the largest contribution. In this area, investments in 2019 have more than doubled compared to 2000. Investments in the university sector as well as schools are also mainly or substantially carried out by the federal real estate company BIG, which plays a key role in the development and construction of federal schools and universities. According to the budget report, BIG invested around 465 million Euro in 2019. A substantial expansion of the financial resources was earmarked for 2020 which is likely to be realised in the upcoming years. Thirdly, investments are made by the Länder. Investments by the latter have also risen continuously in recent years, but their impact on the construction industry is small, accounting for less than 5% of total education investments.

New non-residential: breakdown by subsectors

(v) = volume 2019, million €, left scale;
(line graph) = index at constant prices, 2017=100, right scale

Source: EUROCONSTRUCT (90th Conference)

Health.

According to an estimate of health expenditures in Austria according to the System of Health Accounts (SHA) from Statistics Austria, the health care system spent about 41.5 billion Euro in 2019. Almost 7% or about 2.9 billion Euro of the Austrian health expenditure was used for investments in buildings and medical equipment. The construction-related health investments are expected to amount to about 1.7 billion Euro in 2019.

Especially private investments in the health sector have become increasingly important in the last decades. The share of private companies in the total investment volume in the health sector increased from 25% (1990) to about 48% in 2019. The investment volume is expected to remain at a high level in the coming years. The further expansion of nursing homes for the elderly will continue to be a driving factor. By 2030, more than 1 million inhabitants in Austria will be over 75 years old and the development will accelerate in the following decade. The private sector is also playing an increasingly important role in this segment.

In the area of new construction, a slight decline of 2.5% in the construction-related investment volume is expected in 2020. The extent to which the Covid-19 crisis will affect new health care buildings in the future is not certain at present and is a subject of the current political discussion. As of April 2020, around 3,000 intensive care beds were available. Austria is thus one of the countries with the highest number of intensive care beds per inhabitant. At the peak of the Covid-19 crisis in spring at the beginning of May, 1,100 patients were hospitalised, the intensive care beds were only occupied to a maximum of 30%. Even before the crisis, the criticism was that the financial resources thus tied up could be better used in other areas of the health sector.

However, the negative effects of the pandemic intensified significantly in autumn 2020. The number of hospitalised patients with Covid-19 reached 2,400 persons by the end of october 2020, those in intensive care 340 – still with a strong upward trend. Depending on the course of events towards the end of 2020, bottlenecks in the Austrian health care system could arise and voices could become louder after an expansion of hospital capacities. Possible changes in political decisions on future investments in the hospital sector caused by Covid-19 are conceivable, but are not included in the

current forecasts and represent therefore an upward forecast risk.

Overall, Austrian health policy continues to aim at increasing efficiency also in the hospital sector. Hospital locations and the merging of hospitals into so-called focal points are continuously evaluated. This also explains the declining public participation in health care buildings. It can be assumed that the decline in investment volume in 2020 will be offset by the end of 2022 and that the volumes will be maintained in 2023.

Industry.
Industrial construction works have benefited greatly from the general economic upturn in recent years. Business and consumer confidence reached historically high levels, while exports and, above all, private consumption led to a significant revival in industrial construction investment (2018: +10.3%). The upturn continued in 2019, with a further expansion of 3.9%.

A flattening of the economic trend was already expected for 2020, but this was now significantly strengthened by Covid-19. In view of the overall economic conditions, a decline of 9.3% in new industrial construction is currently expected, which is slightly less than forecasted in spring. Short-time work and a further economic stimulus package from July 2020 will support the economy, from which industry in particular will benefit. The cornerstones of the programme are a temporary investment premium of 7% or 14% for the period 1 September 2020 – 28 February 2021. In addition, from 1 July 2020, the possibility of declining balance depreciation will be available, with a few exceptions such as buildings. Investments may in future depreciated at 30% in the first year. The possibility of a „loss carry-forward" has also been created – i.e. companies can offset losses due to the corona crisis against profits from the previous year. Guarantee programmes were additionally extended. These measures cushioned the losses in the industry sector and consequently also mitigated the decline in new construction volumes.

Compared with previous crises, there was a rapid improvement in business indicators over the summer 2020 – such as business confidence. Even the high level of orders at the beginning of February 2020 suggests that production will increase again in 2021 following the sharp drop in production in 2020.

However, rising uncertainty in autumn 2020 is likely to dampen the strength of the upswing significantly in 2021 and 2022. All in all, current forecasts for new industrial construction suggest an increase of 4.1% (2021) and 3.8% (2022) respectively which will further slow down towards 2023.

Storage.
This construction segment is benefiting from the continuous growth in online trade in Austria. A survey by the Austrian Trade Association showed that in 2019, sales in distance selling amounted to around 8.1 billion Euro – an absolute record value. More than 90% of distance trade is processed online, which corresponds to a volume of 7.5 billion Euro (+4% compared to the previous year). Accordingly, the required storage and logistics capacities were created in previous years. The demand for storage capacities will indeed increase in the medium term, as the share of e-commerce in Austria is still relatively low at 10% – especially compared to the United States or Denmark (20%).

Nevertheless, the project pipeline already indicated a slight decline in new warehouse construction before Covid-19, which is now expected to increase slightly (2020: -4.6%).

At the beginning of the pandemic in spring 2020, private parcel volumes rose by up to 90% in the short term (and thus reached levels similar to Christmas or back-fridays), but in return business shipments collapsed completely in some cases. Capacity bottlenecks were therefore not reported in the logistics sector and therefore a much stronger increase in storage facilities is not likely.

The present forecast assumes that the growth path of previous years will continue. Building on this, warehouse capacities will be expanded between 2021 and 2023, with growth rates in new construction of 4.1% (2021) to 2.3% (2023).

