European Construction Sector Observatory

Country profile **Italy**

September 2020

In a nutshell

The economic activity in Italy has been weakening, despite improvement in the labour market. Reflecting this trend, the yearly GDP growth has been gradually decreasing from 1.3% in 2016 to 0.3% in 2019[1].

However, the broad construction sector has demonstrated in the past few years (and more especially since 2017) some positive development.

In 2019, the **volume index of production** in the narrow construction sub-sector increased by 3.6% between 2015 and 2019, and by 2.0 index points (ip) between 2018 and 2019. This increase follows a growth in **investments** particularly targeting dwellings (+7.5%) in urban areas, non-residential construction and civil engineering (+6.6%) and the narrow construction sub-sectors (+7.1%) between 2015 and 2019, which translated in an annual growth of 2.8 ip, 3.3 ip and 2.1 ip respectively.

Volume index of production in narrow construction sub-sector between 2015 and 2019 ↑ **3.6%**

However, these positive indicators did not necessarily translate in growth in turnover or profitability. The **total turnover** of the broad construction sector amounted to EUR 260.3 billion in 2019, which marked a 0.8% and 20.5% decline from 2018 and 2010 respectively. The **profitability** or total gross operating of the broad construction sector in 2017[2] decreased by 0.6% from 2016 reaching EUR 18.4 billion. This shows that the sector's margins are increasingly narrowing.

Turnover of the broad construction sector between 2010 and 2019 ↓ **20.5%**

As a result, the **number of enterprises** also declined in 2019 by 3.1% and 14.8% compared to 2018 and 2010 respectively. This trend was partly influenced by the insolvencies of some major players. While the profitability margin is one of the key factors behind these insolvencies, the prominence of late payment also constrained the liquidity of the sector, making it less resilient in times of decline.

The **number of persons employed** in the broad construction sector also declined in 2019 by 1.6% and 25.9% in comparison to 2018 and 2010, respectively.

Number of persons employed in the broad construction sector

-25.9%

2010 → 2019

While investments in residential building have been increasing in 2019, with a growing demand for dwellings in urban areas, the **house price index** decreased by 1.4% between 2015 and 2019. This decrease is expected to continue in 2020, partly driven by the impact of the outbreak COVID-19 pandemic. Since the onset of the pandemic, there has been a sharp decline in prices and sales of dwellings, as a result of either cancellation or postponement of purchases by prospective buyers.

In parallel, the infrastructure and commercial buildings have experienced growth in 2019. In particular, EU funds play a key role in supporting infrastructure development in Italy. This includes, for instance, a EUR 125.0 million grant from EIB in July 2019, which specifically aims at supporting the construction and refurbishment of public infrastructures in the territory of the Region of Friuli-Venezia-Giulia. Yet again, the COVID-19 situation is expected to have a major impact on these projects, causing uncertainty about state investment, political support for future projects as well as potential delays in public spending.

Mirroring the expected GDP decline of 9.5% in 2020, the total value added in the broad construction sector is expected to decrease by 18.1% year over year (YoY) in 2020. This decline will be reflected in all segments – from the housing to the commercial building and public infrastructure. However, the perspectives for 2021 are more positive with the start of an expected economic recovery.

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Key figures

Construction market

The **number of enterprises in the broad construction sector** in Italy totalled 958,978[3] in 2019. The narrow construction sub-sector[4] accounted for 52.8% of the total number of enterprises in the broad construction sector, followed by real estate activities (22.0%), architectural and engineering activities (18.5%) and manufacturing (6.7%) sub-sectors. The number of enterprises in 2019 was 3.1% and 14.8% below the 2018 and 2010 levels respectively (Figure 1).

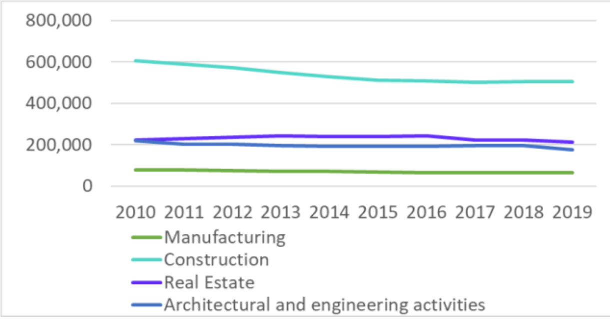
The sector witnessed a continuous decline from 2010 to 2015 with some fluctuations in 2016 onwards.

This decline was mainly driven by decreases in the number of enterprises in the architectural and engineering activities, narrow construction, and manufacturing sub-sectors by a 19.0%, 16.7% and 16.2% respectively over the same period.

After a steep decline from 2010 to 2016 the **volume index of production** in the narrow construction sub-sector experienced a continuous rise, reaching 3.6% between 2015 and 2019. (Figure 2).

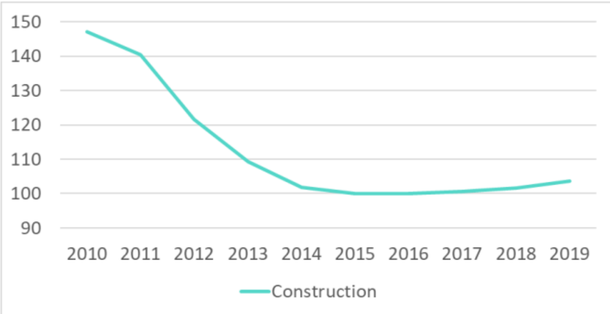
Volume index of production in the narrow construction sub-sector between 2015 and 2019	↑ 3.6%

Figure 1: Number of enterprises in the broad construction sector in Italy between 2010 and 2019



Source: Eurostat, 2020.

Figure 2: Volume index of production in the Italian construction sector between 2010 and 2019 (2015=100)

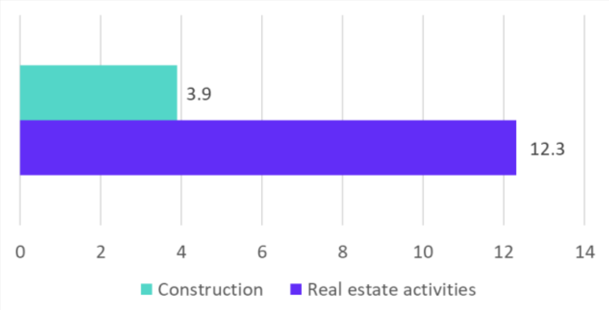


Source: Eurostat, 2020.

In 2019[5], the **total value added of the broad construction sector** amounted to EUR 89.4 billion, which represents a 17.3% decline during the 2010-2019 period. This decline is driven by decreases in value added in the architectural and engineering activities (-36.3%), real estate activities (-15.6%), narrow construction (-15.5%) and manufacturing (-12.5%) sub-sectors.

In 2019, the narrow construction sub-sector accounted for 57.2% to the total value added of the broad construction sector. It was followed by the real estate activities (17.5%), the manufacturing (16.9%), and architectural and engineering activities (8.5%) sub-sectors. The share of gross value added of the narrow construction sub-sector in 2019 stood at 3.9%, representing a decline of 0.4 percentage point (pp) from previous year. Similarly, share of gross value added of the real estate activities sub-sector in 2019 was 12.3%, which declined slightly by 0.1 pp from previous year (Figure 3).

Figure 3: Gross value added as a share of GDP in the Italian broad construction sector in 2019 (%)



Source: Eurostat, 2020.

There are 22 statistical NUTS-2 regions in Italy. In 2017[6], the Lombardia region accounted for the highest share in gross value added in the country in both the narrow construction sub-sector (20.7%) as well as in real estate activities (20.7%), followed by the Lazio region with 9.9% in narrow construction sub-sector and 11.4% in real estate activities. Vallée d'Aoste region reported the largest decline of 33.7% in gross value added in the narrow construction sub-sector during 2010-2017.

Productivity

Apparent **labour productivity**[7] in 2019 was the highest in real estate activities sub-sector with EUR 55,775[8] followed by the manufacturing sub-sector (EUR 45,190), the narrow construction sub-sector with EUR 38,358 and the architectural and engineering sub-sector with EUR 33,790. Italy's apparent labour productivity in 2017 was EUR 41,194, below the EU-27 average of EUR 50,078.

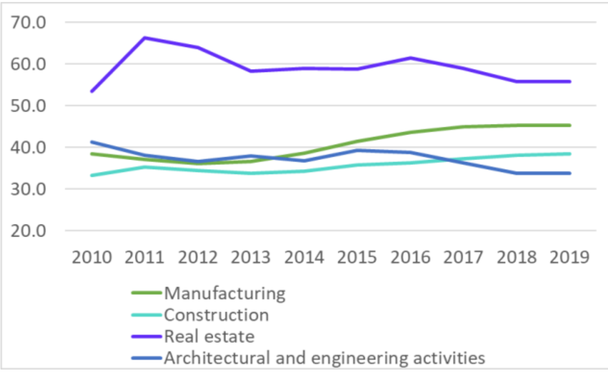
Apparent labour productivity within the narrow construction as well as the manufacturing and real estate activities sub-sectors increased by 15.5%, 17.4% and 4.5% between 2010 and 2019 respectively. However, declined by 18.2% in the architectural and engineering sub-sector.

Adequate investments for strengthening administrative capacity, human capital and innovation as well as stronger public sector and supportive business environment could increase the productivity and growth prospects in the medium and long term[9].

Such a context would incentivise companies to invest in productive capacities and assets. Smaller firms, furthermore, face specific difficulties in adopting productivity-enhancing strategies. Measures to support knowledge and cooperation among firms might aid smaller firms to tackle these difficulties and increase low productivity[10]. Last, the fragmentation of the sector is often quoted as a barrier to labour productivity improvement.

Although Italy's productivity has risen, the reforms to strengthen productivity are still pending or have been insufficiently implemented[11].

Figure 4: Labour productivity in the broad construction sector in Italy between 2010 and 2019 (EUR k)



Source: Eurostat, 2020.

Turnover and profitability

The **turnover** of the broad construction sector in 2019 experienced 20.5% drop in comparison to the 2010 levels, where it fell from EUR 327.6 billion in 2010 to EUR 260.4 billion[12]. However, it has been fluctuating since 2017 – when it amounted to EUR 259.9 billion (20.6% below the 2010 levels).

This general decline between 2010 and 2019 was particularly pronounced in the architectural and engineering activities (-34.3%), narrow construction (-22.0%) and manufacturing (-21.3%) sub-sectors, while the real estate activities' turnover experienced a slighter decline (-2.7%), over the same period. According to ANCE, the turnover of the construction sector declined by 15% to 16% in the first semester of 2020, being one of the sectors most affected by the COVID-19 pandemic. This is partly explained by the limited support provided by government initiatives, in comparison to other EU countries.

Turnover of the broad construction sector between 2010 and 2019 ↓ **20.5%**

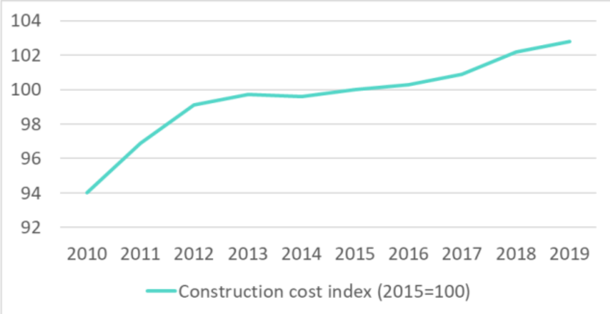
Similarly, the **gross operating surplus** dropped by 17.0% between 2010 and 2017[13], from EUR 57.6 billion to EUR 47.8 billion.

The **gross operating rate** (i.e. value added at factor cost less the personnel costs) of the broad construction sector[14] stood at 18.4% in 2017, 0.8 and 1.8 percentage points above the 2010 value (17.6%) and the EU-27 average of 2017 (16.6%). However, recent analysis points out to the fact that profitability is becoming a key issue in the sector, with profitability margins getting increasingly tight[15].

This is reflected in some of the trends observed in sub-sectors. While, the real estate activities and architectural and engineering services sub-sectors enjoyed the largest margin on sales in 2017 (41.8% and 42.4% respectively), they lie below 2010 levels (44.9% for the real estate and 43.6% for the architectural and engineering services). The profitability of the narrow construction sub-sector increased slightly by 0.2 pps, reaching at 12.7% in 2017. As for manufacturing sub-sector, despite having the lowest gross operating rate at 11.5% in 2017, it increased by 2.0 pps from 2010 levels.

At the same time, the **construction cost index**, after a 2013-2017 stabilisation period, experienced a slight growth of 0.6 pps in 2019 as compared to 2018 (Figure 5). For the period 2015-2019, it grew steadily (+2.8%), driven by a 3.3% growth of output prices for materials in the same period.

Figure 5: Construction cost index between 2010 and 2019 (2015=100)



Source: Eurostat, 2020.

Employment

In 2019[16], there were 2,170,879 **persons employed** in the broad construction sector, a 25.3% decrease compared to 2010. While there was a continuous decrease between 2010 and 2015 (-23.6%), the broad construction recovered slightly in 2016. Since then, the number of persons employed has been fluctuating, experiencing a 1.7% decline between 2018 and 2019.

The narrow construction sub-sector employed 1,332,214 people in 2019[17], which represented 61.4% of the total workforce in the broad construction sector in 2019. This was followed by the manufacturing sub-sector, which employed 334,832 people (15.4% of the total workforce), real estate activities having employed 279,732 people (12.9% of the total workforce) and architectural and engineering activities with 224,100 people (10.3% of the total workforce) (Figure 6). The decline in the construction workforce between 2010 and 2019 was largely driven by the drop in persons employed in the narrow construction sub-sector (-26.9%), manufacturing sub-sector (-25.5%), as well as in engineering and architectural (-22.2%) and real estate activities (-19.2%).

