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Report

on the Italian building envelope market_2020

WINDOWS AND COURTAIN WALLS

UNICMI – Economic Studies Office

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The market numbers and perspectives

windowmarket.it

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Introduction

The annual report on the building envelope market provides information on the size, characteristics and evolution of the Italian market for windows and doors and curtain walls. The report is focused on Italian companies and on the domestic market, at the same time it provides precise data on the import of PVC windows and doors and the export of curtain walls.

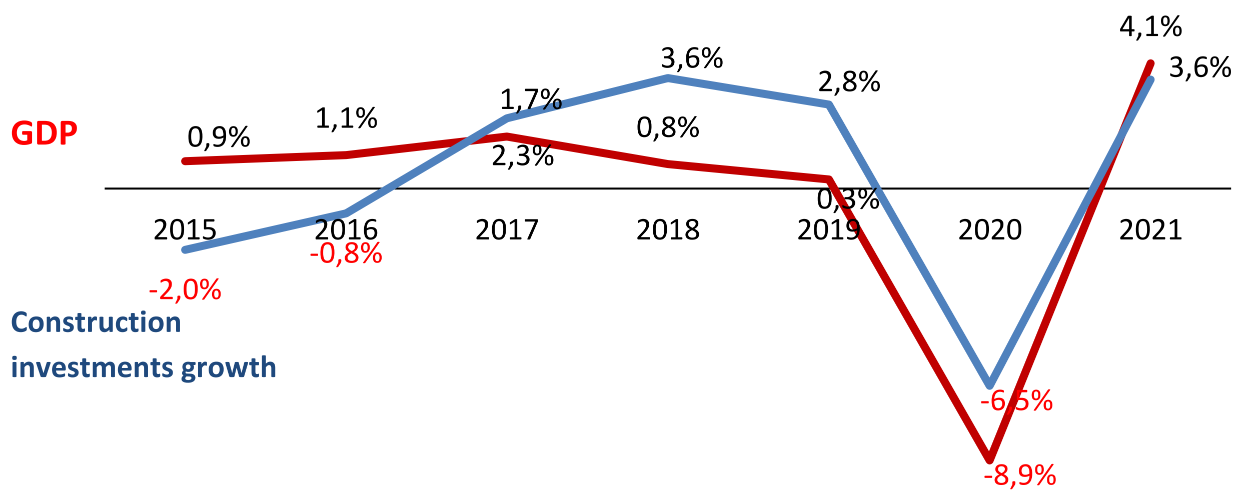
The main contents of the sections of which the document is composed are briefly outlined below.

1. Analysis of the economic situation in the building construction industry. Construction investment trends by market segments. Market trends for the next two years.
2. Analysis of the demand for windows and doors and curtain walls. Estimated demand for windows and doors, in value and volume, in the residential and non-residential segments. Evolution of the market shares of the three main materials for windows and doors: aluminum, wood and PVC.
3. Analysis of the metal windows and doors market. Evolution of the aggregate turnover of the sector, analysis of the characteristics of competing companies. A specific focus is dedicated to the impact of tax incentives.
4. Analysis of the curtain wall market. Evolution of the offer with analysis of sales by building type. Analysis of the commercial policies of curtain wall manufacturers.
5. Analysis of the economic and financial performance of metal window and curtain wall manufacturers.
6. Conclusions and forecasts of market trends in the medium term.

1. The economic situation in the construction sector

The pandemic dealt a major blow to the construction sector, which had been showing clear signs of recovery since 2016 and had reached a peak growth rate of 3.6% in 2018. 2020 for the construction sector ended with a -6.5%, with GDP down 8.9% (a marked improvement over mid-year forecasts of a double-digit decline). A rebound of +3.6% is projected for 2021, which will be slightly less than the GDP recovery (+4.1%). (Figure1).

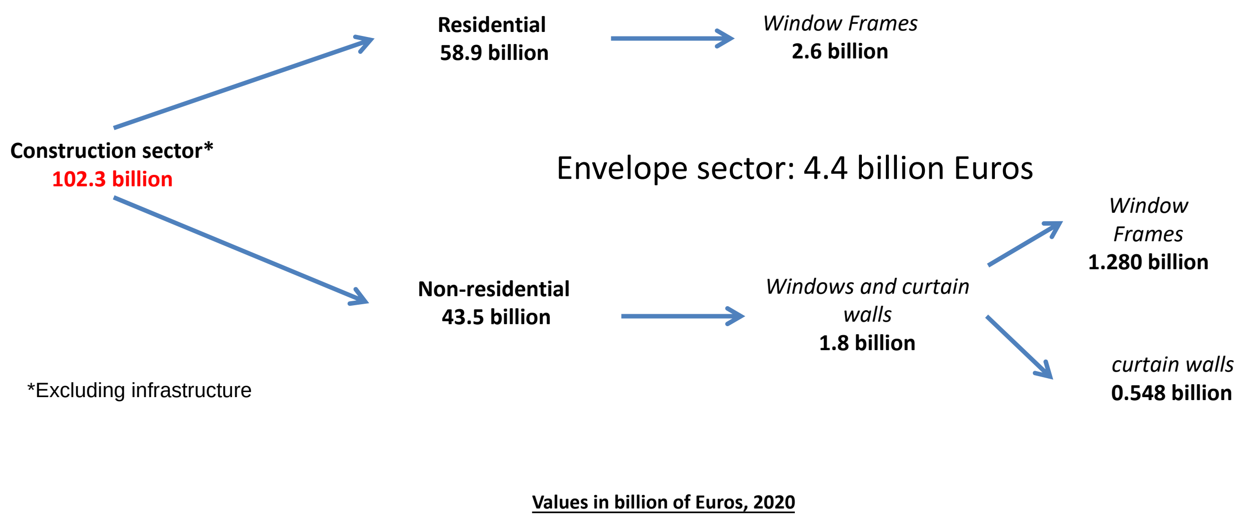
Figure 1. Comparison between GDP growth and construction investments



UNICMI elaborations on ISTAT data for investments in construction, 2020 estimated data. GDP European Commission, GDP 2020 ISTAT.

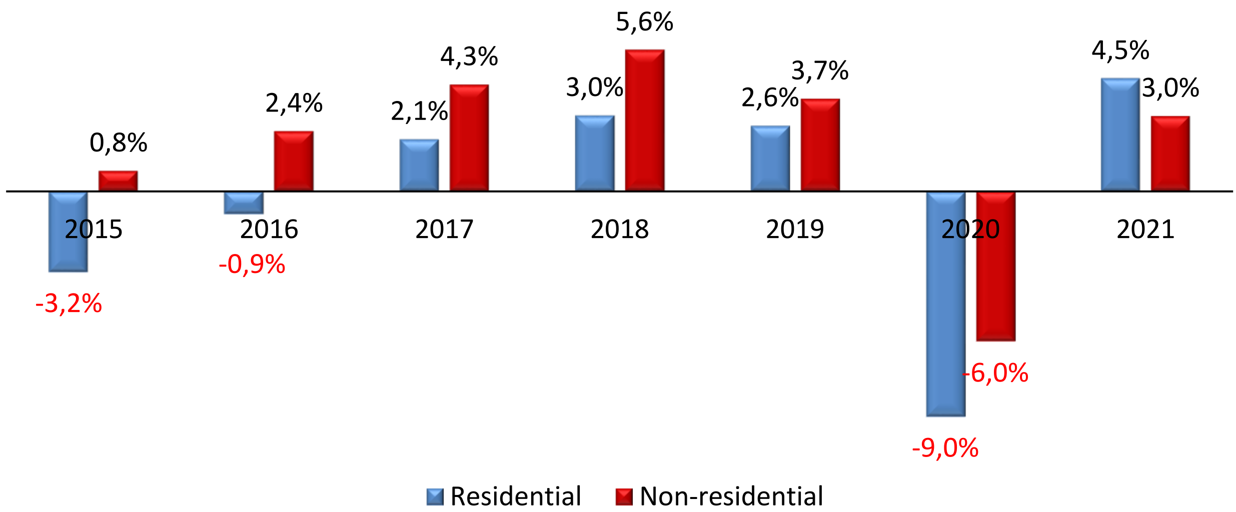
The residential segment (Figure 2) has a preponderant weight in the construction sector and has grown since 2017 due to investment in home renovations. The decline seen in 2020 affects both the residential and non-residential segments (Figure 3). The residential segment suffers an abrupt contraction due to a sharp slowdown in renovation investment, driven by declining household incomes and a reduction in used housing sales, but also due to a halt in new construction investment, which has been suspended or postponed pending signs of recovery that would minimize the risk of unsold inventory (Figure 4). In 2021, the residential segment resumes growth with unchanged rates between new and renewal.

Figure 2. Investment in construction and demand for windows and curtain walls



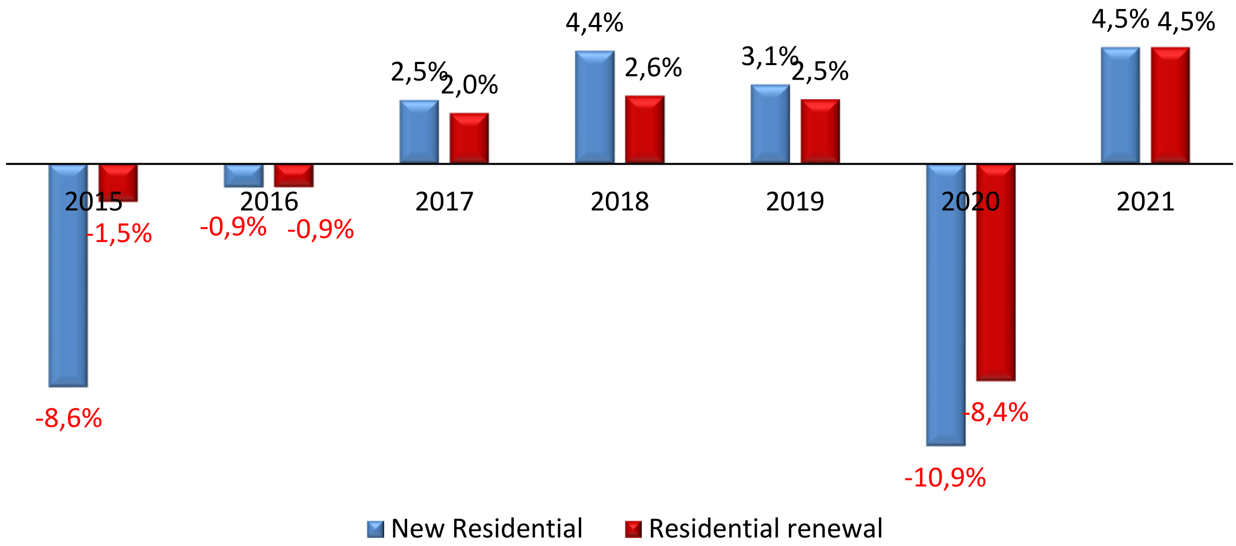
UNICMI elaborations on ISTAT data. Estimated 2020 data.

Figure 3. Investments in construction by destination segment



UNICMI elaborations on ISTAT data. Estimated 2020 and 2021 data.

