Real Estate

Sector Report

1st Semester 2021

A green, social and digital recovery

The situation and outlook for the sector in a demanding environment

How Spain's house prices will evolve in 2021

The Recovery Plan for Europe: a green wave for the real estate sector

CaixaBank Research

SECTOR REPORT

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CaixaBank Research

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«The home should be the treasure chest of living, a machine for happiness».
LE CORBUSIER

Real Estate

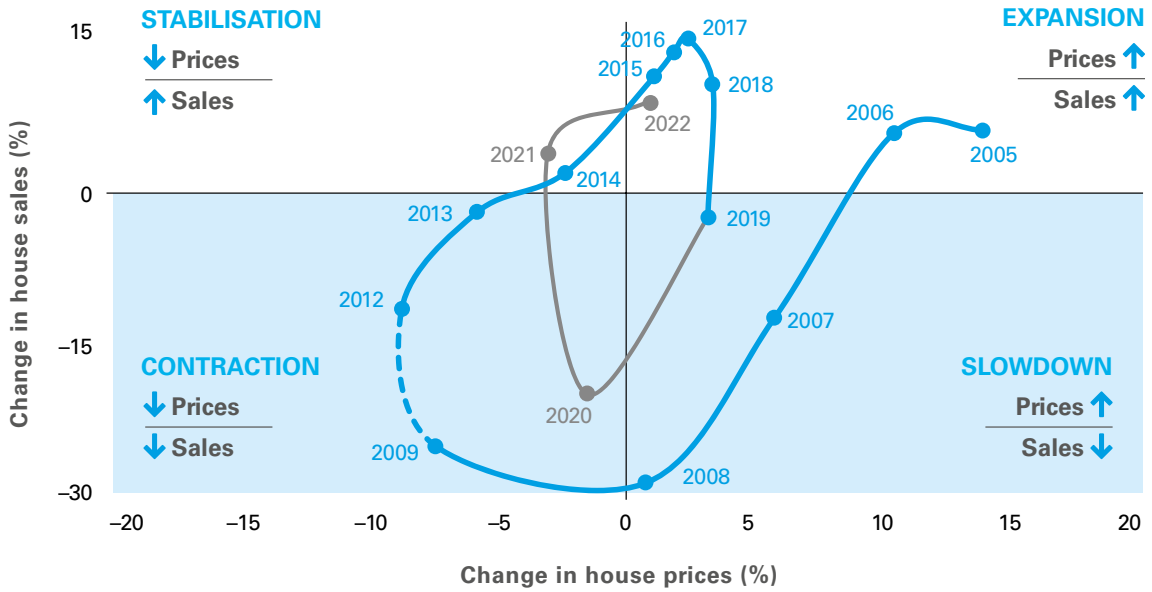
CAIXABANK RESEARCH FORECASTS FOR SPAIN'S REAL ESTATE SECTOR

The CaixaBank Research real estate clock shows the trends in house prices and sales throughout the cycle.

According to our forecasts, the current cycle will be shorter than the previous one as the real estate sector started out from a much stronger position.

The sector has now begun to contract again in 2020 and 2021 will be a year of impasse in which we expect a gradual increase in sales but a certain adjustment in prices.

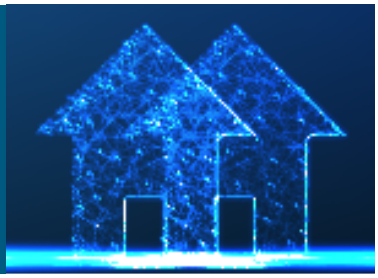
We predict the real estate sector will embark on a new expansionary cycle in 2022.

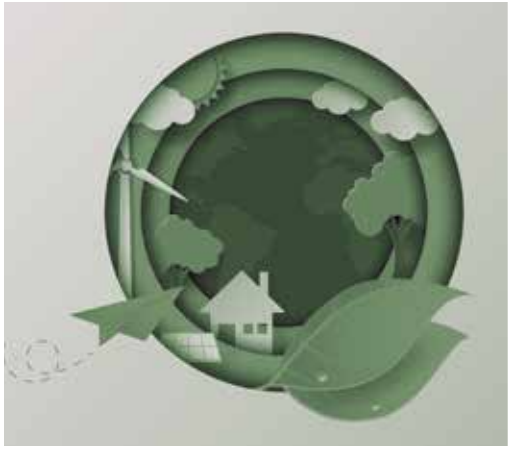


Note: The period 2010-2011 is excluded due to the effect of tax incentives.
Source: CaixaBank Research, based on data from the National Statistics Institute, Ministry ofTransport, Mobility and Urban Agenda and CaixaBank Research forecasts

Projected house prices according to models based on big data and applying machine learning techniques

HOUSE PRICES WILL FALL IN
7 out of 10
Spanish provinces in 2021 and grow very moderately in the rest





The Recovery Plan for Europe, known as the Next Generation EU initiative and totalling 750 billion euros, will help to consolidate the recovery

The Spanish economy will receive **72 billion** euros in non-refundable transfers between 2021 and 2026, **5.8% of the country's GDP in 2019**

500,000: the number of homes expected to be renovated with the support of European funds between 2021 and 2023

Executive summary

A green, social and digital recovery

At this point in the pandemic, no-one is in any doubt that the **economic scenario largely depends on how the health situation will develop**. After a period of relative normality during the summer, a large number of European countries have had to step up restrictions on people's movements and business activity. The economic impact of this second wave is considerable, although clearly less than the effect of the strict lockdowns imposed in Q2. This situation has worsened the economic outlook for the beginning of 2021, although the outlook for the spring is more promising with hopes being placed on the availability of a COVID-19 vaccine and other measures to help strengthen the health strategy (such as the low-cost, rapid testing of large numbers of the population).

Activity in Spain's real estate market is recovering from its extraordinary slump during the first lockdown. In Q3 2020, house sales and new building permits recovered much of the ground lost, a positive trend we expect to consolidate in 2021. Moreover, the impact of the crisis on house prices has been relatively moderate so far, although we expect these will continue to adjust in the latter part of 2020 and the first half of 2021. In particular, CaixaBank Research's new house price forecasting models at the level of province, based on large amounts of information (big data) and applying machine learning techniques, predict that house prices will fall in 7 out of 10 Spanish provinces in 2021 and grow very moderately in the rest.

However, it is important to remember that the economic impact of COVID-19 is huge and the effects of the pandemic on the sector will take time to disappear completely. **The Recovery Plan for Europe, or Next Generation EU (NGEU), allocated a substantial sum of 750 billion euros, will be decisive in helping to boost the recovery**. One of the EU's main targets, which this recovery plan aims to support significantly, is the ecological transition to become climate-neutral by 2050. In the EU, buildings are responsible for emitting about 40% of the gases that cause global warming. The involvement and commitment of the construction industry is therefore essential to reduce greenhouse gas emissions to the agreed targets, while more energy-efficient «smart» buildings also support another of the Commission's key targets: digital transition.

These European funds represent a unique opportunity to modernise Spain's economy, which will receive around 72 billion euros in non-refundable transfers between 2021 and 2026, equivalent to 5.8% of its GDP in 2019. **About 6% of the European NGEU funds will be aimed at renovating housing, tripling public investment in this area**. In particular, the government plans to recondition 500,000 homes between 2021 and 2023. This target, if achieved, would be very positive for the sector but it is highly ambitious since it requires multiplying the current reconditioning rate by six in just three years.

