WIFO

93rd Euroconstruct Conference: European Construction Market Outlook until 2024 – Austrian Construction Market Development

Country Report Austria

Michael Klien, Michael Weingärtler

June 2022
Austrian Institute of Economic Research

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The recent Euroconstruct forecasts indicate a noticeable weakening of construction activity from 2022 onwards for Austria and Europe. Although the order situation in Austria remains strong, the assessment has changed significantly since the beginning of the year. While the Austrian construction industry survived the immediate COVID-19 crisis relatively unscathed, the sector has been struggling with ongoing construction cost problems since the exceptionally rapid recovery in 2021. The construction industry has been particularly affected by price increases in essential commodities such as steel and oil. Economic uncertainty is also increasing, further dampening the construction outlook until 2024.

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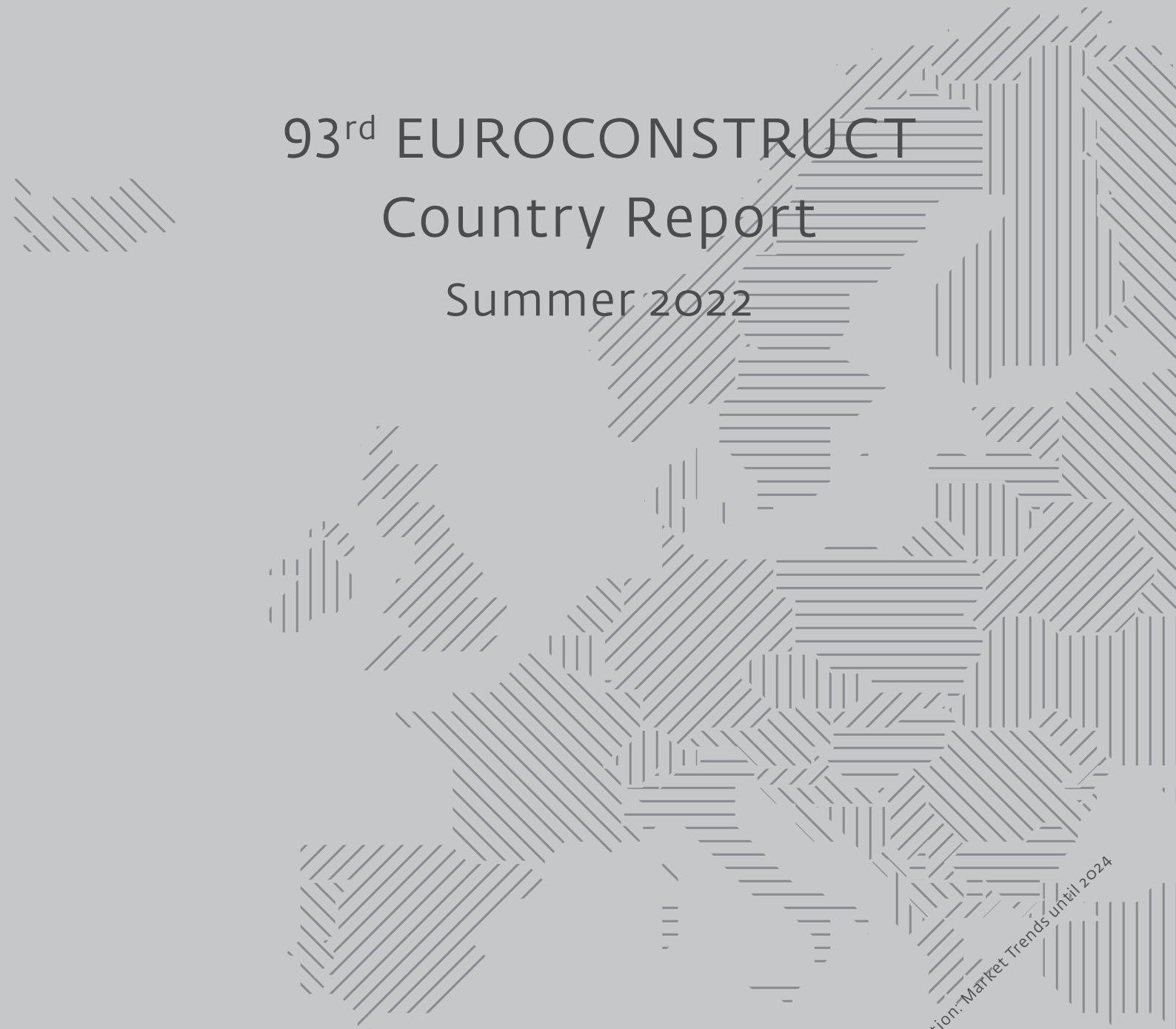

European Construction: Market Trends until 2024

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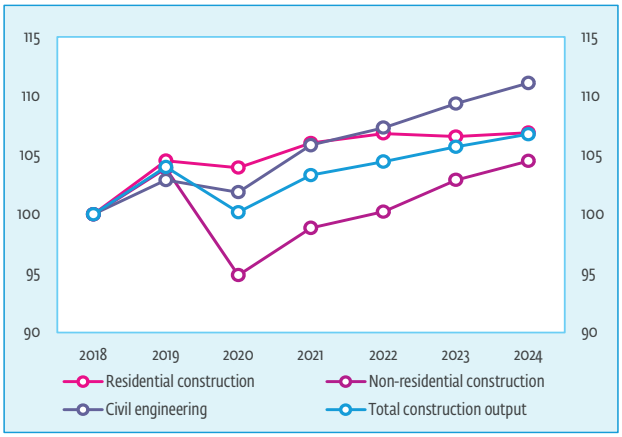
1. Summary and Conclusions

After the recovery from the Corona pandemic in 2021, the economic development in Austria is currently very strongly determined by the increases in consumer and producer prices. On a nominal basis, the recovery in the past year was extremely strong, despite renewed lockdowns. However, due to the strong price dynamics, which became increasingly acute in the course of 2021, less and less real growth remains. Consumer confidence is weakening, and economic uncertainty is high. With the war in Ukraine, these tendencies have been significantly intensified, and will also have a strong additional impact on 2022. The WIFO forecast for 2022 is 3.9% real GDP growth but assumes an easing of energy prices and supply chain problems in the course of the year. In the following years, the forecast is then only 2.0% in 2023 and 1.8% in 2024.

The construction industry is particularly affected by the increases in essential raw materials such as steel and oil. Thus, despite high nominal growth, only 3.1% real growth remained in the course of the economic recovery. Construction prices, which have been gaining momentum since spring, reached an annual average growth of almost 6%, and further increases are inevitable for 2022 as well. The sharp rise in energy prices, which hit Austria particularly hard due to its high dependence on Russian gas, has led to exorbitant increases in material prices: by more than 10% from December 2021 to March 2022. This leads to significantly weaker real growth of only 1.1%, although the construction sector actually exhibits very favourable framework conditions (high-capacity utilization, high order backlogs, persistently high demand). All sub-segments of the construction industry are affected by these price increases. The price effects will only begin to subside in 2023, when growth rates of only 1.2% are expected due to weakening demand and lower construction activity. In 2024, the current forecast is 1.0%.

Austria: Construction output forecast by sector

index 2018=100



Source: EUROCONSTRUCT (93rd Conference)

Residential construction was one of the big growth pillars during the Corona pandemic in 2020 and was significantly less affected than other areas of the economy, and also one of the most stable segments within construction. But the years of strong population growth are over, and the past few years have been accompanied by extremely strong supply expansions. Since 2019, however, building permits have been declining significantly, especially in multi-storey construction in urban centres, and so new residential construction will weaken from 2023 at the latest. Despite some compensation from higher renovation activity, a (soft) landing of residential construction activity is expected: after 0.8% in 2022, which also falls short of expectations due to high construction price increases, only -0.2% is forecast for 2023 and 0.3% for 2024.

