European Commission

European Construction Sector Observatory

Country profile Hungary

June 2018

In a nutshell

Following a solid economic performance in 2015, Hungary economy is predicted to experience a slowdown due to temporary suspension of EU-funded investments in coming years. **Production** in construction recorded a 11.5% decrease over 2010-2016, dropping by 6.5% in 2012 relative to 2010 and despite an increase of 9.0% noted in 2015, dropped again by 18.8% in 2016, below the 2010 value. The broad construction sector employed 344,564 people in 2016, 7.5% lower than in 2010 (372,684), while the turnover of the broad construction sector experienced a 2.7% decline over the same period, reaching EUR 22.4 billion.

Trend of number of employees in Hungary broad construction sector 2010-2016

7.5%

Hungary experienced a boom in its **housing market** over the last four years, characterised by a sharp rise in housing prices. The house price index increased by 15.6% between 2010 and 2016. High demand for new and existing dwellings was associated with a surge of housing credit, favourable labour market conditions and rising average income, which lead to housing investments. This gradual revival is due to a number of actions taken by the Hungary government to support distressed borrowers and boost the housing market. Specifically, the VAT on sales of newly built residential properties was reduced from 27% to 5% until 2019 and a comprehensive Family Housing Programme (Csok) was launched in 2016, with a HUF 211 billion (EUR 685.6 million) budget for 2017. The National Asset Management Company was introduced to buy properties from insolvent borrowers and rent them at discounted rates.

House price index change 2010-2016

15.6%

The Hungary government foresees considerable public **investments in infrastructure**, with HUF 2,600 and 2,800 billion (EUR 8.4-9 billion) dedicated to civil engineering projects and to development and maintenance of roads, railways and highways until 2020. Hungary is also improving the **energy efficiency** of its building stock, with schemes such as the Warmth of Home Programme providing support for renovation and energy efficiency interventions in dwellings. The programme has provided a total of HUF 23 billion (EUR 48.5 million) for the replacement of old household appliances and energy renovation works since 2014, benefiting 125,000 households.

However, single-bidding and corruption are still current issues. Moreover, **skill shortages** constitute a hindrance for the long-term prospects of the sector. The government's decision to reorient the national Vocational Education Training (VET) system towards a dual-education model is expected to improve the situation. **Prospects** for the sector are positive, with growth forecast at 12.0% in 2018 and 7.1% in 2019, spurred by residential construction and transport infrastructure.

Prospects for the construction sector are positive, with growth forecast at 12.0% in 2018 and 7.1% in 2019, spurred by residential construction and transport infrastructure.

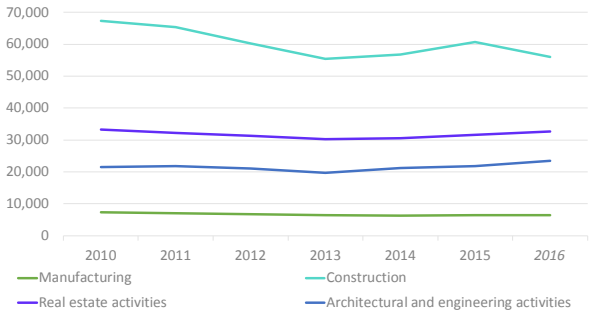
1
Key Figures

The **number of enterprises** in the broad construction sector in Hungary amounted to 118,595 in 2016[1] (Figure 1). Companies in the narrow construction sector accounted for 47.3% of the total, followed by real estate activities (27.6%), architectural and engineering activities (19.7%) and manufacturing (5.4%). The overall number of enterprises in the broad construction sector experienced a 8.4% decline over 2010-2016, mainly led by the 16.8% and 12.2% drops in the number of narrow construction and manufacturing companies. **Production** in construction recorded a 11.5% decrease over 2010-2016, dropping by 6.5% in 2012 relative to 2010 and despite an increase of 9.0% noted in 2015, dropped again by 18.8% in 2016, below the 2010 value (Figure 2). Similarly, production in construction of buildings and civil engineering dropped by 6.8% and 17.5% over 2010-2016, respectively, being below the 2010 level.

Change of the number of enterprises in construction 2010-2016 ↓ **8.4%**

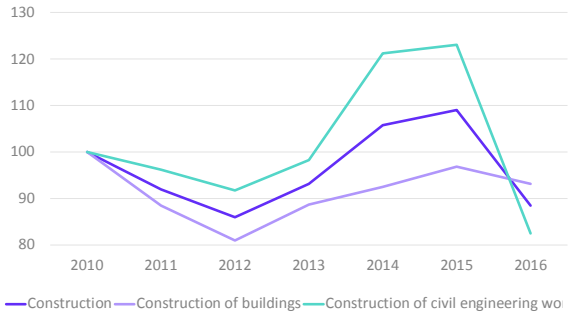
Production in construction change 2010-2016 ↓ **11.5%**

Figure 1: Number of enterprises in the construction sector in Hungary over 2010-2016



Source: Eurostat, 2017.

Figure 2: Volume index of production in the Hungary construction sector over 2010-2016 (2010=100)

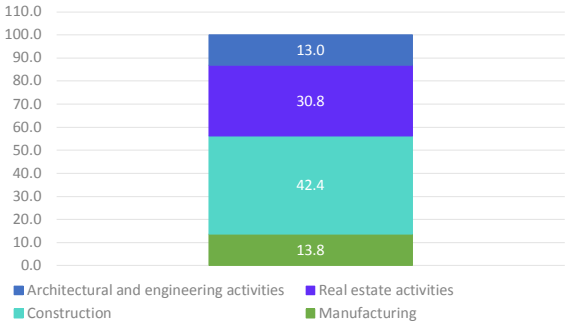


Source: Eurostat, 2017.

In 2016[2], the total value added of the broad construction sector was EUR 6.1 billion (Figure 3), with the narrow construction sub-sector having the largest share, followed by real estate activities, manufacturing and architectural and engineering activities.

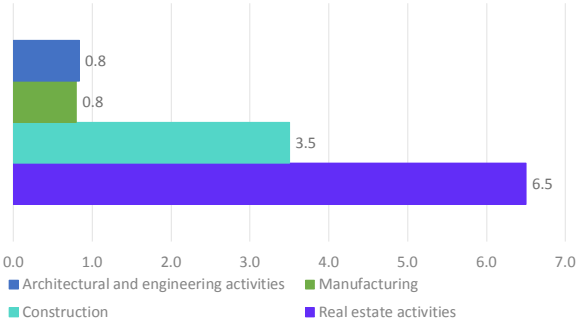
The share of **gross value added** of the broad construction sector in the GDP[3] reached 11.6% in 2015, with real estate activities having the largest contribution (Figure 4).

Figure 3: Value added in the construction sector in Hungary in 2016 (EUR m)



Source: Eurostat, 2017.

Figure 4: Gross value added as a share of GDP in the construction sector in Hungary

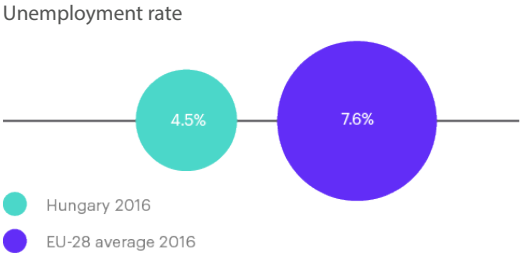


Source: Eurostat, 2017.

2
Macroeconomic Indicators

The performance of the Hungary economy fully recovered from the crisis and remains solid, mostly driven by domestic demand: net exports and private consumption.

In 2016, Hungary's **GDP** amounted to HUF 30,298 billion (EUR 97.2 billion), a 2.0% increase compared to 2015 and 11.9% above the 2010 value. The same year, the potential GDP was HUF 30,324 billion (EUR 97.3 billion). Therefore, the output gap has turned positive since 2015, after six years in negative territory, highlighting the recovery of the economy. The **inflation rate** in Hungary has experienced strong variations since 2010, declining significantly from 5.7% in 2012 to 0.4% in 2016. The **unemployment rate** in Hungary stood at 4.5% in 2016, below the EU-28 average of 7.6% and reached its lowest value since 2004 (5.1%). Youth unemployment (below the age of 25) was at 12.9% in 2016, below the EU-28 average of 18.7% and the lowest since 2004[4].



The **total population** in Hungary amounted to 9.8 million people in 2016. It is projected to continue decreasing by 5.5% until 2050. In parallel, net migration is positive (14,354 people in 2015) and 24.6% above the 2010 level. In 2016, Hungary's **working age population** made up 67.2% of the total population, whereas 18.3% of the total was over 65 years. Despite a relatively young population at present, demographic projections foresee a considerable ageing. By 2050, the working age will make up 28.1% of the overall population.

Despite a relatively young population at present, demographic projections foresee a considerable ageing. By 2050, the working age population will have shrunk to 57.5%, while people aged 65 or older will make up 28.1% of the overall population.

In 2016, general **government expenditure** as a share of GDP in Hungary was 47.5%. Hungary had been implementing a loose fiscal policy since its accession to the EU in 2004, thereby surpassing the 3% threshold of deficit-to-GDP of the Stability and Growth Pact for the most part of the decade. Since 2012, Hungary's **deficit-to-GDP** decreased below 3% and the Excessive Deficit Procedure was closed in 2013 by the Council of the European Union[5]. In 2016, the deficit reached 1.8% of GDP from 4.5% in 2010. **Government debt** has been gradually declining from its peak at 80.7% of GDP in 2011 and reached 74.1% in 2016. The Hungary Central Bank has continuously cut the official interest rate over the last years, from a peak of 8.7% in 2008 to a bottom low of 1.0% in 2016. The current expansionary monetary policy aimed at strengthening the economy marks a contrast to the high **interest rates** during the early 2000s, which induced borrowing in lower-yielding foreign currencies.

Hungary ranked 79th in 2018 out of 190 countries in terms of **starting a business**, according to the Doing Business 2018 report, slightly worse than the previous year (75th)[6]. According to the SBA Fact Sheet, Hungary performs below the EU average in terms of internationalisation its SMEs. It performs comparatively better in terms of opportunity-driven entrepreneurial activity and entrepreneurial intentions, with 15.1% of adults intending to start a business within 3 years. However, entrepreneurship education at basic and post-secondary level scores poorly, the second lowest in the EU, despite the subject being introduced in basic school curricula. To boost entrepreneurship, the Hungary government introduced a number of measures, such as the Go!nno programme, which provides start-ups with professional advice in the fields of market entry, marketing, research and communication strategy[7].

To boost entrepreneurship, the Hungary government introduced a number of measures, such as the Go!nno programme, which provides start-ups with professional advice in the fields of market entry, marketing, research and communication strategy.

Financing through local equity market and soundness of banks are the biggest hurdles to the competitiveness of the Hungary economy, according to the 2017-2018 Global Competitiveness Report[8]. The country ranks 45th out of 137 in terms of **financial market development**, with affordability of financial services (39th), ease of access to loans (41st) and venture capital availability (43rd) ranking comparatively better. Access to finance in the form of bank loans has seen important drops due to the crisis. **Loans to non-financial corporations** increased by 12.5%, from HUF 5,523 billion (EUR 17.7 billion) in 2010 to HUF 6,216 billion (EUR 20.0 billion) in 2016.

> To boost lending to SMEs, the National Bank of Hungary introduced the Funding for Growth Scheme, whereby banks are provided with financing at zero cost to be given out to SMEs at a capped interest rate[9].

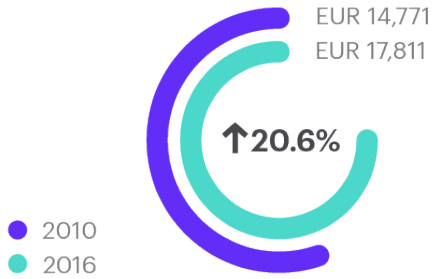
In addition, as part of the Investment Plan for Europe, the European Investment Fund (EIF) and K&H Bank signed the first EFSI (European Fund for Strategic Investments) deal in Hungary under the EU COSME programme (Competitiveness of Enterprises and SMEs). The EIF provides a guarantee to K&H Bank allowing the latter to provide loans amounting to HUF 30 billion (about EUR 97 million) to more than 1,500 Hungary SMEs[10].