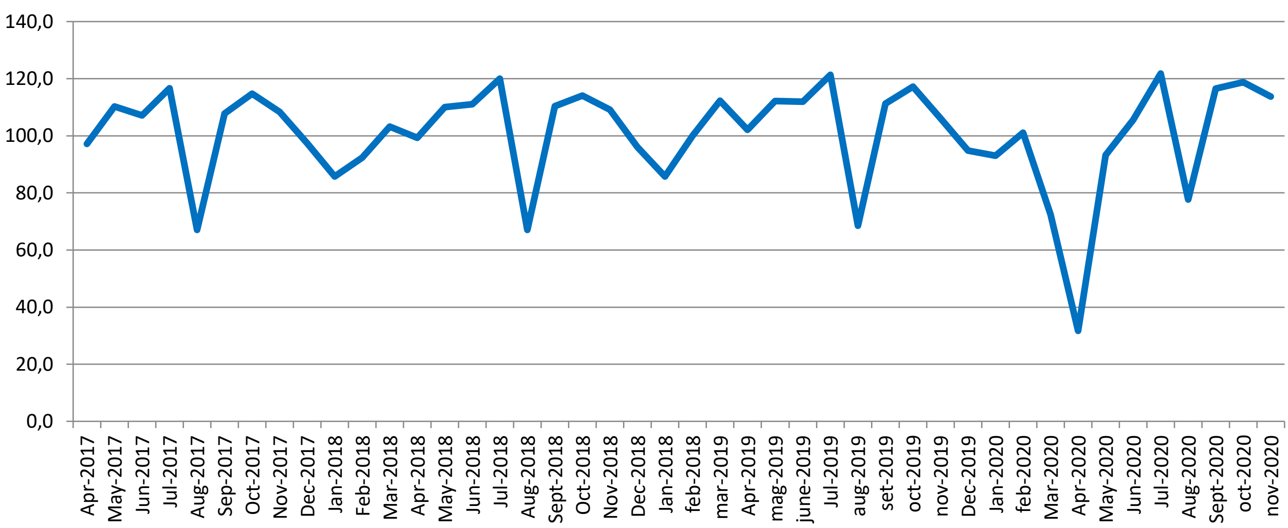
Figure 4. Investments in residential construction



UNICMI elaborations on ISTAT data. Estimated 2020 and 2021 data.

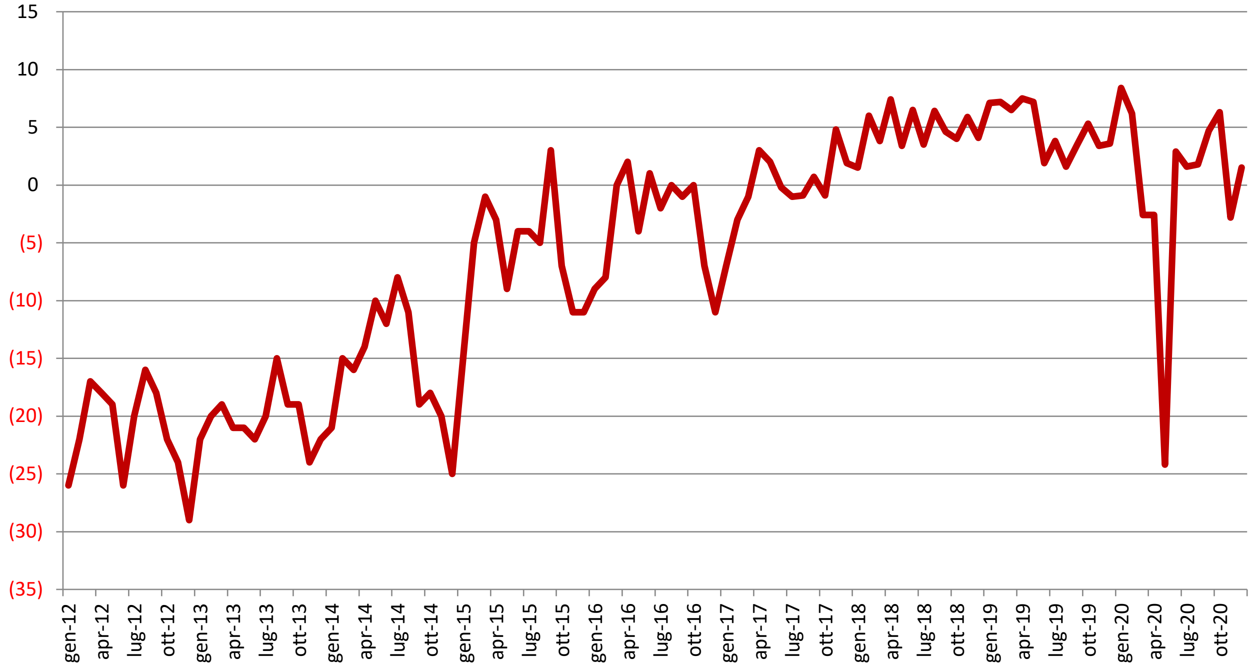
The synthetic production index (Figure 5) in construction shows a positive trend that is confirmed by the indices referring to orders and prices charged. Compared to the first half of 2020, with declining values, there is a recovery in the last months of 2020 with a return of prices and orders to pre-crisis levels (Figures 6 and 7).

Figure 5. Trends in the ISTAT construction index (seasonally adjusted data, base 2015=100).



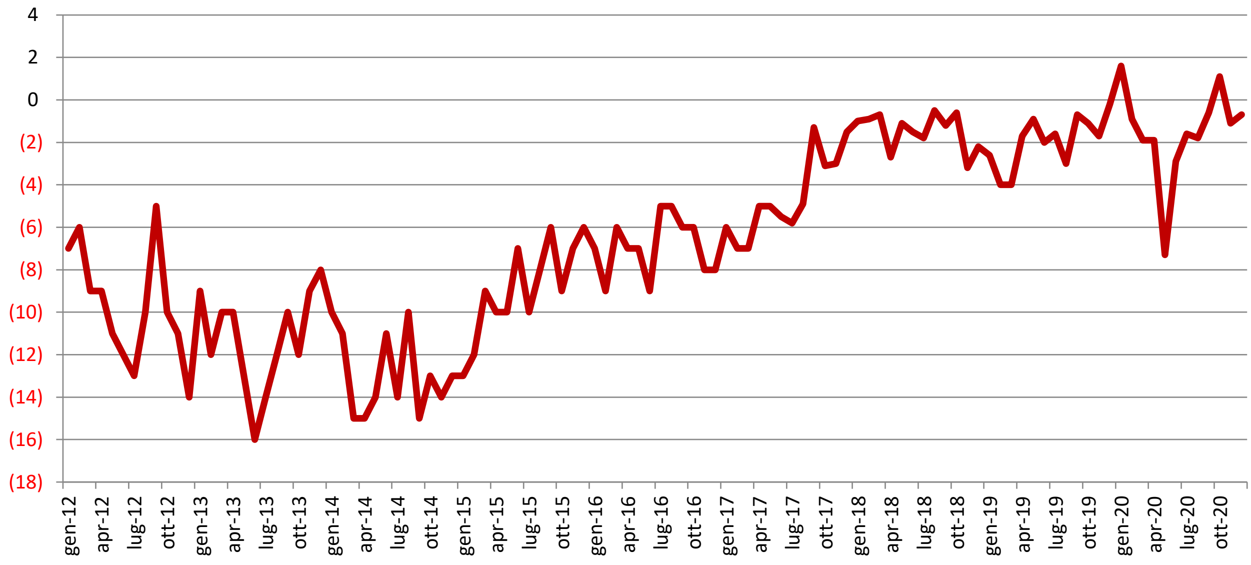
Elaboration UNICMI on ISTAT data.

Figure 6. Trend of orders in the construction sector



Elaboration UNICMI on ISTAT data.

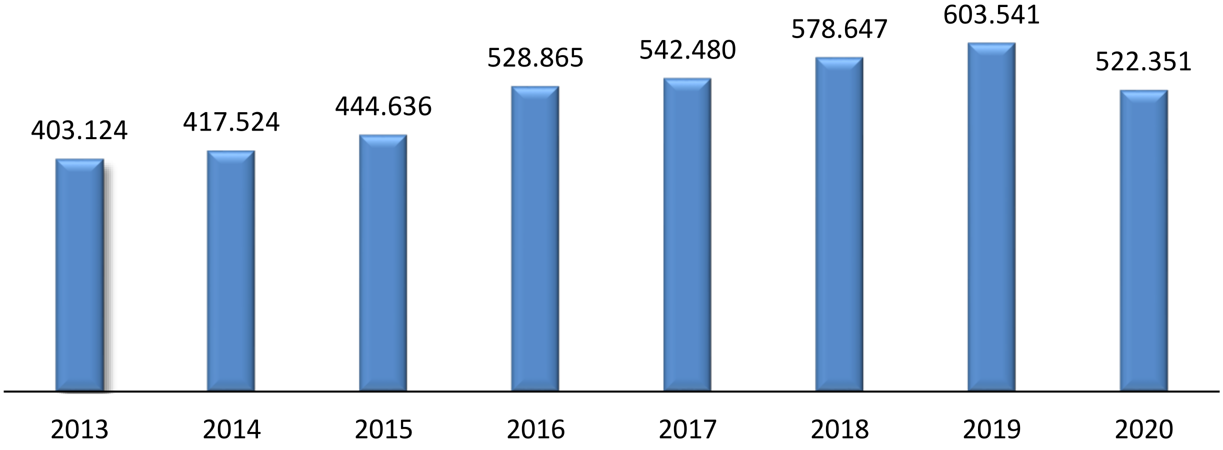
Figure 7. Price trends in the construction sector



Elaboration UNICMI on ISTAT data.

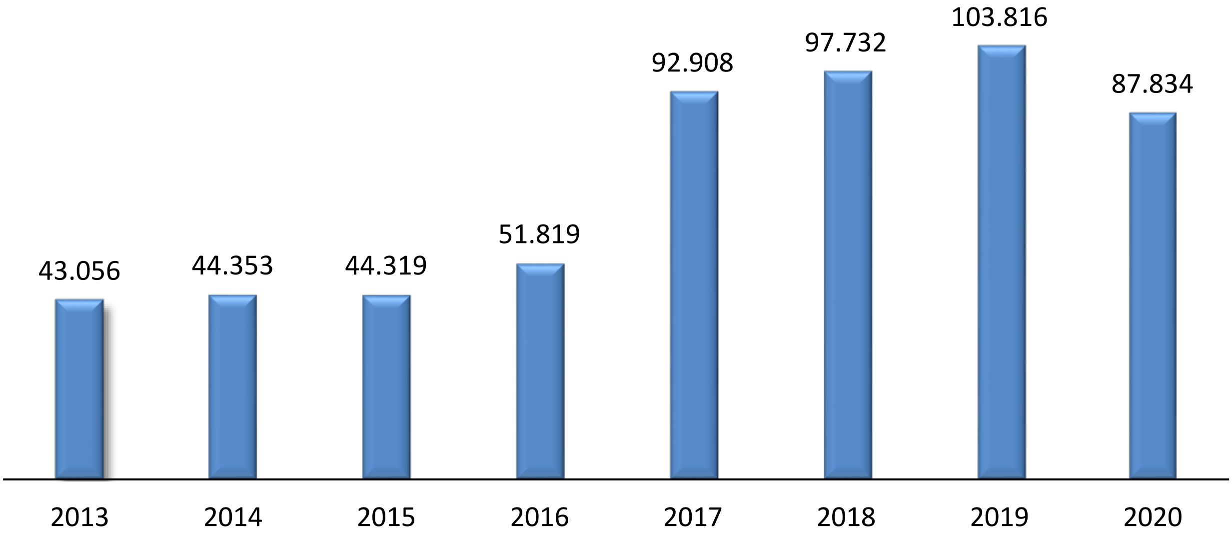
The analysis of real estate purchase and sale transactions in the residential and non-residential segments provides insight into investment trends in the short term and is particularly significant for estimating the trend of the renovation market. The residential segment experienced a positive growth trend from 2013 to 2019 interrupted by a 13.8% contraction in 2020. The non-residential segment experienced very positive growth from 2017 to 2019, contracting by more than 15% in 2020 (Figure 8 and 9).

