89th Euroconstruct Conference: European Construction Market Outlook until 2022 – Austrian Construction Market in the Shadow of the COVID-19 Pandemic

Country Report Austria

Michael Klien, Michael Weingärtler

June 2020
Austrian Institute of Economic Research

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The soft landing of the Austrian economy was abruptly ended by the deep recession caused by the COVID-19 pandemic and the policy restrictions to contain it. Despite this external shock, the general conditions for the Austrian construction industry are not all pessimistic. Even after peaking in 2018, the industry produced growth rates well above 2 percent before the COVID-19 pandemic, with a large backlog of orders for 2020. Although the construction industry will be in recession in 2020, the output drop is less pronounced than in other sectors. Moreover, currently demand has suffered only to a lower extent, which means that the recovery can begin as early as the second half of 2020.

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1. Summary and Conclusions

The soft landing of the Austrian economy was abruptly ended by the Coronavirus. Due to the official measures to combat Covid19, Austria will fall into a deep recession in 2020. However, assuming a relatively rapid normalization, with a V-shaped recovery, there will already be a noticeable improvement in economic conditions in 2021.

From the point of view of the individual components, the Corona shock is reflected above all in foreign trade and investments. Both areas are heavily dependent on international trade, which has been severely affected by the Corona crisis. Due to monetary and fiscal policy measures (such as short-time work and tax deferrals or aid loans), policymakers are trying to react to the supply shock and avoid a general weakness in demand.

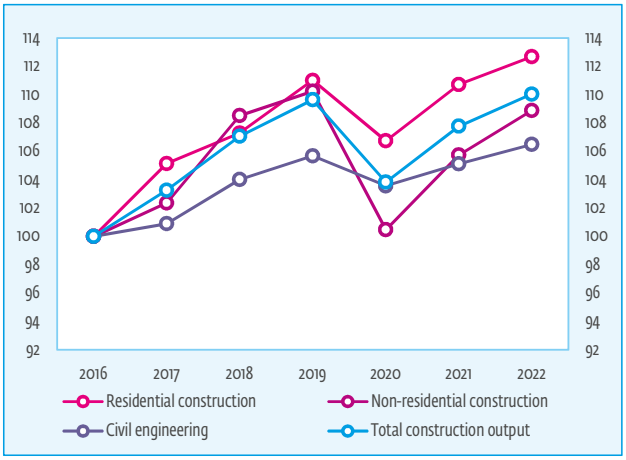
The current crisis is also a drastic experience for the **Austrian construction industry**, although the general conditions are optimistic. Before Corona, the construction industry was in extremely good shape, with a large backlog of orders and continuous growth rates. Although the construction industry will also be in recession in 2020 (-5.3%) due to the closure of construction sites, this is less pronounced than in other sectors of the economy. Moreover, from a current perspective, demand has suffered only to a lower extent, which means that the recovery can begin as early as the second half of 2020.

Residential construction remains particularly robust, with repeated high growth in 2019. The decline in population growth and in building permits is therefore only having a very slow impact on residential construction. In 2020, however, the construction site closures in March and general production restrictions caused by the virus will be reflected in a negative growth rate of 3.8%. For the following years, however, continuous, albeit weaker, contributions to growth can be expected. Due to economic policy impulses in the wake of climate change, a relatively stronger development is to be expected in the area of refurbishment.

The previous forecasts already anticipated an economic slowdown in Austrian **non-residential construction** in 2020. The Corona crisis accelerated the development drastically, especially in the new building segment where a strong decline of 10% on average is expected. The extent to which the sub-segments are affected varies. Commercial construction, including above all the restaurant and hotel sector, has been hit hardest by the decline

Total Construction Output by Sector from 2016 to 2022

index 2016=100



Source: EUROCONSTRUCT (89th Conference)

in production as a result of the shutdown, which lasted longest in these sectors and where confidence lacks most. Investments will therefore drop in 2020 and the rebound will be comparatively slower in the upcoming years. Sharp declines are also expected in office construction. The investment cycle in this segment flattened significantly before Covid19, since large development areas were completed in the capital Vienna, Austria's largest office market. A lack of international demand, falling private consumption and rising unemployment will also lead to heavy losses in industrial construction. Only the educational construction sector, which will benefit from the newly launched school development programme 2020, and the hospital construction sector, which will benefit from the increasing ageing of the population and the resulting higher necessity for care capacities, can expand the construction volume in the upcoming years to 2022.

In **civil engineering**, the expansion of the traffic network was expected to lead to a strong upturn in production in 2020 and in the following years. However, as a result of the Coronavirus, construction sites were temporarily closed and construction volumes in road infrastructure are expected to decline. Lower financial strength, due to toll revenue declines also contributes to this slowdown. By contrast, despite the widespread construction stops, production in the rail infrastructure sector is expected to expand further. In the energy and water sectors, however, there will be significant declines in 2020 due to revenue shortfalls, project delays and the reduced earnings situation at the municipal level. However, in the underlying scenario of a quick recovery – civil engineering will grow again in the following years mainly because of public investments in the transport sector.

Coronavirus in Austria

As of 16.03.2020, essential parts of social and economic life were subject to official restrictions in order to combat the Coronavirus. This first shut-down basically covered all areas where human interaction and thus a risk of disease transmission occurs:

- Trade
- Services, e.g.
- Restaurant
- Hotel industry
- Personal services like massage or hairdresser
- Leisure, culture and sports businesses, e.g. cinema, theatre, museums, sports facilities

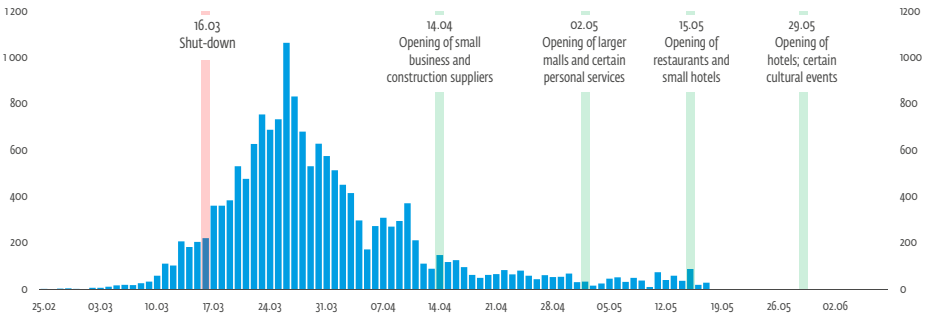
In addition, border closures or compulsory quarantine measures were introduced when crossing the border, which largely halted cross-border activities (apart from the delivery of goods).

As infection rates declined rapidly in the course of March and early April, the Federal Government decided to re-open social and economic life in stages. Starting with 14.4, the following easing measures were implemented:

- 14.04: Smaller shops and DIY stores were allowed to reopen (with access restrictions).
- 02.05.: Larger shops were also allowed to reopen. Providers of (certain) personal services such as hairdressers may resume operations.
- 15.05.: Restaurants and pubs as well as smaller accommodation facilities may open.
- 29.05. onwards: larger hotels may also reopen. Cultural events for up to 100 people (indoor and outdoor) are also permitted again from then on.

For larger events such as festivals, trade fairs, sporting events, etc. as well as cross-border passenger transport, especially air travel, the restrictions will remain in place for the time being.

Number of Covid19 cases in Austria over time and public measures taken



Source: Federal Ministry of Social Affairs, Health, Care and Consumer Protection (Coronavirus Dashboard), May 2020.

To understand the effect of Covid19 on the construction industry, it is important to distinguish between supply and demand shocks. In Austria, there were extensive voluntary closures of construction sites in the last two weeks of March to fight the pandemic. The large-scale resumption of construction site activity was reported at the end of March and the beginning of April following agreement between the social partners. These restrictions, as well as problems on the production side such as a lack of labour and materials, must be interpreted as a supply shock caused by the pandemic. In addition, there is some evidence of a demand shock from the pandemic, due to the cancellation or postponement of construction contracts. However, from today's perspective, the supply shocks caused by the pandemic are the main limiting factor that will also determine the growth rates for 2020.

As described in the section on macroeconomic development, the macro-forecasts for Austria do not expect a far-reaching weakness in demand in the wake of the pandemic. These forecasts assume of a fairly rapid normalization in the sense of a V-shaped economic recovery. However, due to the high level of uncertainty, more pessimistic economic scenarios are conceivable, which above all envisage a slower recovery in 2021 (see following overview).