Office.
Office construction in Austria developed favourably in 2017 and 2018 and particularly dynamically in 2019 – this can be derived from the latest national accounts data. The most important office market in Austria is Vienna, which was also the main driver of the recent past development. In particular the new urban development areas, especially around the new central railway station. The peak should have been reached in the office market in Vienna in 2019 with only minor speculative elements, as many office projects were intended for owner-occupation and additionally with a high pre-let rate.

A further flattening of the office property market was already expected in 2020. However, the Covid-19 crisis poses a number of additional risks for the office property market: in addition to construction delays, project postponements in view of the current higher level of uncertainty and higher corporate insolvencies will lead in a decline in new construction of around 5.8% in 2020. For the years 2021 and 2022 the forecasts are subject to the improving economic picture, as it is the case in industrial

construction. This leads to growth rates of 3.7% in 2021 and around 2% per annum in 2022 and 2023. This does not take into account possible medium-term changes in the working environment, such as an increased switch to teleworking jobs, which would dampen demand at least in the medium term.

Commerce.
Commercial construction has been relatively volatile in recent years. The latest data suggest a decline in new construction volumes of 1.5% in 2018 followed by strong growth of 4.2% in 2019. Growth supported by private consumption combined with fiscal stimulus favoured the relatively high growth in 2019.

Strong competition, especially in inner city retail, and legal restrictions combined with saturation in the shopping centre segment dampened the prospects for commercial construction even before the Covid-19 crisis, which was triggered by the pandemic had to be completely revalued. In April 2020, the catering sector (apart from the take-away service) almost lost sales, and tourism as a whole suffered a total loss of sales. The use of hotels for tourism was officially prohibited from 4.4.2020 to 30.4.2020 based on a decree of the ministry of health and then extended until 28 May 2020. During the closure, the time was often used for renovation works, but no additional growth is expected in the new construction segment.

The government launched a stimulus package after the lock-down targeting specifically those economic areas most affected by the pandemic. This should also cushion the decline in commercial construction somewhat in 2020. Current forecasts assume a decline in new built at a rate of 7.1%. However, due to the current ongoing uncertainty, the rebound effect in 2021 is likely at a rate of 5.4%. As the situation returns to normal, growth in new business construction is forecasted at rates around +3% in 2022 and +2% in 2023.

Info box commercial construction
The business sector is divided into the retail sector on the one hand and the restaurant and accommodation sector on the other. Around 60% of the new construction investments relevant to construction are in the retail sector, 40% in catering and accommodation. The latter, in particular, has provided significant impulses in previous years due to the strong increase in the number of tourists.
The business situation was already tense in the retail sector which can be divided into four main categories: 1) food, 2) health and beauty, 3) clothing and shoes, and 4) household. The health and beauty sector in Austria already has the highest sales area per inhabitant (CBRE, 2019) in Europe, and corresponding saturation tendencies were therefore already apparent in previous years. In addition, the clothing, household & garden equipment segment is under high competitive pressure, especially the clothing sector due to competition from the e-commerce sector. Therefore, even before Covid-19, hardly any impulses from this segment were expected for the period 2020-2023. Moreover, Austria has one of the highest sales area densities in Europe with 1.72m per capita (only the values in Switzerland and San Marino are higher) which dampens growth perspectives.

5. Civil Engineering Market

Civil engineering benefited in the years 2018 and also 2019 from increasing tax revenues and a declining national deficit during the economic upturn which stimulated public projects, mainly in the transport construction area.

The current Covid-19 crisis led to a correction in the civil engineering sector growth path. Recent forecasts show a reduction of the construction output in civil engineering in 2020. Nevertheless the expected decline at rate of 0.8% in 2020 compared to the previous year will be lower than feared in the previous spring forecast (-2.0%). In Austrian civil engineering construction stops due to Covid-19 were short and partial, which led to only minor delays in project implementation. However, increasingly limited budget leeway also at the municipal level will have a negative impact on the development of civil engineering in 2020 and in the following years. The Austrian government attempted to counteract this with a municipal investment plan of 1 billion Euro in summer 2020, with which the federal government will contribute up to 50% of the costs of planned municipal investments. Eligible investments in the civil engineering sector mainly concern public transport. Although the forecasts for civil engineering in 2020 are negative, the decline should be comparatively small in view of the severity of the pandemic.

Info box infrastructure quality in Austria
Austria is among the 10 countries with the best public infrastructure in a global comparison of 141 countries (World Economic Forum, 2019).
In the two sub-areas „transport infrastructure" and „utility infrastructure", rank #14 and rank #4 were achieved. The „quality of road infrastructure" with rank #6 and the „electricity access" rank #2 were particularly positive.
The results in the areas of „road connectivity" (#49) and the „efficiency of seaport services" #89 as well as the „efficiency (#39) and connectivity (#37) of air transport services" were significantly less favourable. Closing the gap in the transport infrastructure system, especially in the direction of the „new member states" is therefore one of the priorities in both the high-ranking road and rail networks. The expansion of flight capacities is also planned.

According to the available infrastructure framework plans, civil engineering should develop stable over the next few years, starting with a growth rate of 1.7% in 2021, which can be considered as a rebound effect. In the following years, civil engineering volume is expected to expand further, with lower growth rates of slightly over 1% (2022) and well below 1% (2023).

Civil engineering by sectors.

Road.

Road construction investments have increased since 2017, with the strongest real growth in 2018 (+4.7%). Mainly road construction investments at the municipal level stimulated this construction area. In 2019, investments in the Austrian road network expanded further, with impetus also coming from the high-level road network. In total, a construction volume of 2.1 billion Euro was realized at all levels in 2019. Around 50% went into the construction, expansion and renovation of the highway network. A further 35% was invested in the low level road network at the municipal level and 15% at the federal state level.

