

RESIDENTIAL MARKET

BRIEF DESCRIPTION OF THE CZECH RESIDENTIAL MARKET

Real estate prices continued to rise in 2018 by about 6-10% per annum, while in recent weeks the growth is slowing down and there is a slight decline in some regions; however, this was not rapid growth and prices returned to their 2008 level (and also the level of the late 1990s). Prices of tower block flats on the outskirts of cities and the prices of new flats, especially premium flats, grew the most.

Demand for housing decreased slightly; the supply was insufficient.

Investments in the housing market are still perceived as interesting.

The market is shallow, with very few transactions; about 5% of real estate is traded annually; there are also very few transactions in the residential building segment; investment returns are around 3% per annum.

The share of owner-occupied housing is very high, amounting to over 75% of households.

Rental rates in the Czech Republic are increasing.

New construction is slow, mostly family houses are being built; residential buildings are mostly built in Prague, but that is where construction is the slowest and most subdued.

In 2018 the conditions for obtaining accommodation loans were exceptionally favorable, which the CNB began to change at the end of the year.

Problems persist in legislation as well as in the slowness of courts in apartment renting; rental terms are far too much in favor of tenants, especially those who violate the terms of contracts. This leads to problems with financial plans, and banks are very cautious about financing house rentals.

Problems are also increasing in the functioning of homeowner's associations, the receivables from owners for payments to HOA's accounts are increasing, and other unit owners are paying for it.

Financial inequalities are increasing; real estate is concentrated in the hands of the part of the population that stores funds in investment purchases, and differences are also caused by the very uneven distribution of prices and growth among regions.

The availability of housing is declining, especially in large cities.

The social housing system is still not resolved, and the state is preparing a number of measures that may worsen the situation (introducing concessions for renting flats, introducing social and health insurance).

Apartment prices are expected to cool down, and rental rates should increase slightly.

OVERVIEW OF THE CZECH HOUSING MARKET IN 2018/2019

The housing market in the Czech Republic was functioning in

In the residential market I expect balanced demand and supply and stabilization of prices of new apartments at approximately the current price level. Demand for new housing will remain high, but it will move more into the secondary market. Space will open for the development of rental housing.

Marcel Soural, Trigema

2018, and continues to function in 2019 without any major problems or crises. However, some of its parts will definitely experience problems that were pointed out in previous Trend Reports

of the Association for Real Estate Market Development. These problems primarily include the growing lack of apartments in the market in Prague, the slow and insufficient construction of apartment buildings, poorly set up legislation on apartment rental and poorly functioning HOAs. The conditions for access to housing are deteriorating, especially for young people, and financial differences are increasing. The current development of the housing market can be viewed in a different way than we have been accustomed to so far and how it is perceived by the majority. Perhaps a different story is being written, and the differences between the wealthiest people, who also own most of the real estate, and the rest of society, are gradually deepening.

The real estate market is always determined by overall economic development. I therefore expect a gradual slowdown in the market. Mortgage loan interest rates are likely to continue to increase. The requirements of banks for people to have their own resources will result in a decline in interest in mortgages. People will be able to borrow less money, resulting in higher demand for small apartments or less attractive locations. I assume that this will significantly shift the perception of rental housing as an economically attractive alternative. However, this will gradually raise rents.

Monika Kofroňová, bnt

Apartment prices are growing. According to the data of Martin Lux from the Institute of Sociology of the Academy of Sciences, their quarter on quarter increase is 2–3%, and they are about 35% higher than they were in 2010. Growth has affected virtually all cities, which are growing at a much faster rate than household income, creating a clear disbalance.

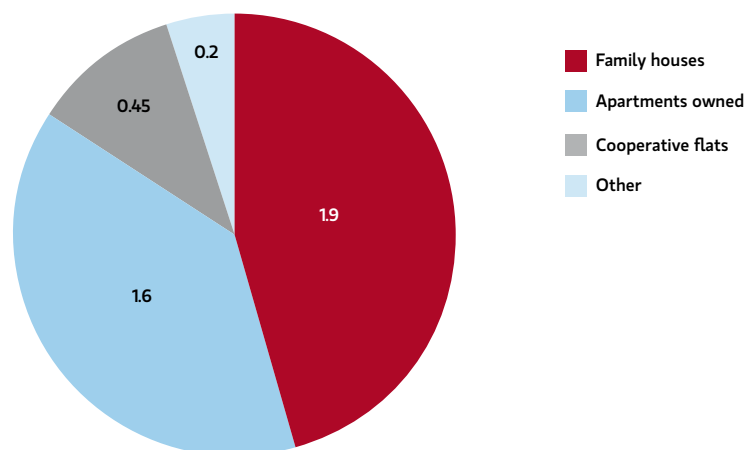
interesting to invest in housing with regard to other investment opportunities. Correctly analyzing the current market situation should be the basis for the decision-making of the state and the CNB with regard to its interventions. In this, however, we see the great danger of further development. In any case, it is essential for the proper functioning of housing that all its components function properly. Focusing on owner-occupancy, as we have been accustomed to over the last decades, has caused rental housing to fall behind. An environment where rental housing works well and represents a greater part of the stock than in our country, dampens price bubbles, supports the labor market and allows for better cost optimization. Rental is also suitable for a substantial part of the population due to their social status, age and life preferences.

However, prices in most places are only now reaching the 2008 price level, and with a relatively low price of money, the issues with availability of housing are not as serious as the media often presents. What is happening, however, is that rental rates are increasing along with real estate prices, and it is still

The housing market in 2018 and at the beginning of 2019 continued in the trend of the previous period, i.e. the growth of prices in all segments. There were very favorable conditions for credit interest rates, the economy is doing well, there is minimal

GRAPH Structure of the housing stock in the Czech Republic

Source: Hypoteční banka



unemployment, and household incomes are rising. The demographic situation is also changing. Single-person households are increasing, young people are decreasing and their preferences are changing.

Most Czech households already live in their own house or own other real estate. The dominant interest in owner-occupied housing and lesser interest in rental housing places us in the eastern part of Europe and distinguishes us from more economically advanced countries.

CONCLUSIONS OF PREVIOUS ARTN TREND REPORTS

The expected growth in prices driven by economic growth, household income, changes in demographic indicators and favorable loan rates was confirmed. In recent Trend Reports, we have also repeatedly drawn attention to the dangers of a poor setup of social housing, poorly set up legislation on rental housing and increasing problems within HOAs. The situation of complicated and slow housing construction due to the lack of permitting processes, problems with land-use plans and the inflexible behavior of state administration employees, or unjustified interventions by the local government, are also serious.

CONCLUSIONS FROM THE JANUARY 2019 SURVEY

Experts participating in the ARTN survey expect changes in the trend in housing prices this year. They are very critical of the slow and complicated construction approval processes. The state's housing nonconceptuality is also a shortcoming. I consider the start of housing construction to be important, although it will only be gradual in 2019. Housing investments are considered stable, but with little return. Family houses are considered the best functioning

2019-2020 will be years of maturing, and the anticipation of change will also mature. Proptech, online real estate, modular construction, rental housing: these are trends that are showing their horns. Estimates and predictions of the development of supply will increase, but there will be no major breaks in development – I would call this rounding: I now see the development of prices in the residential market as a horizontal (overturned) parabola; prices will approach a certain threshold that will be unsurpassable with current wage and salary developments.

Pavel Velebil, TIDE REALITY

Out of the total number of about 4.15 million, most households live in family houses, the traditional form of housing in our country. The share of rental housing is currently estimated at 22% of households.

market segment, with rental housing being the least functional. In terms of apartment sales, we expect stagnation with moderate growth in sale prices and rents, both in Prague and in individual regions. Valuation of investment in residential real estate is most estimated in the range of 25-30 years.

Rental housing in our country does not represent such a significant part of the market as in developed countries. There are multiple reasons for this, but only some of them are rational; these are

I expect the demand for large apartments to decline due to increasing sales prices. Until the price of construction works goes down, developers will not make much effort or have the opportunity to make apartments cheaper. As a result of high construction work prices, some projects will not even start. The high cost of construction work is largely due to a lack of workers on construction sites. Subcontractors also have a problem with human resources. In my opinion, construction companies are partly compensating for earlier periods when their profits were not very large. Of course, the market is also helping them to do so.

