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Overview of housing affordability in cities in the Czech Republic

House prices in the Czech Republic have soared faster than household disposable income, especially in cities where house prices have often risen at a faster pace than the national average. While the rise in house prices may benefit the large share of Czech homeowners, it has made it even harder for newcomers, especially the young, to get a foot on the housing ladder. With rents also rising and with relatively limited supply, the private rental market offers few alternatives for people struggling to find affordable housing. Many low- and middle-income households are therefore getting priced out of cities, or have no choice but to turn to substandard quality housing. While structural drivers pushing housing demand up in Czech cities are likely to remain despite the COVID-19 crisis, housing development does not happen where it is most needed, i.e. where demand for housing is highest, driving house prices up in Czech cities. Furthermore, Czech households bear a heavy financial burden by living in cities where the housing stock is often old and in need of energy efficiency improvements.

Introduction

As in many other OECD countries, many households in the Czech Republic are increasingly struggling to access a decent, affordable home, with house prices reaching new highs and incomes falling out of pace. This is especially the case for low-income households or households at risk of poverty, elderly people and single-parent families. The challenge of housing affordability is even more acute in cities and urban areas, where property and rental prices have often increased faster than in the Czech Republic in general and housing cost overburden and overcrowding rates are higher.

At the time of writing this report, the COVID-19 pandemic has been unfolding around the world and continues to shake housing markets. While the long-term impacts of the pandemic on the housing market in the Czech Republic remain uncertain, the crisis has brought to the fore many of the longstanding issues the Czech Republic was facing, such as housing insecurity, homelessness and housing inequalities.

After briefly defining housing affordability, this chapter starts with an overview of the historical context and the influence it had on the Czech Republic's housing market. It then focuses on housing affordability in Czech cities by exploring the evolution of house prices and the main drivers for both demand and supply, examining the burden of total housing-related costs that Czech households need to shoulder and assessing the quality of housing in Czech cities, including housing's energy efficiency, in comparison with the rest of the country and other OECD countries.

To support the analysis, the OECD, in co-operation with the Ministry of Regional Development of the Czech Republic (MMR), carried out a survey on 1 877 Czech municipalities in August/September 2020 to collect data on the housing market and housing policies at the municipal level. The survey will hereinafter be referred to as the "OECD-MMR housing survey". The survey covered all municipalities within functional urban areas (FUAs) of more than 50 000 inhabitants as defined by the OECD,¹ as well as the municipalities within the FUAs of Jablonec and Mladá Boleslav (see Annex A for further details on the administration of the survey). Results from this survey are included in the chapters of the report.

Defining housing affordability

In the absence of a universally agreed definition of housing affordability, several organisations and countries measure housing affordability in different ways, ranging from price-to-income and housing expenditure-to-income ratios to housing quality measures (Box 1.1).

At its core, housing affordability is linked to the ability of households to pay for a dwelling. Housing affordability is therefore often seen as a function of housing costs and the income of the household. Housing costs are, in turn, driven by several factors including house prices, rents, mortgages, but also insurance, mandatory services and charges (e.g. sewage and refuse removal charges), regular maintenance and repairs, taxes and the cost of utilities (water, electricity, gas and heating). However, affordability is not only about housing costs per se. It also involves the location of housing, the access that housing provides to jobs and economic opportunities, public goods and services, as well as its quality:

- Housing location is an important component of housing affordability, as poor housing location can make seemingly affordable housing unaffordable for low-income families. When households live in isolated and remote areas, where housing is cheaper, they tend to spend more on transport and commute for longer hours, making housing more expensive and decreasing their well-being.
- Furthermore, living in cheaper but less well-connected areas can reduce access to public services (education, health, etc.), to public space (pavements, streets, public parks, commercial areas, etc.) and jobs and economic opportunities.

- It is also critical to take into account the quality of housing. Beyond the walls and roof sheltering people, housing is a place where people should feel safe, have enough physical space and enjoy adequate sanitary conditions. Whether the dwelling responds to the household's specific needs also determines its quality, e.g. its accessibility for elderly people or people with disabilities. Energy efficiency is at the intersection of housing quality and financial affordability, as energy-efficient and better-insulated homes reduce the risk of dampness and provide warmer homes, thus improving living conditions while reducing energy bills and improving housing affordability. Considering that low-income households tend to spend relatively more on heating their homes than higher-income households, improving energy efficiency in housing constitutes a key factor to build more inclusive housing markets.

Box 1.1. Selection of definitions and measures of housing affordability

UN-Habitat states that “The underlying principle [of housing affordability] is that household financial costs associated with housing should not threaten or compromise the attainment and satisfaction of other basic needs such as food, education, access to health care, transport, etc. Based on the existing method and data of UN-Habitat's Urban Indicators Program (1996-2006), unaffordability is currently measured as the **net monthly expenditure on housing cost that exceeds 30% of the total monthly income of the household**” (UN, 2018^[1]).

In 2010, a **European Commission** communication (the “European platform against poverty and social exclusion: a European framework for social and territorial cohesion”) addressed the issue of affordable accommodation by declaring that “access to affordable accommodation is a fundamental need and right” (European Commission, 2010^[2]). In Europe, housing affordability is analysed through **the housing cost overburden rate** which is the share of the population in a country living in households that spend 40% or more of their disposable income on housing (Eurostat, n.d.^[3]).

Country examples

The **Australian Bureau of Statistics** measures housing affordability as the **ratio of housing costs to gross household income**.

In **the United Kingdom**, the Office for National Statistics calculates a **housing affordability ratio** by dividing house prices by annual earnings, with data for new dwellings, existing dwellings and all dwellings combined, while earnings are available on a workplace basis and a place of residence basis (Office for National Statistics, 2020^[4]).

The **United States Federal Reserve** defines the issue of housing affordability by the **rate of the housing cost burden**, i.e. the share of households that spend more than 30% of their income on housing costs (Dumont, 2019^[5]).

Various **housing quality measures** are also used to assess housing affordability, such as the number of rooms per person, the overcrowding rate and the housing deprivation rate. Canada's statistical office **Statistics Canada**, for example, defines **suitable housing** as housing with enough bedrooms for the size and composition of the household.

Source: UN (2018^[1]), “Metadata Indicator 11.1.1: Proportion of urban population living in slums, informal settlements or inadequate housing”, <https://unstats.un.org/sdgs/metadata/files/Metadata-11-01-01.pdf>; Eurostat (n.d.^[3]), *Housing Statistics: Statistics Explained*; Office for National Statistics (2020^[4]), *Housing Affordability in England and Wales: 2019*; Dumont, A. (2019^[5]), *Housing Affordability in the US: Trends by Geography, Tenure, and Household Income*, <https://doi.org/10.17016/2380-7172.2430>.

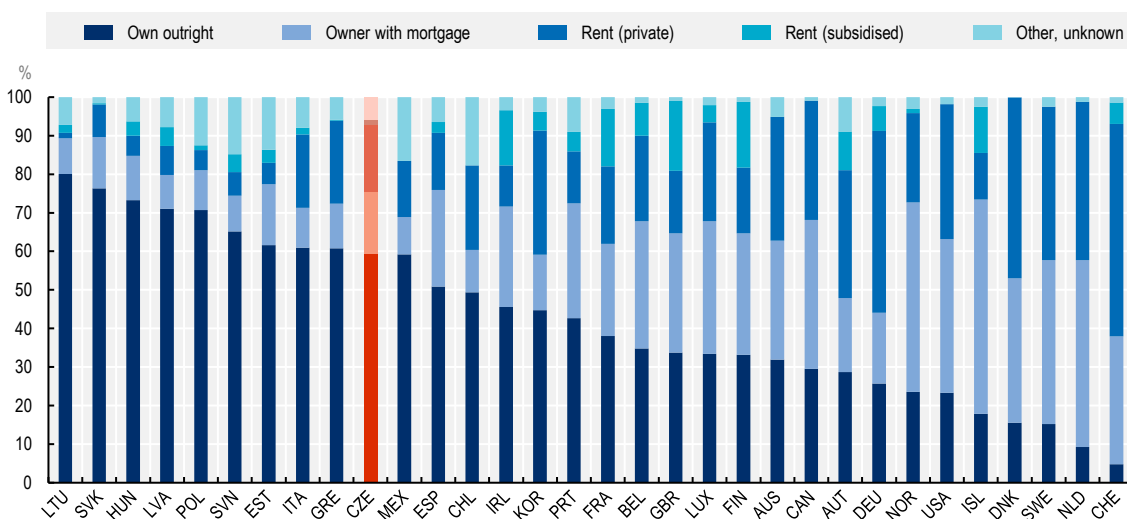
Accommodation can therefore be considered affordable if: i) households can afford to buy *or* rent it; ii) households can afford to live in it (i.e. living in the accommodation does not overburden the households' finances, when taking into account operation and maintenance costs as well as utility expenses, so that they are able to pay for other obligations); and iii) it is adequate (i.e. it is of good quality and meets the needs of its occupants). This definition will be used hereinafter to assess and analyse housing affordability in cities in the Czech Republic.

The Czech housing market has a historically owner-dominated structure

As in many other former communist countries in Central and Eastern Europe, homeownership is the dominant type of tenure in the Czech Republic, with 75% of households owning their accommodation (i.e. 59% of households live in a dwelling that is owned outright and 16% in a dwelling that is owned with an outstanding mortgage or housing loan). The rate of homeownership is also high amongst low-income households, with 58% of households in the bottom quintile of the income distribution owning their dwelling outright in 2018, i.e. without an outstanding mortgage or housing loan. While the share of outright owners in the Czech Republic is well above the OECD average of around 43%, it is lower than in other former socialist countries. In Lithuania, the Slovak Republic or Hungary, for example, outright homeownership accounts for 80%, 76% and 73% of households respectively. This is mirrored by a relatively important role played by the private rental market in the Czech Republic compared with other countries in Central and Eastern Europe. Almost 18% of Czech households rent their dwelling from the private rental sector, which is lower than the average in OECD countries (25%) but remains higher than in many other former socialist countries. The share of households that rent their dwelling from the subsidised market (state-owned or other) is very low, at 1.4% of all households (OECD, 2020^[6]) (Figure 1.1).

Figure 1.1. Housing tenure distribution in OECD countries, 2018 or latest year available

Share of households in different types of tenure, in percentage



Note: Tenants renting at subsidised rent are grouped together with tenants renting at private rent in Australia, Canada, Chile, Denmark, Mexico, the Netherlands and the United States, and are not capturing the full extent of coverage in Sweden due to data limitations.

Source: OECD (2020^[6]), *Affordable Housing Database*, <http://oe.cd/ahd>.

The housing tenure distribution in the Czech Republic, and especially the prevalence of homeownership and the relative importance of the private rental market, results from the transition to a market economy since 1989 and the subsequent privatisation of the housing stock. During the communist regime, which started in 1948, the Czech economy was governed by central planning and most of the economy was state-owned, including the housing stock. Almost all private multi-unit buildings that had been built during the construction boom between 1920 and 1938 or earlier were expropriated to become state property, with landlords forced to sell their property to the state at very low prices. State rental housing, therefore, became the dominant tenure in city centres, with the government allocating state-owned flats according to people's needs and at a very low rent (Lux and Sunega, 2010^[7]). Tenants who were allotted flats by the state obtained unlimited occupancy rights and tenants were able to transfer their "right of use" to their relatives or to exchange it with other user right holders (Lux and Mikeszova, 2012^[8]).

After the Velvet Revolution of 1989 and the change of regime, privatisation of the housing stock occurred via two main channels: i) through the restitution of the public housing stock that had been expropriated between 1948 and 1989, which was returned to their previous owners or their descendants by restitution laws; and ii) through the sale of the dwellings to sitting tenants at below-market prices, as low as 5% to 10% of the actual value (de Boer and Bitetti, 2014^[9]). By 1993, most of the property transfers to private owners had been completed (about 6%-7% of the whole Czech housing stock) (Lux and Mikeszova, 2012^[8]), mainly in towns and cities. In central Prague, for example, around 70% of all houses were returned to their previous owners.

This process of transition from a socialist to a market economy has had a deep and lasting impact on the structure of the Czech housing market. In 1991, homeownership constituted 38% of the housing stock, 9% for co-operative housing and 39% for public rental, while private renting was almost non-existent (de Boer and Bitetti, 2014^[9]). By 2018, homeownership and private renting had jumped to 75% and 18% respectively, while only 1.4% of Czech households rented their accommodation through the public subsidised rental market.

The very small size of the municipality-owned housing market, including social housing rented out at below-market rates, also finds its roots in the historical context. The municipal rental sector was created after 1991 with the transfer of around 1.44 million state-owned dwellings to municipalities, i.e. about 39% of the housing stock in the Czech Republic. Municipalities became free to manage and allocate public housing, with no state regulatory framework, regulations on public housing allocation or requirements to provide housing to poor and vulnerable households. Faced with rent regulation preventing them from introducing any effective way of managing their housing stock without subsidising it and a lack of financial and human resources to ensure the maintenance of it, many municipalities privatised a major part of their housing stock (Lux and Sunega, 2017^[10]). Today, social rental dwellings account for only 0.4% of the total number of dwellings in the Czech Republic – a very low share compared with other OECD countries (e.g. 37.8% in the Netherlands, 20% in Austria, 7.6% in Poland and 4.0% in Hungary (OECD, 2020^[6])).

The privatisation of the housing stock also gave rise to the emergence of a private rental sector that used to be virtually non-existent prior to the transition from communism. While the private rental sector plays a relatively important role in the Czech housing market and has experienced stronger growth than in most other central and eastern European countries, a split market has hampered the development of the private rental market into a strong and stable tenancy (de Boer and Bitetti, 2014^[9]). The market was indeed split between existing contracts of sitting tenants, whose occupancy rights remained unaltered by the restitution of the flats to their original owners, and new contracts for which free market rental prices could be charged from 1993 to promote investments in rental housing. This created a divide between the "privileged" historical tenants – who had rent thresholds set by national governments and tenure security – and the "non-privileged" new tenants – whose rents fell under a liberal system of no regulation on rent setting or lease term and who had no effective tenant protection (Lux and Mikeszova, 2012^[8]). In 2007, rents for sitting tenants started to adjust gradually to market rents, reducing the divide between regulated rents and free market rents. The deregulation was completed by 2012 and has helped create a more competitive

private rental market, increase private rental supply and improve accessibility for outsiders. However, deregulation has also led to a significant decrease in rent setting protection for tenants and altered the demand on the market, with private renting being seen as a temporary housing option for Czech households, even among young people (Lux and Sunega, 2010^[7]).

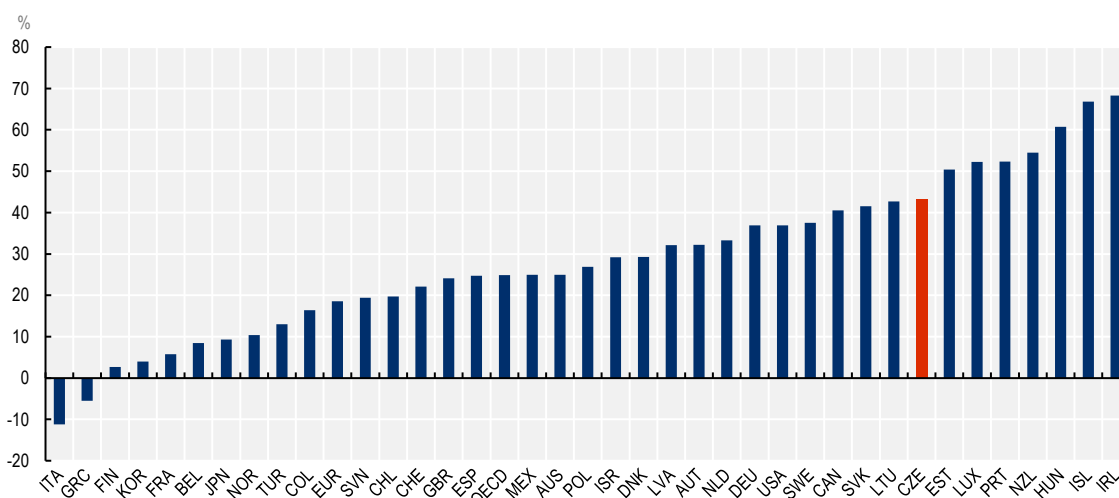
Many Czech households are struggling to access affordable housing, especially in cities

House prices in the Czech Republic have increased sharply over the past few years, much faster than household incomes, particularly in cities. While the rise in house prices is not necessarily an issue for the large share of Czech households that already own their dwelling and do not plan to move, purchasing new housing remains out of reach for most newcomers to the housing market. As rents have also been increasing, the private rental market offers few alternative housing options.