Overview: WIFO mid-term forecasts

	2020	2021	2022
GDP – main scenario	-5.2%	3.5	1.9
GDP – pessimistic scenario	-7.5%	1.2	2.3

Source: WIFO (April, 2020).

Due to the high level of orders and the favourable framework conditions, residential construction has been hit below average by the Corona crisis. Supply-side constraints are mainly reflected in the closure of construction sites, resulting in a decline of 5.3% in 2020. However, a substantial part of these losses should be compensated for as early as 2021. Nevertheless, growth rates will remain below those of recent years until 2022.

Non-residential construction was hit hardest by the crisis. On the one hand, economic sectors that are essential for construction demand were closed for a much longer period, especially the restaurant and hotel industry. The latter remained closed for almost 8 weeks. In addition to drastic slumps in sales, this also led to insolvencies with corresponding negative consequences for demand for new commercial construction. The further trend in the tourism sector is currently still difficult to assess, but it can be expected that the recovery will be slower than in the other economic sectors. In industrial construction, on the other hand, it is assumed that the slump will be severe, but that investment in the construction industry will also return once the economy as a whole recovers. Only the publicly financed sectors should come through the crisis largely unscathed.

The development of civil engineering is primarily determined by traffic infrastructure investments. Due to Covid19, there will be substantial declines in road construction, as the truck mileage on motorways fell by 30% at the beginning of the crisis and it is expected to fall by 15% on average over the year 2020. This will reduce toll revenues accordingly (-500 million Euro) and thus the scope for investment. In addition, a reduced investment volume is also expected due to reduced financial leeway at municipal level. Although there have been some delays in the rail infrastructure sector, it is expected that investments in this area are further expanded, since most of the construction work continued. On the other hand, energy and water management will significantly reduce the volume of investment due to loss of revenue and pressure to save at municipal level.

2. Macro-economic Outlook

The growth of the Austrian economy already slowed down noticeably in the course of 2019. In line with the downturn in the international economy, the mood in industry in particular turned negative in the second half of the year. In contrast, the construction industry and parts of the service sector proved to be very robust. The relatively soft landing of the Austrian economy thus continued in 2019.

This picture changed abruptly in March 2020, with the occurrence of Covid19 in Europe and with measures that were taken to contain the virus. These measures had a very rapid and direct impact on the affected sectors. Initially, the sectors of accommodation and catering, transport, but also large parts of trade and services were particularly hard hit.

However, for Austria as a small, very open economy, it is not only the measures effective at home that are decisive, but also the restrictions and the depth of the recession in the most important trading partner countries. The five most important trading partners (regions) traditionally account for 85% of Austrian exports.

In the main variant of WIFO's Medium-Term Forecast (Baumgartner et al., 2020), a recession is assumed for all five main trading partners in 2020, followed by a V-shaped imperfect rebound, since the production level of the starting year 2019 will not (yet) be reached in the year after the recession. For the period 2022 to 2024 a slow return to trend growth is assumed. Based on the average rate of change weighted by Austrian export shares for the five main trading partners mentioned above, the economy of this group of countries shrinks by 5% in 2020 and grows by 3.5% in 2021. In the following years the average growth flattens out to 1½% p.a.

Another key element of the assumed economic scenario is the assumption regarding the future direction of monetary and fiscal policy. Monetary policy in the Euro area was made more expansionary again from autumn 2019 onwards due to the economic slowdown. In the wake of the Corona crisis, the Governing Council also decided on 18 March to launch the Pandemic Emergency Purchase Programme (PEPP) as monetary policy support to counter the extraordinary decline in economic activity in the Euro area as a result of the Covid19 crisis. The PEPP comprises a temporary purchase program of 750 billion Euro for bonds issued by public and private borrowers. Under these new conditions, an increase in key interest rates is not expected before 2023.

On the fiscal policy side, there was an early political commitment to extensive financial assistance (Whatever it takes). The original Corona emergency aid of 4 billion Euro was increased in March to a total volume of 38 billion Euro: 15 billion Euro of the increase was accounted for by the Corona relief fund, 9 billion Euro by guarantees and warranties, and 10 billion by tax deferrals. These measures are primarily intended to bridge the crisis period for companies and employees. Additional stimulus measures, which may also support the construction industry, will not be announced until the coming weeks and months.

Under these circumstances, the main forecast scenario is a -5.2% real GDP decline in 2020 (see table "Key Macroeconomic Indicators"). In 2021 a rebound of 3.5% is forecasted in this scenario and in the following years growth rates between 1.9% and 1.4%, but with a downward trend. In the following sections, the details of this forecast are explained.

Key Macroeconomic Indicators in Austria 2018 to 2022
annual percentage change, real terms

	2018	2019	2020	2021	2022
Gross domestic product	2.4	1.6	-5.2	3.5	1.9
Private consumption	1.1	1.4	-2.9	3.1	1.7
Public consumption	0.9	0.9	5.3	-1.0	0.9
Investment, equipment	4.1	3.3	-11.6	5.2	3.0
Investment, construction	3.7	2.4	-5.3	3.8	2.1
Exports	2.0	1.5	0.9	1.3	1.4
Imports	5.9	2.7	-12.0	8.8	3.5

Source: Statistics Austria. WIFO-forecasts (March/April 2020).

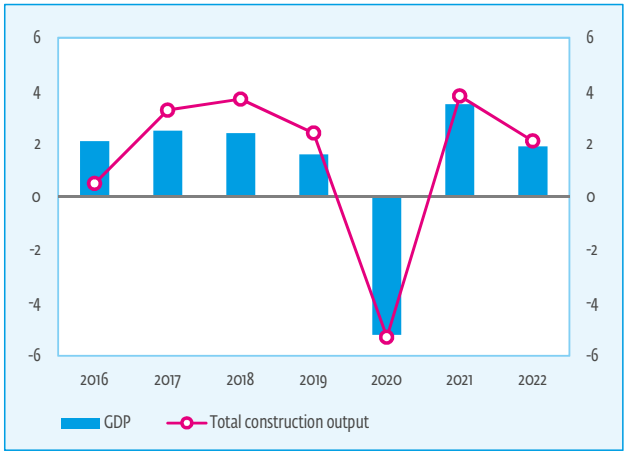
Foreign Trade. The recovery in exports that had begun at the beginning of the year was interrupted by the Covid19 pandemic. Especially in the first half of 2020, exports will decline massively. Supply bottlenecks in the area of imported primary products, but also health policy measures, are affecting domestic production on the supply side and thus restricting exports of goods. At the same time, the global drop in demand is weighing on domestic exports. In addition, travel restrictions and border controls hamper the delivery of export goods and the export of services, the latter particularly affecting tourism.

Exports of goods are expected to pick up gradually from as early as the third quarter of 2020, when restrictions on international trade will be removed and global demand will pick up again. In 2021, exports of goods and services, including travel, are expected to pick up again. In addition

to demand-side catch-up effects, driven by global demand growth, a reduction of supply-side barriers will promote high export growth.

Consumption. Due to its high share of demand (a good half of GDP), private consumption usually has a stabilising role in the economy: in weak phases it supports demand, while in high phases stable consumer behaviour dampens a certain overheating. However, the effects on private consumption caused by the Covid19 recession do not follow this pattern. The negative supply shock (temporary closure of most retail and service outlets) reduced consumption opportunities very immediately and to a considerable extent. As a result, private household spending will fall sharply in 2020 (especially in Q2; real 2.9% in 2020).

GDP and Total Construction Output from 2016 to 2022
year to year change in %



Source: EUROCONSTRUCT (89th Conference)

Given the assumed gradual lifting of most factory closures between mid-April and the end of June, a recovery should set in from the third quarter 2020 onwards. In 2021 this will enable a strong growth (rebound) in consumption of 3.1%. In the forecast years that follow, consumption will again be driven by the development of disposable household income; WIFO expects average annual real consumption growth of around 1½%. The short-time working allowance will help to stabilize incomes in 2020, so that the propensity to save will increase significantly due to the forced renunciation of consumption or the cautious approach to consumption.

Investments. Investments in equipment will be particularly hard hit by the massive decline in value added in 2020. There are currently both supply-side and demand-side obstacles to investment. The interruption of international value chains is having a considerable impact on the production of capital goods at home and abroad. The disruption of supply chains or production stoppages put a strain on companies' cash flow. The loss of orders also weakens the earnings situation and the willingness of many companies to invest. Due to the uncertainty about the further course of the Covid19 recession, already planned investment projects tend to be postponed. In this environment, a decline in demand for equipment investments by 11½% is expected in 2020. Despite a recovery in economic output in 2021, investment in equipment and software will increase at a comparatively modest rate (+5¼%) and remain weak until the end of the forecast period.