In non-residential construction, all signs pointed to recovery in 2021, which will continue in 2022 at a slower pace. It became apparent that the recovery, especially in those sectors that suffered more from the negative impact of the pandemic, is developing much more slowly compared to the other subsectors of non-residential construction. Commercial construction is particularly affected. Moreover, the current high construction costs and supply bottlenecks are dampening the upswing in non-residential construction in 2022. Therefore, a real growth of only 1.4% is expected. With the decline in construction prices from the second half of the year, the situation should ease. A somewhat larger investment boost is thus expected in 2023 (+2.7%). In the refurbishment sector, significantly stronger investment growth (+3.0%) is also forecast in 2023 due to public investment incentives. Towards 2024, investment activity in non-residential construction is expected to level off slightly again (+1.4%) in line with the overall economic development.

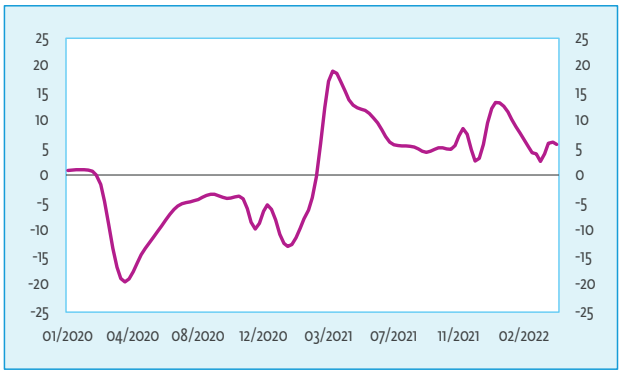
Civil engineering investments developed very dynamically in 2021 throughout all sub-sectors, with the highest investment growth in telecommunications and railway construction. Investment in civil engineering will remain at a high level in the years to come, but growth is likely to slow down significantly due to high construction prices. The current framework plan for railway construction shows continued high investment activity until 2023. The expansion of the railway infrastructure is an essential component in achieving Austria's climate targets. Beside this, Telecom expansion and investments in renewable energy also contribute significantly to civil engineering growth in 2023. The latter will be the main growth driver in 2024, as growth in investment activity in the transport infrastructure sector, which has the highest volume, is expected to continue to flatten out. Overall, growth of 1.9% is expected for 2023 and 1.6% for 2024.

2. Macro-economic Outlook

Despite renewed lockdowns due to the Corona pandemic, the Austrian economy grew strongly in 2021. On the one hand, the comparatively high growth rates are part of the expected recovery due to the Corona-related slumps in 2020, but they go beyond that. The WIFO Weekly Indicator (WWWI) illustrates the consistently high growth contributions over the course of the year, which only dropped briefly due to the lockdown in the fourth quarter. However, the very dynamic economic development at the turn of the year is clouded by the outbreak of the Ukraine war and the ongoing problems in international supply chains. Although growth rates remained high in the first months of the year, there are now increasing signs of a slowdown due to high inflation. On the one hand, high prices are directly dampening growth, with producer prices currently showing significantly higher increases than consumer prices. On the other hand, the foreseeable turnaround in interest rates to curb high inflation is another downside factor. The WIFO economic forecast of March 2022 estimates real GDP growth at 3.9% in the current year, after 4.5% in 2021. For 2023, only 2.0% are expected, and growth rates below 2% in the following years as well. Consumer prices were expected to peak at 5.8% in 2022 in the March forecast but decline to 3.2% in 2023. The latest values from April and May 2022, however, suggest somewhat higher inflation rates in 2022, and the further development in 2023 also depends significantly on the Ukraine crisis and the ECB's monetary policy.

Weekly WIFO Economic Index

year to year change in %



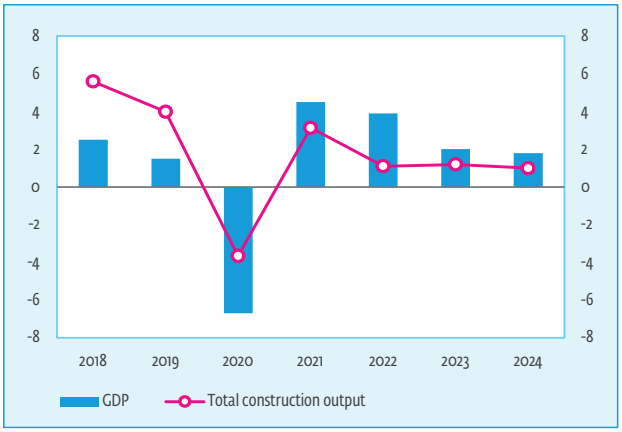
Source: WIFO

Consumption

Private household consumption expenditure was subject to strong fluctuations in 2021 due to the lockdowns. Despite the restrictions during the lockdowns, the economic effects in 2021 were lower than in the first pandemic year; after the measures were lifted, catch-up effects in consumption were also consistently observable. The shift in demand from services to durable consumer goods and daily necessities continued in 2021. The normalization of consumer behaviour (lower savings rate) leads us to expect higher private consumption in 2022. Dampening factors, however, are lower consumer confidence, which is influenced by the Ukraine crisis and the marked increase in inflation. Due to high prices, however, real consumption will only increase by around 4% in 2022 despite high nominal increases; in the following years, growth will stabilize slightly above 2%. Conversely, due to the expiry of numerous support measures, public consumption will decline in 2022 (-1.6%) and stagnate in 2023.

Austria: GDP and total construction output forecast

year to year change in %



Source: EUROCONSTRUCT (93rd Conference)

Investment

The high producer prices and the partial shortage of materials have already been hampering investment in Austria since spring 2021, when investment lost momentum. Although the WIFO industry survey shows that Austrian companies are sticking to the planned expansion of investments, implementation is delayed in many cases. Although this is likely to lead to catch-up effects in 2022 and 2023, it is unclear when the various material and supply bottlenecks can be eliminated. Particularly in construction investments, the WIFO business surveys show full order books with simultaneously inhibited production. In addition to a real shortage of materials – there was a certain easing here at the beginning of 2022, but this has increased again in the wake of the Ukraine war – construction prices are reaching new record levels due to rising material costs. Construction prices grew by around 5.3% in 2021, construction cost even increased by 10.4% in 2021. Construction costs, mainly due to higher steel and iron prices, have increased by another 10% since the beginning of the year. Against this background, WIFO's investment forecast is 5.7% in 2022, followed by 2.6% in 2023. Real Construction investment, which is usually less dynamic than fixed investment, will grow by 1.1% in 2022 and by 1.2% in 2023. The outlook for 2022 amounts to 1.0%.

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Foreign trade

After the significant recovery in 2021, the momentum in foreign trade in goods is currently weakening significantly. In addition to investments, exports of goods are also suffering from supply bottlenecks and material shortages. Added to this is the Ukraine crisis and the related sanctions, which are affecting Austrian foreign trade directly due to trade links, but particularly strongly indirectly via the sharp rise in energy prices. On the import side, the demand boom for durable consumer goods is slowly subsiding, and the postponement of investments due to the shortage of materials is also having a dampening effect. The WIFO forecast therefore expects exports to increase by around 6% in 2022 and by just under 4% in 2023. Import growth is particularly low at 3.9% in 2022 and will only grow by around 4% in 2023, as will exports.

Key macroeconomic indicators in Austria 2020 to 2024
year to year change in %

	2020	2021	2022	2023	2024
Gross domestic product	-6.7	4.5	3.9	2.0	1.8
Private consumption	-8.5	3.3	3.9	2.3	2.3
Public consumption	-0.5	6.7	-1.6	0.1	0.7
Investment, equipment	-5.2	4.0	3.5	2.5	2.1
Investment, construction	-3.6	3.1	2.4	1.8	1.9
Exports	-10.8	12.7	6.1	3.9	3.3
Imports	-9.4	14.5	4.6	3.8	3.6

Source: Statistics Austria. WIFO-forecasts (March 2022).

Forecast risk

Although the Austrian economy seems to be quite robust now, the further course of the conflict between Russia and Ukraine will determine the future economic development. Currently, the high energy prices and the general increase in inflation are the first direct effects of the conflict, but the expansion of the sanctions (oil embargo, gas supply stop) can lead to very abrupt and large effects on the national economies. All in all, a renewed surge in prices for energy and raw materials could noticeably dampen the economic dynamics in the European countries. However, the opposite, a rapid easing of the conflict, is also conceivable, which would cause commodity and energy prices to fall rapidly. Austria procured more than 80% of its natural gas needs from Russia in 2021 (see WIFO short-term forecast). In addition to the disruptive consequences for domestic production and a further sharp rise in producer and consumer prices, a noticeable curtailment or interruption of these natural gas supplies could also bring about striking changes in behavior. The possible resulting decline in aggregate demand (consumption, investment) could once again lead the domestic economy into recession. The COVID-19 pandemic also continues to pose risks. It cannot be ruled out that the pace of infection will accelerate significantly in the autumn and that more dangerous virus variants will appear, leading to renewed restrictions on public life. In this case, local production stops would have to be expected again and again worldwide, which would cause problems in the supply chains to last even longer. In addition, the consumption options of private households would again be restricted.