In addition to renovations, **another priority for housing policy over the coming years is the improvement of social housing**. The severe economic and social impact of the COVID-19 crisis has highlighted the need to provide a large number of rented social housing to resolve the current shortage and be able to ensure the most vulnerable sections of the population have somewhere to live. Policies that should drive a green, social and digital recovery.

Situation and outlook

A demanding environment for Spain's real estate sector

Activity in the real estate market is recovering from its extraordinary slump between March and June. House sales and new building permits have regained much of the ground lost in Q3 2020, a trend we expect to consolidate in 2021. House prices, whose trend is still weak but without any extreme corrections, are expected to follow a similar trend in the coming quarters, ending 2021 with a decline of around 2%.

The second wave of the virus is weakening the economic outlook for 2021

Throughout the summer, after the pandemic peaked in March, April and May, the global economy saw a remarkable, widespread recovery in most countries. Nevertheless**, the latest indicators point to the second wave of COVID-19 rapidly cooling down this recovery**, so we cannot rule out a further decline in activity in Q4 2020. However, it is very important to note that the economic impact of the latest restrictions on people's movements is clearly less than the effect of the severe lockdown in Q2.

Spain's economy also recovered strongly in Q3 2020 post-lockdown. Specifically, after decreasing by 17.8% in Q2 2020, Spain's GDP grew by a significant 16.7% quarter-on-quarter in Q3 2020, confirming the economic recovery despite the fact that it is still 8.7% below its Q3 level last year. However, as has happened in the major international economies, **the latest indicators point to this recovery cooling down and a more dubious tone for economic activity in Q4** due to the second wave of COVID infections.

> **The pandemic is the major determining factor for the economic scenario. The second wave of the virus has led us to lower our forecasts for 2021, although the recent progress made in health measures provides a note of optimism**

Not surprisingly, the recent turn of events, worse than anticipated a few months ago, has affected growth prospects. **CaixaBank Research's current scenario predicts 6.0% GDP growth[1] in 2021**, still a notable recovery but less than previously forecast (8.6%). This scenario is based on a series of hypotheses, including the likelihood that the COVID-19 vaccine will be available in the first few months of the year, in principle for the most vulnerable people, and that other measures will be implemented to diversify the health strategy (such as the mass testing of the population using low-cost, rapid tests), which would support economic activity and ensure a more resilient recovery. However, Spain's GDP is not expected to reach its pre-crisis levels until 2023, somewhat later than our main European partners given the greater relative weight of tourism in the country's economy, a sector that will continue to perform well below its potential.

As for the real estate market, activity has also been recovering after going through a slump of unprecedented magnitude during the lockdown. **House sales and new building permits have picked up considerably since the summer**, a trend we expect to consolidate in 2021. **Moreover, the effect of the crisis on house prices has been relatively moderate so far**, although we are still expecting some correction in the last few weeks of 2020 and the first half of 2021. Consequently, throughout 2021 the real estate sector will continue to recover gradually from the pandemic's severe impact.

(1) For further details (in Spanish), see the Nota Breve «Actualización del escenario macroeconómico», available at: https://www.caixabankresearch.com/en/publicaciones/notas-breves-actualidad-economica-y-financiera/espana/actualizacion-del-escenario

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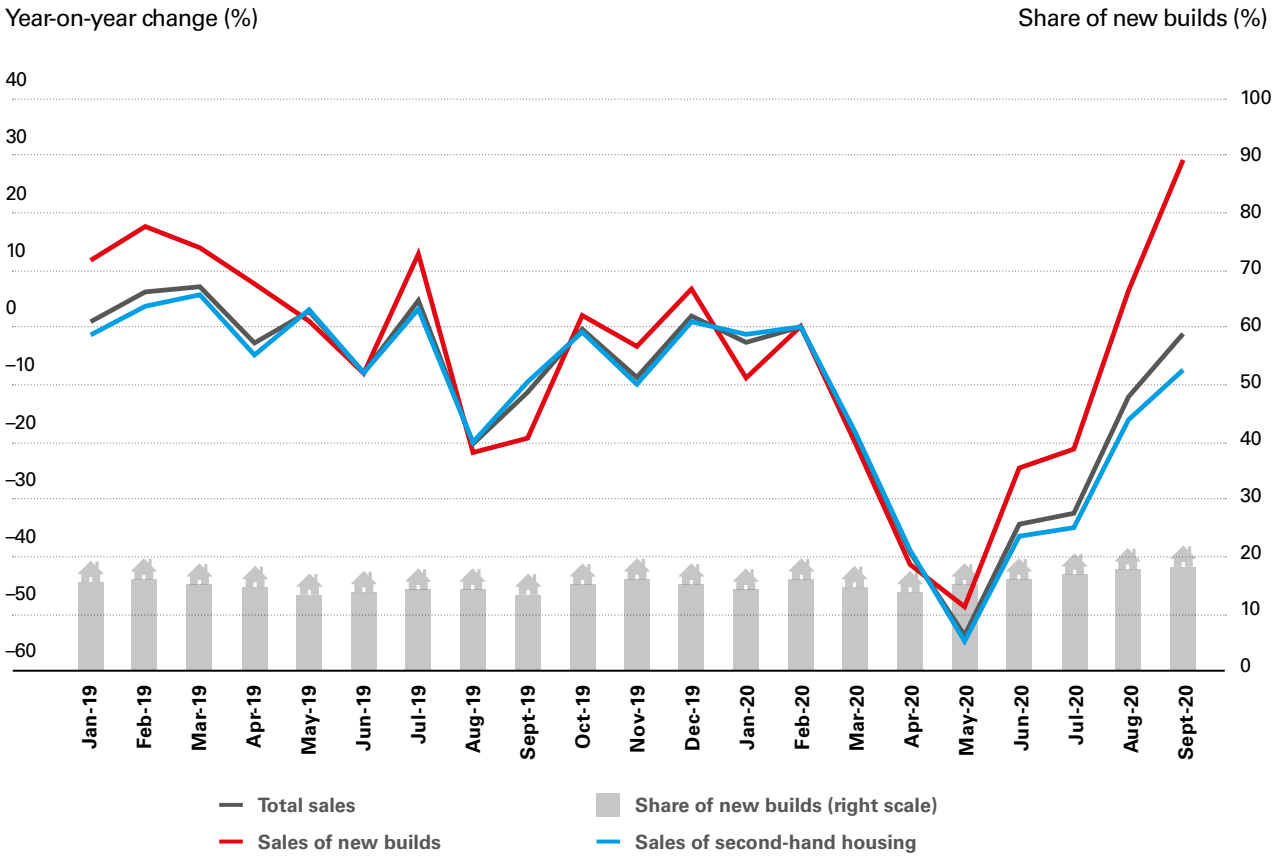
Housing demand has regained much of the ground lost but will remain below its potential until the economic recovery has consolidated

Demand for housing has recovered very quickly since the summer. The number of house sales fell only very slightly in September (–1.1% year-on-year), leaving behind the slump observed during the lockdown (–36% year-on-year between March and July). However, there is a significant difference between the sales trends for new and second-hand housing: while sales of new builds have recovered strongly (+29.2% year-on-year), second-hand house sales have continued to decline in year-on-year terms, albeit more slowly than in previous months (–7.4% year-on-year in September compared with –16.1% year-on-year in August). As a result, sales of new builds now account for 22.2% of all house sales, compared with 18.4% in 2019.