House prices in the Czech Republic have increased faster than incomes

Since reaching their post-financial crisis low in 2013, house prices in the Czech Republic have increased sharply and now largely exceed their pre-crisis level. Between the first quarter of 2013 and the second quarter of 2020, real house prices rose by 43.1% – a much higher growth rate than in the OECD, where real house prices increased by 24.9% on average over the same period (Figure 1.2). In 2018 alone, house prices increased by 7.1% in the Czech Republic – the fourth highest annual growth rate among all OECD countries, just under the growth rates observed in Hungary, Latvia and Portugal. While the pace of house price increase has slowed down since 2018, house prices still rose by 6.3% between the fourth quarter (Q4) of 2018 and Q4 2019 – much more than in the euro area on average (3.8%) and more than twice as fast as in the OECD on average (2.5%). Estimates from the Czech National Bank (CNB) indicate that the Czech housing market has been overvalued since 2017 and was overvalued by around 25% at the end of 2019 (CNB, 2020^[11]).

Figure 1.2. Real house prices, change between Q1 2013 and Q2 2020



Note: Real house prices are nominal house prices deflated using the private consumption deflator from the national account statistics. Data for New Zealand show the change in real house prices between Q1 2013 and Q1 2020.

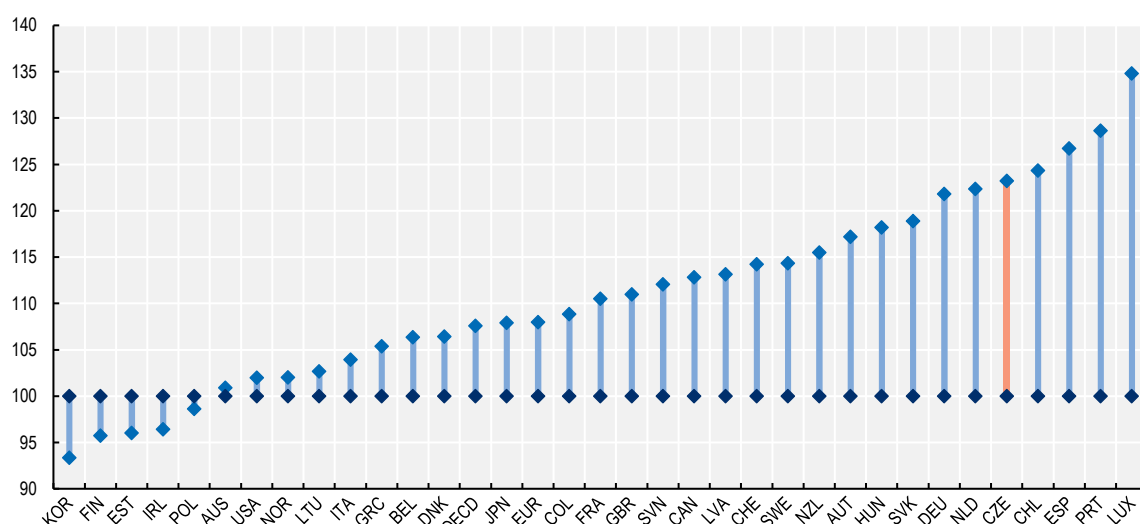
Source: OECD (2021^[12]), *Analytical House Price Indicators Database*, <https://stats.oecd.org/>.

House prices in the Czech Republic have soared faster than household disposable income, making housing increasingly unaffordable for first-time buyers, renters and those who have to move from cheap areas into more expensive ones for work reasons for example. Since 2015, the price-to-income ratio in the Czech Republic has experienced one of the fastest increases among all OECD countries (Figure 1.3). Real house prices have steadily outpaced real wage growth – at an average rate of 2.6 percentage points per year since 2013 – which has undermined housing affordability even in the context of declining borrowing costs (EC, 2020^[13]).

While the rise in house prices may benefit the large share of Czech households that own their dwelling (due to the rise in the value of their assets), it means that purchasing new housing remains out of reach for most newcomers to the housing market. This may in turn hinder upward social mobility, as current and future generations are less able to purchase property than their parents (OECD, 2019^[14]). Currently, Czech households need to save more than 11 years of gross annual salaries to buy a standardised new dwelling of 70 square metres (m²), compared to about 9 years in Latvia, and about 7 years in Hungary and Poland (Deloitte, 2020^[15]).

Figure 1.3. Price-to-income ratio, Q2 2020 or latest available

Index, 2015=100



Note: Nominal house prices divided by nominal disposable income per head.

Source: OECD (2021^[12]), *Analytical House Price Indicators Database*, <https://stats.oecd.org/>.

House prices are particularly high in Czech cities, aggravating the housing affordability crisis for urban residents

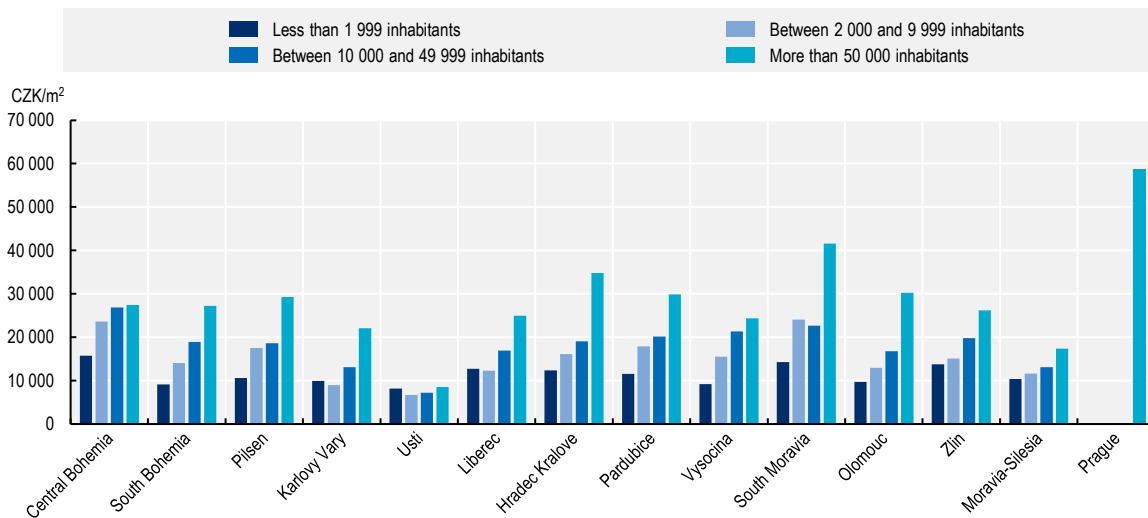
While house price growth has varied considerably across regions, it has generally been higher in cities than in the rest of the Czech Republic. Across the Czech Republic, the larger the municipalities are in terms of population, the more expensive housing is, suggesting that there is a price premium for living in cities. In all 13 regions of the Czech Republic, house prices are consistently higher in municipalities that have more than 50 000 inhabitants than in municipalities with fewer inhabitants (Figure 1.4).

Prague is the most expensive city in the Czech Republic. In the first quarter of 2020, the average price of purchased flats in Prague was CZK 88 100 (EUR 3 340) per m², reaching as much as CZK 159 800 (EUR 6 060) per m² in district Prague 1 (1 of the 22 administrative districts of Prague which includes most of the medieval centre of the city). This was almost 50% higher than the average price of purchased flats

in all regional capitals of the Czech Republic at CZK 65 400 (EUR 2 480). According to the Czech Statistical Office, Prague also recorded the strongest price growth (41.7%) since 2010 for all types of real estate among all regions in the Czech Republic (Czech Statistical Office, 2020^[16]). Purchasing prices for new flats in Prague increased by 64% since 2010 and by 10.7% between the first quarter of 2019 and the first quarter of 2020. According to the Eurostat perception survey, as many as 70% of inhabitants of the FUA of Prague either strongly disagreed or somewhat disagreed that it was easy to find good housing at a reasonable price in 2019, compared with about 35% of the population of Ostrava.

Figure 1.4. Flat prices by region and by population size of municipalities in the Czech Republic

Average purchase price of flats in the 13 regions of the Czech Republic and Prague, by size of municipalities, 2016-18



Source: Czech Statistical Office (2020^[16]), Czech Statistical Office Statistics, <https://www.czso.cz/csu/czso/statistics>.

Following Prague, Brno was the second most expensive regional capital, with an average price of purchased flats of CZK 65 400 in Q1 2020, followed by Ceske Budejovice (CZK 48 800), Hradec Kralove (CZK 44 900) and Pilsen (CZK 44 700) (Deloitte, 2020^[17]).

Rent prices have increased steadily but at a slower pace than house purchase prices

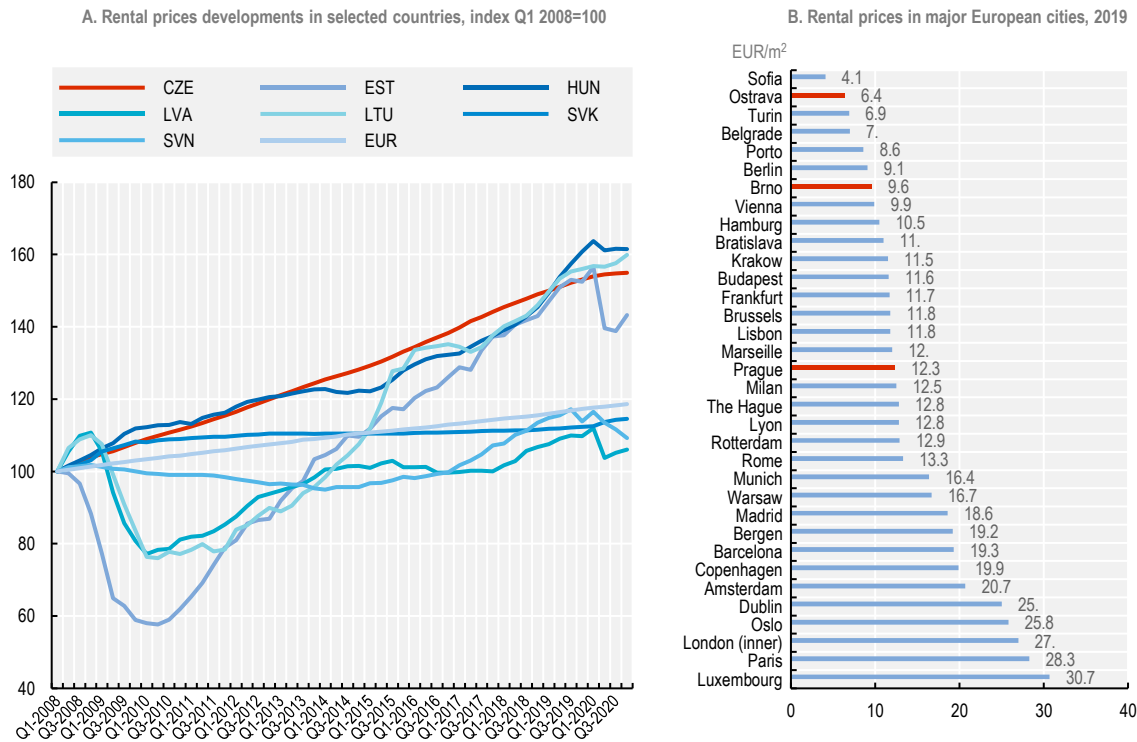
The private rental sector provides a housing option to the segments of the population who cannot afford to enter the homeownership market or do not have access to the social housing market, due to ineligibility or inefficiencies such as long waiting lists. While homeownership remains the preferred tenure for Czech households, a fast increase in house prices combined with caps on mortgage loans (nine times borrowers' net annual incomes since 2018) has hampered access to homeownership for newcomers, pushing more households towards other types of tenures.

Even though the private rental sector has expanded since the 1990s, it only accounts for around 13%-14% of the total housing stock. However, this national average masks territorial variations within the Czech Republic, as cities tend to have a higher stock of private rental housing than the rest of the country. In Prague, for example, about one-third of the housing stock is rented.

Rent prices in major cities are higher than in the rest of the Czech Republic. In 2019, the average monthly rent in Prague was EUR 12.3 per m², which means that a tenant pays on average EUR 740 a month for a 60-m² flat (Deloitte, 2020^[15]). While this remains lower than rent prices in large European metropolitan

areas such as Amsterdam, London and Paris, rent prices in Prague are similar to those in other major cities in Europe such as Marseille (France), Milan (Italy) and Rotterdam (Netherlands). They are also higher than in Lisbon (Portugal), Vienna (Austria) and Berlin (Germany), where the average monthly rents were EUR 11.8, EUR 9.9 and EUR 9.1 per m² respectively. In Brno and Ostrava, the average rent prices were EUR 9.6 and EUR 6.4 per m² respectively (Figure 1.5).

Figure 1.5. Rental prices in selected countries and European cities



Sources OECD (2021^[12]), Analytical House Price Indicators Database, <https://stats.oecd.org/>; Deloitte (2020^[15]), Property Index: Overview of European Residential Markets.

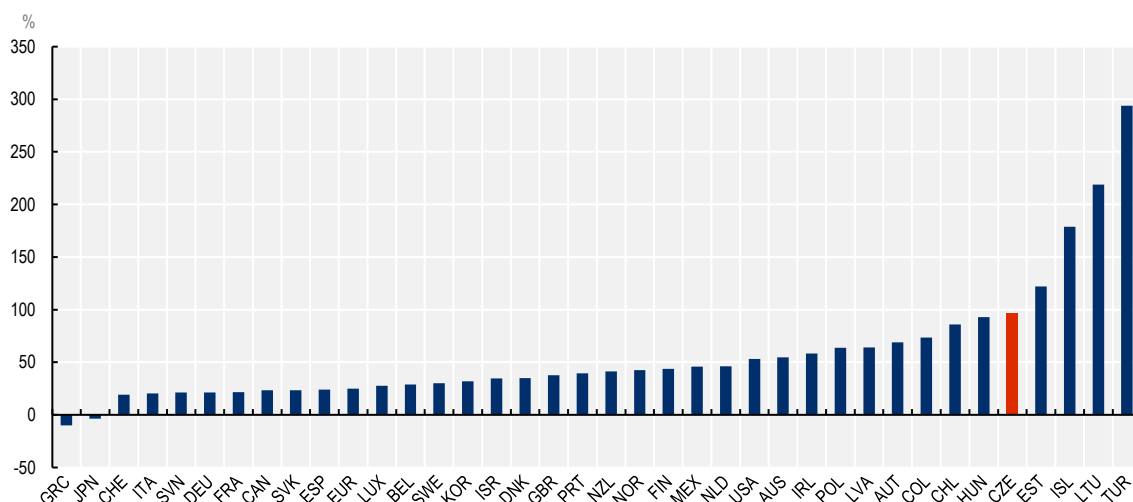
Since 2005, real rent prices have almost doubled in the Czech Republic – one of the largest increases among OECD countries (Figure 1.6). Although much of the rise in rents since 2005 can be explained by rent deregulation and catch-up from low rent levels inherited from the socialist regime, the increase has also been strong in more recent years – and stronger than in some neighbouring countries (Figure 1.5).

