



European Construction Sector Observatory

Country profile **Czech Republic**

October 2021



In a nutshell

Over the 2010-2020 period, the Czech Republic's GDP increased by 16.9%, totalling CZK 4,971.5 billion (EUR 194.3 billion) in 2020. This represents a decline of 5.6% as compared to the 2019 levels.

In 2020, the decline was mainly influenced by household consumption, investment expenditure, and by a slump in external demand due to COVID-19 pandemic¹.

In line with the overall economy, the **number of enterprises** in the broad construction sector increased by 14.4% over the 2010-2020 period, totalling 325,319 in 2020. With regards to sub-sectors, the largest increment was reported by the real estate activities (+17.6%) sub-sector, followed by the narrow construction (+16.8%) and the architectural and engineering activities (+11.9%) sub-sectors, respectively, over the same reference period.

Number of enterprises
in the real estate
activities sub-sector
between 2010 and 2020

↑ 17.6%

In parallel, the **volume index of production** in the broad construction sector increased by 2.5% over the 2015-2020 period, mainly driven by a 7.0% increase in the production of construction of buildings partially offsetting a 7.0% decline in the production of construction of civil engineering between 2015 and 2019.

Production in the
construction of buildings
between 2015 and 2020

↑ 2.5%

Total turnover in the broad construction sector increased to EUR 59.9 billion in 2020, representing

an increment of 15.9% since 2010. This overall increase was primarily driven by growth in three sub-sectors – the real estate activities (+32.7%), the manufacturing (+23.4%) and the narrow construction (+15.1%) sub-sectors over the 2010-2020 period.

Turnover in the narrow
construction sub-sector
between 2010 and 2020

↑ 15.1%

Similarly, the **gross operating rate** of the broad construction sector, an indicator of the sector's profitability, increased from 12.8% in 2011 to 16.3% in 2018, marginally lower than the EU-27 average of 16.7%. The real estate activities sub-sector remained the most profitable (40.6%), followed by the manufacturing (14.1%), the architectural and engineering activities (13.5%) and the narrow construction (11.3%) sub-sectors in 2018.

With regards to employment, there were 645,938 **persons employed** in the broad construction sector in 2020, representing a slight increase of 1.8% since 2010. This was primarily driven by the increase in employment in the real estate activities (+8.2%), the architectural and engineering activities (+4.1%), as well as the narrow construction (+2.5%) sub-sectors, offsetting the drop observed in the manufacturing sub-sector (-6.4%) during the same reference period.

Several initiatives have been launched by the Czech government to promote the **housing market**. In 2020, the government repealed the real estate acquisition tax with retroactive effect from 31st March 2020. It also announced that, effective from 1 January 2021, landlords will not be required to deduct VAT on purchased services and goods directly related to rental income from residential

properties. The Social Housing Concept of the Czech Republic 2015–2025 is also being updated by the Ministry of Labour and Social Affairs (MLSA) under the changed title of the Affordable Housing Concept of the Czech Republic 2020–2025.

As part of the Recovery and Resilience Plan (RRP), Czech Republic would be supported by EUR 7.0 billion in grants from the European Commission. The country would allocate around 20.0% (EUR 1.4 billion) of the total towards energy efficiency measures².

The plan would include financing the large-scale renovation programmes to increase the energy efficiency of residential and public buildings, including childcare and long-term care facilities. The country would also provide supports for the green transition through investments of EUR 1.1 billion in sustainable mobility. The plan also includes supporting digital transition through digital skills with investment of EUR 585.0 million in digital equipment for schools, training for teachers, new university programmes in fast-growing digital fields and upskilling and reskilling courses for citizens³.

In the context of **civil engineering market**, the CZK 19.5 billion (EUR 762.2 million) rail line connecting Václav Havel Airport to Prague is currently under progress. Additionally, in November 2020, the Czech government approved the reconstruction of the Ostrava railway junction, amounting to CZK 25.0 billion (EUR 977.2 million). The government also approved the expansion of the Prague Václav Havel airport in January 2020. In 2019, the Czech government has already approved a National Investment Plan for 2020-2050, with an allocation of CZK 8.0 trillion (EUR 312.7 billion) and including 22,000 projects. Almost 77.0% of this allocation is earmarked for transport sector projects^{4,5}.

With regards to road infrastructure, Czech Republic is in the pre-investment phase of constructing various high-speed lines. The construction work is expected to begin by 2025 with the first sections expected to be ready by 2028. It is expected that about CZK 15.0 billion (EUR 586.3 million) will be spent each year on construction or planning throughout the project life cycle.

While these policy initiatives will support the development of the construction sector, the latter faces two major issues. Firstly, the construction sector suffers from late payments, which worsened due to the outbreak of COVID-19.

As per the 2020 Atradius Payment Practice Barometer, the total value of overdue B2B invoices by businesses increased from 24.0% in 2019 to 39.0% in 2020, representing an increment of 62.5% in late payments⁶.

Secondly, the continuing shortage of skilled workforce continues to be a major concern for the sector. Although the COVID 19 pandemic has resulted in lower demand for labour, structural issues related to labour, and skills shortages still persist.

Overall, the Czech construction sector has a positive outlook in the medium and long term. More specifically, the housing market is expected to be one of the primary growth drivers. Correspondingly, public sector infrastructure, digitalisation and the upgrade of the transport system, supported by EU funding, are expected to dominate the broad sector growth.

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Key figures

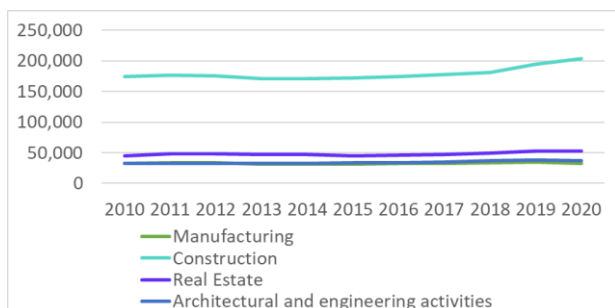
Construction market

The **number of enterprises** in the broad construction sector of Czech Republic totalled 325,319 in 2020⁷, with the narrow construction sub-sector accounting for 62.4% of the total (Figure 1). Overall, the number of enterprises in the broad construction sector increased by 14.4% over the 2010-2020 period, mostly driven by 17.6%, 16.8% and 11.9% increases in the real estate activities, the narrow construction and the architectural and engineering activities sub-sectors, respectively. In contrast, the number of companies in the manufacturing sub-sector dropped marginally by 0.8% over in the same reference period.

Number of enterprises in the narrow construction sub-sector between 2010 and 2020

↑ 16.8%

Figure 1: Number of enterprises in the Czech broad construction sector between 2010 and 2020



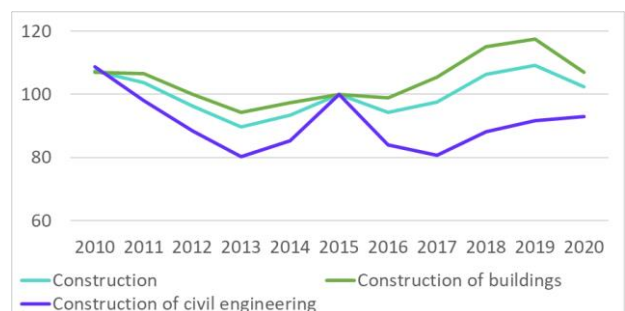
Source: Eurostat, 2021.

The **volume index of production in the broad construction sector** increased by 2.5% over the 2015-2020 period, primarily driven by a 7.0% increase in the production of construction of buildings, partially offsetting a similar 7.0% decline in the production of construction of civil engineering over the same reference period.

Production in the construction of buildings between 2015 and 2020

↑ 7.0%

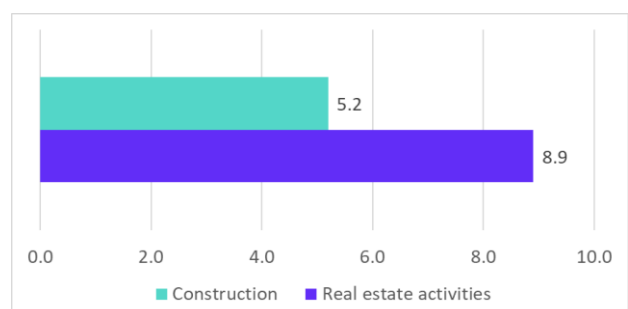
Figure 2: Volume index of production in the Czech construction sector between 2010 and 2020 (2015=100)



Source: Eurostat, 2021.

The total **value added at factor cost⁸ in the broad construction sector** amounted to EUR 17.2 billion in 2020⁹, with the narrow construction sub-sector contributing 49.7% of the total¹⁰, followed by the real estate activities (25.6%), the manufacturing (14.6%), and the architectural and engineering activities (10.1%) sub-sectors. The **share of gross value added** of the narrow construction and the real estate activities sub-sectors in the country's GDP amounted to 5.2% and 8.9% in 2020¹¹, respectively (Figure 3).

Figure 3: Gross value added as a share of GDP in the Czech broad construction sector in 2020 (%)



Source: Eurostat, 2021.

Czech Republic is statistically divided into eight regions – *Praha*, *Střední Čechy*, *Jihozápad*, *Severozápad*, *Severovýchod*, *Jihovýchod*, *Střední Morava* and *Moravskoslezsko*. The **regional gross value added** in the narrow construction sub-sector increased in all the regions except for *Severozápad*, *Moravskoslezsko* and *Jihozápad* over the 2010-2018 period. In contrast, **regional gross value added** in the real estate activities sub-sector increased in all regions. Specifically, *Střední Čechy* recorded the highest increase in the narrow construction sub-sector amounting to 16.8%, followed by *Praha* (+12.0%) and *Jihovýchod* (+8.5%) over the 2010-2018¹² period. In the case of the real estate activities sub-sector, *Jihozápad* recorded the highest increment of 36.5%, closely followed by *Praha* (+36.4%) and *Jihovýchod* (+33.7%) over the same reference period. Overall, the **gross value added by the top three regions** amounted to 51.4% and 56.0% of the total in the narrow construction (*Praha*, *Severovýchod* and *Jihovýchod*) and the real estate activities (*Praha*, *Střední Čechy* and *Jihovýchod*) sub-sectors in 2018, respectively.

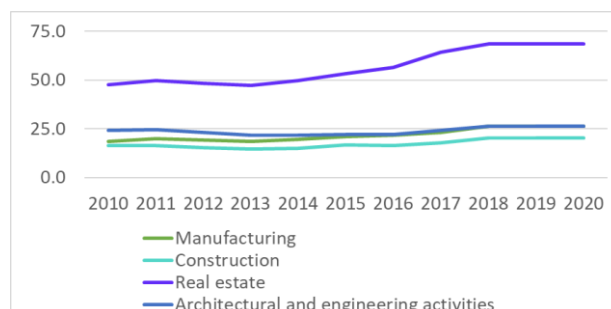
Productivity

Overall, **apparent labour productivity**¹³ in the Czech broad construction sector increased from EUR 20,801 in 2011¹⁴ to EUR 26,689 in 2018¹⁵ (+28.3%), still considerably below the EU-27 average of EUR 51,960. The increase in apparent labour productivity is reflected across all construction sub-sectors. In fact, the largest increment was witnessed in the real estate activities (+44.5%) sub-sector, growing from EUR 47,400 in 2010 to EUR 68,505 in 2020. This was followed by the manufacturing (+41.2%) and the narrow construction (+25.1%) sub-sectors, rising from EUR 18,603 and EUR 16,224 in 2010 to EUR 26,273 and EUR 20,302 in 2020, respectively. Lastly, the architectural and engineering activities sub-sector increased by 8.5%, from EUR 24,300 in 2010 to EUR 26,368 in 2020¹⁶.

Productivity in the narrow construction sub-sector between 2010 and 2020

↑ 25.1%

Figure 4: Labour productivity in the broad construction sector in Czech Republic between 2010 and 2020 (EUR k)



Source: Eurostat, 2021.

Turnover and profitability

Total **turnover** of the Czech broad construction sector stood at EUR 55.7 billion in 2018¹⁷, representing an increase of 7.6% as compared to 2010 (EUR 51.7 billion). It further increased to EUR 59.9 billion in 2020¹⁸, a 15.9% increment since 2010. This growth was mainly driven by a 32.7%, 23.4% and 15.1% increase in the real estate activities, the manufacturing and the narrow construction sub-sectors over the 2010-2020 period, respectively. In contrast, the architectural and engineering activities sub-sector reported a drop of 8.9% over the 2010-2020 period. Overall, in 2020, 62.3% of the total turnover was generated by the narrow construction sub-sector, followed by the real estate activities (+15.0%), the manufacturing (+14.1%) and the architectural and engineering activities (+8.6%) sub-sectors.

Turnover in the narrow construction sub-sector between 2010 and 2020

↑ 15.1%

The **gross operating surplus** of the broad construction sector amounted to EUR 9.1 billion in 2018¹⁹, a 40.7% and 14.1% increase compared to 2010 and 2017, respectively. In terms of sub-sectors, the largest increase was reported by the real estate activities (+58.6%), followed by the manufacturing activities (+47.7%) and the narrow construction (+32.2%) sub-sectors over the 2010-2018 period. In contrast, the architectural and engineering activities sub-sector experienced a slight increase of 10.2% over the same reference period.