3

Key economic drivers of the construction sector

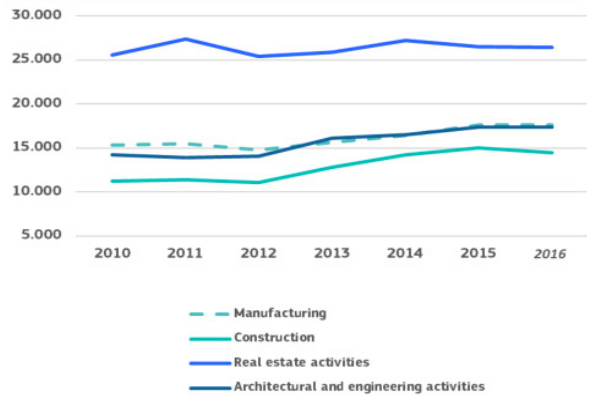
Productivity

Overall, **labour productivity** in the Hungary broad construction sector has experienced a 20.6% increment over 2010-2015[11], from EUR 14,771 to EUR 17,811 (Figure 8). Narrow construction reported the largest increase in productivity, from EUR 11,200 in 2010 to EUR 14,502 in 2016[12] (+29.5%). This was followed by architectural and engineering activities, which increased from EUR 14,200 to EUR 17,378 over the same period (+22.4%), although its productivity was the lowest among all sub-sectors. Real estate activities reported the highest productivity, which slightly grew from EUR 25,600 to EUR 26,478 (+3.4%). Productivity in manufacturing went up by 14.6%, from EUR 15,358 to EUR 17,599.



Labour productivity in the Hungary broad construction sector 2010-2015

Figure 5: Labour productivity in the construction sector in Hungary (EUR k)



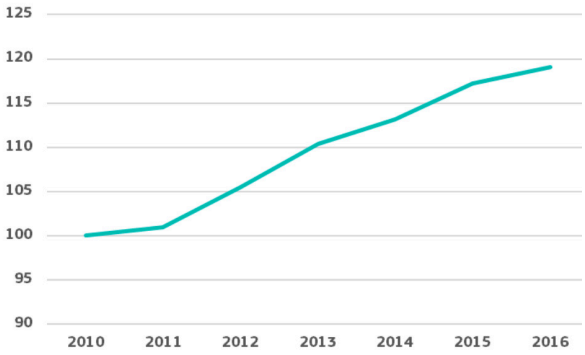
Source: Eurostat, 2017.

Profitability

The **turnover** of the broad construction sector experienced a 2.7% drop between 2010 and 2016, reaching EUR 22.4 billion in 2016[13]. Conversely, the **gross operating surplus** went up by 30.3% over 2010-2015, reaching EUR 3.7 billion and being above the 2010 level (EUR 2.8 billion). The gross operating rate of the broad construction sector[14], which gives an indication of the sector's profitability, was 15.4% in 2015, 3 percentage points above the 2010 value (12.4%). In parallel, **construction costs** for residential buildings have been experiencing an increasing trend, with the construction cost index rising by 19.1% over 2010-2016, spurred by the 12.3% and the 29.1% increase in input prices for materials and labour costs, respectively (Figure 9).

Change of turnover of the broad construction sector 2010-2016 ↓ **2.7%**

Figure 6: Construction cost index for residential buildings over 2008-2015 (2010=100)



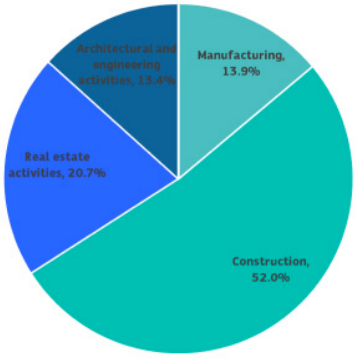
Source: Eurostat, 2017.

Employment

In 2016[15], the broad construction sector employed 344,564 people, 7.5% lower than in 2010 (372,684). The construction sub-sector employed 52.0% of the total workforce in the broad construction sector in 2016 (179,280 people), followed by real estate activities

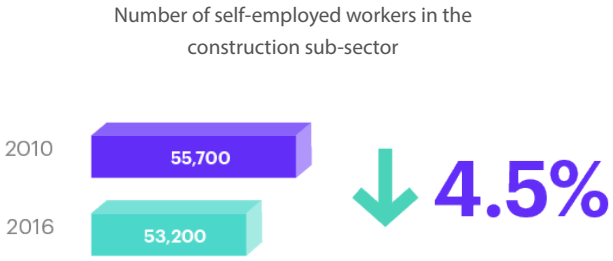
(20.7%), manufacturing (13.9%) and architectural and engineering activities (13.4%) (Figure 10). The construction and manufacturing sub-sectors experienced a 15.7% and 3.4% decline in their workforce over 2010-2016, respectively. Conversely, architectural and engineering as well real estate activities saw a 12.4% and 2.8% increment in their workforce, respectively. As for **employment by specific occupation**, the number of managers in the construction sub-sector saw the largest decline, from 25,700 in 2010 to 10,000 in 2016 (-61.1%). On the contrary, technicians and associate professionals saw a 58.1% increase, from 12,900 to 20,400. Craft and related trades workers were the single largest occupation, amounting to 171,700 in 2016. As for the manufacturing sub-sector, professionals and service and sales workers have been on increasing demand, namely went up by 64.7% and 64.0%, respectively, over the same period. However, employment demand for managers as well as craft and related trades workers dropped by 19.7% and 3.1% over 2010-2016. Plant and machine operators and assemblers were the largest occupation in the manufacturing sub-sector totalling 362,700 workers.

Figure 7: Percentage of people employed by construction sub-sectors in Hungary in 2016



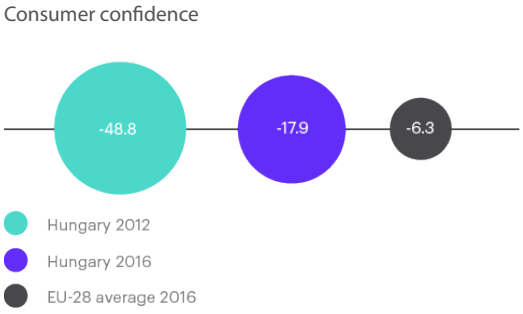
Source: Eurostat, 2017.

The number of **self-employed workers** in the construction sub-sector declined by 4.5% from 55,700 in 2010 to 53,200 in 2016. Their share in the total number of self-employed persons in the general economy declined from 12.8% in 2010 to 12.3% in 2016. Similarly, self-employment in the real estate sector reported a decreasing trend, dropping from 5,300 people in 2010 to 3,000 in 2016 (-43.4%) and accounting for 0.7% of the self-employed in the general economy. Finally, SMEs play an important role in terms of employment, since they employed 90.6% of the total workforce of the broad construction industry in 2015.



Business confidence

Business confidence in the overall economy has been negative over the last few years, with the **consumer confidence** indicator being at -17.9 in 2016. It has been improving since its lowest in 2009 (-59.3) and in 2012 (-48.8), however it is still below the EU-28 average of -6.3. The **construction confidence** indicator has been negative since 2000, reaching -14.7 in 2016, below the EU-28 average of -13.9. This is worse than the previous year (-12.5), but a significant improvement compared to 2009 (-47.8) and 2012 (-45.4). Conversely, although the industry confidence indicator has been recovering with some fluctuations, it grew from -2.0 in 2010, reaching a positive territory in 2015 (5.5) and securing its position of 3.9 in 2016, above the EU-28 average of -2.5. In parallel, the **investment ratio** has been declining, reaching 18.1% in 2016, one of the lowest recorded values since 2012 (19.5%) and lower than the 20.3% reported in 2010.



Furthermore, **investment per worker** has dropped by 24.9% since 2010, reaching EUR 17,502 in 2015, below the 2010 level (EUR 23,3005) but an improvement since the bottom low in 2012 (EUR 16,200). Nevertheless, the National Federation of Building Contractors (*Építési Vállalkozók Országos Szakszövetsége* – EVOSZ) is rather optimistic in relation to the outlook for the coming years, and expressed confidence in the government's measures, which have and will stimulate investments in the sector. Namely, EVOSZ believes that the new

governmental package, with its VAT reductions and family housing allowance (see Policy schemes), is a positive step which will enhance the sector's growth, particularly residential construction, and considerably reduce the industry's debt (estimated to amount to HUF 400 billion – EUR 111.3 billion). Moreover, the increasing need for qualified workers and the shortage thereof, are expected to result in better wages in the future[16]. In addition, the national government launched a grant fund package of HUF 20 billion (64 million) in 2018 to support construction companies and stimulate the economic growth for the period 2018-2020[17].

The national government launched a grant fund package of HUF 20 billion (64 million) in 2018 to support construction companies and stimulate the economic growth for the period 2018-2020.

Domestic sales

The ranking of the **most domestically sold construction products** in Hungary has experienced a few changes in 2016 compared to 2010. Namely, "Mortars" and "Doors, windows and their frames" were replaced by "Prefabricated buildings of metal" and "Pallets, box pallets etc." in 2016. The top 5 most domestically sold construction products are presented in Table 3, including a comparison with the top sellers in the EU-28. These represented 55.6% of total domestic construction product sales in 2016.

Table 3: 5 most domestically sold construction products in Hungary and in the EU in 2016

Hungary			EU-28
Product	Value (EUR m)	Share in construction product domestic sales (%)	Product
Other structures, etc. (group 251123)	278.5	23.1	Other structures (group 251123)
Ready-mixed concrete (group 236310)	121.5	10.1	Doors, windows, etc. (group 251210)
Prefabricated buildings of metal (group 251110)	101.4	8.4	Ready-mixed concrete (group 236310)
Prefabricated structural components for building or civil engineering (group 236112)	90.7	7.5	Prefabricated buildings of metal (group 251110)
Ceramic tiles and flags (group 233110)	79.1	6.6	Windows, French windows and their frames (group 162311)

Source: PRODCOM, 2017.

Export of construction-related products and services

The ranking of the most exported construction products has remained relatively stable since 2010, with the exception of "Assembled parquet panels", which increased in value by 94.2% by 2016, replacing "Pallets, box pallets and other load boards of wood". The **top 5 most exported construction products** in Hungary and in the EU-28 are summarised in Table 4. Together, these made up 66.1% of all construction products exports in 2016.

Table 4: 5 most exported construction products in Hungary and in the EU in 2016

Hungary			EU-28
Product	Value (EUR m)	Share in construction product domestic sales (%)	Product
Other structures, etc. (group 251123)	187.6	29.9	Ceramic tiles and flags (group 233110)
Windows, French windows, etc. (group 162311)	105.4	16.8	Other structures (group 251123)
Doors, windows and their frames, etc. (group 251210)	51.7	8.2	Marble, etc. (group 237011)
Assembled parquet panels (group 162210)	36.0	5.7	Prefabricated buildings of metal (group 251110)
Roofing tiles, chimney-pots, cowls etc. (group 162411)	33.8	5.4	Builders' joinery and carpentry, of wood, n.e.c. (group 162319)

Source: PRODCOM, 2017.

In terms of cross-border provision of construction services, Hungary exported EUR 249.1 million worldwide in 2016. This is 16.4% below the 2010 value (EUR 298 million).

Specifically, 93.7% of exports (EUR 233 million) were made to the EU-28, 20.6% above the 2010 level (EUR 193.5 million). This highlights the dominance of EU export markets. Conversely, the value of exports to countries outside the EU-28 experienced a 84.9% decline, from EUR 104.5 million in 2010 to EUR 15.8 million in 2016. In parallel, Hungary imported a total of EUR 160.8 million in construction services in 2016, a 34.7% decrease since 2010 (EUR 246.4 million), with EUR 155.3 million from EU-28 countries (i.e. 96.6% of imports).

Hungary therefore reported a trade surplus of EUR 88.3 million in 2016.