However, the rise in rents has not been as strong as the rise in house purchase prices. Between the second quarter of 2019 and the second quarter of 2020, rent prices in the Czech Republic increased by 3.7%, lower than the 4.3% increase in house purchase prices over the same period but one of the highest growth rates among European and OECD countries. In the euro area on average, rent prices rose by 1.3% over the same period.

Rental markets in the major cities of the Czech Republic have been impacted by the COVID-19 crisis, as measures introduced to contain the spread of the virus led to a near-complete freeze of tourism activities around the world (OECD, 2020^[18]). As a result, many flats located in the centre of touristic cities such as Prague, which were used for short-term rentals through peer-to-peer accommodation rental Internet platforms, have been introduced into the long-term rental market, creating some downward pressure on rents. However, this could be short-lived, as uncertainties remain on medium- to long-term impacts of the COVID-19 crisis on rental markets and about whether these dwellings will return to the short-term market once tourism activity recovers.

Figure 1.6. Rent prices, change between Q1 2005 and Q4 2020

Rent price index, 2015=100, seasonally adjusted



Note: Data for Q4 2020 were not available for Australia and New Zealand for which data for Q3 2020 were used.

Source: OECD (2021^[12]), *Analytical House Price Indicators Database*, <https://stats.oecd.org/>.

Drivers pushing housing demand up in Czech cities are likely to withstand the COVID-19 crisis

While the COVID-19 pandemic is still unfolding, whether it will have a long-lasting impact on housing affordability will depend on many factors, including the duration of the pandemic and the extent of recovery packages. The impacts of the crisis also vary significantly across territories, for example depending on the region's exposure to tradeable sectors and global value chains, its specialisation such as tourism and its share of occupations amenable to remote working (OECD, 2020^[19]). However, evidence from past pandemics suggests that the impacts on the housing market and the decline in house prices in cities are generally short-lived (Francke and Korevaar, 2021^[20]). In particular, cities' resilience to major shocks and resulting urban change can drive house prices up back to their previous levels. The following section discusses the structural drivers of housing demand in cities in the Czech Republic.

Housing demand in the Czech Republic has been fuelled by various economic, financial and demographic factors

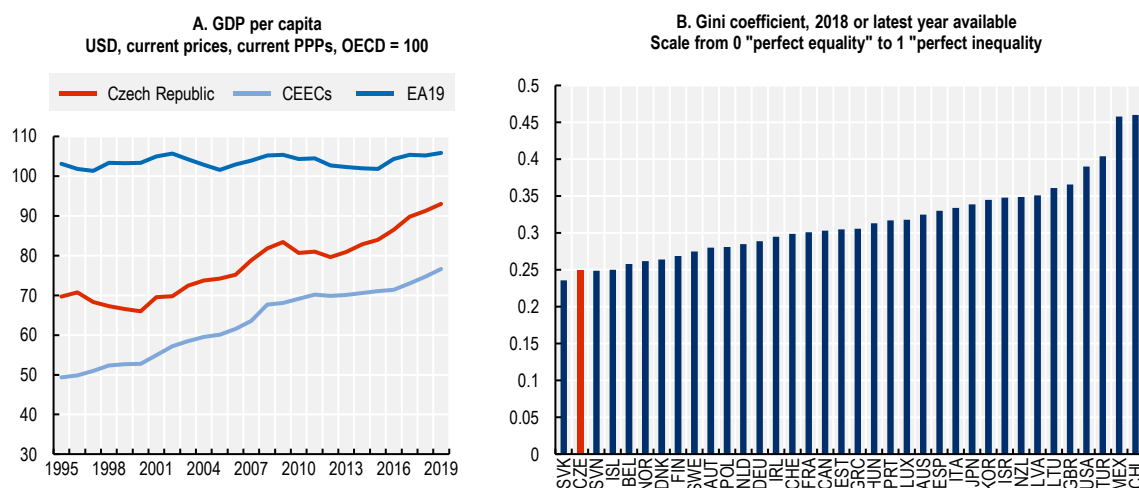
Some factors that have driven the strong demand for housing in cities are common to the Czech Republic.

Strong economic growth and rising real wages until 2020.

The Czech economy has been thriving in the past few years and economic growth has accelerated since 2013. In the years preceding the COVID-19 pandemic, national gross domestic product (GDP) expanded by 5.2% in 2017, 3.2% in 2018 and 2.3% in 2019. The Czech Republic's geographical location and openness to foreign direct investment – also driven by the country's accession to the European Union (EU) and single market – fostered integration to global value chains and higher productivity (OECD, 2020^[21]). Combined with low unemployment and a tight labour market with a high level of job vacancies, this has contributed to an acceleration of wage growth, resulting in a convergence of incomes and GDP per capita

towards the OECD average and rising living standards. In turn, the Czech Republic has maintained one of the lowest rates of inequality and poverty in the OECD (OECD, 2020^[21]) (Figure 1.7).

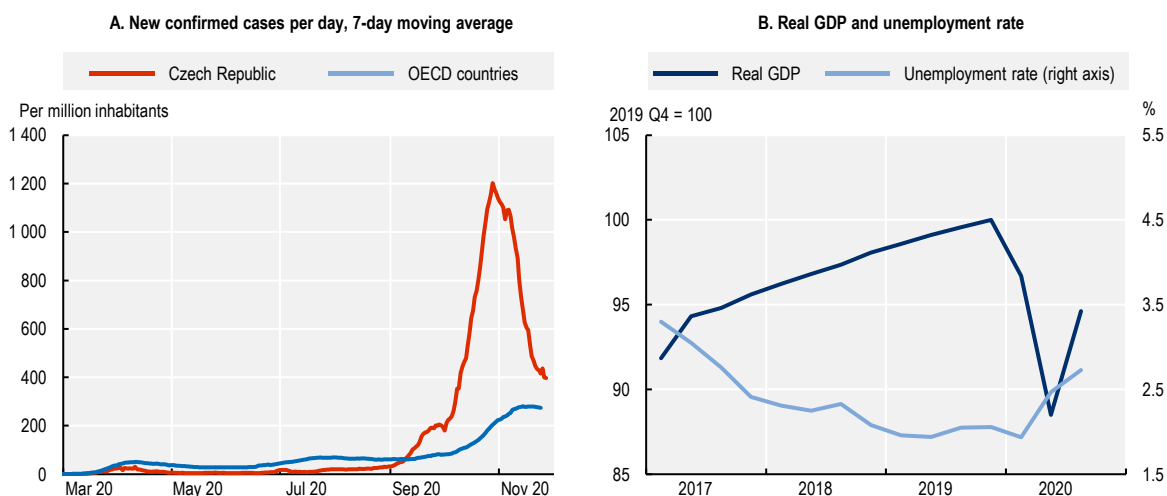
Figure 1.7. Converging GDP per capita and low-income inequalities



Note: Central and Eastern European countries (CEECs) are Hungary, Poland, the Slovak Republic and Slovenia.

Source: OECD (2020^[22]), *Productivity Database*, <https://stats.oecd.org/>; OECD (OECD^[23]), *Income Distribution Database*, <https://stats.oecd.org/>.

Figure 1.8. Economic sentiment and GDP forecasts for 2020 and 2021



Source: OECD (2020^[24]), *OECD Economic Outlook, Volume 2020 Issue 1*, <https://dx.doi.org/10.1787/0d1d1e2e-en>.

However, the COVID-19 pandemic and the resulting lockdown and containment measures that were put in place from March 2020 onwards have had a deep adverse economic impact, putting a halt to the continuous growth experienced in the past few years. In spring 2020, with restrictions to mobility and private consumption, retail sales and industrial output fell respectively by 9% and 11% year-on-year (OECD, 2020^[24]). While the first wave of the outbreak was relatively well contained and recovery started when the initial lockdown ended in April 2020, the Czech Republic experienced a stronger second wave

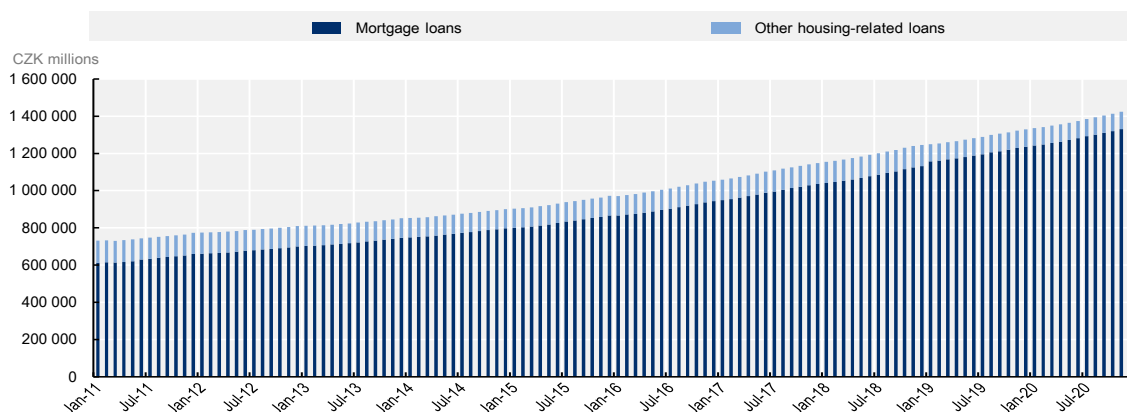
of the epidemic, which triggered renewed restrictions and a freeze in the recovery since September 2020. Unemployment also started to rise from its initially low levels, reaching 2.9% in the third quarter of 2020, although it remains very low in international comparison. GDP is estimated to have contracted by around 5.6% in 2020 and is expected to recover slowly, by 1.5% in 2021, and 3.3% in 2022 (OECD, 2020^[21]). While a more prolonged lockdown could hamper recovery, a quicker-than-expected deployment of vaccines – which are for now expected to be widely deployed only in the second half of 2021 – and continued government support to companies could trigger higher confidence and stronger economic growth in the coming year.

Whether or not the economic crisis will have an impact on house prices in the long term is uncertain at this point. However, at the time of writing, house prices do not seem to have been affected by the crisis and have continued to rise. Real house prices increased by almost 6% year-on-year in the third quarter of 2020.

Favourable lending conditions, with low mortgage rates and high availability of credit.

According to data from the CNB, total lending to households for housing purchases represented more than three-quarters of all loans to households and amounted to CZK 1 436 billion (EUR 51.6 billion) at the end of December 2020 (of which CZK 1 343 billion, i.e. 94%, were mortgages) (Figure 1.9). In recent years, the high volume of new mortgages has been driven by low interest rates, household income growth and Czech households' continued preference for homeownership. While a record amount of housing loans had been granted to households in 2018 (CZK 232 billion of which CZK 187 billion [i.e. 80%]) in mortgages), credit growth has slowed down since then, due to a tightening of lending conditions introduced by the CNB in order to counter the “spiral between property prices and property purchase loans” (CNB, 2018^[25]). The CNB introduced caps on the debt-to-income (DTI) ratio and the debt service-to-income (DSTI). From October 2018, debt should not exceed 9 times the net annual income of borrowers and the DSTI ratio should not exceed 45%. However, these prudential ratios are only recommendations and have no binding power, which limits their effectiveness (OECD, 2018^[26]). The average size of loans provided for house purchases has also increased, mainly because of the increase in house prices. About one-fifth of Czech households are currently repaying a housing mortgage (CNB, 2019^[27]). Between March and May 2020, the CNB cut policy rates 3 times, from 2.25% to 0.25%, and lowered the counter-cyclical buffer from 1.75% to 1% to help banks extend credit. Financial conditions for purchasing property, therefore, remain favourable and are likely to continue to boost the attractiveness of investing in housing.

Figure 1.9. Lending to households for house purchase

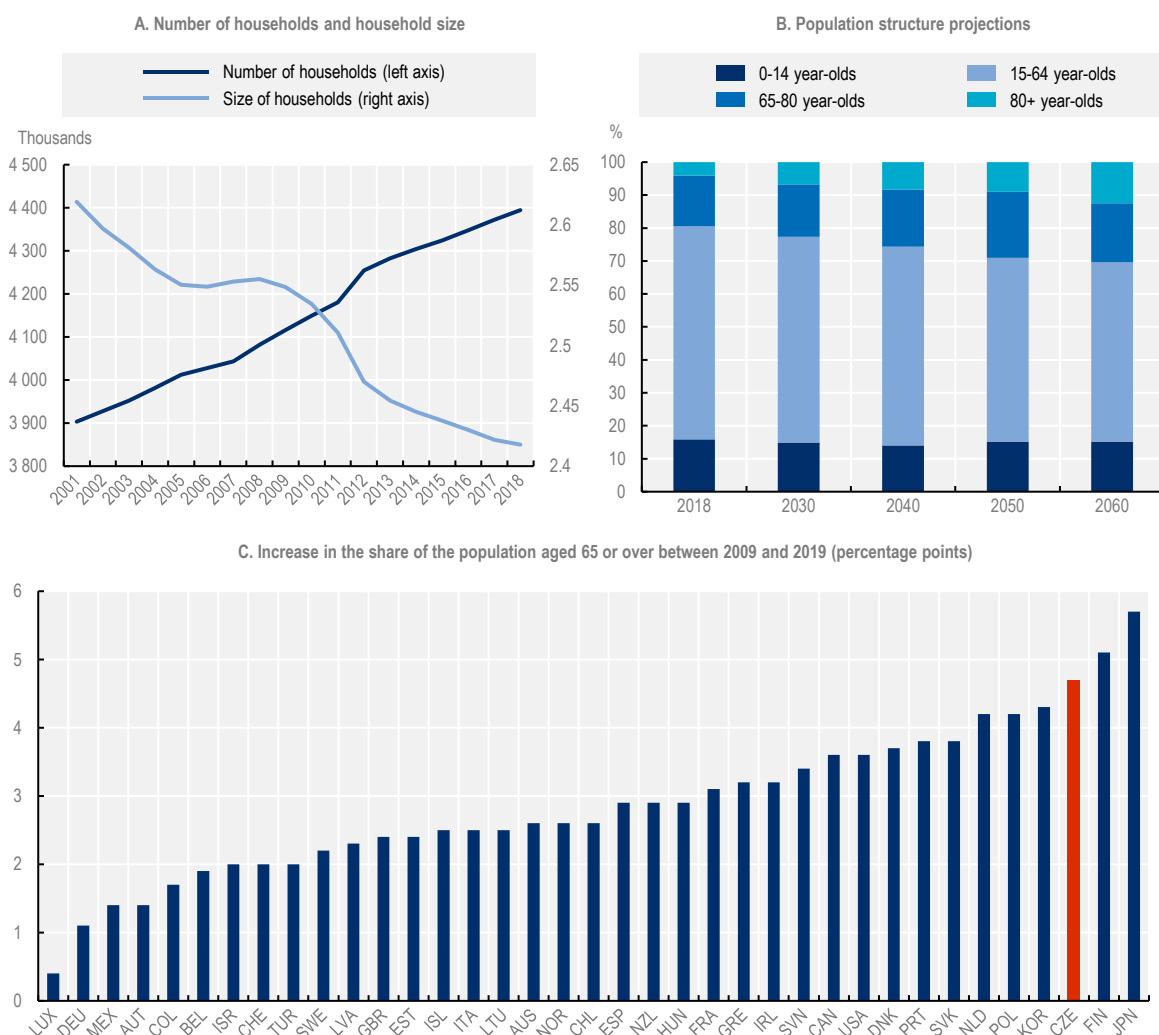


Source: CNB (2020^[28]), Czech National Bank Statistics, <https://www.cnb.cz/en/statistics/>.

Changes in household composition and population ageing.

