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87th Euroconstruct Conference: European Construction Market Outlook until 2021 – Austrian Construction Market Development is Slowing Down But Remains Positive

Euroconstruct Country Report Austria

Michael Klien, Michael Weingärtler

June 2019

WIFO
ÖSTERREICHISCHES INSTITUT FÜR WIRTSCHAFTSFORSCHUNG
AUSTRIAN INSTITUTE OF ECONOMIC RESEARCH

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Austrian Institute of Economic Research

Abstract

The economic environment for the Austrian construction industry was very favourable in 2018 with growth rates well above the EU average. The WIFO forecasts indicate that the growth differential will decrease over time, resulting in a slower overall economic expansion by 1.7 percent in 2019. This slowdown is negatively affecting the non-residential construction sectors, above all office construction. But also the housing market appears to have peaked in 2018, with lower growth projections until 2021. Following the European trend, Austrian civil engineering is the segment with the highest growth prospects, mainly due to planned investments in the road and rail network. Although Austrian construction is weakening, all segments of construction are expected to continue to grow until 2021.

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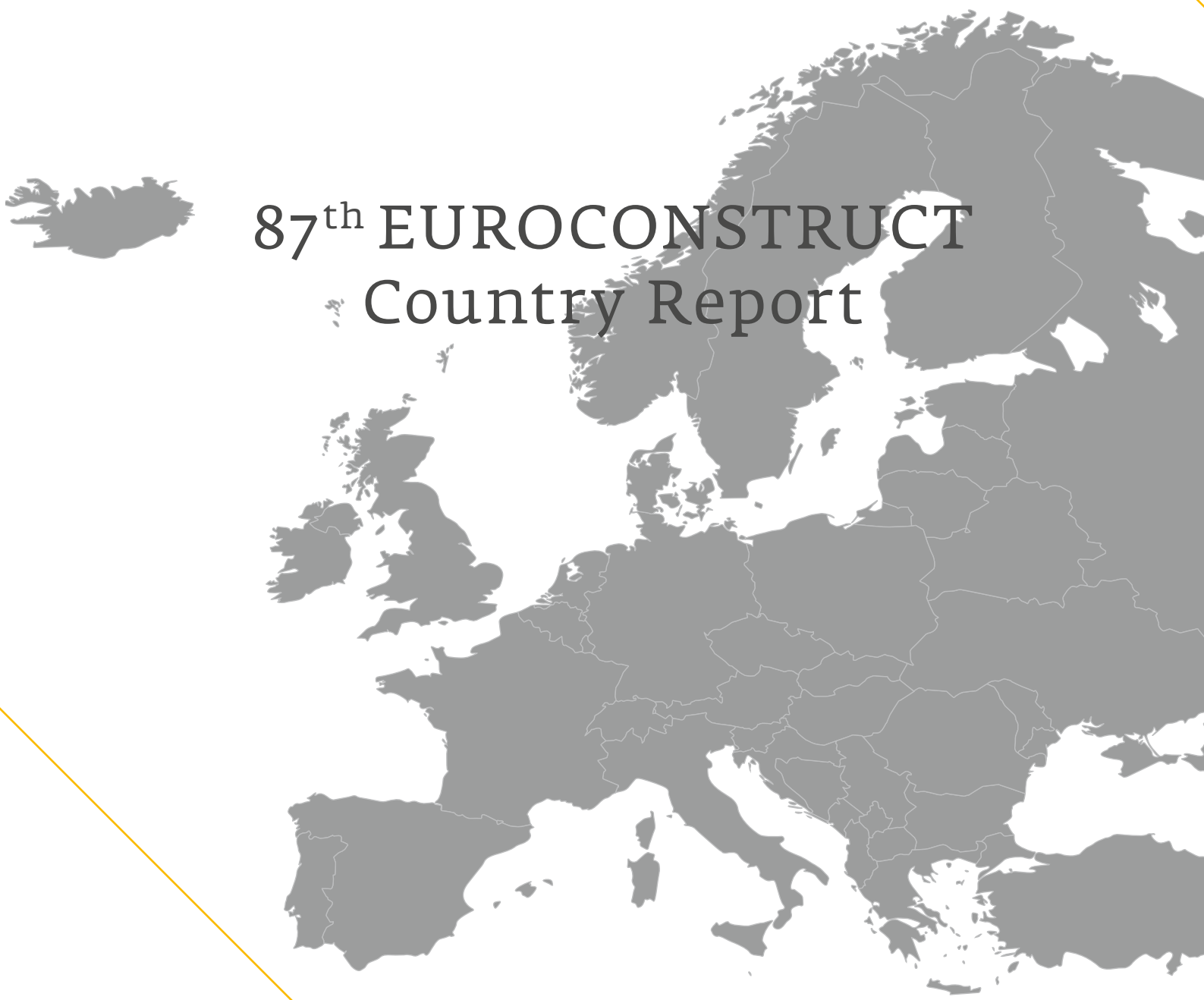

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European Construction: Market Trends until 2021

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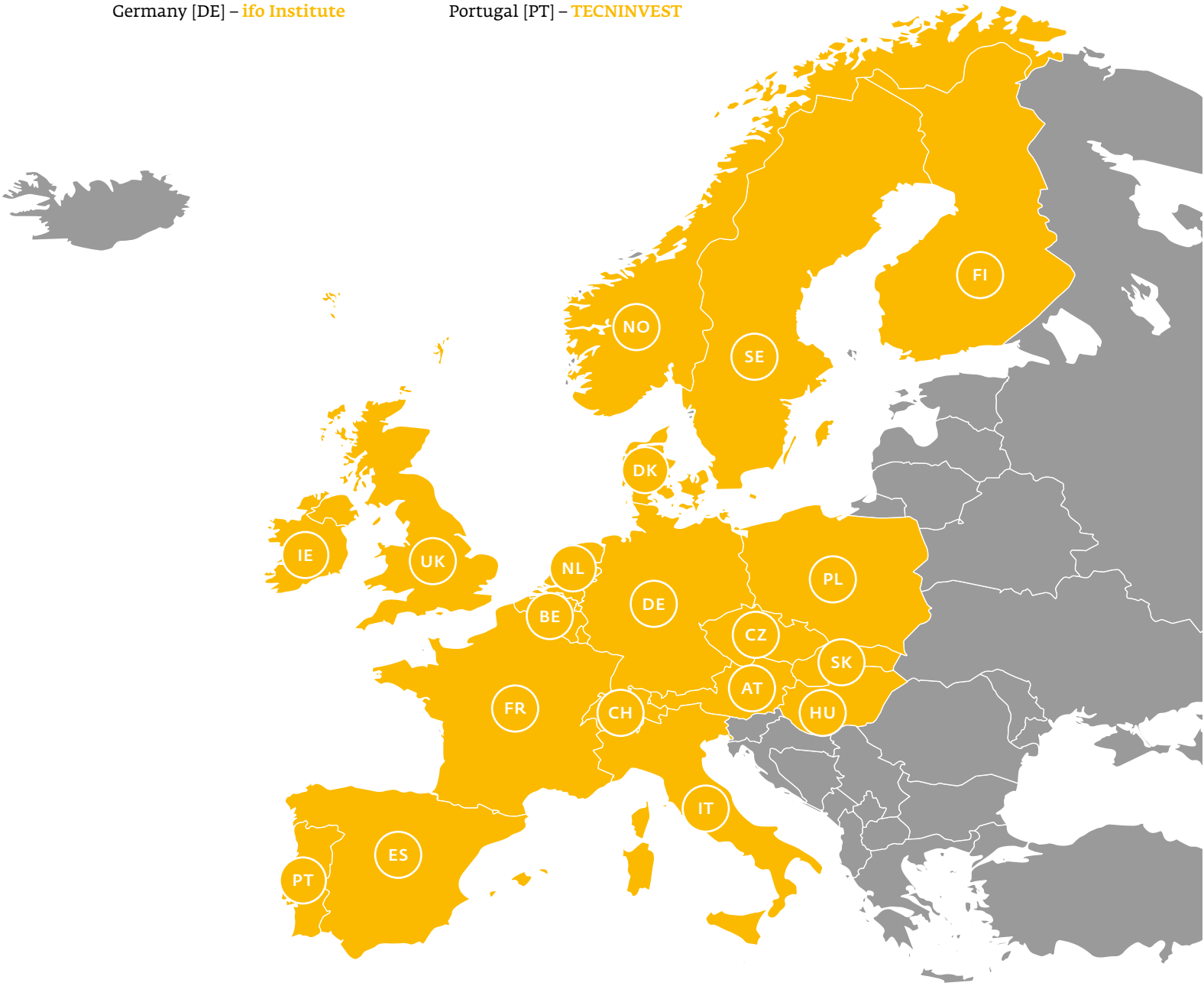