Number of people employe in the broad construction sector between 2010 and 2019 ↓ **25.3%**

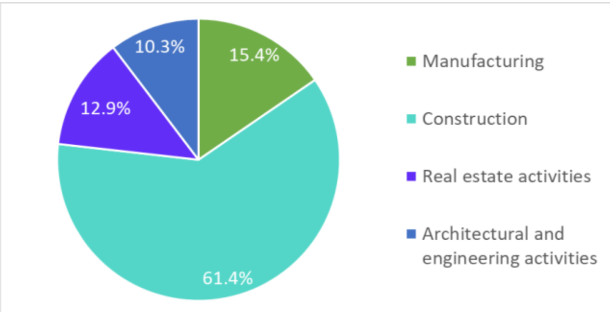
The Lombardia region had the highest number of persons employed in the narrow construction and real estate activities sub-sectors. This was followed by the Lazio and Veneto region.

Provincia Autonoma di Bolzano/Bozen recorded the strongest increase in employment in the narrow construction sub-sector (+9.5%) during the 2010-2017 period. In the real estate activities, the strongest increase in employment was recorded for Campania region (+20.8%).

As for **employment by specific occupation**, all categories of workers in the narrow construction sub-sector experienced a decline from the numbers in 2010 to 2019. The category of managers experienced the largest decline (49.0%) for the period 2010 to 2019. It was followed by workers under elementary occupations, which declined by 48.7% for the same period.

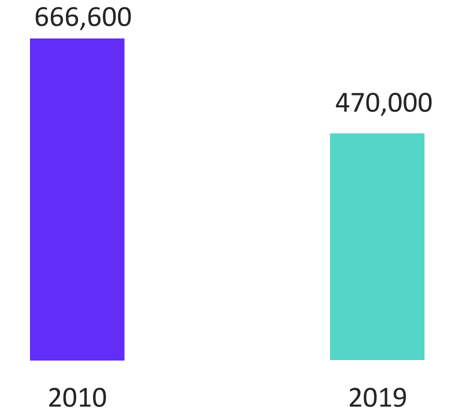
The number of professional workers in the manufacturing sub-sector saw the largest growth, from 133,000 in 2010 to 228,000 in 2019 (+71.4%), followed by elementary occupations which grew by 45.6% for the period 2010 to 2019. The largest decline was observed for 'managers', which total number declined by 33.7% in the manufacturing sub-sector for the same period.

Figure 6: Percentage of people employed per construction sub-sectors in Italy in 2019



Source: Eurostat, 2020.

The number of **self-employed workers** in the narrow construction sub-sector experienced a drop of between 2010 and 2019 (-29.5%). This trend was also observed in the narrow construction sub-sector, which experienced a 8.6% decline in the same period. Their share in the total self-employed persons in the general economy hence declined from 13.2% to 10.2% from 2010 to 2019. Conversely, self-employment in the real estate sub-sector increased by 10.1% in 2019 compared to 2010, accounting for 1.6% of the self-employed in the general economy.



Self employed persons in the narrow construction sub-sector in Italy

2

Macroeconomic indicators

Economic development

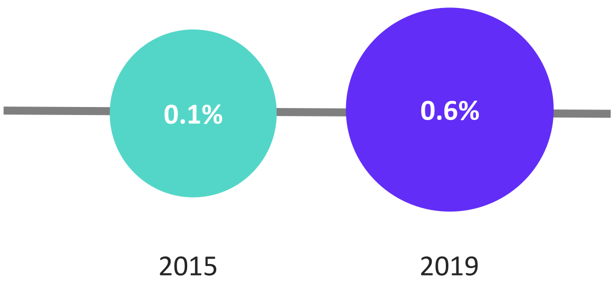
In 2019, Italy's **GDP** amounted to EUR 1,724 billion, representing a 0.3% increment since 2018 (0.6% higher than in 2010).

The slow expanding trend of GDP in Italy can be partly attributed to the slowdown in the euro area. Amid concerns regarding global trade, exports and industrial production weakened in the beginning of the year[18].

This growth is slower than the EU-28[19] average (1.5%)[20], mainly due to weakened productivity and exports[21]. The minimal negative **output gap** (-0.3%) shows that the economy operates very close to its maximum efficiency level.

The **inflation rate** in Italy grew by 0.7% in 2019 from the 2018. The increase was mainly driven by moderate domestic demand and subdued wage growth[22].

Change of rate for Inflation rate in Italy

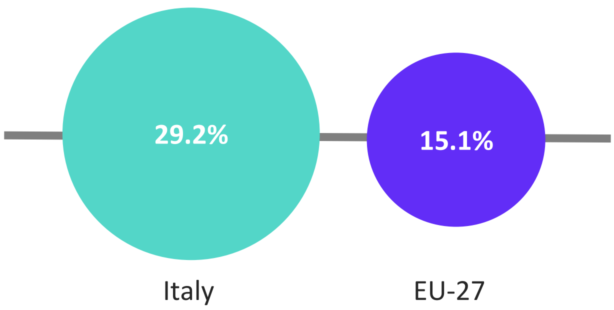


Demography and employment

Italy's **unemployment rate** was declining in recent years at a slow pace due to rising participation in the labour market, (slow) economic growth and lower than EU-27 average skills mismatch[23]. The unemployment rate in 2019 stood at 8.9%, which was, however, above the 2010 levels and 2019 EU-27 average of 7.0% and 6.0%[24] respectively. Participation rates, especially among women, remain low and youth unemployment remains extremely high in Italy. However, an analysis of the types of employment reveals that this increase is related to the rise in temporary job contracts.

Youth unemployment (below the age of 25) stood at 29.2% in 2019 and is among the highest in Europe (above the EU-27 average of 15.1%).

Youth unemployment rate in 2019

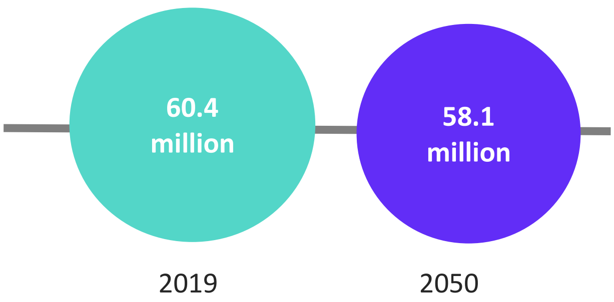


There has been a restrained progress in tackling undeclared work in the economy, and it still remains a serious concern. As per the ISTAT estimations, the informal economy was about 12.4% of GDP in 2017, accounting for 3.7 million irregular job positions. Irregular workers were estimated to be 162,000 and around 42,000 were completely undeclared. Construction activities accounted for 11.9% of the total undeclared value for 2019[25].

Construction, agriculture, transport, housing and food services are critically affected sectors. According to the ISTAT estimations, undeclared work concerns around 22.7% of services to households.

The total population of Italy amounted to 60.4 million people in 2019. It is projected to decrease to 59.9 million by 2030 (-0.7%) and to 58.1 million by 2050 (-3.5%).

Total population in Italy



In parallel, the number of Italians living outside the country increased significantly (+64.7%), reaching 5.1 million in January 2018, compared to 3.1 million in 2006[26]. This infers that almost 8.5% of Italy's population left the country, out of which 52.8% moved their residence outside Italy as per the "2018 Report on Italians in the World" by Foundation Migrantes[27]. The number of Italian citizens migrating in 2018 has increased by 1.9% as compared to 2017[28].

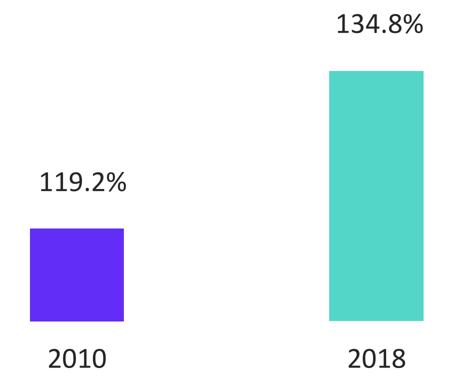
Italy is among the top four EU member states having the highest numbers of their citizens living in other EU countries[29].

At the same time, inner country migration as well plays an important role, being dependent on the age of residents. In 2017, almost half (49.5%) of the people involved in inner country migration belonged to the age group 15-39 with the youngest crowd moving towards large urban centres while the mature population moved towards small provincial areas[30]. This may also impact the demand for the construction sector, especially in urban areas.

In 2019, the working age population (from 15 to 64 years old) accounted for 64.0% of Italy's total population, while people over 65 years accounted for 22.8% of the total[31]. With the proportion of the population over 65 years expected to reach record high (i.e. 33.7%) in 2050, the working age population is projected to decrease significantly in 2050 (accounting for 54.8% of the total population). In parallel, the life expectancy in Italy has increased by almost three years from 2000 (79.8) to 2019 (83.4)[32], exacerbating the issue of ageing population. This could drive an increased demand for hospitals and care homes in the future.

Public finance

In 2019, general **government expenditure** as a share of GDP in Italy stood at 48.7%, above the EU-27 average of 46.7%[33]. The general **government deficit** as a share of GDP amounted to -1.6% in 2019, considerably above the EU-27 average (-0.6%)[34] but far below 2010's value of -4.2%. Furthermore, the general **government gross debt** amounted to 134.8% of GDP in 2019, well above the EU-27 average of 77.8% and considerably higher than in 2010 (119.2%)[35]. In alignment with the rest Euro area, in 2020 sovereign yields are also expected to rise for Italy[36].



Government gross debt (% of GDP) in 2019

According to revised data published by ISTAT and the Bank of Italy, the debt-to-ratio in 2018 rose to 134.8%, by 0.7 pp from 2017. This increment was largely due low real GDP growth and a large stock-flow adjustment (0.7% of GDP), mainly related to fluctuations of the Treasury liquidity reserves and negative developments in the financial markets[37].

Entrepreneurship and access to finance

According to the Doing Business 2020 report[38], Italy has an overall position of 58 out of 190 countries in 2018. Nevertheless, Italy ranked 98th, in terms of ease of **starting a business**. This represents a worsening compared to the previous year, 2019 (67th), 2018 (66rd) and 2017 (63rd). Registering a property takes four procedures and 16 days, against 4.7 procedures and 23.6 days for the OECD high-income average. Furthermore, the cost of starting a business represents 13.8% of income per capita, which is much higher than the 3.0% OECD high-income average. However, the paid-in minimum capital required (i.e. the amount that the entrepreneur needs to deposit in a bank or with a notary before registration and up to three months following incorporation) is negligible (0.0%), compared to the OECD high-income average (7.6% of income per capita).

Italy has been one of the poorest performers in the EU for 'responsive administration'. The cost of starting a new business in Italy is unchanged since 2013 and is the highest in the EU. It is also one of the three poorest performers in the EU with respect to the burden of government regulation on business. Around 87% of firms, still believe that frequent changes in the legislation and policies are posing threat in doing business. This rate stands as the second highest rate in the EU[39].

Though SME value addition is estimated to rise by 2.0% between 2017 and 2019, the SME employment is expected to decline by 1.4% in the same period.

Italy's performance in entrepreneurship has further weakened since 2018. Entrepreneurial activities in early stage are seen on a downward trend since 2015. This is partially attributable to lengthy civil proceedings in the country. In terms of productivity and growth, since Italian SMEs are performing below EU average, investment needs have been identified for developing growth and competitiveness in Italy[40].

Italy performs below the EU-28[41] average in all Small Business Act for Europe principles, which includes entrepreneurship, access to finance and internationalisation, single market, skills and innovation[42].

In comparison to EU-28[43] average, Italy scores poorly in entrepreneurship including early stage entrepreneurial activity (which has been on a downward trend since 2015); early stage entrepreneurial activity for female population; opportunity driven entrepreneurial activity and share of high growth enterprises.

The bank credit in Italian economy remains passive, despite improvements. This is significantly affecting the SMEs. There has been a decline in rejection rate for bank loan applications from 9.0% in 2009 to 6.0% in 2019, supported by improved credit conditions and lower interest rates. However, the proportion of SMEs being rejected for the amount requested has tripled in 2019 and is on the rise. As companies have reduced leverage, while increasing their equity and independent financing capacity, the credit demand has also declined[44].

According to SAFE report 2019, Italy's SMEs have made use of grants or subsidised bank loans the most in the last six months. The SMEs had also applied for credit line or overdraft by a large proportion in Italy for the same period[45]. Around 33.0% of Italian businesses have reported that further difficult access in bank financing will cause delays in business investment or might lead to reduction of the workforce[46]. Overall, the country performed below the EU average in terms of access to finance, as reflected in the 27.7% decline in loans to non-financial corporations between 2010 and 2019.

Loans to non-financial corporations between 201 and 2019 **27.7%**

This decline does not mean that SMEs access to finance is satisfied. In fact, Italy also witnessed a higher demand for credit lines, trade credits along with rising leasing. At the same time, SMEs noted a rise in the interest rates of banks' overdrafts and credit lines (up 16 bps), while the rest of the EU-28[47] recorded either stagnant or declining interest rates[48].