Demographic growth in the Czech Republic has been low and the size of households has been decreasing steadily. The average size of a Czech household reached 2.42 people in 2018 and the number of households increased to almost 4.4 million households in 2018, leading to more demand for housing. Furthermore, the Czech Republic is ageing more rapidly than most European countries, with the share of the population aged 65 years or more increasing by 5 percentage points between 2008 and 2018. Projections also show that the share of the population aged 80 years old or more is expected to increase from 4% of the total population today to more than 12% by 2060 (Figure 1.10). By 2040, about a quarter of the population is expected to be 65 years or older, compared with 18% of the population today (OECD, 2018^[26]). While evidence of how population ageing affects house prices is ambiguous, population ageing does influence the type of housing demand, as the older and less mobile population has specific needs in terms of housing size and accessibility, for example. Adapting the existing housing stock to meet demand from an ageing population therefore implies home renovation and upgrading efforts.

Figure 1.10. Evolution of households in the Czech Republic



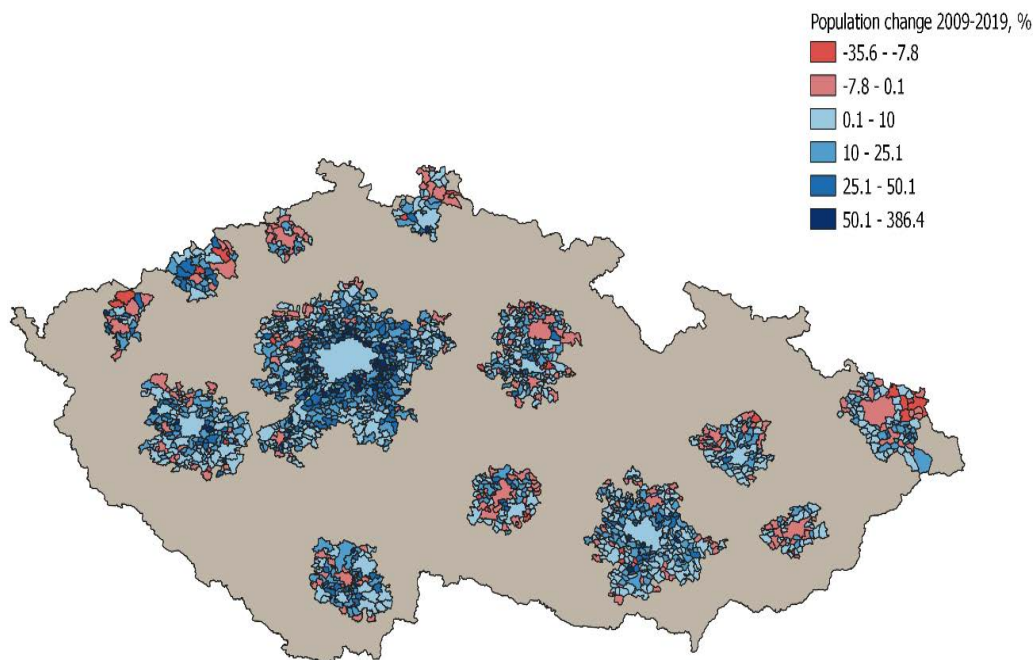
Source: ECB (2020^[29]), *Statistical Data Warehouse*, <https://sdw.ecb.europa.eu/home.do>; OECD (2020^[30]), *Population Statistics*, <https://stats.oecd.org/>.

However, some factors of housing demand are specific to cities

Whereas some factors influencing house prices are national, such as demographic trends, the availability of credit and the CNB's interest rate policy (discussed in the previous section), housing markets are by definition influenced by their location and involve a range of specific local factors. Cities are popular locations and attract people who want to benefit from the availability of jobs, education, lifestyles and cultural opportunities, as well as urban infrastructure, public goods and services.

The share of population living in cities and towns or semi-dense areas is lower than the average in high-income countries (22% in urban centres, 37% in towns and semi-dense areas and 41% in rural areas in the Czech Republic, compared with 49%, 27% and 24% respectively in high-income countries on average) (OECD/EC, 2020^[31]). However, over the last decade in the Czech Republic, the population living in FUAs, i.e. a city and of its commuting zone (Dijkstra, Poelman and Veneri, 2019^[32]), has increased faster than in the country overall. According to the Czech Statistical Office, the population in all Czech FUAs increased by 4.5% between 2009 and 2019, compared to only 1.8% in the Czech Republic in the same period (Czech Statistical Office, 2020^[16]). The fastest increase in population over the last decade was registered in the FUAs of Brno, Ceske Budejovice, Pilsen and Prague. Prague expanded by 9.7% in 10 years and Brno, Pilsen and Ceske Budejovice rose by 5.7%, 5.4% and 5.3% respectively. Faster population growth in cities is due to inflows from rural areas to the main cities, as well as inflows of migrants from abroad who tend to settle in urban areas. Some cities that host high-quality and renowned universities, such as Brno, Olomouc and Pilsen, also attract many Czech and international students. Conversely, some FUAs lost population. This is the case of Ostrava and Most, for example, where the population decreased by 5.1% and 4.9% respectively between 2009 and 2019 (Figure 1.11).

Figure 1.11. Population change in municipalities of FUAs, 2009-19



Source: OECD calculations based on Czech Statistical Office (2020^[16]), Czech Statistical Office Statistics, <https://www.czso.cz/csu/czso/statistics>.

Some Czech cities are also very attractive to investors and demand for investment properties has been increasing – especially demand for prime properties by foreigners who have been able to purchase real estate in the Czech Republic without limitation since 2012 (IMF, 2018^[33]). Prague, in particular, has become a mainstream destination for property investment in Europe (PwC/Urban Land Institute, 2017^[34]). This has put more pressure on house prices in the past few years. Although the economic literature analysing the direct impact of foreign acquisition of real estate on domestic house prices remains scarce, there is cross-country evidence of a broad relationship between aggregate capital inflows and house prices, through the increased demand for housing, the increased money supply and liquidity due to capital inflows and the positive impact of capital inflows on economic activity, pushing house prices further up (Cavalleri, Cournède and Ziemann, 2019^[35]).

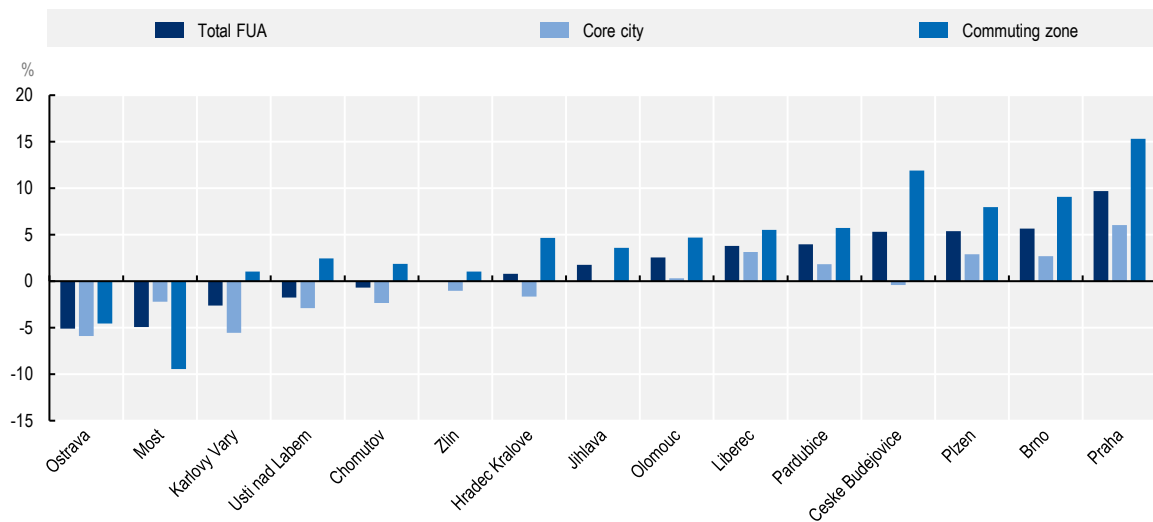
The increase in tourism and the intensified use of short-term rental platforms has been fostered by the higher yield generated by short-term rentals compared with the yield generated on the long-term rental market. This has also led to a decline in available and affordable rental flats and a surge in rental prices in the capital city. In 2018, Prague was the 6th most visited city in Europe and 22nd in the world, with a total amount of 9.15 million tourists – ahead of other popular European destinations such as Amsterdam, Barcelona, Milan or Vienna (Euromonitor International, 2019^[36]). In Prague, the share of peer-to-peer accommodation in the total hospitality accommodation capacity has been growing rapidly, from 34% in 2016 to almost 41% in 2018, almost matching the accommodation capacity of hotels (Deloitte, 2019^[37]). While peer-to-peer listings account for less than 2% of Prague's total housing stock and are mostly concentrated in the historical centre, almost a quarter of Prague's Old Town flats are rented out for tourist short-term rentals (see Chapter 2 for examples of policies implemented by OECD countries to regulate holiday rentals).

The COVID-19 crisis put a sudden halt to touristic activities in the Czech Republic, as in all other OECD countries, significantly impacting the short-term rental market. Many short-term rental properties have remained vacant, while some owners have turned their properties into long-term rentals. While this could result in stabilisation or even a decrease in rent prices, the effects are likely to be modest and short-lived, given that these short-term rentals account for only a small share of total accommodations and that tourism activity is expected to pick up again when the COVID-19 crisis is under control.

An increasing share of the urban population lives outside urban centres, creating other social and environmental challenges

The Czech Republic has one of the highest shares of urban population residing outside urban centres. The decentralisation index, i.e. the percentage of population residing outside the high-density peaks of an urban area, is approximately 10% higher in the Czech Republic than in the average OECD country (OECD, 2018^[38]). Between 2009 and 2019, in all Czech FUAs except for Most, the population increased faster in the commuting zones of the FUAs than in their core cities, indicating a phenomenon of urban sprawl (Figure 1.12).

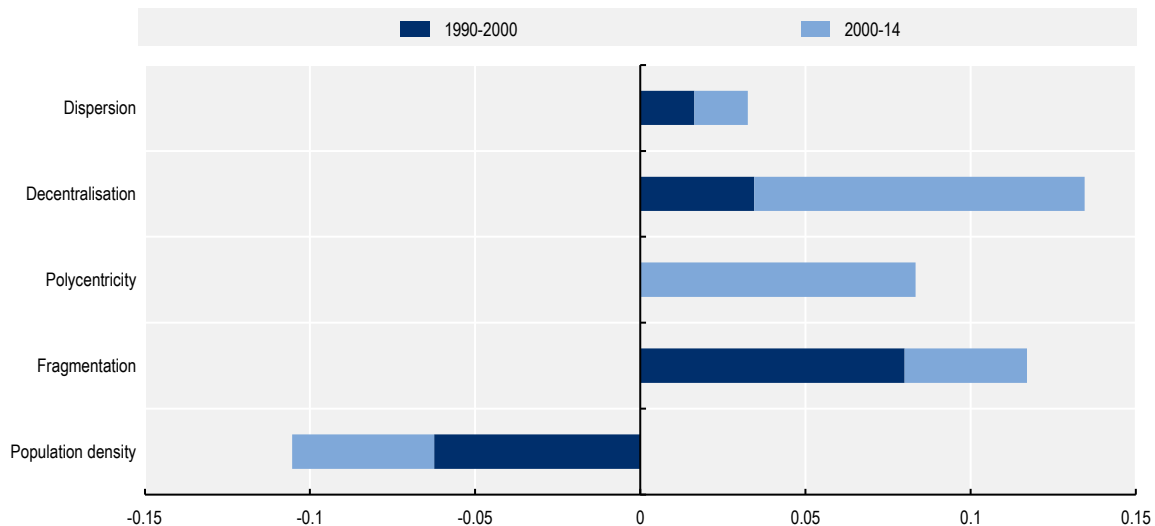
Other indicators also confirm that Czech cities have been sprawling since 1990. Average population density, i.e. the average number of inhabitants in a km² of land of an urban area, has decreased by 11%, while decentralisation has increased by 13%. This has also been accompanied by an 8% increase in polycentricity, i.e. the number of high population density peaks in urban areas. These numbers mean that more urban centres have emerged but a greater number of urban residents have moved outside of them (Figure 1.13) (OECD, 2018^[38]).

Figure 1.12. Population change in FUAs, core cities and commuting zones, 2009-19

Source: Czech Statistical Office (2020^[16]), *Czech Statistical Office Statistics*, <https://www.czso.cz/csu/czso/statistics>.

Figure 1.13. Change in urban sprawl indicators, 1990-2014

Relative change



Note: Population density: average number of inhabitants per square kilometre (km²) of land. Dispersion: standard deviation of population density. Polycentricity: number of high population peaks in an urban area. Fragmentation: number of urban fabric fragments per km² of built-up area. Decentralisation: percentage of population residing outside areas of peak density.

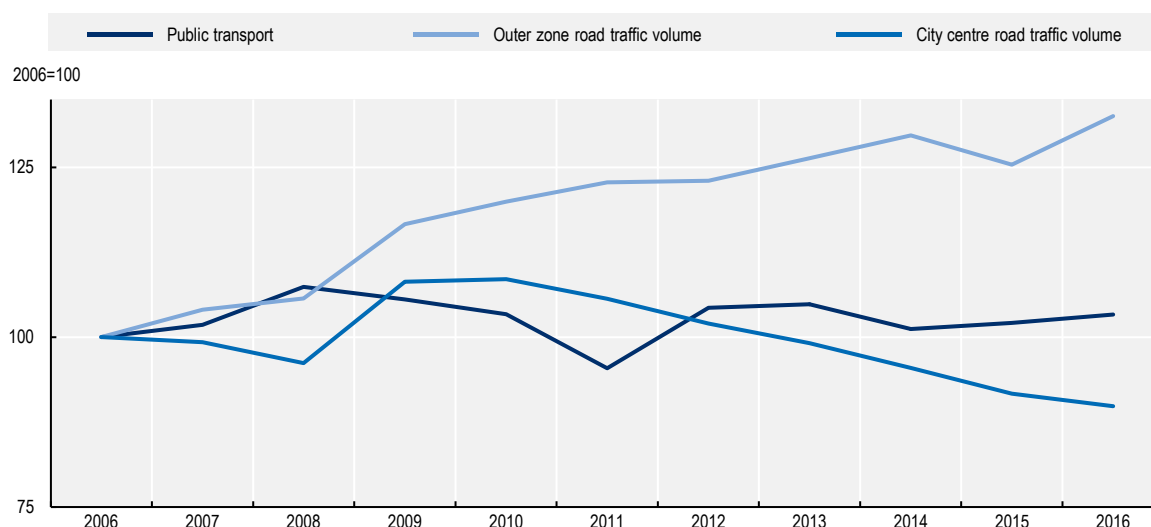
Source: OECD (2018^[38]), *Rethinking Urban Sprawl: Moving Towards Sustainable Cities*, <https://doi.org/10.1787/9789264189881-en>.

Urban sprawl has significant environmental, economic and social consequences, including higher emissions from road transport (as sprawled cities are characterised by larger distances between homes and jobs, more likely to be covered by car), and higher costs of providing key public services (such as water supply, electricity and public transport, which are more expensive to provide in fragmented areas). Main cities do have integrated transport systems and public transport is the main mode used by residents in Prague and Ostrava (70% and 53.4% of residents respectively). However, the increase in

suburbanisation, coupled with the rise in households' incomes, has resulted in an increase in car ownership in the Czech Republic. In Prague, car ownership grew by more than 40% between 2010 and 2019, leading to congestion, noise and air pollution (OECD, 2018^[39]; Czech Statistical Office, n.d.^[40]). In the outer zone of the city of Prague, car traffic volume increased over the past 10 years, while it decreased in the centre of the city (Figure 1.14).

Figure 1.14. Car traffic volume has gone up in Prague's outer zone, 2006-16

Passenger transport in Prague



Note: Public transport: index based on the number of passengers transported. Traffic volume: index based on the number of vehicles over the 24 hours of an average workday. City centre: bounded by Petřín in the west, Letná in the north, Riegrovy sady in the east and Vyšehrad in the south (the Strahov and Mrázovka tunnels lie outside the central cordon). Outer zone: traffic volume is measured where the main roads and motorways enter the city centre.

Source: City of Prague (n.d.^[41]), *Prague Transportation Yearbook*, Various years.