3. Housing Market

Austrian residential construction has now reached a turning point. After strong increases during the dynamic population growth of the 2010s, noticeably lower growth rates are expected from 2023 at the latest. Building permits in Austria, and especially in the metropolitan areas, have been declining since 2019, and accordingly new construction will provide little growth impetus in the coming years.

Due to the high order backlog, high nominal production growth is still expected for 2022, but the high construction costs leave little real growth. However, due to the high property prices and the additional demand for detached and semi-detached houses because of the Corona pandemic, a soft landing in residential construction is more likely. In addition, renovation will compensate for part of the decline in new construction. Freed-up capacities at the construction companies could thus be used more strongly for the refurbishment and greening of the housing stock, stimulated by the high energy prices and state subsidy measures.

Population growth and residential construction activity

The population growth in 2021 was again slightly above the growth rates of the previous years; with 47,200 persons or 0.5% (comparison of the beginning of 2021 to the beginning of 2022), the growth was slightly higher than the average of the last five years (41,400). Compared to the high growth rates up to and including 2016, the current growth rates are nevertheless only moderate. Last but not least, the very different regional development is interesting, where Vienna, with 10,900 persons, continues to grow only relatively weakly – especially compared to the last 5 or 10 years – while less urbanized federal provinces show stronger growth. Carinthia, Upper Austria as well as Tyrol and Styria recorded the strongest increases in recent years.

The regional differences in population development also correspond to the shift in building permits from

multi-storey buildings to 1 and 2 family houses. The number of building permits for multi-storey construction was already in noticeable decline in the first pandemic year 2020 with -16.0%, and according to the preliminary data from Statistics Austria also recorded a decline at a comparable level in 2021 (-16.8%). Compared to the peak in 2019, with 51,100 units, the decline to 35,700 units can in any case be seen as a turning point in residential construction activity in Austria. However, these declines are partly compensated by the increased number of building permits for 1 and 2 family houses. This segment, which traditionally represents between 16,000 and 18,000 building permits per year, has already been rising since 2018, and received significant additional impetus from the pandemic in 2020 and 2021 (2020: +4.8%; 2021: +7.0%). The value of 20,800 approved units is the highest value for several decades.

For the coming years, the WIFO forecast expects declines in both segments, although these will be very weak in the area of 1 and 2 family houses (2022: -1.0%, 2023: – 1.5%), and will remain at values above 20,000 units, at least in the short term. In 2024, the segment then stabilizes again with growth of 2.4%.

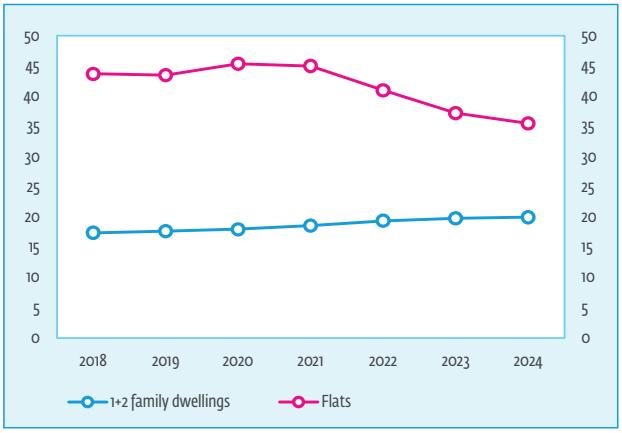
In contrast, further and stronger declines are to be expected in multi-storey construction. In 2022, initially by another 7.6% or around 2,700 units. The declines will be particularly strong in Vienna and other urban regions. In 2023, multi-storey construction will remain roughly at the level of the previous year (33,400 units or +1.3%), before a further decline of 3.5% is expected in 2024. According to the forecast, the total number of building permits will remain above 50,000 units up to and including 2024.

Regional building permits in new residential buildings
number

	2018	2019	2020	2021
Burgenland	2 135	1 808	1 912	2 061
Carinthia	2 262	2 783	2 715	3 181
Lower Austria	10 287	11 125	9 704	10 514
Upper Austria	9 434	9 502	9 142	8 857
Salzburg	2 719	2 915	3 076	2 252
Styria	9 141	10 604	10 485	7 894
Tyrol	4 979	5 397	5 201	5 491
Vorarlberg	3 174	3 349	3 279	3 308
Vienna	14 923	22 183	16 837	12 940
Austria	**59 054**	**69 666**	**62 351**	**56 498**

Source: Statistics Austria (April 2022).

Austria: Housing completion forecast
in thousands



Source: EUROCONSTRUCT (93rd Conference)

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Property prices and transactions

The overall economic uncertainty, low interest rates and the role of real estate as a low-risk investment have contributed to continued extraordinary price increases in 2021. After 7% in 2020, the OENB real estate price index even recorded double-digit growth rates of 11.8% in 2021. As in the previous year, property prices outside the urban centers rose more strongly than prices in the urban areas. Nevertheless, price growth in Vienna was also exceptionally high at 10.8%. According to the latest figures for the first quarter of 2022, this trend is continuing unabated: In a year-on-year comparison, there were also double-digit growth rates at the current margin close to those for 2021.

House prices
year to year change in %

		2019	2020	2021	2022Q1
Austria	**Total**	**3.9**	**7.0**	**11.8**	**12.3**
Vienna	**Total**	**4.9**	**6.7**	**10.8**	**11.8**
	1+2 Family Houses	3.0	13.3	8.9	11.6
	Flats	4.9	6.3	11	11.9
	New flats	5.9	6.8	10.2	12.8
	Used flats	3.8	5.9	11.5	11.3
Austria without Vienna	**Total**	**2.6**	**7.5**	**12.8**	**12.9**
	1+2 Family Houses	2.0	9.4	12.5	16.1
	Flats	2.9	6.4	13.0	11.0
	New flats	2.3	8.3	12.4	9.7
	Used flats	3.4	4.9	13.4	12.0

Source: OeNB (May 2022), DataScience Service GmbH (DSS), TU Vienna, Prof. Wolfgang Feilmayr.

Due to the strong construction activity in recent years and the high completion figures in 2021, there was a corresponding increase in real estate transactions. From 145,000 transactions in 2020 to 163,000 in 2021, the increase of 12.0% was higher than in previous years, and even stronger in terms of volume: compared to the previous year, the transaction volume rose by almost 23% to 43.2 billion euros.

Real estate transactions
volume in billion Euro

		2018	2019	2020	2021
Austria	number	129 144	138 690	145 780	163 266
Vienna		22 325	22 912	24 223	27 752
Austria	volume	31.9	34.3	35.1	43.2
Vienna		9.9	10.3	9.5	12.7

year to year change in %

		2018	2019	2020	2021
Austria	number	+6.6	+7.4	+5.1	+12.0
Vienna		+4.4	+2.6	+5.7	+14.6
Austria	volume	+13.2	+7.9	+2.3	+22.8
Vienna		+13.4	+3.4	-7.1	+32.9

Source: RE/MAX-Immospiegel/IMMOunited GmbH (March 2022). – Based on the official land register covering new and existing buildings. Transactions include all types of buildings (residential / non-residential) and land.

Housing subsidies

Housing subsidies for new construction have halted their downward trend in 2020, with the total volume of the subsidy increasing slightly above the values in 2019. Since 2013, subsidies have fallen from a total of 2.6 billion to 1.9 billion in 2019, and 2020 saw a small uptick just above 2.0 billion. The decline in volume is even larger considering the strong increase in building activity since 2011. While the large majority of new housing construction was subsidized 20 years ago, now less than 50% of the constructed units are subsidized. The favorable financing conditions allow both private households but also institutional segments like non-profit housing associations to tap cheap credit without submitting to the regulations of the subsidy schemes. At present, it is therefore not foreseeable that there will be a trend reversal in the coming years.