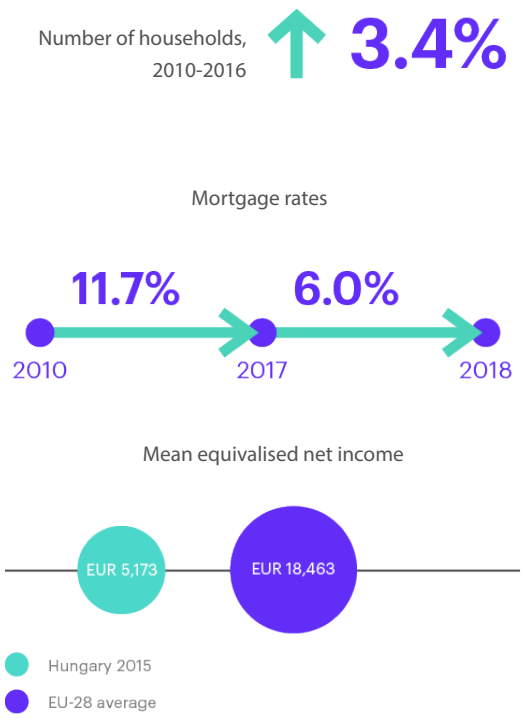
Access to finance in the construction sector

Loans to the construction sector peaked in 2011 to over HUF 600 billion (EUR 1.9 billion), although they fell to HUF 340 billion (1.1 billion) in 2015. This figure increased slightly to HUF 342.6 billion (EUR 1.1 billion) in the first quarter of 2016. Conversely, the loan portfolio of real estate companies is still decreasing. Namely, it decreased by HUF 80 billion (EUR 259.5 million) in the first quarter of 2016, and by HUF 375 billion (EUR 1.2 billion) since March 2015. Thus, in total, loans to the real estate sector fell below HUF 1,240 billion (EUR 4.0 billion) in Q1 2016[18]. Banks are relatively exposed to the commercial real estate and construction sectors, which represent a considerable share of the corporate loan portfolio. However, lending is affected by the weak quality of the loan portfolio. Commercial real estate loans are particularly troublesome in this respect, as they account for approximately 50% of all bad corporate loans[19]. To alleviate this issue, the debt management agency MARK was established under the Hungary central bank in 2014, which contributes to debt restructuring by purchasing project loans[20]. MARK started its operations in 2016[21]. Furthermore, the Funding for Growth Scheme by the National Bank of Hungary was extended to the construction sector in 2013 as a measure to strengthen its growth[22]. However, construction and real estate are overall underrepresented among the SMEs that have benefited from the scheme[23].

OTP Bank launched a Business Development Credit Programme named "For a Successful Hungary" with its key objectives to provide assistance to improve the general competitiveness of Hungary's economy, facilitate capital investments focused on infrastructure and technological developments, promote the involvement of private funds in the provision of public services and provide an incentive for companies to become global players.

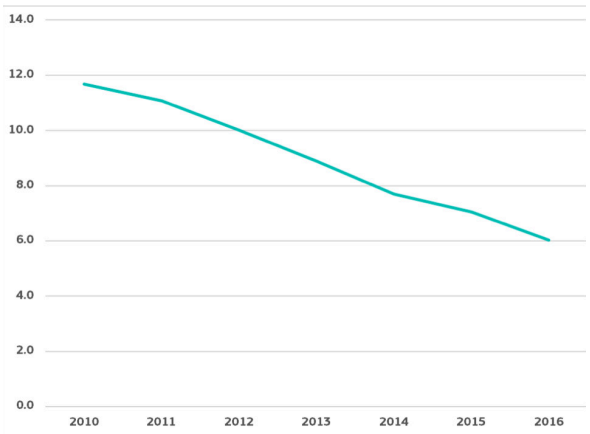
In addition, OTP Bank launched a Business Development Credit Programme named "**For a Successful Hungary**" with its key objectives to provide assistance to improve the general competitiveness of Hungary's economy, facilitate capital investments focused on infrastructural and technological developments, promote the involvement of private funds in the provision of public services and provide an incentive for companies' becoming global players, including the construction companies. The loan is granted within the framework of the Credit Programme at a favourable interest rate and qualifies as a state subsidy[24].

Access to housing



The **number of households** in Hungary has grown by 3.4% since 2010, reaching 4.1 million in 2016. At the same time, though lower than other countries, the share of population living in cities and greater cities increased from 29.6% in 2008 to 29.9% in 2014[25]. This has been accompanied by a 22.8% increase in the **mean equivalised net income**, which reached HUF 1.6 million (EUR 5,173) in 2015, highly below the EU-28 average of EUR 18,463. **Mortgage rates** have been declining since 2010 (from 11.7% to 6.0% in 2016) (Figure 11), although total **outstanding residential loans** have experienced a 39.7% drop over 2010-2015, from EUR 24.7 billion to EUR 14.9 billion. Up until 2014, the majority of Hungary housing loans were denominated in foreign currencies. With the fall of the forint subsequent to the 2008 financial crisis, the housing market has been burdened by a high share of non-performing loans[26]. Measures to support households and the housing market have thus been introduced (see Policy schemes).

Figure 8: Mortgage rates for loans for over 5 years original maturity (%)



Source: Eurostat, 2017.

Hungary experienced a boom in its housing market over the last four years, characterised by a sharp rise in housing prices[27].

The **house price index** (for total dwellings) increased by 15.6% between 2010 and 2016 (Figure 12). High demand for new and existing dwellings was associated with a surge of housing credit, favourable labour market conditions and rising average income, which lead to housing investments[28].

Figure 9: House price index in Hungary over 2007-2016 (2010=100)

Source: Eurostat, 2017.

The recovery of housing market is projected to continue with a positive year-on-year trend of new dwellings put to use and a 17% increase in housing transactions in 2014[29]. With 9,994 new dwellings built in 2016, the construction of new dwellings increased by 31.3% compared to 2015. The number of **construction permits** issued in 2016 grew significantly, reaching 31,559, i.e. 152.2% more than the previous year[30], showing that residential construction in 2016 improved compared to 2015[31].

Despite the revival of the housing market, access to social and affordable housing remains an issue in Hungary. It is estimated that about 300,000 households are in need of affordable housing.

Despite the revival of the housing market, access to social and affordable housing remains an issue in Hungary. It is estimated that about 300,000 households are in need of affordable housing[32], yet policy initiatives in this domain are limited. In fact, public expenditure on housing subsidies was cut from 0.9% to 0.3% of GDP between 2007 and 2014, as a result of fiscal consolidation[33]. Nevertheless, the **home-ownership rate** in Hungary is one of the highest in the EU, with 86.3% of the population owning their own property in 2016 (though lower than the 89.8% registered in 2012). This rate increases to 87.4% for the population whose income is above 60% of the median equivalised income (compared to 90.9% in 2012), but drops to 80.3% for those below this threshold (compared to 84.2% in 2010).

Moreover, the **housing cost overburden rate**[34] was at 8.5% in 2015, below the EU-28 average of 11.3%[35]. Nevertheless, housing quality in Hungary is poor, with the **overcrowding rate**[36] in 2015 being at 41.1%, well above the EU-28 average of 16.7% and the fourth worst in the EU[37]. Similarly, the **severe housing deprivation rate**[38] reached 15.5% in 2015, well above the EU-28 average of 4.9%[39].

Infrastructure

> Hungary ranks 56th out of 137 in terms of infrastructure, according to the 2017-2018 Global Competitiveness Report[40].

It ranks particularly well with regard to the quality of its railroad infrastructure (44th) and quality of overall infrastructure (48th). Conversely, it ranks comparatively worse in terms of the quality of its roads (62nd), quality of air transport infrastructure (82nd) and quality of port infrastructure (103rd). Public works have spurred the growth of the civil engineering sub-sector since 2014, primarily led by road and railroad construction. EU Funds have also contributed to this growth (see TO 1 - Investment conditions and volumes).

4

Key issues and barriers in the construction sector

Company failure

In the construction sub-sector, **company deaths** decreased from 8,509 in 2010 to 5,923 in 2014 (-30.4%). Over the same period, **company births** declined from 6,156 to 5,859 (-4.8%). A similar trend is also observed in the real estate sub-sector (with a 15.2% decrease in company deaths and a 1.4% increase in births). Conversely, company deaths in the architectural and engineering sub-sector increased from 1,203 to 1,474 over 2010-2014 (+22.5%) and company births surged from 1,070 to 1,507 (+40.8%).

The default rate of construction companies is 4.8%, considerably above the national average of 2.7%. This figure is even higher for structural engineering firms and civil engineering firms, standing at 3.5% and 5.3%, respectively[41]. In addition, the number of bankruptcies has risen sharply since the introduction of the 2009 Bankruptcy Act, however a number decreased between 2015 and 2016, from 67 to 50[42].

> The number of bankruptcies has risen sharply since the introduction of the 2009 Bankruptcy Act.

Trade credit

> Trade credit is a widespread practice in Hungary, particularly in sectors such as construction, food and business services, with an average of 54% of the value of B2B sales being transacted on credit (compared to the average of 40% for Eastern Europe).

Specifically, 54.7% and 52.5% of the total value of domestic and foreign B2B sales were made on credit, respectively, compared to the Eastern European averages of 42.9% for domestic and 36.6% for foreign sales. However, these figures are lower than the peaks of 2013, when 81% and 74% of the value of foreign and domestic B2B sales were made on credit, respectively[43]. In according to SAFE Report 2017, only 22% of respondents have applied for trade credit in Hungary in the past 6 months, below the EU-28 average of 35%. Over 50% of respondents claimed that availability of trade credit remained unchanged and will continue the same in the near future[44].

Late payment

In the Hungary construction sector, 60.3% of payments were settled by due date in 2015, compared to 64.2% in the agriculture sector. Specifically, 34.5% of payments in the construction sector are carried out with a delay of up to 30 days, with 3.7% of payments occurring with a delay between 30 and 90 days and 1.3% with a delay between 90 and 120 days. Moreover, only 0.2% of payments occur with delays of over 120 days, in line with the general economy[45]. These are signs of a generally improving payment discipline in Hungary, due to the introduction of stricter measures to ensure that debts are settled on time. For instance, since July 2013, a Performance Certificate Compliance Expert Body has been presiding over unpaid construction debts and facilitating the resolution of construction disputes[46].

European Payment Report 2017 shows that the situation also improved. Payment terms that were allowed to B2B, B2C and PA2B customers on average did not exceed the actual payment period or in some cases were even shorter. The main causes of late payments were, inter alia, debtors in financial difficulties[47].

Time and cost of obtaining building permits and licenses

The World Bank's Doing Business Report 2018 ranked Hungary 90th in 2018 in terms of '**Dealing with construction permits**', faring slightly worse than the previous year (69th)[48]. Building a warehouse requires 20 administrative procedures (above the OECD high-income average of 12.5) and takes 205.5 days (compared to the 154.6 OECD high-income average) (Table 5). The estimated cost is approximately 0.6% of the warehouse value, lower than the OECD high-income average of 1.6%.

Table 5: Construction procedures timing and costs in Hungary

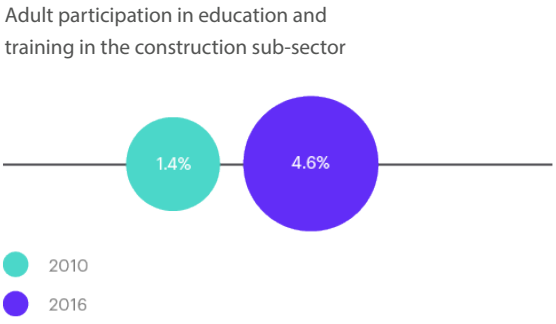
Procedure	Time to complete	Associated costs
1. Request and obtain certificate of site ownership and site map from the Földhivatal	1 day	HUF 9,250 (EUR 29.6)
2. Request and obtain urban planning approval	30 days	no charge
3. Obtain a geo-technical report	14 days	HUF 100,000 (EUR 320.6)
4. Request and obtain a utility statement from Budapest Waterworks Ltd.	30 days	no charge
5. Request and obtain authorization from the water authorities	30 days	no charge
6. Request and obtain fire protection authorization	30 days	HUF 3,000 (EUR 9.6)
7. Request and obtain authorization from the sewage authorities	15 days	no charge
8. Request and obtain construction license	45 days	HUF 113,700 (EUR 369.5)
9. Receive on-site inspection from the Municipality	1 day	no charge
10. Set up e-construction log	0.5 days	HUF 7,000 (EUR 22.7)
11. Receive unscheduled inspection from Building Control Authority	1 day	No charge
12. Request and obtain water connection from Budapest Waterworks Ltd.	10 days	HUF 361,100 (EUR 1,157.4)
13. Request and obtain sewerage connection	21 days	HUF 363,659 (EUR 1,165.6)
14. Close e-construction log	0.5 days	No charge
15. Submit the new geodetic map to the land Registry	10 days	HUF 800 (EUR 2.56)
16. Receive on-site inspection to check on the quality of water	10 days	HUF 29,000 (EUR 94.2)
17. Receive final inspection from the Fire Protection Department	1 day	No charge
18. Receive final inspection from the Public Health Department	1 day	No charge
19. Receive final inspection from the Building Department	1 day	No charge
20. Obtain occupancy permit and register the building with the Land Registry	51 days	HUF 120,300 (EUR 385.6)

Source: Doing Business overview for Hungary, World Bank, 2017.

To cut red tape, a bill proposal abolishing the need for the construction permit for new residential buildings with a surface of up to 300 m2 was recently approved. This measure aims to decrease the administrative burden for private homebuilders. The building permit is replaced by a simple obligation to report the building activity[49]. However, hiring an architect will be mandatory, so as to ensure compliance with all local and national building regulations[50].