Gross operating surplus between 2010 and 2018

↑ 40.7%

At the same time, the **gross operating rate**²⁰ of the Czech broad construction sector²¹, which indicates the sector's profitability, stood at 16.3% in 2018²², slightly above as compared to 12.8% in 2011²³ as well as the EU-27 average of 16.7% in 2018. In terms of sub-sectors, each reported an increase over the 2010-2018 period. Specifically, the real estate activities remained the most profitable sub-sector, with the gross operating rate of 40.6%, well above its 2010 rate of 32.3%. This was followed by the manufacturing and the architectural and engineering activities sub-sectors, registering a gross operating rate of 14.1% and 13.5% in 2018, slightly above compared to their 2010 levels of 12.4% and 10.5%, respectively. Similarly, the narrow construction sub-sector registered a gross operating rate of 11.3% in 2018, slightly above its 2011²⁴ level of 8.7%.

The construction cost index has also been on an increasing trend since 2010. Over the 2015-2020 period, the construction cost index increased by 15.5%. This growth was mostly driven by a rise in labour costs (+27.8%) and input material prices (+12.2%) over the same reference period (Figure 5).

Figure 5: Construction cost index between 2010 and 2020 (2015=100)



Source: Eurostat, 2021.

Employment

In 2020²⁵, there were 645,938 **persons employed** in the Czech broad construction sector, representing a slight increase of 1.8% since 2010 (634,648 persons). The majority of the persons employed in the sector work in the narrow construction sub-sector (+65.2%). The manufacturing, the architectural and engineering and the real estate activities sub-sectors accounted for 14.7% (95,247 persons), 10.2% (65,634 persons) and 9.9% (64,209 persons) of total employment in the broad construction sector in 2020 (Figure 6). Employment in the real estate activities sub-sector increased by

8.2% over the 2010-2020²⁶ period, followed by the architectural and engineering activities (+4.1%) and the narrow construction (+2.5%) sub-sectors. In contrast, the manufacturing sub-sector reported a decrease of 6.4% over the same reference period.

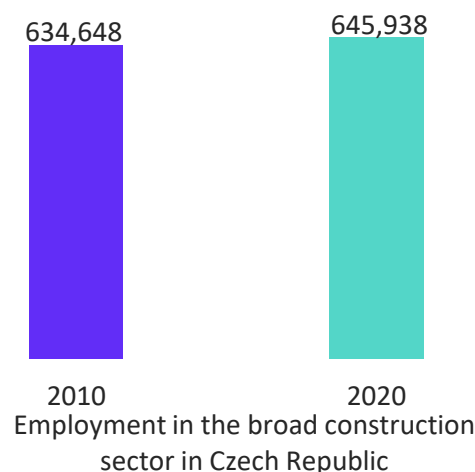
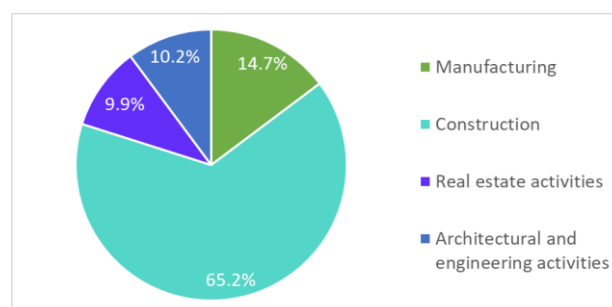


Figure 6: Percentage of people employed per construction sub-sector in Czech Republic in 2020



Source: Eurostat, 2021.

In terms of employment by **specific occupation**, the biggest drops between 2010 and 2020 in the narrow construction sub-sector were registered for technicians and associate professionals (-41.9%), followed by craft and related trades workers (-16.6%) and plant and machine operators and assemblers (-11.4%). Conversely, demand for clerical support workers increased by 93.0% over the 2010-2020 period, followed by managers (+20.5%) and professionals (+12.2%).

With regards to the real estate activities sub-sector, the largest drop was recorded in elementary occupations (-67.6%), followed by plant and machine operators and assemblers (-26.5%). On the other hand, demand for managers and craft and related trades workers increased by 52.2% and 35.0%, respectively, over the 2010-2020 period. Lastly, in the case of the manufacturing sub-sector, a large increase in demand was reported for elementary occupations (+235.5%) as well as

professionals (+144.4%) over the 2010-2020 period. In contrast, the number of persons employed as skilled agricultural, forestry and fishery workers declined by 50.0% over the same reference period.

Number of clerical support workers in the narrow construction sub-sector between 2010 and 2020

↑ 93.0%

The share of **self-employed workers** in the general economy working in the narrow construction sub-sector decreased from 22.2% in 2010 to 19.8% in 2020. This is higher than the EU-27 average of 11.7%. In the real estate activities sub-sector, the share of self-employed workers stood at 2.1% in 2020, marginally above its 2010 level (1.8%) as well as the EU-27 average of 1.6%.

In parallel, **full-time employment** in the narrow construction sub-sector also decreased by 15.7%, between 2010 and 2020, while a moderate increase

of 12.8% was recorded in the real estate activities sub-sector during the same reference period.

Conversely, **part-time employment** in both the narrow construction and the real estate activities sub-sectors increased by 31.7% and 24.9% between 2010 and 2020.

Part-time employment in the narrow construction sub-sector between 2010 and 2020

↑ 31.7%

In the case of the narrow construction sub-sector, *Severozápad* recorded the largest drop of 20.8% in the number of persons employed over the 2010-2019 period. This was followed by *Severovýchod* (-20.3%) and *Moravskoslezsko* (-18.0%) over the same reference period. With regards to the real estate activities sub-sector, the largest decline was registered in *Severovýchod* (-22.2%), followed by *Střední Čechy* (-12.5%) and *Jihozápad* (-11.1%) over the 2010-2019 period.

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Macroeconomic indicators

Economic development

The Czech Republic witnessed a severe economic downturn in 2020, primarily due to a fall in both foreign and domestic demand. Despite a resilient labour market and a successful “antivirus” (COVID-19) programme, private household consumption declined considerably²⁷.

In 2019, the Czech Republic’s **GDP** amounted to CZK 5.0 trillion (EUR 194.3 billion), representing an increase of 16.9% and a decline of 5.6% as compared to 2010 and 2019 levels, respectively²⁸.

In 2020, the **potential GDP** of the Czech Republic amounted to CZK 5.2 trillion (EUR 203.3 billion), resulting in a negative output gap of 4.4%. This gap indicates that the Czech economy tends to underutilise its resources, with actual outputs falling behind the full capacity output. In parallel, the **inflation rate** has been increasing over the 2015-2020 period, reaching 11.4% in 2020. This increase is partly due to rises in food prices and regulated products²⁹.

Demography and employment

In terms of the **total population**, the Czech Republic reached 10.7 million people in 2020. This increase in population is partly attributed to high net migration (a total positive net migration of 236,020 people over the 2010-2020 period, with 26,927 people in 2020). Migration towards richer regions is adding to further urbanisation, putting pressure on the housing stock and infrastructure networks³⁰. The population is projected to stabilise at 10.8 million in 2030 and then decrease by 2.2% in 2050, reaching back 10.5 million.

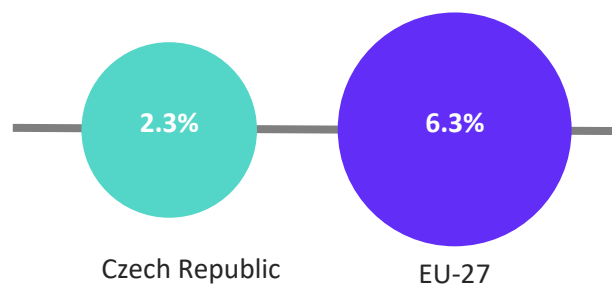
In parallel, the **working age population** (aged between 15 and 64 years or age) accounted for 64.0% of the total population of the Czech Republic in 2020. This is in line with the EU-27 average of 64.3% in 2020³¹, whereas the **elderly population** (65

years or over) stood at 19.9% in 2020, slightly below the EU-27 average of 20.6%. Nevertheless, the share of the working age population is expected to decline to 62.7% by 2030 and further to 56.7% by 2050. Additionally, the share of the elderly population is forecast to reach 22.0% of the total population by 2030 and 28.2% by 2050. The increase in the ageing population calls for an additional long-term care system and the need for an increase in public spending for the elderly. The demand for elderly infrastructures (hospitals, care home, access infrastructure), will also continue to rise gradually in the medium and long-term, providing potential opportunities for the construction sector.



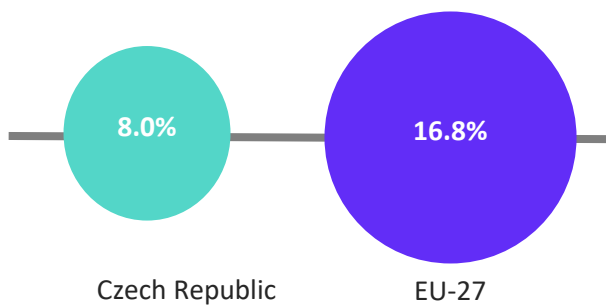
The overall unemployment rate in the Czech Republic stood at 2.3% in 2020, well below the EU-27 average of 6.3%.

Unemployment rate in 2020



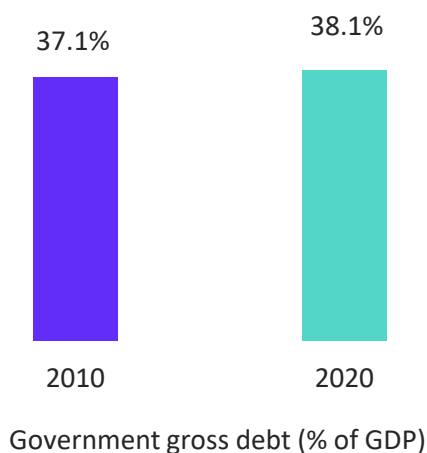
Youth unemployment in the Czech Republic strongly decreased from 18.3% in 2010 to 8.0% in 2020, noticeably below the EU-27 average of 16.8%. Such a low unemployment rate is explained by two main factors: (i) labour costs remain relatively limited; and (ii) the presence of manufacturing industries (which are traditionally labour-intensive industries) in the country, representing more than one-third of all employment³².

Youth unemployment rate in 2020



Public finance

In 2020, **general government expenditure** in the Czech Republic accounted for 47.5% of GDP, lower than the EU-27 average of 53.4%. Similarly, the **general government deficit** stood at -6.2% of GDP, marginally lower than the EU-27 average of -6.9%. Last, **general government gross debt** accounted for 38.1% of GDP in 2020 as compared to the EU-27 average of 90.7%.



Entrepreneurship and access to finance

As per World Bank Doing Business 2020 report, the Czech Republic ranked 134th out of 190 countries in terms of ease of starting a business with a score of 82.1^{33,34}.

As per the report, starting a business in the Czech Republic requires nine procedures, taking 24.5 days and costing 1.1% of per capita income. This is well above the OECD high-income average, with 4.9

procedures, taking 9.2 days while costing 3.0% of per capita income. Moreover, the paid-in minimum capital required (i.e., the amount that the entrepreneur needs to deposit in a bank or with a notary before registration up to three months following incorporation) is negligible while the OECD high-income average is 7.6% of income per capita³⁵.

According to the **Survey on the Access to Finance of Enterprises (SAFE) 2020**, 10.1% of SME respondents declared that **access to finance** is the most important problem they face, marginally above the EU-27 average of 9.9%³⁶. Overall the Czech Republic's annual stock of loans to non-financial corporations increased by 43.9% over 2010-2020 period, from CZK 780.4 billion (EUR 30.5 billion) in 2010 to CZK 1.1 trillion (EUR 43.9 billion) in 2020.

Loans to non-financial corporations between 2010 and 2020

↑ 43.9%

During the 2018-2019 period, some significant measures were implemented by the government to boost access to finance and entrepreneurship³⁷:

- the '**Guarantee Fund VADIUM 2018-2023**', aimed at providing subsidized guarantees to SMEs for public procurement contracts.
- the **IX. Call of the Technology – Industry 4.0** programme, aimed at supporting SMEs in the purchase of machinery, equipment, licenses, technology, software and hardware to modernize production.
- the new '**EXPANSION – Guarantees**' programmed, providing SMEs access to loans from commercial banks through loan guarantees ranging from CZK 4.0-25.0 million.
- the '**CzechStarter**' programme, providing early-stage start-ups with mentoring and training services while launching new calls.

As per the Deloitte Technology Fast 50 2020 report, 21 SMEs from the Czech Republic ranked among the top 50 fastest growing technology firms in the Central and Eastern European (CEE) region³⁸.