New house sales pick up post-lockdown



Source: CaixaBank, based on data from the National Statistics Institute.

One interesting point is the **significant rise in sales of houses as opposed to apartments** during the pandemic, the historical series reaching a peak in Q3 2020 with 20.4% of all transactions recorded for the quarter.[2] This indicates a certain change in consumer preference as people are now looking for larger homes with more outdoor space, such as terraces and gardens, after experiencing months of enforced lockdown due to the health crisis.

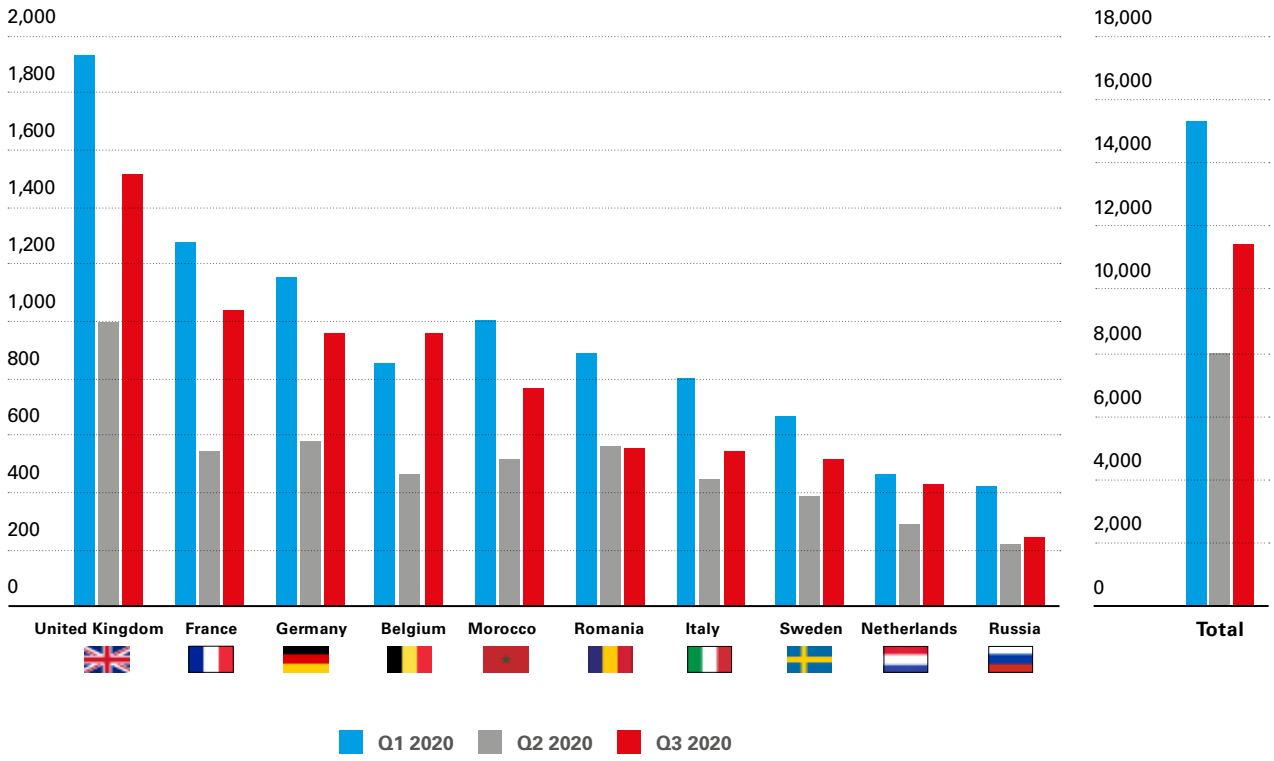
(2) **Data from the College of Registrars.**

Also noteworthy is the strong recovery in house purchases by foreigners[3] in Q3 2020 (+42.5% quarter-on-quarter), after the sharp drop in Q2 (–46.6% quarter-on-quarter), bringing the relative share of foreign purchases to 11.4% compared with 10.7% in Q2. In absolute terms, this translates into nearly 11,400 sales to foreigners in Q3 2020 compared with 8,000 in Q2, a figure which, however, is still far from the 15,000+ in Q1 and one year ago. As usual, the British, French, Germans and Belgians are the main buyers of Spanish properties, usually for holiday purposes. These nationalities are followed by the Moroccans and Romanians, who tend to buy housing for residential purposes. The Italians, Swedish, Dutch and Russians complete the top 10 of buyers by nationality.

③ **Data from the College of Registrars.**

Sales to foreigners by nationality

Number of sales



Source: CaixaBank Research, based data from the College of Registrars.

Although demand for housing has recovered strongly since the lockdown, the worsening economic situation may again compromise demand over the coming months

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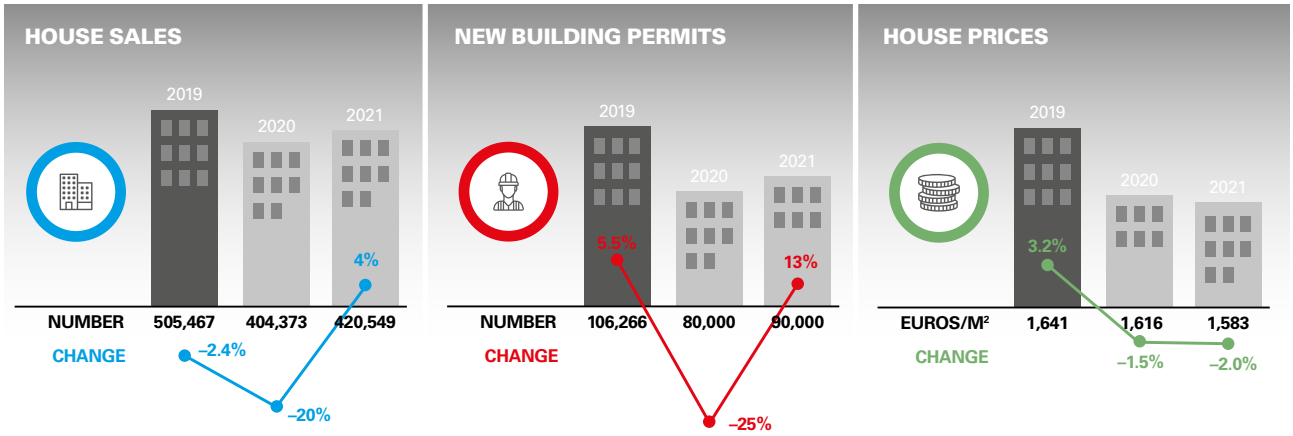
CaixaBank Research forecasts for Spain's real estate sector



Source: CaixaBank Research.

We expect the rate of growth in sales to ease slightly over the next few months. Firstly, because most of the sales that had to be postponed during the lockdown due to mobility restrictions will have now gone through. And, secondly, due to the impact of the economic situation on the gross disposable income of households. Although the labour market has evolved very positively post-lockdown (the Q3 2020 labour force survey (LFS) shows a strong recovery in the total actual hours worked and a 3% increase in employment compared with Q2), recent months have seen a reduction in the reinstatement of furloughed workers from the first wave, with the addition of furloughed workers from the second wave. At CaixaBank Research we therefore expect the unemployment rate to rise significantly in Q1 2021 (to 19%) due to higher job losses in the coming months. However, job creation should gain momentum in Q2 2021, especially in view of the summer, provided our hypothesis is confirmed that the epidemiological situation will allow the tourist season to operate relatively normally.