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Austria

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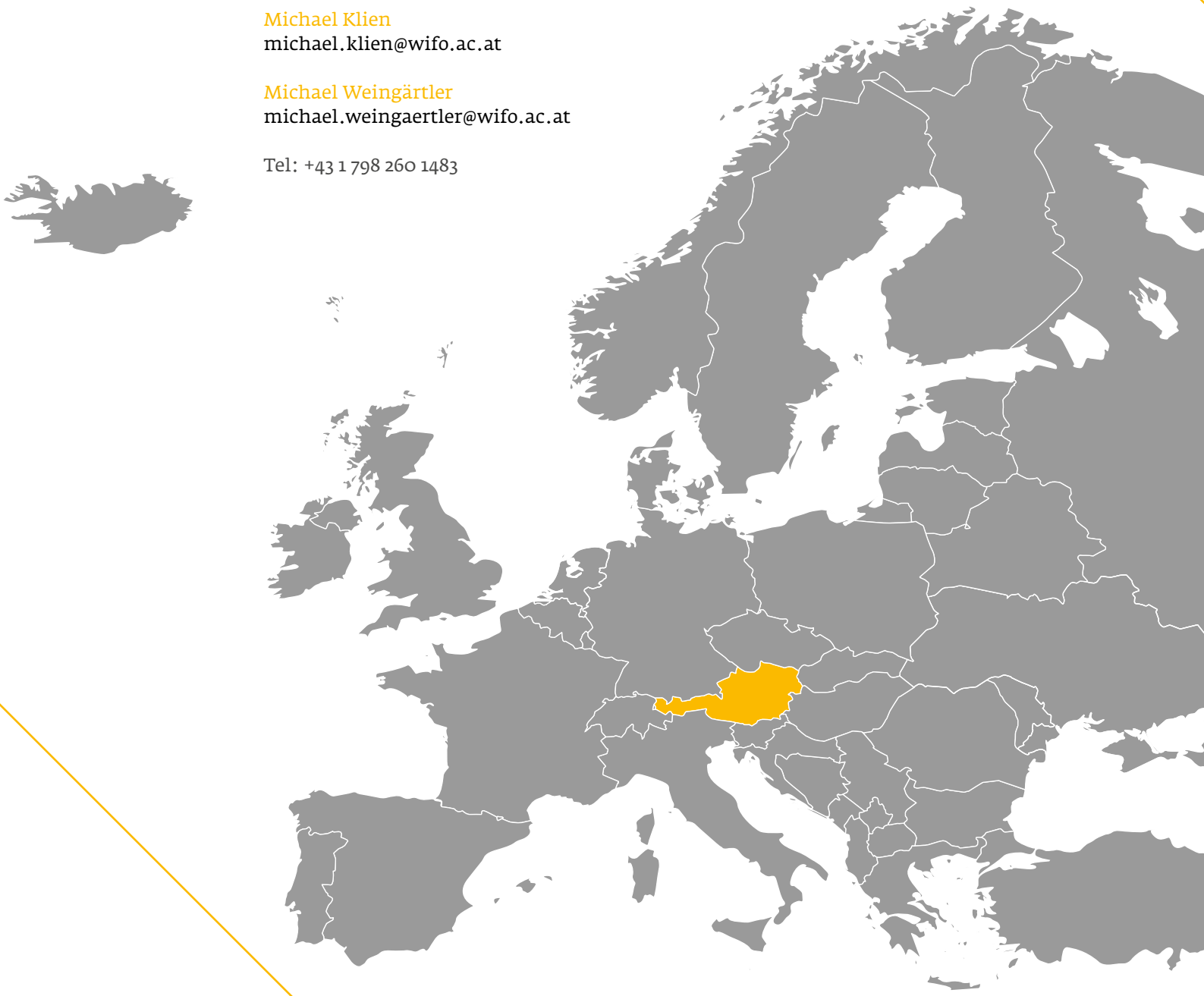


1. Summary and Conclusions

Austria's economy has peaked in 2018 and will grow just slightly below 2% in the years until 2021. The slowdown of the economy is therefore neither strong nor abrupt, illustrating the robust state of Austria's economy. Despite some downward risks to these forecasts – mainly international trade in the wake of trade-conflicts and Brexit – Austria is expected to grow faster than in the years before the recent boom and additionally stronger than most of its European peers. Particularly domestic demand is stabilizing the economy, which benefits from above-average income and wage growth. Also the labour market continues to improve at least until 2020.

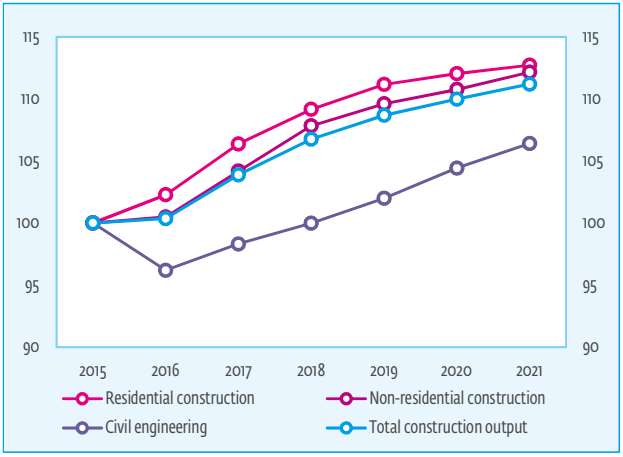
The construction sector has reached its peak already in 2017, but still exhibits growth rates well above the years 2009-2015. In 2018, its growth amounted to 2,8%. Moreover, leading indicators suggest that in 2019 construction might outgrow the overall economy. The outlook until 2021 is, however, less optimistic, with a return to growth around or even below 1%.

The **residential construction** market is already past its peak in 2017 and has since started to decelerate to 2.6% in 2018 and 1.8% in 2019 (forecast). Despite financing conditions further improving, the reversal in residential construction is confirmed by declining fundamentals like building permits and population growth. On top of that, price increases in residential construction was close to 4% in 2018, which further reduces real growth rates considerably. Housing renovation is more stable than new construction, showing lower growth in the current boom but also slower decline in the coming years.

Non-residential construction faces a slow-down in economic growth and in turn affecting industrial construction negatively. The demand for industrial buildings from the capital goods industry is expected to decline, since foreign trade is weakening. Office construction benefited in the recent past from a couple of large-scale projects, leading to a strong peak in office surface completed, which cannot not be sustained in the next years. For instance in commercial construction, sales space per inhabitants in areas like health and beauty is already among the highest in Europe, leaving little potential for future expansions. On the other hand, consumption is bolstered by public policies like the family bonus or the planned tax reform, which will support continued wage and income growth. It is thus expected that commercial construction will continue to expand at least at a moderate rate. A comparatively stronger growth is only expected in the health and care sector, with private sector engagement being the main growth driver. All things considered growth

Total Construction Output by Sector from 2015 to 2021

index 2015=100



Source: EUROCONSTRUCT (87th Conference)

in non-residential construction will decline significantly in 2019 at a rate of 1.6% with a further slowdown towards 1% in the next years.

Civil engineering growth had to be slightly revised downwards in 2018 due to lower investments in road construction, resulting in only 1.7% growth. The outlook for the next two years is brighter especially in highway infrastructure in 2019 and in the railway sector by 2020. Nevertheless, it must be considered that these forecasts are based on the 2018 public infrastructure roadmap which was not updated in spring 2019 as usual. Thus, the uncertainty in this area is higher than before. Investment in the energy sector will increase towards the end of the forecasting period mainly because of further investments in renewable energy sources are needed to meet climate targets. The investment cycle in water works is reaching its bottom but is expected to rebound until 2021 and the years after.Total civil engineering is therefore expected to grow by 2.0% in 2019 with and by 2.4% in 2020.

To summarize, Austrian total construction will continue to grow, but the pace will slow significantly, with growth rates of 1.8% in 2019 and 1.1% towards 2021, with civil engineering acting as the main pillar.

2. Macro-economic Outlook

After three years of consecutive growth above 2%, Austria's economy is starting to exhibit slower growth in 2019. The current WIFO forecast[1] (March 2019) projects a real GDP growth rate of 1.7% for Austria. Despite the slowdown, economic growth in Austria is still estimated to be above the EU average.

1 Schiman, S., Economy Set to Stabilise from Mid-2019. Economic Outlook for 2019 and 2020, WIFO-Bulletin, 2019, 24(4), pp. 28-39.

The slowdown of the general economy is also transmitted to the construction sector. Following growth rates of roughly 3% in 2017 and 2018, construction growth (measured by real construction investment) will slow to a rate slightly below 2% in 2019. In contrast to the general economy, the construction forecast shows an even stronger downturn to 1.2% for 2020 and 1.1% for 2021. Not only the construction segments that are related to the business cycle (industrial and commercial construction) but also residential construction is predicted to grow at considerably slower paces in 2020 and 2021. As a stabilizing force, civil engineering should contribute more strongly to construction growth than other segments.

Regarding revisions, GDP growth in 2018 was slightly lower than expected in the 86th EUROCONSTRUCT report (3,1%). Due to this change and the most recent economic data, the slowdown in 2019 is somewhat more pronounced than previously expected: 1,7% instead of 2,0%. However, in 2020 the economy is forecasted to stabilize already, resulting in 1,8% growth. In contrast, construction growth in 2018 is slightly above what was predicted in the last report (2,8% instead of 2,5%). At the same time, the slowdown in 2020 is now expected be materialize earlier.