Skills shortage

The number of **job vacancies** in the construction sub-sector increased from 1,052 in 2010 to 1,296 in 2015 (+23.2%). Similarly, vacancies in the real estate sub-sector increased from 103 to 143 (+38.8%) over the same period. **Adult participation in education and training** in the construction sub-sector increased from 1.4% in 2010 to 4.6% in 2016. Moreover, the number of **tertiary students** in engineering, manufacturing and construction, and specifically in architecture and building, increased by 22.0% over 2010-2015, from 1,566 to 1,911.



Hungary records one of the highest skills shortages in Europe and namely lacks around 20,000-30,000 workers in the construction industry due to low wages, which has not increased for years.

Hungary records one of the highest skills shortages in Europe and namely lacks around 20,000-30,000 workers in the construction industry due to low wages, which has not increased for years[51]. According to a survey by the National Federation of Building Contractors (*Építési Vállalkozók Országos Szakszövetsége* – EVOSZ), three quarters of respondents declared not having enough skilled workers. Namely, shortages concern trades including masons, carpenters, plumbers, electricians and central heating technicians[52]. Shortages of workers qualified to construct prefabricated homes are also arising, as a consequence of the increased demand for this type of dwelling, brought about by the VAT reduction on new residential constructions (See Policy schemes)[53]. Most of this category of workers migrated to foreign countries after the crisis, with estimates pointing at about 20-25,000 Hungary construction workers working abroad. Hungary construction workers abroad earn between two and three times more than they would in Hungary, which makes it very difficult for the sector to attract them back under the current income levels (about HUF 196,000 per month - EUR 636.7)[54].

Furthermore, only 16% of responding companies are actively involved in the practical training of their employees. This low participation can be ascribed to the complexity of administrative procedures, and associated legal and financial burden, but also to the lack of suitable candidates.

> According to EVOSZ, the construction sector does not have a good reputation among young people, due its poor career prospects and low salaries.

Sector & sub-sector specific issues

Material efficiency and waste management

In 2013[55], 3.8 million tonnes of **construction and demolition (C&D) waste** were generated in Hungary, decreased by 9.5% compared to 2010 and 3.9% compared to 2008. In 2013, 93.2% of the construction waste was non-hazardous. In order to achieve the 70% C&D waste recycling rate for 2020 set by the EU Waste Framework Directive (2008/98/EC), Hungary implemented the **Waste Act CLXXXVI** of 2012, as well as specific C&D legislations. These include the **Government Regulation 191/2009 (IX 15)**, setting the obligation to record the quantity and type of waste generated during construction works, and **Regulation 45/2004 (VII.26)**, detailing rules for C&D waste management[56]. Similarly, National Prevention Programme "**Országos Megelőzési Program 2014-2020**" as part of the National Waste Management Plan aims to prevent the generation of C&D waste and transform the construction materials' classification system (including the permitting of materials intended for reuse)[57].

Climate and energy

Emissions of greenhouse gases (carbon monoxide and dioxide, methane, nitrous oxides and particulate matter) from activities in the construction and real estate sub-sectors amounted to 944,787 tonnes and 456,201 tonnes in 2014[58], respectively. The former has increased by 21.5% since 2010, whereas the latter has declined by 29.2%.

5

Innovation in the construction sector

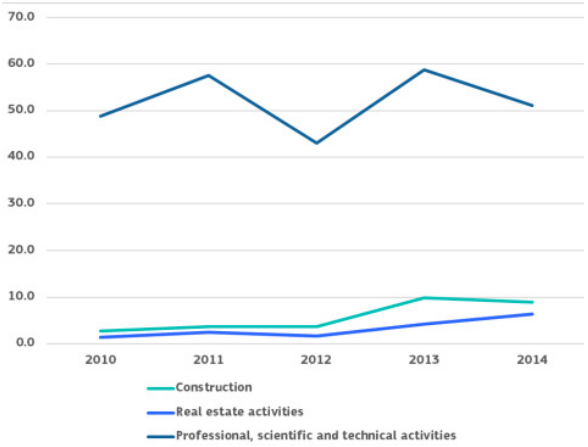
Innovation performance

Hungary is considered a Moderate Innovator, according to the European Innovation Scoreboard 2017, with an innovation performance of 67% relative to the EU in 2016, having deteriorated by 3.5% relative to that of the EU in 2010.

Hungary is considered a **Moderate Innovator**, according to the European Innovation Scoreboard 2017, with an innovation performance of 67% relative to the EU in 2016, having deteriorated by 3.5% relative to that of the EU in 2010[59]. The country performs below the EU average for most dimensions and indicators, such as R&D expenditure in the public sector, non-EU doctorate students and design applications. Its relative strengths are in Employment impacts, Sales impacts, and Innovation-friendly environment, whereas weaknesses are laid out in Innovators, Finance and support, and Intellectual assets.

This situation is reflected in the construction sector, where **business enterprise R&D expenditure** (BERD) is very low, although it has been showing an increasing trend since 2010 (Figure 13). Despite some fluctuations, BERD in real estate activities experienced the largest increase (+369.7%), from EUR 1.3 million in 2010 to EUR 6.3 million in 2014[60]. The narrow construction sub-sector also reported a substantial increase in BERD (+228.7%), growing from EUR 2.7 million to EUR 8.9 million. BERD in the professional and technical activities sub-sector slightly increased by 4.9%, from EUR 48.8 million in 2010 to EUR 51.2 million in 2014, although it is the lowest among all sub-sectors but the highest expenditure across the broad construction industry.

Figure 10: Business enterprise R&D expenditure (BERD) per construction sub-sector in Hungary over 2010-2014 (EUR m)



Source: Eurostat, 2017.

In parallel, the total **R&D personnel** (full-time equivalents – FTE [61]) in the broad construction sector mirrored the trend in BERD. The construction sub-sector reported the largest increase in FTE (+149.4%), from 89 in 2010 to 222 in 2014. The number of FTE in the real estate sub-sector also increased (+115.8%), from 57 in 2010 to 123 in 2014. In line with its BERD, the professional and technical activities sub-sector reported the highest R&D FTE, which increased by 14.4%, from 1,375 in 2010 to 1,573 in 2014.

Moreover, there has been an increase in the annual average number of **construction related patent applications** in recent years, although from a very low base. In fact, over 2000-2009, an average of 3.4 patents were filed in the European Patent Office (EPO) and United States Patent and Trademark Office (USPTO). This increased to 5.9 in the period 2010-2016, with the year 2014 reporting the highest number of applications (9). Despite these improvements, no Hungary construction-related firm ranks within the top 1,000 EU companies by R&D (industrial sector ICB-3D) in 2017[62].

Although there is no national strategy specific to construction, the **National Research, Development and Innovation Office** (NRDI) supports the promotion of innovation in the building sector by being a partner in the EU-funded **PROBIS** (Procurement of Building Innovative Solutions)[63]. The project aims to leverage on innovative public procurement solutions to increase the energy efficiency and sustainability of public buildings. Moreover, ÉMI Non-Profit Llc. for Quality Control and Innovation in Building (ÉMI Non-profit Llc.), the national institution for testing, inspection and certification of construction products, also plays a major role in research and innovation. Aside from carrying out research based on requests of partners and clients, ÉMI participates in EU projects across a range of specialised areas, from skills and training to energy efficiency and sustainable energy communities[64]. Examples of projects include the 'Upgrading training schemes for building workers and building up demand for skilled workers to boost sustainable construction in Hungary (BUILD UP Skills TRAINBUD)', the 'Global Renewable Energy and Environmental Neighbourhoods as Solar Cities (GREEN Solar Cities-GSC)' and 'Sustainable Energy Communities in Historic URBan Areas (SECHURBA)'[65].

Innovation in the sector is also being fostered though independent initiatives, as supported by the government. The Independent Ecological Centre NGO developed the online portal "**Nemsitt.hu**", aiming to facilitate the brokerage of used construction materials (especially bricks and tiles) and building components, thus promoting their reuse and reducing the amount of C&D waste going to landfill. 80% of the database implementation cost was supported by the Ministry of Environment and Water[66]. In addition, Lechner Knowledge Center organised the 8th Infoter Conference in Balatonfüred, Hungary in October 2017. The event was the focus of construction, the "**Modern Enterprise Program, Construction 4.0 - Digitalization in Construction**" forum, focusing on the development and utilization of building digitalisation[67].

> Furthermore, Hungary construction SMEs have been reporting increasing innovation activities, particularly related to building materials and sustainable construction practices.

The company Szilplast Kft developed a technology to convert household waste into sheets that can be used as building material for small, portable dwellings, particularly useful as temporary housing measures during natural disasters[68].

6

National & Regional Policy & Regulatory Framework

Policy schemes

In 2016, the Hungary government announced the Family Housing Programme ("Csok"), a comprehensive scheme aiming to support families and boost the construction sector. It consists of a family housing allowance of around EUR 32,200, for couples with at least three children, for the purchase of a newly built property.

In early 2016, the Hungary government announced the **Family Housing Programme** ("Csok"), a comprehensive scheme aiming to support families and boost the construction sector. It consists of a family housing allowance of HUF 10 million (around EUR 32,200), for couples with at least three children, for the purchase of a newly built property[69]. Families may also apply for loans of up to HUF 10 million (around EUR 32,200) at a preferential interest rate of 3%[70].

The programme also entails tax incentives for newlyweds of HUF 5,000 (EUR 16) per month and a lower VAT rate for the purchase/construction of a dwelling. For the construction of a new property, beneficiaries can benefit from a VAT refund on related construction costs of up to HUF 5 million (EUR 16,100)[71]. As of January 2016, the VAT on sales of newly built residential properties decreased from the standard 27% to 5%, until the end of 2019[72]. According to the government, the recorded increase in building permits issued and ensuing revival of residential construction in 2016 (see Access to housing) can be attributed to the Csok programme[73], which saw about 34,500 applications in 2016[74]. The budget for the scheme was set at HUF 211 billion (EUR 685.6 million) for 2017[75].

Hungary housing policies have been predominantly centred on the foreign mortgage crisis in recent years. In 2012, the government introduced a rent-to-own scheme, one of the main national social housing measures. The scheme is managed by the **National Asset Management Company** (NAMC), which can purchase a certain number of foreclosed properties with non-performing loans, offering the former debtor the option to rent the dwelling at a reduced rent. The programme targets primarily vulnerable categories of beneficiaries, such as families with children. By the end of 2014, NAMC purchased almost all the planned 25,000 housing units, paying the banks 35-55% of each property's market value, as indicated in the original contract between the bank and the mortgager[76]. The capacity of the NAMC has subsequently been expanded to 35,000 dwellings[77].

Within this context, in November 2014, the government agreed to the **phasing out of forex loans** and the conversion of up to EUR 9 billion of foreign currency mortgages into forints (HUF)[78]. The proportion of foreign-currency housing loans thus fell from 52% to below 1% by mid-2015[79]. According to the Ministry of National Economy, this policy measure has prevented households, the banking sector and local governments from incurring an estimated HUF 1,000 billion (EUR 3.2 billion) of additional debts[80].

> In terms of rental housing, international housing organization Habitat for Humanity urged the Hungary government in 2017 to take legislative measures to create a transparent and sustainable housing scheme amid an ever-growing housing crisis in the country.

Rents increased by 87% nationwide and doubled in Budapest over the last 5 years, while incomes have only risen 22%, which lead to difficulties to find housing for the most vulnerable groups. The current unregulated conditions are harmful for both the tenants and the property owners, since there is no means of legal remedy in case of a dispute apart from the lengthy and expensive judicial proceeding[81].

Insurance and liability related regulations

As of 2017, the Hungary government introduced a compulsory professional liability insurance of designers and contractors under the **Government Decree (353/2016 XI.18.)** for the construction of buildings under 300 m2. Liability insurance is also for construction companies covering any material or personal injury caused to a third party[82]. The Decree stipulates that the construction and the design contract must contain a declaration of the contractor or the designer stating that he/she is covered by the required professional liability insurance. Without this, construction works cannot be initiated[83].

Furthermore, in accordance with the construction contract, contractors may be required to take out voluntary insurances, at their own expense. These include:

- Construction All Risk (CAR) insurance, to insure the construction works;
- Liability insurance to cover losses, damages and injuries to the employees of the contractor, and/or to third parties;
- Professional indemnity insurance to cover losses and damages originating from errors or omissions by the contractor throughout the duration of the works.