Václav Thoss, GES REAL

mostly distorted ideas about throwing money out the window and the transitional phase of living moving towards ownership. Nevertheless, in recent years there has been an increase in interest in renting apartments. According to IRI, rents in Prague have increased by more than 44% since 2013, and they continue to grow, increasing by a third in Brno, Pardubice, Hradec Králové, Liberec, Plzeň and Jihlava. There

are certainly multiple reasons for this. The population increases every year, mainly due to migration. These are adults that need a place to stay immediately. Migration from rural to urban areas also increased, as well as the number of university students, leading to an increase in the need for housing for the duration of their studies. The number of single-person households is growing; the transition of part of the housing stock into the tourism sector, mainly thanks to the Airbnb platform, may also have some influence in centers of big cities, with an estimated 11 thousand housing units in the Czech Republic and 7,500 in Prague.

Poor legislation, slowness and inconsistency of our courts hamper the functioning of rental housing. This leads to the fact that many people perceive rental housing as a transition to future owner-occupancy, mostly short-term rental contracts are concluded, and many tenants abusing a legally unbalanced

state. This exacerbates the possibility of a quality financial plan, and it causes banks to be very cautious in potential financing of housing construction and operation projects.

IMBALANCES IN THE HOUSING MARKET

The underlying reason for the rise in property prices and rents may be - and sociologist Martin Lux confirms this - a large proportion of speculative purchases in the housing market. According to the estimates of Central Europe Holding a.s., most likely more than 45% apartments in the segment of owned apartments are "investment apartments". This is much more than the generally reported amount. Investment in housing is more popular than in the past, when it was paradoxically more interesting in terms of yield. Czechs also keep their invested money in bricks much longer, they don't want to sell and the offer is very limited. An apartment will change its owner approximately every 25 years, and a family home every 50 years. Many households invest in housing repeatedly, pulling a substantial part of the supply from the market. Ownership accumulates, it is passed on within families and it causes an increase in the imbalance between households. Different real estate price increases in individual regions and cities increase imbalances in the value of household finances not only within social strata, but also regionally. The investment appetite of part of the population closes the door to housing for many young people, mostly from families who do not have their own housing. The situation may continue to deteriorate. The construction of apartments is negligible, and interventions by the state and the CNB, including support that resolves nothing and restrictions, are just arrows being shot by a blind man. Housing is also not helped by the nonconceptual behavior of many towns and municipalities with rather unfortunate housing privatization. Our housing market can be rated as inefficient.

SOCIAL HOUSING

According to housing sociologists Martin Lux, Petr Sunega and a number of commercial market experts, it is necessary to adopt a social housing law that will tackle homelessness and the trade with poverty, targeting those most in need of housing, without the option of asserting themselves in the commercial market. It is necessary to help those with a disability or a profession that is extremely important to society but is poorly appreciated. Support must be targeted and focused, not across-the-board,

TABLE Development and trends in the residential housing market in the Czech Republic in Q4/2018

Source: Hypoteční banka

Data	Trend
Economic development (income of the population)	↗
Old apartment prices	↗
New apartment prices	↗
Family house prices	↗
Land prices	↗
Demand for old real estate	↘
Demand for new buildings outside Prague	↘
Demand for new buildings in Prague and Brno	↘
Supply of old real estate	↘
Supply of new buildings outside Prague	↗
Supply of new buildings in Prague and Brno	↗
Market sentiment	→
Rent	↗
Return (on investment)	→

broad and exploitable. Unfortunately, there is nothing to indicate that our politicians will apply such a solution to social housing. If the issue of social housing is conceived wrong, i.e. in a manner that is too broad, it will not only be a waste and result in exploitation, it may also disrupt the functioning of the whole housing environment in our country. It should not focus on construction, it should first address social housing through the existing housing stock of municipalities, the state and private entities.

SLOW AND COMPLICATED CONSTRUCTION

Very slow construction proceedings have a negative impact on the market, leading to a small amount of commenced construction, especially in the case of residential buildings. Due to the long-lasting increase in the number of inhabitants driven primarily by migration, there is a lack of apartments in the market in Prague. Insufficient supply is amplified by the fact that a substantial part of apartments sold are owned by investors, not by the users of these units. This partially slows the activity in the apartment market.

- In total, fewer flats were sold in the Czech Republic in 2018 than in 2017
- In Prague there are about 600 thousand households, and about 580 thousand housing units – of which 420 thousand are in shared ownership housing
- Approx. 30 thousand apartments will change their owner, 60% of them will be sold; in 2016 – 20 thousand units; in 2017 – 17.7 thousand units; 2018 – 16.1 thousand units, i.e. about 3.8% of apartments are traded annually (?) (developer market data distort privatization, studio sales and the time when an apartment is sold)
- In Prague, new flats make up 30% of the market; in regions they are quite marginal

- In the Czech Republic, there was a 4% year-on-year decline in transactions, and 2018 was the weakest of the last four years
- The current price growth is due to low supply and favorable financing conditions and economic growth rather than a boom in demand
- When comparing the demand in 2008 with values 10 years later, we found that the volume of demand only reaches the peak values of 2008 in one region, namely in the Olomouc region (Olomouc maintains its attractiveness and attracts people from near and far). Practically the same values were achieved in the Central Bohemian Region, where a potential drop was replaced by the outflow of demand from Prague. The greatest decline was recorded in Prague, which is due to high prices.

HOUSING REAL ESTATE PRICES

Housing prices also increased in 2018, all market players agree on this. However, the question is how much and from what base. There are very few relevant data in the market. Prices of realized transactions can be looked up without further details on the real estate from purchase contracts with ČÚZK (Czech Office for Surveying, Mapping and Cadastre). Obtaining them is expensive, and they are difficult to process. There is therefore a considerable amount of different price reports and price maps, which are in fact only marketing actions of consultancy or mediating entities. Banks, building societies and some developers also have very good data: however, they are very rarely available in the market.

The most expensive apartments are traditionally in Prague, and prices also grew in České Budějovice, Olomouc, Pardubice, Brno and Plzeň. The lowest prices can be found in the Ústí nad Labem Region, Hradec Králové, Zlín and Jihlava.

TABLE Price development according to Hypoteční banka's expert index

Source: Hypoteční banka

Period	New apartments	Old apartments	Family houses	Land
1.Q/2018	2.9%	2.9%	1.3%	1.7%
2.Q/2018	2.5%	2.5%	1.4%	1.7%
3.Q/2018	3.1%	2.6%	1.6%	1.2%
4.Q/2018	1.4%	1.3%	1.6%	1.4%
2018/2017	+10.8	+9.8	+6.2	+6.2

According to Hypoteční banka a.s., market apartment rental rates increased in all regional towns at the same or slightly higher rate than apartment prices; rental rates of small apartments grew the most, and we observed stagnation or slight growth in family houses. In most regional towns, investment in purchasing housing rather than rent is still worthwhile for shorter time series; the rent market (mostly sub-standard apartment blocks) in poor areas is distorted by social housing allowances; in some areas, municipalities regulate the trade with poverty. In some places they even demolished whole apartment buildings in desolate parts of municipalities. The centers of Prague and Brno are feeling the influence of short-term rentals through Airbnb, which are replacing long-term leases.

Comparative analysis deals with the comparison of housing costs – market rent vs. mortgage installment (mortgage 80, mortgages rate 2.91%, 5-year fixation, repayment for 20 years, standard apartment 3+1, approx. 70 m²)

CNB regulatory measures mostly affect low-income groups in large cities where prices are highest. As a result of this policy, demand will be shifted to the rental market, thereby increasing rental prices. In the rest of the country, these interventions will not have such a significant impact due to lower prices.

Ownership costs for maintenance and refurbishment of the unit, insurance and all joint ownership payments to the HO-

TABLE Comparison of rental and mortgage housing costs

Source: Hypoteční banka

City	Mortgage installment	Current market rent	Cheaper version	How many % cheaper
Prague 4	28,400	20,000	Rent	30
Prague 5	24,200	21,000	Rent	13
Prague 9	20,350	18,000	Rent	12
Prague 10	22,400	18,500	Rent	17
České Budějovice	7,900	11,500	Mortgage	-46
Plzeň	8,900	13,900	Mortgage	-56
Karlovy Vary	6,700	10,200	Mortgage	-52
Ústí nad Labem	3,860	10,000	Mortgage	-159
Liberec	7,030	13,000	Mortgage	-85
Hradec Králové	8,850	13,200	Mortgage	-49
Pardubice	8,700	12,900	Mortgage	-48
Jihlava	6,950	13,200	Mortgage	-90
Brno	12,300	16,900	Mortgage	-37
Olomouc	8,800	14,100	Mortgage	-60
Zlín	8,500	13,500	Mortgage	-59
Ostrava	5,500	11,600	Mortgage	-111

A's account (short-term and long-term maintenance funds, administration and operation of the HOA, etc.) should be included in the cost of ownership for a complete analysis. These payments may vary according to the nature of the house and the operation of the HOA; underestimating the amount of joint ownership payments can cause significant problems for the future operation of the house. Investing in purchasing housing has long been paying off, mainly due to rising housing prices.