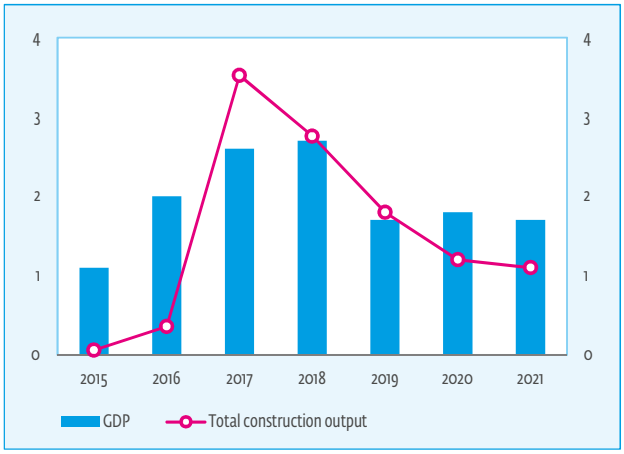
Foreign trade.

Global trade is developing only sluggish, exerting a negative effect on industrial activity in Austria. Part of the weak international demand is under the impression of the trade war between China and the US. This particular segment, however, has only limited influence on Austria's foreign trade. More critically for Austria, Germany's weak industrial performance is responsible for the current slump. For instance, the production shortfall in the German automotive industry had strongly negative repercussions for domestic suppliers of components. On the plus side, robust demand from the US for capital goods and buoyant activity in Central eastern Europe are stabilizing Austria's exports.

In any case, the stimulus from foreign trade is comparatively low, considering the crucial role exports typically have for small open economies like Austria. Albeit the direct consequences are unclear, the high uncertainty related to Brexit and the international trade wars, do not allow for stronger impulses from exports.

GDP and Total Construction Output from 2015 to 2021

year to year change in %



Source: EUROCONSTRUCT (87th Conference)

Industrial production.

The current slowdown in economic growth is largely driven by changes in manufacturing and industrial production. Production in this segment lost momentum throughout 2018 and even stagnated in the fourth quarter. The production side reductions are mirrored by sentiment indicators, which show a continued slowdown in the first quarter of 2019. The downward trend is strongly connected to the overall development of the European business cycle, which has been slowing since 2018. Both the weak industrial demand from Germany, particularly in the automotive sector, but also weak international trade contributes to this decline.

Labour market.

Even though Austria's economy has peaked already in 2018, there is no reduction in employment growth yet. Similarly, unemployment continued to decline in the first months of 2019. Nevertheless, unemployment remains high for Austrian standards, and its reduction will come to a halt in 2020, at the latest. Employment growth will also slow-down in the medium term, from 1.4% in 2018 to 1.1 and 1.0% in 2019 and 2020.

Related to the economic upswing in Austria, the labour market is currently also under the impression of higher wage increases. The results of the national level wage bargaining process led to wage growth of 2.5% in 2018. And a similar rate is expected for 2019.

Consumer demand.

Consumption is currently the main pillar of Austria's economic growth. Private consumption increased by 1.6% in 2018 and is expected to increase by 1.7% in 2019 and 2020. It is aided by increased wage growth as well as expansionary fiscal policy, both leading to higher income. With respect to fiscal policy, the family bonus introduced in 2018 increases incomes in 2019 and 2020 by more than 1 billion Euro. At the same time, tax bracket creep has a dampening effect on income growth. There current government has also announced further fiscal relief, but the details of these reforms are yet to be specified. In any case, they will be phased in over the next years until 2020, and only partially affect private income and consumer demand.

Prices and monetary policy.

Inflation is expected to remain stable in the next years. While unit labour costs, as the most important determinant of domestic cost pressures, will increase by 1.4% per year, gross total wages per capita continue to lag behind labour productivity growth. As a result, labour cost has little inflationary effect. The forecasts (WIFO medium term forecast) also do not project strong inflationary pressure from import prices. Overall, prices are expected to increase by 1.7% in 2019 and 1.8% in 2020 (national inflation rate).

Also, with respect to monetary policy, all signs point towards stability. In the euro zone, the economy lost momentum in 2018, with GDP growth of only 1.8%. Sentiment indicators peaked in 2018 and are now trending downwards. Unemployment is still quite high in some countries (e.g. France, Italy, Spain), and the core inflation rate is below the ECB target. It has stopped purchasing government bonds at the end of 2018, which it had used to support the in the economic cycle. However, the first interest rate steps will not follow until 2020. The ECB also announced that it would be targeting longer-term loans to commercial banks in order to increase their liquidity.

Fiscal policy.

Over the course of the economic cycle, tax revenue has increased continuously whereas expenditure remained relatively stable. The current government partly uses this fiscal leeway to launch additional fiscal measures but also to reduce deficits. The most important expansionary fiscal policies are:

- Family bonus: a tax deduction up to 1,500 Euro per child
- Social security contributions: Reduction in social security contributions to unemployment insurance from 1.3% to 1.2%.
- Restriction on own contributions to long-term care: private wealth of persons in long-term care is no longer subject to recourse by the government.

At the same time the government has announced it will run surpluses starting with 2019. Therefore, fiscal constraints are still binding, and strict budgetary execution remains in place. This also means that few additional funds will be made available for infrastructure spending other than those which are already established. Due to the fact that civil engineering funding tends to be shielded from the general budget – e.g. road construction is carried out and financed through own revenues by the ASFINAG – we do not expect that infrastructure spending is severely cut in the next years. On the contrary, recessions and downturns in Austria are frequently met by additional public spending programs on infrastructure.

Forecast uncertainties.

Due to relevance of exports for Austria's economy, the uncertainty regarding international trade conflicts – e.g. trade war US and China – remains one of the biggest risks. Austria is exposed both because it runs a surplus with the US but also because many of Austria's exports to the US comprise goods (e.g. machinery, investment goods, vehicles) that are targeted by tariffs.

Along the same vein, the non-resolution of the Brexit poses a considerable risk for Austrian exporters. Although the direct exposure of Austria is comparatively small, the uncertainty with respect to the how and when of UK leaving the EU are problematic.

Similarly, the slowdown in EU growth has not aided to resolve the problematic situation of Italian Banks. Given the conflict between the Italian government and the EU commission regarding Italy's budget, policy uncertainty is very high.

Key Macroeconomic Indicators in Austria 2017 to 2021
year-over-year change, % in real terms

	2017	2018	2019	2020	2021
Gross domestic product	2.6	2.7	1.7	1.8	1.7
Private consumption	1.4	1.6	1.7	1.7	1.6
Public consumption	1.5	0.2	0.7	0.5	0.7
Investment (GFCF)	3.9	3.3	2.3	1.8	1.5
Inflation	2.1	2.0	1.7	1.8	1.8
Unemployment	5.5	4.9	4.6	4.6	4.6

Source: Statistics Austria. WIFO-forecasts (March 2019).

3. Housing Market

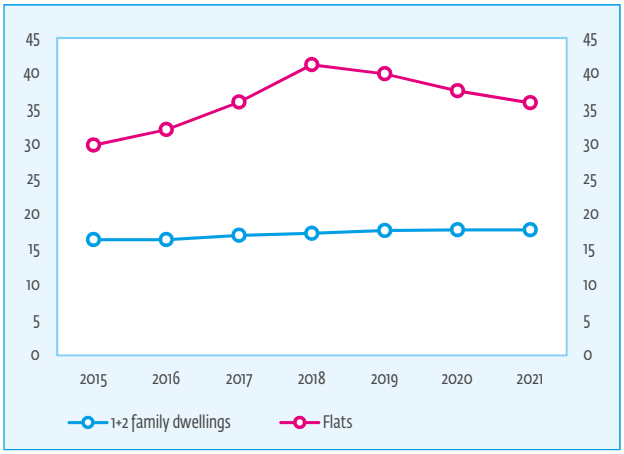
Austria's residential construction market is in the midst of a boom phase. After 4.0% in 2017 – the highest growth rate since the crisis – it expanded by 2.6% in 2018. Part of the recent slowdown is driven by strong price increases, reducing real growth rates. The growth prospects of the residential construction market for 2019 are still robust, but well below the levels of previous years. At the latest in 2020, residential construction will decelerate more strongly, with growth forecasts slightly below 1%.

3.1 New residential construction

Interest rates and financing conditions.

As indicated in section 2, inflation in the Eurozone has lost momentum in 2019. In Austria too, inflation rates have not continued to rise in 2018, but levelled off at 2.0%. For 2019, the latest WIFO forecast predicts 1.7% and 1.8% in the next year. Against this

Housing Completions from 2015 to 2021
in thousands



Source: EUROCONSTRUCT (87th Conference)

backdrop and a core inflation rate in the Euro area below the ECB target, the probability for monetary action is low.

The prospect of a continued low interest rate stance by the ECB is mirrored in a further reduction of interest rates for mortgages. Since 2016, interest rates have decreased by another 0.1 percentage points and are now at 1.83% for the average housing mortgage. As in the previous years, financing conditions are therefore no restriction for continued residential construction. Moreover, the current housing boom has certainly been aided by the historically low interest rates. The only risk to continued credit supply for housing is if further house price increases lead to stricter bank lending (see below).