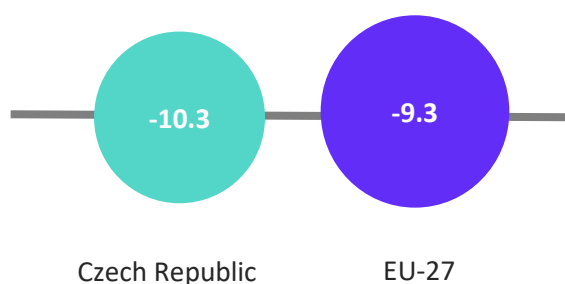
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Key economic drivers of the construction sector

Business confidence

Over the 2010-2020 period, both the consumer confidence indicator and the construction confidence indicator improved considerably. The **consumer confidence indicator** stood at -9.3 in 2020, slightly above its 2010 level of -13.7 as well as the EU-27 average of -14.6. Similarly, the **construction confidence indicator** also improved significantly from -36.0 in 2010 to -10.3 in 2020, though it remains lower than the EU-27 average of -9.3. In contrast, the **industry confidence indicator** declined over the years, going from 3.4 in 2010 to -13.3 in 2020. This is marginally higher than the EU-27 average of -14.4.

Construction confidence indicator in 2020



Additionally, the Czech **investment ratio** also dropped to 26.0% in 2020 as compared to 26.7% in 2010. Still, this is well above the EU-27 average of 21.8% in 2020.

Likewise, **investment per worker** in the broad construction sector increased by 33.3%, from EUR 36,347 in 2010 to EUR 48,459 in 2018³⁹. In terms of sub-sectors, investment per worker in the real estate activities sub-sector increased by 51.0%, from EUR 43,100 in 2010 to EUR 65,100 in 2018. Similarly, investment per worker in the narrow construction sub-sector increased by 35.9%, from EUR 3,900 in 2011⁴⁰ to EUR 5,300 in 2018⁴¹.

Domestic sales

Over the 2010-2020 period, the ranking of the five **most domestically sold construction products** has remained mostly unchanged in the Czech Republic. Since 2010, “Mortars (group 236410)” has been replaced by “Other structures (group 251123)” in the top five domestic products category. Additionally, compared to 2010, the total value of “Tiles, flagstones, bricks, etc. (group 236111)”, “Ready-mixed concrete (group 236310)” and “Portland cement, aluminous cement, etc. (group 235112)” sold domestically has increased by 25.4%, 19.0% and 9.6%, respectively. In contrast, the total value of “Prefabricated buildings of metal (group 251110)” sold domestically dropped by 10.3% over the 2010-2020 period.

Table 1 presents the top five most domestically sold construction products, both in the Czech Republic and the EU-27, which made up 52.9% of all Czech domestic construction products sales in 2020.

Table 1: Five most domestically sold construction products in Czech Republic and in the EU-27 in 2020

	Czech Republic			EU-27
	Product	Value (EUR m)	Share in construction products domestic sales (%)	Product
1	Other structures (group 251123)	492.0	14.7	Other structures (group 251123)
2	Ready-mixed concrete (group 236310)	444.6	13.2	Ready-mixed concrete (group 236310)
3	Portland cement, aluminous cement, etc. (group 235112)	299.4	8.9	Doors, windows and others (group 251210)
4	Tiles, flagstones, bricks, etc. (group 236111)	288.1	8.6	Prefabricated buildings of metal (group 251110)
5	Prefabricated buildings of metal (group 251110)	251.8	7.5	Prefabricated structural components for building, etc. (group 236112)

Source: PRODCOM, 2021.

Export of construction-related products and services

Table 2 presents the top five **most exported construction products** both in the Czech Republic and in the EU-27 in 2020. Since 2010, “Doors, windows and others (group 251210)”, “Builders joinery and carpentry, etc. (group 162319)” and “Windows, French windows, etc. (group 162311)” were replaced by “Other structures (group 251123)”, “Oriented strand board (group 162113)” and “Ceramic tiles and flags (group 233110)”. Additionally, compared to 2010, the total value of “Prefabricated buildings of metal (group 251110)” and “Pallets, box pallets and other (group 162411)” has increased by 107.7% and 42.9% in 2020, respectively. The top five most exported products represent 47.8% of total export value.

Table 2: Five most exported construction products in Czech Republic and in the EU-27 in 2020

	Czech Republic			EU-27
	Product	Value (EUR m)	Share in construction products exports (%)	Product
1	Other structures (group 251123)	497.3	18.6	Ceramic tiles and flags (group 233110)
2	Prefabricated buildings of metal (group 251110)	318.5	11.9	Other structures (group 251123)
3	Pallets, box pallets and other (group 162411)	164.7	6.1	Fibreboard of wood, etc. (group 162115)
4	Oriented strand board (group 162113)	162.9	6.1	Doors, windows and others (group 251210)
5	Ceramic tiles and flags (group 233110)	138.0	5.1	Builders joinery and carpentry, etc. (group 162319)

Source: PRODCOM, 2021.

In terms of the cross-border provision of construction-related services⁴², the Czech Republic exported services amounting to EUR 420.3 million worldwide in 2020 (including EUR 302.6 million to the EU-27). Worldwide exports declined by 43.0% as compared to 2010 (EUR 736.8 million).

In 2020, the Czech Republic imported EUR 238.2 million of construction services from the world, wherein EUR 218.6 million were from the EU-27, generating a worldwide **trade surplus** of EUR 182.1 million. These numbers also indicate a certain reliance on the EU Single Market.

Access to finance in the construction sector

According to the **2020 Survey on the Access to Finance of Enterprises (SAFE)** report, around 31.8% of small and medium enterprises (SMEs) in the Czech Republic reported bank loans being relevant, well below the EU-27 average (44.4%). Around 11.3% of the SMEs reported using bank loans recently, lower than the EU-27 average (17.9%). Around 5.1% of SMEs did not apply for bank loans fearing rejection, almost in line with the EU-27 average of 3.9%. Conversely, 42.1% of SMEs did not apply for bank loans because of sufficient internal funds, well above the EU-27 average of 35.1%^{43,44}.

Moreover, the availability of bank loans for Czech SMEs has also changed. Around 13.0% of SMEs mentioned that it has deteriorated, marginally lower than the EU-27 average of 14.2%⁴⁵.



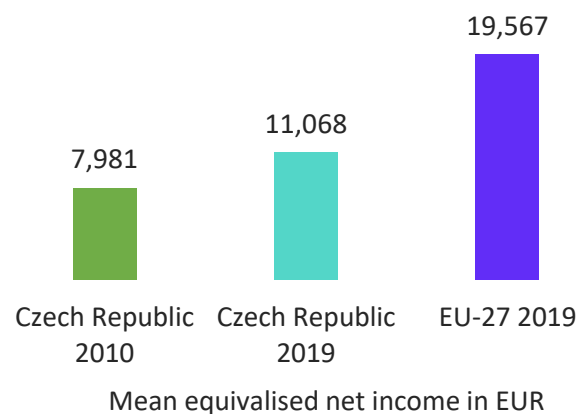
Credit extended to the non-financial corporations in the general economy increased by 43.9%, from CZK 780.4 billion (EUR 30.5 billion) in 2010 to CZK 1.1 trillion (EUR 43.9 billion) in 2020.

As per the **European Investment Bank (EIB) Investment Survey 2020**, 50.0% of Czech construction firms consider the availability of finance as a long-term barrier for the sector. Bank loans continue to make up the highest share of external finance (almost 50.0%) in the Czech Republic's construction sector, followed by leasing (about 25.0%). About 16.0% of firms in the Czech construction sector rely on internal sources of finance for investment purposes. This is also driven by the fact that 85.0% of Czech construction firms reported making a profit, marginally above the EU-27 average of 80.0%. Nonetheless, the share of 'financially constrained'⁴⁶ firms in the construction sector (11.0%) is almost double that of the firms operating in the manufacturing (6.0%) and service sectors (6.5%)⁴⁷.

The impact of COVID-19 on investment strategies has also been quite negative with almost 10.0% of Czech Republic construction firms investing less in 2020⁴⁸.

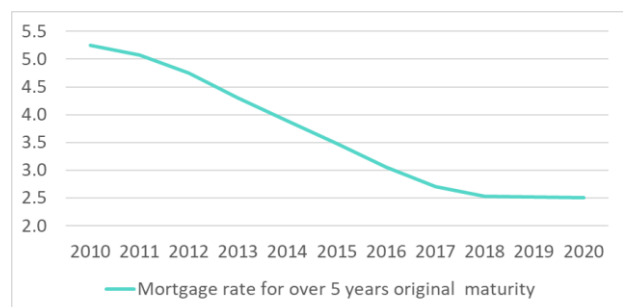
Access to housing

The **number of households** in the Czech Republic increased by 9.5%, from 4,423,200 in 2010 to 4,844,100 in 2020. The share of **total population living in cities and greater cities** slightly fluctuated from 30.5% in 2010 to 30.3% in 2017⁴⁹. The **mean equivalised net income** increased by 38.7%, from EUR 7,981 in 2010 to EUR 11,068 in 2019⁵⁰. This is significantly below the EU-27 average of EUR 19,567.



Moreover, housing loans to households picked up considerably, with total **outstanding residential loans** growing by 101.7%, from EUR 24.1 billion in 2010 to EUR 48.7 billion in 2019⁵¹. This increase in residential loans is partly supported by the declining **interest rates on mortgages**, currently standing at 2.5% in 2020 as compared to 5.2% in 2010.

Figure 7: Mortgage rates for loans for over 5 years original maturity (%) between 2010 and 2020



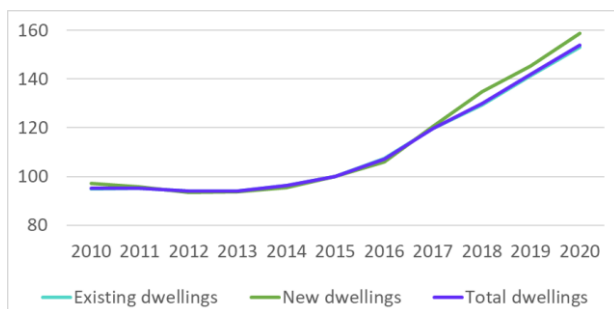
Source: ECB MFI Interest Rate Statistics, 2021.

The **house price index** for total dwellings also increased by 53.9% over the 2015-2020 period, mostly driven by a 58.7% and 53.0% increase in new dwellings and existing dwellings over the same reference period, respectively.

Housing affordability has become a serious issue for the Czech Republic, with high variations in price growth between regions. An increased demand in cities due to internal migration and strong demand by foreign buyers has resulted in inflated house prices. This is also supplemented by a continued rise of Airbnb and other rental accommodations within cities facing housing supply constraints⁵².


House price index for new dwellings between 2015 and 2020  **58.7%**

Figure 8: House price index in Czech Republic between 2010 and 2020 (2015=100)



Source: Eurostat, 2021.

Correspondingly, the number of **new dwellings construction started** increased by 25.9%, from 23,973 in 2010 to 30,185 in 2020. This was primarily driven by a 28.8% rise in the number of new residential dwellings (28,872 in 2020 as compared to 22,409 in 2010), partially offsetting a 16.0% decline in the number of new non-residential dwellings (1,313 in 2020 as compared to 1,564 in 2010) over the above reference period⁵³.

Number of new dwellings construction started between 2010 and 2020  **25.9%**

Conversely, the number of **new dwellings completed** decreased by 5.6%, from 36,442 in 2010 to 34,412 in 2020. The number of new dwellings completed in non-residential buildings declined by 14.6% (from 786 in 2010 to 671 in 2020). This was followed by a 1.8% drop in the number of new residential dwellings completed, from 30,067 in 2010 to 30,113 in 2020⁵⁴.

In contrast, the number of **building permits** granted deteriorated over the 2010-2020 period, from 105,743 in 2010 to 85,988 in 2020 (-18.7%). This was partially due to a similar decline in the number of permits granted for both residential (-18.9%) as well as non-residential (-18.0%) buildings over the

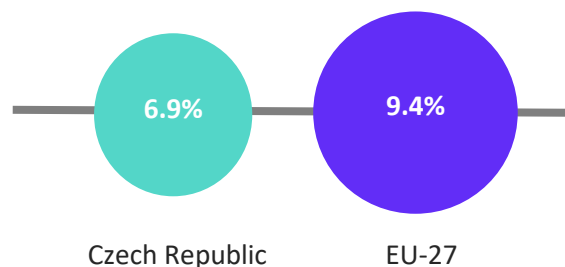
same reference period⁵⁵. This also helps explain the growing prices of houses.

Number of building permits granted for residential buildings between 2010 and 2020

 **18.9%**

Over the 2010-2019 period, the **home ownership** rate in the Czech Republic has remained almost stable, standing at 78.6% in 2019. This further increased to 81.1% in 2019 (compared to EU-27 average of 73.6%) for the population earning **above 60.0% of the median equivalised income**,⁵⁶ whereas it declined to 56.6% in 2019 (compared to EU-27 average of 50.3%) for the population earning below 60.0% of the median equivalised income. The **overcrowding rate**⁵⁷ stood at 15.4%⁵⁸ in 2019⁵⁹, slightly below the EU-27 average of 17.1%. The **severe housing deprivation rate**⁶⁰ stood at 1.9%⁶¹, still below the EU-27 average of 4.0%. Last, the **housing cost overburden rate**⁶² stood at 6.9%⁶³ as compared to the EU-27 average of 9.4%.