Facilitation of SMEs' access to finance is being addressed through several (sometimes EU-supported) national programmes. These measures include allowances for corporate equity, mini-bonds and the central guarantee fund for SMEs[49]. Italy massively benefits from the European Structural and Investment Funds (ESI Funds), which provided EUR 73.6 billion to Italy between 2014 and 2020, including a 20.0% share dedicated to the competitiveness of SMEs. However, by the end of 2018, Italy was lagging the EU-28 average in terms of the absorption of ESI Funds[50]. By July 2019, the European Fund for Strategic Investments (EFSI) had financed EUR 10.3 billion in investment initiatives and is further anticipated to generate added Investment of EUR 66.6 billion in Italy[51]. As part of EFSI, Italy has secured SMEs financing from European Investment Fund (EIF) amounting to

EUR 3.0 billion with additional investments of EUR 35.3 billion expected to generate by 2020-end, providing improved access to finance for around 291,310 SMEs and mid-cap companies[52].

The Italian government have also introduced several amendments and implemented new initiatives to improve the country's business environment. In 2018, the measure 'Flat-rate tax regime for self-employed and small firms' with an annual income up to EUR 65,000 was extended. The introduction of 'Self-employment incentives for recipients of a citizen's income' is a scheme to encourage new recipients of the citizen's income to start a new business was also introduced[53].

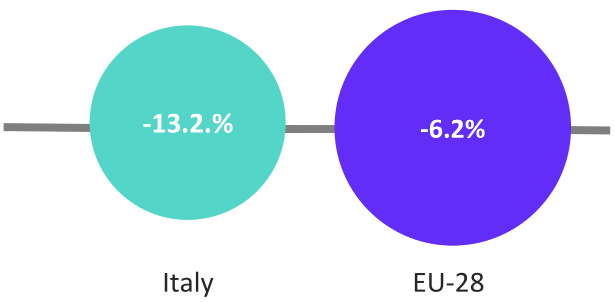
3

Key economic drivers of the construction sector

Business confidence

The **consumer confidence** indicator has improved from -18.8 in 2010 to -13.2 in 2019, after reaching its lowest point in 2012 at -28.7. This however remains well below the EU-27 average of -6.2. The **industry confidence** had recovered in 2018 to 1.9 from -4.3 in 2010, but further deteriorated to -5.0 in 2019 (which is almost in line with the EU-27 average of -4.8. The **construction confidence** indicator recorded the worst performance in 2010 at -34.3 and has since then mostly improved, especially since 2014, reaching -7.1 in 2019. This is however well below the EU-27 average of 5.1.

Consumer confidence in 2019



In parallel, the **investment ratio** declined from 19.8% in 2010 to 16.8% in 2014, before increasing again until 2019 when it reached 18.3%. Likewise, the **investment per worker** has been increasing since 2010, reaching EUR 96,012 in 2017[54], which is 3.1% above the 2010 value (EUR 93,156).

The year 2019 was expected to be a challenging year for the Italian construction sector due to muted demand accompanied by weaker profit margins. The industry was indeed sternly affected by insolvencies of few major players and is facing one of the most challenging periods since the 2008/2009 economic crisis. However, as per the national association of construction companies (ANCE), in 2019 construction investment slightly increased by 1.7% year-over-year (YoY), to about EUR 130.0 billion. The outlook for 2020 is highly uncertain with a likely subdued economic growth and persisting political uncertainty[55].

Domestic sales

Between 2010 and 2018, the ranking of the **most domestically sold construction products** by value has remained almost constant in Italy. Although most of the top domestically sold products remain the same during the last eight years, the volumes of their trade have changed considerably. During 2010 to 2018, the value of 'prefabricated building of metal' has increased the most by 45.8%. On the other hand, 'Doors, windows and their frames', 'Windows, French windows and their frames', and 'Ready-mixed concrete' have all decreased by 17.8%, 0.6% and 53.1% respectively. Table 1 presents the top five most domestically sold construction products, both in Italy and the EU-28[56], which made up 56.8% of all Italian construction product sales in 2018.

Table 1: Five most domestically sold construction products in Italy and in the EU in 2018[57]

	Italy			EU-28
	Product	Value (EUR m)	Share in construction product domestic sales (%)	Product
1	Prefabricated buildings of metal (group 251110)	5,885.5	19.2	Other structures (group 251123)
2	Other structures (group 251123)	4,518.7	14.7	Doors, windows, etc. (group 251210)
3	Doors, windows, etc. (group 251210)	3,089.4	10.1	Ready-mixed concrete (group 236310)
4	Windows, French windows, etc. (group 162311)	2,278.4	7.4	Prefabricated buildings of metal (group 251110)
5	Ready-mixed concrete (group 236310)	1,659.8	5.4	Prefabricated structural components, etc. (group 236112)

Source: PRODCOM, 2019.

Export of construction-related products and services

The ranking of the **most exported construction products** has also kept the same products in the top five categories since 2010. Nevertheless, the value of the country exports varied significantly over the years. The biggest value increase between 2010 and 2018 was experienced in 'Plaster products for construction purposes' and 'Prefabricated wooden buildings' products with a 247.1% and 83.5% rise respectively. On the other hand, 'Other worked ornamental or building stone and articles thereof etc.' and 'Portland/aluminous/similar hydraulic cements' experienced the largest decrease by -12.8% and -6.7% in their export values respectively. The five most exported construction products from Italy and the EU-28 are summarised in Table 2. Together, these made up 72.6% of all construction product exports in 2018.

Table 2: Five most exported construction products in Italy and in the EU in 2018[58]

	Italy			EU-28
	Product	Value (EUR m)	Share in construction product exports (%)	Product
1	Ceramic tiles and flags (group 233110)	3,953.3	44.1	Ceramic tiles and flags (group 233110)
2	Marble, travertine, alabaster, worked, etc. (group 237011)	874.8	9.8	Other structures and parts of structures, etc. (group 251123)
3	Other structures and parts of structures, etc. (group 251123)	706.2	7.9	Fibreboard of wood, or other ligneous materials etc. (group 162115)
4	Other worked ornamental or building stone, etc. (group 237012)	565.5	6.3	Doors, windows and their frames etc. (group 251210)
5	Doors, windows and their frames etc. (group 251210)	410.3	4.6	Marble, travertine, alabaster, etc. (group 237011)

Source: PRODCOM, 2019.

In terms of **cross-border provision of construction services**[59], Italy exported EUR 432.0 million worldwide in 2018, considerably above the 2010 value (EUR 93.4 million), but 24.0% lower than in 2017. 78.8% of exports (EUR 340.0 million) were made to countries outside the EU-27, compared to 51.8% (EUR 48.4 million) in 2010.

The value of exports of construction-related services to countries within the EU-27 in 2018 was EUR 102.0 million comprising 23.6% of the total exports.

In parallel, Italy imported a total of EUR 46.0 million in construction services in 2018, a decline of 36.7% and 64.3% compared to 2010 and 2017 respectively. In 2018, EUR 25.0 million of construction services imports came from EU-27 countries while the rest came from outside the EU-27. Italy therefore achieved a **trade surplus** of EUR 386.0 million in 2018.

Access to finance in the construction sector

The Italian construction sector has a high dependency on banks for financing. The overall indebtedness of the sector is also high, and banks are reluctant to provide further credit to the sector[60].

Owing to the poor financing conditions and lack of liquidity, 2019 has seen several insolvencies of major players in the construction sector – causing themselves the insolvencies along the value chains with several subcontractors declaring bankruptcy over the last six months. Outstanding receivables and lack of credit led to many insolvencies of small and medium-sized businesses. It is very likely that 2020 will see both the number of non-payment notifications, late payments and insolvencies remain high[61].

The profit margin of companies in the Italian construction sector is seen deteriorating over the last 12 months, though general demand is stable[62].

According to the Market Monitor Construction, tight lending conditions set by banks remain the major reason for the subdued performance of construction. In third quarter of 2019, loans for non-residential builders decreased by 30.0% YoY. This reluctance from banks to lend to the construction sector is explained by the high share of non-performing loans (NPL) of the sector, which stood at EUR 16.0 billion, out of a total of EUR 55.0 billion corporate NPLs in Italy by September 2019.

This lack of financial support contributed to the pronounced increase in construction costs for residential buildings. Financial difficulties are upsetting the top-players as well as small and medium-sized companies along the value chain. The slower or non-implementation of larger projects stand as a big issue[63].

Payment patterns in the construction sector have been unsatisfactory since last two years, and non-payment notifications were again at a very high level in 2019[64].

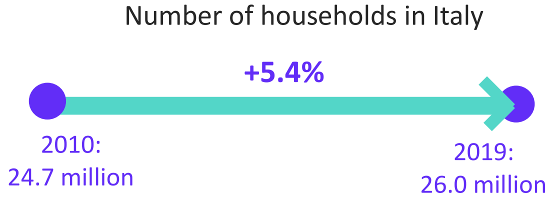
According to the National Construction Sector Association – ANCE (*Associazione Nazionale Costruttori Edili*), Italian construction companies are not sufficiently aware of their rating in terms of creditworthiness and of the criteria used by banks to assess them. ANCE thus believes that greater transparency and exchange of information between banks and companies could contribute to improving their relationship and facilitate access to finance for creditworthy businesses. To this end, an agreement between ANCE and the Italian Banking Association (*Associazione Bancaria Italiana*) was introduced in 2018. The memorandum of understanding provides, among other things, for the establishment of a permanent ABI - ANCE dialogue group to support the economic and financial development strategies of the construction sector, as well as the sharing of initiatives that can increase knowledge and dialogue between banks and construction companies[65].

With regards to disruptions caused by the COVID-19 outbreak, the construction companies were unable to provide their workers with the required health and safety measures. Therefore, Associazione Nazionale Costruttori Edili (ANCE), has asked the Italian Government to suspend all current worksites[66].

Finally, the Ministry of Economic Development has put in place a system of construction sector-specific rating. This is to evaluate requests for guarantees under the SME Guarantee Fund, one of the main instruments in place to provide financial support to construction SMEs, since its selection criteria were not deemed to be appropriate for the assessment of construction companies. Enforced in 2017[67], over 90.0% of construction and real estate firms are estimated to have direct access to the Fund.

Access to housing

The **number of households** has been steadily growing since 2010, reaching 26.0 million in 2019 (+5.4%). The mean equivalised net income following an irregular trend since 2010, reached EUR 19,208.0 in 2018, representing a growth of 5.4% for the period 2010-2018. This increase can be partly attributable to the growing urbanisation rate, as people migrate to urban places in search of better lifestyle and increased income. Urbanisation rate increased slightly from 40.0% to 40.9% from 2010 to 2018, indicating that a growing proportion of the population (especially the youth) lives in cities and greater cities.



The indexed values of **building permits** in number of dwellings rose up to 27.4% for the period 2015-2018. The indexed values of building permits as square meters of useful floor area for residential and non-residential buildings increased by 27.4% and 57.0% respectively, for the same period. The number of dwellings in Italy declined to 13,117 in the third quarter of 2019 (-4.6%) as compared to the same quarter last year[68]. As a result, the supply also increased over the period. This aided to a relaxation in housing prices.

Indexed value of building permits in number of dwellings 2015 and 2018 ↑ **27.4%**

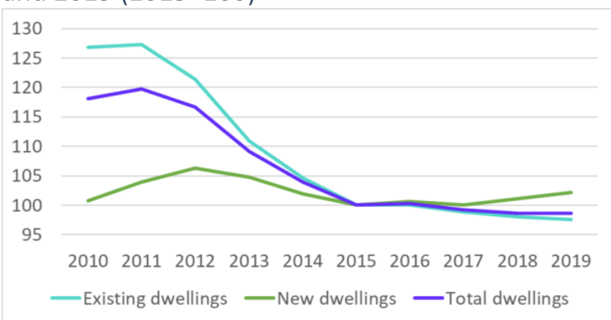
The **housing price index** for total dwellings and existing dwellings reduced by 1.4% and 2.4% respectively over the period 2015-2019. However, the housing price index for new dwellings saw a rise by 2.2% for the same period. However, according to ISTAT, there was a slight increase in the nationwide house price index by 0.31% in 2019[69]. The mortgage rates (over five years original maturity) has been on a decreasing trend since 2010. In 2019, it reached 2.0% down from 3.6% in 2010. The total outstanding residential loans in 2018 stood at EUR 379.1 billion, representing a 6.6% increase from 2010, and 3.0% increase from 2017.

House price index between 2015 and 2019 ↓ **1.4%**

The **mortgage rates** (over five years original maturity) has been on a decreasing trend since 2010. In 2019, it reached 2.0% down from 3.6% in 2010. The total outstanding residential loans in 2018 stood at EUR 379.1 billion, representing a 6.6% increase from 2010, and 3.0% increase from 2017. Italy has one of the lowest public and social housing stock in the EU-28[70]. Only 4.0% of the stock is owned by the public sector. The economic crisis further heightened the demand for affordable housing. The severe housing deprivation rate (11.1%) was almost double that of the EU-28[71] average (5.6%) in 2016[72]. Since 2015, the Italian Government has introduced new funding schemes to target indebted households. Household loans have increased from 2015 to 2017, reaching EUR 375.4 million, after a continuous decline from 2011 to 2014. Compared to 2010 value, 2017 housing loans are up by 6.6%. The household debt in Italy has reached up to EUR 955.5 billion in December 2019[73]. Due to the widespread corruption in the construction sector, about one in every six buildings constructed in Italy is said to illegal. Moreover, 50.0% of Italian citizens report cases of corruption and abuse of power when issuing building permits[74].