An ongoing expansion in investment in the high-level road network was expected in 2020 before the Covid-19 pandemic. The recent 2021 Budget Report, published in October 2020, significantly reduced the volume of the highway budget for 2020 (1.1 bn Euro instead of previously 1.4bn Euro) reducing the outlook significantly.

Most important new highway construction projects
Project volume > €100 mill., start of construction between 2020 and 2023

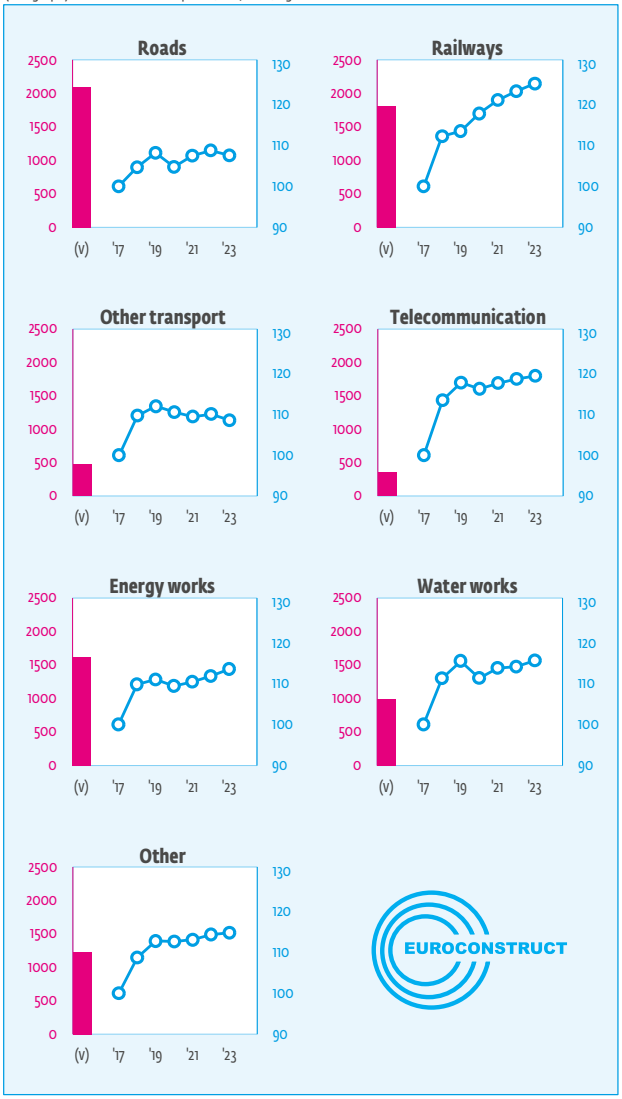
Project name	Start	End	Volume
Burgenland -- S 4 Mattersburger Schnellstraße	2021	2024	€143 m
Lower Austria -- S 8 Marchfeld Schnellstraße	2021	2024	€310 m
S 34 Traisental Schnellstraße	2021	2025	€205 m
Vienna -- S 1 Wiener Außenring Schnellstraße Neubau Spange Seestadt Aspern	2021	2024	€225 m
Upper Austria -- S 10 Mühlviertler Schnellstraße	2021	2025	€221 m
Vorarlberg -- S 18 Bodensee Schnellstraße	2020		€600 m

S: Asfinag.

In general, project delays in road construction due to construction stops, and reduced mileage on highways in the first three quarters 2020 (-6.7%) put financial pressure on the actors, although the decline was less pronounced as feared by Asfinag in spring 2020.

The tense financial situation also affects the municipal level which is responsible for the lower road

Total civil engineering: breakdown by subsectors
(v) = volume 2019, million €, left scale;
(line graph) = index at constant prices, 2017=100, right scale



Source: EUROCONSTRUCT (90th Conference)

network. Here, too, a reduced investment volume is expected, since most of the federal states have also experienced – at least short-term – construction stops and municipal budgets have come under greater pressure due to the pandemic.

Overall, current forecasts assume a decline in investment in roads of 3.2% in 2020. It is expected that some projects will be postponed until 2021, thus offsetting most of the decline in production (2021: +2.6%). Depending on how the crisis develops, road construction investments are expected to grow by +1.2% in 2022 according to the current estimate and the underlying plans. Towards the end of the forecast horizon 2023, a slight decrease in investment is expected (-1.1%), which is mainly due to reduced investment in the area of new highway construction. A possible reduction of the currently high investment volume at the municipal level currently represents a main forecast risk for 2022/23 for road construction.

Rail.
Public investment in railway infrastructure has been strongly promoted in Austria in recent years. This led to a dynamic growth of 12.3% in 2018 and a further, albeit small, increase of 1.1% in 2019. Future investments are based on Austria's general framework plan. In the new OBB framework plan 2021 to 2026 (October 2020), a volume of 17.5 billion Euro is budgeted (+25% compared to the previous plan). New rail projects with a total volume of around 8 billion Euro have been added. From an environmental policy point of view, the planned expansion of services and the introduction of the so-called 1-2-3 ticket (a nationwide plan for a three-stage system for public transport) are intended to contribute to achieving climate neutrality.

One project focus of the framework-plan in 2020 is the entire eastern region (Vienna, Burgenland, Lower Austria with a total investment volume of over 500 million Euro – about one third of the total budget). This includes the expansion of local public transport in the greater Vienna area – with the objectives of higher frequency and capacity.

In addition, the construction volume in the forecast period 2020-2023 depends mainly on the progress of the implementation of the major rail projects. These include:

- „Brenner Base Tunnel", the largest Austrian railroad project with a volume of over 5 billion Euro (excluding financing costs). Investments of around 1.3 billion Euro have been budgeted for the period 2020-2023. The completion of the route is likely to be delayed with completion in 2027.
- Southern line („Southern Railway Line"). The main project is the „Semmering Base Tunnel", which connects Gloggnitz and Mürzzuschlag, with a volume of around 3.3 billion Euro. For the period 2020-2023, just under 1 billion Euro have been estimated. Completion is also expected in 2027.
- The „Koralmbahn", the Graz-Klagenfurt link, has a project volume of around 5 billion Euro. In the period 2020-2023, construction work will amount to 1.8 billion Euro, distributed almost evenly over this three-year period. The line is expected to be completed in 2026.