HOUSING AVAILABILITY

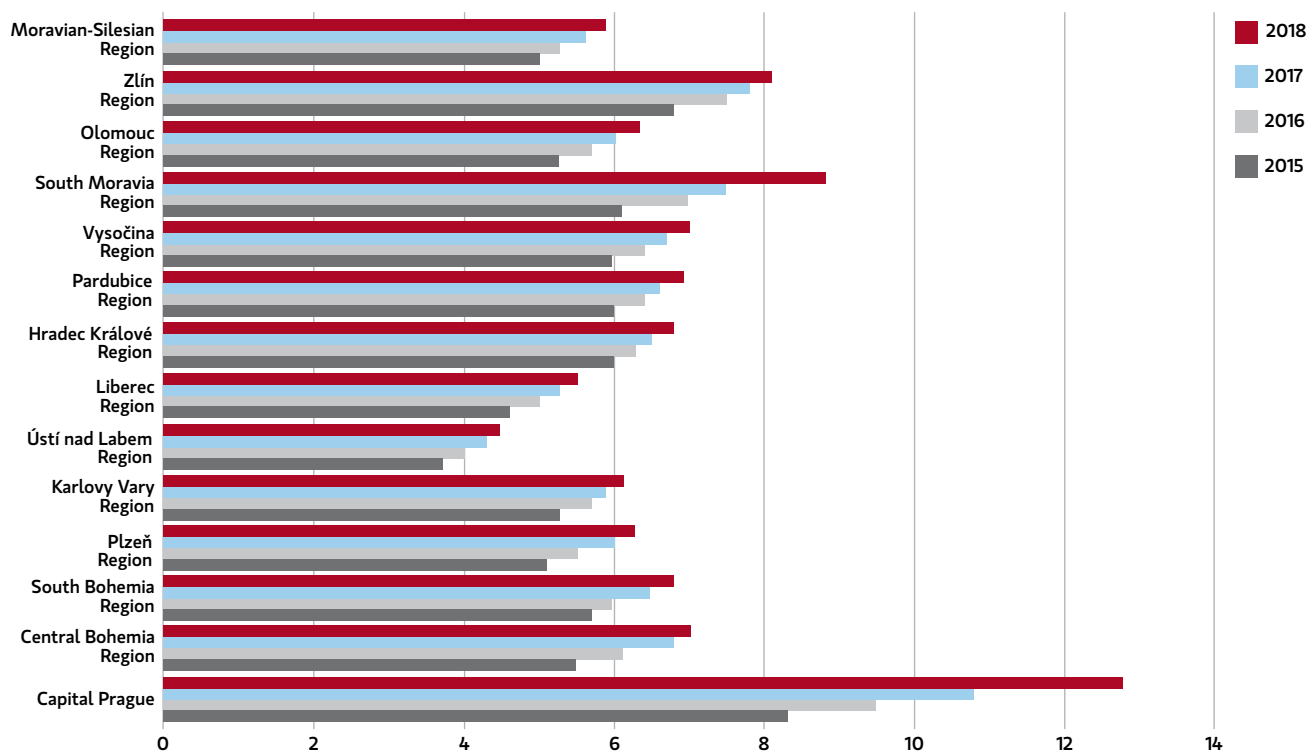
The availability of housing deteriorated slightly in all regional towns due to faster growth in real estate prices than real popu-

lation incomes. In Prague and Brno in the locations surrounding the centers, the price of housing is reaching values that are inaccessible for ordinary middle-class families. The indicator in Prague is attacking the threshold of 13, slowly reaching values of the most expensive European cities.

Given that a large part of transactions are now financed through loans and the importance of the cost of debt financing is increasing for the availability of housing, it is necessary to also analyze availability from the perspective of loan costs. The results of the survey conducted by Golem finance show that due to the rise in prices and more expensive mortgages, the availability of home ownership is further deteriorating. While in 2017 with an average bid price of 2.66 million CZK and a mortgage

GRAPH Year-on-year development of housing availability
 (how many annual wages are enough to buy an average 3+1, 75 m² apartment)

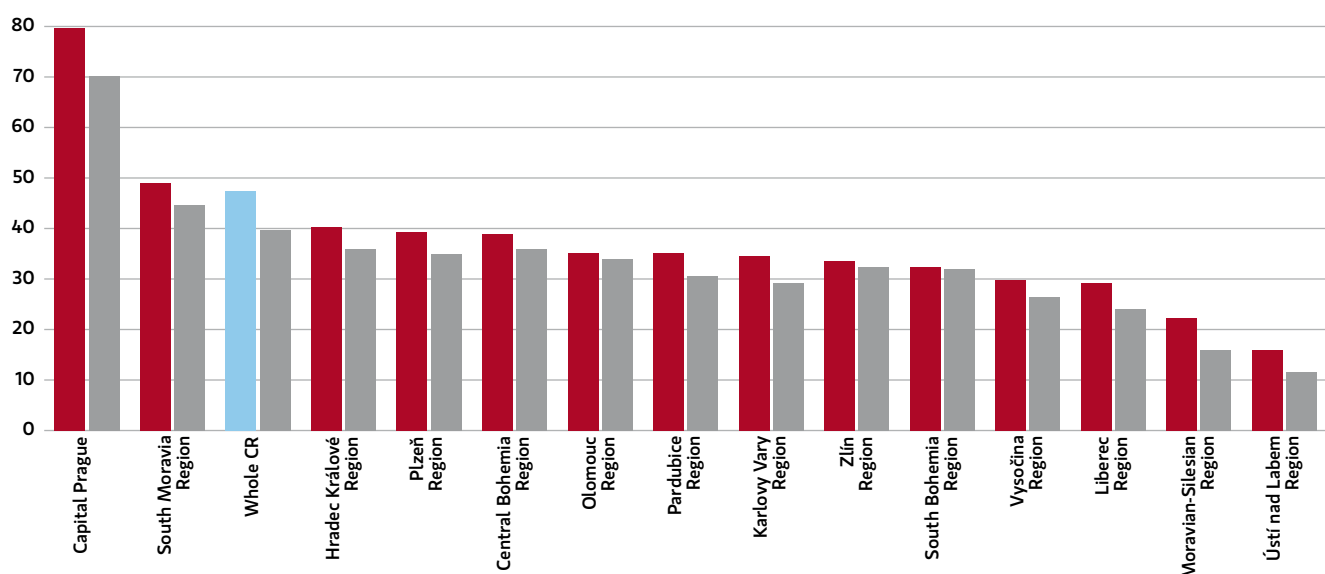
Source: Hypoteční banka





GRAPH Housing availability index 12/2018 (Czech regions, grey 12/2017)

Source: Hypoteční banka



rate of 2.44% the average Czech household spent 39.7% of its net income on mortgage repayments, at the end of 2018 at a price of 3.12 million CZK and a rate of 3.10%, this figure increased to 47.5%.

The situation varies from region to region. The value of 47.5% is the nationwide average. In Prague, the index is attacking 80%. In most of the remaining regions where prices are not nearly as high as in Prague, the housing availability index is below 40%. In the Ústí Region, its current value is only 16%.

The bad news is that in both nationwide statistics and at a regional level, housing availability is gradually deteriorating. The biggest year-on-year jump is reported by Prague, the Liberec Region and the Karlovy Vary Region. On the contrary, the smallest shift occurred in the South Bohemian Region.

HOMEOWNER'S ASSOCIATION

The number of homeowner's associations is growing with the number of registered apartments, and their problems are growing just as fast. They are based on dual ownership, i.e. the ownership of a unit and the joint ownership of common parts of the house and land. Most unit owners do not realize this specific issue. To emphasize this, legislators also adopted the term joint ownership of apartments (by no means use the term apartment in private ownership!). According to the Union of Czech and Moravian Housing Cooperatives, approximately one sixth of HOAs have serious problems with the appointment of statutory authorities, and according to estimates by CEH a.s., up to 2/3 of HOAs have problems with unit owner debtors. Over 60,000 HOAs are registered in the Czech Republic. Most of them are in Prague (10.8 thousand) and in the South Moravian Region (6.6 thousand), with the lowest number in the Liberec and Pardubice regions. Their total housing stock contains over 1.5 million apartments. In Prague, most HOAs are in Prague 10 (1.4 thousand), Prague 11, 12 and 2. There are over 420 thousand owned or jointly owned apartments in Prague. The number of owned apartments registered in the Prague Cadastre of Real Estate grew very evenly by approx. 35,000 units per year.