According to ISTAT, the nationwide house price index rose slightly by 0.3% in 2019. New house prices rose by 1.0% and Existing house prices were up by a minuscule 0.1%[75].

Figure 7: House price index in Italy between 2010 and 2019 (2015=100)



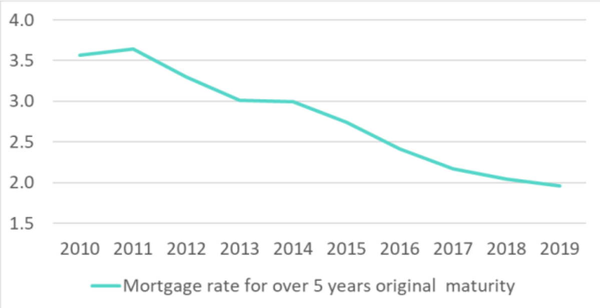
Source: Eurostat, 2020.

The country's housing market had been steady in 2019. Though there was less residential construction, the demand had experienced a strong increase. There was a strong rise in sales of new homes by 9.8% YoY. Milan being the most affluent cities in Italy, saw an average price increment for new homes by 6.6% during 2019. Prices for new homes in Rome and Florence increased by 0.9% and 2.1% YoY respectively[76].

The **housing loan interest** rates were at historic lows in 2019 in Italy. According to the European Central Bank, though short-term loan rates are on the rise, average interest rate for new housing loans in Italy fell to 1.9% in January 2020, from 2.0% a year earlier. Italy's mortgage market is much smaller in comparison with EU-28's[77] average. The outstanding mortgages is equivalent to less than 22.0% of GDP in 2019, which is less than half of EU-28's average of about 47.0% of GDP. This is by large attributable to the process of length and cost of loan recovery[78].

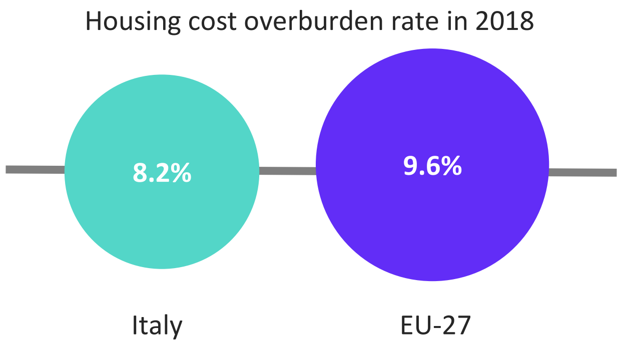
The revival of the Italian housing market can be attributed to the significant decrease in house prices and the enforcement of favourable housing tax regimes since 2014, making purchasing residential properties more affordable and convenient.

Figure 8: Mortgage rates for loans for over five years original maturity (%) between 2010 and 2019

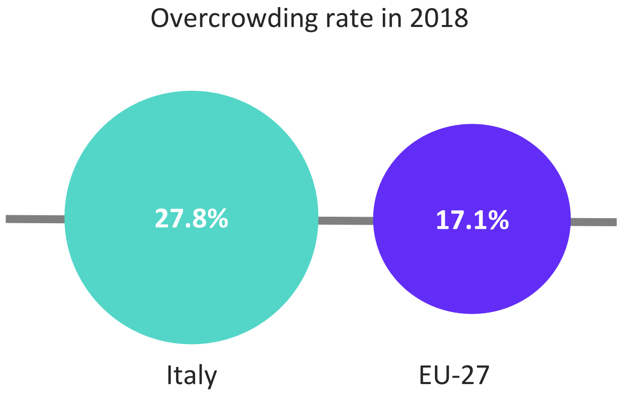


Source: Eurostat, 2020.

Notwithstanding the lower interest rates of mortgages, Italian house buyers show reluctance towards, use of mortgage facilities. The mortgage acceptance rose sharply when interest rates on new house purchases fell to historical lows of 2.7% in 2010[79]. Due to the ease of accessing mortgage loans, government tax breaks and other advantages, **homeownership** in Italy has been traditionally high, averaging 73.0% over 2010-2017, peaking at 74.2% in 2012 but declining slightly to 72.4% in 2017[80]. This rate increased to 77.7% for 2017 for the population whose income is above 60.0% of the median equalised income but drops to 51.9% for those below this threshold. Moreover, the **housing cost overburden rate**[81] stood at 8.2% in 2018, below the EU-27 average 9.6%, but higher than the value recorded in 2010 (7.7%)[82].



Nevertheless, the **overcrowding rate**[83] was at 27.8% in 2018, well above the EU-27 average of 17.1%, and also greater than value recorded in 2010 (24.3%)[84]. Similarly, the **severe housing deprivation rate**[85] reached 5.0% in 2018, above the EU-27 average of 4.3% while lower than in 2010 (7.0%)[86].



Infrastructure

Italy ranked 18th out of 141 for its infrastructure in 2018, securing three positions higher than the previous year, as per the Global Competitiveness Report 2019.

Namely, it ranked 16th for its railroad density, 11th in airport in the connectivity, 46th for the efficiency of its seaport services, 35th for the efficiency of its train services, 53rd in terms of the quality of roads infrastructure and 55th for the efficiency in air transport services[87]. In general, the investment and maintenance in Italy's infrastructure shown betterment, as demonstrated by the Transport Scoreboard of the European Commission. Although, the latter shows Italy's infrastructures ranking above the EU-28[88] average in the completion of the TEN-T core networks (road and rail), the country scores below EU-28 average when it comes to the quality of the infrastructure[89]. In addition, Italy is lagging behind on completion of the European TEN-T high-speed rail networks[90].

Italy is amongst the EU countries benefiting most from EU support. This support includes for instance a EUR 642.4 million investment in port infrastructure and intermodal last-mile links. The EU cohesion policy funding also plays a key role in supporting structural challenges in Italy. For example, the EU cohesion policy (together with the Connecting Europe Facility) support key infrastructure developments within the TEN-T core network, with investments amounting to EUR 1.8 billion and EUR 1.6 billion respectively.

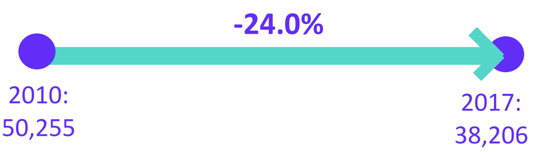
4

Key issues and barriers in the construction sector

Company failure

The business demography in the narrow construction sub-sector experienced a 24.0% decrease in the number of **company births**, from 50,255 in 2010 to 38,206 in 2017[91]. The number of **company deaths** decreased by 21.6%, from 51,368 to 40,275.

Number company births in the narrow construction sub-sector in Italy



On the other hand, the real estate activities sub-sector experienced an 8.6% fall in company births (from 11,092 in 2010 to 10,138 in 2017) and a significant 113.9% increment in deaths (from 8,495 to 18,175). Conversely, company births in the architectural and engineering activities sub-sector increased by 46.3%, from 10,982 to 16,065 over 2010-2017, whereas the number of company deaths also increased by 32.4%, from 12,388 to 16,403.

As the Italian economy is heading towards a standstill, stagnation of business failures in 2020 has been forecasted. Recent indicators have also showed that the stagnation in industry is not over yet, and the abrupt outbreak of COVID-19 creates additional challenges for business activity[92].

The relatively high number of bankruptcies can be explained by three major factors: i) it follows the introduction of new insolvency framework to simplify bankruptcy procedures and recommend pre-emptive measures to deal with corporate failures; and ii) major construction players declared bankruptcies, and with them numerous subcontractors along the value chains. All in all, this contributed to the consolidation of the sector, according to ANCE.

Furthermore, the ongoing COVID-19 pandemic situation might add on to the businesses' insolvency trend in the Italy's construction sector. The stringent measures of lockdown implemented by the Government have had negative economic and fiscal consequences[93].

According to SBA Fact Sheet, Italy has performed below the EU-28[94] average in 'Second Chance' principle, which refers to ensuring that honest entrepreneurs who have gone bankrupt get a second chance quickly. Italy has the third highest fear of failure rate of businesses in the EU-28[95], standing at 52.0%[96].

In addition, the settlements saw an overall increase throughout the economy. Particularly in the construction sector, the voluntary liquidations increased by 7.7% compared to Q1 2018. Despite the ongoing improvement, the number of failures in construction is still at high levels when compared to pre-crisis level.

Trade credit

Italy's liquidity problem in businesses is further exacerbated by poor payment behaviour from customers and this also puts strain on cash flow, specifically for smaller suppliers. Around 52.9% of the total **B2B sales value** were made on credit (increasing from 46.0% in 2018 and against a 60.4% regional average).

The share of credit sales made in for B2B transactions increased by 15.0% between 2018 and 2019.

This increased use of credit is largely explained by lack of liquidity in the sector. This is affecting the entire supply chain from contractors to sub-contractors and clients. Another underlying motive for the increased use of credit relate to boosting sales in domestic market[97].

However, Italian businesses use diverse credit management techniques to mitigate credit risk. The most applied technique is to assess the creditworthiness of the prospective customers, prior to any trade credit decision. Based on survey, 42.0% of respondents in Italy apply this technique, which significantly greater than in Western Europe (35.0%)[98]. In addition, 44.0% of businesses have reported to monitor the buyer's credit risk on a more regular basis; and 29.0% of respondents declared of using reserve against the risk of bad debts and 27.0% of respondents report to request payment in secured forms from the B2B customers, far more than in Western Europe (19.0%). These practices reflect heightened perception of customer credit risk in Italy.

Despite following these practices and credit management techniques businesses have reported 31.3% past due/unpaid B2B invoices in 2019. This is above the 28.9% average for Western Europe. The invoices written off as uncollectible increased to 2.6% (up from 1.7% in 2018). Large Italian enterprises have written off 1.2% of receivables as uncollectable and micro enterprises have declared the same as 1.5%. In order to strengthen the credit management and safeguard business profitability against trade credit risk, 46.0% businesses in Italy, far more than in Western Europe (26.0%) plan to offer discounts for early payment of invoices[99].

Since 2010, an organisation of a trade credit network (*Circuito di Credito Commerciale*) has been functioning across Italy. It represents a group of local businesses as member companies, which offer diversified services within the network such as credit instruments. It consists of a complementary and supplementary currency, able to complement the traditional one. In other words, it is a circuit in which companies, using a digital account unit, have the possibility to support and finance each other without interest. This scheme operates simultaneously with traditional bank loans, complementing them and offering additional financing opportunities to SMEs. At large, the initiative has been successful, displaying large engagement across regions[100].

Late payment

In 2019, Italian businesses have experienced late payments from B2B customers more frequently than other countries in Western Europe[101].

As per the report, most Italian firms consider payment terms between 31 and 90 days. Out of these firms, 22.7% accept payment between 31 and 60 days and 26.3% consider 61-90 days. In 2019, 34.7% Italian firms accepted to receive their payments on time, a decrease of 0.8% against 2018. It is below the EU-28[102] average of 44.3%. At the same time, 3.0% Italian firms reported with late payments beyond 90 days, representing a slight decline of 0.2% over 2018 and below the EU-28 average of 3.9%[103].

In terms of state aid and public procurement principle, Italy performs low as compared to other Member States. After experiencing a decline from 48 days in 2016 to 27 days in 2017, the average delays in payments from public authorities increased by four days, reaching 31 days in 2018. This is almost four times the EU-28[104] average[105].

In addition to late payment, public authorities often tend to delay the VAT refund process (as part of the split payment policy), which amounts to EUR 2.5 billion annually. According to ANCE, most VAT refund happen after three months, and 60% after nine months. In turn, this squeezes the liquidity of the construction sector, and may contribute further to the issue of late payment. The update on the measure of split payment, originally planned in June 2020, has been postponed to 2023.

Another issue faced by the Italian firms is the average time it takes to get paid by customers, the third longest in the EU-28[106]. Nevertheless, the situation is improving, with the average time reducing by 20 days between 2016 and 2017. Some progress has also been reported for some indicators, such as the cost of borrowing for small loans relative to large loans, which has improved since 2016[107].

Amongst all the regions across Italy, Emilia Romagna was reported to have the highest percentage (43.6%) of companies with on time payments. It falls in the North-eastern Italy. On the contrary, the region with the least companies for on time payment was Sicily with 17.3%, falling under the South and Islands region. Calabria, falling under South and Islands region was reported to have highest percentage (7.3%) of companies with late payments of more than 90 days. On the contrary, the region having least percentage (1.3%) of companies reporting for late payments of more than 90 days was Trenito Aldo Adige, falling in the North-eastern part of the country[108].

With regards to businesses affected by late payment, 36.0% of businesses in Italy report that they need to implement remedial measures in order to safeguard cash flow or to delay payments to their suppliers. As for the Western Europe average, 26.0% have reported the same issue. To prepare against liquidity shortages arising out of late payment of invoices, 28.0% businesses in Italy have reported that they require to pursue additional financing from external sources. At a regional level, 19.0% businesses have reported the same. In terms of collecting long-term past due invoices, Italian businesses have been less successful than last year[109].

Over the past year, nearly one third (31.3%) of the total value of the B2B invoices issued by Italian businesses remained unpaid at the due date. This is above than the average for Western Europe (28.9%)[110].

Late payments and unpaid invoices have significant impact on the construction sector. For instance, 52.0% of companies expect that they could hire more employees if payments were received faster[111]. Moreover, amid the ongoing COVID-19 pandemic, B2B supplier payment practices have been impacted in Italy. With shuttered stores and disrupted supply chains, numerous companies struggle to manage cash flow[112].