Building permits.

The stock of Austrian building permits for one- and two-family dwellings as well as multi-storey buildings increased to the number of 62,600 in 2017. Such a high level has last been registered in the late 1970's and points to a veritable boom in residential construction. This historical high is likely to have contributed to the high growth in residential construction investment in 2017 and 2018.

The preliminary figures for 2018 show, however, that such a high level could not be sustained. In total, housing permits for units in new buildings decreased from 66,000 to 55,000 units in 2018. Albeit the decline is sizable, the level above 50,000 units per year is still very high by all standards. It is interesting to note that the decline in 2018 was attributable only to multi-storey units. Permits for one- and two-family dwellings increased by roughly 3% in 2018. Arguably, their increase was also much less pronounced in the past years, and more stable overall.

The regional distribution of building permits is shown in the following table. As urban regions like Vienna were responsible for much of the increase since 2015, it is not surprising that much of the decline in 2018 is attributable to the same. The latest WIFO forecasts for building permits predict a stabilization in 2019 before 2020 and 2021 exhibit further declines. In the medium-term building permits are expected to return below the 50,000 units threshold.

The decline in building permits is also explained by a continued slowdown in population growth. After the record of 2015 – a large share of which was attributable to refugees – population growth has decreased continuously. Moreover, population forecasts have been too high for several years now, and the most recent data suggests that net migration was below 40,000 in 2018.

AT

Regional Building Permits in New Residential Buildings
number

	2014	2015	2016	2017	2018
Burgenland	1,982	1,991	1,651	1,785	1,696
Carinthia	2,662	2,877	2,779	2,490	2,442
Lower Austria	9,147	9,640	10,033	9,582	7,971
Upper Austria	9,182	7,496	9,289	8,543	8,659
Salzburg	3,002	3,108	3,179	2,998	2,668
Styria	7,796	7,342	9,298	9,501	8,547
Tyrol	4,386	5,339	4,946	4,809	5,109
Vorarlberg	2,683	2,739	2,996	3,430	2,830
Vienna	9,044	10,685	15,705	22,850	14,895
Austria	**49,884**	**51,217**	**59,876**	**65,988**	**54,817**

Source: Statistics Austria (April 2019).

House prices and real estate.

Coupled with the decreasing population dynamics and lower building permits, housing prices have seen a slowdown in 2017. According to Austria's National Bank (OeNB), house prices have, however, started to grow again at a faster pace in 2018. Given the fundamentals pointing towards lower demand, house prices should stabilize again in 2019. As can be seen in the table further on, in 2018 the momentum was largely due to regions apart from Vienna. This too, might indicate more of a catching-up effect than a continuation of the strong price growth in the years after 2010.

Related to house prices, also the number of transactions has been stabilizing in 2017 but increasing again in 2018. Here too, transaction growth was stronger outside Vienna.

Related to the latest increase in prices, there are considerations of a housing bubble and how to tackle it. Following EU regulations, in 2017 Austria extended its macroprudential supervision of the housing market. At its core it introduced new instruments to reduce systemic risks stemming from the financial development of the construction and housing market. In a report from February 2019, the supervisory committee (FMSG) repeated its position that they currently do not see any systemic risk in mortgage markets and housing finance.

House Prices
year-over-year change, %

		2014	2015	2016	2017	2018
Austria	Total	3.5	4.1	7.3	3.8	6.8
Vienna	1+2 Family Houses	-3.3	2.6	-1.9	2.5	1.0
	Flats	4.7	2.2	4.2	1.4	5.4
	New flats	1.0	4.7	10.1	1.8	5.5
	Used flats	5.2	1.9	3.4	0.8	6.0
	Total	4.2	2.2	3.8	1.5	5.2
Austria without Vienna	1+2 Family Houses	6.4	6.8	7.5	1.9	8.3
	Flats	1.9	4.5	9.7	5.8	8.5
	New flats	-11.2	0.4	7.9	2.1	8.3
	Used flats	3.5	4.9	9.8	5.9	9.6
	Used flats	3.5	4.9	9.8	5.9	9.6
	Total	3.1	5.1	9.1	4.9	8.4

Real estate transactions
number of transactions, volume of transactions in billion Euro

		2014	2015	2016	2017	2018
Austria	number	96,197	112,124	121,436	121,171	129,144
Vienna		15,189	18,052	19,490	21,378	22,325
Austria	volume	19.5	23.5	26.9	28.1	31.9
Vienna		6.0	7.2	8.2	8.8	9.9

Year over year percentage change

		2014	2015	2016	2017	2018
Austria	number	+ 18.1	+ 16.6	+ 8.3	-0.2	+6.6
Vienna		+ 18.1	+ 18.8	+ 8.0	+9.7	+4.4
Austria	volume	+ 21.9	+ 20.4	+14.2	+4.7	+13.2
Vienna		+ 23.4	+ 19.7	+ 14.6	+6.6	+13.4

Source: RE/MAX-Immospiegel / IMMOunited GmbH, 2019. – Based on the official land register which covers new and existing buildings. Transactions cover all types of buildings (residential / non-residential) and land.

Public sector and policies.

Despite of its announcement of various housing related policies, the federal government has been rather inactive regards housing. For instance, public consultations about a new codification of rental laws have not yet started. Moreover, initiatives to ease new construction and decrease construction costs have not led to any conclusions yet. There were also indications that the announced tax reform for 2020 and beyond would contain incentives for new housing, but nothing substantial has materialized yet.

More relevant policies have been adopted on the sub-national level, whose primary responsibility housing is. Due to federal structure of Austria, however, the changes have occurred within single states. As a general trend, several states are trying to increase land supply by changing land use laws and spatial planning. For instance, new zoning for housing units has a limited time duration or new zoning specifies shares of housing units for social housing. To overall goal of these policies is to incentivize land owners to either build themselves or sell it.

Housing and housing construction subsidies are also mainly undertaken by sub-national governments. The table on public housing subsidies shows that over the expansion in recent years, governments have cut their construction subsidies. In 2018, preliminary data indicates a further decline compared to 2017, with overall spending of 2,2 billion Euro. What is more, draft budgetary plans indicate no reversal of the decline in housing subsidies in 2019. The figures must be interpreted with caution, however, as the further decrease in interest rate also affects the required spending.

Public housing subsidies
volume, million Euro

	2014	2015	2016	2017	2018 [1)]
Burgenland	94	79	63	59	60
Carinthia	135	124	131	129	135
Lower Austria	622	472	434	409	398
Upper Austria	339	284	275	276	267
Salzburg	262	188	168	140	110
Styria	444	451	380	334	290
Tyrol	268	270	277	277	278
Vorarlberg	146	147	141	148	168
Vienna	135	124	131	494	456
Austria	2,939	2,528	2,378	2,265	2,161

Source: Austrian Ministry of Finance (2018), States (2019). (Austrian Ministry of Finance).
1) 2018: projection based on Draft Budgetary State Plans)

3.2. Residential renovation

Similar to new housing, residential renovation peaked in 2017 but is still expanding above average in 2018. As in the past, residential renovation is currently more robust with respect to the business cycle but will also see a slowdown in the years until 2020. From 2% in 2018 to 1.7% in 2019 continuing with 1.2% and 1.3% in 2020 and 2021.

There are public subsidy schemes are available for residential renovation both on the national and the sub-national level. In either case, subsidies on renovation has decreased in recent years. The latest data from the sub-national level suggests that in 2017 the subsidies decreased from 564 to 515 million Euro in 2016. Overall, renovation subsidies account for roughly one third of housing subsidies (excluding means tested benefits to renters).

On the federal level, the scheme 'Sanierungsscheck' has been gradually reduced. From 80 million in 2015 to 43 million in 2018. Part of these funds are also earmarked for renovation activities outside housing, e.g. private firms.

Although the link to subsidies is not clear, renovation rates in Austria remain stable but below the national targets. In the case of comprehensive residential renovation, the rehabilitation rate is estimated around or even below 1%. However, this does not include more partial renovation activities such as replacement of windows or heating boilers. Including such activities, the rate is estimated at around 2%.

Given the national and international climate targets, the federal government has presented plans to increase renovation activities. Apart from public subsidies for renovation, changing rental regulations is being considered. Landlords who renovate their housing units are then exempted from rental regulations and may charge market rate rents. Depending on the design, this step has the potential to strongly push residential renovation, but no details have been specified yet.

4. Non-residential Market

Non-residential construction at a glance.

Market performance until 2018. At the beginning of this construction boom, the recovery of non-residential construction lagged behind housing construction. It benefitted from the overall economic upturn in 2015/16, but this was not strong enough to create significant non-residential investments. The non-residential construction market therefore only grew by 0.5% annually in the years 2015 and 2016 in real terms. This changed in 2017, with a strong boost in non-residential construction investments in 2017 (+3.7%) and 2018 (+3.5%). This upswing was mirrored by business sentiment indicators, showing that Austria's economy was in the midst of a strong economic growth phase. Among others, strong foreign trade supported industrial construction. Moreover, the booming real estate market and new city development areas, especially around the new main railway station, stimulated the office market. Stable/increasing investments in the area of education and in the health sector additionally boosted the non-residential construction market.