Housing cost overburden rate in 2019



Infrastructure



As per the 2019 Global Competitiveness Report, in terms of overall infrastructure quality, Czech Republic ranked 20th out of 141 economies^{64, 65}.

Broadly, the Czech Republic ranked 22nd with regards to its transport infrastructure. More specifically, the Czech Republic ranked 3rd among the 141 economies in terms of its railroad density, 17th for its road connectivity and 25th with regards to the efficiency of its train services. Further, the Czech Republic ranked 47th in terms of efficiency of air transport services, 54th in relation of its airport

connectivity and 78th for the quality of its road infrastructure.

In this context, the Czech government approved a National Investment Plan for 2020-2050 in December 2019, with a total budget of CZK 8.0 trillion (EUR 312.7 billion) and including 22,000 projects. Out of this, almost 77.0% of the allocation is to be spent to transport^{66,67}. Other projects will also include investment in, cybersecurity, digitalisation and healthcare. Moreover, energy has

also been confirmed as a priority sector, with the National Investment Plan including projects for the construction of two new blocs in the Temelín and Dukovany nuclear power plants⁶⁸.

The administrative burden continues to be a barrier to effective implementation, but the Czech Republic is developing a new construction law which is expected to become effective as of 2021 (more details in the section 6 National and Regional Regulatory Framework)⁶⁹.

4

Key issues and barriers in the construction sector

Company failure

Over the 2010-2018⁷⁰ period, the number of **company deaths** in the narrow construction sub-sector grew by 9.1%, from 14,301 to 15,600. In contrast, the number of company deaths in the real estate sub-sector slightly decreased by 1.7%, from 4,180 in 2010 to 4,107 in 2018. In the case of the architectural and engineering activities sub-sector, the number of company deaths registered a negligible growth of 0.7%, from 2,257 in 2010 to 2,272 in 2018.

Company death in the narrow construction sub-sector between 2010 and 2018

↑ 9.1%

In contrast, the number of **company births** in the narrow construction sub-sector decreased by 4.3%, from 16,423 in 2010 to 15,714 in 2018. Likewise, the real estate sub-sector reported a decline of 28.7% over the 2010-2018 period, from 6,869 in 2010 to 4,898. Conversely, in the architectural and engineering activities sub-sector, company births increased by 36.6%, from 2,365 in 2010 to 3,231 in 2018.

Company births in the narrow construction sub-sector between 2010 and 2018

↓ 4.3%

The Czech Republic has one of the lowest fear of failure rates within the EU region. Its insolvency framework index is also stronger than the EU average. In fact, the time taken to resolve an insolvency case in the Czech Republic has reduced from 6.5 years in 2008 to 2.1 years in 2019. However, the cost of resolving insolvency continues

to remain one of the highest in the EU region, being at 17.0% of the debtor's estate value⁷¹.

With the outbreak of the **COVID-19 pandemic**, the Czech government adopted statutory changes with regards to insolvency proceedings. The most notable measure involved an extraordinary moratorium open to all companies in relation to COVID-19 until 31 August 2020. Additionally, a general restriction was also placed on creditors' insolvency petitions that will also affect creditor-driven insolvency resolutions of debtors already insolvent prior to the COVID-19-outbreak. Furthermore, the statutory obligation to file for insolvency for the insolvent debtor has been suspended until six months after the end of emergency measures, but not beyond 31 December 2020. Finally, insolvency petitions filed by creditors will not be considered until 31 August 2020 with no exceptions⁷².

Trade credit

As per the Payment Practices Barometer Czech Republic 2020, about 40.0% of the respondent SMEs turned down trade credit requests from B2B customers, well above the Eastern European average (EEA) of 28.0%. This is mostly due to the deterioration in credit worthiness of SME suppliers⁷³.

Since the advent of the COVID-19 pandemic, there has been a drastic drop in the Czech Republic's total B2B credit sales by businesses. As per the survey, in 2020, trade credit accounted for 51.0% of B2B sales, considerably below the 88.0% of B2B sales in 2019. Additionally, about 67.0% of the respondent businesses reported accepting more trade credit

requests from domestic SME customers to encourage domestic market sales⁷⁴.



According to the 2020 SAFE Report, around 15.4% of Czech SME respondents reported trade credit to be relevant, well below the EU-27 average of 27.7%^{75,76}.

As per the 2020 SAFE Report, around 5.6% of the Czech SME respondents disclosed using trade credit in the past six months, well below the EU-27 average of 13.6%. During the same period, around 24.2% of Czech SMEs applied for trade credit as compared to the 31.4% EU-27 average. Around 9.5% of SMEs did not apply due to the possibility of rejection and 39.4% of SMEs did not apply because of sufficient internal funds, well above the EU-27 averages of 4.4% and 33.1%, respectively⁷⁷.

Regarding the availability of trade credit, around 11.6% of respondent SMEs reported that conditions had improved, slightly below the EU-27 average of 13.5%. However, around 9.0% of Czech SMEs also reported that the availability of trade credit had deteriorated, slightly above the EU-27 average of 14.7%. For around 72.1% of Czech SMEs, the availability of trade credit remained unchanged during the same period, better than the EU-27 average of 64.7%⁷⁸.

Late payment

According to the 2020 Atradius Payment Practice Barometer, the total value of overdue B2B invoices increased from 24.0% in 2019 to 39.0% in 2020, representing an increment of 62.5% in late payments. Still, this is lower than the Eastern European average of 45.0%⁷⁹.

As per the report, about 63.0% of the respondent businesses observed a 10.0% increase in their days sales outstanding (DSO), while 24.0% of the businesses reported an increase of more than 10.0% compared to the pre-pandemic period. Conversely, the total value of B2B invoices written-off has also reduced by half, from 8.0% in 2019 to 4.0% in 2020. This also indicates a corresponding decline in credit-based sales, resulting in a lower risk of payment default⁸⁰.

In order to protect their businesses against payment defaults, almost 61.0% of the respondent firms use payment reminders for their B2B customers, followed by 58.0% of the firms offering commitment to absorb debts in-house with self-insurance. Additionally, when facing difficulties in maintaining regular cashflows, 39.0% of the respondent businesses delayed payments to their suppliers while 32.0% of the firms opted to reduce their workforce⁸¹.

As per Intrum European Payment Report 2021, 64.0% of Czech Republic businesses are concerned about debtor's ability to pay debt on time and 44.0% of businesses expect the widening gap between payment terms and pay duration to become a serious risk for sustainable business growth⁸².

As per the report, about 60.0% of Czech businesses acknowledged that COVID-19 motivated them to improve their risk management related to late payments. Moreover, 40.0% of the businesses reported accelerating the digitalization of their business in order to deal with the pandemic. Nonetheless, some of the major challenges still faced by companies in making customers pay on time included debtor's facing liquidity challenges due to impact of COVID-19 (49.0%), debtors in financial difficulties (43.0%), risk of pan-European recession (36.0%), as well as disputes regarding goods and services delivered (33.0%)⁸³.

Real estate and construction sector monthly profit margins affected by COVID-19 pandemic in 2020⁸⁴

 **54.0%**

About 48.0% of respondent businesses use pre-payments as a precautionary measure, followed by credit checks (34.0%), debt collection (20.0%), credit insurance (15.0%), bank guarantee (11.0%), factoring (7.0%) and fraud prevention (7.0%)⁸⁵.

In 2020, Czech respondent firms offered payment terms averaging 38 days from invoicing, as compared to 31 days in 2019⁸⁶.

Time and cost of obtaining building permits and licenses

According to the Doing Business 2020 Report, the Czech Republic ranked 157th (out of 190) in “Dealing with Construction Permits”⁸⁷. In 2019, completing the formalities to build a warehouse⁸⁸ took on average 246 days, significantly above the OECD high income countries’ average of 152.3 days. It also involved 21 administrative procedures compared to the OECD average of 12.7 procedures (Table 3). Nonetheless, most of these procedures are free of charge, and thus the cost of obtaining these construction permits is 7.5 times lower than the OECD high income average (0.2% of the warehouse value compared to 1.5%).

Table 3: Construction procedures timing and costs in Czech Republic in 2020

Procedure	Time to complete	Associated costs
Hold a preliminary meeting with the Environmental Department	1 day	No charge
Obtain a preliminary clearance and technical conditions from the Public Health Office of Prague	30 days	No charge
Obtain a preliminary clearance and technical conditions from the local provider of water and sewerage services	30 days	No charge
Obtain a consent of the project from the Environmental Department of the Municipality	30 days	No charge
Obtain a preliminary clearance and technical conditions from the local electricity provider	20 days	No charge
Obtain preliminary clearance and technical conditions from the Transport Office	20 days	CZK 500 (EUR 19)
Obtain project clearance from Fire Department	10 days	No charge
Obtain zoning permit	60 days	CZK 20,000 (EUR 782)
Obtain a clearance from the Public Health Office	30 days	No charge
Obtain a clearance from the Transport Office	30 days	No charge
Obtain a clearance for the connection from local water and sewerage services	30 days	No charge
Obtain technical conditions from Fire Department	20 days	No charge

Procedure	Time to complete	Associated costs
Obtain technical conditions from local electricity provider	20 days	No charge
Obtain building permit	37 days	CZK 10,000 (EUR 391)
Request and receive water and sewerage connection with "Pražské Vodovody a Kanalizace"	30 days	CZK 5,500 (EUR 215)
Request private geodesist to survey the land after building is constructed	30 days	CZK 15,000 (EUR 586)
Request final inspection and occupancy permit	1 day	CZK 1,000 (EUR 39)
Receive final inspection	1 day	No charge
Receive occupancy permit	15 days	No charge
Request and obtain evidence number of the building from Municipality	7 days	No charge
Register the building with the Real Estate Registry	30 days	No charge

Source: Doing Business overview for Czech Republic, World Bank, 2021⁸⁹.

Skills shortage

In 2020, there were 37,473 **job vacancies** in the Czech narrow construction sub-sector and 8,290 vacancies in the real estate sub-sector. This represented a significant increase of 784.0% and 427.6% compared to 2010 levels, respectively. As such, the Czech Republic’s **job vacancy rate** for both the narrow construction as well as the real estate sub-sectors increased from 1.5% and 6.0% in 2010 to 13.9% and 25.9% in 2020, respectively.

Number of job vacancies in the narrow construction sub-sector between 2010 and 2020

↑ 784.0%

Number of job vacancies in the real estate activities sub-sector between 2010 and 2020

↑ 427.6%

Considering the ongoing high job vacancy rate, 47.0% of businesses in the construction sector regarded labour shortages as the main factor limiting their production in Q3-2019⁹⁰.

Over the 2010-2020 period, **adult participation in education and training** in the broad construction sector decreased. In the case of the narrow construction sub-sector, the adult participation rate slightly decreased from 6.4% in 2010 to 4.5% in 2020. On the other hand, the adult participation rate in the real estate activities sub-sector deteriorated significantly from 9.6% in 2010 to 3.5% in 2020.

In addition, the number of pupils in “construction, geodesy and cartography”, part of the secondary vocational education with an apprenticeship certificate, declined by 39.8% between 2010 (12,103) and 2020 (7,291).

In parallel, the **number of tertiary students** enrolled in engineering, manufacturing and construction decreased by 24.8%, from 14,579 in 2010 to 10,962 in 2019⁹¹. In particular, 3,721 tertiary students were enrolled in architecture and building in 2019, representing a drop of 4.4% compared to 2010 level of 3,891 students.

Historically, the Czech construction sector faced a critical shortage of skilled labour. In fact, persistent labour shortages and demographic changes have resulted in a shift in policy focus towards automation and robotisation⁹². Although the COVID-19 pandemic has resulted in lower demand for labour, prominent structural issues related to labour and skills shortages still persist. As such, implementation of automation, robotics and digital technologies will continue to be a critical factor for companies looking to increase their labour productivity⁹³.

Sector and sub-sector specific issues

Material efficiency and waste management

In 2018⁹⁴, the Czech Republic recorded the production of 11.6 million tonnes of **construction waste**, representing a 24.0% growth compared to 9.4 million tonnes in 2010 levels⁹⁵. In order to combat rising construction waste, the Czech Republic is already implementing the Waste Management Plan 2015-2024 that considers quality recycling and maximum recovery of suitable waste from industrial segments, such as construction, as one of its four priorities⁹⁶.

For the Czech Republic, achieving the set 2030 EU targets of recycling 65.0% of municipal waste, 75.0% of packaging waste, and reducing landfilling to a maximum of 10.0% of municipal waste is quite difficult. Czech’s municipal waste landfilling rate is well above the EU average and its recycling rate still remains relatively low. The Czech Republic has already postponed its goal to ban landfilling from 2024 to 2030 in light of the new waste legislation adopted in December 2019⁹⁷.

Despite sufficient government funding, the energy efficiency of buildings in Czech Republic is improving slowly compared to the EU average, primarily due to the lack of widespread awareness of benefits from energy efficient homes and political leadership. Moreover, there is a reduced motivation to utilise energy subsidies due to the long payback duration and the administrative burden⁹⁸.