Czech cities face a shortage of housing supply

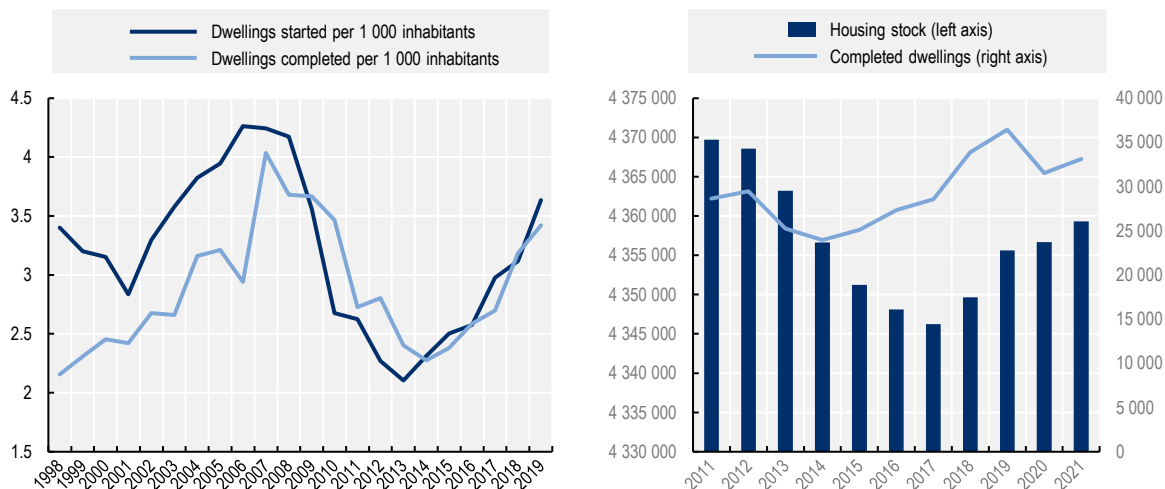
Started and completed dwellings have not caught up with their previously high levels

When housing supply is elastic enough, it ensures that the economy responds to housing needs in a timely manner without large price increases, thus underpinning housing affordability. However, the high and growing demand for housing in Czech cities has not been met by a sufficient increase in housing supply. Construction activity declined after the global financial crisis and has yet to recover. The numbers of started and completed dwellings per 1 000 inhabitants decreased sharply between 2008 and 2013. Although these numbers picked up again since 2014, they have not caught up yet with the levels reached before 2008. In 2019, dwelling completions rose by 7.6% from the previous year to 36 406 units, following annual increases of 18.5% in 2018, 4.6% in 2017 and 8.9% in 2016, according to the Czech Statistical Office (Czech Statistical Office, 2020^[16]). Likewise, dwelling starts were up by 16.8%, reaching 38 677 units in 2019. However, the number of flats starts and completions per 1 000 inhabitants currently remains below their 2008 levels, with construction responding only very slowly to the increased demand for housing in recent years (Figure 1.15).

Furthermore, according to calculations from the MMR, the total stock of housing decreased between 2011 and 2017. Not enough new dwellings were built to compensate for some of the wear and tear of old

dwellings or the change in use from residential to commercial, for example. While the stock of housing increased in 2018 and 2019, it has not gone back to its previous level. The COVID-19 pandemic also froze all construction projects in spring 2020, leading to a sharp decrease in completed dwellings for 2020 (Figure 1.15).

Figure 1.15. Number of dwellings started and completed in the Czech Republic



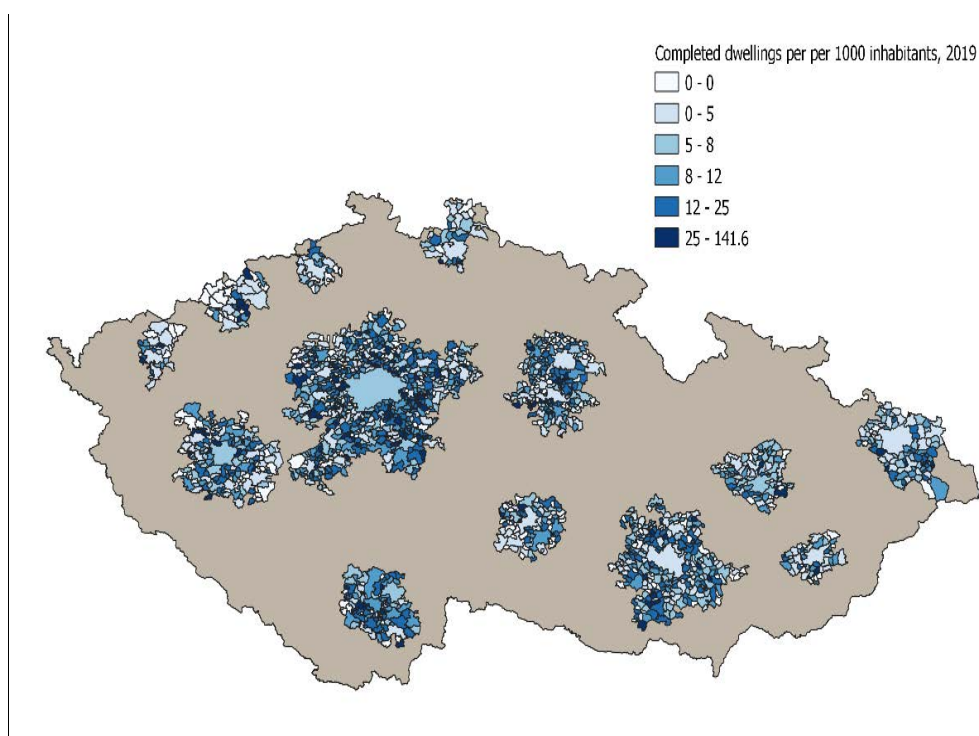
Source: Ministry of Regional Development and OECD calculations based on Czech Statistical Office (2020^[16]), *Czech Statistical Office Statistics*, <https://www.czso.cz/csu/czso/statistics>.

Construction activity does not happen where it is most needed

Such construction numbers at the national level hide wide variations among territories and cities. While about 20% of all completed dwellings were built in Prague (around 6 700 completed flats and family houses in 2019), the number of dwellings completed per 1 000 inhabitants is still low, with just above 5 completed dwellings per 1 000 inhabitants. In most major Czech cities, the number of completed dwellings per 1 000 inhabitants in 2019 was also below 5. The only exceptions among the core cities of the 15 Czech FUAs are Pilsen, Olomouc and Ceske Budejovice, where there were 7.4, 7.9 and 8.4 completed dwellings per 1 000 inhabitants respectively in 2019. Furthermore, in all Czech FUAs except Olomouc, the number of completed dwellings per 1 000 inhabitants was higher in the commuting zones of FUAs than in core cities, mirroring the higher population increase in the commuting zones and confirming the suburbanisation trend discussed earlier (Figure 1.16).

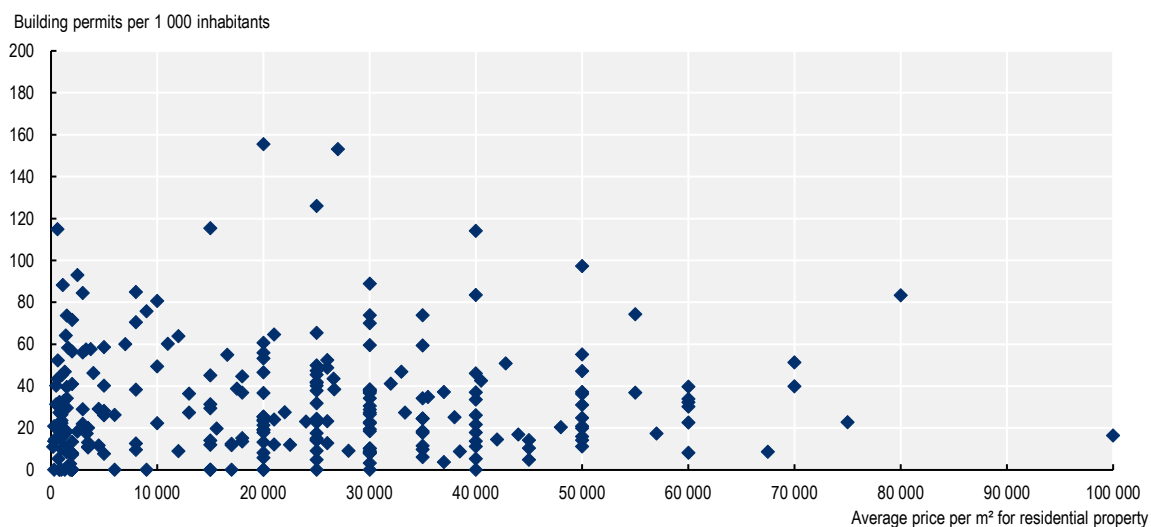
Furthermore, the OECD-MMR housing survey shows that housing development in the Czech Republic has been unrelated to price levels. When housing construction does happen, it does not seem to focus on high-priced areas. Figure 1.17 shows the relationship between a municipality's house prices and the number of building permits per 1 000 inhabitants that were issued between 2015 and 2019. There is no indication that municipalities with higher price levels have experienced increased construction activity, which suggests that the growth in demand (reflected in higher prices) has not been buffered by an increase in supply. In contrast, many municipalities with low price levels experienced considerable housing development. In these municipalities, there is therefore a risk that this excess housing development creates undesired side-effects in terms of urban sprawl as described earlier. This pattern of non-correlation between house prices and construction levels is also observed at the level of the FUA. The two FUAs where the most building permits were issued (Liberec and Mladá Boleslav) have only average housing prices, while Prague did not have a significant amount of issued building permits even though it registers the highest housing prices (Figure 1.18).

Figure 1.16. Completed dwellings per 1 000 inhabitants in FUAs in the Czech Republic



Source: OECD calculations based on Czech Statistical Office (2020^[16]), *Czech Statistical Office Statistics*, <https://www.czso.cz/csu/czso/statistics>.

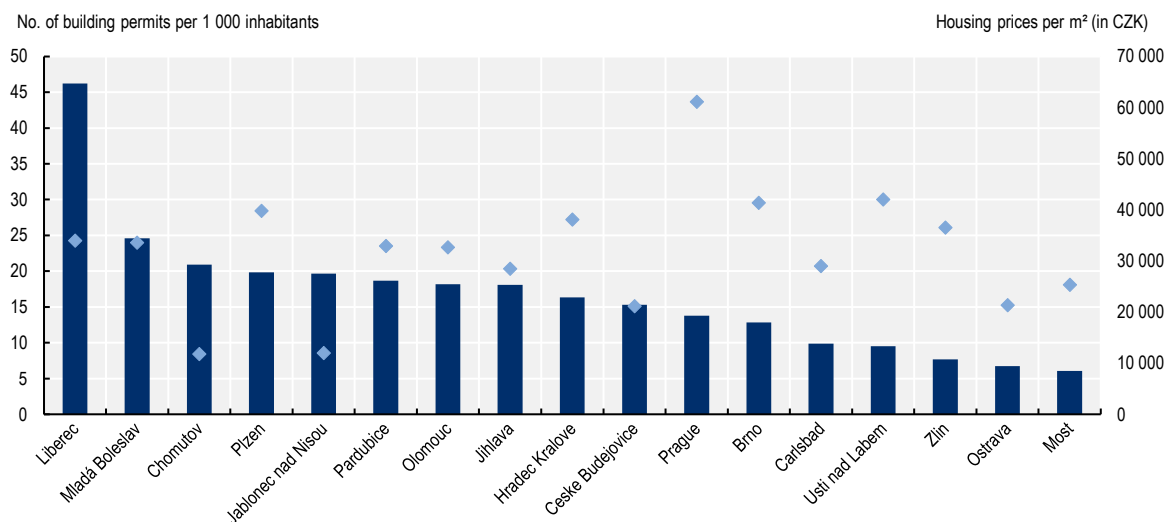
Figure 1.17. No correlation between price levels and construction activity (respondent municipalities), 2015-19



Note: The vertical axis shows the number of building permits granted during 2015-19 per 1 000 inhabitants. The horizontal axis provides average residential property prices as estimated by local officials.

Source: OECD/MMR (2020^[42]), *OECD-MMR Housing Survey of Municipalities in the Czech Republic*.

Figure 1.18. No correlation between house price levels and construction activity in FUAs in the Czech Republic



Note: The left-side axis shows the number of building permits granted during 2015-19 per 1 000 inhabitants. The right-side axis provides average residential property prices as estimated by local officials.

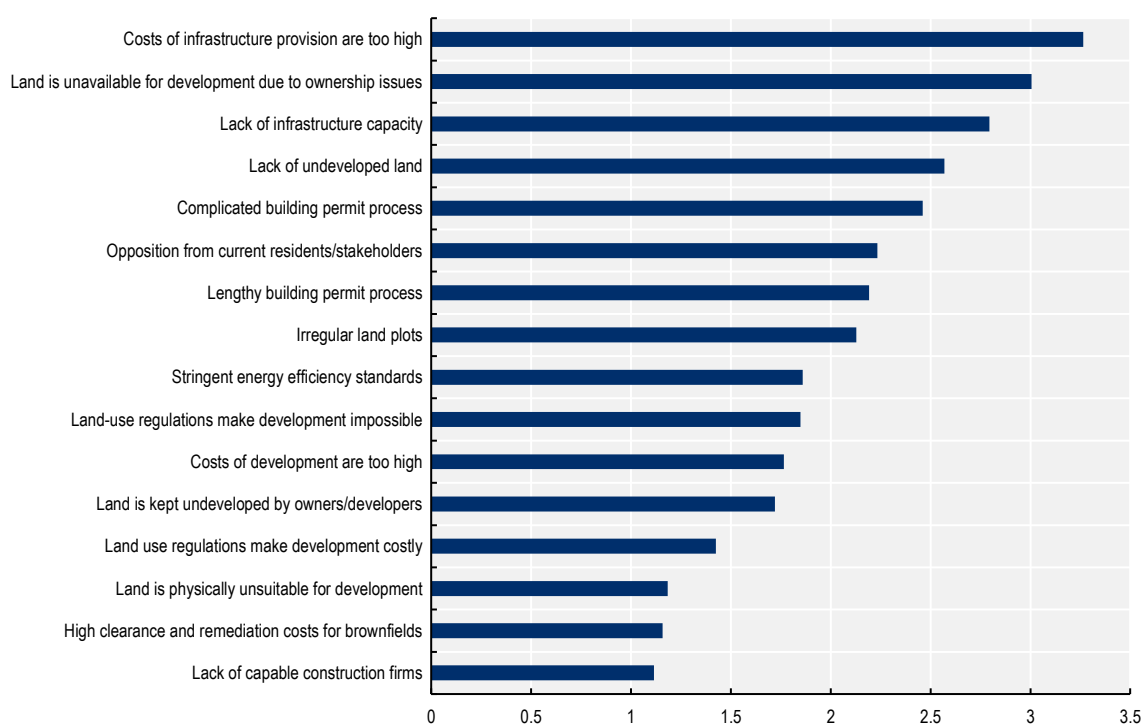
Source: OECD/MMR (2020^[42]), *OECD-MMR Housing Survey of Municipalities in the Czech Republic*.

Private sector housing supply faces several constraints

Several factors can explain the shortage of housing supply in the Czech Republic. First, partly due to a very low unemployment rate (2.1% of the labour force in the fourth quarter of 2019 – the lowest unemployment rate among all OECD countries), there has been a shortage of qualified workers in the construction sector. This made it difficult for developers and local governments to find contractors and led to lengthy construction times and higher construction costs. The overall number of construction companies has actually decreased (with a decline in company births and an increase in company deaths), while the number of job vacancies in the construction sector grew by more than 80% between 2010 and 2015 (from 4 239 to 7 689 job vacancies) (EC, 2018^[43]).