Residential renovation

With the ambitious EU climate goals and the corresponding plans of the Austrian government, the topic of building renovation has also come more to the fore in recent years. While the renovation of corporate buildings tends to be a matter for the federal government, residential renovation is more of a sub-national issue – not least due to the comprehensive legal competences of the federal states in the area of housing. It should be noted, however, that the federal government is making the issue more important both financially through new subsidies and through regulations such as the CO2 price.

Monitoring residential renovation is very challenging in Austria, as no consistent data sources exist. The latest estimates suggest that residential renovation, measured by the share of units renovated in total housing stock, has been on a declining path since 2009 (UBA-IIBW, 2020). In 2020, roughly 1.5% of the total housing stock has been renovated. Considering the national target of a renovation rate of 3% (mission 2030), the additional effort appears necessary.

In contrast, the new federal budget provides certain impulses, which are however aimed at the next years. Several subsidy components are to be distinguished:

1. Thermal renovation subsidy: The budget allocates additional 60 million euros in 2022 for multi-storey buildings for activities that decarbonize the building sector and increase energy efficiency. This is on top of existing subsidy schemes like the "Sanierungsscheck" for private households which amounts to 60 to 80 million euros per year.
2. Tax incentives: This completely new subsidy scheme starts with 20 million euros in 2023 and increases by 20 million euros per year. The subsidy allows costs for comprehensive thermal renovations or partial renovations such as boiler replacement to be claimed against tax. In the final phase, 180 million euros per year are earmarked.
3. Clean heating initiative: 90 million euros in 2022 and in 2023 are planned for replacement of oil and gas heating systems.
4. Replacement of fossil heating systems for low-income households: A direct subsidy of 40 million euros in 2022 and in 2023 should target low-income households specifically.

In total, expenditure on thermal renovation (in the broader sense) will increase from 80 to 217 million euros from 2020 to 2021, and to 310 million euros in 2022. From 2023 onwards, tax incentives will be added.

In addition to the federal subsidies, which have only gained in importance in recent years, there are far-reaching subsidy systems at the subnational level. Contrary to the federal trend, however, these tend to follow a downward trend. From 2016 to 2019 subsidy related expenditures have decreased from 550 to 470 million euros. From the current perspective, 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 – subnational activity might pick up.

Beyond the subsidies at national and subnational level, it remains to be seen to what extent the greening plans of the German government will find their way into further incentive systems. The CO2 price of 30 euros introduced with the tax reform is likely to have only a weak effect at first. Nevertheless, with the clear path of an increase of 5 euros per year by 2025, an increase in renovation activity can be assumed at least in the medium term. Moreover, the currently high energy prices and the envisaged switch from (cheap) Russian gas to other energy sources and providers can be considered a considerable impulse for residential renovation activity. In addition to the already existing subsidy schemes on the federal and regional level, the high energy prices make building renovations a more interesting investment. Although part of the energy price increases will likely be only temporary, the envisaged exit from Russian Gas will definitely have more lasting effects on renovation activity.

To summarize, residential renovation will see stronger increases in the next years due to additional subsidies and higher energy prices, the large backlog of orders with building companies represents a bottleneck that will only gradually lift. The decrease in building permits for new units (explained above) will free capacity with construction firms over the next years, which explains the increasing growth rates.

4. Non-residential Market

Non-residential construction was strongly affected by the impact of the pandemic in 2020. The largest declines were recorded in commercial construction (including hotels, restaurants and retail), and in industrial construction. Investments in office construction also declined strongly, but comparatively less. That is primarily due to its investment cycle, that is currently starting from a very low level. Overall, investments in total non-residential construction declined by 8.7% in 2020.

2021 was marked by a strong rebound. However, the high demand for construction works increasingly led to various difficulties. In addition to the lack of labour, identified by the construction companies as the biggest obstacle, problems became particularly apparent in the materials segment. On a first-hand, raw and building materials producer could not fulfil the strong demand. In addition, the Covid-19 crisis led to outages and disrupted supply chains continue to plague material supply. As a result, construction prices started to rise in the course of 2021 and increased significantly towards the end of 2021.

A further recovery in non-residential construction is expected in 2022. However, the current development of construction prices is having a dampening effect. Prices in total building construction rose by 8.6% in 2021. An even stronger year-on-year increase by 14.9% was observed in the first quarter of 2022 amplified by the war in Ukraine. This is a value that was last reached in the early 1970s. Non-residential construction prices also grew slightly stronger than compared to residential construction and especially civil engineering. In particular, the high prices for construction related steel products put pressure on investments. It can be assumed that due to the high construction prices, investments will partly be postponed into 2023. Construction prices are expected to peak in 2022, with a deceleration in the second half of 2022.

The recovery in non-residential construction has been supported by several public funding programmes since the outbreak of the 2020 pandemic. In addition to general economic stimulus measures, the COVID-19 investment premium for companies ("Investitionsprämie") contributed significantly to the rebound in non-residential construction. The investment premium promotes new construction and expansion of buildings that are necessary for business operations. In addition to industrial, warehouse and office buildings, new construction and extension of tourist buildings are eligible for support. The investment premium is a tax-free, non-repayable grant of 7%, or 14% in the field of greening, digitalisation and health. The investment premium has a volume of €1.5 billion in 2021 and 2022, €2 billion in 2024 and €650 million in 2024.

The Economic Stimulus Act 2020 ("Konjunkturstärkungsgesetz 2020") also created targeted investment incentives in the building sector. There is the opportunity of accelerated depreciation (AfA) for buildings that were acquired or constructed. In the year in which this is to be considered for the first time, the depreciation is three times the applicable percentage of the previous/old rate (2.5% for non-residential buildings). In the second year it will be twice as high. Thus, 7.5% can be deducted in the year of acquisition of the building and 5 % in the following year.

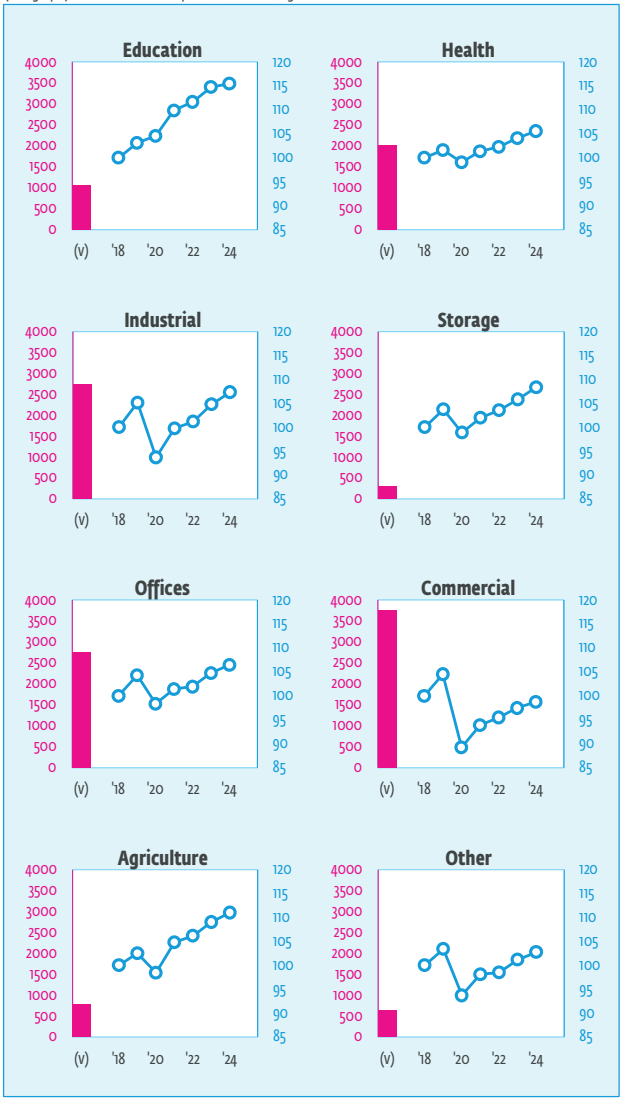
In addition to new construction, renovation in non-residential construction is increasingly being publicly funded. Within the framework of the "Investitionsprämie", around 25% of the investment volume in the first half of the year was allocated to the strategic priority area of greening. In order to achieve Austria's climate targets, the government is implementing additional measures. A renovation offensive by the federal government supports growth on two levels: (1) Companies will receive financial support for investments, and (2) the

renovation of federal buildings and cultural institutions is planned, which will also trigger higher investment activity.