Liability related to the provision of professional, construction and installation services is governed by the Civil Code, as well as the Act LXXVIII of 1997 on the Formation and Protection of the Built Environment (the "Construction Act")[84]. The general limitation period is five years. The time within which a claim for damages and defects can be filed is six months, although it can be extended up to one, three or ten years, according to the circumstances[85]. For newly built residential dwellings specifically, Government Decree 181/2003 (XI 5) stipulates a mandatory guarantee period of three years[86].

Building regulations

The main provisions regulating the design and implementation of building projects are detailed in the **Civil Code** (Act V of 2013). However, the parties are allowed to deviate from such rules. Other important legislations include the **Construction Act** (Act LXXVIII of 1997), which is supplemented by a new simple application procedure, as well as **Government Decrees** No. 191/2009, 194/2009, 312/2012 and 266/2013[87]. Government Decree 191/2009 (IX 15) on works in the construction sector includes detailed provisions related to the content of the construction contract.

> In addition, in 2016 the government introduced a new law on the construction of buildings which simplifies a lengthy permit procedure. The construction of residential buildings (not more than 300 square meters) can take place without an immediate building permit but by simple notification to the building authorities followed by application afterwards[88].

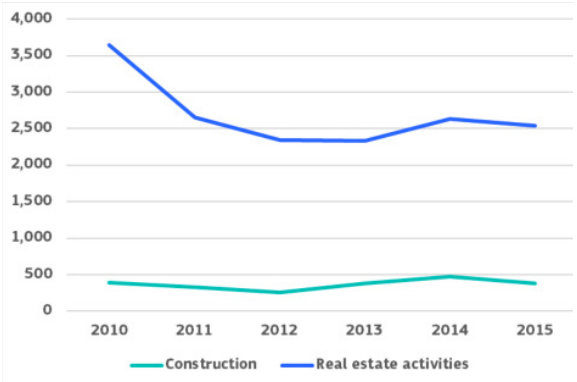
7

Current Status & National Strategy to meet Construction 2020 Objectives

TO 1 - Investment conditions and volumes

Total investment by the broad construction sector[89] has generally declined over the past years (Figure 14). Investment by real estate activities dropped from EUR 3.7 billion in 2010 to EUR 2.5 billion in 2015 (-30.4%), despite a slight increase in 2014. Similarly, investment by the construction sub-sector declined by 4.3 from EUR 396 million in 2010 to EUR 379.2 million in 2015 and, though it started picking up between 2013 and 2014, it was lower than 2010 in 2015. In terms of investment in intangible assets, the construction sub-sector invested EUR 14.3 million in intellectual property products in 2015, the highest value recorded, whereas the real estate sub-sector invested EUR 8.3 million.

Figure 11: Investment by the Hungarian broad construction industry between 2010-2015 (EUR m)

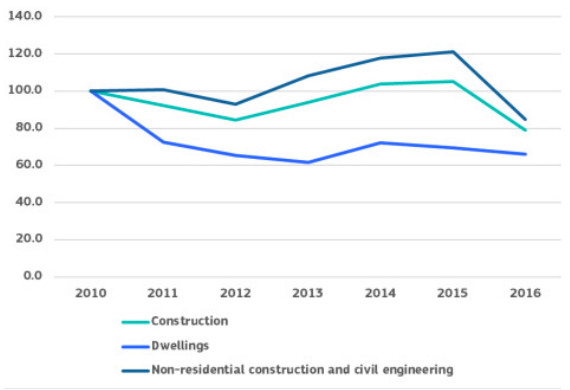


Source: Eurostat, 2017.

Total **investment in construction**[90] experienced a 24.6% decline over 2010-2016, and although it started recovering since 2012, it substantially dropped in 2016, remaining below the 2010 level (Figure 15). Investment in dwellings experienced the hardest hit as a result of the crisis, dropping by 34.0% over 2010-2016 despite temporary growth in 2014. Similarly, investment in non-residential construction and civil engineering went up by 21.1% between 2010 and 2015, however it decreased by 30.0% in 2016 compared to 2015 and subsequently being 15.2% below 2010 levels. In absolute terms, investment in the construction sector totalled EUR 10.8 billion in 2015, out of which EUR 2.1 billion was invested in dwellings and EUR 8.7 billion was devoted to non-residential and civil engineering[91].

Total investment in construction between 2010 and 2016] ↓ **24.6%**

Figure 12: Investment in the Hungarian construction sector between 2010-2016 (2010=100)



Source: AMECO, 2017.

Total **inland infrastructure investment** as a share of GDP reached 0.8% in 2014, lower than the 2009 peak of 2.0% and 1.1% in 2010. However, investment in rail infrastructure in Hungary experienced a 157.9% increase between 2010 and 2015, from EUR 271.9 million to EUR 701.1 million. Similarly, the country saw an 48.5% increase in its road infrastructure investment over 2010-2015, from EUR 839.8 million to EUR 1.2 billion. In parallel, investment in rail maintenance went up by 7.6% over 2010-2015, from EUR 439.5 million to EUR 473.1 million, whereas road maintenance decreased by 14.1% from EUR 328.5 million to EUR 282.1 million over the same period.

Household renovation spending has seen a decreasing trend since 2008. It dropped by 30.1% over 2010-2015, from EUR 151.3 million to EUR 105.8 million, and accounted for 0.2% of household disposable income (compared to 0.3% in 2010), slightly lower than the EU-28 average of 0.8% in 2015.

> Transport infrastructure is one of the main investment priorities of the Hungary government. In January 2016, the Ministry of National Development announced that HUF 1,100 billion (EUR 3.5 billion) would be invested in transport in the near future.

Of these, HUF 670 billion (EUR 2.2 billion) were already allocated for 2016 for the development of about 300 kilometres of roads and 370 kilometres of railway, with a cost of HUF 520 billion (EUR 1.7 billion) and HUF 600 billion (EUR 1.9 billion), respectively. In the long run, the government is planning to invest between HUF 2,600 and 2,800 billion (EUR 8.4-9 billion) on the development of transport infrastructure by 2020 and by 2022, the Hungary government intends to finish roads with the total length of almost 380 km[93].

The 2017 budget also spent substantial domestic investments in the construction sector, with HUF 439.4 billion (EUR 1.4 billion) dedicated to the Ministry of National Development for a variety of projects. Specifically, HUF 280 billion (EUR 910 million) has been allocated to the expansion of the national road and highway networks, HUF 10 billion (EUR 32.5 million) to the maintenance and reconstruction of national roads and HUF 10 billion for the development of the Hungary section of the Budapest-Belgrade railway line[94].

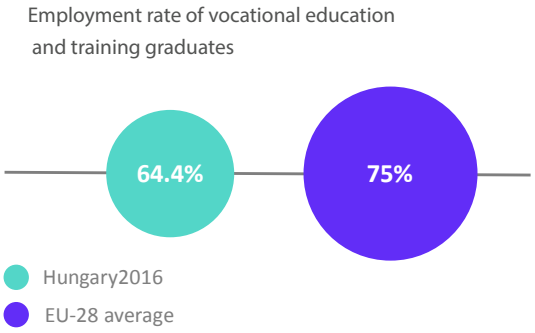
Financial support is also provided by the European Investment Bank (EIB), which made a EUR 250 million loan available in 2014 for the implementation of Hungary's railway infrastructure rehabilitation and upgrading investment programme for 2013-2016[95]. By end of 2018, the loan will have financed projects such as the renovation of stations and other related buildings across the country, the installation of the GSM-R communication system on a section of 2,554 kilometres, the electrification of 450 kilometres of railway lines, and the refurbishment of 400 kilometres of tracks[96]. EU funding will also contribute to the upgrade of 800 kilometres of the international TEN-T (Trans-European Transport Networks).

Furthermore, in 2015, the EIB granted two loans to the Municipality of Budapest to fund its Integrated Urban Development Strategy. The first one, amounting to EUR 200 million, is the first tranche of a EUR 350 million loan, and will finance public infrastructure projects, such as the reconstruction of metro and railway lines and rehabilitation of roads and bridges. The second, of EUR 100 million, is the first part of a EUR 200 million loan to support urban renewal and regeneration, energy efficiency and environmental protection[97].

In 2017 alone total investment of the EIB Group (the European Investment Bank and the European Investment Fund) was EUR 772 million in the Hungary economy, with 1.6% of the total (about EUR 12 million) in support of environmental projects and 8% (about EUR 62 million) for infrastructure[98]. In addition, in 2016, the EIB granted a EUR 140 million loan as the first tranche of an approved EUR 500 million loan for the modernisation of priority sections of the national road network[99]. In total, for the period 2014-2020, Hungary will benefit from a EUR 3.9 billion allocation from the **Cohesion Fund** (CF) and the **European Regional Development Fund** (ERDF) for its network infrastructures in transport and energy[100].

TO 2 – Skills

In Hungary, all qualifications recognised by the state are registered in the **National Register of Vocational Qualifications** (OKJ), providing a harmonised system for the recognition of Vocational Education Training (VET) across the country. The register is updated annually to reflect the changes in content and structure resulting from the adjustment to current demand[101]. The employment rate of vocational education and training graduates stood at 84.4%, well above the EU average of 75% in 2017[102]. **Adult participation in lifelong learning** increased to 7.1% but remains below the EU average of 10.7% in 2015[103].



The government announced in 2015 that it aims to increase the number of apprentices from the current 50,000 to 70,000 by 2018. In order to offset the current migration of skilled workers and improve their retention, it is focusing on revamping the national VET system, orienting it towards the German dual-education model, by cooperating with private companies and entities. For instance, as part of a HUF 600 million (EUR 1.9 million) project, Siemens opened a practice-oriented training centre to train up to 100 students. The government contributed HUF 224 million (EUR 724,200) to the total cost[104]. In addition, 8,000 companies participated in the dual VET scheme, and the government aimed to expand their number to 20,000 by 2018[105]. Similarly, the **EDIOP programme** with EUR 78 million budget aims to digitally upskill disadvantaged adults in employment age (16-65), through training and motivating them to use IT tools and IT facilities. By mid-2017, 76,923 adults have already benefited from the training and facilities and therefore the objective is to reach 260,000 people altogether between 2017 and 2020[106].

Moreover, the German-Hungary Chamber of Industry and Commerce, in partnership with the Ministry for National Economy, has set up the **Vocational Training Award** to facilitate the development of VET in Hungary. It rewards projects and initiatives that provide significant support for practical vocational training in Hungary. The engineering company Evopro received an award for its project aiming to strengthen the quality of engineering education[107].

> In order to restore the reputation of the sector and address the demand for new skills, EVOSZ has been organising VET courses and promoting emerging construction-related professions. An instance is the Dry Wall Construction Vocational Training campaign, aiming to encourage young people to pursue a career in this activity.

In order to restore the reputation of the sector and address the demand for new skills, EVOSZ has been organising VET courses and promoting emerging construction-related professions. An instance is the **Dry Wall Construction Vocational Training** campaign, in association with the Austrian Dry Wall Constructors Federation, aiming to encourage young people to pursue a career in this activity[108].

Initiatives to train the construction workforce also originate from the private sector. For instance, Saint-Gobain participates in Habitat for Humanity's Second Chance Programme, under which it provides marketable construction skills to disadvantaged young people. Namely, the company gives practical and theoretical vocational training to students in areas such as plastering, insulation, carpentry, masonry and painting, as well as knowledge about building materials and concrete experience on construction sites[109]. Moreover, the construction company Mapei Kft launched an online knowledge-sharing programme, offering webinars for the community of construction professionals and aiming to train up to 7,000 people per year. The initiative seeks to impart skills to increase the competitiveness of construction professionals, including management and sale skills, as well as promoting entrepreneurship in the sector[110]. Furthermore, as part of the initiative, the community plans to organise events with schools, pupils and parents to showcase the professional opportunities available in the construction sector[111].

Finally, to promote access to university education, the EIB has been supporting the student loan scheme of Diákhitel Központ Zrt. (the national student loan company) with loans, for a total value of EUR 500 million between 2005 and 2014[112].

TO 3 - Resource efficiency / Sustainable construction

> The **National Building Energy Performance Strategy** (NABEPS) was adopted in February 2015 through Government Decree No. 1073/2015, aiming to modernise the residential and public building stock, improve its energy efficiency and reduce utility costs for households (namely of energy used for heating, cooling and hot water production).

Specifically, target savings in the primary energy consumption of buildings were set at 49[113] PJ/year for 2020 and 111 PJ/year for 2030. The NABEPS also establishes the plan for increasing the number of nearly zero-energy buildings, in compliance with Directive 2010/31/EU on the Energy Performance of Buildings[114]. Hungary has strengthened its effort to decrease its final energy consumption further in order to achieve its indicative final energy consumption 2020 target (14.4Mtoe) and to keep its current primary energy consumption below its primary energy 2020 target (24.1 Mtoe)[115].