Figure 8. Trends in property sales in the residential segment (NTN)



Elaborations of UNICMI on data from the Revenue Office. Estimated 2020 data.

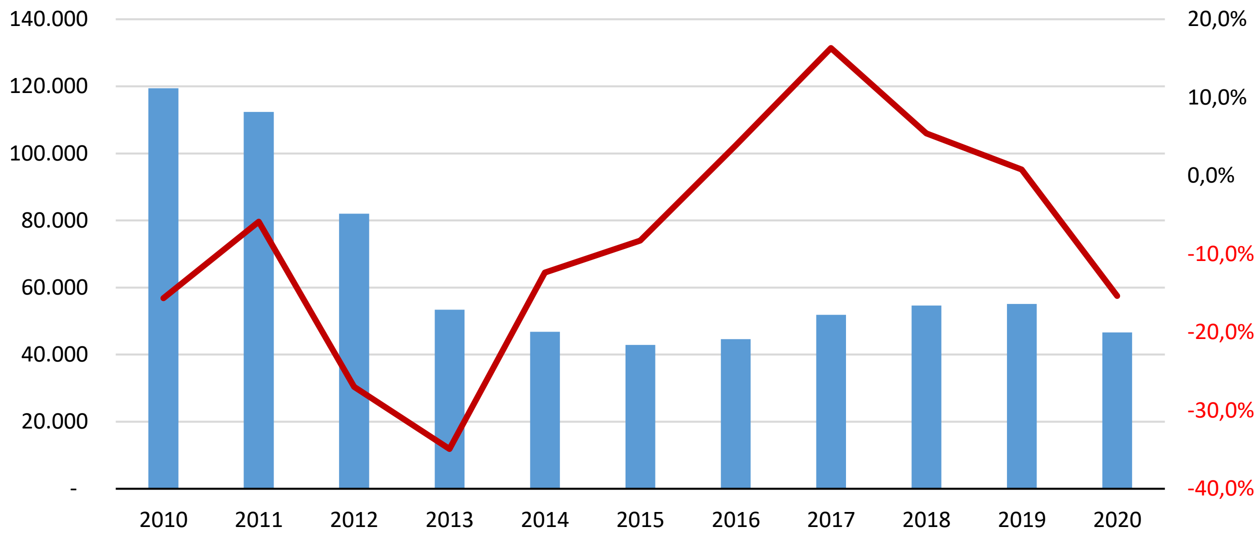
Figure 9. Performance of property sales in the NON-residential segment (NTN)



Elaborations of UNICMI on data from the Revenue Office. Estimated 2020 data.

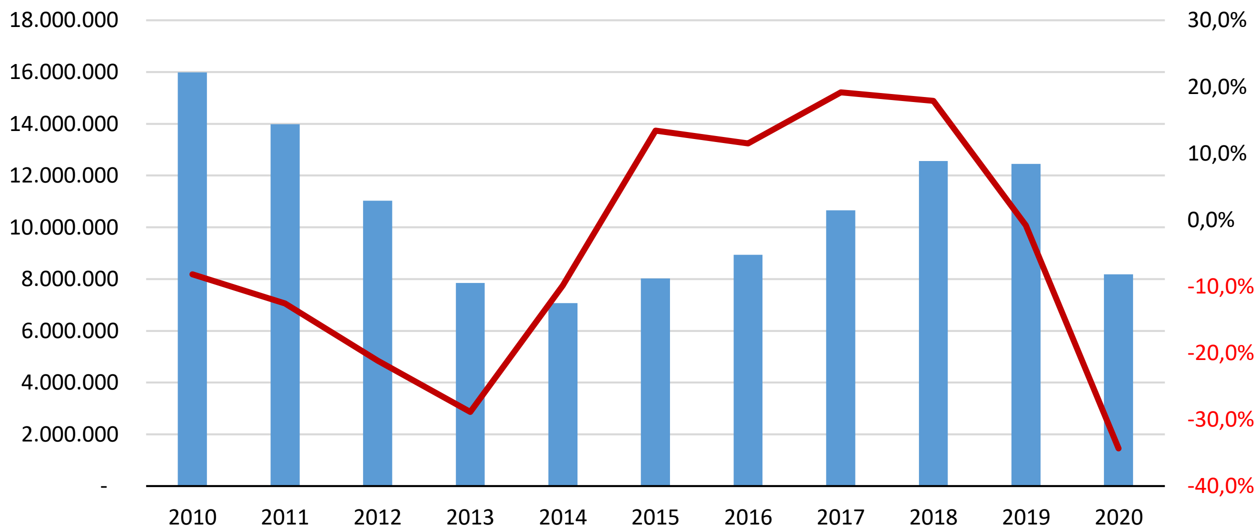
The analysis of building permits is another significant indicator for assessing the 12-24 month construction investment trend. The trend in permits for new housing and non-residential construction shows a positive trend during 2015-2018 (Figure 10 and 11). In 2019, growth appears to stabilize before plummeting in 2020 following the pandemic. The decline is more drastic in non-residential where new construction projects for tertiary and commercial use have stopped. This data should be considered with the utmost attention for the impact it could have on investment in non-residential construction that is traditionally fueled by new.

Figure 10. Building permit trends. Number of dwellings in new residential buildings (thousands of units and % Change).



Elaborations of UNICMI on ISTAT data. Estimated 2020 data.

Figure 11. Building Permit Trends. Number of dwellings in new nonresidential buildings (square footage and % Change).

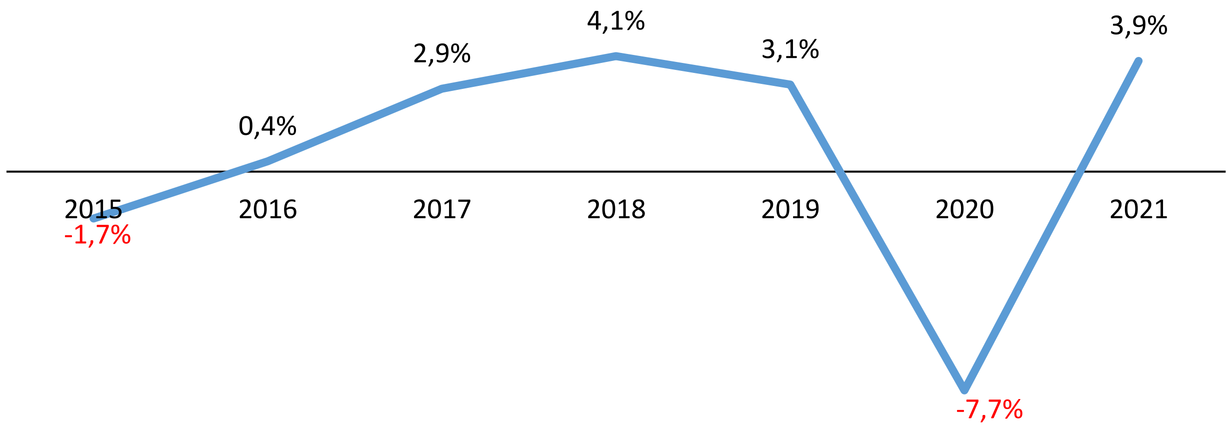


Elaborations of UNICMI on ISTAT data. Estimated 2020 data.

2. The demand for windows and doors in the Italian market

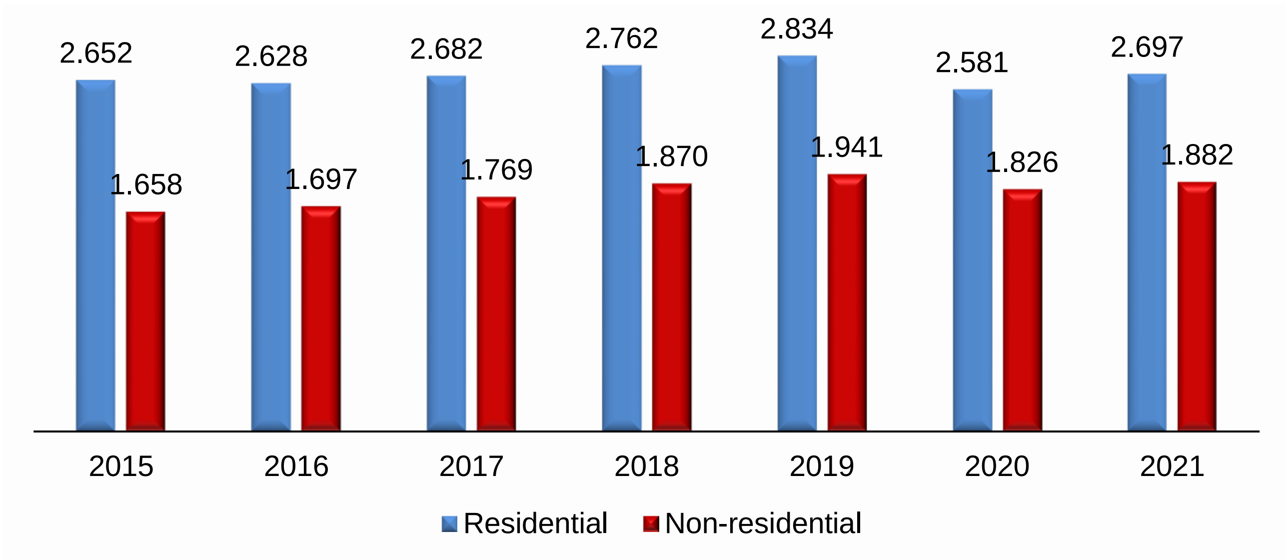
In 2020, the rate of change in revenues in the windows and doors and curtain walls sector was -7.7% and will be + 3.9% in 2021, resulting in a loss of €368 million on a total market value of €4.4 billion (Figure 12).

Figure 12. Revenue growth rate in the windows and doors and curtain walls industry



UNICMI processing. Estimated 2020 and 2021 data.

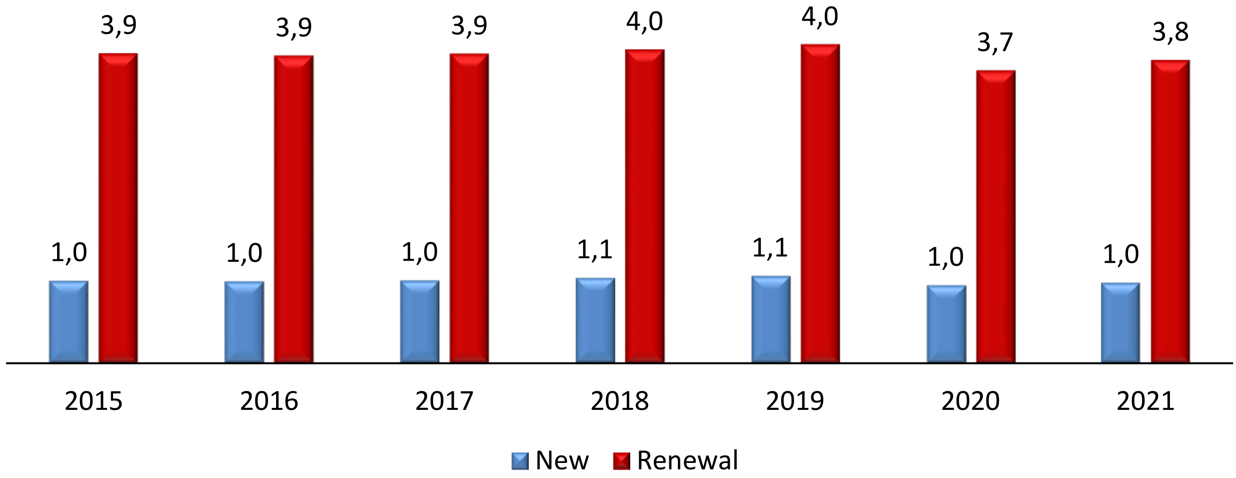
Figure 13. Demand for windows and doors and curtain walls (millions of Euros)



UNICMI processing. Estimated 2020 and 2021 data.