Construction investment are also be restricted in 2020, but to a much lesser extent than equipment investment. The losses affect all construction sectors, but especially commercial buildings. With the sharp decline in equipment investment, fewer additional buildings will be required or projects will be postponed, especially in the corporate sector. At the same time, there are instances of a shortage of labour and building materials, mainly due to the closing of the borders to the neighbouring countries of Central and Eastern Europe. Civil engineering should be less affected by the recession, as it follows medium to longer-term investment plans with large parts of public funding. Demand for housing is likely to remain strong, especially in cities and areas close to cities, and thus residential construction activity is unlikely to be reduced. Overall, total construction investment is expected to fall by 5¼% in 2020 and recover to just under +4% in 2021. By 2024, an average annual growth in construction investments of 1½% is expected.

Outlook and forecast risk. The present macroeconomic scenario is based on the assumption of a V-shaped economic cycle. The shortfall of production and demand, which was experienced almost simultaneously in many countries, places an enormous burden on the global economy. In the current environment of extraordinary uncertainty, WIFO has also estimated a pessimistic economic scenario. This simply reflects the fact that downward risks currently have a much higher probability of occurrence than upward risks. The main results of this scenario are presented in the following table:

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

	2019	2020	2021	2022
Gross domestic product, real growth	1.6	-7.5	1.2	2.3
Employment, growth rate	1.6	-2.5	1.1	1.7
Unemployment rate (Eurostat def.)	4.5	5.7	5.8	5.5

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

In addition to the sharper slump in economic output in 2020, the assumptions about the course of the recovery also change. For example, a deeper and longer international recession is expected in 2021,

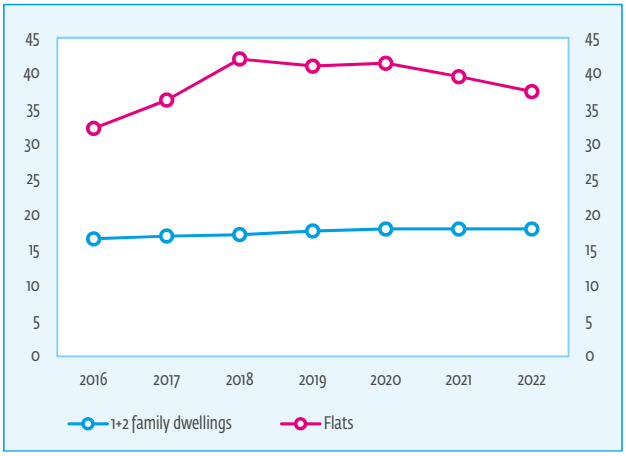
resulting in a 7.5% decline in GDP in 2020. However, it is also important to note that growth in 2021 will initially be only 1.2%. By the end of the forecast period in 2022, the GDP of 2019 will not be reached in this scenario.

Against this backdrop, in a pessimistic economic scenario the trend in construction investment would also be much flatter. Although residential construction and civil engineering would also record weaker growth rates in 2021 in such a scenario, the bulk of the risk lies in other building construction. In the event of a prolonged recession, investments in commercial buildings and production and storage facilities would be particularly negatively affected. The actual extent of the Corona effect will therefore only become apparent in the coming months when the speed of the economic recovery becomes apparent.

3. Housing Market

Like the entire construction industry, residential construction was also in a phase of declining growth rates at the turn of 2019/2020. Although the segment was also the main driver in 2019, it lost considerable momentum in the course of the year. Accordingly, the forecast for 2020 was in the range of between 1 and 2%. Due to the construction site closures in connection with the Corona crisis, however, noticeable production shortfalls are also to be expected in residential construction. In contrast to the other building construction sectors, however, no drop in demand due to the pandemic is foreseeable at present. Only when the macroeconomic conditions change – a long recession instead of a rapid recovery in 2021 – is it likely that residential construction will also experience sustained declines. However, the developments outlined in the following assume a reasonably significant recovery in 2021. From this perspective, it can be assumed that the pandemic has caused a supply shock, but that this will not have a significant impact on residential construction in Austria in the medium term.

Housing Completions from 2016 to 2022
in thousands



Source: EUROCONSTRUCT (89th Conference)

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, which are concentrated in urban regions, will also be reflected in lower building permits from 2018 at the latest. 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, and especially in the last two quarters of 2019, there was a strong countermovement, with building permits again reaching a value of over 60,000 units. According to preliminary figures from Statistik 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 strong permit activity in 2019, a decline in the population is also expected to be mirrored in declining building permits. The forecast for 2020 is therefore quite clear: building permits will again fall below the 60,000 unit mark, to roughly 53,000 units. In the medium term, values in the 50,000 unit range are realistic.

The decline in building permits in 2020 is additionally driven by the restrictions imposed by the Coronavirus. For example, as part of the shut-down measures, with 16.03, the public administration was also shut down. This also affects procedures for building permits and building negotiations. Although the problems occurred to varying degrees in the individual federal states, and although there has since been some easing, delays in construction progress are almost inevitable. Although there is a possibility of catch-up effects in this area in the course of the year, a postponement of certain building permits to 2021 is likely.

Despite these in part rather pessimistic assessments, a sharp slump in residential construction activity is not to be expected in the coming years. On the one hand, the demand for housing in Austria will continue to exist due to a population increase of 40,000 persons per year. In addition, there is the large non-profit housing construction

sector in Austria, which continues to be active even when demand and earnings are weaker. Should commercial property developers reduce their activities in the wake of the Corona crisis, the non-profit housing construction companies should have a stabilizing and compensatory effect.

Regional Building Permits in New Residential Buildings
number

	2014	2015	2016	2017	2018	2019
Burgenland	2,026	2,025	1,643	1,963	1,814	1,869
Carinthia	2,653	2,873	2,802	2,542	2,219	2,772
Lower Austria	9,308	9,823	10,424	10,726	8,952	8,452
Upper Austria	9,285	7,605	9,246	8,510	9,095	8,563
Salzburg	3,007	3,122	3,354	3,122	2,713	2,786
Styria	7,855	7,396	9,401	9,540	8,885	11,022
Tyrol	4,413	5,359	4,955	5,255	4,846	5,669
Vorarlberg	2,685	2,898	3,030	3,512	2,955	2,963
Vienna	8,510	10,789	15,149	22,305	14,678	19,107
Austria	**49,742**	**51,890**	**60,004**	**67,475**	**56,157**	**63,203**

Source: Statistics Austria (May 2020).

Property prices and transactions.

Another factor that could potentially stabilise residential construction in Austria is the development of property prices. Data from the Austrian National Bank show that there was a noticeable slowdown in price increases in 2019. Compared to 6.9% in 2018, price growth in 2019 was only 3.9%. This is probably also related to the strong expansion of supply in the housing market in recent years. And also in the first quarter of 2020 the year-on-year price increase was only 3.4%. The weaker growth rates in recent quarters are primarily attributable to regions outside Vienna. Property prices in Vienna, and certainly representative for urban regions in Austria, grew faster than the national average in both 2019 and the first quarter of 2020.

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 equaled only 2.6% (number) and 3.4% (volume).

House Prices
year-on-year change, %

		2015	2016	2017	2018	2019	2020Q1
Austria	**Total**	**4.1**	**7.3**	**3.8**	**6.9**	**3.9**	**3.4**
Vienna	**Total**	**2.2**	**3.8**	**1.5**	**5.2**	**4.9**	**3.9**
	1+2 Family Houses	2.6	-1.9	2.5	0.9	3.0	10.4
	Flats	2.2	4.2	1.4	5.5	4.9	3.4
	New flats	4.7	10.1	1.8	5.3	5.9	5.3
	Used flats	1.9	3.4	0.8	6.4	3.8	2.0
Austria without Vienna	**Total**	**5.1**	**9.1**	**4.9**	**8.5**	**2.6**	**2.8**
	1+2 Family Houses	6.8	7.5	1.9	8.6	2.0	3.3
	Flats	4.5	9.7	5.8	8.5	2.9	2.5
	New flats	0.4	7.9	2.1	8.1	2.3	3.5
	Used flats	4.9	9.8	5.9	9.7	3.4	1.8

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

Real estate transactions
number, volume in billion Euro

		2015	2016	2017	2018	2019
Austria	number	112,124	121,436	121,171	129,144	138,690
Vienna	number	18,052	19,490	21,378	22,325	22,912
Austria	volume	23.5	26.9	28.1	31.9	34.3
Vienna	volume	7.2	8.2	8.8	9.9	10.3

Year over year percentage change

		2015	2016	2017	2018	2019
Austria	number	+ 16.6	+ 8.3	-0.2	+6.6	+7.4
Vienna	number	+ 18.8	+ 8.0	+9.7	+4.4	+2.6
Austria	volume	+ 20.4	+14.2	+4.7	+13.2	7.9
Vienna	volume	+ 19.7	+ 14.6	+6.6	+13.4	+3.4

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.