Railroad construction is negatively affected by the Covid-19 crisis in 2020, but less than in the other civil engineering sectors. Construction projects were continued as far as possible during the crisis in order not to endanger the safety of the railroad network on the one hand and to avoid expensive rail closures on the other. However, major projects such as the Brenner tunnel, which was officially closed by the authorities on the Italian side, were also interrupted on the Austrian side. Delays at major construction sites will somewhat dampen the construction volume in 2020.

Due to the high investment volume, real growth of 3.8% is expected in 2020, despite Covid-19. The forecast predicts continuously weakening of investment until the end of the forecast horizon, with average real growth rates of around +2% p.a. in railway construction towards 2023.

Telecommunication.
Investments in Austrian telecommunication are at a low level by international standards – shown by a WIFO study (2016). With an investment rate of 0.23% of the gross domestic product, Austria was in last place among 21 industrialized countries. The Austrian federal government has set itself the goal of nationwide coverage with fixed and mobile Gigabit connections with increased investments in recent years. In 2018, there was a significant increase in investments (+13.5%) and in 2019, the volume also increased further (+3.8%). These investments were supported by public subsidies, above all by the federal government's broadband funding. The volume amounted to 133 million Euro in 2018 and increased to 143.6 million Euro in 2019.

In order to achieve the goal of nationwide gigabit coverage, four funding lines are being implemented with non-repayable subsidies as part of the federal government's „Broadband Strategy 2030":
1. „Broadband Austria 2020 Access" with the aim of improving coverage.
2. „Broadband Austria 2020 Backhaul" to strengthen the feeder networks and the connection to the core networks.
3. „Broadband Austria 2020 empty conduit program" to facilitate the co-installation of empty conduits for communication networks.
4. „Broadband Austria 2020 connection support program" with the aim to reduce the one-off costs of connecting schools or SMEs to the next fibre optic PoP (point of presence).

A subsidy volume of at least 44.0 million Euro is budgeted for 2020, 262 million Euro for 2021 and around 456.5 million Euro for the period 2022 to 2024. Additional budget will be generated in part by proceeds from mobile communications frequency allocations for the expansion of the digital infrastructure, which will be made in the coming years.

A decline in construction output in the telecom sector is expected in 2020 (-1.2%), and only minor growth rates in the years 2021 to 2023, as only a small proportion of investments are relevant to construction.

Energy.
Investments in the energy sector were subdued in the mid-2010s, mainly due to low electricity prices. The latest data show a slight recovery in 2017 and investments could be significantly intensified in

2018 (+9.8%) and further slightly expanded in 2019 (+1.1%).

Expansion of the electricity network and of renewable energy sources will be the main focus from 2020 onwards. 2.9 billion Euro are planned in the area power line expansion for the 10-year period up to 2030. This includes key projects such as the Salzburg line, the replacement of the Weinviertel line and the expansion of the Upper Austria region. The objectives of the projects are different. While the Weinviertel line is used for the system transport of wind power in Lower Austria, the industrial site in the Linz area is being secured. The Salzburg line is central to the inner Austrian electricity management of renewable energy in the east and the pumped storage facilities in the west of the country.

The expansion of renewable energy is – besides the promotion of renovation in building construction – the second pillar of the investment package in climate protection. The goal is „to generate 100% electricity from renewable energies in the balance sheet" by 2030. Subsidies of an additional 81.5 million Euro are available for this in 2021. Concrete measures include the impulse program for large-scale thermal solar plants, the support program for energy community plants, special funding for the expansion and decarbonization of local and district heating, photovoltaic funding for small plants and for specific areas of application, and a consulting program for the expansion of small hydropower plants.

In general, the situation in Austria is favourable with regard to renewable energy, as confirmed by the latest publication on the Energy Transition Index (ETI) of the World Economic Forum (May 2020). With the 'Transition Readiness' and the 'System Performance', Austria remains in 6th place worldwide in 2019, making it one of the global pioneers in energy transition after Sweden, Switzerland, Finland, Denmark and Norway. Austria's electricity generation already comes largely from renewable sources, which account for a share of around 72%; distributed hydroelectric power (56%) and wind, photovoltaic or geothermal energy (16%).

Despite the planned measures, investments in 2020 are likely to be 1.4% lower than in previous years. In 2021 and 2022, increased investment activity is expected, especially in the area of energy production. This allows growth rates of at least 1% on average to be expected until the end of the forecast horizon 2023.

Water.

Growth in the water works originated mainly from higher investments in the area of drinking water supply and the high volume of renewal investments. Due to the high connection rate, the volume of new construction has been declining for a longer period (91% for drinking water supply and 95% for waste water).

Public subsidies support the investments in the sector. As part of the fiscal equalization scheme, additional 80 million Euro per year are earmarked for urban water management until 2021. The focus of funding activities, which in recent decades has been on the construction of the necessary infrastructure, will in future shift significantly in the direction of value preservation and rehabilitation.

For the year 2020, the forecasts for the water works are gloomy. In addition to the declines due to the construction stop, municipal budgets will also be strained by the Covid-19 crisis. In order to support municipalities in this situation with their investments, the Federal Government has decided on a 1.0 billion Euro municipal package in which also a small part of the water supply and sewage disposal facilities will be supported. Independent of this, investment-related payments by the federal government in the area of water management and water ecology are estimated at 312 million Euro in 2020 and 315.0 million Euro in 2021 in the current 2021 budget.