In the residential segment, most of the demand for windows and doors is generated by the refurbishment market, which took in 3.7 million windows in 2020, compared to 1 million in the new segment. The loss of window units in the residential segment alone is more than half a million in 2020. In 2021, the two segments will resume growth, but in absolute terms there will be no return to pre-COVID units (Figure 14).

Figure 14. Windows sold new vs. refurbished residential (millions of units)



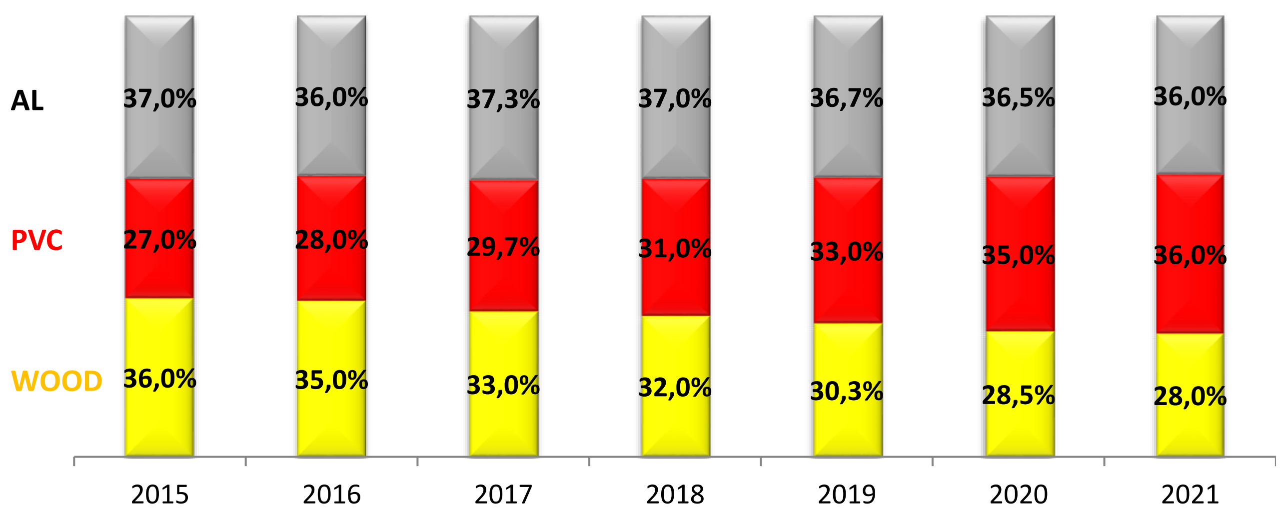
UNICMI processing. Estimated 2020 and 2021 data.

Since 2014, there has been a process of radical change in the market shares (in value) of the three main materials used to produce windows and doors (aluminum, wood and PVC) in both the residential and non-residential segments (excluding curtain walls from the calculation). PVC windows and doors have been characterized by a significant growth from a market share of 27% in 2015 to a market share of 35% in 2019 (Figure 15) thanks to the penetration in the residential recovery segment, where they have an absolute leadership position.

The market share of wooden windows and doors, which have lost a significant part of the market to PVC, is set to decline further over the next two years to below 28%. The market share of aluminum windows and doors has shown a decent hold until 2019, thanks to penetration in the premium segment (especially in new construction). However, in the next two years, aluminum's market share is expected to stabilize around 35% due to increasing penetration of PVC not only in the residential renovation market, but also in the premium segment of new residential construction and in the non-residential segment.

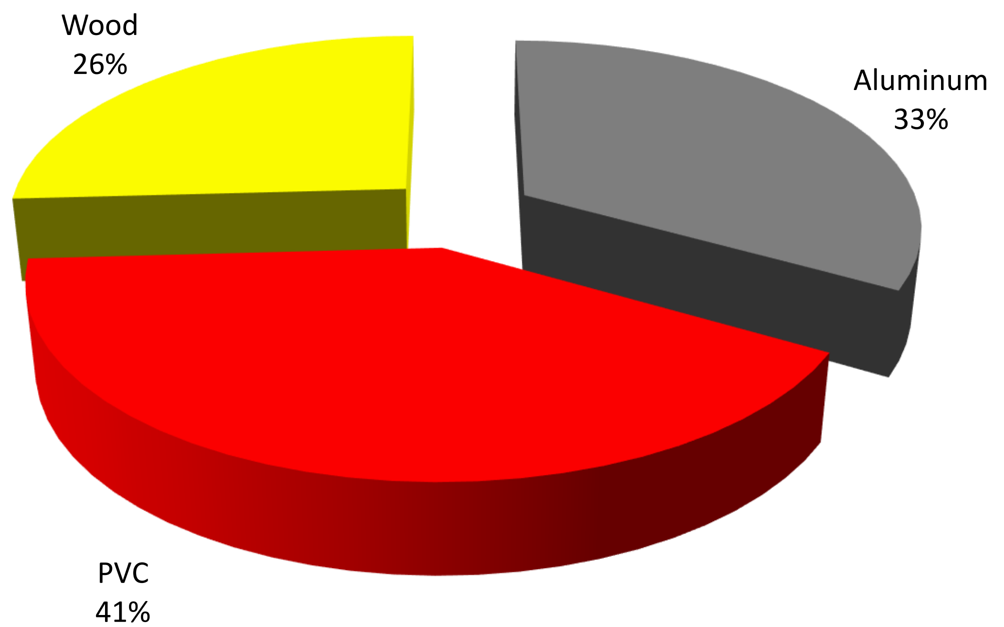
The analysis of market shares in volume confirms the leadership of PVC windows and doors, which have become the market leader in terms of window units sold with a 41% share in volume, followed by aluminum windows and doors with a 33% share and wood windows and doors with about 26% of the units sold (Figure 16).

Figure 15. Evolution of market shares in value in the window and door frames market in Italy



UNICMI processing. Estimated 2020 and 2021 data.

Figure 16. Evolution of market shares in volumes (window units sold) in the window and door market in Italy (2020)



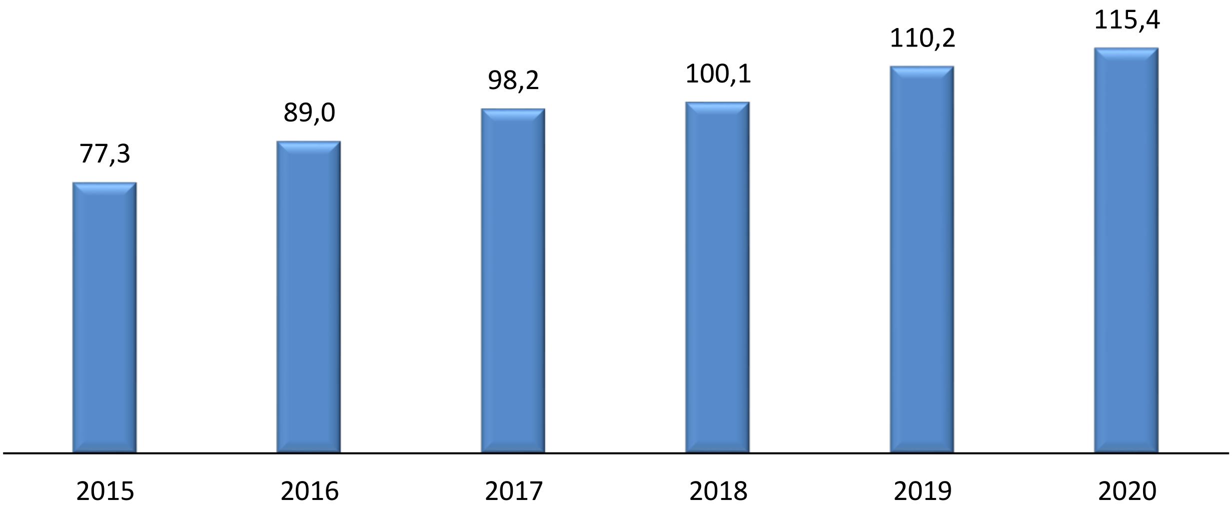
Elaborations UNICMI

Imports of PVC windows and doors are a consolidated reality in an attractive market such as the Italian one, and in 2018 they exceeded 100 million Euros. Provisional ISTAT 2020 data indicate an increase in imports of about 5 million Euros in 2020 compared to 2019 for a total value of 115.4 million Euros (Figure 17).

The main countries from which imports come are: Germany, Austria, Poland, and Romania (Figure 18). Poland recorded a multi-year growth rate (CAGR) of 17.94% from 2012 to 2019. Imports from Austria are also growing, to a lesser extent. These results are due to the strong competitiveness of some large players, well rooted in the country thanks to widespread sales networks. This confirms what was highlighted last year, namely that the foreign product market is made up of medium and medium-high range products and not first price products.

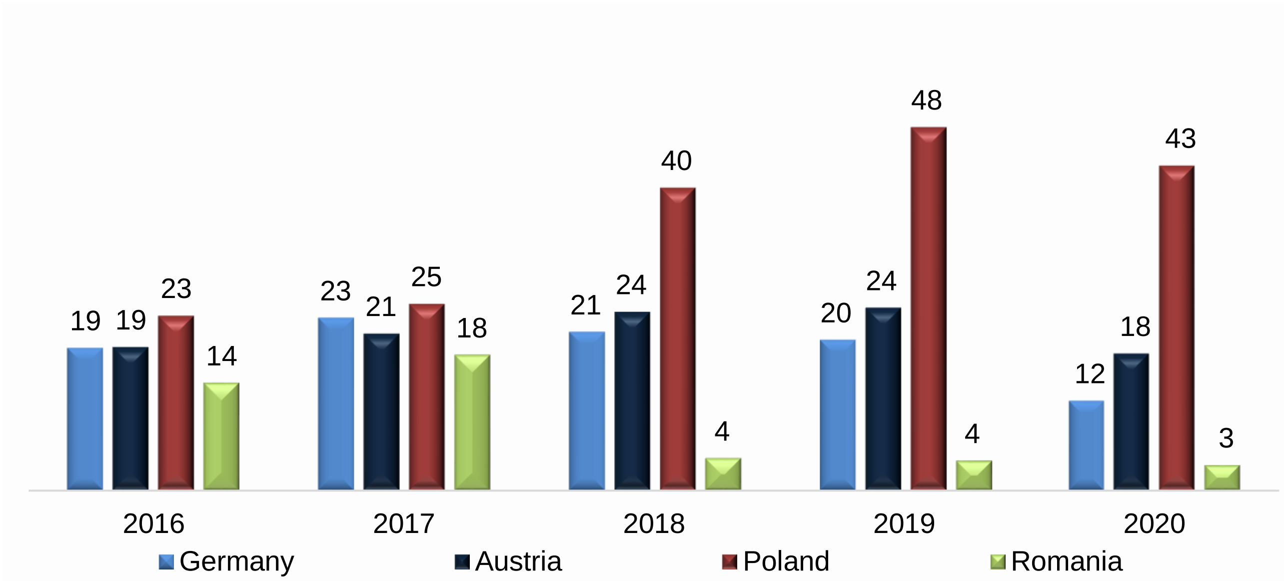
Imports are calculated on wholesale prices, therefore, the value should be multiplied by about 2.4 in order to have an idea of the actual impact that imports have on the total value (installed) of the Italian market. The impact on market value (final price to the public of installed windows and doors) can be estimated at about 276 million Euros in 2020. This means that imports of PVC windows and doors account for about 9% of the sales of windows and doors in the residential segment (worth about 2.58 million Euros).