Re (1): Public funding for comprehensive energy efficient building renovation and for individual energy-saving measures is available for all companies and other entrepreneurial organisations. Measures to improve the thermal insulation of buildings used for business purposes that are more than 20 years old are subsidised. The amount of funding depends on the quality of the renovation and is up to 50 percent of the eligible costs.

Re (2): Funding for thermal building renovation is provided for all Austrian municipalities. Within this initiative, also only buildings used for business purposes that are more than 20 years old will be funded. The amount of funding depends on the quality of the renovation and amounts to up to 18 percent of the eligible costs.

Austria: New non-residential forecast, breakdown by subsectors
(v) = volume 2021, million €, left scale;
(line graph) = index at constant prices, 2018=100, right scale



Source: EUROCONSTRUCT (93rd Conference)

The current rise in energy prices should also have an additional positive effect on investment. All in all, investments in renovation are expected to grow by around 3% annually in the years 2022 and 2023.

Education

New construction investments in the area of educational facilities (schools and universities) as well as in kindergartens are expected to increase further by 1.4% in 2022.

As in previous years, the impulses stem from the School Development Plan 2020 (SCHEP 2020) with a construction-related investment volume of 2.4 billion euros until 2030. The SCHEP is in general a self-commitment of politics and administration and defines the intended and necessary school construction measures in the next 10 years. Around 270 construction projects are planned at federal schools throughout Austria in this period. The focus will be on renovation and adaptation measures to improve school functions. To a lesser extent, however, new buildings are included if this becomes necessary due to the establishment of new schools (especially in metropolitan areas) or if a new building is more economical than a renovation. Currently, the biggest societal change that is considered by SCHEP is the increasing need for all-day schools. That is also strengthening investment in the school construction sector. This points to growth rates of 1.6% in 2022 and 2.8% in 2023.

Info box education

In 2021 more than one billion 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 2021 have more than doubled in the past 20 year. 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. 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.

Health

New investments in health buildings amounted to around 2 billion euros in 2021. The pandemic brought the health care system close to its limits at various times. However, the available building resources were at the end sufficient at the peak of the pandemic. This was due, among other things, to the high supply density of care facilities in the hospital sector. An OECD comparison from 2020 showed that Austria has the most acute and intensive care beds per capita after Germany.

Nevertheless, Covid-19 has led to high additional expenditure in hospitals for the operators and thus for the Länder. The shortfall in hospital revenues and the additional expenditure of the Länder in 2020 and 2021 will be compensated by the Federal Government through a fixed sum totalling 750 million euros. The revenue shortfalls are, for example, payments by the social insurance carriers to the hospitals, special-purpose subsidies by the Federal Government or revenue shortfalls due to a lower number of foreign guest patients or self-pay patients in 2020 and 2021. The payment of 750 million euros to the Länder is therefore to be made by 31 March 2022. This also increases the scope for future investments.

But the growth driver in the health sector remains the expansion of nursing and care facilities for the elderly, in addition to investments in expansion. As in the entire Austrian health system, private players are increasingly entering the market in this area.

In 2021, a year-on-year growth of around 1% is expected, which will stay at high level towards 2024 considering the ongoing need for nursing and care facilities.

Industry

The upturn in industrial construction strengthened in 2021. The sector benefited in particular from returning foreign trade in 2021. Exports increased by 12.7% in Austria in 2021 compared to the previous year. Substantial impetus also came from private consumption (+3.3%). In addition, as described at the beginning of the non-residential construction summary, public investment incentives, guarantee programmes and temporary tax deferral had positive effects on investments in industrial construction.

In 2022, industrial construction will benefit from the continuing improving economic situation. This is also reflected by the generally positive sentiment in the manufacturing industry, which is analysed in the WIFO Business Survey. In the Austrian manufacturing industry, business sentiment indicators for the current situation improved significantly in April 2022 compared to the previous month (+5.4 points) and were noticeably above the zero line that separates positive from negative economic assessments. Order books also improved slightly compared to the previous month, with around 84% of companies reporting at least sufficient order books in April 2022. Despite supply bottlenecks and higher input prices, companies expect the business situation to remain stable on balance in the coming months. Significant impulses are also coming from private consumption (+3.9%), which is forecasted to rise somewhat more strongly than in the previous year, and also from the export sector (+6.1%). Industrial construction is thus expected to grow by 1.4% in real terms in 2022. However, business uncertainty remains high in 2022 as a result of the Ukraine war and supply bottlenecks, especially in export-intensive sectors. The majority of companies expect to have to raise their prices in the coming months. Therefore, a postponement of investment towards 2023 is likely, leading to stronger growth of 3.6% next year. Due to the economic flattening in 2024, only a moderate growth of 2.4% is forecasted.

Storage

Investment in the warehouse sector developed significantly positively in 2021 with a year-on-year real growth rate of 3.2%. A significant factor was the continuing high e-commerce volume. Current analyses commissioned by the trade association indicate a turnover of 23.2 billion euros in 2021 and thus at the level of the boom year 2020. 89% of the approximately 1,350 consumers surveyed bought online in the last month – this impressively illustrates the changed shopping habits of Austrian consumers in the past years.

The demand for storage capacity has been particularly stimulated by online retail in recent years. CBRE shows that the logistics market in Vienna and Lower Austria set a new record with 150,000m2 of leased space in 2021 (+23%), with demand outstripping supply. The sharp rise in wholesale prices in 2021 combined with disrupted supply chains is also likely to cause a rethink by the industry. Overall, investment in new storage capacity is therefore expected to increase in the years to 2024 (+2.4% in 2022 and by +3.6% in 2023).

Office

Office construction fell significantly less in the year of the pandemic outbreak than compared to the other sectors in non-residential construction. However, this has less to do with the effects of the COVID-19 pandemic on office construction than with weak investment in previous years, especially in the federal capital Vienna, which influences the whole Austrian market. The relatively small decline in Austrian office construction in 2020 is therefore also related to the comparatively low level of investment in the federal capital Vienna. Vacancy rates around 4% and high level of pre-letting results in rising rents (average 14 € /m2 and 25 €/m2 and month) according to the Vienna Research Forum and CBRE.

Strong changes in the working environment due to the pandemic are currently not observed. Surveys (i.e. CBRE EMEA Office Occupier Sentiment Survey) show that only very few companies aim for a full remote solutions. However, 80% of the larger companies tend towards hybrid working models. Although this means that less office space will be needed in the future, other needs will increase. New working concepts accelerate the growth of flex-space markets. This will also lead to a higher proportion of office space used for teamwork according to CBRE.

New office construction is expected to increase by 0.5% in 2022 and stronger in 2023 (2.8%) and 2024 (1.6%) since several projects are in the pipeline.

Commerce

Investments in new commercial buildings were most affected by the crisis, exhibiting the strongest decline of 14.6% among the non-residential construction sectors. The following recovery in 2021 was also high. However, a projected growth of 5.2 % could not come close to compensating for the losses of the previous year. The recovery in 2021 was based on the economic upswing, in particular due to the strong increase in private consumption, which is forecasted to growth only slightly stronger in 2022.

Spending in the tourism sector not only stimulates commercial construction in 2022. It also becomes a pillar of the total economy in Austria. WIFO predicted that half of the expected overall economic growth of 3.9% will be in the accommodation and catering sector. However, there are several damping factors which influences investments negatively. Tourism demand from Asia and North America in particular is suffering from the war in Ukraine. This is being dampened not only by the uncertain environment in Europe, but also by the increase in air fares due to longer flight routes and the rise in the price of kerosene. Furthermore, arrivals from Russia and Ukraine are expected to be completely cancelled (post-pandemic share of overnight stays of both countries: Austria total 1.1%, Vienna 4.2%)

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 restaurants 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 highly 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.