COOPERATIVES

After many years of downturn, cooperative construction is slowly gaining momentum. Existing housing cooperatives are building and expanding, but some developers are also taking on cooperative construction, and large cities such as Prague and Brno also have plans. Cooperative housing is also a proven form of affordable housing in the world, combining ownership and rental housing. Its indisputable advantage is the ownership of an apartment building by one entity. Management, decision making, and problem solving therefore becomes significantly easier and more flexible. Its disadvantage is the impossibility of individual mortgage loans for cooperative members. In the case of cooperative construction, the solution is a loan for the cooperative to acquire a building and a cooperative deposit. Cooperative housing is also threatened by the transfer of some of the units into joint housing ownership, which disrupts and complicates relationships within one building. There are currently almost 9,000 housing cooperatives in the Czech Republic, most of which are in Prague (3.9 thousand) and in the Moravian-Silesian Region (1.4 thousand), with the least in the Karlovy Vary and Zlín regions. Their housing stock contains 467 thousand apartments, most of which are in the Moravian-Silesian Region with large housing cooperatives (95 thousand apartments) and in Prague (92 thousand apartments).

The common problems of cooperatives and HOAs lie in the fact that they are legal entities that cover and manage their members' housing. Debt recovery problems are increasing for administration and maintenance payments. There are also difficulties with the coexistence with inadapted, irresponsible unit owners or cooperative members. Unfortunately, the new Civil Code and the Act on Business Corporations do not give other members of associations or their statutory authority many options for solving these problems. Cooperatives and HOAs do not have priority in satisfying receivables from their members; debtors usually have multiple creditors and not enough funds left for the cooperatives or HOAs. Courts work very slowly, and the law does not allow sanctions. The activity of unit owners in dealing with the operation of HOAs is very low. Few people are aware of §1194, which establishes the liability of a member of an association for his debts. It's surprising that even the creditors are not interested in the settlement of the owner's, and therefore the debtor's, payments.

PRAGUE

Prague is perceived as a city with a very lively and sought-after housing market, but real data show that the number of transactions is small and the market is shallow. Today, there are 580 thousand housing units in Prague, 80% of which are already registered in the Cadastre of Real Estate within joint housing ownership (formerly owned). Most of these are in Prague 4, 10, 8, 6 and 5. About one third are apartments in tower blocks.

The assessment of the housing market is partially distorted by a number of not always accurate price and transaction information. It is difficult and very expensive to obtain relevant numbers and then process them seriously. With a more detailed look at the data obtained from ČÚZK (Czech Office for Surveying, Mapping and Cadastre), it is clear that the Czech housing market is very shallow, the number of transactions is small, and the prices of real estate sold do not usually reach the amount reported by the media. It can be unequivocally stated that the

TABLE Deposits with KC registered in the Cadastre of Real Estate in Prague

Source: from ČÚZK (Czech Office for Surveying, Mapping and Cadastre) data processed by Central Europe Holding a.s

Ø Q od 2014	4,474
I Q/2017	3,752
II Q/2017	6,101
III Q/2017	3,942
IV Q/2017	3,918
I Q/2018	4,170
II Q/2018	4,188
III Q/2018	3,812
IV Q/2018	4,021

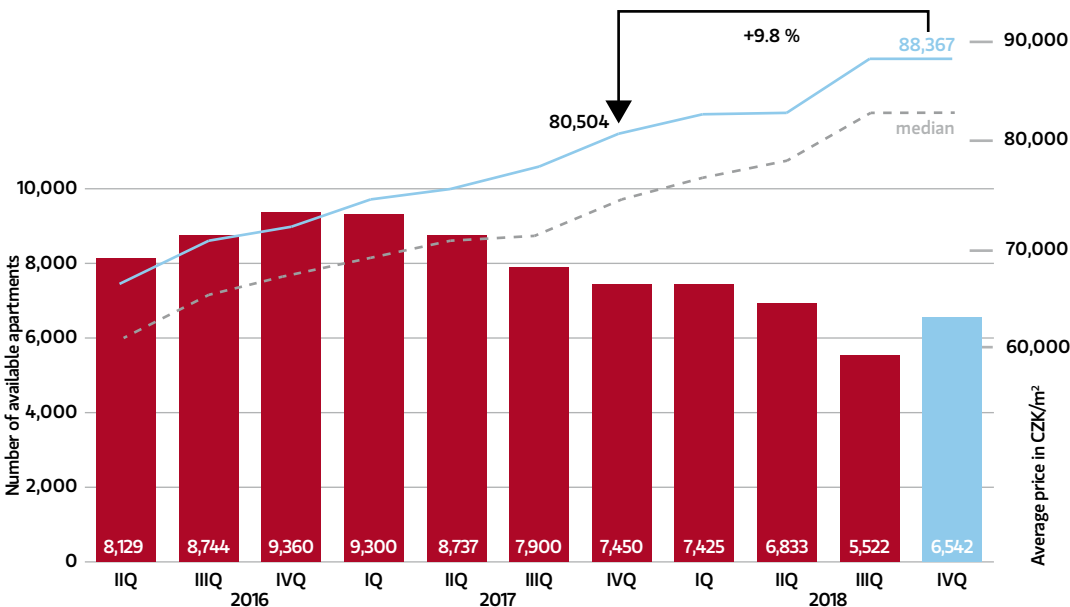
prices of apartments, especially in Prague, are very volatile and can vary in similar apartments from one location to another. Despite the prevailing opinion on overvalued prices and market storms heading towards the price bubble, it may be more appropriate to characterize market events as considerably subdued. Housing prices and market rental rates were at their peak in the late 1990s and early 2000s. The projects realized at that time had similar sales prices as today. A decline occurred after we entered the EU. There was another peak in 2008, followed by a 30% drop in prices. In 2017–2018 prices increased significantly, but most real estate still did not reach 2008 prices. Prices on the outskirts experienced the highest increases, especially in tower blocks.

According to Trigema, there are multiple factors affecting the prices of new apartments in Prague. The most important factors include rising prices of building materials and work, levies on value added tax, and increasing costs for the acquisition of new

land and specific development projects. According to Trigema’s calculations, land purchase costs currently exceed 10% of the total cost of most developers. For example, prices for projects with permits that guarantee good access to the city center have been estimated to have increased by up to 50% over the past 5 years. In addition, there is a lack of such projects on the market.

The impact of value added tax on the price of a new apartment is roughly a quarter. While ten years ago developers paid an average of almost 300,000 CZK for value added tax according to Trigema calculations, now it is almost three times more. This tax has been continuously increasing since 2007. First it was at 5%, gradually increasing to 10, 14, and finally to today’s 15 percent. Had this tax remained at the original 5 percent, it would mean saving around 10,000 CZK per m² on the cost of one apartment. This represents less than one tenth of the price of an apartment in the capital.

GRAPH Supply and average prices per m² of available second hand apartments in Prague (2016–2018)



Source: Trigema (publicly available records in Prague from about 20 real estate servers on the Czech market). Cleared of new apartments currently offered in development projects.

The cost of construction works therefore accounts for about 60% of total project costs. The rise in construction costs is mainly due to a shortage of skilled workers and construction materials, and it continues to deepen over time. In a regular residential building from the middle segment, in 2013 to 2015 the construction cost per m² of an apartment was usually up to 25,000 CZK excluding VAT. Currently, however, the cost for similar houses is around 40,000 CZK per m² excluding VAT, and sometimes even more.

According to some experts, the pressure on the rise in prices of new buildings may result in a shift in interest to old buildings and rental housing. However, this is contradicted by the argument that increased demand in both of these segments will cause another wave of price growth, which may also cool the market with these types of real estate.

SUPPLY OF OLD HOUSING IN PRAGUE

In recent years, the supply of old housing has been decreasing in the Prague residential market, which may also be due to the fact that part of the interest that might have been directed towards the new building segment has shifted here. According to Trigema statistics, at the end of 2018 there were 6,542 second hand apartments registered for sale. By comparison, in the same period a year ago it was 7,450 units, and two years ago it was 9,360 units. Nevertheless, this market still remains the biggest in terms of supply. The bid price is gradually increasing over time in the old housing market. At the end of last year, it reached 88,367 CZK per m². Two years before it was 70,943 CZK per m², that is 20% less. The largest supply of old housing was in Prague 5 and Prague 4 last year. The share of these two districts in the total supply was almost 40%. About another 40% is in the eighth, ninth and tenth districts. The share of other capital districts is roughly one fifth. More than one third of all supply consists of two-room apartments. The amount of three-room apartments is around 30%. 1+kk (1 room + kitchen corner) and 4+kk (4 rooms + kitchen corner) apartments form one-fourth of the supply.