Climate and energy

Emissions of greenhouse gases (carbon dioxide, methane and nitrous oxides) from the narrow construction and the real estate activities sub-sectors in Czech Republic amounted to 3,076,371 tonnes and 167,658 tonnes in 2019⁹⁹, respectively. Over the 2010-2019 period, emissions in the narrow construction sub-sector have increased by 11.2%. In contrast, emissions have declined by 56.2% in the real estate activities sub-sector over the same reference period.

Air emissions continues to be a problem for most of the Czech regions. The Czech Republic has one of the highest greenhouse gas emissions per capita among the EU Member States. It is targeting a 30.0% reduction in its greenhouse gas emissions by 2030 compared to 2005 levels in its NECP. For emissions not covered by EU Emissions Trading Systems, it expects a reduction of 14.0% by 2030, as already mentioned in the Effort Sharing Regulation.

In order to achieve its target of lower greenhouse gas emissions in the housing sector, the Czech Republic has also introduced the New Green Savings Programme subsidy scheme, underlining the components of building renovations and air protection. The country also plans to utilise digital technologies in order to accelerate its plans¹⁰⁰.

5

Innovation in the construction sector

Innovation performance

As per the 2021 European Innovation Scoreboard, the Czech Republic is classified as a Moderate Innovator, similar to its rank in 2020¹⁰¹.

The top three indicators of the Czech innovation system include enterprises providing ICT training, exports of medium and high-tech goods as well as air emissions by fine particulate matter. The country also demonstrated strong performance on use of information technologies, sales impacts and environmental sustainability indicators¹⁰².

As per the scoreboard, the Czech Republic's innovation performance improved in 2020. This was primarily driven by substantial performance increases on several indicators: using innovation survey data, broadband penetration and venture capital. The country also achieved above average scores on in-house product innovators with market novelties, but average scores on the climate change related indicators¹⁰³.

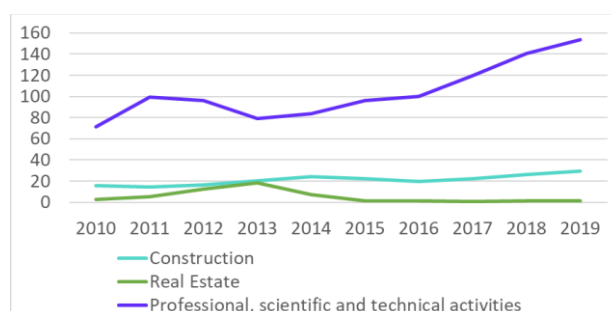
In 2019¹⁰⁴, **Business Enterprise R&D Expenditure (BERD)** in the Czech narrow construction sub-sector amounted to EUR 29.3 million, representing a 82.8% growth as compared to EUR 16.0 million in 2010. Likewise, BERD in the professional scientific and technical activities sub-sector increased from EUR 71.6 million in 2010 to EUR 153.6 million in 2020 (+114.6%). This increment is mainly driven by the European Structural Funds¹⁰⁵. In contrast, the real estate activities sub-sector experienced a 57.3% drop in BERD over the 2010-2019 period.

Business enterprise R&D expenditure in the narrow construction sub-sector between 2010 and 2019



82.8%

Figure 9: Business enterprise R&D expenditure (BERD) per construction sub-sector in Czech Republic between 2010 and 2019 (EUR m)¹⁰⁶



Source: Eurostat, 2021.

In parallel, total **R&D personnel** (full-time equivalents – FTE¹⁰⁷) in the broad construction sector experienced an increasing trend, in line with the positive trend in BERD. In terms of sub-sectors, total R&D personnel FTE in the narrow construction sub-sector amounted to 562 in 2019, a 69.3% increment compared to 2010 (332 FTE). Similarly, the professional, scientific and technical activities sub-sector have recorded a 79.6% increase in FTE since 2010, reaching 3,374 in 2019, the highest among all sub-sectors. In contrast, the real estate activities sub-sector declined by 8.3%, from 36 in 2010 to 33 in 2020.

Over the 2010-2020 period, the number of annual **construction-related patent applications** averaged nine, reaching four in 2020, compared to seven in 2010. Additionally, as per the 2020 EU R&D Scoreboard, no Czech construction-related firm ranks within the top 1,000 EU companies by R&D (industrial sector ICB-3D)¹⁰⁸Eco-innovation and digitalisation



According to the 2021 Eco-Innovation Scoreboard (Eco-IS), the Czech Republic scored 111, slightly lower than the EU-27 average of 121¹⁰⁹.

As per the report, in 2019 the Czech Republic reported strong performance in eco-innovation

activities (156) and in socio-economic outcomes (120), but weak results in eco-innovation outputs (49) and resource efficiency outcomes (59), when compared to EU average (100). One of the major changes announced in 2020 included the adoption of the national strategy “Circular Czech Republic 2040”. Additionally, other policies focused on circular economy principles have also been introduced. Nonetheless, several barriers still exist at the policy level, especially related to human resources, regulations, technology, market preparedness, administrative procedures and targeted funding for eco-innovation and the circular economy¹¹⁰.

As per the **European Commission Digital Economy and Society Index (DESI) 2020**, the Czech Republic ranked 17th out of EU-28 Member States with a 50.8 score, marginally below the EU-28 average score of 52.6¹¹¹. According to the Index, in 2019, the Czech Republic’s performance improved in three dimensions – human capital, integration of digital technology and in the use of internet services. This is partially driven by strong performance in e-commerce along with the introduction and implementation of national strategy for digitalisation and artificial intelligence¹¹².

As per the **European Investment Bank (EIB) Investment Survey 2020**, the most frequent long-term impact of COVID 19 on Czech construction firms was changes in supply chain (40.0%), followed by changes in their services and products portfolio (35.0%), increased usage of digital technologies (17.0%) as well as permanent reduction in employment (6.0%). Nonetheless, more than 55.0% of Czech construction sector firms are expected to have implemented digital technologies within their business, either fully or partially. According to the report, the top digital technologies implemented by businesses in Czechia, either partially or fully, in the broad construction sector includes augmented or virtual reality (31.0%), drones (23.0%), internet of things (16.0%) and 3-D printing (1.0%)¹¹³.

In its 2021-2026 Recovery and Resilience Plan (RRP), the Czech Republic has allocated EUR 141.0 million, EUR 450.0 million and EUR 650.0 million towards investing in recycling infrastructure and supporting circular economy solutions, investing in digital transformation and cyber-security, as well as supporting the digital transformation process of businesses including deployment of high-capacity and 5G networks, respectively¹¹⁴.

Furthermore, in the Recovery and Resilience Plan (RRP) the Czech government plans to streamline and digitalise the procedure for granting construction permits, combined with the implementation of the new construction law and zoning law and a planned investment of around EUR 36.4 million. This would include the creation of new state structure of the Supreme Construction Office, including internal units¹¹⁵.

The Czech government has also recognised the importance of adopting technologies such as **Building Information Modelling (BIM)**, which is gaining traction in the construction sector as a way to improve its competitiveness at the international level. In September 2017, the Czech government approved the concept of the implementation of BIM. Developed by the Ministry of Industry and Trade, the concept outlined the state of implementation of BIM in Europe and in the Czech Republic, listing the key BIM issues that need to be addressed and contained a schedule for the phasing-in of BIM over the 2018-2027 period. Specifically, the document stated that the Czech government planned to make the use of BIM mandatory for public procurement and public works contracts by 2022 (including during the preparation and project documentation phase)¹¹⁶. The Czech Agency for Standardisation (CAS) is responsible for its implementation. Within the CAS, the BIM Strategy Division was established as an expert governmental platform for standardisation and methodological support for the digitalisation of construction sector¹¹⁷.

6

National and regional regulatory framework

Policy schemes

The Ministry of Regional Development¹¹⁸ (MoRD) is responsible for the overall implementation of the **Housing Policy of the Czech Republic until 2020**¹¹⁹. This key policy document was revised in July 2016 to outline the three top priorities of Czech housing policy: affordability of adequate housing; stability of the housing market; quality of housing. Since 2019, work has started on drafting a new housing concept for the post 2021 period. This policy has been adopted by the Czech government in April 2021. The revised 2021 Housing Policy aims at addressing the problem of housing affordability by introducing the institutional and legal framework of social housing, improving the financing of social housing and increasing the supply (and quality) of rental apartments, among its key initiatives^{120,121}.

With regards to housing support, the MoRD supports the housing policy primarily through two programmes – **Housing Support** and **Housing Support in Areas with a Strategic Industrial Zone (SIZ)**. The Housing Support programme, in turn, is divided into three sub-programmes – **Assisted Flats**, **Residential Homes Without Barriers** and **Technical Infrastructure**¹²².

The Assisted Flats sub-programme focuses on providing social housing for persons that are at an economically inactive age (seniors), as well as persons with special needs facing difficulty in accessing housing. For 2020, two additional subsidies were announced under this sub-programme – **Nursing Flat** and **Community Retirement Home (KoDuS)**, with an allocated budget of CZK 260.0 million (EUR 10.2 million). The Nursing Flat subsidy is aimed at senior citizens facing an unfavourable social situation and persons who are dependent (for health reasons) on the

assistance of another natural person. The KoDuS subsidy focuses on helping persons aged over 60 to maintain self-sufficiency and independence through a community life based on the principle of neighbourly assistance and shared home spaces¹²³.

Both the Residential Homes Without Barriers and the Technical Infrastructure sub-programmes are directed towards assisting people to undertake structural modifications and the expansion of existing building lots for subsequent construction activities. For 2020, Residential Homes Without Barriers was allocated CZK 165.0 million (EUR 6.4 million). Moreover, under Technical Infrastructure, a municipality can avail of a subsidy of up to CZK 80,000 (EUR 3,127) for the construction of roads, water lines or sewers at each development lot¹²⁴.

To improve law enforceability and housing co-ownership functionality, the MoRD and the Ministry of Justice (MJ) jointly prepared an **amendment to the Civil Code**, specifically related to the transfer of ownership rights to units and group houses of certain housing cooperatives. With the objective to simplify and speed up the creation of owners' associations, it proposes the transfer of a unit owner's debts when transferring the unit. It also proposes that the pre-emption right be abolished. In this regard, an amendment to the Civil Code and the Corporation Act, along with other related acts, was approved and came into effect from 1 July 2020¹²⁵.

The Czech government is also drafting an **Affordable Housing Act**, incorporated under the Government Legislative Work Plan for 2020. The act focuses on supporting social housing with a view to provide housing for people at large, in addition to

regulating short-term rentals through online platforms¹²⁶.

In January 2020, the Czech government approved a new **Insulation Programme** aimed at providing interest-free loans for the energy modernisation of apartment buildings under the condition of achieving overall energy consumption savings of at least 20.0% compared to pre-modernisation. The programme has an allocated budget of CZK 150.0 million (EUR 5.9 million) for 2020¹²⁷. For 2020, the allocation under the Rental Houses Programme, Housing Estate Regeneration Programme, Programme for Young People and Construction for Municipalities Programme stood at CZK 400.0 million (EUR 15.6 million), CZK 120.0 million (EUR 4.7 million), CZK 830.0 million (EUR 32.4 million) and CZK 340.0 million (EUR 13.3 million), respectively¹²⁸.

Furthermore, an update of the **Social Housing Concept of the Czech Republic 2015 – 2025** is presently being worked upon. Initially approved in October 2015, the housing concept aimed at identifying challenges in social housing and defining measures to be implemented until 2025 in order to solve these challenges and improve access to affordable housing for vulnerable groups. By June 2020, the updated proposal had been submitted to the government and is currently awaiting final approval from all ministries. Additionally, a change in the concept name has also been proposed, from 'social' to 'affordable' housing¹²⁹.

Likewise, an amendment to the **Act No 169/2018** (act on accelerating the construction of transport and other infrastructures) has been approved by the Czech government. This amendment allows for transport construction in joint proceedings with less detailed documentation by removing the need to issue separate administrative acts as required by the Nature and Landscape Conservation Act. In turn, it would be replaced with a single binding opinion, which would help in avoiding the multiple administrative challenges while planning the transport infrastructure¹³⁰.

In response to the pandemic outbreak, the Czech government introduced a supportive measure wherein half (50.0%) of the rent payment for non-residential premises closed under government steps related to COVID-19, shall be paid by the government retrospectively for the period from

April to June 2020, provided that the landlord gives a 30.0% rent discount to the tenant¹³¹.

In October 2020, the Czech government repealed the real estate acquisition tax with retroactive effect from 31 March 2020. Any person buying a property will be exempt from tax if the ownership right is registered in the Land Register after December 2019¹³².

This measure is aimed at increasing the investment in immovable property as well as reducing the burden on taxpayers struggling under the COVID-19 pandemic situation. Additionally, the term 'housing need' (*bytová potřeba*) was also incorporated and legally defined within the Income Tax Act. As such, in order to claim income tax exemption, a person is required to meet certain conditions to become eligible. Moreover, starting from 1 January 2022, interest paid on mortgage loans for home construction could also be deducted from the income tax base up to CZK 150,000 (EUR 5,864), compared to previous limit of CZK 300,000 (EUR 11,727). This is still a positive development as the Czech government was earlier planning to entirely abolish this option¹³³.