With European being hit the hardest, Italy has seen more than 80.0% of B2B invoices going unpaid amid the COVID-19 pandemic. Italy was followed by France and Spain with unpaid invoices rising to 56.0% and 52.0% respectively[113].

Time and cost of obtaining building permits and licenses

Italy ranked 97th out of 190 with reference to 'dealing with construction permits' in 2019, according to the World Bank's Doing Business 2020[114], better than the rank in previous year (104th)[115]. Completing administrative formalities to build a warehouse[116] requires 14 procedures, (above the OECD high-income average of 12.7 procedures), and takes 189.5 days, well above the OECD high-income average of 152.3 (Table 3). Furthermore, the total cost of obtaining a permit for a warehouse represents 3.4% of the value of the warehouse, above the OECD high-income average of 1.5%. Namely, **obtaining a building permit** takes 135 days and costs EUR 38,061.0, being the most expensive procedure of the all permit procedures required.

Table 3: Construction procedures timing and costs in Italy

Procedure	Time to complete	Associated costs
Obtain geo-technical study of the land	15 days	EUR 2,000
Obtain topographic survey of the land plot	15 days	EUR 1,000
Hire an independent engineer to test structure	1 day	EUR 6,000
Obtain building permit	135 days	EUR 38,061
Obtain seismic authorisation	30 days	EUR 1,316
Submit notification of commencement of works	0.5 days	no charge
Report closure of structural works	1 day	EUR 137
File certified notification of starting activity ("SCIA") for fire security	0.5 days	EUR 216
Receive on-site inspection by the Fire Department	1 day	no charge
Register the building	5 days	EUR 159
Apply for water and sewerage connection	1 day	no charge
Receive on-site inspection and estimation of water and sewerage installation costs	1 day	no charge
Obtain water and sewerage	29 days	EUR 600

Procedure	Time to complete	Associated costs
connection		
File a certified report for occupancy	0.5 days	EUR 150

Source: Doing Business overview for Italy, World Bank, 2020.

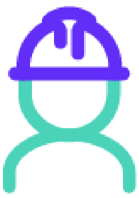
Skills shortage

Italy investments in education, particularly in higher education, are well-below the EU-28[117] average. The level of tertiary educational attainment is low, and the transition from education to work remains difficult, even for highly qualified people[118].

That said, there was a significant increase of students in tertiary education in engineering, manufacturing sub-sector and narrow construction sub-sector between 2010 and 2018 (+87.8%)[119]. In the architecture and building, the number of students increased significantly by 52.8% over 2010-2018, from 13,427 to 20,512.

There was also an increase of 1.8 pps in the **adult participation in education and training** for the narrow construction sub-sector from 2.6% in 2010 to 4.4% in 2019. There was, however, an insignificant decline in 2019 by 0.1 pp from the participation rate in 2018. As for adult participation in education and training in the real estate activities, there was an increase of 1.0 pp from 6.4% in 2010 to 7.4% in 2019, and an increase of 0.2 pp YoY.

Despite these positive trends, recent reports reveal a significant gap between business demand and training supply.



In 2019, with the purpose of attracting or re-attracting the labour force indirectly, including the skilled migrants, "*Decreto Crescita*" and the Fiscal Decree No. 124/2019 revamped fiscal benefits for workers moving their fiscal residence to Italy[120].

Entering into the labour market for younger and high-skilled people remains a challenge. The limited vacancies prompt an increasing number of university graduates to leave Italy (41.8% up in 2019 since 2013). Thus, Italy's highly skilled people migrating outside of Italy stands greater than the proportion of skilled people coming to Italy from other countries. This widens the skill gap in the country[121].

The skills mismatch has been recognised as one of the factors impeding companies with great potential, to strive in the national economy[122]. While worker shortage affects most of the professions in the construction sector, the shortage is more pronounced for high skill occupations such as construction managers, architects and professionals that have both technical and management skills[123]. According to ANCE, this is partly explained by the fact that a lot of those highly skilled and experienced workers are getting retired, causing a potential loss in terms of skills and knowledge that can hardly be compensated. In addition, for digital skills, young workers are rarely attracted to the construction sector itself, and rather opt for a career in other economic sectors.

Italy's tertiary education system stays underfinanced and the completion rate continues to lag. In 2017[124], 0.3% of GDP formed the proportion of expenditure on tertiary education. Italy's share of 30-34 year-olds with a tertiary educational attainment (27.8%) also lied below the EU-28[125] average (40.7%) in 2018[126]. With regards to vocational education and digital skills, several measures are in place, but the implementation for the same stays inactive. With the aim of improving VET (Vocational Education and Training) governance, regional vocational centres and its link with the labour market, a new national network of professional schools is being planned. The investment in these skills as well remains low. In comparison with EU-28, Italy recorded a lower share of share of graduates in science and engineering (12.2% against 15.5%)[127].

Apart from ongoing issues, the current situation of the world with reference to COVID-19 outbreak, has resulted a slowdown in education and skills. Daily wage workers and migrant labourers are mostly affected as major employers like construction companies have cut operations significantly[128].

BWI's (Building and Wood Workers' International) Italian affiliate, FILLEA-CGIL has recently informed the migrant construction workers of the benefits they are eligible for amid the COVID-19 outbreak. Some of these include income and job security. The union said that migrant workers who have decided to leave Italy due to the health crisis are entitled to the same benefits[129].

Sector and sub-sector specific issues

Material efficiency and waste management

In Italy, construction and demolition waste (CDW) is classified as 'special waste', according to the Decree 152/06. **CDW** amounted to 59.8 million tonnes in 2018, accounting for 45.0% of the total special waste production in 2018. This represents a 6.6% decrease from the 56.1 million tonnes reported in 2017. Of the total C&D waste production, 57 million tonnes were non-hazardous, compared to 54.3 million tonnes in 2016. Overall, Italy recycled 77.4% of their construction and demolition waste in 2018, above the 70.0% target set by Directive 2008/98/EC[130][131].

The primary drawback related to sustainable waste management is the quality of the materials recycled, often negatively perceived by construction stakeholders[132]. Italy is at Level 2 (Developing), out of 4, in CDW management implementation[133].

These follow the Ministerial Decree of 5 April 2006 no. 186, which establishes the procedure to be followed for the transformation, treatment and recycling of construction waste products. Moreover, waste management is regulated through National Law adapting European legislation, including the Framework EU legislation on waste[134] and the EU legislation on specific waste streams[135].

The responsibility of monitoring and enforcing waste legislation is fragmented across many authorities at different administrative levels from national to regional and provincial levels[136]. This makes it challenging to monitor and assess progress in this field.

Climate and energy

Emissions of greenhouse gases (carbon monoxide and dioxide, methane, nitrous oxides and particulate matters) from activities in the narrow construction and real estate activities sub-sectors amounted to 4,815,080 tonnes and 450,579 tonnes in 2018[137], respectively. The former experienced a 9.3% decrease since 2010 (5,308,693 tonnes), while the latter declined by 26.4% (612,148 tonnes in 2010).

In Italy sellers or property owners need to provide an **energy performance certificate** (*Attestato di Prestazione Energetica – APE*) when selling or renting a building specifying the energy performance and energy class of the building, CO_2 emissions. An APE was introduced in October 2015, in line with Directive 2010/31/EU[138].

5

Innovation in the construction sector

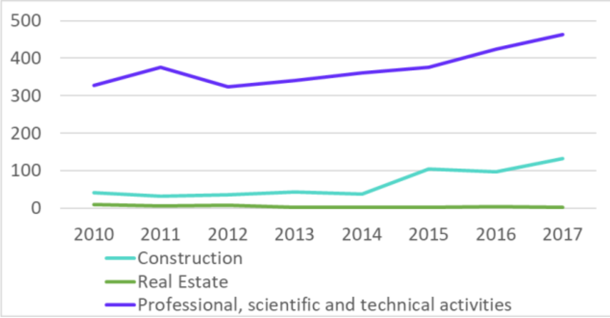
Innovation performance

Italy is classified as a Moderate Innovator, according to the European Innovation Scoreboard 2020, with an innovation index of 82.8.

The innovation performance has improved significantly from 2010 to 2019 (75.4 to 82.8)[139]. The country's main strengths lay in SMEs innovating in-house, SMEs product/process innovations, SMEs marketing/organizational innovations and trademark applications and design applications. Conversely, it performs below the EU-28[140] average in terms of population with tertiary education, broadband penetration, venture capital expenditures, R&D expenditure in the business sector and innovative SMEs collaborating with others. The biggest improvements since 2012 have been in Innovators, Intellectual assets and Attractive research systems[141]. The Global Competitiveness Report ranks Italy 22nd out of 141 countries in 2019 in terms of innovation capability and patent applications while 253rd in terms of R&D expenditures as a share of GDP[142].

Business enterprise R&D expenditure (BERD) in the broad construction sector has fluctuated over the past years (Figure 9). The narrow construction sub-sector experienced a decline between 2010 and 2014, decreasing from EUR 41.8 million to EUR 37.6 million in 2014, before picking up to EUR 105.0 million in 2015 and finally settling at EUR 132.1 million in 2017 (a 216.1% increase between 2010 and 2017). Likewise, the BERD in the professional, scientific and technical activities sub-sector saw a 41.7% increase over 2010-2017, reaching EUR 462.8 million by 2017, the highest across the sub-sectors. At the same time, the BERD in the real estate activities sub-sector declined the most between 2010 and 2015, by 89.3% from EUR 10.3 million to only EUR 1.1 million but saw an improvement in 2016 (a rise of 267.5% compared to 2015) amounting to EUR 4.0 million. In 2017 it declined again by 35.7% and reached to EUR 2.6 million. This represents an overall 74.8% decline between 2010 and 2017.

Figure 9: Business enterprise R&D expenditure (BERD) per construction sub-sector in Italy between 2010-2017[143] (EUR m)



Source: Eurostat, 2020.

In parallel, the total **R&D personnel** (full-time equivalents – FTE)[144] in the broad construction sector paralleled the trend observed in BERD. The narrow construction sub-sector and the professional, scientific and technical activities sectors increased, growing by 180.7% (from 793 to 2,226) and 117.3% (from 3,308 to 7,188) respectively. On the other hand, the total FTE in the real estate activities sector fell by 90.7% during the same period, from 441 in 2010 to 41 in 2017[145]. Moreover, the number of **constructions related patent applications** increased in 2019 compared to 2010, going from 269 to 296 (+10.4%), after under-going some fluctuations during the mentioned period.

However, there has been a decrease in the number of firms ranked within the top 1,000 EU companies by R&D in the construction sector. While there were six Italian construction firms present in the 2012 ranking[146], there was just a single company left in 2018[147], and in 2019 it turned to zero[148].

The real estate and construction market have witnessed growing interest and demand for advanced professional and digitised services. Digitised services in the real estate sector would profit the organisation of the asset sale process in Italy. Growing number of banks and investors are opting this kind of service, aiming at ensuring greater transparency for customers or buyers[149]. In particular, digitised services in the real estate sector are expected to peak, which is partly due to the COVID-19 impact. In response to the pandemic, measures are being taken to maintain social distancing by digitizing procedures and transactions. The buyer's visits to the apartments are continuing online with video visits and virtual tours. Communication is being done through website, social media and emails, such as sending newsletters. The paper forms are being digitized. Virtual agencies have been created to communicate with customers, such as video conference and video calling tools. The trainings and sessions are also imparted online. Thus, the pandemic has made the use of digital tools an integral part of working[150].

Between 2014 and 2016, 30.8% of Italian construction companies with more than 10 employees carried out innovation activities, which was slightly more than for the 2012-2014 period (0.5%)[151]. The activities related to products, processes, organisation or marketing. More generally, the share of construction companies carrying out product-process innovation amounted to 19.5% of the total, higher than the 2014 level (17.7%). These figures remain lower than in the sectors of industry and services, where companies undertaking innovation activities over 2014-2016 accounted for 49.5% and 31.1% of the total, respectively[152].

However, it is important to note that the government's policies in place, are not always a good fit with the construction sector. For instance, according to ANCE, the policy *Industria 4.0* is not adapted to the specificities of the construction sector, and hence not deemed relevant by businesses. That is why ANCE is advocating for a tailored digital strategy including trainings of both public and private sector actors as well as fiscal measures.

Eco-innovation and digitalisation

According to the 2018 Eco-Innovation Index, Italy ranks 8th in the EU region with a score of 112 compared to the EU-28[153] average of 100[154].

Italy's general eco-innovation performance has improved over the years, primarily driven by the resource efficiency front. In 2018, it was expected that 63.5% of the new contracts for design and research would go green, depicting much closer link between the green economy and business innovation[155].

On the other hand, eco-innovation inputs continue to be a challenge due to scarcity of capital. As per the 2017 Environmental Implementation Review, there have been two barriers to eco-innovation and the circular economy for Italy. Structural barriers relate to market issues and includes challenges specific to the economy and technology. The second barrier relates to the business environment and notably policies and regulations[156]. Italy has also made progress in the field of voluntary agreements and has one of the highest numbers of Eco-labels and Eco Management and Audit Schemes in the EU region.

The Circular Economy Action Plan of Italy highlights the need of moving towards a life-cycle-driven 'circular' economy, reprocessing the resources exhaustively and minimising residual to the farthest extent. This can be facilitated by developing and providing access to innovative financial instruments and funding for eco-innovation[157].