SUPPLY OF RENTAL HOUSING IN PRAGUE

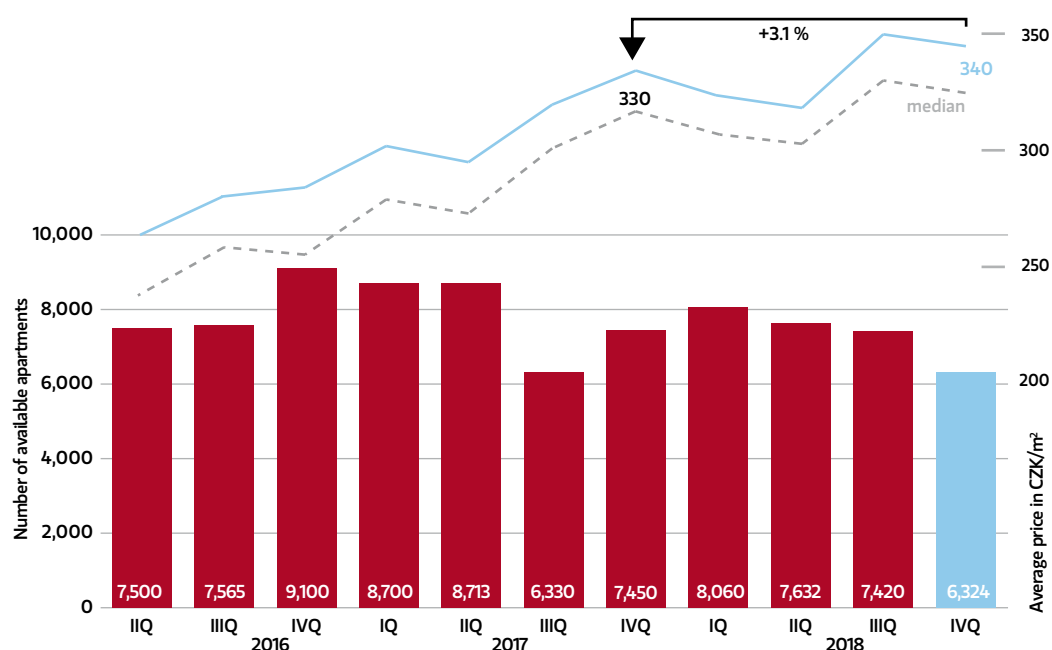
The downward trend in the number of units offered is also characteristic of the long-term rental housing market in Prague. In late 2018 the supply consisted of 6,324 units. One year earlier it was 7,450 units. Two years ago it was 9,100 apartments, as Trigema's analyses indicated. In 2018, the average rent exceeded 20,000 CZK per month, or 300 CZK per m². The median rent last year was between 16,500 and 19,500 koruna per month. In this case it also exceeded 300 koruna per m². Most of the apartments offered for rent were in Prague 4, 5, 2 and 10 in the past 12 months. The share of these city districts in the total supply was roughly one half. On average, more than one third of the offered units consisted of 2+kk (2 rooms + kitchen corner) apartments. More than one fifth were 3+kk (3 rooms + kitchen corner) apartments. The share of flats with a 1+kk (1 room + kitchen corner) layout was slightly below this level.

RESIDENTIAL BUILDINGS

The housing market restitution started in the early 1990s. Transaction numbers are not high and prices are still unbalanced. It is very important what financial means investors come to the market with. The acquisition of a residential building and its subsequent management require a great deal of information and time. Many influences must be taken into account, especially by the state, which attack the profitability of the investment. Recently, these included the obligation to install heat meters on all radiators, drawing up energy performance certificates, the inspection of chimneys, elevator adjustments, the registration of foreign tenants, etc. Most of the costs are unnecessary and do not contribute to the quality of housing.

The residential building market in Prague is the only one actively operating in the Czech Republic, in other towns there are only isolated cases. Using data from ČÚZK, Central Europe Holding a.s. created an overview of all building transactions (excluding trades through business shares) in 2014–2016. The

GRAPH Supply and average prices per m² of available apartments for rent in Prague (2016–2018)



Source: Trigema (publicly available records in Prague from about 20 real estate servers on the Czech market). Rent/m² of an apartment without extra charges.



Cadastral of Real Estate in Prague	Number 2016	Ø Price CZK/m ²	Number 2017	Ø Price CZK/m ²	Number 2018	Ø Price CZK/m ²
Nové Město	15	50,614	16	98,400	12	80,300
Žižkov	13	32,600	7	43,000	11	76,100
Vinohrady	12	42,500	10	57,700	11	94,400
Smíchov	15	28,500	4	67,000	7	71,300
Nusle	12	38,200	8	39,700	10	55,800
Holešovice	7	24,700	5	50,300	6	75,800
Libeň	7	38,900	9	39,350	6	43,200
Staré Město	6	64,300	6	150,100	3	198,300
Malá Strana	5	94,700	6	123,500	3	163,100
Vršovice	4	30,600	8	57,700	4	79,600
Karlín	3	38,500	9	54,800	4	85,500
Košíře	3	34,800	1	53,659	4	75,200
Bubeneč	4	31,100	4	67,700	1	110,000
Strašnice	3	25,100	1	64,900	1	22,200
Vyšehrad	2	54,800	2	126,700	1	100,800
Josefov	1	58,020	0	0	0	0
Dejvice	1	55,000	1	37,100	4	34,000

data show that the largest number of transactions took place in central Prague in the cadastral areas of Nové Město, Žižkov and Vinohrady. The following table provides an overview of data from selected cadastral areas; the processor has detailed information about the transactions:

PENB, GDPR, Act 326/1999 on the Residence of Foreign Nationals in the Czech Republic – § 99 – 102, when accommodating more than 5 foreigners, there is an obligation to report their stay on a prescribed form to the Alien Police Department and keep an accommodation log in paper form for 6 years.

ČÚZK (Czech Office for Surveying, Mapping and Cadastre) data processed by Central Europe Holding a.s indicate that: 31% of residential buildings are owned by natural persons; 19% of residential buildings are owned by legal entities, 30% are houses divided by units, and 20% is owned by the Prague City Hall, city districts, universities, the state, the church, etc. The intended proposals for the introduction of licences for leases and related tax and insurance obligations may have an impact on a substantial part of the market.

*Initial investment 65,000 CZK/m² – 1,200 m² living space
Net rent + 3,360 CZK/m²/ year (280 CZK/m²/month – 60 m² apartment for 16,800 CZK)*

Repair and Maintenance – 360 CZK/m²/year; Long-term reserve fund – 600 CZK/m²/year (VAT cannot be deducted)

*Administration, legal services, fees, insurance... – 180 CZK/m²/year
Rent Losses 10% of income (8% vacancy, 2% debts) – 336 CZK/m² (with increasing rents, debts and vacancies will grow, with changing tenants causing the biggest losses; in the case of flats, losses may increase with the need to pay for debtors; revenues will decline in non-functioning HOAs and problems with neighbors...)*

*Gross profit before tax 1,884 CZK/m²/year... 2.9% per annum
It cannot (yet?) be financed with a loan for the most part; efficiency increases with portfolio growth
(if management is done well and the input investment is set up correctly)*

The management of an apartment building is important for its effective operation. A good manager prevents problems not only in technical matters, but mainly in communication with tenants. Underestimating the relationship with tenants, combined with legislation and courts that favor tenants, especially those that do not respect rental conditions, leads to significant financial losses.

LUXURY REAL ESTATE MARKET

In the Czech Republic, the luxury real estate market is especially in Prague and its surroundings. Compared to the past, however, there is a more detailed distinction in the highest segment. New attractive projects outside the narrow center of Prague with prices starting at 120,000 per square meter are called premium housing. The highest luxury can be found in the historic heart of Prague, attracting people with its unique location and the history of a place where you won't find a modern development project.

Premium housing combines top standards with technology. New and well-renovated apartments in the wide center of Prague, or houses in attractive locations, are typical representatives of premium housing. As in the middle segment, practicality and usability in everyday life is essential. Apartments offer amenities that represent the social status of the owner. Premium bathrooms, doors and other interior elements combine practicality and attractiveness. The typical premium project consists of 1+kk to 5+kk apartments with an atypical, generous design. With prices starting at around 120,000 koruna per m², this is new, high-class housing with underground garages, from smart home households to architecturally attractive building envelopes and sensitive placement in their environment. The price for a big 4+kk family house is around one million euro. According to Denisa Višňovská from Lexxus, premium housing is an ideal intersection between price, quality, location and service availability. The most popular locations are Vinohrady, Bubeneč, and parts of Žižkov, Karlín and Smíchov. We often find premium housing in renovated houses, but most of the market

consists of new buildings. The prices of buildings from the middle segment are similar to those of premium apartments, but without the required qualities, leading to the need to negotiate discounts that are sometimes significant.