Figure 17. Imports of PVC windows and doors (millions of Euro)



UNICMI elaborations on ISTAT data. Estimated 2020 data.

Figure 18. Main countries from which PVC windows and doors are imported (imports in millions of Euro)



UNICMI elaborations on ISTAT data. Estimated 2020 data.

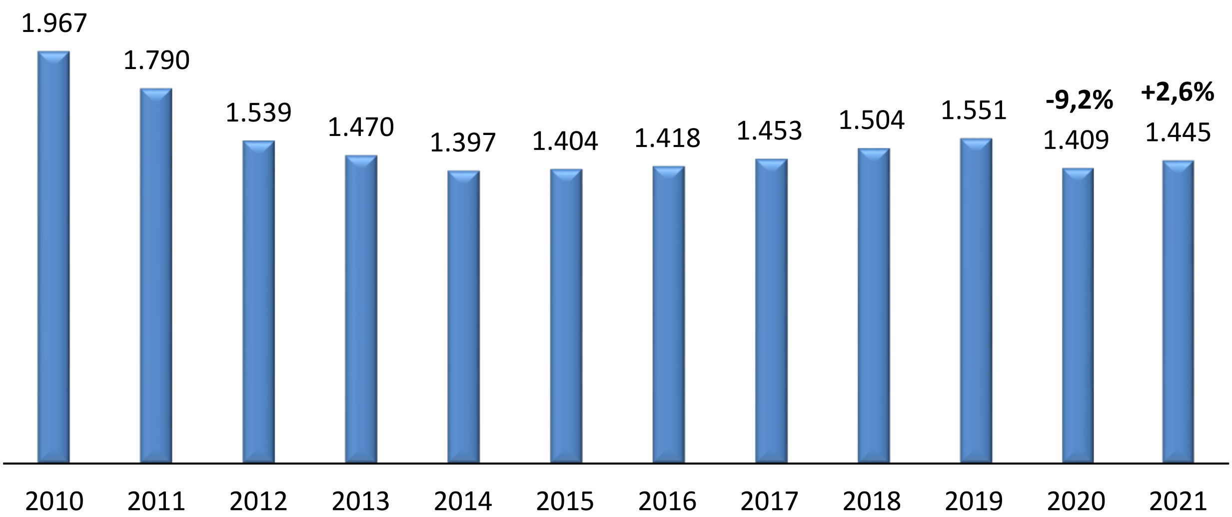
Average growth rates of PVC window and door imports (CAGR 2012 - 2019)

Germany	Austria	Poland	Romania
1,03%	5,68%	17,94%	-7,09%

3. The market of metal windows and doors

Since 2015, the metal windows and doors market has been on a growth trend that stops abruptly in 2020 with a notable loss of 9.2% (Figure 19). A modest recovery is expected in 2021 with a growth rate of 2.6%.

Figure 19. Value of the metal windows and doors market in Italy (millions of Euros)



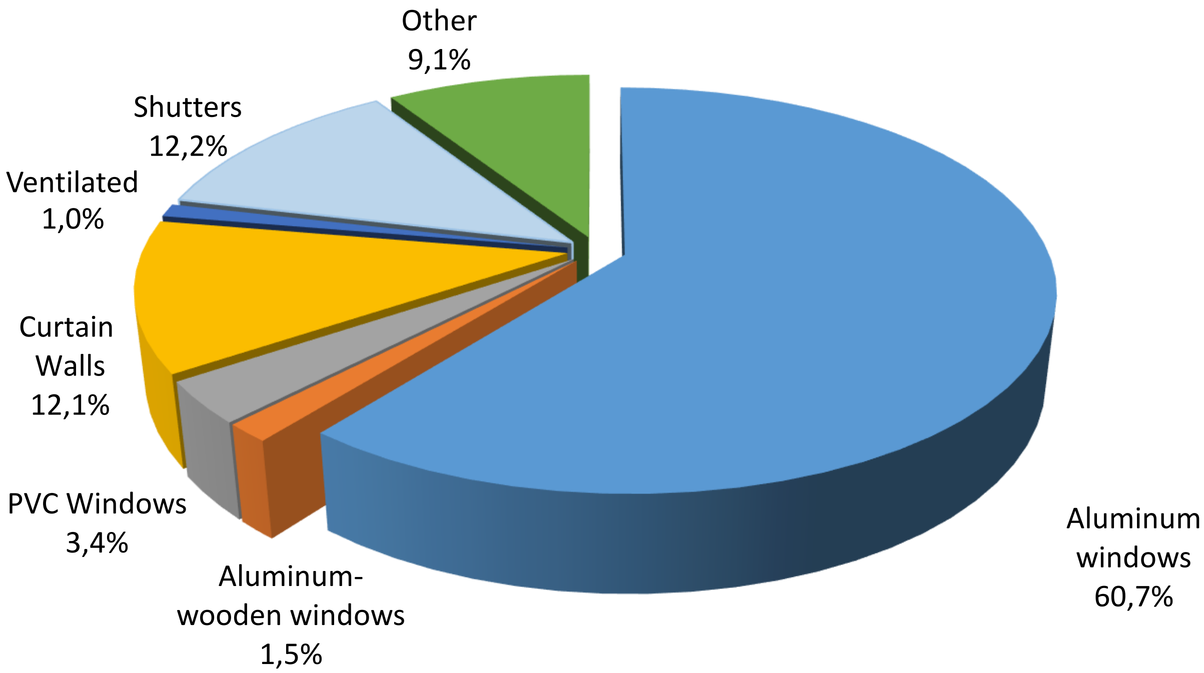
UNICMI elaborations on ISTAT data. Estimated 2020 and 2021 data.

Metal window and door manufacturers are small and medium-sized companies (there are about 2,000 companies operating in the Italian market, of which only 500 have revenues of over €1 million) that have adopted a business model based on a wide and diversified offer, capable of reaching different market segments. The relatively structured window and door companies are about 200 with average revenues of about 3 million Euros. In 2020, aluminum window sales represent 49.3% of total sales (Figure 20). Sales of curtain walls exceed 12% of total sales. Sales of PVC windows (both those produced in-house and those only marketed) represent 5.9% of total sales.

Most of the sales are destined by the residential segment (Figure 21) with particular reference to replacement (replacement of old windows and doors). In the last two years, the new market has undergone intense development and in 2020 contributes 35.2% of revenues.

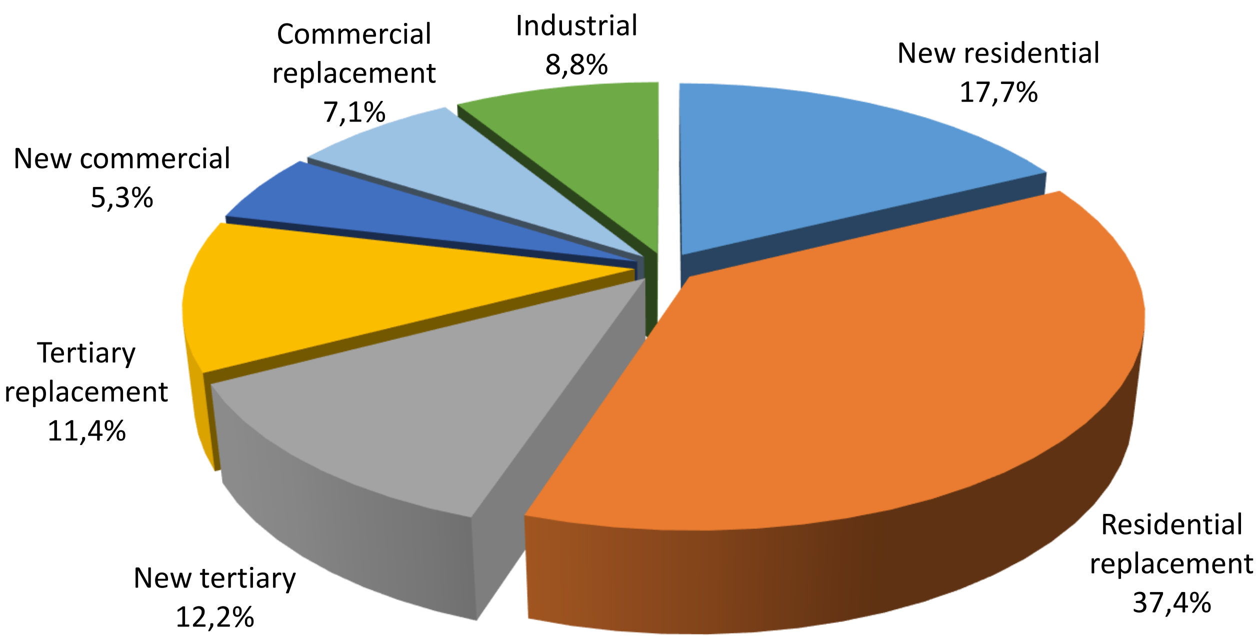
In 2020, the target customers remain individuals, who purchase directly (52.3%) and indirectly through showrooms (5.7%) and small businesses (20.4%) (Figure 22).

Figure 20. Breakdown of sales by products



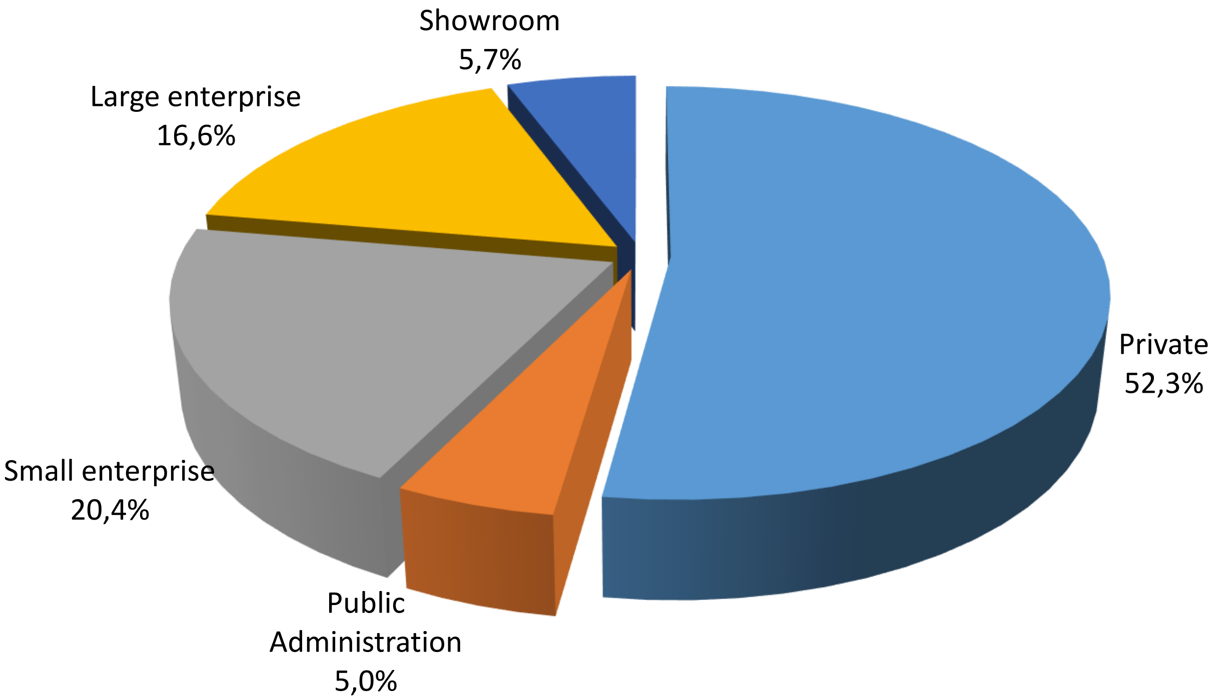
UNICMI elaborations.