Italy's strategy for progressive adoption of BIM (Building Information Modelling) started with approval and publication of UNI 11337 and the "BIM Decree". It provides for the mandatory application of BIM methodology starting from 2019. UNI 11337 standards – Building and civil engineering works – Digital management of construction information processes, were introduced in 2013. These standards represent the main framework of the national strategy for the digitization of buildings. UNI 11337 are divided into 10 parts, each one concerning a specific aspect of BIM.

The BIM Decree (DM 560/2017, also referred sometimes as Baratono Decree) implements art. 23 paragraph 13 of the new Code of Public Market, drafted by the Baratono Commission[158]. Such implementation will be done in six phases. First, since 2019, all complex projects worth more than EUR 100.0 million were required to adopt the BIM methodology. By 2020, the use of BIM will become mandatory for any complex projects which value is equal to or exceed EUR 50.0 million. As of January 2021, BIM will be required for complex projects worth EUR 15.0 million or more. By 2022, the use of BIM will be required for works which amount is equal to or greater than the threshold defined in Article 35 of the Public Contract Code (EUR 5.2 million for works contract). As of January 2023, BIM will be required for works amounting to EUR 1.0 million or more. The last step, planned in 2025, is to expand BIM to all projects, complex or not, up to amounts of less than EUR 1.0 million[159].

Presently, the largest infrastructure projects using BIM in Italy are:

- **Bulgari Manufactury facilities:** Construction of two buildings a total area of 15,000 m² and it is composed of two buildings with different architectural features. The project aims to create a conceptual link between innovation and tradition;
- **Gulf Terminal of La Spezia:** Construction of the building with the building with a total area of 120,000 m². The project has a budget of EUR 85.0 million and scheduled to be completed by 2022[160].

The Ministry of Economic Development funded a research project named INNOVance. It aims at creating a BIM library, a Common Data Environment (CDE) of BIM projects in a contract. This would help in sharing work information, and a data exchange platform for the entire construction sector. It represents first digital platform in the construction sector with BIM methodology on a national level. With the help of INNOVance, building a virtual wall with searching and downloading an industrial production object, and inserting it into the model has become possible. Moreover, the upcoming progresses and developments of BIM have been already anticipated in the software. It operates according to the UNI 11337: 2009 standard and it is the origin of the UNI 11337: 2017 standard group[161].

In 2019, the boosting of digitisation of the Italian economy and society was much emphasised on at a political level. The year saw the launch of new initiatives and notably the establishment of a new Ministry for Technological Innovation and Digitisation, acting as coordinator[162].

In 2020 Budget Law, the Italian government announced a 3.0% indirect tax applicable to the revenues from the provision of certain digital services (Italian DST) by building on the Italian DST measure. This was already contained in the 2019 Budget Law, but it did not come to force as there was absence of the required implementing decree. The Italian DST has immediately come to effect since 1 January 2020 without any implementing decree[163].

Moreover, the government renewed the National Plan 'Enterprise 4.0' and launched 'Transition 4.0', with a deeper focus on innovation, green investment and participation of SMEs. In March 2020, government launched the National Innovation Fund with a preliminary budget of EUR 1.0 billion and operating based on Venture Capital procedures, in order to support investment in innovative enterprises[164].

Italy ranked 25th in Digital Economy and Society Index (DESI) for 2020, declining from 23rd rank in 2019. The overall DESI score for Italy in 2020 stood at 43.6, being lower than the EU average score, 52.6[165].

While its score is line with the EU-28[166] average, Italy's rank for 'Connectivity' indicator deteriorated to 17th in 2020 from 12th in 2019.score 50.1. The 'Human Capital' indicator ranked 28th, declining by 2 ranks from 2019. The score stood at 32.5, well below EU-28 score of 49.3. The 'Integration of digital technology' indicator was ranked at the 22nd position in 2020, which is an improvement from the 23rd rank in 2019. However, the score stood at 31.2, lower than the EU-28 of 41.4 in 2020[167].

However, there have been few gaps with reference to Human Capital. In comparison with EU-28[168], Italy has recorded low levels of digital skills. The number of ICT specialists and ICT graduates also lies much below the EU average. These setbacks in digital skills are mirrored in the low usage of online services. Merely 74.0% of Italians are regular internet users. Notwithstanding the country's higher ranks in offering e-government services, public acceptance remains low. Italian businesses also lag in using technologies such as cloud and big data, as well as in the uptake of e-commerce[169]. Even before the onset of global pandemic, COVID-19, the evolution and acceptance of technology was high at a global level. Presently, measures are being taken to maintain social distancing and curb gatherings and physical interactions. In turn, this incentivises the construction sector to digitalise to abide by the distancing norms. However, Italy's shortage in digital skills and low acceptance rate of digital technologies may prevent such a process to materialise in practice.

At the regional level, Lombardy launched the **Smart Living** measure, aiming to support the revival of the industry by encouraging companies to cooperate to promote innovation and the acceptance of digital and new construction technologies. A budget of EUR 15.0 million has been devoted to the measure to support R&D projects in the field of construction, materials, interior design, smart appliances, building automation, digital manufacturing and sustainable construction[170]. In order to apply for funding under the programme, beneficiaries must be consortia of at least three partners, one of which an SME and one university, to foster cooperation between industry and academia in the construction field, whilst promoting the R&I capacity of smaller firms[171]. Lastly, several measures were adopted earlier to enhance investments in R&D and innovation among companies, including SMEs. Furthermore, funds were allocated on the Guarantee Fund for SMEs to cover the risk of losses in R&D projects of SMEs and midcaps.

6

National and regional regulatory framework

Policy schemes

Italy offers several housing aid initiatives, including:

- **National Rental Fund** (*Fondo nazionale per il sostegno all'accesso alle abitazioni in locazione*), as provided by art. 11 of the Law No 431/1998, aims to provide support to tenants with low income for the payment of rent. The Ministry of Infrastructure and Transport allocated EUR 60.0 million for the National Fund for the support to access to rented housing in 2020[172]. In the 2019 Budget Law, the Italian government also established the 2019 Rent Contribution Fund (*contributo all'affitto 2019*) along with an Anti-Eviction Fund to prevent eviction and help tenants in difficulty[173].

- **The Fund for non-guilty defaulting tenants** (Fondo destinato agli inquilini morose incolpevoli) was then established by the Law No 102/2013, art. 6 co. 5, with the aim of supporting families who, due to the loss or substantial reduction of the family's income, cannot pay the rent and received an eviction notice for arrears. Following the epidemiological emergency from COVID-19, an urgent procedure has been defined to facilitate the distribution among the Regions.

- **Home purchase and/or renovation fund (***Plafond casa***):** Law No. 124 of 28 October 2013, allocated EUR 2.0 billion to support access to home buying loans, which focuses on energy efficient housing[174]. In the 2019 Budget Law, the government also extended the renovation / restructuring bonus allowing a 50.0% tax deduction for any construction or renovation work carried on private properties and shared areas of buildings.

- **Fund supporting interests on mortgage loans** (*Fondo contributo agli interessi sui mutui ipotecari*). With a total budget allocation of EUR 113.4 million for the period 2015-2020 (EUR 18.9 million per year), the Fund supports the purchase of social housing units by the tenants[175]. The 2019 Budget Law also allows the interest deductibility on mortgages of real estate companies, previously repealed by Legislative Decree n. 142/2018.

- **ECO Bonus** – a tax rebate scheme for energy efficiency renovations, confirmed by the 2016, 2018 and 2019 Stability Law. Until the end of 2021, a tax deduction up to 65.0% can be claimed for renovations carried out on the common parts of residential buildings and for interventions on the building envelope, aimed to improve energy performance.

- **Urban Renaissance Plan** (*Piano di Rinascita Urbana*). In the Budget Law for 2020, an allocation of about EUR 1.0 billiard is planned to improve the quality of living, through various actions, such as reconstructions of buildings, support for tenant families, construction sites in small municipalities. It is an innovative multi-annual programme for the redevelopment and increase of public and social housing and urban regeneration. The program also expects for the co-funding by regions and the possibility of the contribution of private resources. The eligible investment is based on several criteria: significant economic and social marginality, building degradation and lack of services, as well as consistent and unused spaces to be redeveloped.

- **Superbonus 110%**. Adopted in April 2020, the superbonus 110% is a fiscal measure providing a tax credit amounting to 110% to households for energy efficient and seismic related renovation. Launched in June, this scheme planned implementation is meant to last until December 2021, and could potentially generate up to EUR 5.0 billion of investments. However, because its short timeframe may disincentivise households, ANCE advocates for a longer duration period of the scheme.
- **Funds for social housing in earthquake areas** (*Edilizia sociale nelle zone terremotate*): 100 million euros were allocated to the regions of Abruzzo, Campania, Lazio, Marche and Umbria hit by the seismic events of 2016-2017 for the financing or co-financing of projects regarding the construction of housing to be used for permanent leasing with social rent; to lease with future sale agreement.

C40 Reinventing Cities, a competition that is part of Milan's strategic plan recently selected L'INNESTO, a project area spanning 62,000 square metre, as its winning project. Upon completion, L'INNESTO will be Italy's foremost carbon-neutral social housing project. It will use fourth generation district heating system linked to the neighbourhood and powered by on-site renewable sources[176].

Moreover, regarding the renovation bonus, the **Earthquake Bonus** (*Sisma Bonus*) entails a tax deduction of 50.0% for works carried out for making an earthquake-proof dwelling. The deduction goes up to 85.0% if the interventions improve the property by two risk classes. This incentive will be in place until 2021[177]. There are also other schemes such as the Renovation Bonus, the ECO Bonus or the Conto Termico[178].

As per the European Council recommendation, the government's aim is to take steps for supporting the rent to facilitate access to housing for distressed households and the recovery of social housing, under the housing policy (*Piano Casa*). For 2020, the target is to reduce 2,200,000 people who are at risk of poverty, deprivation and social exclusion[179].

In addition, the Budget Law 2020 has also made amendments in the measure "Building renovation and eco-bonus tax deductions". It has introduced 90% deduction for the renovation of the exterior facades of buildings. Implementation of an extraordinary programme of real estate disposals for an estimated value of approximately EUR 1.2 billion over the 2019-2021 period has been adopted as reform action, out of which EUR 610.0 million from the revenues of the sale of buildings would be transferred by public entities to the real estate funds[180].

From 2020 onwards, a fund has been arranged by local and regional authorities for municipalities with the purpose to improve energy efficiency, sustainable territorial development and for securing infrastructure and public buildings. The tax credits for energy efficiency measures (50% and 65% within the expenditure limits already predicted for 2018) and building renovation (50% of expenditure incurred up to a maximum of EUR 96,000 per property unit) has been also introduces under building upgrading polity area[181].

Building regulations

The private construction sector is regulated by national and regional regulations. At the national level, the Consolidated Text for Building (Presidential Decree n. 380/2001 and its subsequent amendments and additions) represents one of the main normative references for the construction sector. Pertaining to urban planning and commonly, to the discipline of the governing rules of the territory, the containment of soil consumption and the urban regeneration, reference should be based on the several laws adopted by the distinct regions which on this matter have a parallel legislative competence with the state. The national Urban Planning Law 1150/1942 and Ministerial Decree n. 1444/1968 on standard urban planning and building standards (relationship between private settlements and spaces for collective activities, confines on building density, height and distance between buildings, etc.) are rather obsolete and, over the years, in the absence of any revision of those standards, the regions have regulated the subject with several regulations.

The **Budget Law 2020** has applied registration duties accompanying mortgage and cadastral registration duties to a limited extent on the transfer of buildings to construction or building renovation companies which carry out energy upgrading measures.

In recent years, several procedural simplifications have been brought forward to standardise the requirements throughout the country and to speed up the construction procedures. In addition to the introduction of the standard building permit (*Regolamento edilizio unico* - approved by the Agreement at the Joint Conference on 20 October 2016) and the introduction of a single form for the submission of applications (SCIA – *Segnalazione Certificata Inizio Attivita/Certified notice of beginning of (construction) works*, CILA - *Comunicazione di Inizio Lavori Asseverata/Beginning Work Notice*), the measures have been approved (Decree n 126/2016, Decree n. 127/2016; Decree n. 222/2016), which introduced important amendments to Presidential Decree n. 380/2001 (e.g. removal of the request of the ASL - *Azienda Sanitaria Locale/Local Health Authority*' opinion, reform of the local authorities planning conference etc.). In 2018, the single glossary was also approved for the free construction activity (Ministerial Decree of 2 March 2018): a list of 58 works, which can be executed freely without the need to present a building permit. In the Budget Law of 2020, amendments have also been made to the Single Code on Construction activity, which will rationalise the regulatory framework. This will also promote urban regeneration and procedures of reducing consumption of land[182]. Last, among the consultations started and concluded in 2020, was Let's simplify! ("*Semplifichiamo*!") promoted by the Minister for Public Administration. This consultation collected stories, reports of problems and simplification proposals from citizens and businesses. The aim of the consultation was to collect useful information for the preparation of a package of rapid simplification actions and for the definition of the new simplification agenda.

The consultation received 130 inputs about administrative complications and proposals for solutions which formed the basis for creation of a ranking of the main complications reported by citizens and businesses.

Amongst others, one of such discretionary measures taken by general government was 'Building renovation and eco-bonus tax deductions.' The measure included:

(i) an extension to December 31, 2020 of the deduction for building restructuring at a 50.0% rate,
(ii) extension to 31 December 2020 of the deduction for energy efficiency,
(iii) extension to 2020 of the deduction for the purchase of furniture and large appliances of high energy class in building being restructured, and
(iv) introduction for 2020 of 90.0% deductions for the renovation of the exterior facades of buildings (Facades bonus)[183].