Likewise, in December 2020, the Czech government also announced that landlords will not be required to deduct VAT on purchased services and goods directly related to rental income from residential properties. Effective from 1 January 2021, VAT payers will not be allowed to deduct tax on rental space designed for permanent housing¹³⁴.

Building regulations

The Building Act (**Act No. 183/2006 Coll.** on Spatial Planning and Building Regulations) is the main legal regulation in construction in the Czech Republic. It deals with the duties and responsibilities of the participants in the construction process, territorial planning, construction permits, or other necessary rules and actions needed for the realisation of construction works¹³⁵.

The amended Building Act was adopted in July 2017, after a year of revisions and discussions, and became effective from January 2018¹³⁶. The purpose of the amendment was to accelerate the procedure for issuing building permits. This was particularly the case for the construction of dwellings, since in some cases it was no longer necessary to apply for a building permit while in

other cases simply announcing the building to the local building authority was sufficient¹³⁷. In June 2019, the Czech government approved the plan for the new Building Act. This new act is expected to become valid from spring 2021 and become effective from 1st July 2023¹³⁸.

As per new regulations, building renovations are required to comply with requirements linked to the boiler replacement. Furthermore, they should ensure that at least 70.0 % of construction and demolition waste is reused or recycled¹³⁹.

Additionally, the ongoing discussions about the **recodification of public construction law** foresee organisational changes in building authorities to accelerate and streamline the construction agenda performance in the Czech Republic. Firstly, it is expected that the number of bodies concerned will be reduced and selected agendas will be integrated into the decision-making of building offices. Secondly, the permit approval process will be further accelerated by combining the existing conditions into a single set of procedures. Lastly, the consolidation of substantive construction requirements into (possibly) a single legal regulation valid for the entire Czech Republic¹⁴⁰.

Furthermore, the documentation required for buildings is governed by the **decree 499/2006**, general requirements for land used in construction is governed by the **decree 501/2006** and the technical requirements for construction are governed by the **decree 268/2009**¹⁴¹.

Insurance and liability related regulations

General construction law in the Czech Republic is divided into several main bodies. These include civil, administrative, environmental and criminal law, as well as other subordinate legislation, such as orders, ministerial, etc. Contractual liabilities among parties are defined in the **Civil Code**, as

stipulated in art. 106, 651, 645 and 646. However, provisions related to the duties of parties developing a business activity under various types of contractual engagements are defined in the **Commercial Code**, and therefore the Civil Code is only applied when at least one of the contractual parties is not a business entity¹⁴².

Specifically, art. 106 of the Civil Code stipulates that for construction services, injured parties can seek compensation for two years from the identification of the damages, but only three years after their occurrence. For intentional damage, on the other hand, there is a liability period of up to 10 years. Furthermore, a statutory warranty period of three years is defined for building defects, while the warranty lasts 18 months for repair works (art. 646)¹⁴³. Under the Commercial Code, the limitation period lasts five years from the moment the injured party learned about the damage, but a maximum 10 years from their occurrence¹⁴⁴.

Czech law does not require builders and construction service providers to obtain any specific building insurance. The contractors are statutorily insured for any work-related injuries of their employees. Moreover, they are also required to have a third-party liability insurance for any vehicles used by them¹⁴⁵.

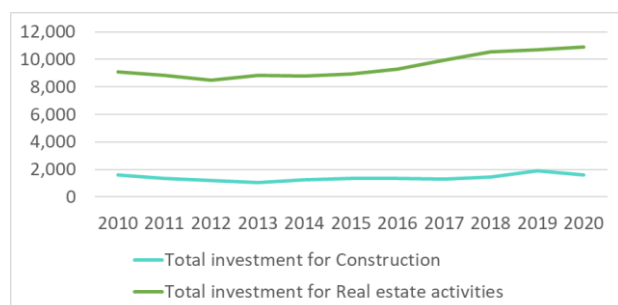
However, architects, consulting civil engineers and technical surveyors carrying out special contracting service are required to have a “third party professional insurance policy” for damage caused by their activities¹⁴⁶. Although not compulsory, a construction contract may require that the contractor is insured for the following: equipment and employment; insurance against liability for damage caused by third parties; insurance covering construction risks related to natural disaster¹⁴⁷. Indeed, a contractor’s All Risk insurance is widely used and may be required by the client (often in the case of public procurement contracts)¹⁴⁸.

Current status and national strategies to meet Construction 2020 objectives

TO 1 – Investment conditions and volumes

Total investment by the broad construction sector¹⁴⁹ has shown different trends since 2010. Investment by the narrow construction sub-sector marginally increased by 0.2% between 2010 and 2020, reaching EUR 1.6 billion in 2020. This is mostly due to a 7.1% drop in investment in machinery, going from EUR 651.2 million to EUR 604.9 million, offsetting the increase in investment in intellectual property from EUR 59.1 million in 2010 to EUR 85.2 million in 2020 (+45.6%). Investment in the real estate activities sub-sector increased by 20.2%, from EUR 9.1 billion in 2010 to EUR 10.9 billion in 2020. This is primarily driven by a 193.4% increase in investment in intellectual property, from EUR 25.9 million in 2010 to EUR 76.0 million in 2020. In contrast, investment in machinery declined by 25.9%, from EUR 281.8 million in 2010 to EUR 208.7 million in 2020.

Figure 10: Investments by the Czech broad construction industry between 2010 and 2020 (EUR million)



Source: Eurostat, 2021.

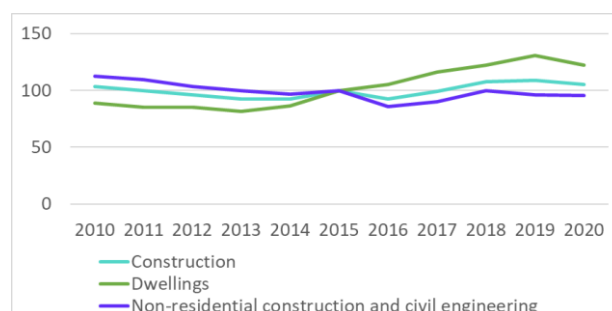
The total investment index in the broad construction sub-sector¹⁵⁰ increased by 5.0% over the 2015-2020 period. Investment in dwellings by the whole economy followed a similar trend, rising

by 22.4% in comparison to the 2015 value. In contrast, investment in non-residential construction and civil engineering slightly decreased by 4.6% over the 2015-2020 period. In absolute terms, investment in the broad construction sector totalled EUR 24.4 billion in 2020 with EUR 10.3 billion invested in dwellings and EUR 14.1 billion in non-residential and civil engineering¹⁵¹ (Figure 11).

Total investment in dwellings by the whole economy between 2015 and 2020

↑ 22.4%

Figure 11: Investment index in the Czech construction sector between 2010 and 2020 (2010=100)




Source: Eurostat, 2021.

The share of **total inland¹⁵² infrastructure investment** in the GDP reached 1.0% in 2019¹⁵³ compared to the 1.5% in 2010. Investment in air transport infrastructure and rail infrastructure increased by 99.7% and 35.5% over the 2010-2019¹⁵⁴ period, totalling EUR 162.6 million and EUR 762.8 million, respectively. In contrast, investment in road and inland waterways infrastructure decreased by 19.6% and 11.6% over the 2010-2019 period, from EUR 1.8 billion and

EUR 57.8 million in 2010 to EUR 1.4 billion and EUR 51.1 million in 2019, respectively.

Air transport
infrastructure investment
between 2010 and 2019

 **99.7%**

Conversely, **investments in infrastructure maintenance** have increased for most of the transport infrastructures. Investments in the maintenance of road, rail and inland waterways infrastructure significantly increased by 46.7%, 117.9% and 688.3% over the 2010-2019 period. Conversely, investment in air transport infrastructure maintenance slightly increased by only 3.1% over the same reference period. Yet, investments in maintenance focuses mainly on road and rail infrastructures (98.5%).

In September 2019, in collaboration with four large commercial banks, the Czech government created the National Development Fund. Additionally, in December 2019, the government announced that investments under the fund would be linked to the National Investment Plan wherein it lists more than 20,000 projects to be implemented over the 2020-2050 period. This has a total budget allocation of CZK 8.0 trillion (EUR 312.7 billion) financed from various public, private and EU sources. In terms of allocation, the transport sector accounted for more than 75.0% of the total planned projects, particularly road and rail transport¹⁵⁵.

In relation to civil infrastructure, the CZK 19.5 billion (EUR 762.2 million) rail line linking Václav Havel Airport with Prague is already under progress. It is a part of the ongoing Prague-Kladno line modernisation project. Additionally, in November 2020, the Czech government approved the reconstruction of the Ostrava railway junction, amounting to CZK 25.0 billion (EUR 977.2 million). The construction of metro Line D in Prague from Náměstí Míru to two different branches (Modřany and Depot Písnice) has also started. It is expected to be completed by 2026 and is estimated to cost CZK 35.9 billion (EUR 1.4 billion). The government also approved the expansion of the Prague Václav Havel airport in January 2020. It is scheduled to finish by 2035 and is expected to cost more than USD 1.0 billion¹⁵⁶.

With regards to road infrastructure, the Czech Republic is in the pre-investment phase of constructing various high-speed lines throughout

the country. Some of the major high-speed lines include Prague-Dresden, Prague-Brno-Břeclav, Brno-Přerov-Ostrava and Prague-Hradec Králové-Poland. Currently, the programme is expected to begin by 2025, with the first section expected to be ready by 2028, and it is likely to be completed by 2050. As per reports, about CZK 15.0 billion (EUR 586.3 million) will be spent each year on construction or planning throughout the project life cycle¹⁵⁷.

With regards to road transport construction, projects are currently being worked upon including projects related to motorway connections to the Austrian and Polish borders. Major road construction projects include the construction of separate additional sections on the D6 and D48 motorways, as well as linking the D56 to the D48 motorway through a separate section. Additionally, work on the D55 and the D7 motorways is also underway. Overall, the Czech Republic expects to complete its motorway network construction by 2030¹⁵⁸.

In relation to rail transport construction, the Czech Republic is currently extending the railway line between Správa železnic. Moreover, the construction of the ETCS Petrovice u Karviné – Ostrava – Přerov – Břeclav line was recently completed on corridor II in the Kolín section, with trial operations scheduled to begin in 2020¹⁵⁹.

As per the **National Investment Plan 2020-2050**, about CZK 782.0 billion (EUR 30.6 billion) has been dedicated to motorway construction, CZK 878.0 billion (EUR 34.3 billion) for railway modernisation and CZK 769.0 billion (EUR 30.1 billion) for construction of high-speed railway lines. The plan estimates a CZK 6.0 trillion (EUR 234.5 billion) investment in transport infrastructure by 2050, including CZK 3.0 trillion (EUR 117.3 billion) investment by 2030¹⁶⁰.

The Czech Republic is one of the key beneficiaries of EU funding. Under the **EU Cohesion Policy funds**, the Czech Republic has been allocated EUR 29.0 billion in the current Multiannual Financial Framework¹⁶¹. Some of the Czech infrastructure projects already approved by EU include the Vestec-Lahovice part of the Prague Ring Motorway, the Lubenec-Bošov extension of the R6 motorway in Western Bohemia, and the I/35 road between Bílý Kostel and Hrádek nad Nisou in the Liberecký region¹⁶².

The EU Cohesion Fund has already announced that it will finance the Vestec-Lahovice section of the Prague Ring Road (EUR 145.5 million), the R6 expressway Lubenec-Bošov extension (EUR 65.9 million) and the two-lane Road I/35 Bílý Kostel and Hrádek nad Nisou (EUR 69.6 million)¹⁶³.

In 2020, the EIB Group invested almost EUR 264.0 million in infrastructure¹⁶⁴. In parallel, the Czech Republic also benefitted from investments from the **European Fund for Strategic Investments (EFSI)**. As of December 2020, the financing under EFSI amounted to EUR 1.2 billion and is set to trigger additional investments of EUR 7.0 billion. Under the infrastructure and innovation window, 13 projects have been approved, amounting to EUR 190.0 million and are set to trigger EUR 1.0 billion in total investments. Under the SMEs window, 18 agreements have been approved, involving a total financing of EUR 986.0 million, and are set to trigger investments of up to EUR 5.7 billion¹⁶⁵.

Renovation spending by household has increased by 31.5%, going from EUR 771.2 million in 2010 to EUR 1.0 billion in 2020. The share of renovation spending out of the total household's disposable income stood at 1.0% in 2019, almost same as the EU-27 average of 0.9%.