WIFO forecasts consumer prices to rise by 5.8% in 2022, which will also have an unfavourable impact on purchasing power and thus on the retail sector. Retail trade confidence is currently also still far behind the other sectors. In the areas construction (balance: +20), industry (balance: +12) and services (balance: +17) confidence indicators are almost consistently in the double-digit positive territory on average in the first 4 months of 2022. By contrast, a negative assessment (balance: -6) predominated in the retail trade sector in that period. Despite strong fluctuation the trend is nevertheless upwards in course since the beginning of 2022.

Once more, the currently high construction prices are also expected to have an unfavourable impact on commercial construction. Overall, new commercial construction is expected to grow by 1,7% in 2022, with a forecasted stronger dynamic in 2023 with a growth rate by 2.7%.

5. Civil Engineering Market

After a slight decline in 2020 (-1.0%), investments in civil engineering increased significantly by 3.9% in 2021. In addition to the general economic upswing, various economic stimulus programmes were a significant factor that had a positive impact on civil engineering in particular.

As previously reported, the municipal investment programme of 1 billion euros in 2020, and further 500 billion euros in 2021. In addition, a new programme was listed in which the federal government will provide almost 1.9 billion euros for the Länder and municipalities from 2022 to 2025.

No major impulses are expected in road construction, because of a strong focus on public transport to achieve Austria's climate goals. The current national railway infrastructure framework plan (as of winter 2021) foresaw a further expansive construction phase in the coming years. Focal points of the new initiatives in the new framework plan are (1) Expansion of local transport in the conurbations, (2) raising attractiveness of regional railways and electrification programme (3) further expansion of infrastructure facilities for freight transport.

The energy sector will also benefit from increased investment activity because of the planned environmental measures to reduce greenhouse gas emissions and to fulfil the climate targets. More recently, the envisaged switch from Russian gas to other suppliers or other energy sources will also require additional energy investment. The current high electricity prices are leading to record profits

for electricity producers. This will also create more financial leeway for the expansion of renewable energy sources in the years to come.

In the telecom sector, further investment growth is expected due to the expansion of 5G and the goal of nationwide fast broadband internet coverage, supported by the corresponding public funding programmes behind it.

5.1 Civil engineering by sectors

Road

In 2021, around 2.2 billion euros were invested in road construction in Austria. About 50% of the total volume was spent on the road network at the municipal and state level. The other half were invested in the expansion and maintenance of highways and motorways.

Asfinag's construction programme was subject to evaluation in October 2021 under the auspices of the Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK). This evaluation concerns the new construction and expansion projects that are not yet under construction. Both ASFINAG's submitted building programme and a medium-term plan were approved at the Supervisory Board meeting on 14 December. Investments of more than seven billion euros over the next six years is therefore on the way. A major part – more than four billion euros – will be spent on maintaining the existing network. The investment of more than 2.6 billion euros in new construction is complemented by an expenditure of more than 320 million euros on sustainability, including noise protection measures.

The most important new motorway construction projects with a project volume of over 100 million euros remain unchanged compared to the previous report. Those with a construction start between 2020 and 2024 are:

Most important new highway construction projects
Project volume > €100 mill., start of construction between 2021 and 204

Project name	Start	End	Volume
Burgenland – S 4 Mattersburger Schnellstraße	2021	2024	€143 m
Lower Austria – S 8 Marchfeld Schnellstraße	2021	2024	€310 m
Lower Austria – 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

Depending on the ongoing legal procedures (e.g. environmental impact assessments), additional, larger projects could be added during this period. In 2022, total road transport investment in Austria is forecasted to remain on the same level as in 2021 (+0%). From today's perspective, the tight budgetary situation, especially on federal and municipal area might lead to a minor decline in 2023 (-0.9%).

Rail

The current Austrian railway framework plan 2022 to 2027 was decided in November 2021. The new programme volume amounts to 18.2 billion euros and is therefore 700 million euros higher than compared to the previous (+4%). The railway framework plan includes, among other things, the financing of the planning for the double-tracking of the Tullnerfeld railway between Herzogburg and St.Pölten. The planning for the double-track extension of the Werndorf-Spielfeld-Straße line is also being brought forward and the extension of the Pyhrnachse is being prepared. Likewise, the plans from Kirchdorf an der Krems to Micheldorf have now been secured.

A further new priority is the expansion of the Brenner corridor. It is also addressed in the ÖBB framework plan, which is why another focus is on the Brenner northern approach. The financing for the construction of the four-track extension in the Lower Inn Valley has been deposited. In addition, some junction stations are to be expanded in order to be able to accommodate additional or longer trains and more passengers in the future.

Another goal of the new railway framework plan is to increase the attractiveness of regional railways, and the electrification programme will also be continued. Independently of the mentioned plan, the medium-term investment programme for private railways was adopted in the budget 2022. This has an investment volume of 123.5 million euros in the year and 488.1 million euros in the years 2022-2025.

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 could be 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.

Taking these programmes into account, investment is expected to increase by 3.8% in 2022 and by 2.7% in 2023. From 2024 onwards, however, investments are expected to decline in view of current plans (-1.3%)

Telecommunication

A further increase by 3.5% in telecom investments in expected in 2022 with a focus on expanding and creating nationwide broadband internet coverage. The general conditions have not changed since the last forecast in November 2021. Only about 40% of the population has gigabit-capable connections throughout Austria. With connections of over 100 Mbit/s, about 80% of the population can be supplied.

To achieve nationwide high-speed broadband coverage, a programme was presented by the government in 2021. Within the support programme, called "Broadband Turbo", public funds of 1.4 billion euros are to be made available in the period 2021 to 2026. The funding comes on the one hand from the EU's Resilience Fund (891 million euros) and the proceeds of the 2019/20 frequency auctions (389 million euros), while the remaining 166 million euros were already earmarked in the budget.

The funding is to be used primarily to prioritise underserved municipalities. In addition to wired internet coverage, 5G network expansion is also another focus area. The programme is currently in the consultation phase. The notification of the projects by the EU is also still pending. In the budget 2022, federal funding is granted to support the achievement of the objectives on the basis of four special guidelines in the form of non-repayable grants:

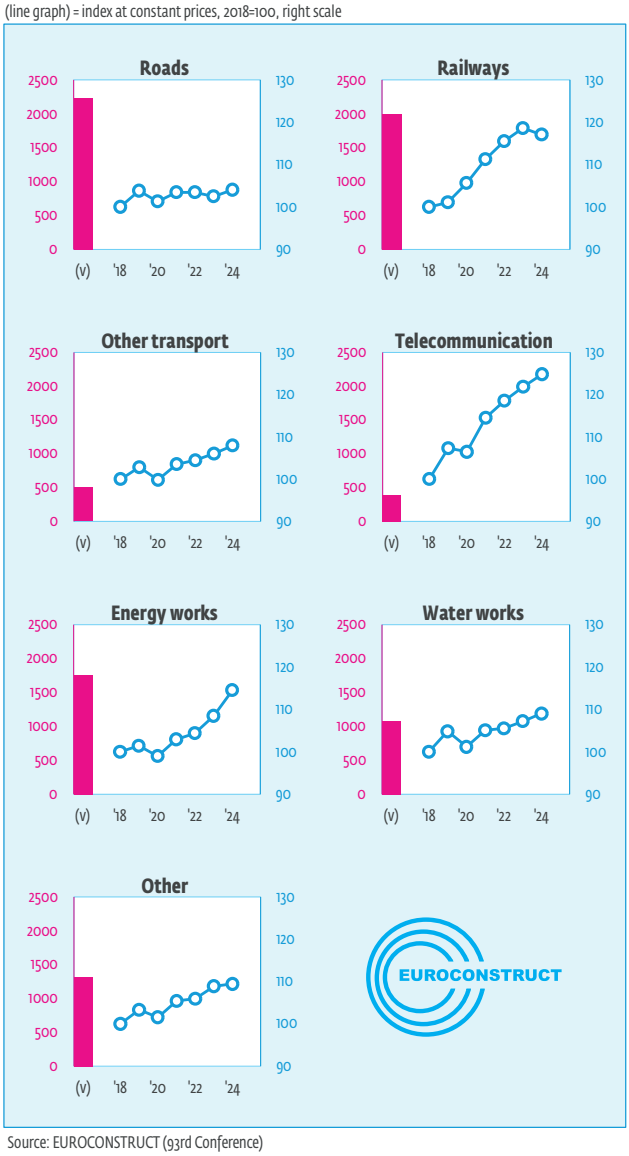
1. „Broadband Austria 2030 Access" (focus on the mainly rural expansion of high-performance access networks)
2. Broadband Austria 2030_Open NET" supports the nationwide availability of open access networks
3. „Broadband Austria 2030 GigaApp" supports the objective of the Broadband Strategy 2030, by promoting regional lighthouse projects for research and technology for gigabit applications.
4. The "Broadband Austria 2030 Connectivity Funding Programme" aims to achieve the availability of symmetrical gigabit access by the year 2030 in areas with a particular socio-economic focus