The NABEPS builds upon additional energy policy strategies, such as the **Third National Energy Efficiency Action Plan of Hungary** (NEEAP II), which sets targets for the energy performance of buildings up to 2020, and the **Government Decree No 1246/2013**, implementing Directive 2010/31/EU[116]. The NEEAP III entails a series of sub-programmes aiming to support thermal rehabilitation and renovation of residential, public and non-residential buildings. Similarly, the Municipality of Sárvár developed a local first **Sustainable Energy and Climate Action Plan** (SECAP), which was amended by the new Covenant of Mayors in 2016. Currently, municipalities now are obliged to reduce local greenhouse gas emissions at least by 40% by 2030 focusing on measures in energy efficiency, renewable energy sources and climate adaptation[117].

In parallel, the "**'Our Home' Renovation Sub-Programme**" aims to mitigate the heat demand of residential buildings with individual or central heating, through interventions such as insulation, replacement of doors and windows, modernisation of boilers and installation of renewable energy sources. The "**Renewed Public Institutions Sub-Programme**" aims to reduce the heat demand of public buildings, whereas the "**Mitigation of the electricity demand of public institutions sub-programme**" focuses on lighting, office equipment, smart metering and smart grid systems[118].

Additional programmes to bring about the renovation of buildings are being implemented. An instance is the "**Warmth of Home Programme**" (*Otthon Melege*), introduced in 2014. It provides support to private individuals for the replacement of out-of-date household appliances, doors and windows, installation of photovoltaic systems and insulation of facades, roofs and attics for homes built before 1996. The support covers between 40% and 55% of the costs of the interventions, up to a maximum of HUF 2.5 million (EUR 8,118). Namely, the maximum support is received for insulation works and for other energy efficiency measures, including the installation of at least one renewable energy system[119]. According to the Ministry of National Development, HUF 23 billion (EUR 48.5 million) was spent under the scheme on the replacement of old household appliances and energy renovation interventions since 2014, improving energy efficiency for 125,000 households[120].

TO 4 - Single Market

Hungary scores well across most metrics of the **EU Single Market Scoreboard**, particularly in terms of Transposition of Law (it is one of the seven Member States complying with both transposition and compliance deficits), Infringements and Internal Market Information System.

It is the Member State with the third highest trade integration in the single market for goods, with its integration for services also being above the EU average. However, its performance regarding Public procurement is poor, particularly due to competition, transparency and red tape issues, with low scores in the one bidder, no calls for bids and aggregation indicators[121]. In 2016, 9% of tenders were awarded without prior publication, above the EU average of 5%, whereas 36% of tenders had only one bidder (compared to the average of 17%)[122].

This situation is particularly reflected in the Hungary construction sector, where politically connected companies are more likely to secure public procurement bids. In the 2005-2012 period, between 5% and 31% of winning companies were openly connected to a political stakeholder[123]. Poor competition is linked to the widespread practice of **single-bidding**, which affects 25% of all contracts in the construction industry. Moreover, cases of cartel involving political stakeholders and foreign companies frequently occur, especially in some major infrastructural activities, such as highway construction. Thus, the national construction sector is highly concentrated with winner firms securing on average over 35% of the total procured contract value of the contracting body[124]. It is estimated that corruption in Hungary increases the prices of procurement by 20-25%, amounting to about HUF 40,000 (EUR 130) per person[125].

To improve transparency and competition, the New Public Procurement Act (Act CXLIII) came into force as of November 2015, seeking to reduce the administrative burden, simplify and speed up procedures. The Act also aims to improve SME participation in tenders and promote awards based on quality criteria.

To improve transparency and competition, the **New Public Procurement Act** (Act CXLIII) came into force as of November 2015, seeking to reduce the administrative burden, simplify and speed up procedures[126]. The Act also aims to improve SME participation in tenders and promote awards based on quality criteria. Similarly, the **National Anti-Corruption Programme 2015-2018** was introduced to mitigate corruption and make the business environment more transparent[127].

In addition, a first pilot of the **Integrity Pact**, a public procurement anti-corruption measure developed by the independent organisation Transparency International, was launched in 2015, involving a construction project in Hungary. The Pact was signed by the municipality of Ózd, in relation to the HUF 1.5 billion (EUR 4.8 million) project to build and rehabilitate the local water infrastructure[128]. In 2016, an Integrity Pact against corruption in the construction of the final section of the M6 Motorway between Bóly and Ivándárda was signed between Transparency International Hungary (The Monitoring Authority), the Hungary Ministry for National Development (the Managing Authority) and National Infrastructure Development Plc. (the Contracting Authority), as supported by the European Commission. The Pact will run from 2016 until the end of 2019[129].

Finally, regarding the implementation of **Eurocodes**, all EN Eurocode parts are published as National Standards, with National Annexes being published on 38 Parts. Although they are not compulsory and no regulatory framework enforces their use in public procurement, Eurocodes are the only means of structural design in Hungary. No other national standards are used in parallel with them[130].

TO 5 - International competitiveness

Hungary ranks 60th out of 137 economies in the 2017-2018 Global Competitiveness Index, improving compared to the previous year (69th)[131].

However, its performance in terms of the internationalisation of its SMEs has been deteriorating, being well below the EU average and is among the bottom three countries in the EU. The country scores below the average for all indicators. The involvement of trade community indicator is the second lowest in the EU[132].

The internationalisation of Hungary SMEs is a primary aim of the government's 2014-2020 SME strategy, which sets a target of boosting trade and increasing the export activity of SMEs to 30% of total exports by 2020[133]. To this end, the Hungary Export-Import Bank Plc. (Eximbank) and the Hungary Export Credit Insurance Plc. (MEHIB) support Hungary exports by acting as the export-credit agency and providing financing and insurance products. For instance, Exim offers **Export investment loans** (*Exportcélú beruházási hitel*) to support domestic companies in investing to establish their operations abroad. The loans can cover up to 80% of the total export-related investment, and amount to a minimum of HUF 100 million (EUR 324,407). Eligible expenditures that can be financed under the scheme include the purchase of equipment and machinery, the purchase of real estate, the construction of new buildings and building renovations[134].

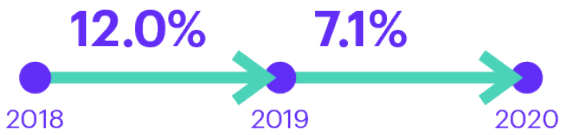
To strengthen the international competitiveness of the Hungary construction sector, the government stressed the importance of bilateral relations with other EU Member States. In particular, both the government and EVOSZ have been actively promoting the cooperation between the national and the Italian construction industries[135].

8
Outlook

Following a solid economic performance in 2015, Hungary economy is predicted to experience a slowdown due to temporary suspension of EU-funded investments and stoppages in production in a major automotive company.

Following a solid economic performance in 2015, Hungary economy is predicted to experience a slowdown due to temporary suspension of EU-funded investments and stoppages in production in a major automotive company. At the macroeconomic level, **GDP** is set to grow by 3.5% in 2018, compared to 2016, reaching HUF 32,476.0 billion (EUR 104.0 billion). Similarly, following a drop in output in 2016 due to the completion of EU-funded projects in 2015, the construction sector is forecast to grow at an annual rate of 12.0% in 2018 and 7.1% in 2019[136].

Predicted growth in the construction sector



In terms of workforce, the number of **people employed** in the broad construction sector is predicted to grow by 7.1% by 2018, compared to the 2016 level, reaching 369,058. According to the government, the new Housing Programme Csok may create 14,000-16,000 new jobs[137], thus helping retain skilled workers in Hungary, improving wages and possibly encouraging the ones who left for other European countries to make a return[138]. In addition, the implementation of the **NABEPS** (see TO 3 - Resource efficiency / Sustainable construction) is expected to generate a substantial direct demand for labour and create around 42,000 new jobs until 2020. As an indirect effect of the extra savings on energy costs, employment across the general economy is forecast to increase by about 3,000 per year[139].

In parallel, the number of **enterprises** in the broad construction sector is forecast to increment by 7.7% in 2018 compared to 2016, reaching 127,782, although still 1.3% below the 2010 level. The **value added** of the broad construction sector is expected to remain relatively stable with an increase of 7.3% in 2018, relative to 2016, reaching EUR 6.6 billion, being 19.5% above the 2010 level. These developments will be accompanied by a slight increment in **turnover**, expected to increase by 6.7% in 2018 relative to 2016, reaching EUR 24.0 billion, which is 3.8% above the 2010 level.

Number of workers employed in the broad construction sector forecast, 2018 ↑ **7.1%**

Number of enterprises in the broad construction sector forecast, 2018 ↑ **7.7%**

The Hungary residential housing market continued to be characterised by rising housing prices and increasing sales.

Recent developments in national housing policy will result in a forecast revival in the **residential market**, at least until 2019. The VAT reduction on newly built dwellings and the new **Family Housing Programme Csok** are expected to result in the construction of additional 3,000-5,000 new residential properties per year. As a result, there has been already a significant increase of 87.0% in the number of new residential building permits from 6,526 in 2015 to 12,206 in 2016[140]. The number of real estate transactions is foreseen to be even higher than that of newly built dwellings (over 10,000), due to the fact that, to take advantage of the low VAT, new units will be put up for sale before the building permit is granted[141]. Furthermore, the VAT cut is expected to lower the prices for new and used residential properties, but increase the price for land plots. This, together with the current labour shortage, may result in higher construction costs for developers, although their profit margins are expected to improve. Overall, in 2017, residential construction was on the rise, with a forecast 12-14,000 new dwellings being built across the country[142]. Price growth of new homes is driven by a sparse supply caused by reduced construction in the preceding years, but also by rising costs due to labour shortages and price increases of construction materials[143].

The **non-residential sector**, namely commercial real estate, showed signs of revival in 2016, with both office buildings and retail properties being in high demand. The office market saw a 129% increase in turnover compared to 2015, whereas the retail property segment saw a 203% boom. This trend is predicted to continue in 2017[144]. Nevertheless, supply of retail spaces is limited, due to the fact that construction is restricted by the regulatory environment, namely the ban on construction of shopping centres. The law in question, introduced in 2012, was amended and renewed in December 2014, requiring a competent authority to authorise the construction of retail stores over 400 m2 as of 2015. This is expected to considerably slow down major retail facility construction projects[145]. Therefore, the office segment offers fewer opportunities for developers, whereas the office sector provides better prospects, with the low levels of construction of new developments during the crisis creating a greater demand, resulting in increasing utilisation rates and an intense take-up[146].

Finally, the increasing focus of the government on **infrastructure**, together with EU financial support, will constitute the main driver of growth for the construction sector in the medium term, together with housebuilding. Specifically, transport infrastructure, namely construction of roads and railways, will experience the largest increment, forecast at an annual average of 6.1% until 2020. In addition, construction of energy and utilities infrastructure, such as power plants and transmission grids, is also expected to underpin the growth of the civil engineering sector, boosted by the government's target of achieving 14.7% of national total energy production from renewable sources by 2020. Thus, this segment will see a 4.3% average annual growth until 2020[147].

Overall, the government is aware of the importance of attracting private investors to the market, in order to complement public measures and support the Hungary construction industry in the longer-run. In this respect, the decision to considerably reduce the VAT on newly built dwellings is a first strategic move in this direction. However, the shortage of skills remains a considerable barrier to the completion of the planned construction projects. Last but not least, the performance of the construction industry in Hungary is generally expected to grow by 50% in volume accompanied by 10% increase of GDP in the period of 2017-2019, which would result in a strong economic growth[148].

References

1 Please note that this 2016 data is a nowcast - please refer to the methodology notes for further details.

2 Please note that this 2016 data is a nowcast - please refer to the methodology notes for further details.

3 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.