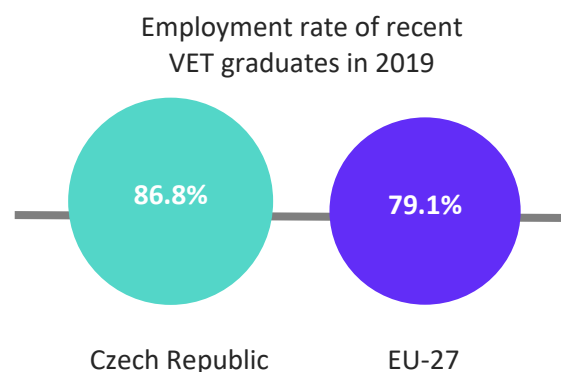
TO 2 – Skills

The Czech Republic continues to make vocational education and training (VET) more relevant to the market needs¹⁶⁶. As a result, the **employment rate of recent VET graduates** for the Czech Republic stood at 86.8% in 2019¹⁶⁷, slightly lower than its 2018 level (87.7%) but well above the EU-27 average of 79.1%¹⁶⁸.

In order to increase the relevance of the VET system in labour market, various measures have been initiated. For instance, an active labour market barometer has been developed and will be incorporated into active employment policies. Additionally, following the successful pilot of 20 qualifications in 2019, master craftsman qualification examinations are expected to start in 2021. However, the COVID-19 crisis has made distance learning more difficult in VET education. Only 25.0% of upper secondary schools providing VET final examinations managed to engage all students online with about 20.0% of their students not participating at all¹⁶⁹.

Conversely, overall **adult participation in learning** is lower than the EU-27 average (8.1% in 2019 versus 10.8% in the EU-27). Adult participation in lifelong education and training in the narrow construction sub-sector stood at 4.5% in 2020 compared to the EU-27 average of 7.4%. Similarly, adult participation in lifelong learning in the real estate activities stood at 3.5% for 2020 compared to the EU-27 average of 13.8%.

As such, employers find it difficult to fill vacancies in the Czech Republic. Despite the high employment rate, they complain about skills mismatches and misalignments with the requirements of the labour market. Nevertheless, there is still no system for forecasting labour market needs in the country.



The Czech Republic is still adjusting its VET programmes to be more flexible and relevant to current market needs. For instance, under the 2018 amendment of the School Act, schools are obligated to cooperate with employers in designing relevant curricula by providing practical training and participating in final examinations, along with providing placements in companies for teaching staff.

In May 2019, the Czech government adopted the **National Artificial Intelligence Strategy, to be implemented from 2021**. Additionally in November 2019, in line with the 2016 Council Recommendation on Upskilling Pathways, the European Social Fund project 'Upskilling CZ' was launched to develop adult competences¹⁷⁰.

Moreover, an online tool for self-evaluation of digital competencies – EVALDO, was further developed within the Digital Strategy 2020. Within the National System of Occupations, an online catalogue of transferable digital competencies for 500 companies was created in 2020¹⁷¹.

Over the 2019-2022 period, the Ministry of Labour and Social Affairs will be coordinating the Mapping Future Skills project to determine the labour market's requirements (i.e., Skills 4.0). The objective of the project is to set up mechanisms for advance identification of new skills that will be in demand and assigning them to existing or new professions and qualifications. In 2020, the methodology for mapping future skills will be analysed and further developed, followed by careful selection of target sectors. Additionally, expert communication platforms will also be set out, i.e., ten sectoral and cross-cutting working groups to form a foundation for mapping future skills¹⁷².

The Association of Building Entrepreneurs (SPS) considers the revitalisation of VET as one of its main priorities and is very active in this domain. Notably, it has developed a **strategy of further measures for building trades** and is cooperating with business for delivering internships in construction¹⁷³. These activities are also supported by the Trade Union Construction.

TO 3 – Resource efficiency / Sustainable construction

Under its EUR 7.0 billion Recovery and Resilience Plan (RRP), the Czech Republic has allocated EUR 1.6 billion towards financing large-scale renovation programmes in order to increase the energy efficiency of residential and public buildings, childcare and long-term care facilities¹⁷⁴.

The Czech government has planned a broad energy-efficient building renovation and revitalization programme amounting to EUR 332.2 million and is expected to result in energy savings of at least 30.0%. Furthermore, the country has also allocated EUR 283.2 million for the replacement of stationary pollution sources in households with renewable energy sources and installation of renewable energy sources¹⁷⁵.

As part of the measure 'Implementation of energy-saving measures to renovate public lighting systems', at least 2,000 projects of renovation of public lightning systems would be supported. The target would be achieved upon contracting 80.0% of them (namely 1,600) by 31 December 2024¹⁷⁶.

Backed by EU funding, the Czech government is implementing a replacement scheme for obsolete and inadequate heating sources in households. Investment in buildings in line with the EU's Smart Finance for Smart Building Initiative can be seen as an opportunity to increase investment in smart building systems. However, the milestones of a long-term renovation strategy are still not well defined. More clarity is required on milestones for renovation of national housing stock into high, energy-efficient and decarbonised building stock by 2050¹⁷⁷.

As per current findings, the Czech Republic's renovation rate stands at 1.4%. In this regard, it is expected that the government will finalise its Long-Term Strategy, as required under Directive (EU) 2018/844 amending previous Directive 2010/31/EU on energy intensity of buildings¹⁷⁸.

With regards to the requirements set out by Directive 2012/27/EU and as amended by Directive 2018/2002 on energy efficiency, investments under RRP are designed to complement other financing sources aimed at tackling the low levels of energy efficiency of buildings. However, additional funding may be required to achieve the national objectives set in the National Energy and Climate Plan (NECP) and the long-term renovation strategy for 2030¹⁷⁹.

Instances of the schemes adopted to specifically improve the energy efficiency of buildings include:

- **New Green Savings Programme 2014-2021:** the grant programme is administrated by the SHDF and has a total allocation of CZK 27.0 billion (EUR 1.1 billion). Specifically, CZK 4.7 billion (EUR 183.7 million) is allocated annually between 2017 and 2021. Grants under the scheme cover up to 50.0% of the eligible costs. Eligible areas of intervention include the improvement of the energy performance of existing residential buildings, construction of residential buildings with very low energy consumption, and efficient use of energy sources¹⁸⁰.
- **EFEKT Programme 2017-2021:** the state scheme aims to contribute to increasing energy savings, reduction of energy consumption and utilisation of renewable and secondary energy sources. Aside from supporting investments, the programme also entails support for energy consulting, implementation of energy

management and preparation of energy efficiency projects, among others¹⁸¹.

The Czech Republic also developed **the Joint Boiler Replacement Scheme** and the **Reasonable Energy Saving Programmes**¹⁸². Further measures may be introduced, such as support for the construction sector in the Czech Republic aiming to improve energy efficiency and environmental protection in line with the EU 2020 environmental strategy; the **Energy Savings Fund**; or tax incentives, carbon tax and other instruments to promote investment in increasing energy efficiency¹⁸³.

Furthermore, financial instruments are also in place in the Czech Republic to foster the renovation of the building stock. For instance, the **Building Society Saving Scheme** entails a saving phase by households, followed by the opportunity to obtain affordable loans with low interest rates (between 3.0% and 6.0%) to invest in housing, often specifically for the reconstruction, renovation and energy-saving measures of residential buildings¹⁸⁴.

TO 4 – Single Market

As per the 2020 EU Single Market Scoreboard, the Czech Republic performed in line with the EU-27 average. Notably, it performed better in metrics such as EU Pilot, IMI, e-Curtis and Your Europe¹⁸⁵.

In relation to the 2020 EU Single Market Scoreboard metrics, the Czech Republic's performance was average particularly in case of infringements, EURES and SOLVIT. In parallel, the Czech Republic performed below average in terms of transposition of law. Nonetheless, the country performed above EU average with regards to EU Pilot, Internal Market Information System (IMI) and Your Europe metrics – EU's single digital gateway aimed at providing access to information, procedures, assistance and problem-solving services¹⁸⁶.

the country performs better than the EU average in terms of the state aid and public procurement.

The Czech government has introduced various digital reforms aimed at developing a well performing and resilient single market with strong SMEs. Keeping the Digital Czechia Strategy, the Innovation Strategy 2020-2030 and the National AI Strategy as its base, the Czech Republic intends to create a sustainable well

connected digital ecosystem, primarily through the digital transformation of its enterprises¹⁸⁷.

Nonetheless, regulatory restrictiveness in the country remains high for certain professions, including architects and civil engineers, creating an anti-competitive environment along with hindering innovation and long-term growth in the Czech Republic¹⁸⁸.

Conversely, compared to other member states, the Czech Republic has more complicated health and safety regulations for construction works to deal with, thus creating a more burdensome regulatory environment for the provision of cross-border services. Moreover, according to the Association of Building Entrepreneurs, the single market is not benefiting Czech companies exporting building materials. Countries such as Germany, Austria, France and Switzerland have a well-developed and complex certification system for construction materials, which deters imports and acts as a barrier to export for Czech companies¹⁸⁹.

Under its 2021-2026 Recovery and Resilience Plan (RRP), the Czech Republic has allocated EUR 222.0 million towards improving its business environment including improved access to finance for SMEs, accelerated licencing procedures for construction firms as well as anti-corruption initiatives¹⁹⁰.

Finally, regarding the implementation of **Eurocodes**, all Parts are published as National Standards, and National Annexes are published to all Parts and translated in English. There are no other national standards used in parallel. In fact, Eurocodes are compulsory in structural design, and their use is enforced in public procurement through Law 137/2006 on Public Procurement¹⁹¹.

TO 5 – International competitiveness

As per World Bank Doing Business 2020 report, the Czech Republic ranked 1st out of 190 economies in the ease of trading across border, achieving a full score of 100 in trading across border dimension¹⁹².

As per the report, in the Czech Republic it takes only one hour to be documentary compliant. Moreover, it only takes a few minutes to be border compliant. In terms of costs, businesses don't need to spend

any money to be documentary and border compliant¹⁹³.

With regards to the **internationalisation of construction SMEs**, the export value of all construction-related projects in the Czech Republic stood at EUR 2.7 billion in 2020, representing an increase of 32.5% compared to its 2010 level of EUR 2.0 billion. The Czech Republic's share of exports of all construction-related products in 2020 stood at 59.7% of the total production value, considerably above the EU-27 average of 11.3% for the same reference period.

Exports value of all construction-related products between 2010 and 2020

↑ 32.5%

In the context of **inward FATS (Foreign Affiliates Statistics)**¹⁹⁴, over the 2010-2018¹⁹⁵ period, the value added at factor cost in the narrow construction sector decreased by 18.3% whereas it increased by 6.7% in the case of the real estate activities sub-sectors. In contrast, turnover in the narrow construction as well as the real estate activities sub-sectors decreased by 19.0% and 5.4% between 2010 and 2018, respectively¹⁹⁶.

Exports are supported by national organisations such as **CzechTrade**, a trade promotion agency aimed at fostering the internationalisation of Czech

companies by facilitating cooperation with entrepreneurs from foreign countries¹⁹⁷. CzechTrade provides a range of business support and networking services, such as participation in trade fairs abroad and the **Czech Exporters Directory**, an online Czech companies database focusing on penetrating foreign markets, across many areas including construction, building materials and components¹⁹⁸.

The construction sector faces specific obstacles when it comes to exports and internationalisation, including complex logistics and the heavy weight of some building components. However, according to the Association of Building Entrepreneurs, exports in the sector have been increasing over the years, with Czech construction companies being involved in the construction of transport infrastructure abroad, and specifically in the construction of tunnels, roads and motorways as well as in industrial and residential buildings¹⁹⁹.

Through its Recovery and Resilience Plan (RRP), the Czech Republic also intends to indirectly address issues of rising house prices and complex building permit procedures. The government plans to reform the procedure for granting construction permits including digitalising the process and making it more robust²⁰⁰.

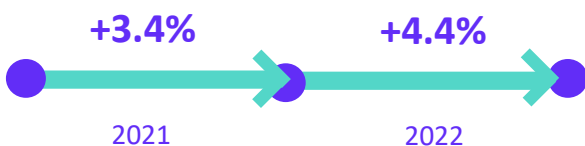
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Outlook

Over the 2020-2022 period, the Czech Republic's GDP is expected to increase by 8.0%, primarily driven by massive infrastructural investment backed by EU funding.

The Czech Republic's **GDP** is forecast to annually increase by 3.4% in 2021 and by 4.4% in 2022.

Expected GDP growth in 2021 and 2022



Likewise, the outlook for the Czech broad construction sector is moderate. The **volume index of production** of the broad construction sector, construction of buildings and construction of civil engineering are projected to increase by 13.0%, 13.3% and 12.8% over the 2020-2022 period, respectively.

The **turnover of the broad construction sector** is also projected to increase by 1.7% in 2021 compared to 2020. At the same time, the **total value added** of the broad construction sector is expected to reach EUR 17.5 billion in 2021, increasing by 1.8% over 2020.

Correspondingly, the **number of persons employed** in the broad construction sector is projected to rise by 1.8% in 2021 over 2020, reaching 657,832 persons in 2021.

The Czech government has undertaken various steps to promote the **housing market**. It has repealed the real estate acquisition tax with retroactive effect from 31 March 2020. It also announced that, effective from 1 January 2021, VAT payers will not be allowed to deduct tax on rental space designed for permanent housing.

Under its EUR 7.0 billion Recovery and Resilience Plan (RRP), the Czech Republic has allocated EUR 1.6 billion towards financing large-scale renovation programmes to increase the energy efficiency of public building²⁰¹.