> **The factors supporting the rise in demand (essentially sustained growth in employment, recovery in wages and foreign demand) will remain weak until the epidemiological situation improves**

For their part, **financial conditions will continue to support housing demand**. Over the coming months, the ECB is very likely to extend some of the monetary policy measures it quickly and forcefully implemented at the start of the pandemic (from asset purchases estimated at almost 2 trillion euros in 2020-2021 and injections of liquidity under very favourable conditions to the easing of regulations and collateral requirements). One reflection of the effectiveness of these measures is the continued improvement in credit

to households in order to purchase housing (–6.9% year-on-year in cumulative terms from January to October compared with –37.3% year-on-year between March and May). On the other hand, the Q3 bank lending survey indicates slightly tighter terms and conditions on loans to households for house purchases, although the overall terms and conditions for new loans remain unchanged.[4]

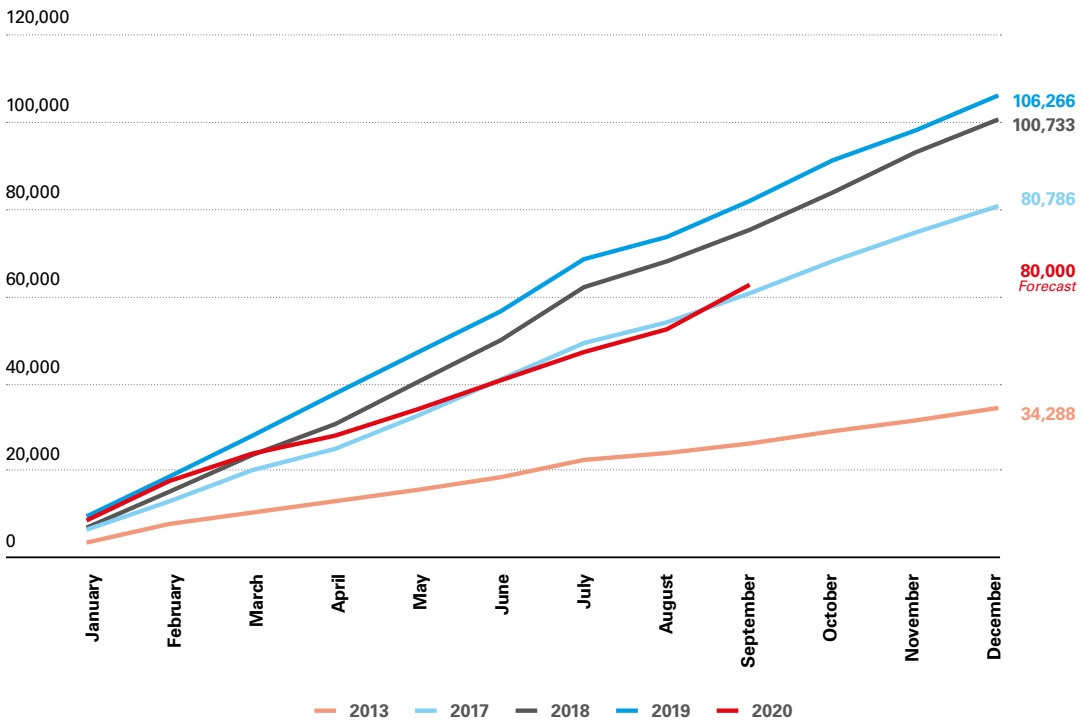
④ **See «Bank Lending Survey in Spain», Bank of Spain, available at:** https://www.bde.es/bde/en/encuesta-sobre-prestamos-bancarios-en-espana--octubre-de-2020-cc951ab49b46571.html

Supply indicators suggest the recovery in the real estate sector is still incomplete

According to national accounting data, construction has been hit hard by the coronavirus crisis and is taking longer to rebound than the economy as a whole. Specifically, the gross value added (GVA) for construction, in real terms, fell by 17.1% in the first half of 2020 while GDP fell by 12.8% over the same period. Although the construction industry's GVA rose by 22.5% quarter-on-quarter in Q3 2020, it is still 11.0% below the level recorded a year earlier. To put these figures into perspective, however, it should be noted that the GDP of the economy as a whole is 8.7% lower than in Q3 2019. On the other hand, **the number of new building permits has fallen significantly**, by 23.6% between January and September 2020, although this is a considerable improvement compared with the 37.2% drop recorded in the second quarter. The following chart shows that the number of permits granted up to September 2020 is similar to that of 2017, a year which closed with around 80,000 new building permits, a figure that coincides with our current forecast for new building permits in 2020.

New building permits are at similar levels to 2017

Cumulative number of permits during the year



Source: CaixaBank Research, based on data from the Ministry of Transport, Mobility and Urban Agenda.

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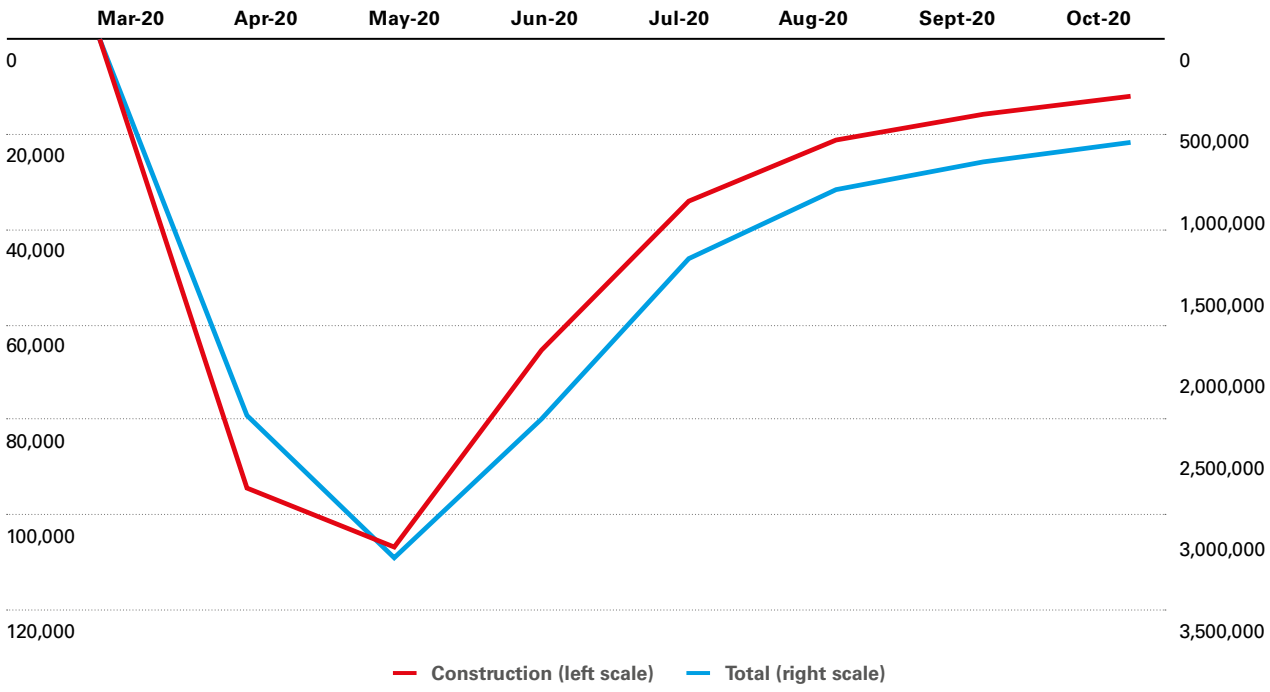
By 2021, we expect the number of new building permits to gradually rise to 90,000. This would bring the production of new housing in line with the net creation of households over the past 12 months (also estimated at 90,000 by the Economically Active Population Survey or EAP). However, it is important to note that the National Statistics Institute (INE) has substantially lowered its projections for net household creation in the next few years. Specifically, the INE forecasts that approximately 60,000 households will be formed per year between 2021 and 2025, less than half the 135,000 households per year projected two years ago. These projections assume considerable flows of foreigners into Spain, taking into account the fact that the number of households made up of Spaniards is expected to fall by around 100,000 per year.