AT

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 2019. In 2018, total funding for new construction was around 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
volume, million Euro

	2012	2013	2014	2015	2016	2017	2018
Burgenland	96	70	94	79	63	59	53
Carinthia	149	123	135	124	131	129	124
Lower Austria	490	470	622	472	434	409	394
Upper Austria	229	310	339	284	275	276	268
Salzburg	215	272	262	188	168	140	126
Styria	430	304	301	308	279	223	219
Tyrol	265	255	268	270	277	277	246
Vorarlberg	221	168	146	147	141	148	155
Vienna	149	123	135	124	131	494	453
Austria	2,562	2,672	2,939	2,528	2,378	2,265	2,038

Source: Austrian Ministry of Finance (2019).

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 2%, additional effort appears necessary.

The new government, a collation 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:

• Thermal/energy renovations:
This subsidiy scheme has seen decreasing volumes in the years until 2019 when it bottomed out at 63 million Euro. In 2020 the budget allocated for thermal/energetic renovations has been increased to 143 million Euro with large shares earmarked for „Raus-aus-Öl“, a subsidy scheme targeted to replace oil-based heating systems.

• Climate- and energy fund:
The fund which finances various activities in the area of climate and energy also funds innovative renovation projects. Its overall budget has also been increased from 65 to 99 million Euro. Renovation projects will be funded with 7 million Euro in 2020.

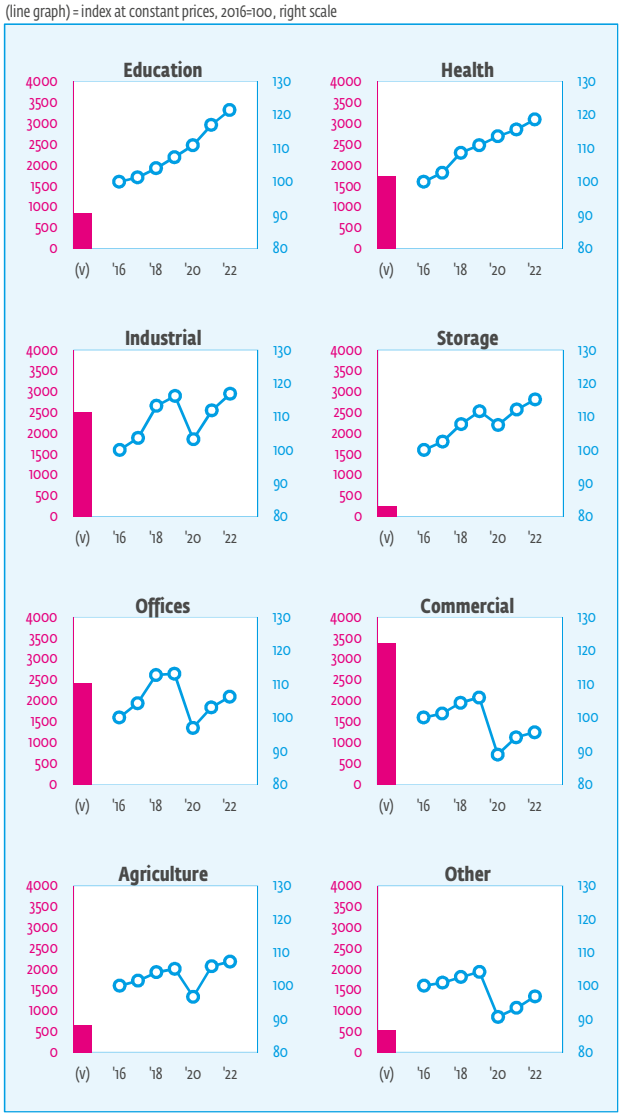
In addition to its own financing schemes, the federal government seeks to increase subnational renovation funding, which has been declining since 2010: 810 million Euro in 2010 to 492 million Euro in 2018. Given the sheer importance of subnational funding and the gradual downward trend, associated changes could trigger much higher renovation rates. From the current perspective, however, we expect higher investment in renovation compared to new construction, but no substantially higher renovation activity.

4. Non-residential Market

Market performance until 2019. Non-residential construction lagged behind overall economic growth after an initial lack of both capacity utilisation and business confidence before 2017. The recovery picked up late in 2017 (+2.4%) and gained in speed in 2018 (+6.0%). The industrial and office construction sectors benefited from strong foreign trade at that time. Office construction also profited from large urban development areas such as the new Vienna Central Station. Stable or rising investments in education and health additionally supported the solid development. In 2019, however, momentum in non-residential construction already flattened out, above all due to a lack of impulses from office construction, which stagnated when the urban development areas were completed. The overall slowdown in economic growth also dimmed the outlook in most other non-residential subsectors.

Recent market performance and outlook to 2022. The year 2020 already showed signs of an economic slowdown before the outbreak of Covid19,

New non-residential: breakdown by subsectors
(v) = volume 2019, million €, left scale;
(line graph) = index at constant prices, 2016=100, right scale



Source: EUROCONSTRUCT (89th Conference)

which will be drastically more severe. Although there were no officially ordered construction stops in Austria, legal uncertainty was high at the beginning of the crisis. However, the losses in non-residential construction will be significantly higher than the losses caused solely by the partly reduced or partly closed construction sites as a precaution at the beginning of the Corona pandemic. The WIFO business sentiment survey showed that business expectations for the next six months were almost as negative as during the financial crisis of 2009. This hits especially non-residential construction, which is more privately financed than civil engineering. Thus, it is to be expected that numerous project starts that were planned for 2020 will be postponed or cancelled. This will have an unfavourable effect on commercial and office construction in particular. Overall, a decline of around 10% is expected in non-residential construction in 2020. Assuming that the economy stabilises in 2021, slight growth of 5.8% is expected in 2021 and 2022 (+2.9%). However, the losses due to the current Covid19 crisis will not be fully compensated by the end of the forecast horizon.

New non-residential construction by subsectors.

Education. Construction investments in educational institutions and kindergartens increased in recent years, most recently by 3.2% in 2019. Stronger growth is expected in the coming years despite the Covid19 crisis. Impulses result from the newly established School Development Programme 2020, which was adopted in March 2020. It is based on educational policy intentions, ecological considerations, spatial-demographic developments and pursues an overarching objective. The aim is to ensure regional equality in terms of school equipment and facilities. Within the framework of this programme, which is also intended to serve as an economic stimulus for the construction industry, around 270 school projects with a volume of 2.7 billion euros will be implemented over the next 10 years.

BIG, the federal real estate company is also expected to step up its investment activities. However, delays caused by Covid19 must also be expected in this area. For this reason, only a moderate increase in investment of 3.3% is expected in the whole (new) educational construction segment in 2020. A stronger increase is forecasted in 2021 (+5.5%) and the volumes remain high due to the School Development Programme, with a further increase of 3.8% in 2022.

Info box education.

In 2019, around 850 million Euro were invested in new educational buildings and kindergartens in Austria. This amount is made up of expenditures 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 mainly 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 2020, BIG invested around 465 million Euro in 2019. A significant expansion of the financial resources is budgeted for 2020. Thirdly, investments are made by the federal states ("Bundesländer"). Investments by the latter have also risen steadily in recent years, but their impact on the construction industry is small, accounting for less than 5% of total education investments.

Health construction. Expenditure in the Austrian health care system amounted to approximately 42.7 billion Euro, according to latest estimates by Statistik Austria. Thereof, just under 7% (about 2.9 billion Euro) of Austrian health expenditure was

spent on buildings and medical equipment. Health investments relevant to construction are estimated to amount to about 1.6 billion Euro in 2019.