All in all, the construction volume in the area of water works in 2020 is expected to decrease by 3.6% compared to the previous year, which, depending on the budget situation of the municipalities, are likely to be made up towards the end of 2023.

APPENDIX – DEFINITIONS

Data from the national accounts represents an integral part of the reported construction forecasts. Not only the forecasts are updated in each report, but also the previously published data from the national accounts are revised regularly. The revisions affected almost without exception all economic areas according to official publications by the national statistics agency Statistics Austria. The revision calendar is as follows: The first data for year t are available in year autumn t+1, e.g. the first official data from the national accounts on growth or the construction industry for 2019 is available in autumn 2020. The main data sources for these figures are WIFO's economic forecasts as well as the monthly business surveys and other auxiliary data. In year t+2, information from structural business statistics is incorporated and the data revised if necessary. In year t+3, the compilation of input-output tables through the supply-use tables can lead to an additional revision of the official data.

Table 1

- Population: Statistics Austria, main scenario, on January 1st.
- Households: Statistics Austria, on January 1st.
- Unemployed: Austrian Public Employment Service (AMS), WIFO forecasts.
- Unemployment rate: Labour Force Survey, EUROSTAT, WIFO forecasts.
- Economic forecasts are based on the October 2020 WIFO forecasts (2020 to 2021) and on the autumn 2020 WIFO mid-term forecasts (2022 to 2022). All national account data (historic and forecasts) are based on ESA 2010 system.

Table 2

- Construction output includes own production (do-it-yourself), black economy and exports. Non-intensive private repair and maintenance measures were estimated by WIFO. The forecasts of growth rates reflect the WIFO October 2020 forecasts based on ESA 2010 (correspondently also Tables 4a and 4b).
- Data for cement consumption are based on the information of the cement industry.

Table 3

- Permits, starts and completions refer to new dwellings in new residential buildings.
- Permitted dwellings until 2019 stem from official data (October 2020) from Statistics Austria.
- 1+2 family houses: Buildings with one or two dwellings (in previous reports buildings with one dwelling only).
- Flats: Buildings with three and more dwellings (in previous reports they referred to buildings with two and more dwellings).
- Building starts: No official statistics are available for Austria. The provided number is based on estimates considering a delay and drop out between permits and housing starts.
- Building completions: The results reported in this publication differ from official statistics from Statistics Austria. The reason for this deviation lies in the incomplete and delayed reporting to and from municipalities, which severely affects data quality. Data included in this report are based on housing permits and historical rates of completions.
- Housing stock: Annual average. The housing stock is a forward projection of the register-based census 2011. Significant methodological changes in the 2011 census resulted in a higher housing stock.
- Second homes. Vacancies: WIFO forecasts based on Statistics Austria.
- Home ownership rate: WIFO forecasts based on Statistics Austria; share of dwellings owned by the occupier/relatives of the occupier.

Table 4a

- Offices: They include also other buildings for administration.
- Miscellaneous: e.g. buildings for sports and leisure time.

Table 4b

- Other transport includes mostly airport infrastructure as well as public transport (mainly underground transportation).
- Energy works includes construction of distribution lines for electricity as well as integral parts (e.g. related buildings such as power plants).
- Water works includes the construction of distribution lines for transportation of fluids (e.g. water utility lines. sewage) and related buildings (pumping stations), water well drilling and also the construction of river works, dams, etc.

Table 5

- Information is based on the October 2020 WIFO forecasts (2020 to 2021) and the autumn 2020 WIFO mid-term forecasts (2022 to 2023). Data stems from the national accounts based on ESA 2010 system.
- Volumes of each GDP component are at market prices. VAT included.
- The sum of the individual GDP components is not exactly equivalent to total GDP because of the so-called statistical difference. It represents a residual component which can be attributed to current account imbalances due to international trade and capital flows.

Country/Pays/Land: Austria — Table 1

MAIN DEMOGRAPHIC AND ECONOMIC INDICATORS
PRINCIPAUX INDICATEURS DÉMOGRAPHIQUES ET ÉCONOMIQUES
WICHTIGE DEMOGRAPHISCHE UND ÖKONOMISCHE INDIKATOREN

				Est.	Forecast		Outlook
	2017	2018	2019	2020	2021	2022	2023
Population ('0000s) **Population** **Bevölkerung**	8 773	8 822	8 859	8 893	8 926	8 959	8 992
Households ('0000s) **Ménages** **Haushalte**	3 869	3 903	3 933	3 960	3 985	4 009	4 033
Unemployed ('0000s) **Chômeurs** **Arbeitslose**	340	312	301	403	365	345	331
Unemployment rate (%) **Taux de chômage** **Arbeitslosenquote**	5.5	4.9	4.5	5.4	5.0	4.8	4.6
Change of GDP **Variation du PIB** **Veränderung des BIP** **(% change in real terms)**	2.4	2.6	1.4	-6.8	4.4	2.4	1.8
Consumer prices (% change) **Prix à la consommation** **Verbraucherpreise**	2.1	2.0	1.5	1.3	1.5	1.6	1.7
Construction prices (% change) [1] **Prix de la construction** **Baupreise**	2.2	2.8	3.1	2.5	2.2	2.4	2.3
Short term interest rate [2] **Taux d' intérêt à court terme** **Kurzfristiger Zinssatz**	-0.3	-0.3	-0.4	-0.4	-0.4	-0.4	-0.4
Long term interest rate [3] **Taux d' intérêt à long terme** **Langfristiger Zinssatz**	0.6	0.7	0.1	-0.2	-0.2	-0.2	-0.1

1) Refers to new construction only.
2) 3-month interbank rate (or equivalent).
3) 10-year government bonds (or equivalent).