Figure 21. Breakdown of sales by market segment



UNICMI elaborations.

Figure 22. Breakdown of sales by type of client

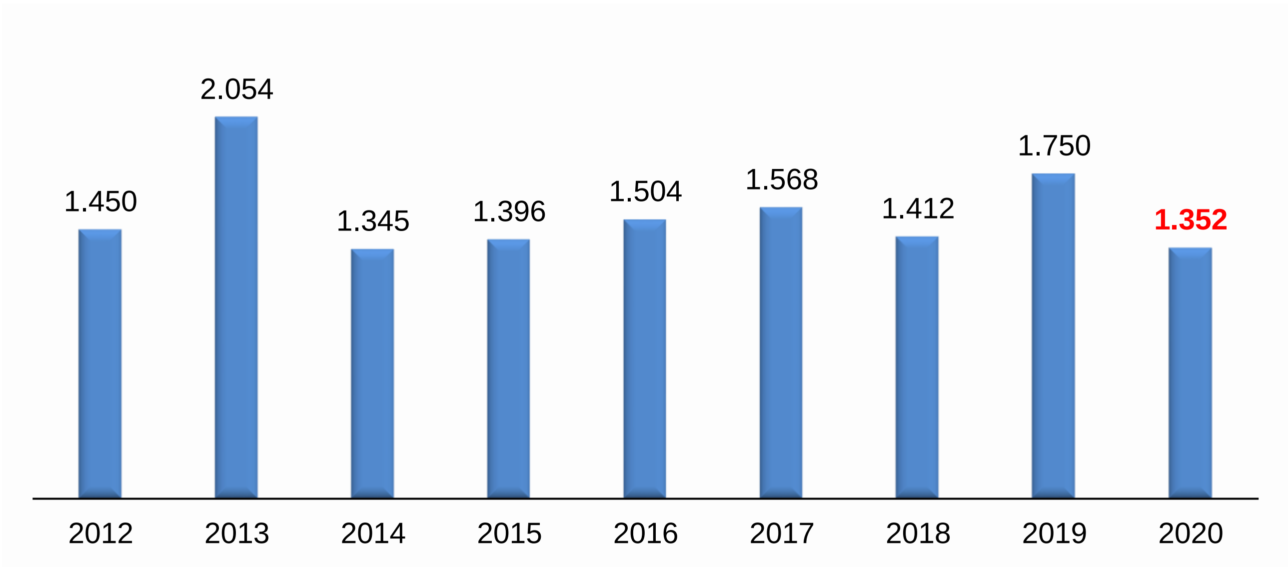


UNICMI elaborations.

After the record result of 2019, tax incentives for energy upgrading of buildings helped support the demand for windows and doors in 2020 as well, generating a turnover of €1,352 million (Figure 23). The value is clearly down compared to the previous year, but is probably destined for a significant reversal in 2021, also thanks to the effect of the 110% Superbonus.

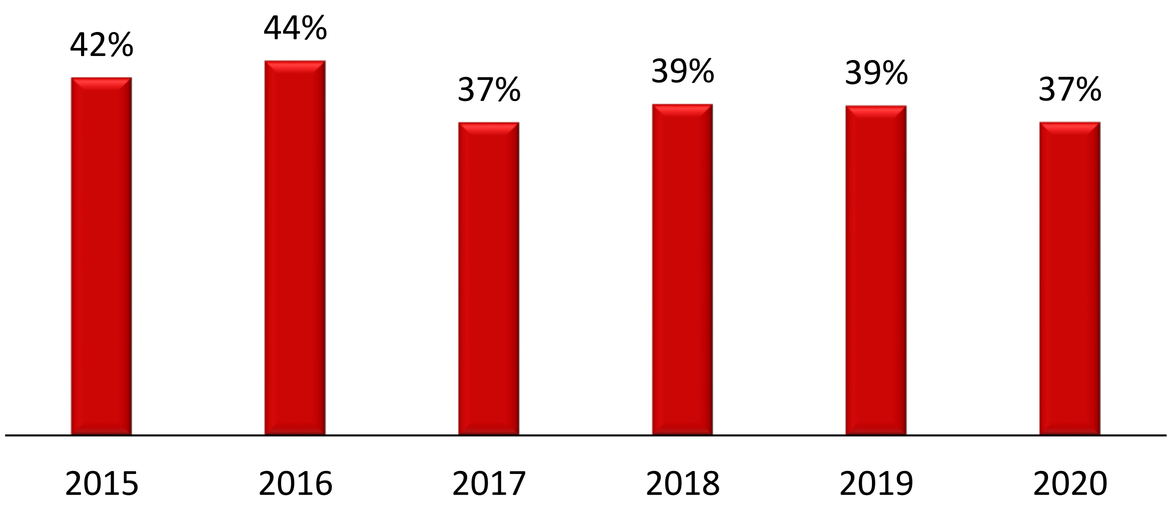
Tax incentives, in 2020, determine 37% (Figure 24) of the turnover of manufacturers of metal windows and doors, so it can be said that the entire turnover achieved in the residential renewal sector is supported by tax incentives.

Figure 23. Demand for windows and doors generated by tax incentives (millions of Euros)



UNICMI elaborations on ENEA data. UNICMI estimate of interventions carried out with Bonus casa: 212 million euros in 2018 and 312 million euros in 2019. Estimated 2020 data.

Figure 24. Share of turnover of metal window and door manufacturers achieved with the tax bonus



UNICMI elaborations.

4. The curtain wall market

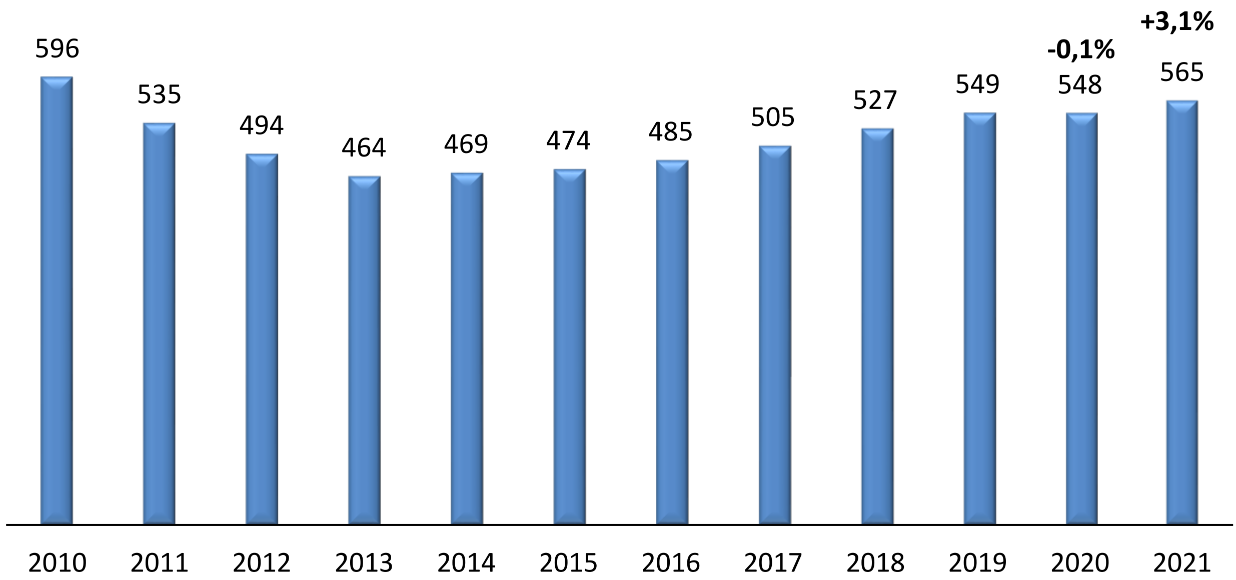
The crisis in 2020 had marginal effects on the curtain wall sector with a decrease in growth of -0.1%, this is due to the fact that orders are multi-year and are therefore less affected by short-term fluctuations. For 2021, growth is expected to recover with a rate of 3.2% (Figure 25).

Curtain wall manufacturers are medium- to large-sized companies (average turnover over €21 million) that adopt a specialized business model and realize more than 50% of their revenues from curtain walls (Figure 26).

Companies are primarily targeting the non-residential segment (75.2%), and in particular the service (46.7%) and commercial (18.5%) segments. Approximately 64.6% of revenue is generated by new construction work (Figure 27). The main reference customers are large companies (47.6%) (Figure 28).

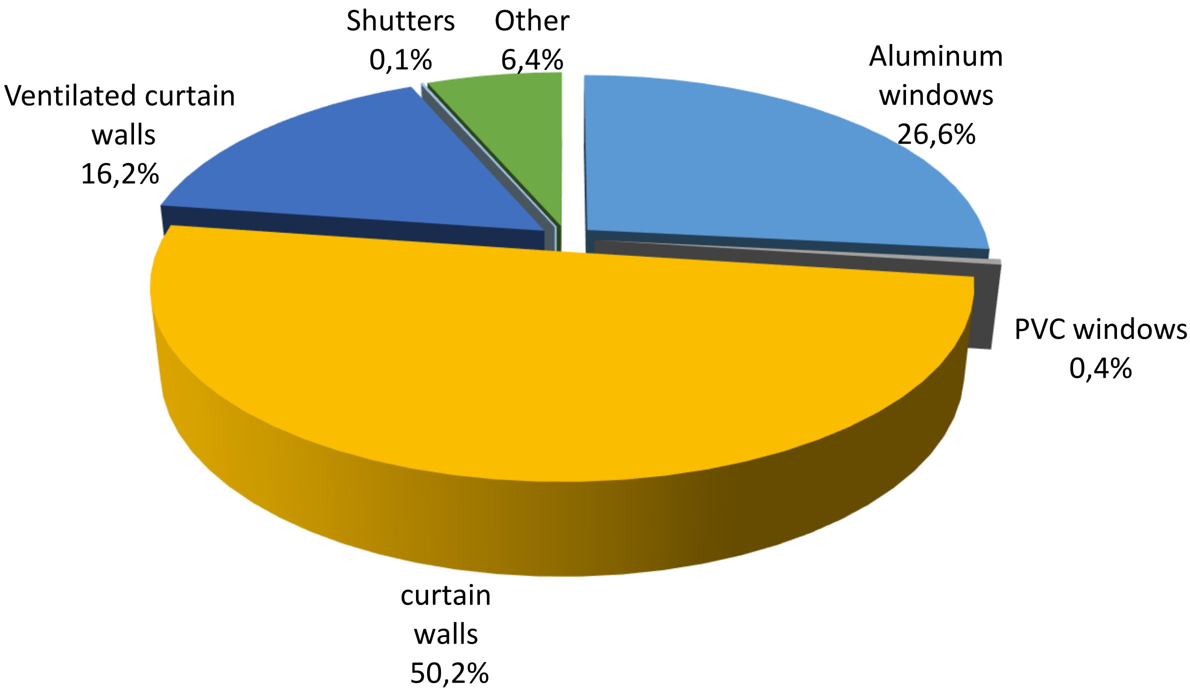
Facade manufacturers have a consolidated presence in foreign markets, particularly in Europe, the United States, and the Middle East, with an average export rate that approached 50% in 2017. In 2020 there is a decrease in the export rate, which stands at 37.4%, this is due to the suspension of the operation of construction sites following the pandemic in several countries where Italian companies operate (Figure 29). We estimate the value of facade exports, i.e. work engineered and manufactured in Italy and exported, at 285 million euros in 2020.