On the other hand, labour market data for the construction industry point to a more positive trend

EPA data show that employment in the construction sector recovered particularly strongly in Q3 2020, with the year-on-year rate rising to 1.6% compared with –8.4% in Q2. However, in effective terms the hours worked provide a better indication of the trend in employment. These figures indicate that, in construction, the actual hours worked in Q3 were already slightly higher than their level a year earlier, up by 0.5%. Moreover, it should be noted that construction workers who had been furloughed have now rejoined the labour market. Whereas these workers accounted for 35.2% of all construction employees in April, by October their percentage had fallen to 3.4%.[5] Furlough measures have therefore been a highly effective means of safeguarding jobs during the toughest months of the pandemic.

5 Average Social Security affiliation figures per month.

Furloughed employees



Source: CaixaBank, based on data from the Ministry of Employment, Migration and Social Security (MITRAMISS).

House prices are beginning to adjust

So far, the impact of the coronavirus crisis on house prices has been relatively moderate due to their high inertia in changes of cycle. According to the statistics published by the Ministry of Transport, Mobility and Urban Agenda (based on appraisal prices), house prices rose by 0.6% quarter-on-quarter in Q3 2020, interrupting the downward trend of the previous two quarters. In year-on-year terms, the decline in prices slowed down (–1.1% year-on-year versus –1.7% in Q2), while the College of Registrars' price indicator (based on repeat sales) recorded a 0.2% quarter-on-quarter drop in Q3 2020. Although the year-on-year trend is still positive (0.8%), this indicator shows a marked slowdown compared with the 7.3% year-on-year increase recorded in Q3 2019. INE house prices (based on transaction prices) also slowed down, from 3.2% year-on-year growth in Q1 to 2.1% in Q2, but this indicator has yet to post a decline in quarter-on-quarter terms. INE data suggest that prices for new builds are outperforming those for second-hand housing. Specifically, the price of new housing rose by 4.2% year-on-year in Q2 2020 while the price of second-hand housing rose more moderately by 1.8%.

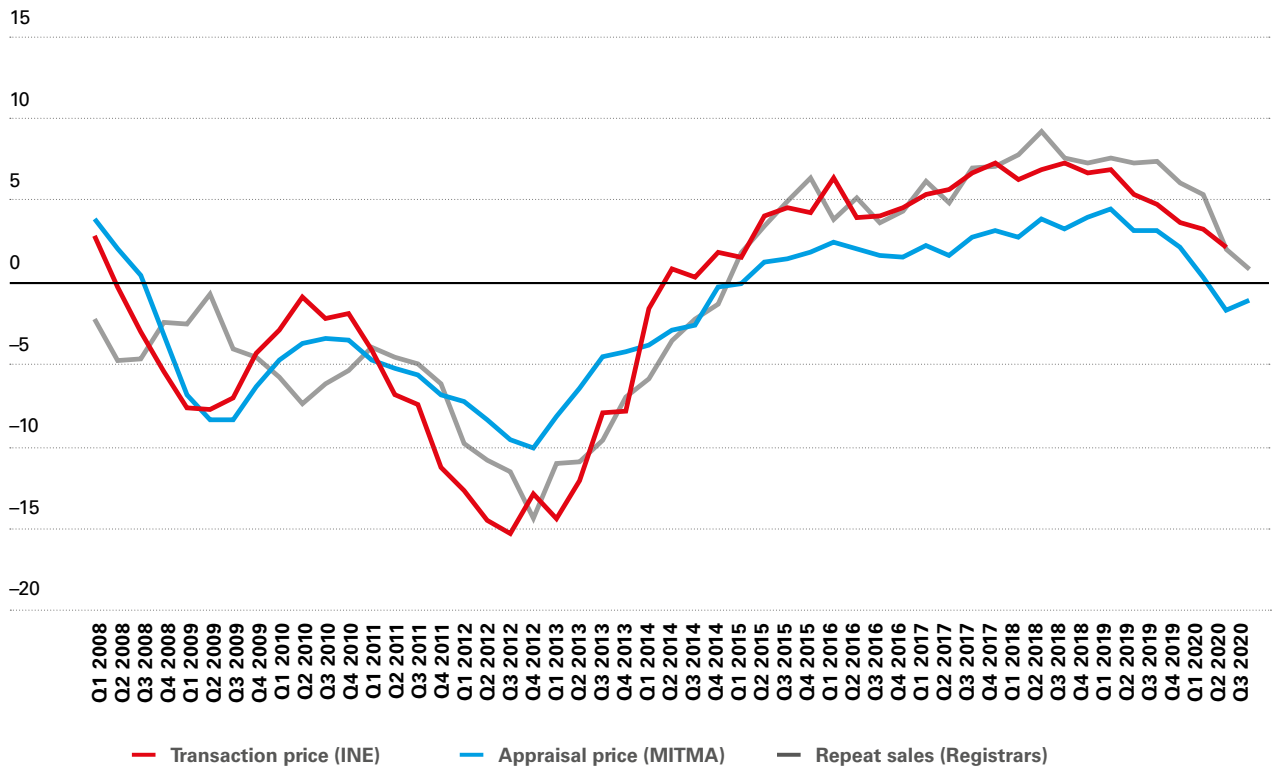
Another indicator that is particularly relevant in situations of high uncertainty such as the present is the time it takes to sell a property, as this can point to buyers and sellers finding it more difficult to agree on the new equilibrium price for transactions. The various indicators available on real estate portals suggest a slight increase in the time between a property going on sale and the date it is purchased. According to data from the Idealista portal, **it took about six months to sell a house in Q3 2020, almost one month more than a year earlier.**[6]

(6) Idealist study (in Spanish) available at: https://www.idealista.com/news/inmobiliario/vivienda/2020/11/10/787808-dime-donde-vives-y-te-dire-cuanto-tardaras-en-vender-tu-casa-ahora

Consequently, in spite of the relatively moderate decline in house prices to date, we still predict a somewhat sharper correction in the latter part of 2020 and first half of 2021. The revival in economic activity expected from spring onwards should support a gradual recovery in house prices in the second half of 2021. However, the far-reaching economic crisis caused by COVID-19 will make this recovery very gradual, so we do not expect prices to return to their pre-crisis levels until 2024.