The forecasts and general conditions will remain positive in the coming years. The further expansion of nursing care facilities for the elderly will continue to be a driving factor.

By 2030, more than 1 million inhabitants in Austria will be over 75 years of age and the development will accelerate in the following decade. The private sector is playing an increasingly important role in this area. Private investment in the health sector has increased by one third over the last five years. This is also in line with the long-term trend: the share of private investment in the total investment volume in the health rose from 25% (1990) to around 49% in 2017. This trend was temporarily interrupted in 2018, when private involvement fell by 2.3 percentage points and reached a share of 46% of total health investment. Nevertheless, the outlook will remain positive given the strong demand for health care.

The extent to which the Covid19 crisis will affect new healthcare buildings is hard to assess at present since it is a matter of political debate/decision. Austrian health policy aimed at increasing efficiency in the hospital sector already before the health crisis. Hospital locations and the merging of hospitals into so-called focal points were continuously evaluated. This also explained the declining public participation in the construction of health care buildings. Political changes in health policy as a result of Covid19 are conceivable but are not taken into account in current forecasts.

It can be assumed that the high level of investment will be maintained or slightly increased in the next few years – significant impulses above the 3% mark cannot be expected from the current perspective.

Industrial buildings. Industrial construction has benefited greatly from the general economic upturn in 2018 and 2019. Business and consumer confidence reached historically high levels in 2018, while exports and above all private consumption led to a significant revival in new industrial construction investment (2018: +9.3%). The upswing continued in 2019, with further expansion of 2.6%.

A flattening of the economic trend was already expected for 2020, but this will now be significantly intensified by the Covid19 pandemic. In view of the overall economic downturn (see macro chapter), a decline of 11.2% in industrial construction is currently forecasted. The WIFO economic climate index for the construction industry clearly shows the slump following the lockdown. With a balance of -12 points in April 2020, it was not as negative as it was during the 2008 economic and financial crisis (-18 points), but it suddenly dropped compared to the previous month (March 2020: +23 points). The government has announced an economic stimulus package from which industrial construction will also benefit.

The current economic scenario is based on the assumption that not only the slump, but also the recovery will be much more rapid than in the crisis of 2008/2009. Accordingly, growth rates of +8.4% in 2021 and 4.5% in 2022 are expected. Decisive factors are, on the one hand, the revival of consumption and exports, which in the current scenario are expected to grow by 3.1% and 8.8% respectively in 2021. The next months will determine how realistic this scenario is.

Storage buildings. The growth in online trading led to a strong expansion in the construction of new storage buildings in the past years. A survey by the Austrian Trade Association showed that in 2019, that distance selling generated sales of around 8.1 billion Euro – an absolute record value. More than 90% of distance selling is carried out online, which corresponds to a volume of 7.5 billion Euro (+4% compared to the previous year). Accordingly, the necessary warehouse and logistics capacities were created in previous years (2018: +5.1%; 2019: +3.6%). The demand for storage capacity will increase in the medium term, as the share of e-commerce is still relatively low in Austria (10%) – especially compared to the United States or Denmark (20%).

Nevertheless, the project pipeline already indicated a slight decline in new warehouse construction before Covid19, which is now expected to be more significant (2020: -3.7%). No capacity bottlenecks were reported in the logistics sector at present. Private parcel volumes rose by up to 90% in the short term (and reached values such as at Christmas or on Blick Fridays), but on the other hand the business sector in the mail order business collapsed completely in some areas, which in turn dampened the total volume. A survey conducted by the University of Vienna as part of its Covid19 panel also showed no clear result as to whether online trade is emerging as a winner in the current crisis.

The present forecast assumes that the previous growth path will continue after the losses in 2020. Consequently, storage capacities will be expanded in 2021 and 2022, with growth rates in new construction of 4.3% and 2.7% respectively.

Office buildings. Office construction in Austria developed dynamically, above all in 2017 and 2018. The main driver was the capital city of Vienna, and

in particular the new urban development areas such as around the main railway station. The market stagnated in 2019 after the completion of the largest projects.

A further flattening of the office property market was already expected before 2020[1]. In view of the Covid 19 crisis, however, the office property market is also exposed to various risks: in addition to construction delays, project postponements in view of the current higher level of uncertainty and higher corporate insolvencies, the demand for office space is expected to be low in the short term. This will be reflected in a likely decline in new construction of around 14% in 2020. For the years 2021 and 2022, the forecasts are subject to the improving economic picture, as is the case in industrial construction. The current forecasts suggest growth rates in office construction by 6.3% in 2021 and 3.1% in 2022, not taking into account possible medium-term changes in the working environment, such as an increased switch to teleworking, which would further dampen demand.

Commercial buildings. The favourable development of consumption led to an expansion in commercial construction in 2018 (+3.2%) and 2019 (+1.5%). Attractive financing conditions and fiscal stimuli supported this development. Although the outlook for 2020 was positive before Covid19, strong competition, especially in inner city retail locations, and legal restrictions combined with saturation in the shopping centre segment dampened the outlook.

The Covid19 crisis led to a completely new assessment of the commercial construction sector. In April 2020 accommodation and food service activities (with the exception of the take-away service) experienced a reduction of sales to virtually nil. The use of hotels for tourism was officially prohibited from 4.4.2020 to 30.4.2020. The ban on hotel entry was extended until 28.5.2020. This hit the commercial/trade sector hard, also because tourism was a growth driver in recent years. The closure was used for minor renovation work but the uncertainty for new hotel projects in 2020 is high. Consequently, a decline of about 16% in new business construction is expected for 2020, which will lead to a significant reduction in volumes in subsequent years as well. Investments are expected to pick up again as confidence returns, at a rate by 5.8% in 2021 and by 1.6% in 2022 in the present scenario.

1 In the first quarter of 2020 the letting performance had declined significantly, especially on the Vienna office market. According to the Vienna Research Forum (VRF), it amounted to only 13,000m2. This reflects a decline of 65% year-on-year. In this survey only modern office space that was built or completely renovated after 1990 and meets certain quality criteria such as air conditioning, elevator or IT standards is taken into account.

Info box commercial construction

The commercial sector is divided into retail on the one hand and the restaurant and accommodation sector on the other. Approximately 62% of the new construction investments relevant to construction are attributable to retail, 38% to accommodation and food servives. The latter in particular has provided significant impulses in previous years due to the strong increase in tourist traffic.
The business situation in 2019 was already tense in the retail sector before Covid19. In general, this area can be split in four main categories: 1) food, 2) health and beauty, 3) clothing and shoes, and 4) household. The health and beauty sector in Austria already had the highest sales area per inhabitant (CBRE, 2019) in Europe, and corresponding saturation tendencies were therefore apparent in previous years. In addition, the clothing, household & garden equipment segment is under strong competitive pressure, especially the clothing sector due to rivals from the e-commerce sector. For this reason, even before Covid19, hardly any impulses were expected from this segment for the period 2020-2022. 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).

5. Civil Engineering Market

Market development until 2019.

Civil engineering activities experienced a significant revival in 2018 (+3.1%), as numerous transport infrastructure projects that had been delayed in the previous year were implemented. A rise in tax revenues during the economic upswing and a declining national deficit stimulated public projects and led to a further expansion of civil engineering investments in 2019 (+2.4%). As in previous years, this growth was mainly driven by transport infrastructure construction.

Recent market performance and outlook to 2022.

Contrary to the former forecast of a slight increase in civil engineering, a significant decline is currently expected for 2020 due to the corona pandemic. However, the decline is likely to be smaller than in the construction sectors described earlier. The short-term halt to construction in March 2020 (due to Covid19 and the resulting legal uncertainty with regard to worker protection) led to delays in project implementation in several areas of civil engineering. Increasingly limited public budgetary leeway also contributes to an expected decline in construction volume, which could be even stronger depending on the reaction of the municipalities. The forecasts for the civil engineering sector currently assume a real decline of 2.0% in 2020.

For structural reasons, the greatest influence on the development of civil engineering is exerted

by transport infrastructure construction, which accounts for 55% of the total civil engineering volume. The current forecasts are based on the 2020 budgetary plan of March 2020, which is based on the Transport Framework Plan 2018-2023 (from the year 2018) and the General Transport Plan – Target Network 2025.

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 respectively were recently achieved. The „quality of road infrastructure" with rank #6 and the „electricity access" rank #2 were particularly positive.

Significantly less favourable was the result 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". 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 network. The expansion of flight capacities is also planned.