A total of 1.4 billion euros is available for the nationwide broadband expansion in the period 2021-2026 leading to an ongoing expansion of telecom investments in the whole forecasting period to 2024. The pandemic led to increased demand for broadband connections, which is reflected in increased sales and investment commitments by providers. The forecast for 2023 and 2024 has therefore been slightly increased to 2.8% and 2.4% respectively.

Energy

In the energy sector, the investment focus is on the expansion of renewable energy sources. The original government's goal for 2030 is to cover 100% of electricity demand from renewable energy sources and to make Austria climate-neutral by 2040. This could be significantly accelerated by the current high-price phase. A massive increase in primary energy prices on the international procurement markets was already evident in 2021. The Ukraine war has further accelerated the dynamics. In the first quarter of 2022, electricity prices doubled compared to the previous year. For Austrian electricity producers, this also goes hand in hand with a significant increase in sales revenues, as electricity is mainly generated from hydropower where production costs have hardly changed. This provides the financial leeway for the urgently needed increased expansion of renewable energy sources and therefore a stronger investment volume of about 3.9% and 5.6% in 2023 and 2024% is expected. Moreover,

Austria: Total civil engineering forecast, breakdown by subsectors
(v) = volume 2021, million €, left scale;
(line graph) = index at constant prices, 2018=100, right scale



Source: EUROCONSTRUCT (93rd Conference)

the political aim to substitute Russian gas with other energy sources or gas providers will necessitate higher energy investments over the next years.

Info box: 2030 energy goals.
The Austrian public plan is to increase annual electricity generation from renewable energies by 27 terawatt-hours (TWh) while observing strict ecological criteria. Of this, 11 TWh is to come from photovoltaics, 10 TWh from wind power, 5 TWh from hydropower and 1 TWh from biomass. Another declared goal is to ensure investment security for existing and future renewable gas production plants. The share of nationally produced renewable gas in Austrian gas sales is to be increased to 5 TWh by 2030. These measures need further political action which, in the current environment of high energy prices, could be increasingly tackled in the next few years.

The budget 2022 additionally promotes the expansion of renewable energies with a volume of 61.5 million euros, and with 181.5 million euros in the financial framework 2022-2025. In addition to the Renewable Energy Expansion Act already passed in July 2021, which forms the basis for the transformation to a nationally balanced 100% electricity supply from renewable energy sources, funds are also flowing directly from the federal budget into the expansion of fossil-free energy sources. To achieve the target, support instruments for future renewable electricity and gas supply will be made available both as operating subsidies in the form of sliding market premiums and investment grants.
Within the framework of the Renewable Energy Expansion Act, a service point for renewable gases will be implemented for the first time and the establishment of energy communities will be made possible. The latter is intended to make a significant contribution to promoting decentralised supply. In addition, the integrated Austrian Network Infrastructure Plan (ÖNIP) into the Renewable Energy Expansion Act plays a central role. It is intended to create the energy infrastructure needed to achieve the 2030 targets and to continue to ensure the security of supply. In addition to the Renewable Energy Expansion Act, the Energy Efficiency Act, which implements the EU Directive 2018, will have another strong impact on the framework conditions of the sector, especially in the areas of heating and mobility, where the opportunity for efficiency increases through electrification.

Water

Investment in water infrastructure is expected to grow at a low rate of 0.4% until 2022. Although the connection rate in Austria is well above 90 %, the required initial installation in rural areas has not yet been completed regionally. In the conurbations, especially in the outer urban zones, this initial installation will remain a permanent process due to demographic change (i.e. an increase in population as a result of immigration).

However, the maintenance of the aging infrastructure poses a much greater challenge. Given the age of the facilities, reinvestment is an increasing financial burden for the operators. According to the Federal Ministry of Agriculture, Regions and Tourism about one third of the public drinking water pipelines in Austria (i.e. approx. 26,000 km) are older than 50 years. These pipelines have therefore reached an age at which appropriate rehabilitation measures are necessary. In addition, reinvestments in water catchments, water tanks and treatment are necessary. In the case of public sewers in Austria, about 13% (i.e. approx. 12,000 km) are older than 50 years. These canals therefore need to be rehabilitated. Furthermore, reinvestment in sewage treatment plants is necessary.

Federal subsidies promote investments in the sector. Within the framework of the financial equalisation scheme, which was extended from 2021 to 2023, an additional 80 million euros per year have been earmarked for the urban water management sector in the upcoming two years. The focus of subsidy activities, which in recent decades has been on the construction of the necessary infrastructure, will shift significantly towards value maintenance and rehabilitation in the future. This will lead to low but steady growth in the water sector until 2024 with annual year-on year growth rates of slightly above 1.5%.

APPENDIX – DEFINITIONS

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 WIFO/EUROCONSTRUCT May 2022 forecasts. 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/EURCONSTRUCT May 2022 forecasts based on ESA 2010 (correspondently also Tables 4a and 4b).
- Data for cement consumption is partly 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 2021 stem from official data (April 2022) 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 completion.
- **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 higher housing stock.
- **Second homes. Vacancies:** WIFO forecasts based on Statistics Austria.
- **Homeownership 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** include the construction of distribution lines for electricity as well as integral parts (e.g. related buildings such as power plants).
- **Water works** include 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 Economic forecasts of WIFO/EUROCONSTRUCT May 2022 forecasts. Data stem 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 that 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

					Forecast		Outlook
	2018	2019	2020	2021	2022	2023	2024
Population ('0000s) **Population** **Bevölkerung**	8 822	8 859	8 901	8 933	8 989	9 033	9 070
Households ('0000s) **Ménages** **Haushalte**	3 903	3 935	3 966	3 996	4 027	4 056	4 080
Unemployed ('0000s) **Chômeurs** **Arbeitslose**	312	301	410	332	277	272	265
Unemployment rate (%) **Taux de chômage** **Arbeitslosenquote**	5.2	4.8	6.0	6.2	4.9	4.7	4.6
Change of GDP **Variation du PIB** **Veränderung des BIP** **(% change in real terms)**	2.5	1.5	-6.7	4.5	3.9	2.0	1.8
Consumer prices (% change) **Prix à la consommation** **Verbraucherpreise**	2.0	1.5	1.4	2.8	5.8	3.2	2.5
Construction prices (% change) [1] **Prix de la construction** **Baupreise**	2.8	3.1	2.6	5.3	8.2	6.0	4.5
Short term interest rate [2] **Taux d' intérêt à court terme** **Kurzfristiger Zinssatz**	-0.3	-0.4	-0.4	-0.5	-0.4	0.3	0.5
Long term interest rate [3] **Taux d' intérêt à long terme** **Langfristiger Zinssatz**	0.7	0.1	-0.2	-0.1	0.6	1.0	1.2