Furthermore, the complex building permit process generates delays in obtaining building permits and licences, creating bottlenecks in housing construction. The Czech Republic ranks 157th out of 190 countries surveyed in the World Bank's Doing Business 2020 survey in terms of "dealing with construction permits" (2019^[44]). It takes 21 procedures and 246 days to build a warehouse in the Czech Republic, whereas in the OECD on average, it takes 12.7 procedures and 152.3 days. As a result, the responsiveness of housing supply to changes in housing demand is weak, which can lead to sudden price increases if demand rises (Bétin and Ziemann, 2019^[45]; Cavalleri, Cournède and Özsöğüt, 2019^[46]).

According to the OECD-MMR housing survey, municipalities responded that the main constraints for private developers were the cost of infrastructure provision, the lack of available land and the lack of infrastructure capacity (Figure 1.19). In line with the aforementioned World Bank data, the complicated and lengthy building permit process also ranked high on the list of constraints.

Figure 1.19. Main constraints for private developers

Note: The horizontal axis shows the average score of each constraint based on a Likert scale ranging from 0 for “no importance” to 5 for “very high importance”.

Source: OECD/MMR (2020^[42]), *OECD-MMR Housing Survey of Municipalities in the Czech Republic*.

Living in cities imposes a heavy financial burden on Czech households

As discussed previously, housing affordability is not only about the ability to buy or rent a house but also the ability to live in it and to have enough remaining income to meet other basic needs. Two common indicators in this regard are: i) the share of housing-related expenditures (i.e. rent or mortgage, water, electricity, gas and other housing-related expenditures) relative to overall final consumption expenditures of a household; and ii) the housing cost overburden, which is the share of households that spend more than 40% of their disposable household income on rent or mortgage.

Housing-related expenditures put a substantial burden on Czech households

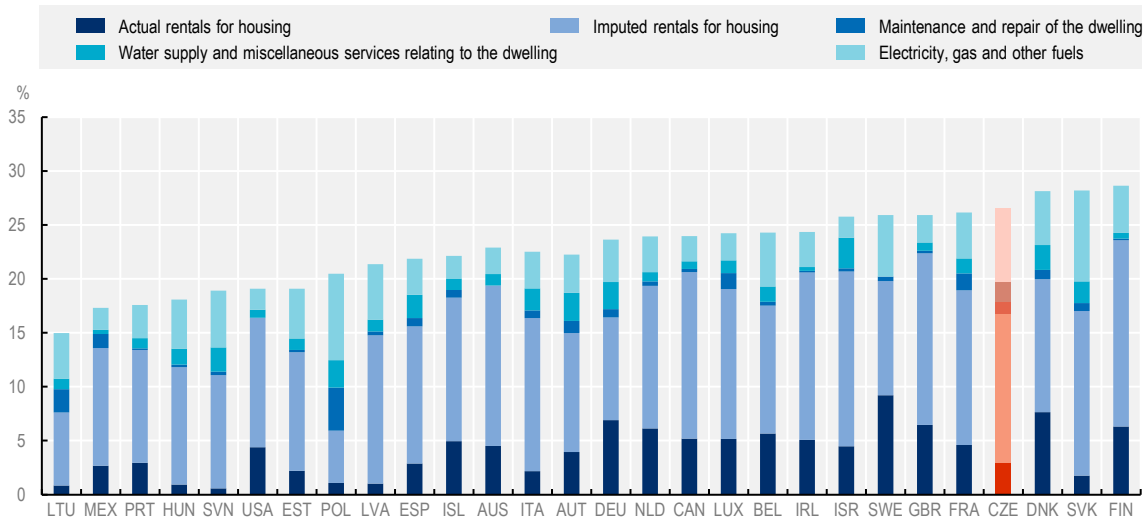
Housing costs take up a large share of the budget of Czech households and represent their largest single expenditure. In 2018, Czech households on average devoted 26.5% of their expenditures to housing, i.e. to rents or imputed rents, insurance, mandatory services and charges, maintenance and repairs, taxes and the costs of utilities (water, electricity, gas and heating). This share is higher than the OECD average, where housing-related expenditure constituted 22.3% of final household expenditure, and it is one of the highest shares among all OECD countries (Figure 1.20). This share also represented an increase from 22.8% of final household consumption expenditure in 2000.

A relatively small share of Czech households' expenditure goes towards rents due to the large share of outright owners. Only 2.9% of final household consumption is spent on actual rents, compared to about 4% in the OECD on average. Spending on imputed rents, i.e. the estimated rent that owner-occupiers theoretically pay to themselves, accounts for 13.9% of final consumption in the Czech Republic, slightly above the OECD average of 13%. However, Czech households dedicate a relatively large share of

spending to electricity, gas and other fuels (6.8% of final consumption, much higher than the OECD average of 4.0%).

Figure 1.20. Total housing expenditure as share of final consumption expenditure of households

Share of final household consumption expenditure spent on housing, by item, OECD countries, 2018

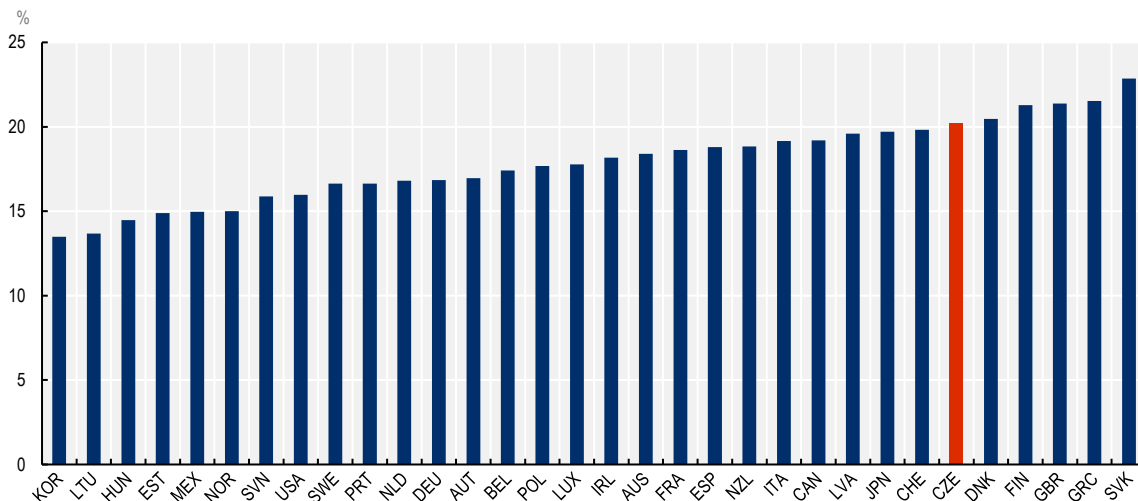


Note: Data cover final consumption expenditure.

Source: OECD (n.d.^[47]) *National Accounts database*, <https://stats.oecd.org/>.

Total housing expenditure also accounts for a high share of Czech households' disposable income, suggesting that housing costs create strong financial pressure on Czech households. In 2018, the housing consumption of Czech households accounted for 20.2% of their net adjusted disposable income – one of the highest shares among all OECD countries (Figure 1.21).

Figure 1.21. Household housing consumption as a share of households' net adjusted disposable income, 2018



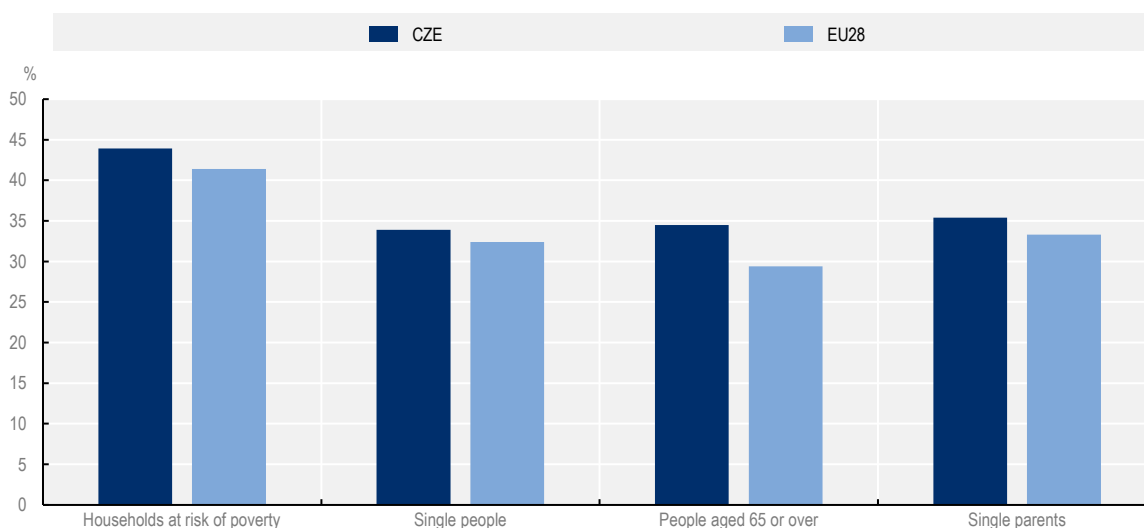
Note: Data are for 2018, except for Greece, Japan, Korea, Mexico, New Zealand, Switzerland and the United States for which data are for 2017.

Source: OECD (n.d.^[47]) *National Accounts database*, <https://stats.oecd.org/>.

According to the EU Statistics on Income and Living Conditions (EU-SILC) (2020_[48]), the financial burden created by housing costs for Czech households is particularly heavy for vulnerable groups and more so than in the EU on average (Figure 1.22), particularly for:

- Households at risk of poverty (i.e. those with an income below 60% of the median national income) that spend almost half of their disposable income (43.9%) to cover housing costs.
- Single people, who spend 33.9% of their disposable income on housing costs.
- People aged 65 and above, who spend more than a third of their disposable income on housing costs (34.5%): a category of elderly “asset-rich but cash-poor” people has emerged, i.e. people over 65 years old who in their large majority are outright homeowners as a result of the transition from communism or own their homes without paying any mortgages but who often lack the income or savings to pay for housing-related costs, such as maintenance or energy.
- Single parents, who spend more than a third of their disposable income on rents, mortgages and other housing-related costs (35.4%).

Figure 1.22. Share of total housing costs in disposable household income, by type of household and income group, Czech Republic and EU28



Source: Eurostat (2020_[48]), *Eurostat Income and Living Conditions*, <https://ec.europa.eu/eurostat/web/income-and-living-conditions/data/database>.

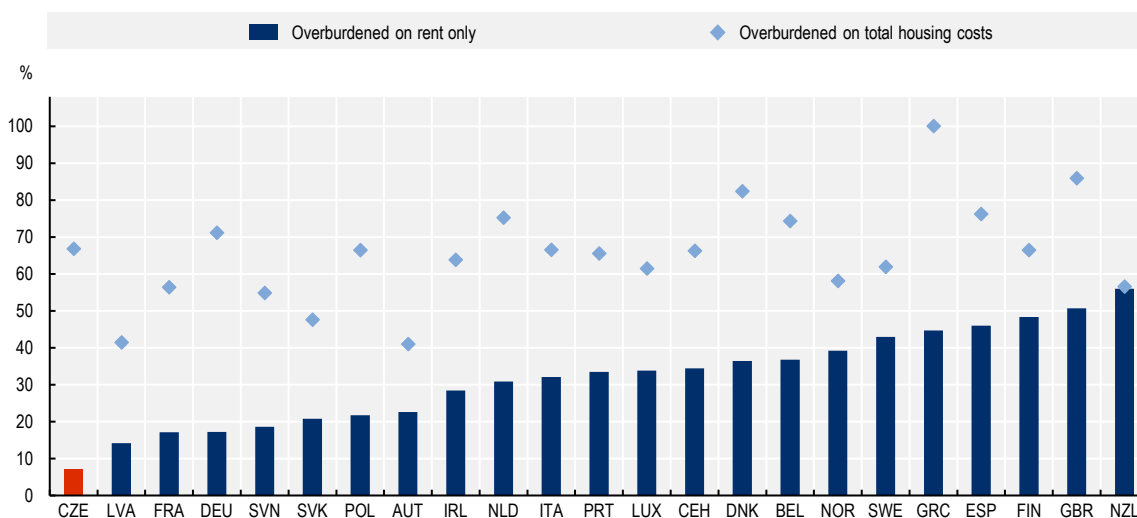
In line with the fact that Czech households spend relatively little on rent only (actual and imputed), Czech households are also among the least likely in the OECD to be “overburdened” by housing costs, i.e. to spend more than 40% of their disposable household income on housing, when taking into account rents and mortgage costs only. In 2018, about 2.8% of Czech tenants and 1.6% of homeowners with a mortgage spent more than 40% of their disposable income on rent or mortgage. Even low-income tenants and homeowners with a mortgage are very unlikely to be overburdened by housing costs (7.1% and 10.4% of households respectively – much less than low-income households in the OECD on average) (OECD, 2020_[6]).

However, housing costs other than rent and mortgage costs (e.g. insurance costs, mandatory services and charges, regular maintenance and repair, taxes and utilities) increase considerably the financial burden on households, especially on low-income households. Whereas the poorest Czech households were among the least likely across the OECD to face housing cost overburden when considering only mortgage payments and rents, they are among the most likely to face a housing cost overburden when all housing-

related costs are taken into account. In 2018, almost three-quarters (73.7%) of households in the bottom quintile that were owners with a mortgage spent more than 40% of their disposable income on total housing costs, while the share is two-thirds (66.8%) for low-income renters on the private market (OECD, 2020^[6]) (Figure 1.23).

Figure 1.23. Total housing cost overburden rate among low-income tenants in the Czech Republic and selected OECD countries

Share of tenants in the bottom quintile of the income distribution paying more than 40% of disposable income on rent, and share of tenants in the bottom quintile of the income distribution paying more than 40% on total housing costs, percent, 2018 or latest year available



Note: Total housing costs include rents, structural insurance, mandatory services and charges, regular maintenance and repair, taxes and utilities (including electricity, water, gas and heating). In the Netherlands and Norway, no tenants at subsidised rate are included in the private market rent category due to data limitations.

Source: OECD (2020^[6]), *Affordable Housing Database*, <http://oe.cd/ahd>.

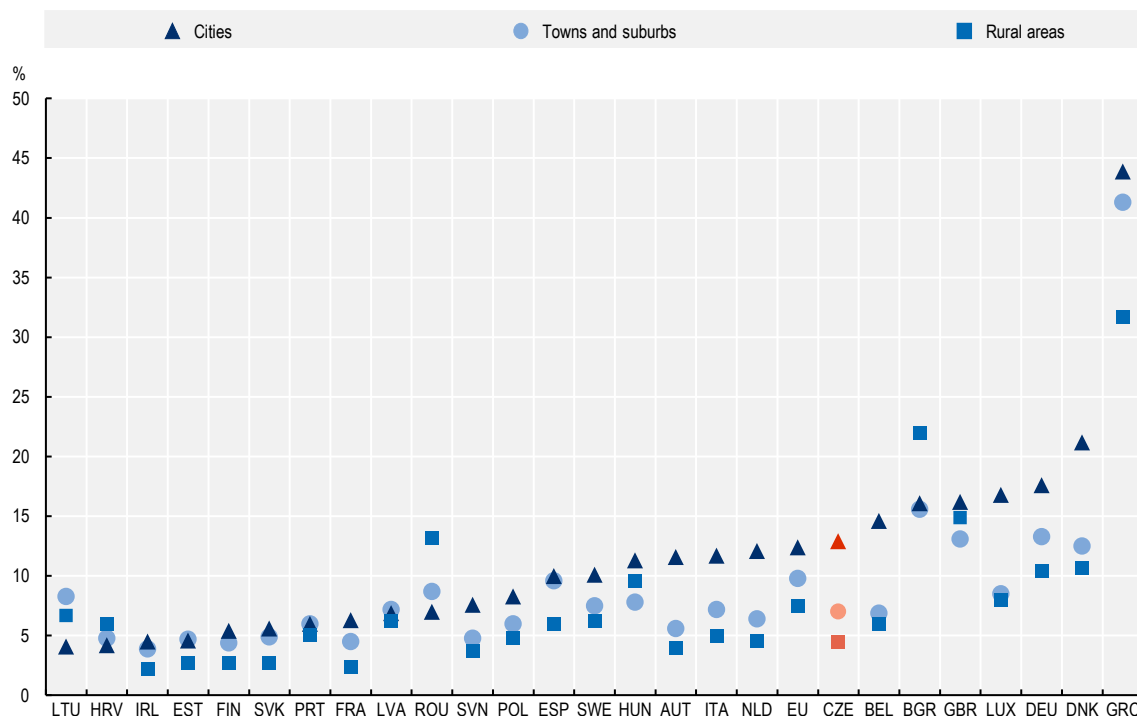
Housing cost overburden rates are higher in cities

The housing cost overburden rate varies at the local level and is higher in cities in the Czech Republic. Analysis reveals that the overburden rate in the Czech Republic increases with the degree of urbanisation. In 2018, the housing cost overburden was the lowest in rural areas (4.4%), higher in towns and suburbs (7.0%) and the highest in cities (12.9%). The share of households overburdened by housing costs in cities is therefore 8.5 percentage points higher than in rural areas. This premium for living in cities in the Czech Republic is one of the highest among European countries, where on average the share of overburdened households is 3.7 percentage points higher in cities than in rural areas (Figure 1.24).