Figure 25. Value of the curtain wall market in Italy (millions of Euros)



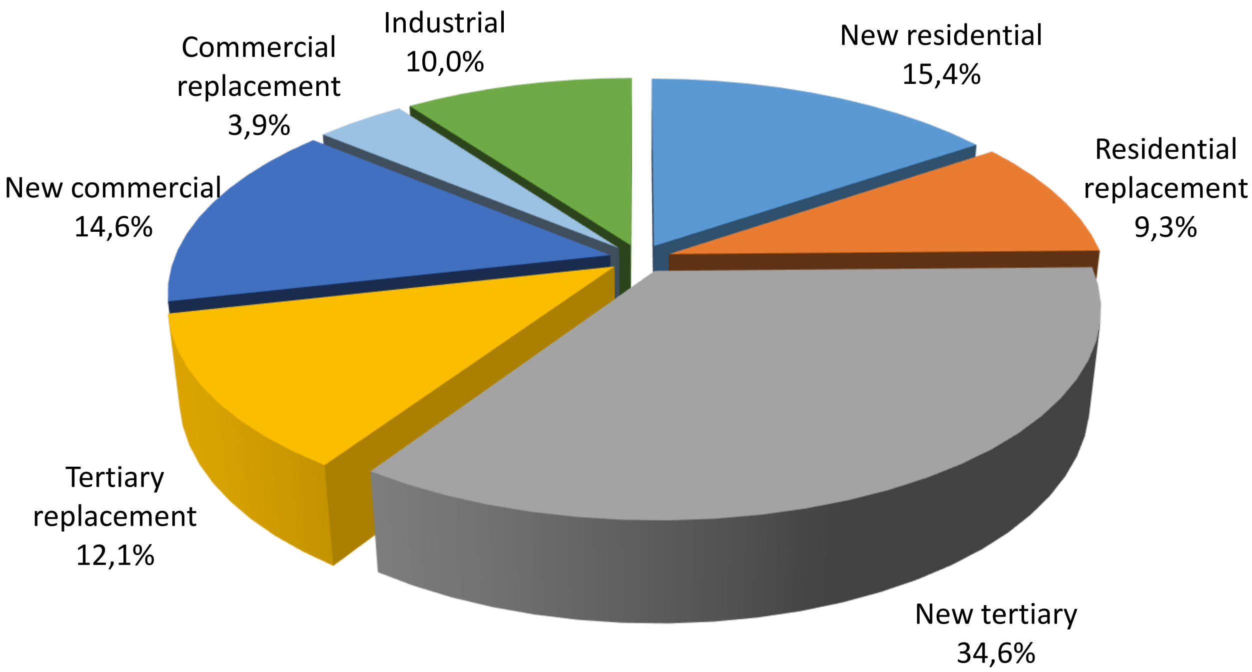
UNICMI elaborations on ISTAT data. Estimated 2020 and 2021 data.

Figure 26. Breakdown of sales by product type



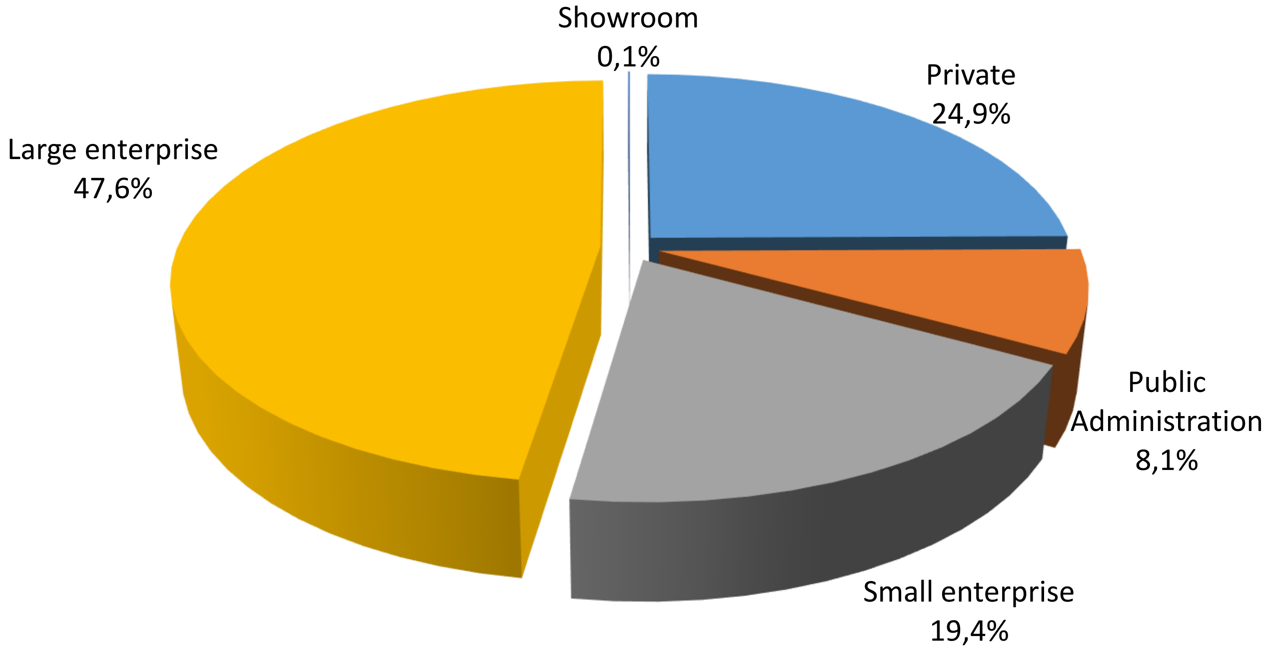
UNICMI elaborations.

Figure 27. Breakdown of sales by market segment



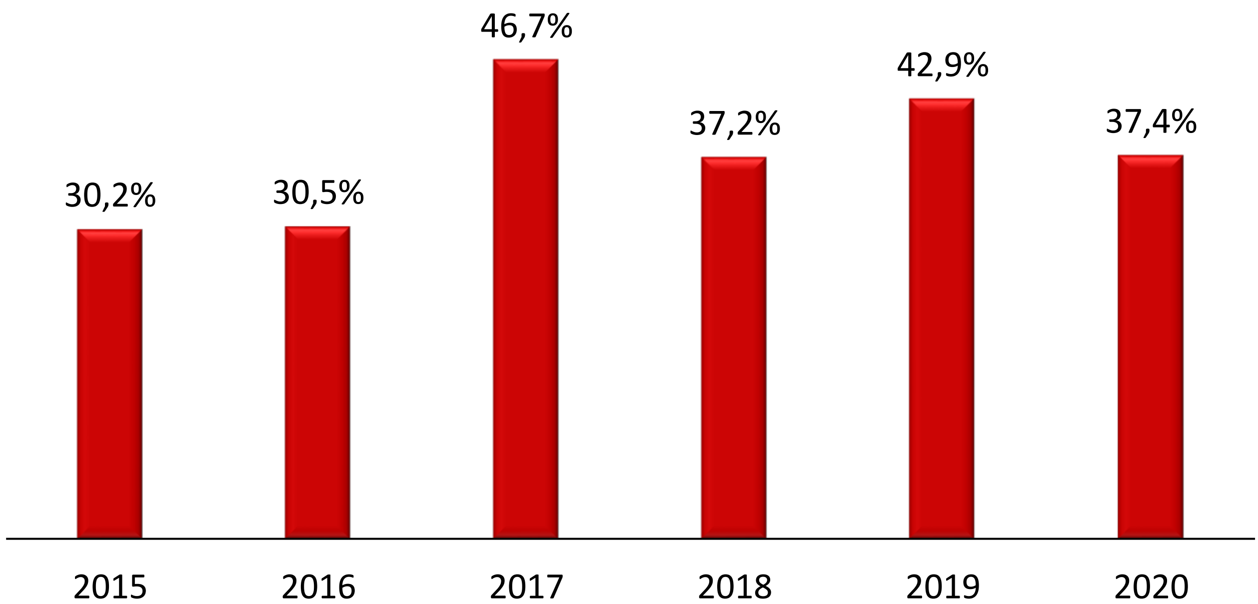
UNICMI elaborations.

Figure 28. Breakdown of sales by type of client



UNICMI elaborations.

Figure 29. Export share of curtain wall manufacturers



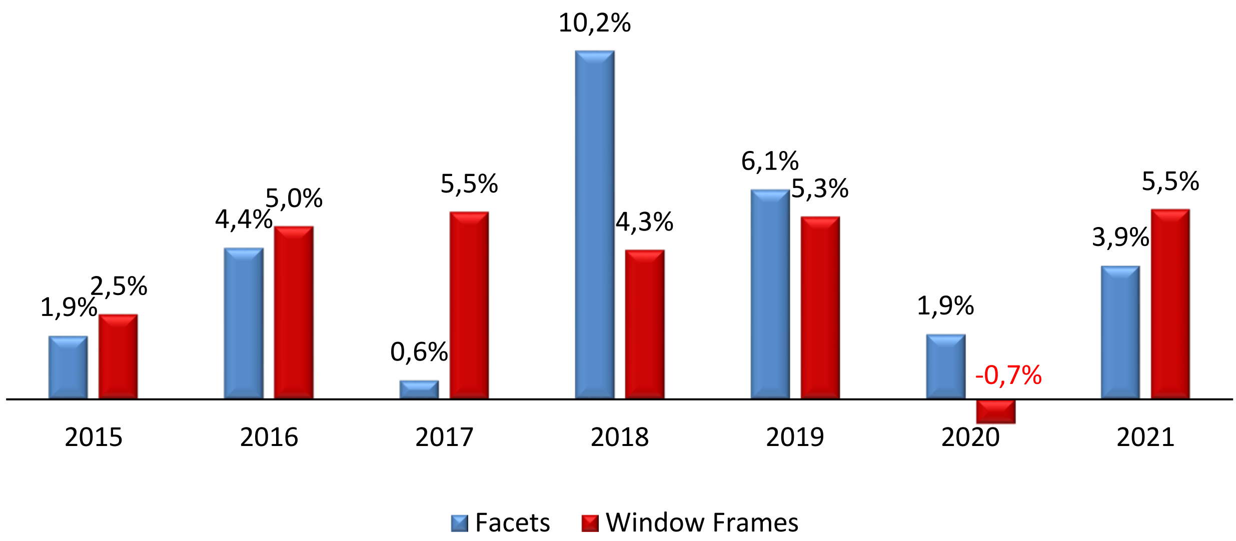
UNICMI elaborations.

5. The economic performance of manufacturers of metal windows and doors and curtain walls

Since 1999, UNICMI has been monitoring the financial statements of a representative sample of manufacturers of aluminum windows and doors and curtain walls, focusing on the following aspects: analysis of income performance, evolution of investments and productivity, analysis of the financial structure and sustainability of business models.

With the onset of the crisis in 2020, the trade margin (ROS=EBIT/turnover) of window and door manufacturers and façade manufacturers fell dramatically. For window and door manufacturers, a negative ROS of -0.7% is recorded. A return to pre-crisis margins of 5.5% is expected in 2021 (Figure 30).