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

AT

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)						
							Forecast		Outlook
		2021	2018	2019	2020	2021	2022	2023	2024
Residential construction **Logement** **Wohnungsbau**	New	16 143	3.5	4.8	-0.8	1.9	0.6	-1.0	-0.5
	Renovation	6 964	2.4	3.9	0.0	2.3	1.1	1.5	2.1
	Total	**23 107**	**3.2**	**4.5**	**-0.6**	**2.0**	**0.8**	**-0.2**	**0.3**
Non-residential construction **Bâtiments non résidentiels** **übriger Hochbau**	New	14 014	4.9	3.9	-8.4	4.6	1.2	2.6	1.6
	Renovation	3 896	7.2	3.8	-9.7	2.8	2.1	3.0	1.4
	Total	**17 909**	**5.4**	**3.9**	**-8.7**	**4.2**	**1.4**	**2.7**	**1.6**
Building **Bâtiment** **Hochbau**	New	30 157	4.2	4.4	-4.4	3.1	0.9	0.7	0.5
	Renovation	10 860	4.2	3.9	-3.7	2.5	1.5	2.0	1.8
	Total	**41 016**	**4.2**	**4.2**	**-4.2**	**3.0**	**1.0**	**1.0**	**0.9**
Civil engineering **Génie civil** **Tiefbau**	New	7 439	13.5	2.7	-1.1	4.2	1.2	1.4	1.5
	Renovation	1 833	9.1	3.7	-0.6	2.7	2.2	3.9	2.0
	Total	**9 272**	**12.6**	**2.9**	**-1.0**	**3.9**	**1.4**	**1.9**	**1.6**
TOTAL CONSTRUCTION OUTPUT		**50 289**	**5.6**	**4.0**	**-3.7**	**3.1**	**1.1**	**1.2**	**1.0**

	2021					Forecasts		Outlook
	Volume mill. tons	2018	2019	2020	2021	2022	2023	2024
Domestic cement consumption **Consommation intérieure de ciment** **Inländischer Zementverbrauch**	5.40	7.4	3.2	-2.1	3.3	1.9	2.1	1.5

Renovation covers repair and maintenance, refurbishment and reconstruction.
1) At 2021 prices, excluding taxes.

Country/Pays/Land: Austria — Table 3

RESIDENTIAL CONSTRUCTION
CONSTRUCTION DE LOGEMENTS
WOHNUNGSBAU

		Thousands dwellings						
						Forecast		Outlook
		2018	2019	2020	2021	2022	2023	2024
Building permits **Logements autorisés** **Baugenehmigungen**	1+2 family dwellings Individuels 1+2-Familienhäuser	18.2	18.5	19.4	20.8	20.6	20.3	20.7
	Flats Collectifs Mehrfamilienhäuser	40.9	51.1	42.9	35.7	33.0	33.4	32.3
	Total	**59.1**	**69.7**	**62.4**	**56.5**	**53.6**	**53.7**	**53.0**
Housing starts **Logements commencés** **Baubeginne**	1+2 family dwellings Individuels 1+2-Familienhäuser	17.0	17.4	18.0	19.1	19.6	19.4	19.5
	Flats Collectifs Mehrfamilienhäuser	44.8	43.7	44.7	37.4	32.6	31.6	31.2
	Total	**61.8**	**61.1**	**62.7**	**56.5**	**52.2**	**51.0**	**50.7**
Housing completions **Logements terminés** **Baufertigstellungen**	1+2 family dwellings Individuels 1+2-Familienhäuser	17.4	17.7	18.0	18.6	19.4	19.8	20.0
	Flats Collectifs Mehrfamilienhäuser	43.7	43.5	45.4	45.0	41.0	37.2	35.5
	Total	**61.1**	**61.2**	**63.4**	**63.6**	**60.4**	**57.0**	**55.5**
Housing stock **Logements existants** **Wohnungsbestand**	**Total**	**4 767**	**4 826**	**4 888**	**4 950**	**5 008**	**5 063**	**5 117**
	thereof second homes dont résid. secondaires davon Zweitwohnungen	273	277	280	284	287	290	294
	thereof vacancies dont inoccupés davon leerstehend	238	241	244	247	250	253	256
	share of family dwellings (%) part des maisons individuelles Anteil 1+2-Familienhäuser	46.5	46.2	45.9	45.6	45.3	45.1	44.9
Home ownership rate [1] **Taux de propriétaires occupants** **Wohneigentumsquote**		53.1	53.0	52.8	52.5	52.2	52.0	51.9

1) Cf. Appendix to the individual country report.

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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)						
							Forecast		Outlook
	2021	2021	2018	2019	2020	2021	2022	2023	2024
Buildings for education **Bâtiments de l'éducation et de la recherche** **Gebäude des Bildungswesens**	1 066		3.5	3.1	1.4	5.1	1.6	2.8	0.6
Buildings for health **Bâtiments de santé** **Gebäude des Gesundheitswesens**	2 019		1.9	1.6	-2.5	2.3	0.9	1.8	1.4
Industrial buildings **Bâtiments industriels** **Industriegebäude**	2 728		13.8	5.1	-10.9	6.5	1.4	3.6	2.4
Storage buildings **Bâtiments de stockage** **Lagergebäude**	287		3.1	3.7	-4.7	3.2	1.5	2.2	2.4
Office buildings **Bureaux** **Bürogebäude**	2 761		3.9	4.3	-5.7	3.1	0.5	2.8	1.6
Commercial buildings **Commerces** **Geschäftsgebäude**	3 758		1.7	4.5	-14.6	5.2	1.7	2.1	1.3
Agricultural buildings **Bâtiments agricoles** **Landwirtschaftsgebäude**	768		4.5	2.5	-4.0	6.5	1.3	2.7	1.8
Miscellaneous **Autres** **Sonstiges**	628		7.9	3.4	-9.4	4.7	0.4	2.7	1.6
TOTAL	**14 014**		**4.9**	**3.9**	**-8.4**	**4.6**	**1.2**	**2.6**	**1.6**

1) At 2021 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)						
							Forecast		Outlook
		2021	2018	2019	2020	2021	2022	2023	2024
Transport infrastructure **Infrastructures de transport** **Verkehrsinfrastruktur**	Roads Réseau routier Straßen	2 234	5.2	3.8	-2.4	2.1	0.0	-0.9	1.5
	Railways Voies ferrées Bahnanlagen	2 000	16.1	1.1	4.5	5.3	3.8	2.7	-1.3
	Other transport Autres réseaux Übrige Verkehrsinfrastruktur	498	11.9	2.8	-2.9	3.7	0.9	1.5	1.8
	Total	**4 732**	**10.1**	**2.6**	**0.3**	**3.6**	**1.7**	**0.9**	**0.3**
Telecommunications **Télécommunications** **Telekommunikation**		391	14.7	7.3	-0.8	7.6	3.5	2.8	2.4
Energy works **Réseaux d'énergie** **Energieversorgung**		1 758	13.5	1.4	-2.4	4.0	1.4	3.9	5.6
Water works **Réseaux d'eau** **Wasserversorgung**		1 076	18.5	4.8	-3.5	3.9	0.4	1.6	1.7
Other **Autres** **Sonstiges**		1 316	15.4	3.3	-1.7	3.8	0.5	2.8	0.5
TOTAL		**9 272**	**12.6**	**2.9**	**-1.0**	**3.9**	**1.4**	**1.9**	**1.6**

1) At 2021 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)						
						Forecast		Outlook
	2021	2018	2019	2020	2021	2022	2023	2024
Private consumption[2] **Consommation privée** **Privater Verbrauch**	201.2	1.1	0.7	-8.5	3.3	3.9	2.3	2.3
Public consumption **Consommation publique** **Staatsverbrauch**	86.6	1.2	1.5	-0.5	6.7	-1.6	0.1	0.7
Gross fixed capital formation **Formation brute de capital fixe** **Bruttoanlageinvestitionen**								
Total	103.1	4.4	4.8	-5.2	4.0	3.5	2.5	2.1
of which construction	49.3	5.6	4.0	-3.6	3.1	2.4	1.8	1.9
Stocks (contribution as % of GDP)[3] **Variations de stocks** **Vorratsveränderungen**	8.1	1.6	0.4	0.7	2.0	2.6	2.6	2.6
Exports **Exportations** **Exporte**	225.7	5.1	3.4	-10.8	12.7	6.1	3.9	3.3
Imports **Importations** **Importe**	222.0	5.3	2.0	-9.4	14.5	4.6	3.8	3.6
GDP **PIB** **BIP**	**403.4**	**2.5**	**1.5**	**-6.7**	**4.5**	**3.9**	**2.0**	**1.8**

Standard National Accounts, gross figures.

1) At 2021 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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