Furthermore, households in cities, towns and suburbs are more likely to be unable to keep their house adequately warm than in rural areas: 3.5% of households in cities, towns and suburbs, compared with 2.4% in rural areas. Several factors could be at play in urban areas: the higher costs of living, which makes it more difficult for households to pay all their bills; the relatively high share of poor population in cities; and the fact that the older building stock in cities is less energy efficient (see the section on housing quality below). In towns and suburbs, this could also be due to lower building density, resulting in higher heat dissipation (EU Energy Poverty Observatory, 2020^[49]).

Figure 1.24. Housing cost overburden by degree of urbanisation, European countries, 2018

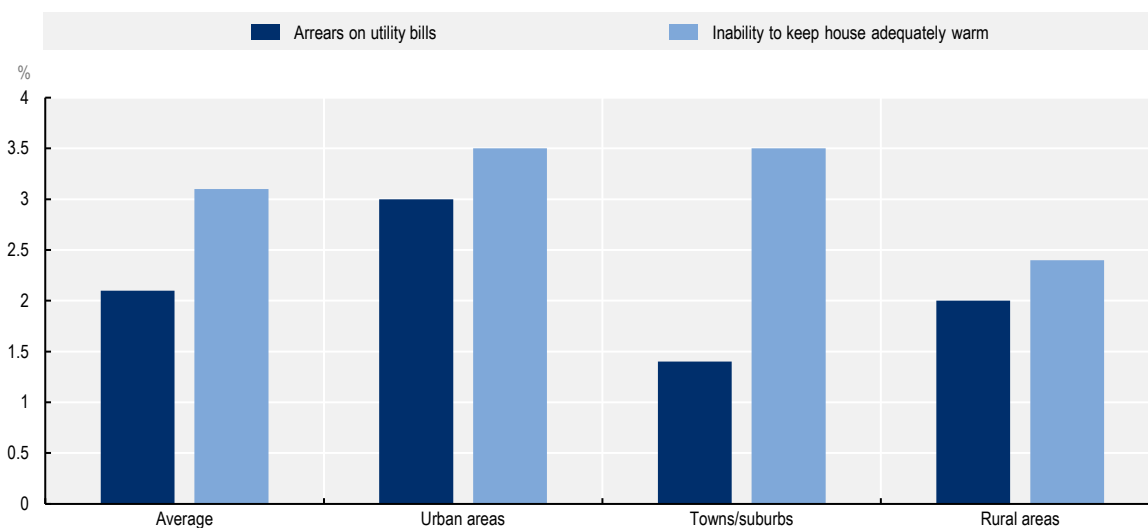
Share of people living in households where total housing costs represent more than 40% of disposable income



Source: Eurostat (2020^[48]), *Eurostat Income and Living Conditions*, <https://ec.europa.eu/eurostat/web/income-and-living-conditions/data/database>.

Figure 1.25. Urban residents are more likely to face energy poverty

Inability to keep home warm and arrears on utility bills in the Czech Republic, by urban density



Source: EU Energy Poverty Observatory (2020^[49]), *Member State Report: Czech Republic*, https://www.energypoverty.eu/sites/default/files/downloads/observatory-documents/20-06/extended_member_state_report_-_czechia.pdf.

The housing stock in Czech cities is often old and in need of energy efficiency improvements

The housing stock in Czech cities is often overcrowded and in need of renovation

Housing should offer not only a place to sleep and rest but also safety, privacy and personal space that responds to people's needs. Alongside housing cost considerations, it is therefore critical to assess the adequacy of people's living conditions, such as the average number of rooms per person and whether dwellings have access to basic facilities. Furthermore, housing quality is an important indicator of housing affordability, as many households that live in poor conditions cannot afford to maintain or improve their dwelling or move to a better-quality dwelling.

Almost all Czech households have access to basic facilities since 99.3% of dwellings in the Czech Republic offer private access to an indoor flushing toilet, more than the OECD average of 95.6%. The Czech Republic also fares relatively well compared with other European countries: 7.7% of the population lived in a dwelling with a leaking roof, damp walls, floors or foundation or rats in window frames or floors, compared to 13.6% in the EU on average. In 2018, 22.6% of Czech households living in cities complained about noise from neighbours or the street, compared to 28.5% on average in the EU (Eurostat, 2020^[48]).

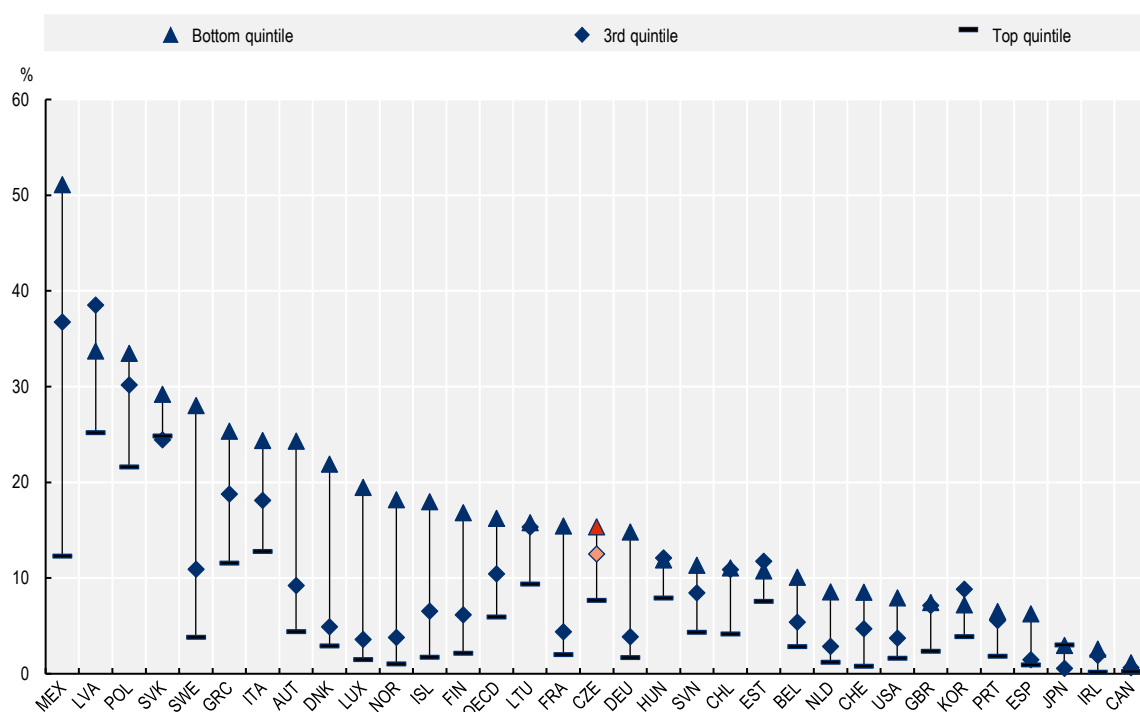
People living in cities tend to have less space to live in than people who live in rural areas or towns and suburbs. In 2018, the average number of rooms per person was 1.4 in cities, compared with 1.5 in towns and suburbs, and 1.6 in rural areas. This was slightly lower than the European average of 1.6 rooms per person who lives in a city.

Overcrowding also measures the number of rooms per household member but also taking into account the household composition such as the age, gender and relationship of household members. It is an important indicator, as evidence shows that living in an overcrowded dwelling can affect the physical and mental health of household members, as well as children's social and emotional development. Moreover, living in an overcrowded space corresponds with a higher likelihood of child maltreatment and accidents in the home. A dwelling is defined as overcrowded if it has an insufficient number of rooms relative to the households' composition (OECD, 2021^[50]). A relatively high share of Czech households lives in overcrowded dwellings: 11.6% of the Czech households in 2019, slightly above the OECD average rate of 11.0%. Overcrowding is not limited to low-income households. Almost 12.5% of middle-income Czech households live in overcrowded dwellings, compared with an OECD average of around 10% (Figure 1.26) (OECD, 2020^[6]).

Czech tenants are much more likely to live in overcrowded housing than homeowners. The Czech Republic has the second widest gap (just behind Poland) in the likelihood of living in an overcrowded dwelling between low-income tenants and low-income homeowners: 39.4% of low-income tenants live in an overcrowded dwelling, compared with 8.3% of homeowners with or without a mortgage. As the share of tenants is higher in cities than in the rest of the country, and housing size also tends to be smaller in cities, overcrowding is more prevalent in Czech cities than in rural areas or towns and suburbs, as in most other OECD countries (Figure 1.27).

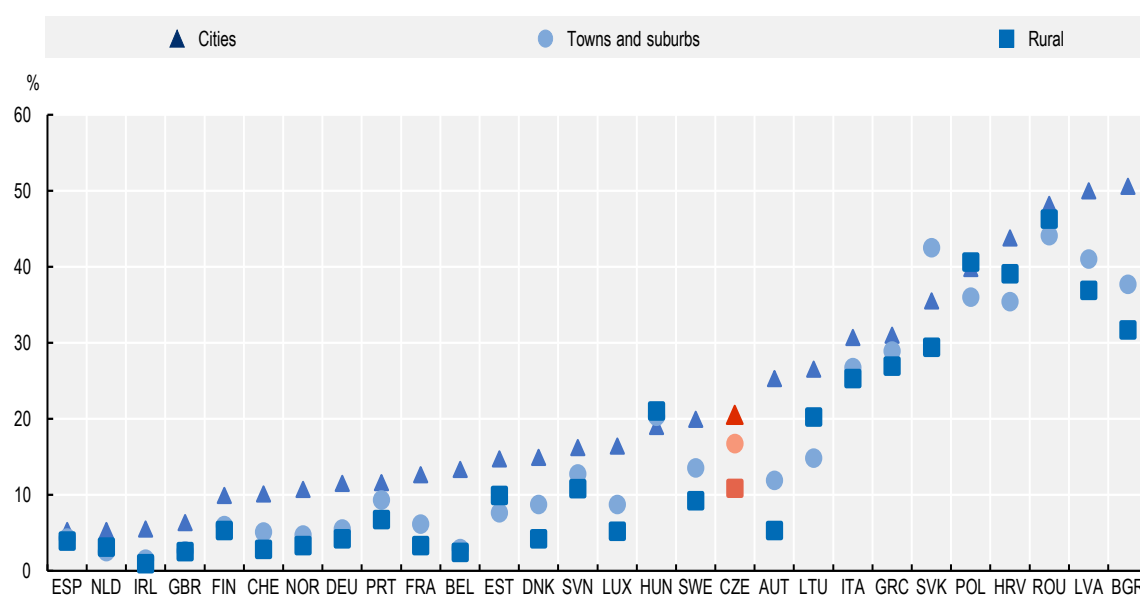
Figure 1.26. Overcrowding rates in households across the income distribution, 2019 or latest year available

Share of overcrowded households, by quintiles of the income distribution



Source: OECD (2020^[6]), *Affordable Housing Database*, <http://oe.cd/ahd>.

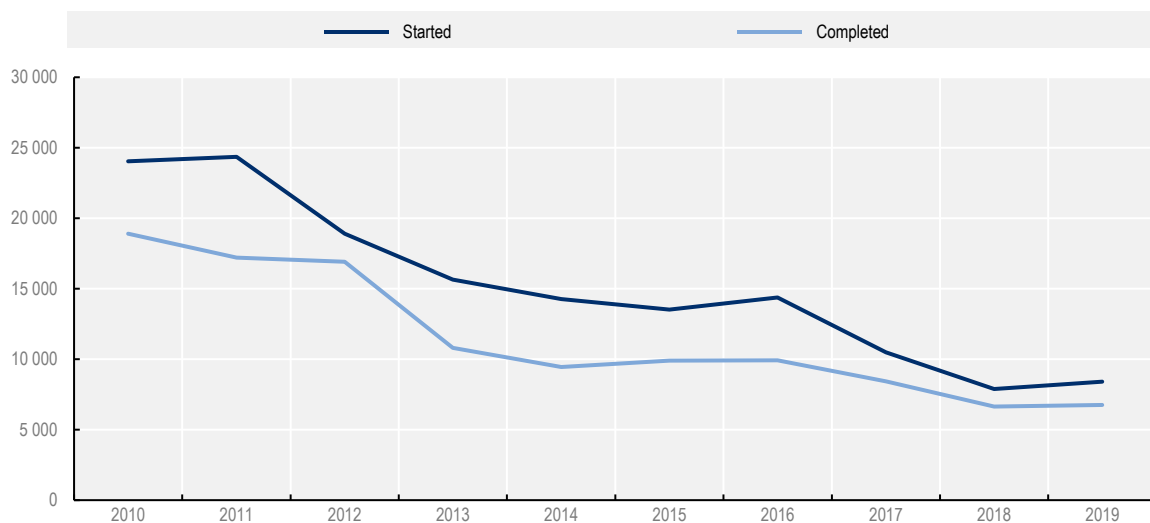
Figure 1.27. Overcrowding rate by degree of urbanisation, European countries



Source: Eurostat (2020^[48]), *Eurostat Income and Living Conditions*, <https://ec.europa.eu/eurostat/web/income-and-living-conditions/data/database>.

Furthermore, a key issue with housing quality in cities in the Czech Republic is the physical deterioration of real estates, including buildings and neglected public spaces. According to the 2011 Population and Housing Census, the average age of occupied residential buildings in the Czech Republic was 52.4 years for multi-unit buildings and 49.3 years for family houses, which is older than the average age of buildings in the EU (Office of the Government, 2019^[51]). The State Investment Support Fund (formerly called State Housing Development Fund) has implemented several programmes to encourage repairs and modernisation of housing (e.g. the Panel 2013+ programme, see Chapter 2 for other examples and more details). However, according to data from the Czech Statistical Office, the number of renovations that need building permits (started or completed) has been decreasing by a third over the past decade. The number of completed renovations has dropped to less than 7 000, i.e. only about 0.1% of the whole housing stock (Figure 1.28).