Recent market performance 2019 to 2021. The economic boom in the past two years seems to be over and economic growth slows down. Non-residential construction, especially private investment is highly correlated with the economic cycle, which will put pressure on this construction segment in the upcoming years. Industrial construction is one of the sectors which will be affected most, as the outlook for international trade is rather bleak until 2021. Growth in the office construction segment will not only weaker in the next years because the economic cycle, but also as large scale office projects came to an end. Commercial areas are facing tough competition which reduce the potential for investments in the upcoming years. On the positive side, one of the growth drivers will be the expansion of health care, due to the strong private engagement. Considering that the ageing of society will proceed fast, reaching over 1 million persons older than 75 years by 2030, it is not surprising that the elderly care segment is further expanding. But also in the "classical" health sector the private engagement is increasing. In summary, non-residential construction in Austria is expected to expand by 1.6% in 2019 and growth until 2021 will stay at a rate above 1%.

New non-residential construction by subsectors.

Education. Investments in new educational buildings had a volume of about 840 million Euro in 2018. This amount was spent on three different institutional levels with the municipal level being the largest contributor. Major investments in the educational sector are also undertaken by BIG, the federal real estate company, which is key-player in the development and construction of federal schools and universities. Thirdly investments are made by the States ('Bundesländer'), but their share is less than 5% on the total investments, showing hardly any dynamics in the past ten years.

On the municipal level, investment in education increased steadily from 2011, according to municipal budgetary reports. They reached record levels in 2018 leaving little room for continued strong growth.

The downward revision for 2018 is due to lower investments of BIG into new construction of educational buildings, which were less than projected in the public budgetary plan. According to the organization's annual report a shift of projects towards 2019 is envisaged. Due to these diverging trends, educational construction grew by (only) 1.8% in 2018.

Forecasts for 2019 are more optimistic, with a projected growth in new construction by 3.2%. Stronger investment will be needed also because of a growing number of pupils.

Despite the expected stronger investments of BIG in 2019, educational investments are forecasted to stagnate towards 2020 and 2021 because of lower activity on the municipal and state level. Impulses still come from the expansion of kindergarten and most notably day-care facilities. Nevertheless, these will be not strong enough to compensate lower investments in new educational buildings. In April 2019 the government set up further regulation to increase the attractiveness of this law and a new budget with a volume of 250 million Euro was fixed. Main goal is to support full day school types where most of the funding (170 million Euro) will be put into the preservation of existing places. The impact on construction will be minor since it does not target the construction of new facilities in the first line.

Health construction. Expenditures in the Austrian Health System amounted to around 40.1 billion Euro according to the flash estimate of Statistics Austria. Nearly 7% of these expenditures (2.7 billion Euro) were investments in buildings, including expenditures for medical equipment. Investments solely relevant to construction are estimated at around 1.7 billion Euro in 2018.

Main driver in health construction is the private sector. In this area investments nearly increased by one third within the past five years. This is in line with the long-term trend: the share of private investments on the total amount invested in the health sector increased from 25% (1990) close to 50% (2018).

One of the main driving forces is the construction of care facilities for elderly. The population over 75 years will grow by 136,000 persons in the period 2020 to 2029 according the projections of Statistics Austria. In 2030 over 1 million inhabitants will be older than 75 years in Austria and the development speeds up in the following decade. Absolute growth will more than double – with projected 319,700 additional inhabitants over 75 years – in the period 2030 to 2039 compared to 2020 to 2029.

The outlook for construction investments in the health and care segment is therefore expected to stay favourable. Short-term growth is expected to be lower in 2019 compared to previous years due to the completion of major hospital projects.

Additionally, the existing dense hospital network is a dampening factor. One of the most important objectives of Austrian health policy is to increase efficiency, especially in the hospital sector. Hospital locations and hospital consolidations are continuously evaluated. This partly explains the weak public investment activity, especially compared to the private sector. Public investments are expected to be weak, reinforced by the public 'debt brake' which is in place since 2017. This forces state governments to tighten cost controls in the upcoming years.

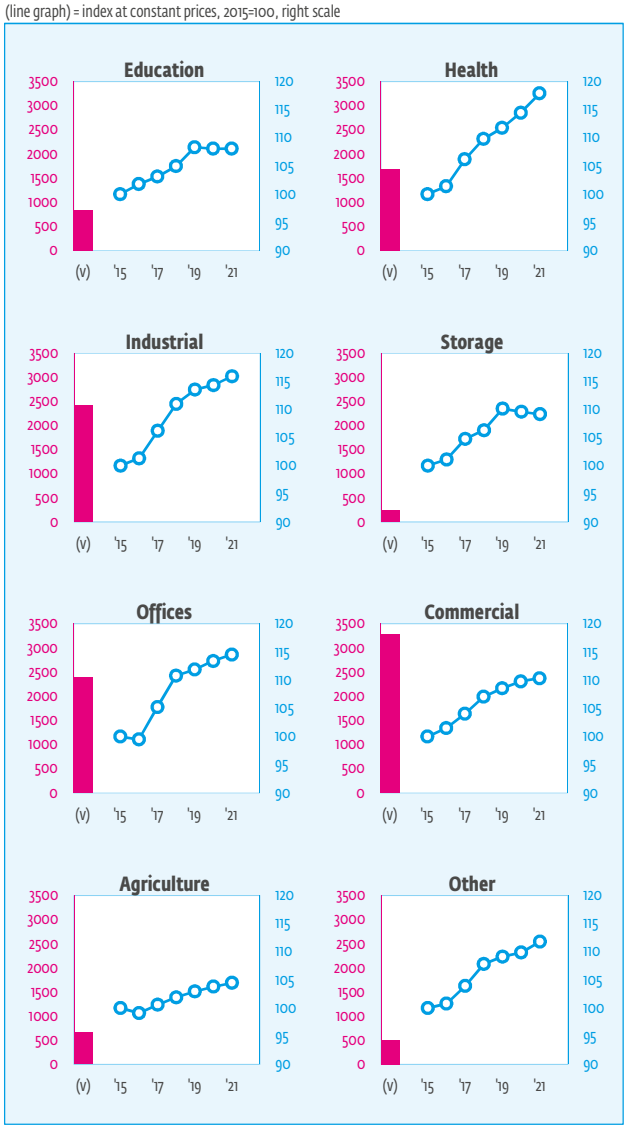
It is expected that these lower investments from the public sector will be fully offset by private investment. It is therefore expected that growth in new health construction is will vary between 2% and 3% in the years 2020 and 2021.

Industrial construction. The solid macroeconomic performance in 2018 led industrial construction continue to grow at a rate of 4.5% (real terms). Floor space of building permits for "Other Non-residential buildings" – which also represents industrial buildings – increased from 2.28 million square meters (2016) to 2.74 million square meters (2017). The number further rose in 2018, reaching 2.81 million square meters. This is in line with the economic cycle and the trend in the the capital goods industry. Also, WIFO business surveys confirm the solid market environment. Companies in the capital good industry remain optimistic, in both their assessment of the current situation but also their future expectation. But this should not obscure the fact that confidence is declining. Business confidence in the capital goods industry continuously declined since their peak mid 2018.

Investments in this construction segment are therefore expected to grow at a slower pace in 2019 (+2.3%) and a further slowdown in 2020 (+0.7%). The trend in 2021 is a bit more optimistic, as private consumption will remain strong for several reasons. Firstly, the family bonus, introduced on 1 January 2019 increases the disposable income in the upcoming years. Secondly, the tax reform currently being negotiated is expected to provide an additional boost, which should increase net income and thus also private consumption.

Storage buildings. This segment benefits from an ongoing trend in e-commerce. In 2018 online sales increased by 5% compared to 2017 according to the Austrian Trade Association ('Österreichischer Handelsverband'). At that time 4.3 million Austrians (more than 50% of the total population) were shopping online and created a turnover of over 7.9

New non-residential: breakdown by subsectors
(v) = volume 2018, million €, left scale;
(line graph) = index at constant prices, 2015=100, right scale



Source: EUROCONSTRUCT (87th Conference)

billion Euro (eCommerce in Austria 2018). This volume represents over 10% of total sales. The strong growth in e-commerce is additionally supported by shopping via mobile phone, whose market has grown by 20%. The expansion of online trade also requires additional logistic and warehouse capacities. According to CBRE construction will intensify especially in area of Vienna in 2019. The biggest projects are Industrial Campus Vienna East developed by the Germany Logistics Holding and the freight centre of the German packet logistic company DHL in Fischamend. In the other major logistics areas – such as the environs of Graz and Linz – the level of investment will be maintained or significantly increased in 2019, as in the case of the latter. Storage building construction will increase stronger in 2019 with a growth of 3.6%. The project pipeline indicates that construction volumes will be reduced in the upcoming years and a small decline by 0.5% and by 0.4% in the year 2020 and 2021 respectively are expected.