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Country/Pays/Land: Austria — Table 2

CONSTRUCTION BY TYPE
PAR TYPE D'OUVRAGE
BAUPRODUKTION NACH BAUARTEN

		Volume mill. euro[1)]	% change in real terms (volume)						
						Est.	Forecast		Outlook
		2019	2017	2018	2019	2020	2021	2022	2023
Residential construction Logement Wohnungsbau	New	13 703	6.8	2.1	4.5	-1.9	1.8	1.4	1.4
	Renovation	6 044	4.5	1.5	3.7	-1.6	2.5	2.7	3.5
	Total	**19 746**	**6.1**	**1.9**	**4.3**	**-1.8**	**2.0**	**1.8**	**2.1**
Non-residential construction Bâtiments non résidentiels übriger Hochbau	New	12 723	-0.5	2.7	3.6	-5.8	3.9	2.7	2.1
	Renovation	4 059	0.4	3.2	3.3	-2.4	2.4	3.6	2.4
	Total	**16 781**	**-0.3**	**2.8**	**3.5**	**-5.0**	**3.5**	**2.9**	**2.2**
Building Bâtiment Hochbau	New	26 425	3.2	2.4	4.1	-3.8	2.8	2.0	1.7
	Renovation	10 102	2.8	2.2	3.5	-1.9	2.5	3.1	3.1
	Total	**36 528**	**3.1**	**2.3**	**3.9**	**-3.3**	**2.7**	**2.3**	**2.1**
Civil engineering Génie civil Tiefbau	New	6 855	0.1	9.7	2.3	-0.9	1.5	0.9	0.3
	Renovation	1 714	1.1	7.2	3.3	-0.4	2.5	2.4	1.3
	Total	**8 568**	**0.3**	**9.2**	**2.5**	**-0.8**	**1.7**	**1.2**	**0.5**
TOTAL CONSTRUCTION OUTPUT		**45 096**	**2.5**	**3.6**	**3.6**	**-2.8**	**2.5**	**2.1**	**1.8**

	2019			Est.	Forecasts		Outlook
	Volume mill. tons	2017	2018	2019	2020	2021	2022	2023
Domestic cement consumption Consommation intérieure de ciment Inländischer Zementverbrauch	5.40	2.1	7.4	3.2	-4.3	2.8	1.7	1.3

Renovation covers repair and maintenance, refurbishment and reconstruction.
1) At 2019 prices, excluding taxes.

Country/Pays/Land: Austria — Table 3

RESIDENTIAL CONSTRUCTION
CONSTRUCTION DE LOGEMENTS
WOHNUNGSBAU

Thousands dwellings

					Est.	Forecast		Outlook
		2017	2018	2019	2020	2021	2022	2023
Building permits **Logements autorisés** **Baugenehmigungen**	1+2 family dwellings Individuels 1+2-Familienhäuser	17.6	18.6	18.4	17.8	17.7	17.8	17.5
	Flats Collectifs Mehrfamilienhäuser	49.9	37.6	44.8	38.1	38.3	35.7	36.3
	Total	**67.5**	**56.2**	**63.2**	**55.9**	**56.0**	**53.5**	**53.8**
Housing starts **Logements commencés** **Baubeginne**	1+2 family dwellings Individuels 1+2-Familienhäuser	16.7	17.2	17.5	17.2	16.9	16.9	16.8
	Flats Collectifs Mehrfamilienhäuser	43.8	41.6	39.2	39.4	36.3	35.1	34.2
	Total	**60.5**	**58.8**	**56.7**	**56.6**	**53.2**	**52.0**	**51.0**
Housing completions **Logements terminés** **Baufertigstellungen**	1+2 family dwellings Individuels 1+2-Familienhäuser	17.0	17.2	17.7	18.0	17.9	17.8	17.8
	Flats Collectifs Mehrfamilienhäuser	36.2	42.0	41.0	41.4	40.5	39.2	37.9
	Total	**53.2**	**59.2**	**58.7**	**59.4**	**58.4**	**57.0**	**55.7**
Housing stock **Logements existants** **Wohnungsbestand**	**Total**	**4 706**	**4 763**	**4 820**	**4 878**	**4 934**	**4 990**	**5 044**
	thereof second homes dont résid. secondaires davon Zweitwohnungen	270	273	276	280	283	286	289
	thereof vacancies dont inoccupés davon leerstehend	235	238	241	244	247	249	252
	share of family dwellings (%) part des maisons individuelles Anteil 1+2-Familienhäuser	46.8	46.5	46.2	45.9	45.7	45.4	45.2
Home ownership rate [1] **Taux de propriétaires occupants** **Wohneigentumsquote**		53.6	53.1	53.0	52.8	52.5	52.2	52.5

1) Cf. Appendix to the individual country report.

Country/Pays/Land: Austria — Table 4a

NEW NON-RESIDENTIAL CONSTRUCTION (PUBLIC AND PRIVATE)
CONSTRUCTION NEUVE NON RÉSIDENTIELLE (PUBLIQUE ET PRIVÉE)
NEUER NICHTWOHNHOCHBAU (ÖFFENTLICH UND PRIVAT)

	Volume mill. euro[1]	m2 x 1000	% change in real terms (volume)						
						Est.	Forecast		Outlook
	2019	2019	2017	2018	2019	2020	2021	2022	2023
Buildings for education **Bâtiments de l'éducation et de la recherche** **Gebäude des Bildungswesens**	862		1.3	2.7	3.2	0.8	2.1	3.5	5.0
Buildings for health **Bâtiments de santé** **Gebäude des Gesundheitswesens**	1 743		2.7	1.4	1.6	-2.5	1.8	0.7	0.0
Industrial buildings **Bâtiments industriels** **Industriegebäude**	2 568		2.1	10.3	3.9	-9.3	4.1	3.8	2.3
Storage buildings **Bâtiments de stockage** **Lagergebäude**	251		1.4	2.3	3.6	-4.6	2.1	1.2	2.1
Office buildings **Bureaux** **Bürogebäude**	2 555		0.5	1.9	4.3	-5.8	3.7	2.3	1.9
Commercial buildings **Commerces** **Geschäftsgebäude**	3 505		-4.3	-1.5	4.2	-7.1	5.4	3.1	2.1
Agricultural buildings **Bâtiments agricoles** **Landwirtschaftsgebäude**	676		-1.2	4.5	2.5	-6.0	4.8	3.6	3.5
Miscellaneous **Autres** **Sonstiges**	564		-2.8	3.4	3.6	-2.4	4.1	1.8	2.2
TOTAL	**12 723**		**-0.5**	**2.7**	**3.6**	**-5.8**	**3.9**	**2.7**	**2.1**

1) At 2019 prices, excluding taxes.