Downward trend in house prices

Year-on-year change (%)



Source: CaixaBank Research, based on data from the National Statistics Institute, College of Registrars and Ministry of Transport, Mobility and Urban Agenda.

The rental market is the hardest hit

According to the indicators available on various real estate portals, **rents have started to come down in most provinces and municipalities in Spain**, albeit with a large number of differences across the different markets. One factor that is having a decisive effect on rents in certain areas is the substantial increase in the number of rented flats available, resulting from properties that had originally been intended for short-term tourist rents being transferred to the residential market. According to a study by Fotocasa, 64% of tourist apartment owners have switched to traditional renting.[7] There has also been an increase in the average time it takes to rent a property out which, according to a study by Servihabitat,[8] is now 58 days, almost 10 days more than one year ago although still far from the 64 days it used to take in 2017.

(7) **Available (in Spanish) at:** https://blogprofesional.fotocasa.es/el-64-de-los-propietarios-de-pisos-turisticos-se-ha-pasado-al-alquiler-residencial-durante-la-pandemia/

(8) **Available at:** https://corporate.servihabitat.com/documents/uploads/contenido/estudios/ServihabitatTrends_RentalMarket_EN.pdf

Forecast of house prices by province

How will house prices in the Spanish provinces evolve in 2021?

CaixaBank Research has developed new models for forecasting house prices at the level of province using large amounts of information (big data) and applying machine learning techniques. According to these models, house prices will fall in 7 out of 10 Spanish provinces in 2021 and grow only very moderately in the rest. Comparing current forecasts with those projected by the models before the pandemic, a notable correction can be seen in the expected growth of house prices in one year's time, approximately 4 pp on average. This correction has been more pronounced in provinces with a higher urban concentration and greater dependence on foreign tourism, although they are still the most dynamic in spite of this.

Big data and machine learning applied to the forecasting of house price trends

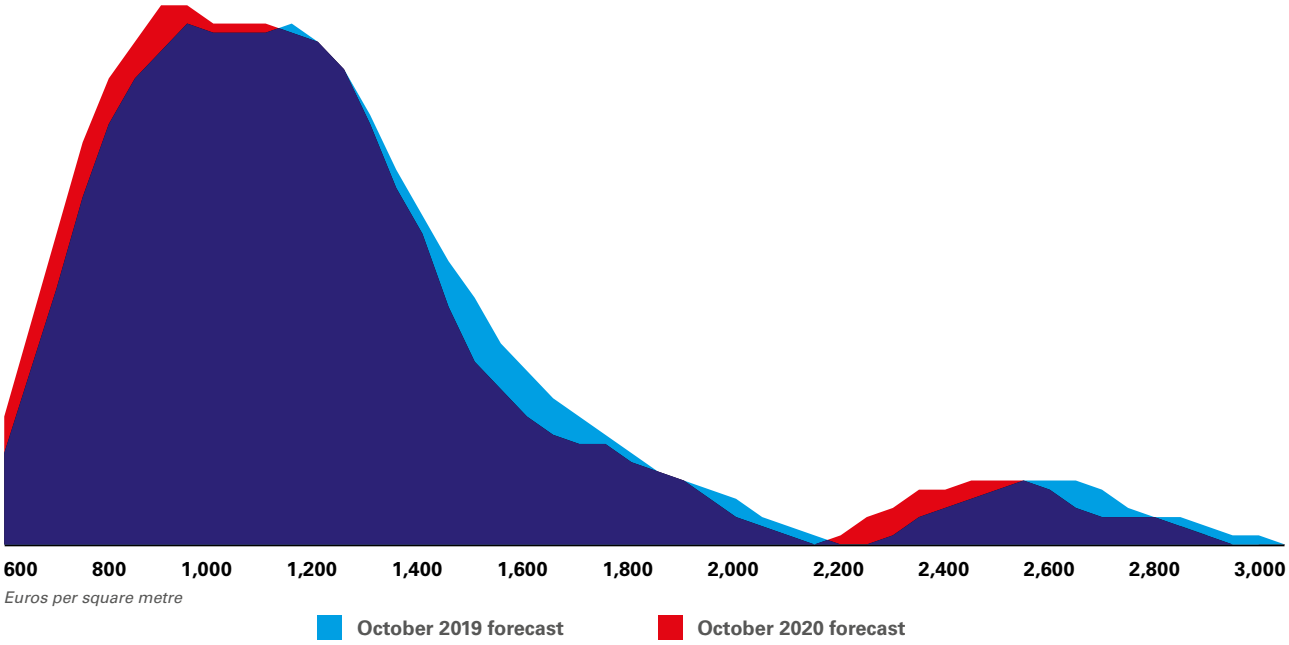
In this article we examine the forecasts of house prices for 2021 at the level of province, obtained from the machine learning models of CaixaBank's new real estate big data tool. The tool combines millions of internal CaixaBank data with reliable external sources of information. This enables the application of machine learning algorithms, which improve the forecasts as more information is available. The Ministry of Transport, Mobility and Urban Agenda's historical series of house prices has been used to train the models, based on free housing appraisal prices. Most of these data come from appraisals of properties more than 5 years old, so the house price forecasts in this article largely reflect trends in the second-hand property market.

How has the pandemic affected house price forecasts?

Expectations regarding the trend in Spanish house prices have altered extensively as a result of COVID-19. If we compare the distribution of house prices projected by the models one year ago (October 2019) with the most recent projections (October 2020), we can see a shift in the price distribution to the left. In other words, the models are currently projecting significantly lower house prices than those forecast a year ago.

House price forecasts have generally been lowered in the past year

Distribution of the provincial house price forecast over 1 year (frequency)



Note: The forecasts are presented in blue and red for October 2019 and 2020, respectively. When these two areas overlap, this is represented by a darker colour.
Source: CaixaBank Research, based on internal models and data from the Ministry of Transport, Mobility and Urban Agenda.

Specifically, in October 2019 the models predicted that house prices would rise in one year's time in almost all provinces, with an average increase of 3.5%. The highest rises were expected in the provinces of Valencia (+7.4%), Navarra (+6.5%), Zaragoza (+6.5%) and Madrid (+6.4%). And only four provinces were projected to see a decline: Ciudad Real (–1.4%), Zamora (–1.3%), Palencia (–0.8%) and Ávila (–0.3%).

House price forecasts have generally been revised downwards due to the impact of COVID-19: while an increase was expected in 9 out of 10 provinces a year ago, today a decrease is expected in 7 out of 10

In October 2020, the models forecast that, in one year's time, house prices will have fallen in 7 out of 10 provinces. However, the models still project price increases in almost one third of Spain's provinces, albeit a much more moderate rise than predicted a year ago, particularly in Malaga (+2.0%) and Madrid (+0.8%).

It is therefore evident that the downward adjustment of forecasts over the past year has been widespread and considerable. In particular, the house price growth forecast over a one-year horizon has been lowered by about 4 pp between October 2019 and October 2020.

What factors lie behind this considerable change in house price projections?