Office construction. Total investments in office construction had an estimated volume of 2.4 billion Euro in 2018 and performed strong in the years 2017 (+5,7%) and 2018 (+5,3%).

Vienna, the most important office market had a total office space of 11.2 million square meters by the end of 2018 (CBRE, 2019). Office space completed increased by 267,000 square meters in 2018 and therefore reached its highest level since several years. Mainly two major construction sites were responsible for this trend. These were The Icon Vienna and the Austria Campus. Real estate companies (CBRE, EHL) assessed that the new surface put on the market also led to a slight increase in vacancy to slightly over 5%, which is in European comparison still low. The new and qualitative higher office stock also led to slightly rising rents with prime rents up to 25 Euro and average office rents by 14.5 Euro per square meter.

The 2018 volume will not be sustained in Vienna nor in Austria in the upcoming years. Surface based on building permits in the office sector shows already a downward trend since 2016, with a decline of around 6.2% in 2018. Office construction will slow down significantly in the upcoming years 2019 to 2021 with an average growth of around 1% annually.

Commercial construction. Several new brands entered the Austrian market in the past two year which coupled with strong consumer demand led to a increased commercial construction. WIFO's mid-term projection shows that growth in private consumption will continues until the end of the forecasting period 2021, reaching a rate of 2.0% at that time. The family bonus mentioned in the introduction was one of the main supporting measures along with the growing population. An increased income due to the upcoming tax reform will support this growth.

In general, commercial market can be split into grocery, health and beauty, apparel & footwear as well as home. The health and beauty sector in Austria, which has the highest sales area per inhabitant (CBRE, 2019) in Europe, as well as the grocery sector will stabilize in the upcoming years in terms of floor space and sales. A minor decline can be expected in the segment of apparel and home & garden equipment. Especially the apparel sector faces strong competition from e-commerce which, under the assumption of a continuation of this trend, will lead to lower surface needs in the long-term. An impulse comes from tourism. In 2018 around 44.8 million tourists arrived in Austria. This is an increase by 44% in 10 years, leading to 23% more overnight stays (2018: 150 million). Total spending of national and international tourist was over 40 billion Euro in 2018 which also supports the commercial construction sector.

Forecasts show that commercial building construction will perform stable in the upcoming years with minor growth by slightly over 1% in the years 2019 to 2021.

Legal regulations restrict new greenfield shopping centres. In this area, expansions and mainly renovation works are more important factors than new construction. Additionally, Austria has the highest sales space per capita. The Retail Barometer 2018 for Austria ('Handelsverband') shows that with 1.67 square meters (m2) per inhabitant, domestic retailers rank first in this statistic ahead of Belgium (1.64 m2) and the Netherlands (1.61 m2). For many retailers in Austria, the strong focus on branches poses the threat of declining market shares and lower returns, especially since online traders like Amazon expand their market shares rapidly. As a result, new projects are located almost exclusively in top locations because of the strong competition. This leads to a continuous increase in high-quality shopping facilities but also the criteria for a top location are getting stricter and stricter.

5. Civil Engineering Market

The current environment for the civil engineering can be assessed as good with a stable outlook towards 2021. Tax revenues are increasing in the current economic boom and will continue to do so because of robust growth in labour and private consumption. Austria had a balanced budget already in 2018, and surpluses are expected in the years 2019 and 2020.

Investments for infrastructure, at least on the federal level, were part of the twin budget for 2018 and 2019, enacted in spring 2018. These plans are still relevant, as no new "Transport Framework Plan" – setting the transport infrastructure priorities – was presented for the upcoming period 2019 to 2024. Since the civil engineering market is dominated by transport infrastructure – with a share of around 55% in total construction – this implies that forecasts have remained very stable since the last report. The updates in the civil engineering market are therefore most due to realizations for 2018.

In general, the quality of infrastructure in Austria is also at a good state underpinned by the twelfth rank in the Global Competitiveness Report (WEF, 2018). Austria's infrastructure is leading worldwide in the areas of electrification (#1), reliability of water supply (#10) and quality of roads (#10). On the other side lacks in infrastructure were identified in the areas of the efficiency of air transport (#45) and (sea/river) port services (#85) and airport connectivity (#37). As mentioned in the last report several legal initiatives were undertaken by the federal government to improve Austria's infrastructure and its business location in general. A special location development law ('Standortentwicklungsgesetz') came into force on 1st of December 2018. It is expected that this law will shorten the environmental assessments for new construction projects to achieve large infrastructure projects within shorter time. But this law caused also a lot of criticism, since the new regulation will restrict the rights of non-governmental organisations.

5.1 Civil engineering by sectors

Road construction. Total investment in the road infrastructure had a volume of 2.2 billion Euro in 2018. Thereof around 50% of investments are used for the extension and renovation of the highway network. The rest is split into investments on the municipal (35%) and on the federal level (25%). In the years 2011 to 2017, municipal investment and those of ASFINAG increased significantly, by 50% and 70% respectively. As a result, the strong investment increase in both renovation and expansion of the road network have led to volumes which were last seen before the crisis. The strong expansion of the highway network can be explained by the sound financing situation of ASFINAG. Its main source of income are revenues from tolls which increased by 6% in 2018 and amounted to 2.16 billion Euro. Also traffic volume is expected to grow further in the upcoming years between 2.5% and 3% according to estimations from ASFINAG.

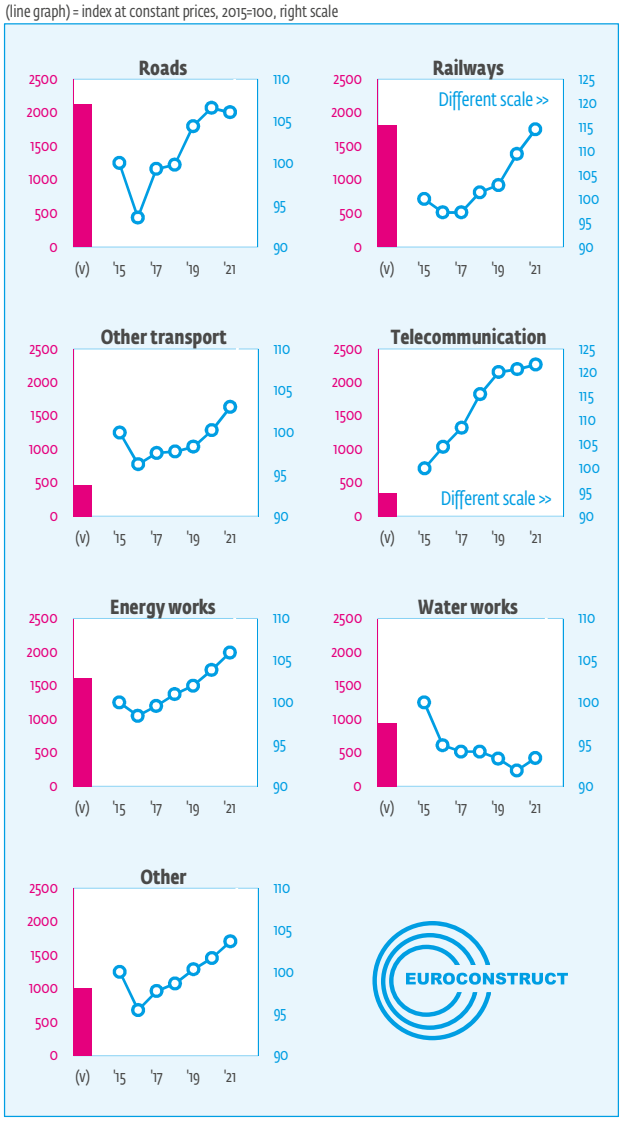
Asfinag projects to invest about 1.2 billion Euro in the extension and renewal of the high-level road network in 2019. The largest volume of about 700 million Euro is earmarked for new road projects, second tunnel tubes and in general extensions for more capacities. One of the major projects is the so called "Region-Ring (Regionenring)". It combines a total of six motorways and expressways with a length of around 195 kilometres. The "Region-Ring" forms one of the most important road connections in Vienna and Lower Austria. It also ensures the connection to the eastern neighbouring countries.