4 Eurostat, Unemployment by sex and age - annual average. http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=une_rt_a&lang=en

5 Council Decision of 21 June 2013 abrogating Decision 2004/918/EC on the existence of an excessive deficit in Hungary (2013/315/EU)

6 World Bank Group, Doing Business 2018, Economy Profile for Hungary. http://www.doingbusiness.org/data/exploreeconomies/hungary

7 European Commission, 2017 SBA Fact Sheet Hungary. https://ec.europa.eu/growth/smes/business-friendly-environment/performance-review_en

8 World Economic Forum, The Global Competitiveness Report 2017-2018. http://www3.weforum.org/docs/GCR2017-2018/05FullReport/TheGlobalCompetitivenessReport2017%E2%80%932018.pdf

9 Commission Staff Working Document, Country Report Hungary 2015 Including an In-Depth Review on the prevention and correction of macroeconomic imbalances. March 2015. http://ec.europa.eu/europe2020/pdf/csr2015/cr2015_hungary_en.pdf

10 European Investment Fund (EIF), Investment Plan for Europe: First EFSI deal in Hungary as EIF and K&H sign EUR 97 million deal to support over 1500 small businesses. February 2016. http://www.eif.org/what_we_do/guarantees/news/2016/efsi_cosme_kh.htm

11 No data available for subsequent years for the productivity in the broad construction sector.

12 Please note that this 2016 data is a nowcast - please refer to the methodology notes for further details.

13 Please note that this 2016 data is a nowcast - please refer to the methodology notes for further details.

14 The gross operating rate is the ratio of Gross Operating Surplus to Turnover, and is an indicator of profitability.

15 Please note that this 2016 data is a nowcast - please refer to the methodology notes for further details.

16 Daily News Hungary, Construction sector to pick up steam in coming years, says association head. January 2016. http://dailynewshungary.com/construction-sector-to-pick-up-steam-in-coming-years-says-association-head/

17 Portfolio, A kiscégek is indulhatnak az építőipari pályázati milliárdokért, January 2018, https://www.portfolio.hu/ingatlan/lakas/elindult-a-palyazat-ami-megmentheti-az-epitoipart.274697.html.

18 Világgazdaság, Fordulat a hitelezésben. May 2016. http://www.vg.hu/penzugy/hitel/fordulat-a-hitelezesben-470225

19 Commission Staff Working Document, Country Report Hungary 2015 Including an In-Depth Review on the prevention and correction of macroeconomic imbalances. March 2015. http://ec.europa.eu/europe2020/pdf/csr2015/cr2015_hungary_en.pdf.

20 Commission Staff Working Document, Country Report Hungary 2016 Including an In-Depth Review on the prevention and correction of macroeconomic imbalances. February 2016. http://ec.europa.eu/europe2020/pdf/csr2016/cr2016_hungary_en.pdf

21 European Commission, Country Report Hungary 2017. February 2017. https://ec.europa.eu/info/file/96717/download_en?token=Lx0tciqQ

22 Wall Street Journal, Hungary Central Bank to Extend Cheap Loans to Real Estate Construction. December 2013. http://blogs.wsj.com/emergingeurope/2013/12/13/hungary-central-bank-to-extend-cheap-loans-to-real-estate-construction/

23 National Bank of Hungary, Analysis of the first phase of the Funding for Growth Scheme. https://www.mnb.hu/letoltes/fgs-analysis.pdf

24 OTP Bank, For a Successful Hungary Credit Programme, https://www.otpbank.hu/portal/en/Corporate/Financing/SubsidisedLoans

25 No data available for subsequent years.

26 Commission Staff Working Document, Country Report Hungary 2015 Including an In-Depth Review on the prevention and correction of macroeconomic imbalances. March 2015. http://ec.europa.eu/europe2020/pdf/csr2015/cr2015_hungary_en.pdf

27 Global Property Guide, Housing market in Hungary recovering. June 2017. http://www.globalpropertyguide.com/Europe/Hungary/Price-History

28 European Commission, Country Report Hungary 2017. February 2017. https://ec.europa.eu/info/file/96717/download_en?token=Lx0tciqQ

29 Global Property Guide, Housing market in Hungary recovering. June 2015. http://www.globalpropertyguide.com/Europe/Hungary/Price-History

30 Hungarian Central Statistical Office, "Dwelling construction, construction permits, quarters". February 2016. https://www.ksh.hu/docs/eng/xftp/gyor/lak/elak1512.html

31 Hungarian Central Statistical Office, Dwelling construction, construction permits, quarters 1–4 2016. February 2017. https://www.ksh.hu/docs/eng/xftp/gyor/lak/elak1612.html

32 Housing Europe, The State of Housing in the EU in 2015. http://www.housingeurope.eu/file/306/download

33 European Commission, Country Report Hungary 2017. February 2017. https://ec.europa.eu/info/file/96717/download_en?token=Lx0tciqQ

34 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.

35 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

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

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

38 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.

39 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

40 World Economic Forum, The Global Competitiveness Report 2017-2018. http://www3.weforum.org/docs/GCR2017-2018/05FullReport/TheGlobalCompetitivenessReport2017%E2%80%932018.pdf

41 Napi.hu, Itt vannak a legnagyobb veszélyben az építőipari cégek. July 2014. http://www.napi.hu/ingatlan/itt_vannak_a_legnagyobb_veszelyben_az_epitoipari_cegek.584538.html

42 Kamara Online, Gazdasági szervezetek Magyarországon: átfogó körkép, 2017, http://kamaraonline.hu/cikk/gazdasagi-szervezetek-magyarorszagon-atfogo-korkep

43 Atradius, Payment Practices Barometer Hungary. May 2016. https://atradius.at/publikationen/payment-practices-barometer-hungary-2016.html

44 SAFE Report, 2017 Country Report. http://ec.europa.eu/DocsRoom/documents/24385.

45 CRIBIS D&B, Payment Study 2016. http://www.dnb.com/content/dam/english/economic-and-industry-insight/payment-study-2016-international.pdf

46 Baker & McKenzie, Hungary legal insights. 2013. http://www.bakermckenzie.com/files/Uploads/Documents/EMEA/EMEALIB/Sept%202013/nl_emea_hungarylegalinsights_sep13.pdf

47 European Payment Report 2017, https://www.intrum.com/en/about-us/publications/european-payment-report/

48 World Bank Group, Doing Business 2018, Economy Profile for Hungary. http://www.doingbusiness.org/data/exploreeconomies/hungary#dealing-with-construction-permits

49 Ministry for National Economy, Recently adopted lower VAT rate on newly-built homes to ignite the property market. http://www.kormany.hu/download/8/93/90000/Recently%20adopted%20lower%20VAT%20rate%20on%20newly-built%20homes%20to%20ignite%20the%20property%20market.pdf

50 PMR, No building permit, but architect mandatory for detached house construction. February 2016. http://www.ceeconstruction.com/news/260170/no-building-permit-but-architect-mandatory-for-detached-house-construction

51 Daily News Hungary, 30,000 PEOPLE ARE MISSING FROM THE HUNGARIAN CONSTRUCTION INDUSTRY – CAN WORKERS FROM ASIA BE EMPLOYED?, October 2017. https://dailynewshungary.com/147458-2/https://dailynewshungary.com/147458-2/

52 Privat Bankar, Óriási hiányszakma: hova lettek az építőipari szakmunkások?. November 2015. http://privatbankar.hu/karrier/oriasi-hianyszakma-hova-lettek-az-epitoipari-szakmunkasok-287088

53 Budapest Business Journal, Pre-fab home building market faces labor shortage. January 2016. http://bbj.hu/real-estate/pre-fab-home-building-market-faces-labor-shortage_109675

54 HR Portal, Az építőipari szakmák fele hiányszakma. April 2016. https://www.hrportal.hu/hr/az-epitoipari-szakmak-fele-hianyszakma-20160404.html

55 No data available for sequent years.

56 European Commission, Construction and Demolition Waste management in Hungary. 2015. http://ec.europa.eu/environment/waste/studies/deliverables/CDW_Hungary_Factsheet_Final.pdf

57 European Environment Agency, Waste prevention in Europe, 2016. https://www.eea.europa.eu/themes/waste/waste-prevention/waste-prevention

58 No data available for sequent years.

59 European Commission, European Innovation Scoreboard 2017. http://ec.europa.eu/DocsRoom/documents/17822/attachments/1/translations/en/renditions/native

60 No data available for sequent years.

61 A full-time equivalent (FTE) is a unit to measure employed persons in a way that makes them comparable, although they may work a different number of hours per week. The unit is obtained by comparing an employee's average number of hours worked to the average number of hours of a full-time worker. A full-time person is therefore counted as one FTE, while a part-time worker gets a score in proportion to the hours worked.

62 The 2017 EU Industrial R&D Investment Scoreboard, http://iri.jrc.ec.europa.eu/scoreboard17.html

63 National Research, Development and Innovation Office, Call for Innovative Solutions for Sustainable Buildings!. July 2015. http://nkfih.gov.hu/news-and-events/international-news/call-for-innovative

64 ÉMI Non-profit LIc., Research & development and innovation. https://www.emi.hu/EMI/web.nsf/Pub/research_development_innovation.html

65 European Commission, EMI-Non profit company for Quality Control and Innovation in Building. https://ec.europa.eu/energy/intelligent/projects/en/partners/emi-nonprofit-kft

66 European Commission, Web Platform to Facilitate the Reuse of Construction Materials - "Nemsitt.hu" (Hungary). June 2009. http://ec.europa.eu/environment/waste/prevention/pdf/Nemsitt_hu_Factsheet.pdf

67 Lechner Knowledge Center, ÉPÍTŐIPAR 4.0 - DIGITALIZÁCIÓ AZ ÉPÍTŐIPARBAN, October 2017. http://lechnerkozpont.hu/cikk/epitoipar-4-0-digitalizacio-az-epitoiparban

68 Eco-Innovation Observatory, Household waste used for construction of buildings at Szilplast Kft. June 2011. http://www.eco-innovation.eu/index.php?option=com_content&view=article&id=364%3Ahousehold-waste-used-for-construction-of-buildings-at-szilplast-kft&catid=61%3Ahungary&Itemid=61

69 Bloomberg, OTP Bank May Gain on Hungary's Housing Subsidy, Concorde Says. January 2016. http://www.bloomberg.com/news/articles/2016-01-05/otp-bank-may-gain-on-hungary-

s-housing-subsidy-concorde-says

70 Ministry for National Economy, The Family Housing Allowance programme resulted in a breakthrough on the residential property market. November 2016. http://www.kormany.hu/en/ministry-for-national-economy/news/the-family-housing-allowance-programme-resulted-in-a-breakthrough-on-the-residential-property-market

71 Ibidem.

72 Schönherr, Hungary: VAT rates slashed for newly constructed residential buildings. December 2015. http://www.schoenherr.eu/knowledge/knowledge-detail/hungary-vat-rates-slashed-for-newly-constructed-residential-buildings/

73 Ministry for National Economy, The Family Housing Allowance programme resulted in a breakthrough on the residential property market. November 2016. http://www.kormany.hu/en/ministry-for-national-economy/news/the-family-housing-allowance-programme-resulted-in-a-breakthrough-on-the-residential-property-market

74 Dailynews Hungary, Official: CSOK Housing grant applications number 34,500 to date. December 2016. http://dailynewshungary.com/official-csok-housing-grant-applications-number-34500-date/

75 Ministry of Human Capacities, More money to remain with families next year. April 2016. http://www.kormany.hu/en/ministry-of-human-resources/news/more-money-to-remain-with-families-next-year

76 Lunde, J. and Whitehead, C., Milestones in European Housing Finance. 2016. https://books.google.lu/books?id=2SrvCQAAQBAJ&pg=PA213&lpg=PA213&dq=rent+to+own+scheme+national+asset+management+inc+hungary&source=bl&ots=Rwoqz9A4ZH&sig=qtMsQGyyi2M0F4gDq2Jnhto3HTk&hl=en&sa=X&ved=0ahUKEwj0qIKPyaHLAhVJPxQKHZOpCusQ6AEIHDAA#v=onepage&q=rent%20to%20own%20scheme%20national%20asset%20management%20inc%20hungary&f=false

77 Commission Staff Working Document, Country Report Hungary 2016 Including an In-Depth Review on the prevention and correction of macroeconomic imbalances. February 2016. http://ec.europa.eu/europe2020/pdf/csr2016/cr2016_hungary_en.pdf

78 Financial Times, Beware Hungary's cure for the Swiss franc mortgages hangover. January 2015. http://www.ft.com/intl/cms/s/0/b481107a-a6e9-11e4-9c4d-00144feab7de.html#axzz41fZKqZNx

79 Hungarian Central Statistical Office, "Residential mortgages, first half of 2015". October 2015. http://www.ksh.hu/docs/eng/xftp/stattukor/lakashitel/elakashitel1506.pdf

80 Ministry for National Economy, The forint conversion of mortgages prevented households from incurring massive liabilities. December 2015. http://www.kormany.hu/en/ministry-for-national-economy/news/the-forint-conversion-of-mortgages-prevented-households-from-incurring-massive-liabilities

81 The Budapest beacon, Habitat for Humanity campaigns for affordable housing, April 2017, https://budapestbeacon.com/habitat-humanity-campaigns-affordable-housing/

82 Piacesprofit, Drágállották a kötelezőt, csináltak egyet maguknak, February 2017, http://www.piacesprofit.hu/kkv_cegblog/dragallottak-a-kotelezot-csinaltak-egyet-maguknak/

83 Építési jog, Kötelező tervezői és kivitelezői felelősségbiztosítás: kinek kell megkötnie?. February 2017. https://epitesijog.hu/1961-ktelez-tervezi-es-kivitelezi-felelssegbiztositas-kinek-kell-megktnie

84 ELIOS, Liability and insurance regimes in the construction sector: national schemes and guidelines to stimulate innovation and sustainability. April 2010. http://www.elios-ec.eu/sites/default/files/pdf/EliosspecialreportonMemberStates.pdf

85 DLA Piper, Limitation period. http://www.dlapiperrealworld.com/law/index.html?t=construction&s=liability&q=limitation-period&c=HU

86 Balázs T., Klee L., and Gulyas D., FIDIC Contracts and Hungarian Law or the Most Important Aspects of Using FIDIC Contracts in Hungary. July 2015. The International Construction Law Review, Pt 2, 2014.