The Masterplan of Emilia Romagna, starting from 2020, will be the PUG (General Urban Plan – *Piano Urbanistico Generale*). Currently, the masterplan is composed by the PSC (Structural Plan – *Piano strutturale comunale*) which rules the strategic decisions for the city and the RUE (Building Regulation – *regolamento urbanistico edilizio*) which regulates the building rules in each area[184].

Finally, it should be noted that Decree 76/2020, to support the construction sector and its restart in the context of the difficulties caused by the health emergency, provided for the extraordinary three-year extension:

- building permits issued or issued by 31 December 2020;
- certified notifications of commencement of activity (Scia) submitted by 31 December
- 2020;
- urban planning conventions and related implementation level urban plans as well as building permits issued within them.

Insurance and liability related regulations

As regards the insurance scheme and the liability of con operating in the sector of private works, the general rules are established in the Civil Code or in special laws concerning, in particular, the rules on security and the subsequent measures[185].

Responsibility for the stability of constructions is also dictated by the 1971 law related to buildings with metal or concrete structures (*Legge del 5 novembre 1971, n. 1086*), and the 1974 law concerning buildings located in seismic areas (*Legge del 2 febbraio 1974 n. 64*).

Without prejudice to the general rules and mandatory rules in contracts between private parties, the parties are not precluded to determine the content of the liability to which the manufacturer/contractor is bound and any claim for insurance policies.

The Civil Code provides two forms of liability, one concerning defects in the work or for materials in relation to the design or contractual arrangements and the other, for defects and serious construction defects**,** which the contractor or the seller/manufacturer is liable for 10 years after completion of the work.

The Decree n. 122/2005 introduced special guarantees for persons purchasing a land to build (but with a permit to build) or in the course of construction (i.e. before finalisation). In such cases, contractors are obliged to deliver to the buyers, at the time of the deed, an insurance policy covering the defects and serious defects expected to occur in the 10 years following the completion.

In the 2020 Budget Law, INAIL (National Institute for Insurance against Accidents at Work) premiums and insurance contributions for insurance against accidents at work and occupational diseases have been revised with the purpose of reducing labour cost[186].

7

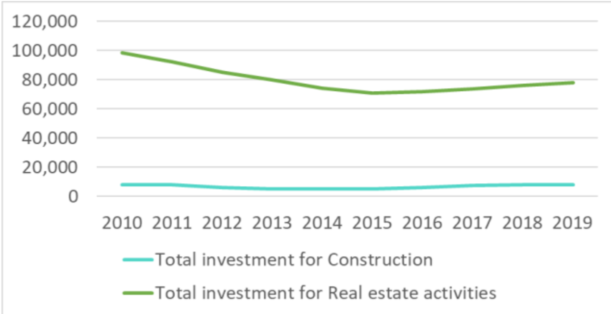
Current status and national strategies to meet Construction 2020 objectives

TO 1 – Investment conditions and volumes

Total **investment by the broad construction sector**[187] has declined since 2010 (Figure 10). Total investment by real estate activities sub-sector fell by 20.6% between 2010 and 2019, from EUR 98.2 billion to EUR 78.0 billion. There was a slight decline of 1.0% in total investment by the narrow construction sub-sector, from EUR 8.1 billion in 2010 to EUR 8.0 billion in 2019. The investment in machinery by the narrow construction and real estate activities sub-sectors dropped by 6.9% and 35.0% respectively over the 2010-2018[188] period. Investment in intellectual property products declined by 84.7%in the real estate activities sub-sector, from EUR 224.8 million in 2010 to EUR 35.5 million in 2018. On the contrary, investment in the intellectual property by the narrow construction sub-sector increased by 110.5%, from EUR 300.7 million in 2010 to EUR 632.9 million in 2018.

Total investment by the real estate activities sub-sector between 2010 and 2019 **20.6%**

Figure 10: Investments by the Italian broad construction industry between 2010 and 2019 (EUR m)

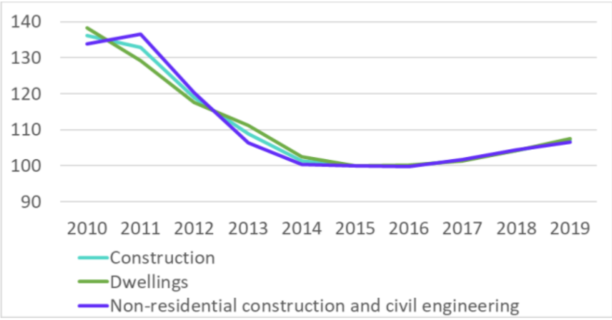


Source: Eurostat, 2020.

Total **investment in the broad construction sector**[189] in 2019 increased by 7.1% from 2015. Investment in dwellings by the whole economy decreased continuously by 38.3% over 2010-2015, and started recovering from 2016 onwards, with investments in 2019 being 7.5% above 2015 levels. Likewise, investment in non-residential construction and civil engineering increased by 6.6% in 2019 (compared to 2015 levels). In absolute terms, investment in the construction sector totalled EUR 139.2 billion in 2019, out of which EUR 73.8 billion was invested in dwellings and EUR 65.4 billion was devoted to other buildings and structures[190].

Total investment in the broad construction sector between 2015 and 2019 **7.1%**

Figure 11: Investment index in the Italian construction sector between 2010 and 2019 (2015=100)



Source: AMECO, 2020.

Total **inland infrastructure investment**[191] as a share of GDP declined from 0.5% in 2010 to 0.4% in 2016[192]. Investment in rail infrastructure in Italy stood at EUR 3.5 billion in 2016 (-26.2% compared to 2010). The investment in rail infrastructure **maintenance** declined by 77.8% between 2010 and 2015[193], from EUR 7.8 billion to EUR 1.7 billion. Italy ranked 12th in the EU region, having completed over 70.0% of the TEN-T conventional rail core network in 2019[194]. On the other hand, the country experienced a 0.6% increase in its road infrastructure investment over the 2010-2017 period. In addition, road infrastructure maintenance increased by 36.7% during the period 2010-2017[195], from EUR 6.4 billion to EUR 8.8 billion. Italy ranked 53rd, with regards to the quality of roads infrastructures according to Global Competitiveness Report and ranked 19th among EU-28[196]. Italy completed over 81.0% of the TEN-T road core network in 2019.

Italy's inter-ministerial Committee for Economic Planning (CIPE) approved a EUR 28.0 billion infrastructure funding for Ferrovie dello Stato Italiane. The 2017-2021 programme was updated for Rete Ferroviaria Italiana (RFI), providing an additional EUR 15.4 billion funding[197].

In connection with the investment in state railways, the 2019 Budget Law provided EUR 9.7 billion to be invested during the period 2019-2021, with investments worth EUR 1.2 billion for 2019 only. The Budget Law also included a framework for the EUR 2.4 billion refinancing of Development and Cohesion Fund in 2019-2021 (i.e. EUR 800 million for each of the three years)[198].

With regards to public investments, additional EUR 9.0 billion have been set aside in the 2020-2022 period to support two new investment funds which are managed by the state and by local authorities. The concept behind these funds is to leverage public funds to attract private sector[199].

Alongside, the **Local Authorities Fund**, with a EUR 35.1 billion budget for next 15 years, aims at reviving investment of local authorities and has already allocated EUR 4.0 billion for hospital construction, EUR 3.7 billion for construction of provincial schools and road maintenance, EUR 20.5 billion meeting public finance needs of local authorities and EUR 5.0 billion towards regional grants[200].

Additionally, **Regione Puglia 2014-2020 Co-Financing** was set up for supporting the implementation of the Operation Programme for the Italian region of Puglia for the period 2014-2020. The Regional Operational Programme of Puglia for the Implementation of the EU Cohesion Policy, "Investment in growth and employment" is comprised of twelve thematic axes. These include sustainable transport and urban development, which are among the key priorities prevailing in Puglia region. As part of this programme, the EIB provided a EUR 450.0 million loan, to support the sustainable economic development through construction of infrastructure, rehabilitation and human capital development[201].

The Italian Government plans to pursue an economic policy concentrated on the revitalisation of growth, an all-encompassing and sustainable development and balanced public finances, as per the priorities specified in the Update to the Economic and Financial Document (EFD)[202].

Italy will also benefit from EUR 125.0 million grant from EIB for infrastructure in Friuli Venezia Giulia. This is to support the construction and refurbishment of public infrastructures in the territory of the Region of Friuli-Venezia-Giulia[203].

The objective of this project is to strengthen investments that will upsurge earthquake resilience and energy efficiency in education and social infrastructures. The project will also support smart economic advancement by the development of natural and cultural heritage and the financing of social infrastructure and the enhancement of resilience against risk factors.

The **household renovation spending** has seen a decreasing trend since 2010. Indeed, it fell by 6.5%, from EUR 8.2 billion in 2010 to EUR 7.7 billion in 2018. It accounted for 0.7% of household disposable income, 0.1% decrease from 2010. This is lower than the EU-27 in 2018, which renovation spending stood at EUR 72.1 billion and accounted for 0.9% of household disposable income. The 2019 Budget Law has confirmed the extension of personal income tax deduction of 50.0% up to EUR 96,000 for housing renovations, the mobile bonus connected to it and 65.0% deduction in case of redevelopment (please see EcoBonus). It has also extended the 36.0% personal income tax deduction in case of landscaping. This may incentivise households to further invest in renovation.

Recently several renovation measures have increased in Italy, in terms of transport and urban development. The **Trenitalia Rolling Stock Renewal Program** is one such project in which European Investment Bank (EIB) provides FS Italiane Group with support for new hybrid regional trains with lower environmental impact. The project entails acquiring up to 135 less polluting new trainsets by Trenitalia for providing regional train services in several regions in Italy. Announced in July 2020, the proposed EIB finance is EUR 450.0 million, whereas the total cost of the project is EUR 960.0 million[204].

The **Trento Infra Renewable Energy** is yet another project announced by EIB in July 2020. This is a project under Urban Development, comprising the framework loan for public sector entities to finance the construction of public infrastructure. It includes green/climate-change investments in Trento. It will receive EUR 335.0 million as a proposed financing from EIB. The total cost of the project is EUR 444.0 million[205].

TO 2 – Skills

Italy's investment in education lies much below the EU-28[206] average, specifically in higher education. The public expenditure on education as a percentage of Italy's GDP in particular for 2018 stood at 3.8%, whereas the same for EU-28, was 4.6%. The GDP's share spent on education at a broader level, in Italy has been forecasted to decline in next 15 years. In 2019, it stood at 3.5% and by 2035 is expected to decline to 3.1%, as projected by the Ministry of the economy and finances (MEF).

The level of tertiary educational accomplishment is also low, and the evolution from academics to profession remains tough, even for highly qualified people. It is has become difficult for highly qualified people to find a suitable employment[207]. As a result, Italy's **employment rate of recent graduates** in 2019 amongst EU-27 was the lowest, which stood at 58.7%. Despite showing an improving from 2018 (56.5%[208]), it was much below from the EU-28 average which stood at of 80.9% in 2019. The employment rate of Italy's male graduates in 2019 stood at 61.7%, higher than the female's (55.8%)[209].

According to Eurostat statistics, more than half of the 10 worst EU regions for graduate employment are in Italy. In fact, amongst the regions in Italy, Southern Italy has the worst graduate employment rates in the EU. Two factors act as obstacles: there is a limited number of companies that hire graduates; and the public sector, which used to be a major source of job opportunities for skilled people, only recruits a limited number of graduates. These trends partly contributed to the emigration of Italy's working-age population[210].

In line with labourers in the construction sector, a significant innovation was introduced into the National Collective Contracts of Employment. The contract requires construction companies to notify the Construction Workers' Fund about the employment of any worker or the first time (within three days before access on the construction site). Then, the worker is then requested to participate in a 16-hour course. This helps to acquire basic knowledge on construction and safety. It also helps abiding by the national law requirements and fulfilment of job safety. Moreover, it aligns the individual to the market and provide them with a minimum of basic familiarity so that they will be able to enter the construction industry and work on a building site a competently and safely[211].

Italy prioritises integrating the training and employment of young people in a dual system by reinforcing those apprenticeships linked with the education and training system for 2016-2020[212].

A cooperation agreement with industry was signed in 2015, ensuring a dialogue between the Ministry of Education and the General Confederation of Italian Industry (*Confindustria*), with a view to contribute to curricular and extracurricular activities including traineeship, technical education programme (T-TEP), and dual system education Italy (DESI). In 2016, a new law was introduced (No 232/2016), which provides financial incentives to companies that are involved in dual learning[213]. Ongoing efforts regarding skilling up the construction workforce are carried out by **Formedil**, the national body for professional construction training. Compulsory work-based learning in vocational education and training could also help in providing better organised training for apprentices and ease the shift from academics to profession[214].

In addition, the tools the companies can use (mostly small enterprises), to ensure continuous training for workers, are provided by the bilateral system of the sector, fully financed by the companies of the sector itself. For this purpose, the bilateral system manages Blen.it (Borsa Lavoro Edile Nazionale), a national system service created to facilitate the meeting between demand and supply of work in the construction sector, promoting and facilitating contacts between those who offer and those seeking work. However, additional measures and incentives should be developed to fully address the skills gaps of the construction sector.

Italy's tertiary educational attainment (age 30-34) rate stood at 27.8% in 2018, which was well below the EU average of 40.7% in 2018. The rate of adult participation in learning (age 30-34) in Italy for 2018 was 8.1%, which was again below EU average of 11.1% in 2018[215].