In the years 2019 to 2021 the most important projects (volume > 100 million Euro) which will start in the years 2019 to 2021 are:

2019:

- A4 Fischamend to Bruck West – length: 16 km, total costs: 138 million Euro, planned opening: 2022
- A 26 Knoten Linz Hummelhof (A7) to Anschlussstelle Donau Nord – length: 4.7km, total costs: 668 million Euro, planned opening: 2031
- S 1 Schwechat to Süßenbrunn – length: 19 km, total costs: 1.9 billion Euro, planned opening: 2025

Total civil engineering: breakdown by subsectors
(v) = volume 2018, million €, left scale;
(line graph) = index at constant prices, 2015=100, right scale



Source: EUROCONSTRUCT (87th Conference)

2020:

- S 34 St. Pölten/Hafing to St. Pölten/West (A1) and Wilhelmsburg – length: 9 km, total costs: 196 million Euro, planned opening: 2024

2021:

- S1 Spange Seestadt Aspern – length: 4.6km, total costs: 223 million Euro, planned opening: 2023
- S 4 Knoten Mattersburg to Knoten Wiener Neustadt – length: 14km, total costs 143 million Euro, planned opening: 2024)
- S 8 Knoten S 1/ S 8: Gänserndorf/Obersiebenbrunnlength – length: 14.4km, total costs: 310 million Euro, planned opening: 2023
- S 10 Freistadt Nord to Rainbach Nord – length: 7.2km, total costs: 208 million Euro, planned opening: 2024

Railway construction. Investments in the Austrian railway network have increased by slightly over 4% (real terms) to 1.8 billion Euro in 2018. In general, the framework plan for the Austrian railway infrastructure AG budgeted investments with a volume of about 13.9 billion Euro over the years 2018 to 2023. Key projects are:

- The 'Brenner Basis Tunnel' is currently the largest Austrian railway project with a volume of close to 5 billion Euro (without financing costs). For the period 2018-2020, investments of about 952 million Euro are budgeted. The project is still in the start-up phase – less than 17% of the total volume was spent at the beginning of 2018. Annual investments are expected to increase in course of the construction progress from 211 million Euro in 2018 to 470 million Euro in 2020 and to over 500 million Euro in the years afterwards. The route is planned to be finished in 2025.
- Southern route ('Südbahnstrecke'). The main project is the 'Semmering Basis Tunnel', connecting Gloggnitz and Mürzzuschlag, with a volume of about 3.3 billion Euro. For the period 2018-2020, around 871 million Euro are budgeted. The largest investments will be spent in 2020 (312 million Euro) and not in 2018 as previously planned. Around one quarter of the project is finished, and completion is expected in 2026.

The 'Koralmbahn', the connection Graz-Klagenfurt, has a project volume of around 5 billion Euro. In the period 2018-2020 construction works will amount to 960 million Euro which are nearly evenly distributed over this three-years period. The opening of the route will be delayed towards 2026 instead of previously stated 2024.

After a strong growth in 2018, the segment will grow only by 1.5% in real terms in 2019. The main reason is that several large infrastructure projects in the framework plan were postponed, shifting the investment to the years past 2019. As a result, for the years 2020 to 2021 an expansion of 6.3% and 4.7% is expected.

Telecommunication. The Austrian telecommunications sector for end costumers can be split in four main areas: mobile communication, broadband internet, fixed line communication and leased lines (connections).[2] Total turnover in 2017 was 4,1 billion Euro.

The area with the largest turnover share is mobile communication (63%). In this sector strong competition led only to minor growth in turnover by 0.2% in 2017 and by 1.4% in the first three quarters of 2018.

Broadband internet connections are the second most important segment with a turnover share of 25%, which also created the largest increased by

2 The main source of income stems from services for end costumers (89%) whereas only 11% are generated with services between the telecommunication providers. Data is from the Austrian Communications Authority (April, 2019)

6.5% in 1Q-3Q 2018 (2017: 4.4%). Shrinking turnovers continue in fixed line communication, which has a share of around 9% (1Q-3Q2018: – 6.6%, 2017: -7,7%) whereas leased lines in the telecommunication area more than doubled in the first three quarter of 2018. But the latter segment only accounts for 2% of end customer turnover.

In addition to market performance and turnover, also frequency auctions are of high importance for the telecommunication sector. In 2019, due to the 5G auctions in the frequency bandwidth from 3.4 to 3.8 GHZ, payments by providers increased strongly compared to previous years. The providers paid 187.6 million Euro, which is, however, significantly less than in 2013 for the LTE frequencies (2.0 billion Euro) and corresponds roughly to the European average. In 2020 further frequency bands (700, 1500 and 2100 MHz) will be auctioned with an expected public revenue of 350 million Euro. No negative effect on construction investments is expected, due to the moderate costs of the frequency auction.

Due to the importance of ICT for an economy, telecommunication investments are supported by the government through subsidies. The latest budgetary plan (March 2018) contains public broadband support with a volume of 135 million Euro in 2018 and 145 million Euro in 2019. This represents an increase of over 7% compared to the previous year.

The preliminary figures for 2018 and the forecasts remain unchanged. The improving market performance along with the public measures lead to a forecasted growth of construction investments by 4.0% in 2019. In 2020 and 2021 it is expected that the high investment volume is kept stable. No major additional impulses are expected for the construction industry.

Energy. Austria's energy market has a volume of 1.6 bn Euro and investments in 2019 are expected to grow by roughly 1.0% (in real terms). The environment of low energy prices still continues which is dampening the market most, but the outlook is slightly more favourable. International and national climate targets are one of the strongest market drivers. Investments are necessary to meet for example the EU 2030 climate and energy framework. Key targets towards 2030 are (1) an at least 40% cuts in greenhouse gas emissions (from 1990 levels – Paris agreement), (2) an at least 32% share of renewable energy and (3) an at least 32.5% improvement in energy efficiency. The framework was adopted by the European Council in October 2014. The targets for renewables (previously 27%) and energy efficiency (previously 27%) were revised upwards in 2018.

The current focus of the energy sector is on investments in renewables to meet the climate targets. In general, the situation in Austria is favourable regarding renewables, as confirmed by the latest publication on the Energy Transition Index (ETI) of the World Economic Forum (March 2019). Austria ranks #6 world-wide in 2019 with the 'Transition Readiness' and 'System Performance'. Austria belongs therefore to the global leaders in energy change after Denmark, Finland, Norway, Switzerland and Sweden. Austria's electricity generation already comes largely from renewable sources, which have a share of around 72%. This high rate on renewables mainly stems from hydropower (56%), the dominating source of energy production in Austria and to a smaller extent from wind, photovoltaic or geothermic sources (16%) (Statistics Austria, 2017).

The situation regarding CO_2 emissions is less positive. Austria failed its national climate goals in 2017, and the Wegener Center in Graz assumes that the goals cannot be met in 2018 either. Their forecasts for 2019 and 2020 are also pessimistic. Taking this into consideration , it seems that Austria's Energy and Climate strategy target to reduce greenhouse gas emissions by 36% in 2030 (compared to 2005 levels) is very ambitions. To achieve this goal investments in the energy sector have to be intensified. It is planned that the electrical power production is based 100% on renewable sources from 2030 onwards. This would create the need for 27 billion kWh clean energy additionally (Energy Austria) and also extensive investments in the expansion of power production. The field of water energy requires an expansion of 6-7TWh, wind energy and photovoltaic of 10-11TWh, each according to Energy Austria. Estimations of the Technical University Vienna show an investment need of 30 billion Euro to achieve this target. But at the moment a strong momentum towards massive investments in renewable energy cannot be observed.

It is expected that investments in the energy market will increase in the next years, also because of an improved financing situation due to rising energy prices, but growth rates will be moderate with 1.8% in 2019 and 2.0% in 2020.

Water works. Construction in the residential water sector had an estimated volume of 966 million Euro in 2018. The subsidies from the federal states reached 100 million in 2017, and are expected to decline in 2018 and onwards. As the municipal investment is closely related to these subsidies, a decline in the associated construction investment is expected for 2019. The same applies to 2020 where a further decline in investments by 1.5% is forecasted.

Investments are mainly needed to guarantee the proper operability of water supply and disposal since numerous pipelines and the sewer infrastructure matures. Calculations from IHS and Kommunalkredit Public Consulting (2018) showed that the investment need towards 2030 will rebound over the next years. One of the main assumptions is that pipelines have a lifespan of around 50 years. This means that the infrastructure built between the mid-70s and 80s has to be renovated in the next 10 years. In this period more than 15.000km waste water lines were built – nearly twice as much as in the 10-year period before which explains the higher need for water works which is likely to be affective by the end of the forecasting horizon.

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 2019 WIFO forecasts (2019 to 2020) and on the spring 2019 WIFO mid-term forecasts (2021). 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 2019 forecasts based on ESA 2010 (correspondently also Tables 4a and 4b).
- Data for cement consumption are based on the information of the cement industry.