87 DLA Piper, General construction law. http://www.dlapiperrealworld.com/law/index.html?t=construction&s=legal-framework&q=general-construction-law&c=HU

88 Mixin.hu, Építési engedélyeztetési eljárás szabályai 2018, December 2017, https://www.mixin.hu/magyarorszag/epitesi-engedelyeztetes-szabalyai

89 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).

90 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.).

91 The indicator gross fixed capital formation in non-residential and civil engineering refers to the Eurostat indicator «Other buildings and structures»

92 Ministry of National Development, HUF 1100 billion to be spent on Hungarian transport development. January 2016. http://www.kormany.hu/en/ministry-of-national-development/news/huf-1100-billion-to-be-spent-on-hungarian-transport-development

93 Financial Observer.eu, Transport infrastructure investments in Hungary need improvement, August 2017, https://financialobserver.eu/ce/hungary/transport-infrastructure-investments-in-hungary-need-improvement/

94 Hungarian Parliament, A 2017. évi költségvetésben szereplő hazai beruházások. May 2016. http://www.parlament.hu/irom40/10377/adatok/altindmell/beruhazas.pdf

95 European Investment Bank, EIB supports the rehabilitation of railway infrastructure in Hungary with EUR 250 million loan. January 2014. http://www.eib.org/infocentre/press/releases/all/2014/2014-001-eib-supports-the-rehabilitation-of-railway-infrastructure-in-hungary-with-eur-250-million-loan.htm

96 Ministry of National Development, Major EU funding to be awarded to railway development. July 2015. http://www.kormany.hu/en/ministry-of-national-development/news/major-eu-funding-to-be-awarded-to-railway-development

97 European Investment Bank, EIB lends EUR 300 million in support of the development of Budapest. December 2015. http://www.eib.org/infocentre/press/releases/all/2015/2015-321-eib-lends-eur-300-million-in-support-of-the-development-of-budapest.htm

98 EIB, The European Investment Bank in Hungary: what we do, 2017, http://www.eib.org/projects/regions/european-union/hungary/index.htm

99 European Investment Bank, EIB supports road network rehabilitation in Hungary. March 2016. http://www.eib.org/infocentre/press/releases/all/2016/2016-064-eib-supports-road-network-rehabilitation-in-hungary.htm

100 European Commission, Country Data for: Hungary. https://cohesiondata.ec.europa.eu/countries/HU

101 European Commission, BUILD UP Skills Hungary – Status Quo report. November 2012. http://www.bush.hu/wp-content/uploads/2013/05/SQR_Hungary.pdf

102 EC, Education and Training Monitor 2017, https://ec.europa.eu/education/sites/education/files/monitor2017-hu_en.pdf

103 European Commission, Country Report Hungary 2017. February 2017. https://ec.europa.eu/info/file/96717/download_en?token=Lx0tciqQ

104 The Prime Minister, Government wishes to achieve full employment in cooperation with world of business. October 2014. http://www.kormany.hu/en/the-prime-minister/news/government-wishes-to-achieve-full-employment-in-cooperation-with-world-of-business

105 Ministry for National Economy, Vocational Training Award 2014 presented in Budapest. March 2015. http://www.kormany.hu/en/ministry-for-national-economy/news/vocational-training-award-2014-presented-in-budapest

106 EC, Education and Training Monitor 2017, https://ec.europa.eu/education/sites/education/files/monitor2017-hu_en.pdf

107 Evopro, In Support of Quality Engineering Education. March 2015. http://www.evopro-group.com/nodes/view/912

108 Construction for youth, Dry wall construction vocational training. http://www.construction-for-youth.eu/en/initiatives/hu---dry-wall-construction-vocational-training.aspx

109 Saint-Gobain, Piacképes építőipari szaktudást profiktól. October 2016. http://www.saint-gobain.hu/sites/sgmaster.hu/files/saint_gobain_habitat_szera_sajtokozlemeny_161019.pdf

110 Realista.hu, Online képzés az építőiparban – webináriumok. February 2016. http://realista.hu/news/details/130424

111 Napi, Építőipari szakember-közösség alakult. June 2016. http://www.napi.hu/magyar_vallalatok/epitoipari_szakember-kozosseg_alakult.616798.html

112 European Investment Bank, Supporting educational equality with student loans in Hungary. July 2014. http://www.eib.org/infocentre/stories/all/2014-july-04/supporting-educational-equality-with-student-loans-in-hungary.htm

113 PJ = Petajoule = 1015 Joules.

114 Ministry of National Development, National Building Energy Performance Strategy. February 2015. https://ec.europa.eu/energy/sites/ener/files/documents/2014_article4_hungary_en%20translation.pdf

115 European Commission, Country Report Hungary 2017. February 2017. https://ec.europa.eu/info/file/96717/download_en?token=Lx0tciqQ

116 European Commission, Hungary's National Energy Efficiency Action Plan until 2020. August 2015. https://ec.europa.eu/energy/sites/ener/files/documents/hungaryActionPlan2014_en.pdf

117 Energiaklub, The first Sustainable Energy and Climate Action Plan in Hungary developed for Sárvár, August 2017, https://energiaklub.hu/en/news/the-first-sustainable-energy-and-climate-action-plan-in-hungary-developed-for-sarvar-4486

118 Ibidem.

119 Palyazatfigyelo, http://palyazatfigyelo.info/2017/01/25/25-millio-forint-vissza-nem-teritendo-tamogatas-csaladi-haz-felujitasra-mutatjuk-ki-palyazhat-ra.php#

120 Ministry of National Development, Otthon Melege Program: közel 1000 ingatlantulajdonos már biztosan sikeresen pályázott. December 2016. http://www.kormany.hu/hu/nemzeti-fejlesztesi-miniszterium/fejlesztes-es-klimapolitikaert-valamint-kiemelt-kozszolgaltatasokert-felelos-allamtitkarsag/hirek/otthon-melege-program-kozel-1000-ingatlantulajdonos-mar-biztosan-sikeresen-palyazott

121 European Commission, EU Single Market Scoreboard. Hungary. http://ec.europa.eu/internal_market/scoreboard/performance_by_member_state/hungary/index_en.htm

122 European Commission, Country Report Hungary 2017. February 2017. https://ec.europa.eu/info/file/96717/download_en?token=Lx0tciqQ

123 Government Transparency Institute, The Political Economy of Grand Corruption in Public Procurement in the Construction Sector of Hungary. November 2015. http://www.govtransparency.eu/wp-content/uploads/2015/11/ACRVolume3_Ch4_Hungary.pdf

124 Ibidem.

125 Transparency International, Driving out corruption in Hungary through clean contracts. November 2016. https://transparency.eu/driving-out-corruption-in-hungary-through-clean-contracts/

126 Public Procurement Authority, Hungarian Public Procurement Rules. http://www.kozbeszerzes.hu/nyelvi-verziok/hungarian-act-on-public-procurement/

127 European Commission, National Reform Programme 2015 of Hungary. http://ec.europa.eu/europe2020/pdf/csr2015/nrp2015_hungary_en.pdf

128 Transparency International, High Level Event on the Ózd Integrity Pact Pilot Project to increase Transparency in Public Procurement. December 2015. http://transparency.hu/High_Level_Event_on_the_Ozd_Integrity_Pact_Pilot_Project_to_increase_Transparency_in_Public_Procurement

129 Transparency International, Integrity Pact by TI to be used on the M6 Motorway project. October 2016. https://transparency.hu/en/news/integrity-pact-by-ti-to-be-used-on-the-m6-motorway-project/

130 JRC Report EUR 27511 EN, State of implementation of the Eurocodes in the European Union. 2015. http://eurocodes.jrc.ec.europa.eu/showpublication.php?id=537

131 World Economic Forum, The Global Competitiveness Report 2017-2018. http://www3.weforum.org/docs/GCR2017-2018/05FullReport/TheGlobalCompetitivenessReport2017%E2%80%932018.pdf

132 European Commission, 2017 SBA Fact Sheet Hungary. November 2017. https://ec.europa.eu/docsroom/documents/26562/attachments/14/translations

133 Ibidem.

134 Exim, Exportcélú beruházási hitel. https://exim.hu/osszes-termek-bank/1473-termekismerteto-3/file

135 Ministry of National Development, Strengthening bilateral relations essential for competitiveness. March 2015. http://www.kormany.hu/en/ministry-of-national-development/news/strengthening-bilateral-relations-essential-for-competitiveness

136 Euroconstruct, 82nd EUROCONSTRUCT Conference. November 2016. http://www.euroconstruct.org/jart/prj3/wifo/data/uploads/euroconstruct/press/2016_82%20-%20Press-Release%20Barce-

lona.pdf

137 Ministry for National Economy, New housing scheme to assist families and the construction sector. January 2016. http://www.kormany.hu/en/ministry-for-national-economy/news/new-housing-scheme-to-assist-families-and-the-construction-sector

138 bne IntelliNews, What price the Hungarian government's 'kiss' for the housing market?. February 2016. http://www.intellinews.com/what-price-the-hungarian-government-s-kiss-for-the-housing-market-90637/

139 Ministry of National Development, National Building Energy Performance Strategy. February 2015. https://ec.europa.eu/energy/sites/ener/files/documents/2014_article4_hungary_en%20translation.pdf

140 Timetric, Construction in Hungary – Key Trends and Opportunities to 2021, July 2017, https://www.timetricreports.com/report/cn0350mr--construction-in-hungary-key-trends-and-opportunities-to-2021/

141 Ministry for National Economy, Recently adopted lower VAT rate on newly-built homes to ignite the property market. http://www.kormany.hu/download/8/93/90000/Recently%20adopted%20lower%20VAT%20rate%20on%20newly-built%20homes%20to%20ignite%20the%20property%20market.pdf

142 Hirado, Kedvezőek az építőipar idei kilátásai a szakértők szerint. February 2017. http://www.hirado.hu/2017/02/13/kedvezoek-az-epitoipar-idei-kilatasai-a-szakertok-szerint/

143 Budapest Business Journal, Housing price growth driven by scarcity of new homes, January 2018, https://bbj.hu/real-estate/housing-price-growth-driven-by-scarcity-of-new-homes_144619

144 Budapest Business Journal, Hungarian commercial real estate market grows 107% in 2016. February 2017. http://bbj.hu/real-estate/hungarian-commercial-real-estate-market-grows-107-in-2016_128135

145 UniCredit Bank Austria Real Estate, Hungarian real estate market with recovery potential. April 2015. https://www.google.lu/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0ahUKEwi_pOisnLHLAhWFChoKHSMFAQgQFggcMAA&url=https%3A%2F%2Fwww.bankaustria.at%2Ffiles%2FFinal_E_RealEstate_HU_20151404_1330h.pdf&usg=AFQjCNEGuOy4cmnXlpj7xuR-653wGjlo32g

146 Budapest Business Journal, The Budapest real estate market is alive. http://bbj.hu/opinion/the-budapest-real-estate-market-is-alive_106633

147 Timetric, Hungarian construction expected to pick up by 2020. June 2016. http://www.construction-ic.com/pressrelease/hungarian-construction-expected-to-pick-up-by-2020-4934988

148 Makronom, A 2017-2019-es időszakban az építőipar teljesítménye 50 százalékkal nőhet egy előrejelzés szerint, November 2017, http://makronom.mandiner.hu/cikk/20171129_a_2017_2019_es_idoszakban_az_epitoipar_teljesitmenye_50_szazalekkal_nohet_egy_elorejelzes_szerint.