With regards to **non-residential and infrastructural construction**, the CZK 19.5 billion (EUR 762.2 million) rail line linking Václav Havel Airport with Prague is already under progress. The Czech government has approved the reconstruction of the Ostrava railway junction, amounting to CZK 25.0 billion (EUR 977.2 million). It has also announced the expansion of the Prague Václav Havel airport in January 2020 and is scheduled to finish by 2035. With respect to road infrastructure, the Czech Republic is in the pre-investment phase of constructing various high-speed lines throughout the country. The programme is expected to begin by 2025 and is likely to be completed by 2050 with about CZK 15.0 billion (EUR 586.3 million) being spent each year on construction and planning.

Furthermore, under the National Investment Plan 2020-2050, over 22,000 projects have been announced with a total allocation of CZK 8.0 trillion (EUR 312.7 billion). Out of this, almost 77.0% will be dedicated to transport construction activities. Under the investment plan, the government also allocated CZK 782.0 billion (EUR 30.6 billion) for motorway construction, CZK 878.0 billion (EUR 34.3 billion) for railway modernisation and CZK 769.0 billion (EUR 30.1 billion) for construction of high-speed railway lines.

Overall, the Czech construction sector is forecast to recover from 2021 onwards, driven by large infrastructure projects backed by EU funding. Output in civil engineering is expected to be mostly driven by investment in railways and road infrastructure.

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- 8 Czech Republic: trade credit slashed during pandemic, [https://group.atradius.com/publications/payment-practices-barometer/czech-](https://group.atradius.com/publications/payment-practices-barometer/czech-republic-2020-trade-credit-slashed-during-pandemic-amid-concern.html)
- 9 [republic-2020-trade-credit-slashed-during-pandemic-amid-concern.html](https://group.atradius.com/publications/payment-practices-barometer/czech-republic-2020-trade-credit-slashed-during-pandemic-amid-concern.html)
- 10 Please note that this 2020 data is a nowcast - please refer to the methodology notes for further details
- 11 Please note that the share of each sub-sector in the value added of the broad construction sector should not be compared to the shares of the Gross Value Added in the GDP, since the GDP also includes taxes and excludes subsidies.
- 12 Please note that this 2020 data is a nowcast - please refer to the methodology notes for further details.
- 13 Please note that the share of each sub-sector in the value added of the broad construction sector should not be compared to the shares of the Gross Value Added in the GDP, since the GDP also includes taxes and excludes subsidies.
- 14 Data for manufacturing and architectural and engineering activities sub-sectors is not available
- 15 Data for subsequent years not available
- 16 Apparent labour productivity refers to the gross value added per person employed
- 17 No data available for 2010 for the productivity in the broad construction sector.
- 18 No data available for subsequent years for the productivity in the broad construction sector.
- 19 Please note that this 2020 data is a nowcast - please refer to the methodology notes for further details.
- 20 No data available for subsequent years for the productivity in the broad construction sector.
- 21 Please note that this 2020 data is a nowcast - please refer to the methodology notes for further details.
- 22 No data available for subsequent years.
- 23 The gross operating rate is the ratio of gross operating surplus to turnover, and is an indicator of profitability
- 24 The gross operating rate is the ratio of Gross Operating Surplus to Turnover and is an indicator of profitability.
- 25 No data available for subsequent years.
- 26 No data available for 2010.
- 27 No data available for 2010.
- 28 Please note that this 2020 data is a nowcast - please refer to the methodology notes for further details.
- 29 Please note that this 2020 data is a nowcast - please refer to the methodology notes for further details.
- 30 Commission Staff Working Document: Analysis of the recovery and resilience plan of Czechia, https://ec.europa.eu/info/sites/default/files/com-2021-431_swd_en.pdf
- 31 European Commission, Country Report Czech Republic 2020. <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020SC0502&from=EN>
- 32 European Commission, Country Report Czech Republic 2020. <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020SC0502&from=EN>
- 33 European Commission, Country Report Czech Republic 2019. [https://ec.europa.eu/info/sites/info/files/file_import/2019-european-](https://ec.europa.eu/info/sites/info/files/file_import/2019-european-semester-country-report-czech-republic_en.pdf)
- 34 [semester-country-report-czech-republic_en.pdf](https://ec.europa.eu/info/sites/info/files/file_import/2019-european-semester-country-report-czech-republic_en.pdf)
- 35 Eurostat Statistics Explained, Population structure and ageing. [http://ec.europa.eu/eurostat/statistics-](http://ec.europa.eu/eurostat/statistics-explained/index.php/Population_structure_and_ageing#Slightly_more_than_three_persons_of_working_age_for_every_person_aged_65_or_over)
- 36 [explained/index.php/Population_structure_and_ageing#Slightly more than three persons of working age for every person aged 65 or over](http://ec.europa.eu/eurostat/statistics-explained/index.php/Population_structure_and_ageing#Slightly_more_than_three_persons_of_working_age_for_every_person_aged_65_or_over)
- 37 Quartz, Why does Czech Republic have the lowest unemployment in the EU, 2017. [https://qz.com/1044383/why-does-the-czech-republic-](https://qz.com/1044383/why-does-the-czech-republic-have-the-lowest-unemployment-rate-in-the-eu/)
- 38 [have-the-lowest-unemployment-rate-in-the-eu/](https://qz.com/1044383/why-does-the-czech-republic-have-the-lowest-unemployment-rate-in-the-eu/)
- 39 World Bank Doing Business Report 2020 – Czech Republic, <https://www.doingbusiness.org/en/data/exploreeconomies/czech-republic>
- 40 As the publication of the WB Doing Business report 2021 was not available at the time of the writing, this report relies on the data provided by the 2020 edition
- 41 World Bank Doing Business Report 2020 – Czech Republic, <https://www.doingbusiness.org/en/data/exploreeconomies/czech-republic>
- SAFE Report 2020, https://ec.europa.eu/growth/access-to-finance/data-surveys_en
- European Commission, 2019 SBA Fact Sheet, Czech Republic, 2019. https://ec.europa.eu/growth/smes/business-friendly-environment/performance-review_en
- SBA Fact Sheet Czechia 2021, https://ec.europa.eu/growth/smes/sme-strategy/performance-review_en#sba-fact-sheets
- No data available for subsequent years.
- Data for 2010 not available.
- No data available for subsequent years.

According to Eurostat, construction services comprises Construction Abroad (code 250) and Construction in the Compiling Economy (code 251). They do not include architectural services, or engineering services.

SAFE Report 2020, <https://ec.europa.eu/docsroom/documents/43869>

SAFE Analytical Report 2020, <https://ec.europa.eu/docsroom/documents/43872>

SAFE Report 2020, <https://ec.europa.eu/docsroom/documents/43869>

Finance constrained firms include those dissatisfied with the amount of finance obtained (received less), firms that sought external finance but did not receive it (rejected) and those who did not seek external finance because they thought borrowing costs would be too high (too expensive) or they would be turned down (discouraged)

EIB Investment Survey, Czech Republic 2020, https://www.eib.org/attachments/efs/eibis_2020_czech_republic_en.pdf

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No data available for subsequent years.

No data available for subsequent years.

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European Commission, Country Report Czech Republic 2020.
<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020SC0502&from=EN>

Residential and non-residential construction and buildings permits - time series: Table 1; Housing construction, dwellings started.
https://www.czso.cz/csu/czso/bvz_ts

Residential and non-residential construction and buildings permits - time series: Table 2; Housing construction, dwellings completed.
https://www.czso.cz/csu/czso/bvz_ts

Residential and non-residential construction and buildings permits - time series: Table 6; Building permits granted: number.
https://www.czso.cz/csu/czso/bvz_ts

Eurostat, Distribution of population by tenure status, type of household and income group – EU SILC Survey.
https://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=ilc_lvho02&lang=en

The overcrowding rate is defined as the percentage of the population living in an overcrowded household

Eurostat, Overcrowding rate. http://ec.europa.eu/eurostat/product?code=ilc_lvho05a&language=en&mode=view

No data available for subsequent years.

Eurostat, Severe housing deprivation rate is defined as the percentage of population living in the dwelling, which is considered as overcrowded, while also exhibiting at least one of the housing deprivation measures. Housing deprivation is a measure of poor amenities and is calculated by referring to those households with a leaking roof, no bath/shower and no indoor toilet, or a dwelling considered too dark.

Eurostat, Severe housing deprivation rate by age, sex and poverty status - EU-SILC survey.
http://ec.europa.eu/eurostat/product?code=ilc_mdho06a&language=en&mode=view

The housing cost overburden rate is the percentage of the population living in households where the total housing costs represent more than 40 % of disposable income

Eurostat, Housing cost overburden rate by age, sex and poverty status - EU-SILC survey.
http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=ilc_lvho07a&lang=en

World Economic Forum, The Global Competitiveness Report 2019.
http://www3.weforum.org/docs/WEF_TheGlobalCompetitivenessReport2019.pdf

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<https://emerging-europe.com/news/czech-government-approves-ambitious-2050-investment-plan/>

Government unveils CZK 8 trillion National Investment Plan to be fulfilled by 2050.
<https://english.radio.cz/government-unveils-czk-8-trillion-national-investment-plan-be-fulfilled-2050-8112667>

Czech government approves ambitious 2050 investment plan.
<https://emerging-europe.com/news/czech-government-approves-ambitious-2050-investment-plan/>

European Commission, Country Report Czech Republic 2020.
<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020SC0502&from=EN>

Data for subsequent years not available.

European Commission, Country Report Czech Republic 2020.
<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020SC0502&from=EN>

Changes in bankruptcy law: An overview of (temporary) measures in response to COVID-19 – Czech Republic, April 2020.
<https://www.dentons.com/en/insights/alerts/2020/april/23/changes-in-insolvency-law>

Artadius, Payment Practices Barometer- Czech Republic 2020, <https://group.atradius.com/publications/payment-practices-barometer/czech-republic-2020-trade-credit-slashed-during-pandemic-amid-concern.html>

Ibidem.

SAFE Report 2020, <https://ec.europa.eu/docsroom/documents/43871>

SAFE Analytical Report 2020, <https://ec.europa.eu/docsroom/documents/43872>

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Ibidem.

Czech Republic: trade credit slashed during pandemic, <https://group.atradius.com/publications/payment-practices-barometer/czech-republic-2020-trade-credit-slashed-during-pandemic-amid-concern.html>

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Czech Republic: trade credit slashed during pandemic, <https://group.atradius.com/publications/payment-practices-barometer/czech-republic-2020-trade-credit-slashed-during-pandemic-amid-concern.html>

Country Fact Sheet Czech Republic

Intrum European payment Report 2021, <https://www.intrum.com/publications/european-payment-report/european-payment-report-2021/>

Ibidem.

Intrum European payment Report 2021, <https://www.intrum.com/publications/european-payment-report/european-payment-report-2021/>

Ibidem.

Czech Republic: trade credit slashed during pandemic, <https://group.atradius.com/publications/payment-practices-barometer/czech-republic-2020-trade-credit-slashed-during-pandemic-amid-concern.html>

World Bank, Doing Business 2020, Czech Republic. https://www.doingbusiness.org/en/data/exploreeconomies/czech-republic#DB_dwcp

The warehouse in this example is defined as a structure for general storage activities, with two stories, above ground and with total constructed area of approx. 1,300 square meters. The ground, on which the warehouse is built is owned by the company that will use it and valued at 50 times income per capita. There are architectural and technical plans prepared for the warehouse, which are also considered and counted as procedures if their preparation requires obtaining further documentation or getting prior approvals from external agencies. Finally, in this example the warehouse takes 30 weeks to construct, excl. all delays due to administrative and regulatory requirements

World Bank, Doing Business 2020, Czech Republic. https://www.doingbusiness.org/en/data/exploreeconomies/czech-republic#DB_dwcp

Ibidem.

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Ministry of the Environment, Waste Management Plan of Czech Republic for the period 2015 – 2024. November 2014. [http://www.mzp.cz/C1257458002F0DC7/cz/plan_odpadoveho_hospodarstvi_aj/\\$FILE/OODP-WMP_CZ_translation-20151008.pdf](http://www.mzp.cz/C1257458002F0DC7/cz/plan_odpadoveho_hospodarstvi_aj/$FILE/OODP-WMP_CZ_translation-20151008.pdf)

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European Commission, 2020 EU Industrial R&D Investment Scoreboard – Czech Republic. <https://iri.jrc.ec.europa.eu/scoreboard/2020-eu-industrial-rd-investment-scoreboard>

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- This includes total investment by the construction and real estate sub-sectors, defined as gross fixed capital formation, i.e. acquisitions minus disposal, of total fixed assets (e.g. machinery and equipment, vehicles, dwellings and other buildings).
- This includes total investment (i.e. gross fixed capital formation) in dwellings and non-residential construction and civil engineering by investors in the general economy (e.g. industry, financial and non-financial services, households, agricultural sector, etc.).
- The indicator gross fixed capital formation in non-residential and civil engineering refers to the Eurostat indicator «Other buildings and structures»
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