The greatest adjustment in forecasts between October 2019 and October 2020 has been in the urban provinces.[9] While, one year ago, the models predicted a 5% revaluation on average in house prices over a one-year horizon for the urban provinces, they now predict a slight fall in prices between Q3 2020 and Q3 2021 (–0.2% on average). In contrast, rural provinces have seen a significantly smaller adjustment in their house price projections (about 3 pp in the past year). However, as these real estate markets were already much less dynamic before the pandemic (one year ago, an average increase in house prices of 1.2% was projected for rural provinces), the change in expectations has led to notable decreases in house price forecasts for most rural areas (–2.0% on average between Q3 2020 and Q3 2021).

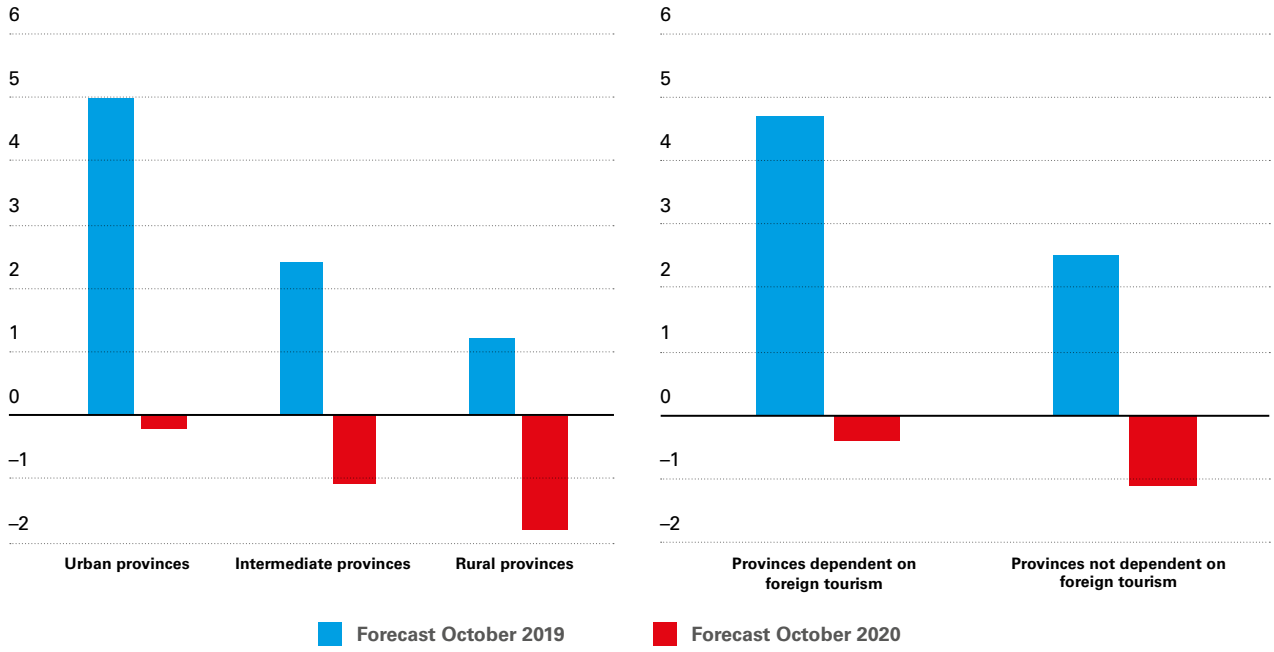
A similar pattern can be observed if we divide the provinces into two groups according to their degree of dependence on foreign tourism. Specifically, we consider a province to be dependent on foreign tourism if more than 10% of CaixaBank's POS terminal transactions in the province in 2019 were carried out with foreign cards.[10] **The result is that the house price forecast for tourism-dependent provinces has altered considerably in the past year**: from an average one-year growth rate of 4.7% projected in October 2019 to the current forecast of –0.4%. On the other hand, less tourism-dependent provinces have seen a smaller adjustment in their house price forecasts over one year, although these are precisely the provinces with the largest fall in prices projected for the coming year.

(9) A province is considered rural if more than 50% of its population lives in a rural municipality (municipalities with fewer than 30,000 inhabitants or with a population density under 100 inhabitants/km²). A province is considered urban if fewer than 15% of the population lives in a rural municipality. The rest of the provinces are classed as intermediate.

(10) The provinces dependent on foreign tourism according to this criterion are Alicante, Balearic Islands, Barcelona, Girona, Las Palmas, Malaga, Santa Cruz de Tenerife and Tarragona.

Urban provinces and those dependent on foreign tourism remain the most dynamic despite their forecasts suffering the largest correction

Average change in one-year house price forecast (%)



Notes: A province is considered rural if more than 50% of its population lives in a rural municipality (municipalities with fewer than 30,000 inhabitants or with a population density under 100 inhabitants/km^2). A province is considered urban if fewer than 15% of the population lives in a rural municipality. The rest of the provinces are classed as intermediate. A province is classified as dependent on foreign tourism if more than 10% of POS terminal spending in 2019 was carried out with foreign cards.
Source: CaixaBank Research, based on internal models and data from the Ministry of Transport, Mobility and Urban Agenda.

House price growth has been strongest in those provinces whose forecasts have seen the greatest adjustment; nevertheless, they are still the most dynamic

Zoom in on Barcelona and Madrid

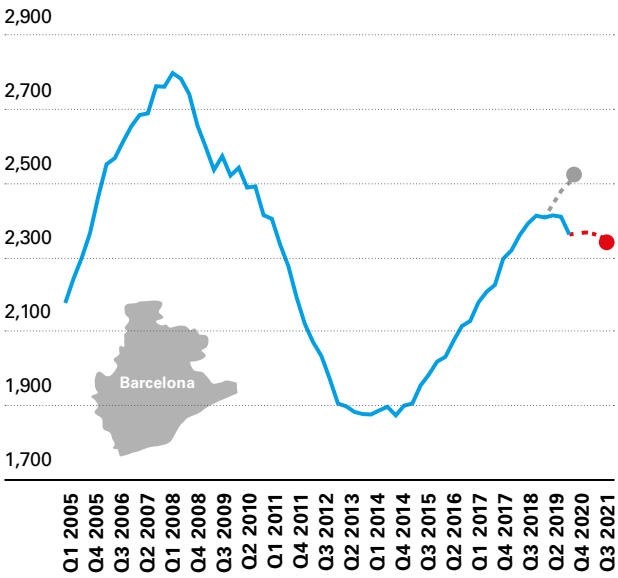
Barcelona province and the Community of Madrid concentrate a large part of real estate activity and it is therefore important to look at these in greater detail. The following chart shows the trend in house prices since 2005, together with the model's forecasts made in October 2019 and October 2020. The correction is obvious, as summarised below:

PROJECTED CHANGE IN HOUSE PRICES OVER A ONE-YEAR HORIZON		October 2019	October 2020	Change in expectations
BCN	BARCELONA PROVINCE	+5.5%	–1.1%	–6.6 pp
MAD	COMMUNITY OF MADRID	+6.4%	+0.8%	–5.6 pp

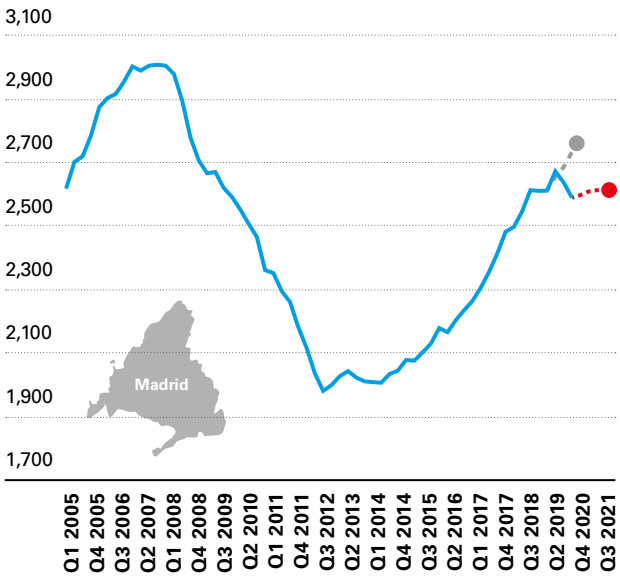
– In Barcelona province: in October 2019, a 5.5% price increase was projected. Currently, the model predicts a price drop of 1.1% over one year. Expectations have therefore adjusted considerably (6.6 pp).