There is an irregularity in the measures to boost adult learning and digital skills and these are not comprehensive. This is the primary reason behind the lag in numbers of Italy's tertiary educational attainment rate. Another reason behind this is the high investments in education of with low returns. This discourages many students from pursuing higher education. However, there have been noteworthy improvements in completion rates and in the average duration of studies. Presently there are 19 joint inter-professional funds to support the development of continuous training[216].

The 2019 Budget Law extended the tax credit brought forward in 2017 for companies investing in training. The '**Percorsi di Garanzia delle Competenze**' (Skills Guarantee pathways) for low skilled adults require improved capacity building, specifically in control and validation, to grow the low-skilled adults take up. In August 2019, the State-Regions Conference took up the National Repository of Education and Training Qualifications and Professional Qualifications, covering qualifications from general education, higher education and VET qualifications. An official decree is expected to be announced soon[217].

As a part of priorities for 2019, an increment in the resources for universities and research centres has been announced. This will be attained by centrally funded plans for the recruitment of assistant professors and also for attracting Italians working abroad back to Italy[218].

TO 3 – Resource efficiency / Sustainable construction

As part of European and national initiatives supporting the green growth, the Italian construction sector is undergoing a green transition with a view to becoming more energy efficient. For instance, an EU-funded project, the **Alpines Bauen - Lowtech** helps support energy savings in buildings throughout their entire lifecycle, by using low-tech solutions such as building design, thermal insulation, use of daylight, indoor air quality and plant technology. Besides delivering high economic and environmental performances, it responds to high performance standards in terms of comfort. The project covers a duration of three years starting from 2017 till 2019[219].

As for the increasing demand of efficiency in user's homes and offices, the construction sector continues to promote environment friendly substitutes such as natural stone. To support the construction companies in the Italian region of Lombardy and cater for the growing demand for sustainable building design, the Pietra Ricomposta project has developed an environmentally friendly composite stone material. In fact, the project successfully developed a thin, recomposed stone with a high level of resistance, through the development of an automatic industrial system capable of producing the building material in high quantities at low cost[220].

The trend in new building (residential) development (2015-2020), according to 2011 ISTAT Census data and other sector operators, is estimated approximately at 7.2 million m^2 per year. This consists for about 60% of single-family buildings and approximately 40% multi-family buildings. According to Italian Energy Efficiency Action Plan 2017, the estimated energy savings during the period 2015-2020 for new residential buildings is 2,042 tonnes of oil equivalent (toe). Similarly, for construction of new buildings, under non-residential category, intended for use as public and private offices the floor area per year of totals around 2.8 million metre square. The estimated energy savings during the period 2015-2020 for this, according to Italian Energy Efficiency Action Plan 2017 stood at 1,807 toe[221]. With regards to existing building transformation, the total estimated energy savings by 2020 in residential and non-residential buildings is 3,024 toe and 5,074 toe respectively[222].

The broad construction sector will be the key to achieve energy saving targets set by Italy for 2020. Italy's National Energy Strategy (NES) intends to achieve these targets by strengthening the existing and by introducing few new measures223:

- strengthening the minimum energy standards for the construction of new buildings and the renovation of existing buildings, to gradually increase the number of nearly zero-energy buildings consistent with the provisions of Directive 2010/31/EU;
- consolidating the tax relief system, particularly in the civil renovations sector and it should be updated to boost its effectiveness and cost/benefit ratio;
- strengthening the incentives for renovation of government buildings;
- reinforcing the targets of the White Certificates scheme, which is primarily designed for the industrial sector but also plays a key role in raising awareness of energy efficiency issues[224].

The National Energy Efficiency Action Plans (NEEAP) 2017 has set the target for final end use energy savings up to 15.5 Mtoe (million tonnes of oil equivalent) by 2020. This involves all sectors, including public and private buildings, SMEs, transport sector and the National Energy Efficiency Fund[225].

The **Renovation bonus** (*Bonus Edilizia*) which has been in place since last 10 years, has been revised in order to support construction sector amid COVID-19 pandemic. The Budget Law 2020 has extended the tax deductions for renovations until 31st December 2020. The home bonus has also been confirmed for 2020. This allows an individual to benefit from 50% deduction, for the expenses incurred for renovations work until 31st December 2020, provided the property must be for residential purpose. The Relaunch Decree (*Il Decreto Rilancio*) has introduced 110% deduction of expenses incurred for interventions that increase energy efficiency level for existing buildings between 1st July 2020 and 31st December 2020[226].

According to Green Business Certification Inc. (GBCI) Europe, Milan has been enlisted among the top five cities in Europe for LEED green building[227].

As reported, till November 2019, Milan had more than 80 LEED-certified buildings certification that are helping to minimise the carbon emissions, thereby providing a healthier environment for people, and about 130 registered to pursue LEED certification[228].

Lombardy being the most populated region in Italy, was the first regional government in Italy to independently transpose Directive 2002/91/EC into its legislation in 2007. It was in compliance with directive and general principles contained in Legislative Decree No. 192. These legislative standards have changed over the years and following the approval of Directive 2010/31/EU. The Lombardy government has since applied a program which aimed at improving the energy performance of all new buildings in residential and commercial sectors, as well as introducing the standard "nearly zero energy buildings". As a result, in 2019 in accordance to the target, two thirds reduction in energy consumption per square meter in new or renovated buildings was achieved[229].

TO 4 – Single Market

Italy reports a below than average performance with respect to the metrics of the EU Single Market Scoreboard 2019[230].

Italy's single market performance has declined in comparison to 2018 and presently lies below the EU-28[231] average. For infringement proceedings, the numbers increased from 40 to 47 and outstanding single market directives went from 4 in 2018 to 8 in 2019[232]. The transposing deficit stood at 0.7%, which showed an improvement by 0.1 percentage point from 2018. However, it still lies below the EU-28 average of 0.6%[233]. In parallel, the conformity deficit worsened from last year, reaching 1.4% this year.

Regarding Internal Market Information System, Italy's performance declined as witness by the indicators, which perform more poorly than the previous year. In addition, Italy has a quite low trade integration in the single market for goods and services, being the lowest in the services in the EU region. It also performs unsatisfactorily with respect to public procurement[234].

Related to public procurement, ANCE underlines that competition in the EU market from third countries companies can be unfair when these benefit from financial support from their government allowing them to provide offers below the 20% to 25% below the market price.

During 2019, 'Protection of confidential know-how and business information' (*Protezione del know-how riservato e delle informazioni commerciali riservate*) was introduced. It results from the implementation of EU Directive 2016/943, which helps Italy's Industrial Property Code to align with international standards and provide greater protection to 'trade secrets'[235].

In addition, cross-border service providers wanting to temporarily carry out their activities in Italy are subject to mandatory certification schemes. Furthermore, the Certificate of Undeclared Work (*Documento Unico di Regolarità Contributiva* - DURC) which demonstrates that construction companies have complied with their tax and social security obligations, must be submitted as part of the application for a building permit. These authorisation schemes are deemed to be stricter for temporary foreign service providers than for contractors seeking to permanently establish their operations in Italy. Since the DURC authorisation and the ISO certification schemes are valid for 90 days and three years, respectively, their limited duration means that temporary cross-border providers must restart the application procedure with all associated fees. Moreover, the procedure for DURC authorisation lasts for 30 days[236].

TO 5 – International competitiveness

Italy ranks 30st out of 141 economies in the 2019 Global Competitiveness Index, a position above the previous year ranking (31st)[237].

The country's performance with reference to internationalisation, is below the EU-28[238] average. This is attributable to the weak involvement of the trade community, which has been deteriorating since 2014. Owing to the persisting uncertainties of the global trade policy and the economic slowdown in some of Italy's main export destinations, the country has lost its market share abroad[239]. However, the share of SMEs exporting outside the EU is still above the EU average.

The exports value of the broad construction related products has been declining over the last few years, reaching EUR 9.0 billion in 2018, 24.3% higher than in 2010.

In terms of **Inward FATS[240]**, the value added at factor cost for manufacturing sub-sector, narrow construction sub-sector and real estate activities sub-sector reported an increment of 16.1%, 42.9% and 62.1% between 2010 and 2017[241], respectively.

With regards to **Outward FATS[242],** the turnover for manufacturing sub-sector and narrow construction sub-sector saw an increment by 61.5% and 133.9% for the period 2010-2016. The turnover for the real estate activities sub-sector for the same period experienced a decline by 40.7%. The manufacturing sub-sector and narrow construction sub-sector again witnessed a rise in number of persons employed from 2010 to 2016 by 7.3% and 1.4% respectively. The real estate activities sub-sector on the other hand saw a decline by 48.7%.

However, the international activities of the construction sector suffered from the COVID-19 pandemic, which undermined the freedom of movement of workers, thus preventing construction works to advance.

As per the Global Competitiveness Report 2019, Italy ranked 50 out of 141 economies in terms of **Trade Openness**. With regards to 'Prevalence of non-tariff barriers', it stood at 48th position. Italy performs well (7th) in terms of 'trade tariffs' among other sub factors, whereas complexity of tariffs was the worst (113th). In terms of border clearance efficiency, it ranked 23rd out of 141 in 2019[243].The government of Italy established a major construction player, headed by Salini-Impregilo, which involves other larger businesses. This initiative, named 'Progetto Italia' aims at establishing a construction conglomerate, huge and robust enough to handle major public projects, being competitive in international markets. However, the project has not yet turned up[244]. As per Global Powers of Construction 2019, Italy's Salini-Impregilo has been classified in the top 100 global construction companies[245].

In line with the Internationalisation in the country, the following measures were launched for start-ups and SMEs in 2019:

- **Education to Export (E2E) programme**: This is an online, free education and information channel for SMEs. It provides an online export kit and classroom training. These courses are mainly focus on – guidance on starting an export activity, structuring the business in a better way for exporting and guidance on becoming competitive and attaining an international level growth.
- **Export UP:** This is an online tool designed specifically for helping SMEs step-by step in the process of exporting along with securing export credit insurance.
- **Global Start-Up programme:** This programme was primarily financed through the funds from the national 'Made in Italy' plan. It focuses on strengthening the technical, organisational and financial competences of Italian innovative start-ups to deal with foreign markets in a better way[246].

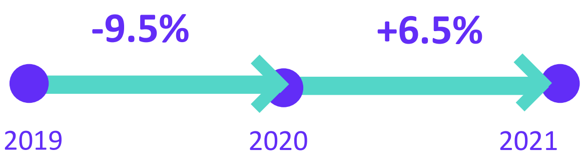
Large scale construction companies in Italy are directing their growth strategies towards developing and diversifying their overseas accounts. The strategy focuses on developing markets (like Africa and Asia) and established markets, such as USA, that need huge infrastructure investments[247].

8

Outlook

Italy's GDP is expected to decrease by 9.5% in 2020 and recover by 6.5% in 2021. The decline for 2020 is attributable to impact of coronavirus outbreak and the disruptions related to the lockdown measures.

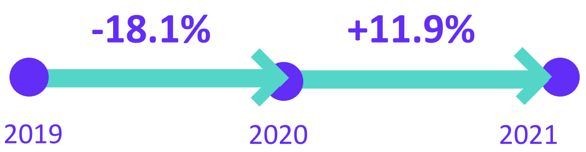
Expected GDP growth in 2019-2021



Italy's construction sector prospects are directly connected to the prevailing uncertainty regarding its economic growth and policy direction[248].

Mirroring the overall economy, the volume index of production in broad construction sector is projected to decline by 5.9% over the period 2015 and the end of 2020. As for the **total value added** of broad construction sector, a decline by 18.1% YoY has been forecasted from 2019 to 2020. However, 2021 is expected to witness a year over year (YoY) growth by 11.9%. This forecast, however, might be affected by the ongoing impact of COVID-19.

Expected broad construction growth between 2019-2021



Going ahead, the construction sector might face numerous added challenges. The total **number of enterprises** in the broad construction sector is estimated to shrink, with forecasts predicting a 18.0% YoY decline in numbers from 2019-2020. However, 2021 is expected to witness a 7.6% YoY increment. The YoY decrease in 2020 will be mainly attributable to the decline in forecasted number of enterprises in narrow construction, manufacturing and architectural and engineering activities sub-sectors by 22.0%, 20.5% and 17.4% respectively. The real estate activities sub-sector will also experience comparatively lesser decline (-7.9%) in 2020.

The **apparent labour productivity** for the manufacturing sub-sector is forecast to decrease by 1.3% YoY in 2020, and narrow construction sub-sector expects an increase by 1.3% YoY. The same for real estate and architectural and engineering activities sub-sectors are predicted to remain stable till 2021.

Italy's **housing market** has been impacted by the COVID-19 outbreak, with final implications remaining unclear. A steep fall in property prices and sales are expected due to cancellations or delays in purchases amid pandemic[249]. As per a survey, the real estate agents say around 20,000 property sales in Italy have been cancelled as a result of the pandemic[250].

As for the **non-residential construction,** motorway tunnel maintenance projects are being planned for highways across Italy. The estimated cost of the project would be EUR 100 million. The maintenance programme is being planned by ANAS, the Italian road construction and maintenance company[251].

The sector witnesses a sharp fall in the spending and number of large-scale infrastructure projects[252,253]. To support the economy affected by **COVID-19**, the Italian government has approved a EUR 55.0 billion stimulus plan, which includes grants and tax breaks for firms; financial support to SMEs; income support for employees and the self-employed; and additional funding for temporary layoff schemes[254]. This is expected to support the recovery of the construction sector in the short-term.

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