Country/Pays/Land: Austria — Table 4b

TOTAL CIVIL ENGINEERING
ENSEMBLE DU GÉNIE CIVIL
TIEFBAU INSGESAMT

		Volume mill. euro[1)]	% change in real terms (volume)						
						Est.	Forecast		Outlook
		2019	2017	2018	2019	2020	2021	2022	2023
Transport infrastructure **Infrastructures de transport** **Verkehrsinfrastruktur**	Roads Réseau routier Straßen	2 098	2.4	4.7	3.4	-3.2	2.6	1.2	-1.1
	Railways Voies ferrées Bahnanlagen	1 809	-5.9	12.3	1.1	3.8	2.8	1.8	1.5
	Other transport Autres réseaux Übrige Verkehrsinfrastruktur	469	-4.1	9.7	2.1	-1.3	-1.0	0.6	-1.4
	Total	**4 376**	**-1.8**	**8.3**	**2.3**	**-0.1**	**2.3**	**1.4**	**-0.0**
Telecommunications **Télécommunications** **Telekommunikation**		348	2.4	13.5	3.8	-1.3	1.2	0.9	0.6
Energy works **Réseaux d'énergie** **Energieversorgung**		1 621	2.8	9.8	1.1	-1.4	0.9	1.3	1.5
Water works **Réseaux d'eau** **Wasserversorgung**		992	2.4	11.3	3.8	-3.6	2.2	0.3	1.3
Other **Autres** **Sonstiges**		1 232	2.7	8.8	3.7	-0.1	0.4	1.1	0.4
TOTAL		**8 568**	**0.3**	**9.2**	**2.5**	**-0.8**	**1.7**	**1.2**	**0.5**

1) At 2019 prices, excluding taxes.

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Country/Pays/Land: Austria — Table 5

GROSS DOMESTIC PRODUCT
PRODUIT INTÉRIEUR BRUT
BRUTTOINLANDSPRODUKT

	Volume bill. euro[1]	% change in real terms (volume)						
					Est.	Forecast		Outlook
	2019	2017	2018	2019	2020	2021	2022	2023
Private consumption[2] **Consommation privée** **Privater Verbrauch**	205.5	1.9	1.1	0.8	-6.8	5.5	2.5	1.6
Public consumption **Consommation publique** **Staatsverbrauch**	77.3	0.9	1.2	1.5	1.1	1.0	1.0	0.8
Gross fixed capital formation **Formation brute de capital fixe** **Bruttoanlageinvestitionen**								
Total	98.1	4.1	3.9	4.0	-5.6	3.7	2.7	2.2
of which construction	44.4	2.6	3.6	3.6	-2.8	2.5	2.1	1.8
Stocks (contribution as % of GDP)[3] **Variations de stocks** **Vorratsveränderungen**	3.1	1.2	1.6	0.8	0.0	0.0	0.1	0.1
Exports **Exportations** **Exporte**	221.0	4.9	5.5	2.9	-12.4	6.1	4.8	4.2
Imports **Importations** **Importe**	207.6	5.3	5.0	2.4	-10.6	5.6	4.7	4.0
GDP **PIB** **BIP**	**397.6**	**2.4**	**2.6**	**1.4**	**-6.8**	**4.4**	**2.4**	**1.8**

Standard National Accounts, gross figures.

1) At 2019 prices.

2) Including final consumption expenditure of NPISH's, ISBLM inclus, einschließlich POoE.

3) Including net aquisitions of valuables, net aquisitions d'objets de valeur inclus, inkl. Nettozugang an Wertsachen.

Notes


EUROCONSTRUCT

GENERAL DEFINITIONS

The following notes describe which are the most common definitions of the concepts of the Euroconstruct report among the different countries. These definitions do not apply literally to each of the 19 countries, so readers are encouraged to check the specific methodological notes of each country in order to identify the possible deviations from these standards that may apply to that particular market.

Macroeconomic

- **Population and households:** as of January 1st.
- **Unemployed:** figures based on labour force surveys that also include jobseekers that do not register at the employment offices.
- **Unemployment rate:** as percent of total labour force.
- **Construction prices:** annual change rate of sales prices, not construction costs.

Construction Output

Production is calculated according to branch definition, including not just works done by construction firms, but also works done by all firms that execute construction work regardless of the industry group they belong to. It also includes:

- Services provided by public bodies in the case that fees are involved.
- The builders' own effort, like do-it-yourself works.
- Works done by unregistered firms (black economy) should be included.

VAT or any other sales tax are not included.

Production value of a **building** project, residential and non-residential, includes:

- Project development.
- Planning and engineering works, architects.
- Plot work up.
- Construction work on the building including all intermediate products (building materials, transport cost, energy, use of machinery and equipment etc.)
- Installations work (electrical, plumbing, glazing, paintings and wallpaper, lifts etc.)
- Public fees (for building permits etc.)
- Financial costs, like interest and fees on construction loans (external funding)
- Fees to estate agents
- Transaction costs, if any
- Advertisement costs, if any

Production of **civil engineering** in general follows the same rules, so the value of investments (and maintenance) in civil engineering includes all intermediate products and not only the civil engineering part.