Luxury housing means exceptionality and unavailability. In luxury housing, each apartment is atypical and original. The interior often becomes a sensitively put together piece of art. Elements such as stone, wood, stainless steel and glass dominate these interiors. 2+kk apartments occupying over 200 m² are no exception. Such an apartment underlines the owner's personality and lifestyle and fulfills his specific ideas unconditionally. Only a small percentage of real estate in the top segment consists of luxury real estate. There are a number of reasons for this. First of all, exceptional luxury buildings are strictly defined by their location. This primarily includes the historic center of Prague, especially Lesser Town, Old Town, Josefov, Nerudova Street, Ke Hradu and other special places. The views must also be exceptional. They should ideally offer a view of Prague Castle, the Vltava River, greenery or a panorama of old Prague roofs. This virtually rules out new buildings; they are generally listed buildings that underwent time-consuming and costly renovations. Underground garages are certainly not to be automatically expected, and unlike with new buildings, the buyers must submit to the layout. The price of luxury housing is roughly twice the price of premium housing, i.e. around 250,000 koruna per m², and sometimes significantly more. The price no longer corresponds with the use value, the investor is buying a real estate jewel.

CHANGES IN THE MARKET IN 2018

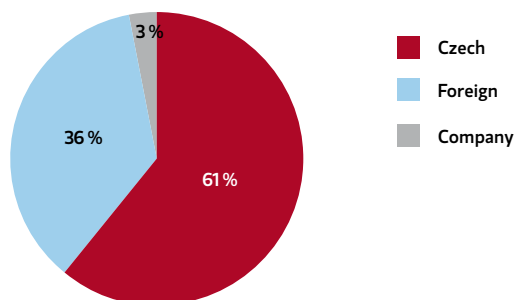
A significant trend in 2018 was that the prices of apartments falling into the "mass" medium category according to buyers began to push against the lower boundary of the premium segment. This resulted in a slowdown in the market, because buyers refused such prices. With the competition of more attractive premium projects, the middle segment couldn't keep up the pace, but the premium and luxury segments experienced growth. In comparison with 2017, sales increased by 57%. This is mainly due to several very attractive projects with a corresponding price. More than one third of buyers are foreigners, from practically all over the world. More than half of all transactions were made entirely using the buyers' own resources. Prague is building a reputation as a stable, secure and prosperous European metropolis.

OUTLOOK

According to LEXXUS Group, price movements can be affected by world events. In the short-term outlook, Brexit and the way in which it will be conducted is most important. The economic condition of EU countries, especially Germany and France, will also be important. The slight recurrent decline in the German manufacturing industry's performance can make buyers reluctant to spend, and induce the desire to invest cash in a more sustainable way. Price negotiations are expected to be more frequent, most often for middle-class real estate and the premium segment. High-quality projects from both the premium and the luxury segment are likely

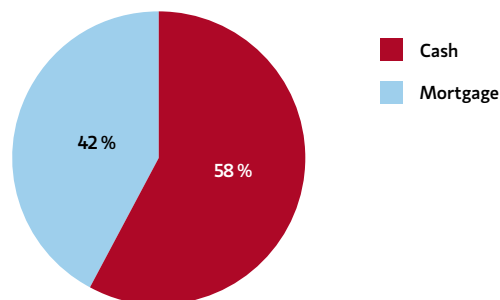
GRAPH

Classification of buyers (2018 – individual sales)

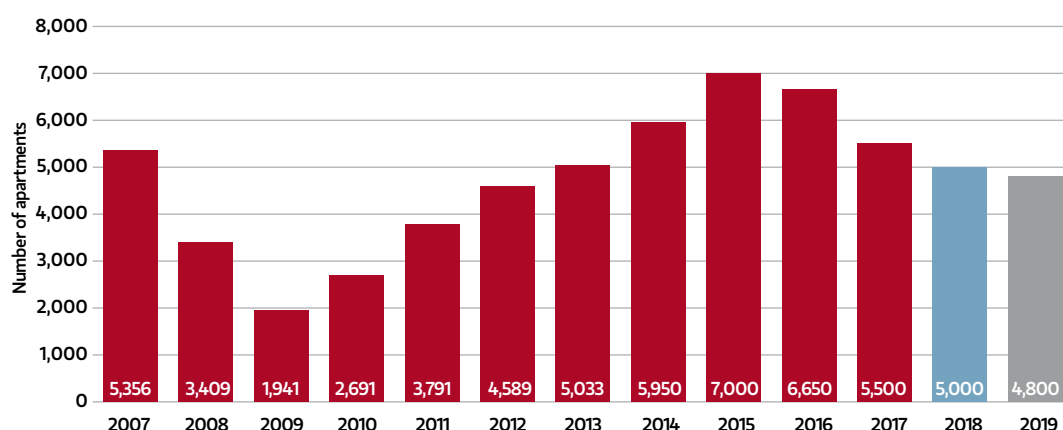


Source: LEXXUS Group

Method of financing (2018 – individual sales)



GRAPH Annual sale of new apartments in Prague 2007–2018



Source: Trigema (2011–2013)
Trigema, Ekospol, Skanska Reality (2014–2015)
Trigema, Skanska Reality, Central Group under the auspices of IPR (2016–2018)

to add percentages of appreciation. In Prague, several interesting luxury housing projects are being prepared in the coming period, and there is still plenty of room to increase the prices of top-quality properties in comparison with Vienna, Paris and Berlin.

NEW APARTMENT SALES

5,000 new apartments were sold last year in Prague, according to the statistics of Trigema, Skanska Reality and Central Group. By comparison, in 2017 5,500 units (+ 9%) were sold, and in 2016 6,650 (+ 25%) new apartments were sold. According to estimates, the financial value of apartments sold has long been at 30 billion CZK. The most apartments were sold in Prague 5, Prague 9 and Prague 10. The share of these three districts in total sales was 60%. In addition, sales in the fourth

district were also relatively successful. In all other areas of the capital, sales did not exceed 10 percent. The lowest number of apartments was sold in Prague 6, amounting to only 2% of total sales. Only a little more was sold in the center itself, i.e. Prague 1 and Prague 2.

More than one third of apartments sold are 2+kk. The amount of 1+kk is about one quarter. One fifth of apartments sold are 3+kk. About 15% of sold apartments are bigger.

An even more noticeable drop in the sale of new flats was recorded last year in regions where, according to Trigema's analysis, only 4,440 new apartments were sold. The last quarter is largely responsible for this, when only 685 units were sold (in 2017 1,689 apartments were sold in the same period). In 2017,