Table 3

- Permits, starts and completions refer to new dwellings in new residential buildings.
- Permitted dwellings until 2018 stem from official data (April 2019) 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 2019 WIFO forecasts (2019 to 2020) and the spring 2019 WIFO mid-term forecasts (2021). 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
	2015	2016	2017	2018	2019	2020	2021
Population ('0000s) **Population** **Bevölkerung**	8 585	8 701	8 773	8 822	8 866	8 909	8 951
Households ('0000s) **Ménages** **Haushalte**	3 777	3 826	3 869	3 902	3 932	3 959	3 985
Unemployed ('0000s) **Chômeurs** **Arbeitslose**	354	357	340	312	299	301	304
Unemployment rate (%) **Taux de chômage** **Arbeitslosenquote**	5.7	6.0	5.5	4.9	4.6	4.6	4.6
Change of GDP **Variation du PIB** **Veränderung des BIP** **(% change in real terms)**	1.1	2.0	2.6	2.7	1.7	1.8	1.7
Consumer prices (% change) **Prix à la consommation** **Verbraucherpreise**	0.9	0.9	2.1	2.0	1.7	1.8	1.8
Construction prices (% change) [1] **Prix de la construction** **Baupreise**	0.6	1.3	2.1	2.8	2.9	2.8	2.4
Short term interest rate [2] **Taux d' intérêt à court terme** **Kurzfristiger Zinssatz**	0.0	-0.3	-0.3	-0.3	-0.3	0.1	0.6
Long term interest rate [3] **Taux d' intérêt à long terme** **Langfristiger Zinssatz**	0.7	0.4	0.6	0.7	0.7	1.8	2.2

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
		2018	2015	2016	2017	2018	2019	2020	2021
Residential construction **Logement** **Wohnungsbau**	New	12 886	1.2	2.5	4.5	2.9	1.9	0.6	0.3
	Renovation	5 678	0.3	1.8	2.9	2.0	1.7	1.2	1.3
	Total	**18 564**	**0.9**	**2.3**	**4.0**	**2.6**	**1.8**	**0.8**	**0.6**
Non-residential construction **Bâtiments non résidentiels** **übriger Hochbau**	New	12 011	0.7	0.9	3.8	3.6	1.7	1.1	1.1
	Renovation	3 678	-0.3	-0.8	3.3	3.2	1.5	0.9	1.6
	Total	**15 689**	**0.5**	**0.5**	**3.7**	**3.5**	**1.6**	**1.1**	**1.3**
Building **Bâtiment** **Hochbau**	New	24 897	1.0	1.7	4.2	3.2	1.8	0.8	0.7
	Renovation	9 356	0.1	0.8	3.1	2.5	1.6	1.1	1.4
	Total	**34 253**	**0.7**	**1.5**	**3.9**	**3.0**	**1.8**	**0.9**	**0.9**
Civil engineering **Génie civil** **Tiefbau**	New	6 675	-2.7	-3.6	2.4	1.9	2.3	2.5	1.7
	Renovation	1 653	-0.7	-4.6	1.4	0.9	0.8	2.0	2.7
	Total	**8 328**	**-2.3**	**-3.8**	**2.2**	**1.7**	**2.0**	**2.4**	**1.9**
TOTAL CONSTRUCTION OUTPUT		**42 581**	**0.1**	**0.4**	**3.5**	**2.8**	**1.8**	**1.2**	**1.1**

	2018					Forecasts		Outlook
	Volume mill. tons	2015	2016	2017	2018	2019	2020	2021
Domestic cement consumption **Consommation intérieure de ciment** **Inländischer Zementverbrauch**	4.99	3.8	3.7	2.1	1.9	0.7	0.4	0.0

Renovation covers repair and maintenance, refurbishment and reconstruction.
1) At 2018 prices, excluding taxes.

Country/Pays/Land: Austria — Table 3

RESIDENTIAL CONSTRUCTION
CONSTRUCTION DE LOGEMENTS
WOHNUNGSBAU

		Thousands dwellings						
						Forecast		Outlook
		2015	2016	2017	2018	2019	2020	2021
Building permits **Logements autorisés** **Baugenehmigungen**	1+2 family dwellings Individuels 1+2-Familienhäuser	16.3	17.8	17.9	18.4	17.9	17.9	17.6
	Flats Collectifs Mehrfamilienhäuser	34.9	42.1	48.1	36.4	36.2	33.8	33.1
	Total	**51.2**	**59.9**	**66.0**	**54.8**	**54.1**	**51.6**	**50.7**
Housing starts **Logements commencés** **Baubeginne**	1+2 family dwellings Individuels 1+2-Familienhäuser	15.6	16.2	16.9	17.2	17.2	17.0	16.9
	Flats Collectifs Mehrfamilienhäuser	32.4	36.6	42.8	40.1	34.5	33.2	31.7
	Total	**48.0**	**52.8**	**59.8**	**57.4**	**51.7**	**50.2**	**48.6**
Housing completions **Logements terminés** **Baufertigstellungen**	1+2 family dwellings Individuels 1+2-Familienhäuser	16.4	16.4	17.0	17.3	17.7	17.8	17.8
	Flats Collectifs Mehrfamilienhäuser	29.8	32.0	35.9	41.2	39.9	37.5	35.8
	Total	**46.2**	**48.5**	**52.9**	**58.5**	**57.6**	**55.3**	**53.6**
Housing stock **Logements existants** **Wohnungsbestand**	**Total**	**4 607**	**4 653**	**4 704**	**4 761**	**4 817**	**4 871**	**4 922**
	thereof second homes dont résid. secondaires davon Zweitwohnungen	264	267	270	273	276	279	282
	thereof vacancies dont inoccupés davon leerstehend	230	233	235	238	241	244	246
	share of family dwellings (%) part des maisons individuelles Anteil 1+2-Familienhäuser	47.3	47.1	46.8	46.5	46.2	46.0	45.8
Home ownership rate [1] **Taux de propriétaires occupants** **Wohneigentumsquote**		54.8	54.2	53.6	53.1	52.9	52.8	52.8

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
	2018	2018	2015	2016	2017	2018	2019	2020	2021
Buildings for education **Bâtiments de l'éducation et de la recherche** **Gebäude des Bildungswesens**	838		-1.4	1.8	1.3	1.8	3.2	-0.3	0.0
Buildings for health **Bâtiments de santé** **Gebäude des Gesundheitswesens**	1 691		-2.0	1.4	4.7	3.4	1.8	2.4	3.0
Industrial buildings **Bâtiments industriels** **Industriegebäude**	2 416		2.1	1.3	4.8	4.5	2.3	0.7	1.4
Storage buildings **Bâtiments de stockage** **Lagergebäude**	242		0.2	1.1	3.6	1.5	3.6	-0.5	-0.4
Office buildings **Bureaux** **Bürogebäude**	2 394		2.4	-0.5	5.7	5.3	1.0	1.3	1.0
Commercial buildings **Commerces** **Geschäftsgebäude**	3 274		0.8	1.5	2.5	2.9	1.4	1.1	0.5
Agricultural buildings **Bâtiments agricoles** **Landwirtschaftsgebäude**	657		0.4	-0.9	1.5	1.3	1.0	0.8	0.6
Miscellaneous **Autres** **Sonstiges**	499		-0.6	0.8	3.1	3.8	1.2	0.7	1.8
TOTAL	**12 011**		**0.7**	**0.9**	**3.8**	**3.6**	**1.7**	**1.1**	**1.1**

1) At 2018 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
		2018	2015	2016	2017	2018	2019	2020	2021
Transport infrastructure **Infrastructures de transport** **Verkehrsinfrastruktur**	Roads Réseau routier Straßen	2 123	0.0	-6.5	6.2	0.5	4.6	2.1	-0.5
	Railways Voies ferrées Bahnanlagen	1 817	-3.6	-2.8	0.0	4.3	1.5	6.3	4.7
	Other transport Autres réseaux Übrige Verkehrsinfrastruktur	461	-5.5	-3.8	1.4	0.2	0.6	2.0	2.8
	Total	**4 401**	**-2.1**	**-4.7**	**3.1**	**2.0**	**2.9**	**3.8**	**2.0**
Telecommunications **Télécommunications** **Telekommunikation**		349	11.4	4.5	3.8	6.5	4.0	0.5	0.8
Energy works **Réseaux d'énergie** **Energieversorgung**		1 620	-3.2	-1.6	1.2	1.4	1.0	1.8	2.0
Water works **Réseaux d'eau** **Wasserversorgung**		947	-4.4	-5.1	-0.8	0.0	-0.9	-1.5	1.6
Other **Autres** **Sonstiges**		1 012	-3.2	-4.6	2.4	0.9	1.7	1.4	1.9
TOTAL		**8 328**	**-2.3**	**-3.8**	**2.2**	**1.7**	**2.0**	**2.4**	**1.9**

1) At 2018 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
	2018	2015	2016	2017	2018	2019	2020	2021
Private consumption[2] **Consommation privée** **Privater Verbrauch**	199.5	0.4	1.4	1.4	1.6	1.7	1.7	1.6
Public consumption **Consommation publique** **Staatsverbrauch**	74.1	0.8	1.8	1.5	0.2	0.7	0.5	0.7
Gross fixed capital formation **Formation brute de capital fixe** **Bruttoanlageinvestitionen**								
Total	92.2	2.3	4.3	3.9	3.3	2.3	1.8	1.5
of which construction	41.9	0.1	0.3	3.5	2.8	1.8	1.2	1.1
Stocks (contribution as % of GDP)[3] **Variations de stocks** **Vorratsveränderungen**	5.6	1.1	1.1	1.5	1.4	1.4	1.3	1.3
Exports **Exportations** **Exporte**	210.6	3.5	2.7	4.7	4.4	3.1	3.6	3.5
Imports **Importations** **Importe**	196.7	3.6	3.4	5.1	2.8	2.5	3.0	3.3
GDP **PIB** **BIP**	**386.1**	**1.1**	**2.0**	**2.6**	**2.7**	**1.7**	**1.8**	**1.7**

Standard National Accounts, gross figures.
1) At 2018 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

87th EUROCONSTRUCT Conference ○ 12–13 June 2019, Rome, Italy

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).

Notes

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