Residential

This category includes:

- Permanent residences
- Second homes or holiday homes owned by households.
- Building objects considered as auxiliary of the main residential object, such as garages, outhouses or other annexes.

The **1+2 family dwellings** category includes:

- Detached or semi-detached houses that contain one or two dwellings (for example, a main dwelling plus one bed-sit, basement flat etc.)
- Farmhouses that contain one or two dwellings.

The **flats** category is for residential buildings that contain three or more dwellings, including the following cases:

- Row houses, linked houses and terraced houses.
- Multi-dwelling buildings of more than one storey, free-standing or linked.
- Residences and service residences for the elderly and other social groups, when the health care aspect is not dominant (otherwise they are categorised as nursing homes and accounted as non-residential)
- Student homes.
- Other residential buildings for communities.
- Dwellings in non-residential buildings.

A **second home** is defined as any dwelling of the residential categories (1+2 families or flats), that is only in use temporarily as a holiday or leisure residence. Second homes also include cottages, huts, shacks, chalets, etc.

When second homes are a market product that is different from permanent homes (design, size...) and that market is big enough to be noticeable, and statistics allow them to be distinguished from permanent homes, they may be excluded from the figures for permits, starts or completed dwellings. However, they still are included in stock figures. Investments in second homes are also included in residential construction.

A residential building is considered **completed** when either a temporary permission to use the building is given by the competent authority, or when a certificate for completion is issued by the competent authority. This certificate should be given when final documentation about the building and a declaration from the builder that the building is completed is available.

Non-residential

This category includes every other building that is not considered residential. The following cases are also treated as non-residential:

- Buildings for temporary residential use that have a commercial purpose, for instance hotels, hostels, motels and holiday homes for rent by businesses/public bodies.
- Homes for the elderly with manned facilities and nursing services.

Non-residential surface is measured as utility floor space, which is the floor area measured within the outer walls.

The category of **buildings for education** includes the facilities (also playgrounds) for:
- Pre-school, kindergartens.
- Primary and secondary education.
- Higher education, including laboratories and research facilities.

The category of **buildings for health** includes:
- Hospitals.
- Clinics, doctor's offices, medical centres, emergency clinics.
- Health and social services centres, health stations.
- Nursing homes.
- Residence and home with nursing and medical care.
- Buildings for rehabilitation, sanatoriums
- Other long-stay hospitals and primary health buildings.

The category of **industrial buildings** includes:
- Factory buildings.
- Workshops.
- Treatment plants, pumping stations, transformer stations that can be considered buildings.

The category of **storage buildings** includes:
- Warehouses.
- Cold storage warehouses.
- Silo buildings and other specialised storage.

The category of **office buildings** includes:
- Buildings for bureaucratic purposes, town halls.
- Banks.
- Post offices.
- Buildings for the media.

The category of **commercial buildings** includes:
- Shopping centres, department stores.
- Detached shops.
- Service stations.
- Other wholesale and retail trade buildings.
- Hotels, hostels, motels, pensions.
- Holiday camps, tourist chalets, apartment lodging buildings, camping huts, holiday bungalows.
- Restaurant buildings and derivatives: food kiosks, cafés, canteens, etc.
- Parking garages.
- Fair and congress buildings.
- Buildings related to transport infrastructures such as railway stations and underground stations, airport terminals, air traffic control towers, telecommunication buildings, etc.

The category of **agricultural buildings** includes:
- Buildings for animals, granaries, fruit and vegetable storage, agricultural silos, buildings for hay/grain drying
- Greenhouses.
- Works buildings used for fishery and hunting, including fish farms, fishery boat-houses and sheds.

The category of **miscellaneous buildings** includes:
- Non-residential space in residential buildings.
- Buildings for entertainment: cinemas, theatres, concert halls, opera houses, discotheques.
- Museums and art galleries.
- Libraries.
- Zoological and botanical gardens.
- Sports halls, ice arenas, indoor swimming pools, fitness centres and Buildings for other sports.
- Community centres, local meeting halls not for bureaucratic uses.
- Buildings for religious use: churches, chapels, houses of worship, parish houses, crematoriums, cemetery chapels, chapels of repose, convents, monasteries.
- Monuments.
- Prison buildings.
- Police stations.
- Fire stations, ambulance stations.
- Building for emergency preparedness: air-raid shelters, bunkers.
- Lighthouse buildings, pilot stations, radar facilities.
- Public toilets.

Renovation with change of use

Sometimes building renovation is related to a change of end use: from residential to non-residential buildings and vice versa. When a non-residential building is transformed to a residential building, the value of this production is included in residential renovation. And vice versa.

Civil Engineering

The category of **transport infrastructure** includes:
- Construction of roads and streets, including bridges and tunnels.
- Railways include also tramways and undergrounds, also with bridges and tunnels.
- "Other" collects airports and airfields, harbours, ports, breakwaters and moles, canals, etc.

The category of **energy** includes infrastructures for:
- Generating energy: power plants and power stations that can not be considered buildings, dams

for hydroelectric power production, wind farms, wave farms.
- Delivering energy: power transmission lines, gas supply lines.

The category of **water works** includes infrastructures for water supply, sewer and waste water transport and treatment; either for drinking water, irrigation, industrial water or river flow maintenance.

The category of **other civil engineering** includes infrastructures for agriculture, forestry and fishery, civil engineering facilities for the industry **that can not be considered buildings**, outdoor sports and leisure facilities (for example, amusement parks).

Gross Domestic Product

To be comparable to the rest of the figures in Table 5, gross fixed capital formation in construction is measured at market prices, in contrast to the measure used in Tables 2, 4a and 4b that considers output at production prices, that is, without sales taxes (or sales subsidies).

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