5.1 Civil engineering by sectors

Road construction investments increased significantly in the past three years in Austria at rates of +4.1% (2017), +2.4% (2018) and most recently +4.6% (2019). While municipal road construction provided strong impulses until 2018 (2010 to 2018: volume increased by around +50%), investments in the high-level road network were mainly responsible for the strong real growth in 2019. The highest growth rates were in the area of new construction and expansion of the motorway network. The high level of investment activity in the motorway network in 2019 is also explained by the solid financial position of ASFINAG, which is responsible for financing and project realisation. This is based on the income from tolls, which increased by 4% in 2019 and amounted to 1.24 billion Euro. In total, a construction volume of 2.2 billion Euro was implemented at all levels throughout Austria in 2019. About 50% of this amount went into the new construction, expansion and renovation of the motorway network. A further 35% was invested in the low-level road network at municipal level and 15% at the level of the federal provinces ("Bunderländer").

A further sharp increase in investment in the high-level road network would be planned for 2020. This can be seen from the investment or budget plans. In the 2020 budget, a significant increase in the double-digit percentage range is budgeted. However, this is extremely unlikely due to the Covid19 crisis. On the one hand, there were delays in projects due to construction stops. In addition, the volume of traffic fell (by 30% in the first months of the crisis and a 15% decline in mileage by Asfinag is expected over the year as a whole). This significantly reduces revenues – estimates suggest that toll revenues will fall by 500 million Euro. Financial state aid is not required, but according to Asfinag the profit is expected to fall by 1/3. Thus, reduced construction-related investment, towards a volume of around 1 billion Euro in the motorway sector in 2020 can be assumed. About 60% of this amount will be invested in new construction and expansion projects and about 40% in the maintenance of the routes.

Top new motorway construction projects
project volume > 100 million Euro, construction start 2020-2022

	Project name	Start	End	Volume
Burgenland	S 4 Mattersburger express way	2021	2024	143 mill. Euro
Lower Austria	S 8 Marchfeld express way	2021	2024	310 mill. Euro
	S 34 Traisental express way	2021	2025	205 mill. Euro
Vienna	S 1 Wiener Außenring express way – Seestadt Aspern	2021	2024	225 mill. Euro
Upper Austria	S 10 Mühlviertler express way	2021	2025	221 mill. Euro
Vorarlberg	S 18 Bodensee express way	2020	[1]	600 mill. Euro

Source: Asfinag
1 selection of project/route variants.

The tense financial situation also affects the municipal level which is responsible for the so-called lower road network. A reduced investment volume is expected here as well, as construction has also been halted in most of the federal states.

Overall, current forecasts assume a slight decline in road investment of 1.7% in 2020. It is expected that some projects will be postponed until 2021 (+1.5%). Depending on the development of the crisis the construction-related investment level in the entire road construction sector is likely to be maintained or slightly increased by +1.2% in 2022.

Railway construction.
In recent years, public investment has been increasingly focused on the construction of railways. This led to a growth of 4.8% in 2018 and to a further, albeit smaller, increase of 1.5% in 2019. Overall, investments are based on Austria's general framework plan, which provides for a total volume of 13.9 billion Euro in the area of railway infrastructure for the period 2018 to 2023. An update of this framework plan is currently (May 2020) underway, but the results are not yet available.

The present forecasts are based on the current framework plan 2018-2023, with a project volume of around 7 billion Euro in the forecast period

2020-2022, and it is expected that rail infrastructure construction in 2020 will be negatively affected by the Covid19 crisis, 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 railway 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 obstructed on the Austrian side. In particular, delays at major construction sites will somewhat dampen the construction volume in 2020.

One project focus in 2020 is the entire eastern region (Vienna, Burgenland, Lower Austria with a total investment volume of 670 million Euro – about 1/3 of the total budget). This involves 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 2020-2022 depends to a large extent on the progress made in the implementation of major projects. These include:

- „Brenner Base Tunnel", the largest Austrian railway project with a volume of almost 5 billion Euro (excluding financing costs). For the period 2010-2022, investments of around 1.5 million Euro have been budgeted. Completion of the line is planned for 2025.
- 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. Around 900 million Euro are budgeted for the period 2020-2022. Completion is expected in 2027.
- The „Koralmbahn", the Graz-Klagenfurt connection, has a project volume of around 5 billion Euro. In the period 2020-2022, construction work will amount to 1.1 billion Euro, distributed almost evenly over this three-year period. The opening of the line is expected in 2026.

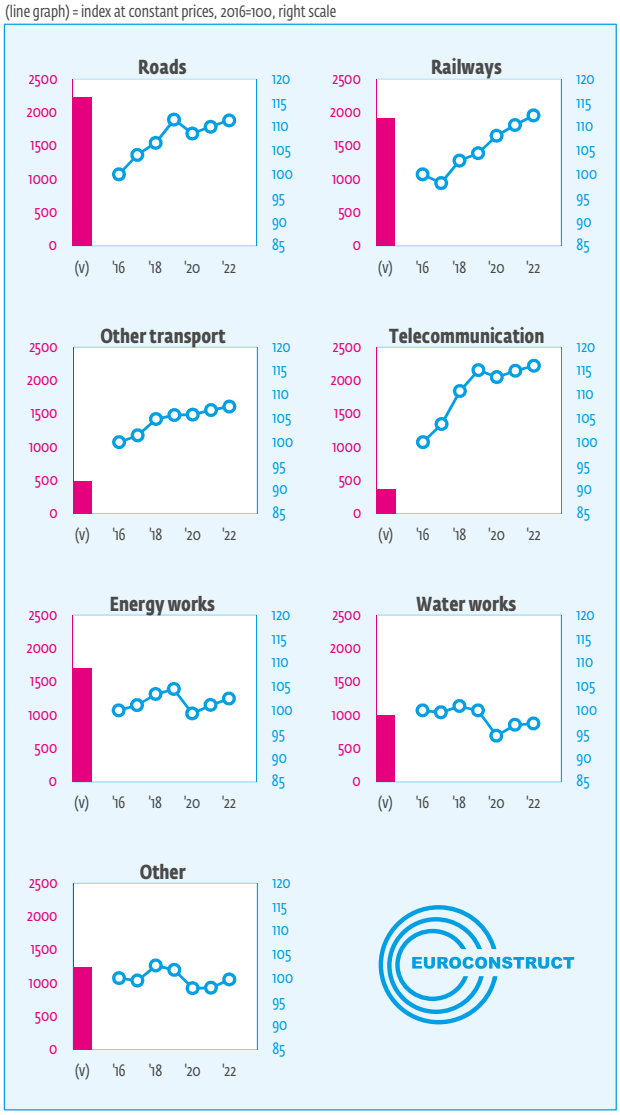
Overall, real growth of 3.5% is expected in 2020 compared to the previous year. The investment cycle will slow down somewhat in 2021 and 2022, with real growth rates for the construction industry of around 2% being forecast.

Telecommunication. Investments in Austrian telecommunications are low by international standards. A WIFO study (2016) showed that the investment ratio, measured against gross domestic product, is only 0.23%. Austria thus ranked last among the 21 industrialised countries.

In order to increase competitiveness, the Austrian federal government initiated a support programme „Broadband Austria 2020" with a volume of 1 billion

Total civil engineering: breakdown by subsectors

(v) = volume 2019, million €, left scale;
(line graph) = index at constant prices, 2016=100, right scale



Source: EUROCONSTRUCT (89th Conference)

Euro, which could be extended by EU subsidies. This led to increased investments since the start of the programme (2018: +6.7%, 2019: +4.0%, with a volume of 370 million Euro). The goal was to provide the population with ultra-fast broadband high-performance access (100 Mbit/s) almost nationwide by the year 2020. This goal has not yet been achieved and the government is therefore providing further impetus, especially in the expansion of the broadband network and 5G mobile communications technology. Consequently, the 2020 budgetary plan (March 2020) contained additional funds within the framework of broadband promotion. The budgeted volume in 2020 compared to the previous year is only 1/3 (2019: 144 million Euro, 2020: 44 million Euro).[2] In view of the continuing demand, especially in the broadband and 5G area, in rural areas, only a slight decline of 1.3% in real terms is expected for 2020 compared to the previous year. In 2021 and

2 Since not all funds have been collected in recent years, it can be assumed that the funding volume will probably continue in the following years.

2022 the volume is expected to pick up again, with growth rates of around 1% per year.