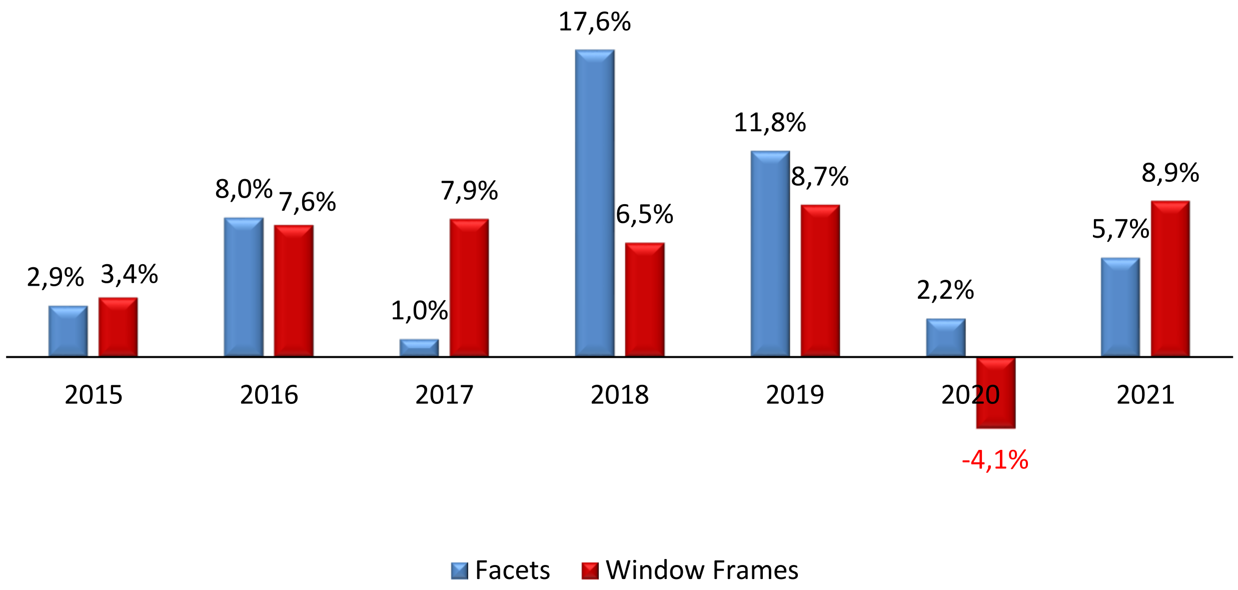
Commercial margin - ROS



UNICMI processing. Estimated 2020 and 2021 data.

Return on invested capital (ROIC) for window and door fitters has shown markedly improved performance through 2019 due to increased operating profitability (Figure 31). Substantial challenges are noted in 2020 for both segments, with a focus on window and door manufacturers. In 2021, ROIC is expected to increase for window and door manufacturers with values higher than pre-crisis ones (8.9%). Facade manufacturers will be affected in 2021 by the increase in invested capital, due to receivables and inventory, which will lead to only a partial recovery of ROIC.

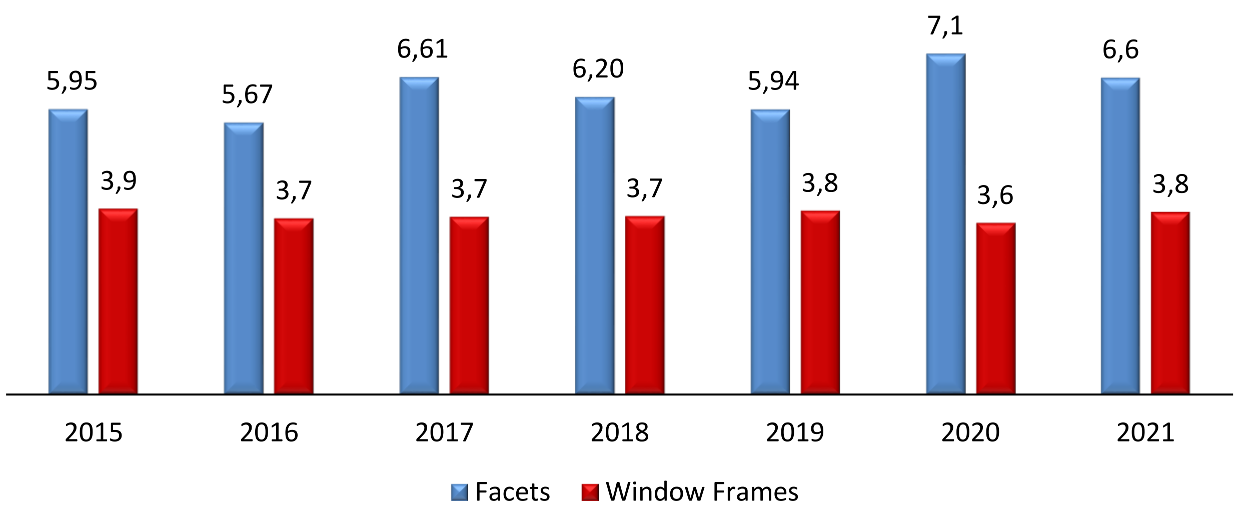
Figure 30. Return on capital employed - ROIC



UNICMI processing. Estimated 2020 and 2021 data.

The debt rate of window and door manufacturers remained substantially stable throughout the period considered and was not significantly affected by the crisis. On the other hand, curtain wall manufacturers suffer an increase in financial tension, linked to the impossibility of invoicing (and collecting) on the basis of the state of progress of works, blocked for lockdown in 2020. In any case, these are situations that will be normalized in 2021, with the full resumption of operations. (Figure 32).

Figure 31. Initial borrowing rate



UNICMI processing. Estimated 2020 and 2021 data.

6. Conclusions and outlook. A "paused" recovery

The crisis caused by the pandemic has brought the current recovery to a halt, and data indicate that the industry will not be able to recover in 2021 all that it lost in 2020. It will likely be able to recover between 40% and 60% (depending on market segments) of the value (revenue) lost in 2020.

The economic and financial performance of metal window and door and curtain wall manufacturers is improving, if we exclude the abnormal year 2020, both in terms of profitability, productivity and financial strength. The long-term trend seems to be positive especially for window and door manufacturers.

The data on the trend of the order portfolio show a situation of strong contraction for window and door manufacturers (Figure 33), but this is a relatively negative figure, since these companies work with medium-small orders for private customers who purchase with little advance notice, so they have the possibility of recovering their portfolio and turnover in 2021. Even the data for curtain walls (Figure 34) must be read with moderate optimism. In fact, the number of companies showing a drop in orders has increased, but it is a drop that is in some ways physiological after several years of strong growth both on the domestic market and on international markets.

In general, the window and door and facade market will continue to be driven by the residential renovation segment, where tax incentives will support investment spending. Consumers, due to the situation of general economic uncertainty, despite the presence of tax incentives, will continue to focus on mid-range products with a good relationship between price and insulation performance. Premium products will remain confined to a relatively small part of the market.

The non-residential sector will resume its trend based on the initiatives promoted in previous years. However, only in 2021 will it be possible to verify the structural impact of COVID on the organization of work in the tertiary sector; if the "post pandemic" organizational models should bring down the demand for space, there will be an increase in vacancy in the tertiary sector, with a consequent slowdown in real estate initiatives for office and commercial use and a fall in the demand for curtain walls.

Figure 32. Evolution of order portfolio - Metal window and door manufacturers

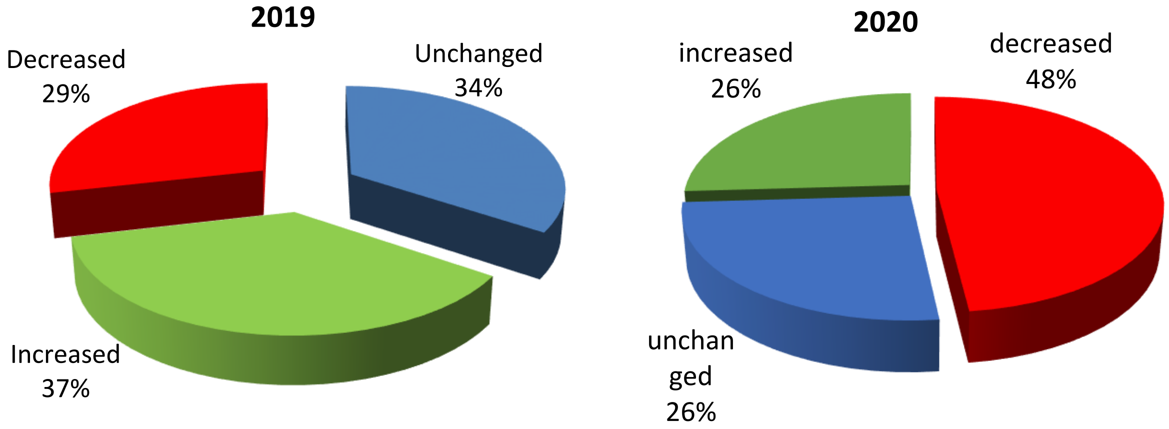
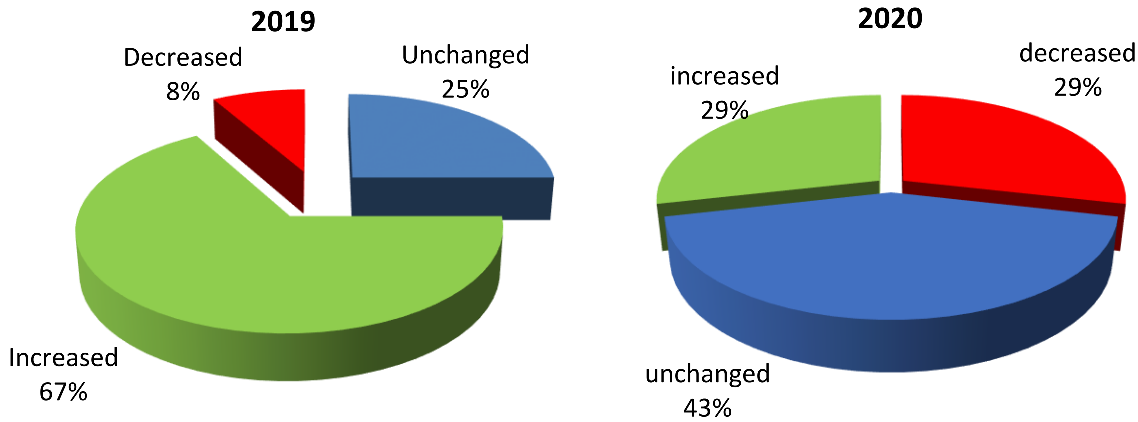


Figure 33. Portfolio evolution - Facade builders



Methodological note

The analysis of the economic balance sheet data, as well as the analysis of the market shares of the different materials, is based on a sample of metal window and curtain wall manufacturers, PVC window and door manufacturers, and wood window and door manufacturers. The sample represents about 35% of the supply in the industry and has been modified in its composition (adding a considerable number of companies) as of fiscal year 2019. The source of financial statements is the AIDA database; financial statements are captured in Excel and optical formats.

The characteristics of the offer of the companies, the market segments served, the growth prospects are analyzed through a questionnaire administered (annually in December) to the window and door frame manufacturers and curtain wall manufacturers associated with UNICMI.

The growth rates of the windows and doors and curtain walls market have been estimated on the basis of the trend of investments in construction provided by ISTAT. Prior to 2011, construction investments were estimated on the basis of Euroconstruct and ISTAT data.

The data relating to the number of windows and doors sold and the market share in volume (number of units) have been calculated by dividing sales (in Euros) by the respective average unit prices of windows and doors (by type of material) recorded by UNICMI. The window unit used to record prices and quantities is defined as follows: 1,300mm X 900mm, one sash, casement, white finish, A/R mechanism, hammer handle.

All data are at actual values unless otherwise noted.

The data processing of this report was carried out by Dr. Francesco Maria Gentile with the scientific coordination of Prof. Carmine Garzia.

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