Figure 1.28. Number of renovations that need building permits, started and completed, 2010-19

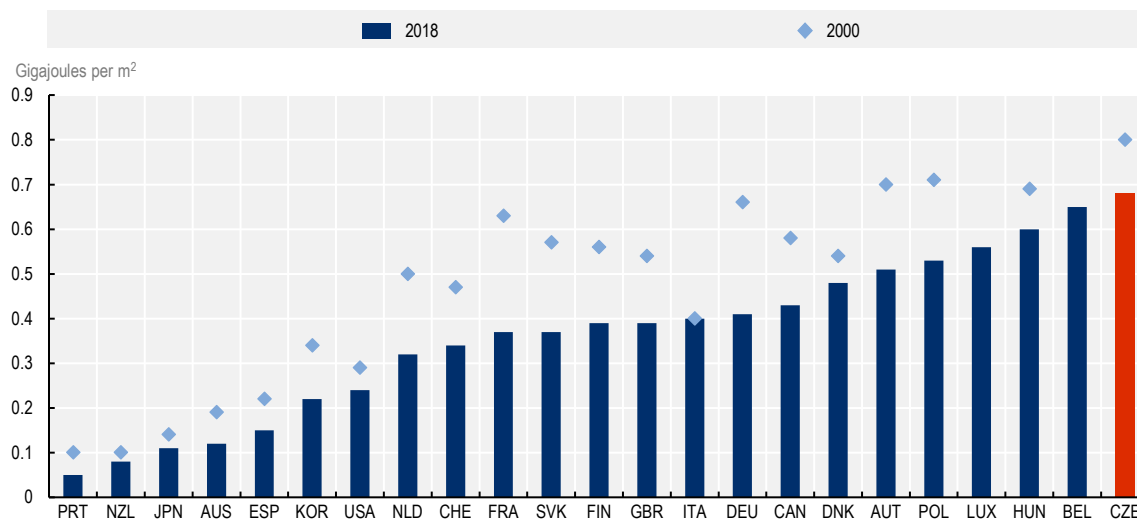


Source: Czech Statistical Office (2020^[16]), *Czech Statistical Office Statistics*, <https://www.czso.cz/csu/czso/statistics>.

Housing in the Czech Republic is one of the least energy efficient among OECD countries

Energy efficiency is another key dimension of housing quality and it has a substantial impact on housing affordability. Energy savings resulting from better energy performance can significantly reduce households' energy bill, especially for low-income households that spend a relatively larger share of their income on energy. This is particularly relevant in the Czech Republic where households dedicate a large share of spending to electricity, gas and other fuels (as discussed earlier). While energy efficiency improvements have occurred in the past years, mostly due to improvements in insulation of buildings, refurbishment of old buildings and improvements in heating equipment, energy intensity per floor area of residential space heating, i.e. the energy used to heat one m², is still high and remains one of the highest among OECD countries (after correcting for temperatures) (Figure 1.29).

Figure 1.29. Energy intensity per floor area of residential space heating, temperature corrected, 2000-19, in selected OECD countries



Note: Data is not available for 2000 for Belgium and Luxembourg.

Source: IEA (n.d.^[52]), *IEA Data and Statistics*, <https://www.iea.org/data-and-statistics/charts/energy-intensity-per-floor-area-of-residential-space-heating-in-selected-iea-countries-2000-2018>.

Barriers to the housing market leave some social groups in substandard housing

As discussed previously, private rental accommodations rented at market prices have become financially inaccessible to many Czech households. Tenants are usually required to pay several months of rent in advance in the form of a safety deposit, which many cannot afford. Accessing municipal social housing also often turns out to be difficult, due to limited provision of social housing and long waiting lists (see more details on social housing provision in Chapter 2).

As a result, many households have no choice but to turn to alternative housing with substandard conditions, such as dormitories. Living conditions in these dormitories are generally very poor. Dormitories are flats or rooms, most often in private buildings, where residents do not have standard rental contracts, do not receive a local residence permit, and frequently pay overpriced rents for small and low-quality spaces (e.g. shared kitchen, shared sanitation facilities, overcrowding, badly insulated with energy leaks) poorly maintained by their private owners. Tenants in these types of housing do not benefit from legal protection and are often offered short-term tenancy agreements, although in most cases these dormitories are used as long-term housing solutions. Rent levels in dormitories are generally high relative to the housing quality that they offer and can even exceed the rent levels of standard rental flats. As residents in dormitories have few alternative options to find housing, they are also exposed to predatory practices by landlords who can impose high fines for minor violations of the rental contract or neglect essential repairs. Furthermore, people who have been living in this type of alternative housing often face stigma and discrimination when they later attempt to access the private rental market, which locks them in precarious housing in the long term.

Within the 758 municipalities that provided information on dormitories as part of the OECD-MMR housing survey, there are 555 privately-run dormitories, which are home to approximately 0.7% of the population in these municipalities. However, these numbers could be underestimated given the difficulties in getting reliable data on dormitories, in particular due to their complicated ownership structures. These facilities frequently provide housing to migrant workers and marginalised population groups, such as the Roma, who are often excluded from regular housing markets. According to a survey by the Ivan Gabal Sociological

Institute, first carried out in 2006 and more recently in 2015, the Roma community represents about half of the people living in so-called “socially excluded localities”, i.e. locations with more than 20% of people living in inadequate conditions (indicated by the number of recipients of the living allowance) and inhabiting a physically or symbolically delimited space (Čada et al., 2015^[53]).

In addition to people living in substandard conditions or inadequate housing, there are also a number of people who are either homeless or at risk of becoming homeless. According to the Ministry of Labour and Social Affairs, in 2016, there were around 68 500 homeless people (of which 21 230 adults and 2 600 minors are “roofless”, according to the 2019 census) and 119 000 are at the risk of becoming homeless across the Czech Republic.

Conclusion

With house prices rising sharply in the Czech Republic over the past few years and much faster than household incomes, many Czech households have been struggling to access the housing market in cities, especially newcomers who do not own their dwelling. The private rental market has also offered few viable alternative affordable housing options in cities. Furthermore, living in cities imposes a heavy financial burden on Czech households, mainly because of housing-related expenditure such as those related to electricity, gas and other fuels. The increase in house prices and rents in Czech cities has been explained by the mismatch between strong demand for housing and an insufficient increase in housing supply. Even when housing supply has increased, it has not in the municipalities where it is most needed, i.e. those where housing demand is the highest. Improving housing affordability in cities in the Czech Republic will require national, regional and local action to steer housing development to urban areas where this is most needed and to expand more affordable rental housing, among other actions (see Chapter 2).

References

- Bétin, M. and V. Ziemann (2019), “How responsive are housing markets in the OECD? Regional level estimates”, *OECD Economics Department Working Papers*, No. 1590, OECD Publishing, Paris, <https://dx.doi.org/10.1787/1342258c-en>. [45]
- Čada, K. et al. (2015), *Analysis of Socially Excluded Localities in the Czech Republic*, GAC, Prague, https://www.ohchr.org/Documents/Issues/Housing/InformalSettlements/PublicDefenderCzechRepublic_2.pdf. [53]
- Cavalleri, M., B. Cournède and E. Özşöğüt (2019), “How responsive are housing markets in the OECD? National level estimates”, *OECD Economics Department Working Papers*, No. 1589, OECD Publishing, Paris, <https://dx.doi.org/10.1787/4777e29a-en>. [46]
- Cavalleri, M., B. Cournède and V. Ziemann (2019), “Housing markets and macroeconomic risks”, *OECD Economics Department Working Papers*, No. 1555, OECD Publishing, Paris, <https://dx.doi.org/10.1787/737133d8-en>. [35]
- City of Prague (n.d.), *Prague Transportation Yearbook*, Various years. [41]
- CNB (2020), *Czech National Bank Statistics*, Czech National Bank, <https://www.cnb.cz/en/statistics/>. [28]

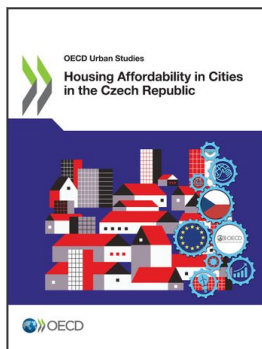
- CNB (2020), *Financial Stability Report 2019/2020*, Czech National Bank, [11]
https://www.cnb.cz/export/sites/cnb/en/financial-stability/galleries/fs_reports/fsr_2019-2020/fsr_2019-2020.pdf.
- CNB (2019), *Financial Stability Report 2018/2019*, Czech National Bank, [27]
https://www.cnb.cz/export/sites/cnb/en/financial-stability/galleries/fs_reports/fsr_2018-2019/fsr_2018-2019.pdf.
- CNB (2018), *Financial Stability Report 2017/2018*, Czech National Bank, [25]
https://www.cnb.cz/export/sites/cnb/en/financial-stability/galleries/fs_reports/fsr_2017-2018/fsr_2017-2018.pdf.
- Czech Statistical Office (2020), *Czech Statistical Office Statistics*, [16]
<https://www.czso.cz/csu/czso/statistics>.
- Czech Statistical Office (n.d.), *Statistical Yearbook of Prague*. [40]
- de Boer, R. and R. Bitetti (2014), "A Revival of the Private Rental Sector of the Housing Market?: Lessons from Germany, Finland, the Czech Republic and the Netherlands", *OECD Economics Department Working Papers*, No. 1170, OECD Publishing, Paris, [9]
<https://dx.doi.org/10.1787/5jxv9f32j0zp-en>.
- Deloitte (2020), *Deloitte Real Index Q1 2020: Actual Prices of Apartments Sold in the Czech Republic*, <https://www2.deloitte.com/content/dam/Deloitte/cz/Documents/real-estate/EN-Real-index-1Q-2020.pdf>. [17]
- Deloitte (2020), *Property Index: Overview of European Residential Markets*. [15]
- Deloitte (2019), *Prague Hospitality Report. Tourism, Hotels and P2P Accommodation*. [37]
- Dijkstra, L., H. Poelman and P. Veneri (2019), "The EU-OECD definition of a functional urban area", *OECD Regional Development Working Papers*, No. 2019/11, OECD Publishing, Paris, [32]
<https://dx.doi.org/10.1787/d58cb34d-en>.
- Dumont, A. (2019), *Housing Affordability in the US: Trends by Geography, Tenure, and Household Income*, Board of Governors of the Federal Reserve System, Washington, [5]
<https://doi.org/10.17016/2380-7172.2430>.
- EC (2020), *Country Report Czechia 2020: 2020 European Semester: Assessment of Progress on Structural Reforms, Prevention and Correction of Macroeconomic Imbalances, and Results of In-depth Reviews under Regulation (EU) No 1176/2011*, European Commission, [13]
<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020SC0502&from=EN>.
- EC (2018), *European Construction Sector Observatory: Country Profile Czech Republic*, European Commission. [43]
- EU Energy Poverty Observatory (2020), *Member State Report: Czech Republic*, [49]
https://www.energy-poverty.eu/sites/default/files/downloads/observatory-documents/20-06/extended_member_state_report_-_czechia.pdf.
- Euromonitor International (2019), *Top 100 City Destinations. 2019 Edition*. [36]
- European Central Bank (2020), *Statistical Data Warehouse*, <https://sdw.ecb.europa.eu/home.do>. [29]

- European Commission (2010), *COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS: The European Platform against Poverty and Social Exclusion: A European framework for social and territorial cohesion*, European Commission, Brussels, <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM%3A2010%3A0758%3AFIN%3AEN%3APDF>. [2]
- Eurostat (2020), *Eurostat Income and Living Conditions*, <https://ec.europa.eu/eurostat/web/income-and-living-conditions/data/database>. [48]
- Eurostat (n.d.), *Housing Statistics: Statistics Explained*. [3]
- Francke, M. and M. Korevaar (2021), "Housing markets in a pandemic: Evidence from historical outbreaks", *SSRN Electronic Journal*, <http://dx.doi.org/10.2139/ssrn.3566909>. [20]
- IEA (n.d.), *IEA Data and Statistics*, <https://www.iea.org/data-and-statistics/charts/energy-intensity-per-floor-area-of-residential-space-heating-in-selected-iea-countries-2000-2018>. [52]
- IMF (2018), *2018 Article IV Consultation: Czech Republic*, International Monetary Fund. [33]
- Lux, M. and M. Mikeszova (2012), "Property restitution and private rental housing in transition: The case of the Czech Republic", *Housing Studies*, Vol. 27/1, pp. 77-96, <http://dx.doi.org/10.1080/02673037.2012.629643>. [8]
- Lux, M. and P. Sunega (2017), "Social housing in the Czech Republic: The change of a trend?", *Critical Housing Analysis*, Vol. 4/1, pp. 81-89, <http://dx.doi.org/10.13060/23362839.2017.4.1.327>. [10]
- Lux, M. and P. Sunega (2010), "Private rental housing in the Czech Republic: Growth and ...?", *Czech Sociological Review*, Vol. 46/3. [7]
- OECD (2021), *Analytical House Price Indicators*, <https://stats.oecd.org/>. [12]
- OECD (2021), "Housing overcrowding", (indicator), <https://dx.doi.org/10.1787/96953cb4-en>. [50]
- OECD (2020), *Affordable Housing Database*, OECD, Paris, <http://oe.cd/ahd>. [6]
- OECD (2020), *Income Distribution Database*, <https://stats.oecd.org/>. [23]
- OECD (2020), "Mitigating the impact of COVID-19 on tourism and supporting recovery", *OECD Tourism Papers*, No. 2020/03, OECD Publishing, Paris, <https://dx.doi.org/10.1787/47045bae-en>. [18]
- OECD (2020), *OECD Economic Outlook, Volume 2020 Issue 1*, OECD Publishing, Paris, <https://dx.doi.org/10.1787/0d1d1e2e-en>. [24]
- OECD (2020), *OECD Economic Surveys: Czech Republic 2020*, OECD Publishing, Paris, <https://dx.doi.org/10.1787/1b180a5a-en>. [21]
- OECD (2020), *Population Statistics*, <https://stats.oecd.org/>. [30]
- OECD (2020), *Productivity Database*, <https://stats.oecd.org/>. [22]

- OECD (2020), "The territorial impact of COVID-19: Managing the crisis across levels of government", *OECD Policy Responses to Coronavirus (COVID-19)*, OECD, Paris, <http://www.oecd.org/coronavirus/policy-responses/the-territorial-impact-of-covid-19-managing-the-crisis-across-levels-of-government-d3e314e1/#section-d1e182>. [19]
- OECD (2019), *Under Pressure: The Squeezed Middle Class*, OECD Publishing, Paris, <https://dx.doi.org/10.1787/689afed1-en>. [14]
- OECD (2018), *OECD Economic Surveys: Czech Republic 2018*, OECD Publishing, Paris, https://dx.doi.org/10.1787/eco_surveys-cze-2018-en. [26]
- OECD (2018), *OECD Environmental Performance Reviews: Czech Republic 2018*, OECD Environmental Performance Reviews, OECD Publishing, Paris, <https://dx.doi.org/10.1787/9789264300958-en>. [39]
- OECD (2018), *Rethinking Urban Sprawl: Moving Towards Sustainable Cities*, OECD Publishing, Paris, <https://dx.doi.org/10.1787/9789264189881-en>. [38]
- OECD (n.d.), *National Accounts database*, <https://stats.oecd.org/>. [47]
- OECD/EC (2020), *Cities in the World: A New Perspective on Urbanisation*, OECD Urban Studies, OECD Publishing, Paris, <https://dx.doi.org/10.1787/d0efcbda-en>. [31]
- OECD/MMR (2020), *OECD-MMR Housing Survey of Municipalities in the Czech Republic*. [42]
- Office for National Statistics (2020), *Housing Affordability in England and Wales: 2019*. [4]
- Office of the Government (2019), *2019 European Semester: National Reform Programme of the Czech Republic 2019*, https://ec.europa.eu/info/sites/info/files/2019-european-semester-national-reform-programme-czech-republic_en.pdf. [51]
- PwC/Urban Land Institute (2017), *Emerging Trends in Real Estate: Europe 2018*, PwC and the Urban Land Institute, London. [34]
- UN (2018), "Metadata Indicator 11.1.1: Proportion of urban population living in slums, informal settlements or inadequate housing", United Nations, <https://unstats.un.org/sdgs/metadata/files/Metadata-11-01-01.pdf>. [1]
- World Bank (2019), *Doing Business 2020*, World Bank, Washington, DC. [44]

Note

¹ For more detailed information on the OECD methodology defining FUAs, please see Dijkstra, Poelman and Veneri (2019_[32]).



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