Energy. Investment in the energy sector was rather subdued in 2016 and 2017 due to low electricity prices and recovered slightly in recent years (2018: +2.3%, 2019: 1.0%). In 2019, construction investments amounted to around 1.7 billion Euro.

The priorities from 2020 onwards in the energy sector can be divided into 2 areas, grid expansion and the expansion of renewable energy sources. In the area of grid expansion, investments amounting to 2.9 billion Euro are planned in 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 Austrian region. The objectives are different. While the Weinviertel line is used for the system transport of wind power in Lower Austria, the industrial location 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.

Investments in renewable energy sources are necessary to achieve national and international climate targets (such as the EU climate and energy framework for 2030).

Key targets by 2030 are (1) a minimum 40% reduction in greenhouse gas emissions (compared to 1990 levels – Paris Memorandum of Understanding), (2) a share of at least 32% of renewable energy and (3) an improvement in energy efficiency of at least 32.5%. The targets for renewable energy (previously 27%) and energy efficiency (previously 27%) have been revised upwards in 2018.

The situation in Austria with regard to renewable energies is favourable, 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 hydro power (56%) as well as wind, photovoltaic or geothermal energy (16%). Nevertheless, the CO2 emission targets have not been met in recent years. However, Austria's energy and climate strategy to reduce greenhouse gas emissions by 36% by 2030 (compared to 2005) remains ambitiously high, which requires a substantial expansion of renewable energy sources.

Despite the need of a further expansion, a decline in investments (-4.9%) is expected in 2020 because of lower public engagement and expected delays due to Covid19-related construction stops.

In the years 2021 and 2022, increased investment activity, especially in the area of power generation. However, growth rates averaging 1.5% per year are unlikely to be sufficient to return to the volumes of 2019 in real terms.

Water works. Construction activity in the water works sector has been declining over the last 5 years (with the exception of 2018). Construction volumes in the new built sector have been weak for a longer period due to the high connection rate (91% for drinking water supply and 95% for wastewater). Growth was only achieved in the subsector of drinking water supply. However, declines in the higher-volume wastewater sector ultimately led to an overall downturn in construction activity in the waterworks sector.

Public subsidies support investments in this area. Within the framework of the financial equalisation scheme (FAG), an additional 80 million Euro per year is earmarked for urban water management until 2021. The focus of funding activity, which in recent decades has been on the construction of the necessary infrastructure, will in future shift significantly towards value retention and rehabilitation.

Investments are above all necessary to ensure the functionality of the water supply and wastewater disposal systems, as numerous water pipes and the sewerage infrastructure have to be renewed.

For the year 2020, the forecasts for the water industry are gloomy. In addition to declines due to the halt in construction, municipal budgets will also be strained by the Covid19 crisis. The construction volume is therefore expected to decline by 5.9% compared to the previous year. This decline cannot be offset in the following years 2021 (+2.4%) and 2022 (+0.3%). Depending on the budget situation, increased investment activity is not expected until around 2025 – mainly due to the resulting increased need for pipeline rehabilitation at that time.

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 2018 is available in autumn 2019. 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 March 2020 WIFO forecasts (2020 to 2021) and on the April 2020 WIFO mid-term forecasts (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 March/April 2020 forecasts based on ESA 2010 (correspondently also Tables 4a and 4b).

Table 3

- Permits, starts and completions refer to new dwellings in new residential buildings.
- Permitted dwellings until 2019 stem from official data (April 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 March 2020 WIFO forecasts (2020 to 2021) and the April 2020 WIFO mid-term forecasts (to 2022). 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

					Forecast		Outlook
	2016	2017	2018	2019	2020	2021	2022
Population ('ooos) **Population** **Bevölkerung**	8 701	8 773	8 822	8 859	8 893	8 926	8 959
Households ('ooos) **Ménages** **Haushalte**	3 826	3 869	3 903	3 933	3 960	3 985	4 009
Unemployed ('ooos) **Chômeurs** **Arbeitslose**	357	340	312	301	355	326	316
Unemployment rate (%) **Taux de chômage** **Arbeitslosenquote**	6.0	5.5	4.9	4.5	5.5	5.0	4.8
Change of GDP **Variation du PIB** **Veränderung des BIP** **(% change in real terms)**	2.1	2.5	2.4	1.6	-5.2	3.5	1.9
Consumer prices (% change) **Prix à la consommation** **Verbraucherpreise**	0.9	2.1	2.0	1.5	0.9	1.3	1.4
Construction prices (% change) [1] **Prix de la construction** **Baupreise**	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Short term interest rate [2] **Taux d' intérêt à court terme** **Kurzfristiger Zinssatz**	-0.3	-0.3	-0.3	-0.4	-0.5	-0.5	-0.3
Long term interest rate [3] **Taux d' intérêt à long terme** **Langfristiger Zinssatz**	0.4	0.6	0.7	0.1	0.1	0.3	0.6

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

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
		2019	2016	2017	2018	2019	2020	2021	2022
Residential construction Logement Wohnungsbau	New	13 785	2.5	5.9	2.3	3.8	-4.0	3.3	1.4
	Renovation	6 064	1.8	3.5	1.5	2.7	-3.5	4.7	2.6
	Total	**19 849**	**2.3**	**5.1**	**2.1**	**3.5**	**-3.8**	**3.7**	**1.8**
Non-residential construction Bâtiments non résidentiels übriger Hochbau	New	12 366	0.9	2.5	5.6	1.7	-10.0	5.8	2.9
	Renovation	3 966	1.1	1.9	7.4	1.2	-5.3	3.6	3.2
	Total	**16 332**	**0.9**	**2.4**	**6.0**	**1.6**	**-8.9**	**5.2**	**3.0**
Building Bâtiment Hochbau	New	26 151	1.7	4.3	3.9	2.8	-6.8	4.4	2.1
	Renovation	10 030	1.5	2.9	3.8	2.1	-4.2	4.3	2.8
	Total	**36 181**	**1.7**	**3.9**	**3.8**	**2.6**	**-6.1**	**4.4**	**2.3**
Civil engineering Génie civil Tiefbau	New	7 155	-3.6	1.1	3.3	1.9	-2.3	1.3	0.9
	Renovation	1 763	-4.6	0.1	2.3	0.4	-0.8	2.3	2.9
	Total	**8 918**	**-3.8**	**0.9**	**3.1**	**1.6**	**-2.0**	**1.5**	**1.3**
TOTAL CONSTRUCTION OUTPUT		**45 099**	**0.5**	**3.3**	**3.7**	**2.4**	**-5.3**	**3.8**	**2.1**

	2019					Forecasts		Outlook
	Volume mill. tons	2016	2017	2018	2019	2020	2021	2022
Domestic cement consumption Consommation intérieure de ciment Inländischer Zementverbrauch	5.40	3.7	2.1	7.4	3.2	-6.1	3.8	1.7

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						
						Forecast		Outlook
		2016	2017	2018	2019	2020	2021	2022
Building permits **Logements autorisés** **Baugenehmigungen**	1+2 family dwellings Individuels 1+2-Familienhäuser	17.6	17.6	18.6	18.4	18.0	18.1	18.0
	Flats Collectifs Mehrfamilienhäuser	42.4	49.9	37.6	44.8	35.3	35.7	34.0
	Total	**60.0**	**67.5**	**56.2**	**63.2**	**53.3**	**53.8**	**52.0**
Housing starts **Logements commencés** **Baubeginne**	1+2 family dwellings Individuels 1+2-Familienhäuser	16.2	16.7	17.2	17.5	17.3	17.1	17.1
	Flats Collectifs Mehrfamilienhäuser	36.9	43.8	41.6	39.2	38.1	33.8	33.1
	Total	**53.1**	**60.5**	**58.8**	**56.7**	**55.4**	**50.9**	**50.2**
Housing completions **Logements terminés** **Baufertigstellungen**	1+2 family dwellings Individuels 1+2-Familienhäuser	16.6	17.0	17.2	17.7	18.0	18.0	18.0
	Flats Collectifs Mehrfamilienhäuser	32.2	36.2	42.0	41.0	41.4	39.5	37.4
	Total	**48.8**	**53.2**	**59.2**	**58.7**	**59.4**	**57.5**	**55.4**
Housing stock **Logements existants** **Wohnungsbestand**	**Total**	**4 654**	**4 706**	**4 763**	**4 820**	**4 878**	**4 934**	**4 987**
	thereof second homes dont résid. secondaires davon Zweitwohnungen	267	270	273	276	280	283	286
	thereof vacancies dont inoccupés davon leerstehend	233	235	238	241	244	247	249
	share of family dwellings (%) part des maisons individuelles Anteil 1+2-Familienhäuser	47.1	46.8	46.5	46.2	45.9	45.7	45.4
Home ownership rate [1)] **Taux de propriétaires occupants** **Wohneigentumsquote**		54.2	53.6	53.1	52.9	52.6	52.4	52.2