DIAGRAM Sale of new apartments in Prague according to location 2018

Source: Trigema, Skanska Reality, Central Group

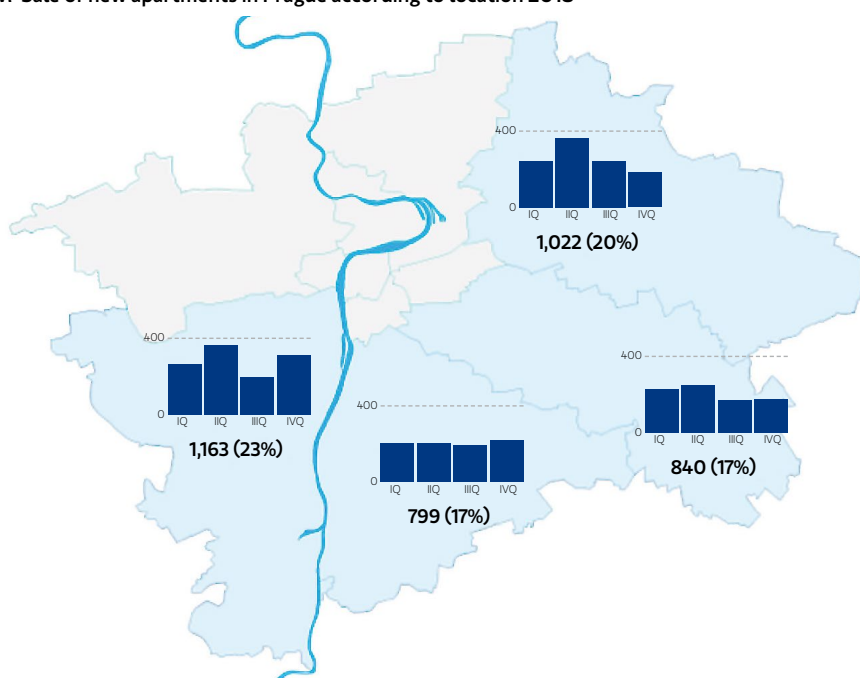
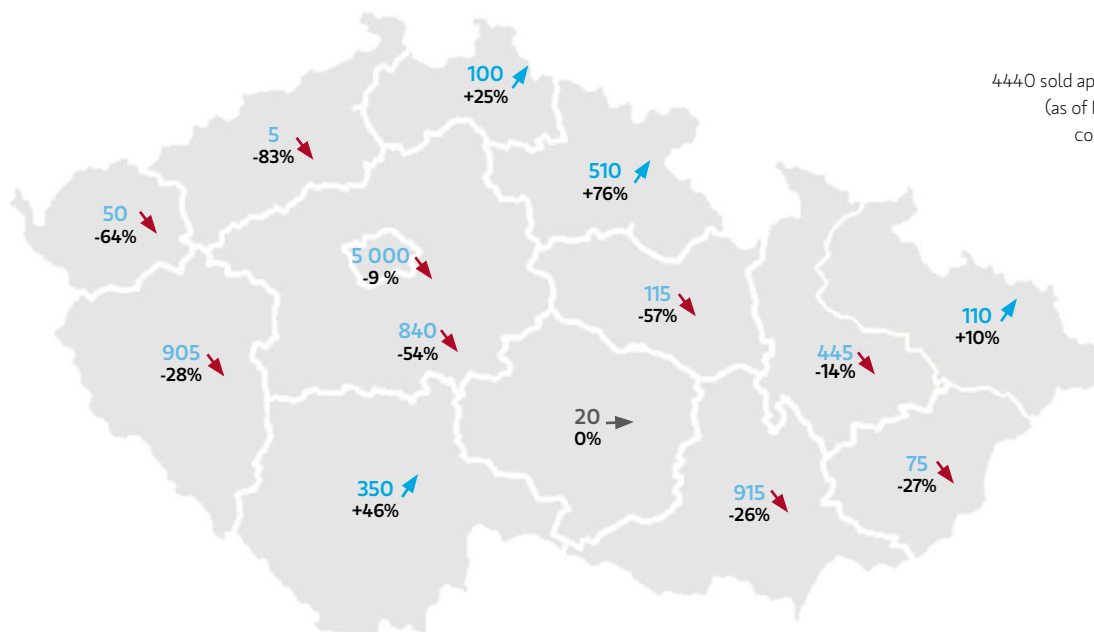


DIAGRAM Sale of new apartments in CR regions (2018)

Source: Trigema



Note:
4,440 sold apartments in regions
(as of December 31, 2018)
comparison with 2017

however, the total number of apartments sold in regions exceeded the number of units sold in the capital, reaching 6,100 apartments.

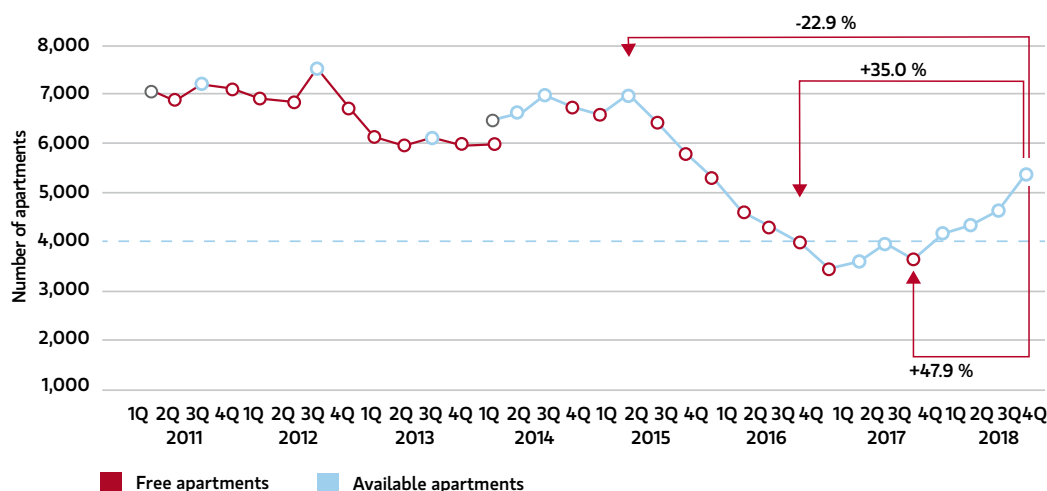
It is clear that the CNB's restrictions on mortgage loans affect regional markets the most, where potential buyers of new housing are much more dependent on mortgage financing than in Prague. This situation also corresponds to the fact that potential buyers set up loans and purchased flats more in the spring and summer, not in the second half of last year. Most of the apartments sold last year were in the South Moravian (915), Plzeň (905) and Central Bohemian (840) regions. The Pardubice (510) and Olomouc (445) regions also experienced relatively successful sales. On the other hand, poor sales were reported by North Bohemia, the Moravian-Silesian Region and Vysočina.

DEVELOPMENT OF SUPPLY AND PRICES OF AVAILABLE APARTMENTS

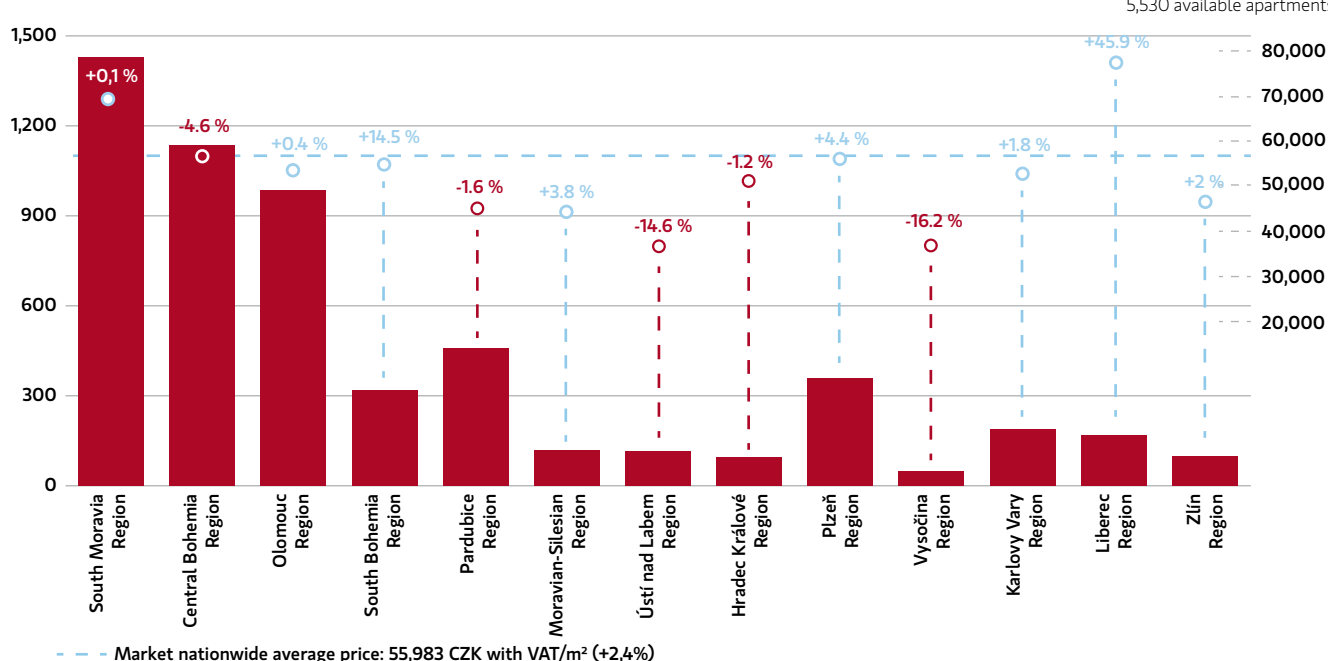
In 2018, the supply of available apartments in Prague gradually increased, reaching 5,400 units at the end of December. In a year-on-year comparison, this was an increase of 48%. At the end of the previous year, only 3,650 available apartments were on the market. The increase in the stock of available apartments is mainly due to reduced demand in the last months of the year. New big development projects also entered the market, increasing the supply. However, this is still an insufficient amount.