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
	2019	2019	2016	2017	2018	2019	2020	2021	2022
Buildings for education **Bâtiments de l'éducation et de la recherche** **Gebäude des Bildungswesens**	853		1.8	1.3	2.7	3.2	3.3	5.5	3.8
Buildings for health **Bâtiments de santé** **Gebäude des Gesundheitswesens**	1 735		1.4	2.7	5.8	2.1	2.4	1.8	2.6
Industrial buildings **Bâtiments industriels** **Industriegebäude**	2 511		1.3	3.6	9.3	2.6	-11.2	8.4	4.5
Storage buildings **Bâtiments de stockage** **Lagergebäude**	249		1.1	2.5	5.1	3.6	-3.7	4.3	2.7
Office buildings **Bureaux** **Bürogebäude**	2 432		-0.5	4.3	8.1	0.3	-14.3	6.3	3.1
Commercial buildings **Commerces** **Geschäftsgebäude**	3 380		1.5	1.2	3.2	1.5	-16.1	5.8	1.6
Agricultural buildings **Bâtiments agricoles** **Landwirtschaftsgebäude**	659		-0.9	1.5	2.5	1.0	-8.0	9.5	1.3
Miscellaneous **Autres** **Sonstiges**	547		0.7	0.9	1.7	1.5	-13.0	3.0	3.7
TOTAL	**12 366**		**0.9**	**2.5**	**5.6**	**1.7**	**-10.0**	**5.8**	**2.9**

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)						
							Forecast		Outlook
		2019	2016	2017	2018	2019	2020	2021	2022
Transport infrastructure **Infrastructures de transport** **Verkehrsinfrastruktur**	Roads Réseau routier Straßen	2 228	-6.5	4.1	2.4	4.6	-2.6	1.3	1.2
	Railways Voies ferrées Bahnanlagen	1 907	-2.8	-1.8	4.8	1.5	3.5	2.1	1.8
	Other transport Autres réseaux Übrige Verkehrsinfrastruktur	486	-4.1	1.4	3.4	0.8	0.1	0.9	0.7
	Total	**4 622**	**-4.7**	**1.3**	**3.5**	**2.9**	**0.2**	**1.6**	**1.4**
Telecommunications **Télécommunications** **Telekommunikation**		366	4.5	3.8	6.7	4.0	-1.3	1.2	0.9
Energy works **Réseaux d'énergie** **Energieversorgung**		1 700	-1.6	1.1	2.3	1.0	-4.9	1.8	1.3
Water works **Réseaux d'eau** **Wasserversorgung**		994	-5.1	-0.4	1.3	-0.9	-5.3	2.4	0.3
Other **Autres** **Sonstiges**		1 236	-4.4	-0.5	3.2	-0.9	-3.8	0.1	1.8
TOTAL		**8 918**	**-3.8**	**0.9**	**3.1**	**1.6**	**-2.0**	**1.5**	**1.3**

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)						
						Forecast		Outlook
	2019	2016	2017	2018	2019	2020	2021	2022
Private consumption[2] **Consommation privée** **Privater Verbrauch**	205.8	1.6	1.4	1.1	1.4	-2.9	3.1	1.7
Public consumption **Consommation publique** **Staatsverbrauch**	77.0	1.8	1.1	0.9	0.9	5.3	-1.0	0.9
Gross fixed capital formation **Formation brute de capital fixe** **Bruttoanlageinvestitionen**								
Total	97.0	4.1	4.0	3.9	2.9	-8.7	4.5	2.6
of which construction	44.4	0.5	3.3	3.7	2.4	-5.4	3.8	2.1
Stocks (contribution as % of GDP)[3] **Variations de stocks** **Vorratsveränderungen**	4.4	1.1	1.2	1.2	1.1	0.2	0.2	0.2
Exports **Exportations** **Exporte**	221.8	3.1	5.0	5.9	2.7	-12.0	8.8	3.5
Imports **Importations** **Importe**	207.6	3.7	5.0	4.6	2.8	-9.7	6.9	3.2
GDP **PIB** **BIP**	**398.5**	**2.1**	**2.5**	**2.4**	**1.6**	**-5.2**	**3.5**	**1.9**

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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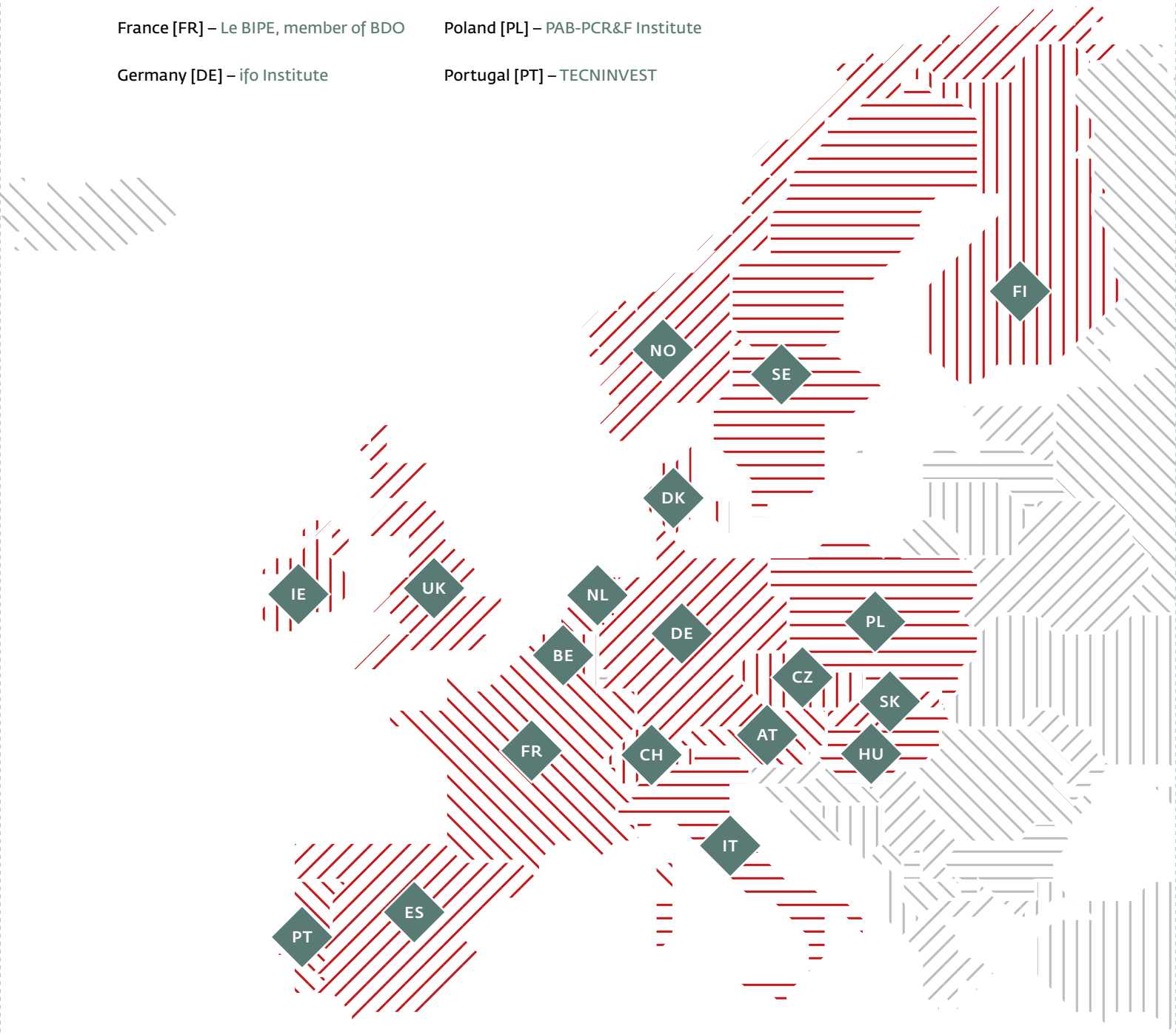

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