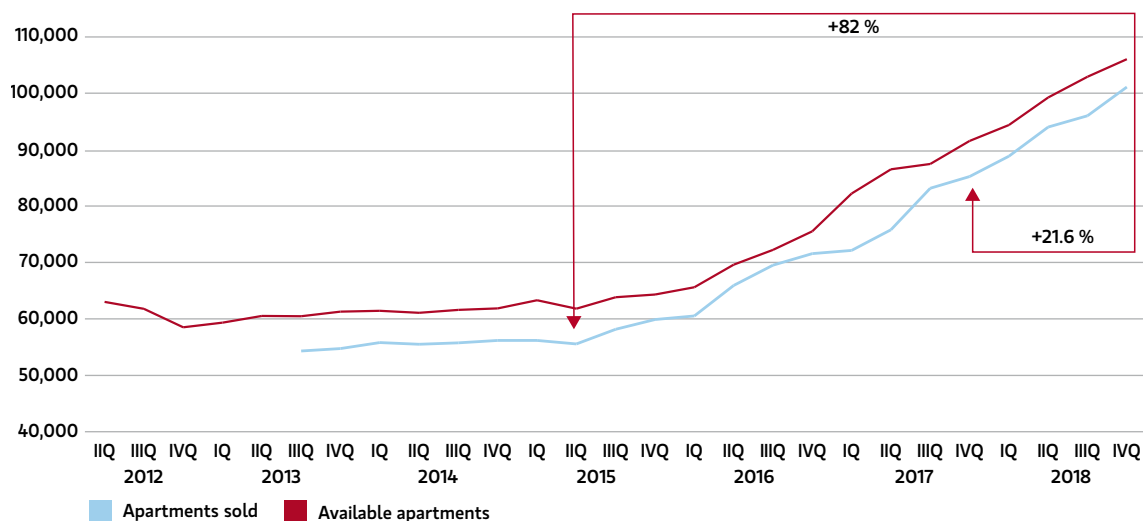
The average price of available apartments increased over the year by almost 15,000 koruna per m². While at the end of 2017 it reached 91,537 koruna per m², on December 31 last year it

GRAPH Development of the supply of available apartments in Prague 2011–2018



GRAPH Supply and average prices per m² of available apartments in CR regions (4Q 2018)




GRAPH Development of the average price per m² of sold apartments in Prague 2013–2018


Source:
Trigema (2012–2016)
Trigema, Skanska
Reality, Central Group
(2017–2018)

was already at 106,027 koruna per m². This caused their price to increase by almost 16%.

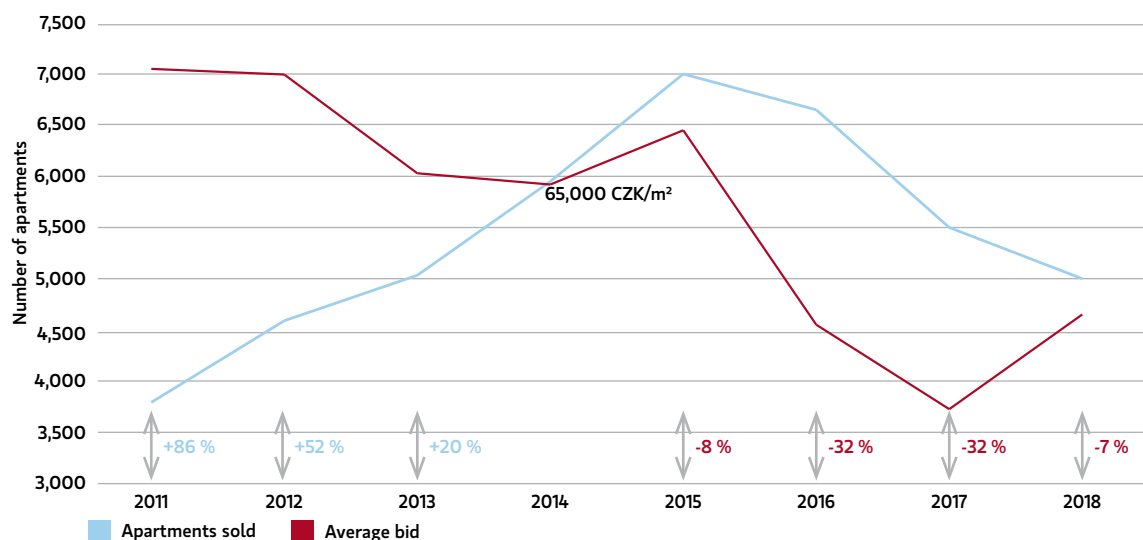
The supply of new apartments in regions of the Czech Republic has been around the 5,500 apartments for about two years now. The highest number of apartments was at the end of 2018 in the regions of South Moravia (1,430), Central Bohemia (1,135) and Olomouc (985). Almost two thirds of all new available apartments were in these locations. This was followed by the Pardubice (460), Plzeň (360) and South Bohemian (320) regions. The average price of an available apartment in regions at the end of 2018 was 55,983 koruna per m². This is only 5,671 koruna per m² more than it was at the end of the previous year, when the price was 50,312 koruna per m². The pressure on prices in regions was not as pronounced as in the capital, which meant that this indicator only increased by 11.3% year-on-year.

DEVELOPMENT OF THE AVERAGE PRICE OF SOLD APARTMENTS

While at the beginning of 2015 a new apartment could be purchased in Prague for about 55,000 koruna per m², four years

later this amount is almost double. Today, those interested in new housing will pay an average of more than 101,000 koruna per m². This is 19% more in a year-on-year comparison. Most developers agree that the prices should no longer increase this dramatically in the upcoming period. This will mainly depend on whether a sufficient number of new apartments is added to the market, which will reduce pressure on prices.

Outside of Prague, the price of new housing is almost half the amount in Prague. In the last quarter it reached an average of 53,570 koruna per m². It was higher than this average in the South Moravian Region, where it was almost 65,000 koruna per m². In Central Bohemia it exceeded 56,000 koruna per m², and in the South Bohemian Region it was almost 55,000 koruna per m². The Plzeň Region (50,399 koruna per m²), Hradec Králové Region (50,910 koruna per m²) and the Olomouc Region (48,473 koruna per m²) are below the average. The prices are even lower in places where the demand for new housing is marginal from a nationwide perspective. This is primarily the case in the Ústí nad Labem and Moravian-Silesian regions. Prices are also low in Vysočina.


GRAF New market equilibrium? Supply vs. demand 2011–2018


Source:
Trigema (2011–2013)
Trigema, Ekospol,
Skanska Reality
(2014–2015)
Trigema,
Skanska Reality,
Central Group

MARKET EQUILIBRIUM

In terms of equal supply and demand, 2014 can be considered the optimal year in which annual sales were the same as the average annual stock. In 2014 the average bid price was 65,000 koruna per m² and 6,000 apartments were sold. Up until this period, supply exceeded demand and prices of new apartments were stable. However, since 2014 demand started to significantly exceed the rigid supply, causing rapid price increases. In 2019, the market is likely to reach a new equilibrium, bringing with it a smaller volume of new real estate placed on the market, and above all a significantly higher price.

OUTLOOK

We expect real estate prices to stop growing in most regions. Unfortunately, new housing construction will be mild in 2019, and the situation in Prague with a growing number of inhabitants due to migration will continue to deteriorate in terms of available housing. Problems are also caused by the nonconceptual approach of the state and the lack of support for rental housing. If further measures are adopted that negatively affect rental housing, this can cause a number of problems for the market. We cannot expect significant growth in housing yields, although interest in rental housing will surely increase, causing rental rates to also increase slightly. However, the obligations and problems that landlords have take a large part of their profits.

The housing market would greatly benefit from faster construction proceedings, which will kick-start necessary construction

as well as renovation of existing obsolete properties. Speeding up court decisions concerning tenants or units owners that are not duly fulfilling their obligations would also help solve these problems. For example, introducing tribunals to deal with the issue. Another option would be introducing the possibility of sanctions.

It will be important to adopt a quality, targeted social housing system and genuinely support stable rentals of residential properties protecting the landlord's property rights, but also making the apartment the tenant's home, not a transfer station for a limited time.

A good price map of real rentals and transaction prices of residential real estate would greatly benefit the CNB's and the ministry's ability to properly decide on further developments in loans, as well as help resolve many litigations. This needs to be supported by legislation, and the ČÚZK (Czech Office for Surveying, Mapping and Cadastre), and possibly the ČSÚ (Czech Statistical Office), should be involved.

Chapter writers, team leader

JÍŘÍ PÁCAL

Central Europe Holding

MARCEL SOURAL

Trigema team

PETR NĚMEČEK

Hypoteční banka

DENISA VIŠŇOVSKÁ

LEXXUS Group

MARTIN LUX

Institute of Sociology of the Academy of Sciences

DEVELOPMENT S VÝJIMEČNOU
ARCHITEKTUROU
A DŮRAZEM NA DESIGN