– In the Community of Madrid: in October 2019, a 6.4% price increase was projected. Currently, the model predicts a very moderate increase in price over one year, namely 0.8%. Expectations have therefore adjusted less than for Barcelona but the change is still significant (5.6 pp).

House prices in Barcelona province
Euros per square metre



House prices in the Community of Madrid
Euros per square metre



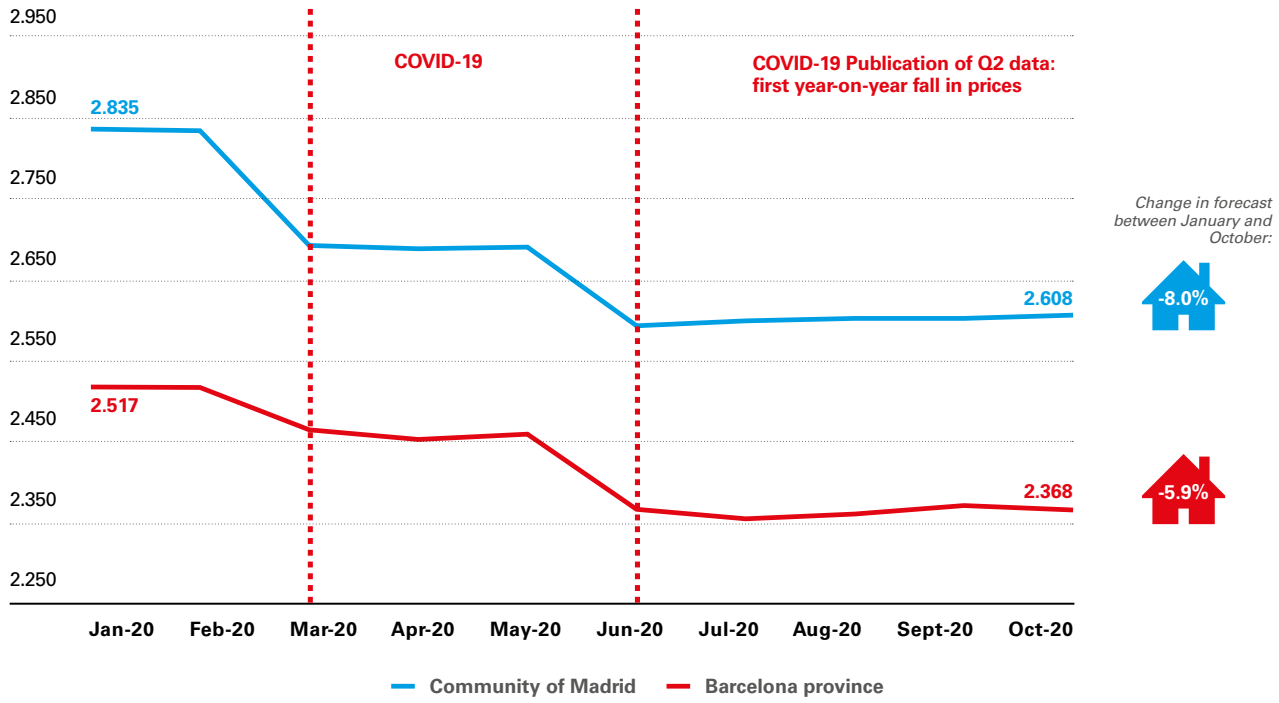
Forecast October 2019 — Forecast October 2020

Source: CaixaBank Research, based on internal models and data from the Ministry of Transport, Mobility and Urban Agenda.

Finally, it is also useful to look at the trend in the forecasts month by month as this reveals how the model learns and recalibrates its forecasts as new data become available. The following chart shows an initial shift in forecasts in March 2020 with the arrival of COVID-19 and a second shift in June 2020 with the incorporation of Q2 2020 data, indicating the first year-on-year fall in house prices (the target variable for our forecasting models).

Trend in house price forecasts at December 2020

Euros per square metre



Source: CaixaBank Research, based on internal models and data from the Ministry of Transport, Mobility and Urban Agenda.

These results show the great potential offered by models combining big data with machine learning to predict future trends in Spain's real estate market. This information is particularly important in a situation such as the present, when high uncertainty regarding developments in the pandemic and its impact on the economy requires us to continually re-evaluate our forecast scenario in order to be able to make more informed and accurate decisions.

Next Generation EU

The Recovery Plan for Europe: a green wave for the real estate sector

Europe's economic response to the COVID-19 crisis took shape in July: the European Council approved the Recovery Plan for Europe, the so-called NGEU, via which the European Union will grant up to 750 billion euros to its member states to stimulate their economic recovery after the shock of the pandemic. This is an unprecedented agreement and it could have a considerable impact on Europe's real estate sector since one of the EU's main goals, to which this Recovery Plan aims to contribute significantly, is to reduce greenhouse gas emissions by 55% by 2030 compared with 1990 levels. It is clear that renovating Europe's buildings, which are responsible for 40% of the continent's energy consumption, will be key to achieving this climate target.

How the Recovery Plan works and the climate challenge

Between 2021 and 2026, the main component of the NGEU, the Recovery and Resilience Facility, will allocate up to 312.5 billion euros via grants and 360 billion in loans to member states, depending on their size and how severely they have been affected by the COVID-19 crisis. According to the European Commission's own estimates, Spain and Italy may receive around 60 billion euros (4.8% and 3.7% of their GDP, respectively)[11] from the Facility; France, approximately 30 billion (1.3% of GDP); Portugal, 13 billion (6.2% of GDP) and Germany around 20 billion (0.6% of GDP). **To access these funds, EU countries must draw up National Recovery and Resilience Plans and specify both the investment projects they will finance with the funds and the reforms accompanying them.** These projects and reforms should contribute to four general goals: i) Promote economic, social and territorial cohesion in the European Union, ii) Strengthen economic and social resilience, iii) Mitigate the social and economic impact of this crisis, and iv) Support ecological and digital transition. In addition, each recovery and resilience plan should also allocate a minimum of 37% of its expenditure to climate-related aspects.[12]

Europe's NGEU Recovery Fund has a large amount of funding and could be an important means of renovating Europe's buildings, a *sine qua non* for achieving the agreed emission targets

(11) The 72 billion euros that Spain expects to receive from the EU includes 12.5 billion from the REACT-EU fund.

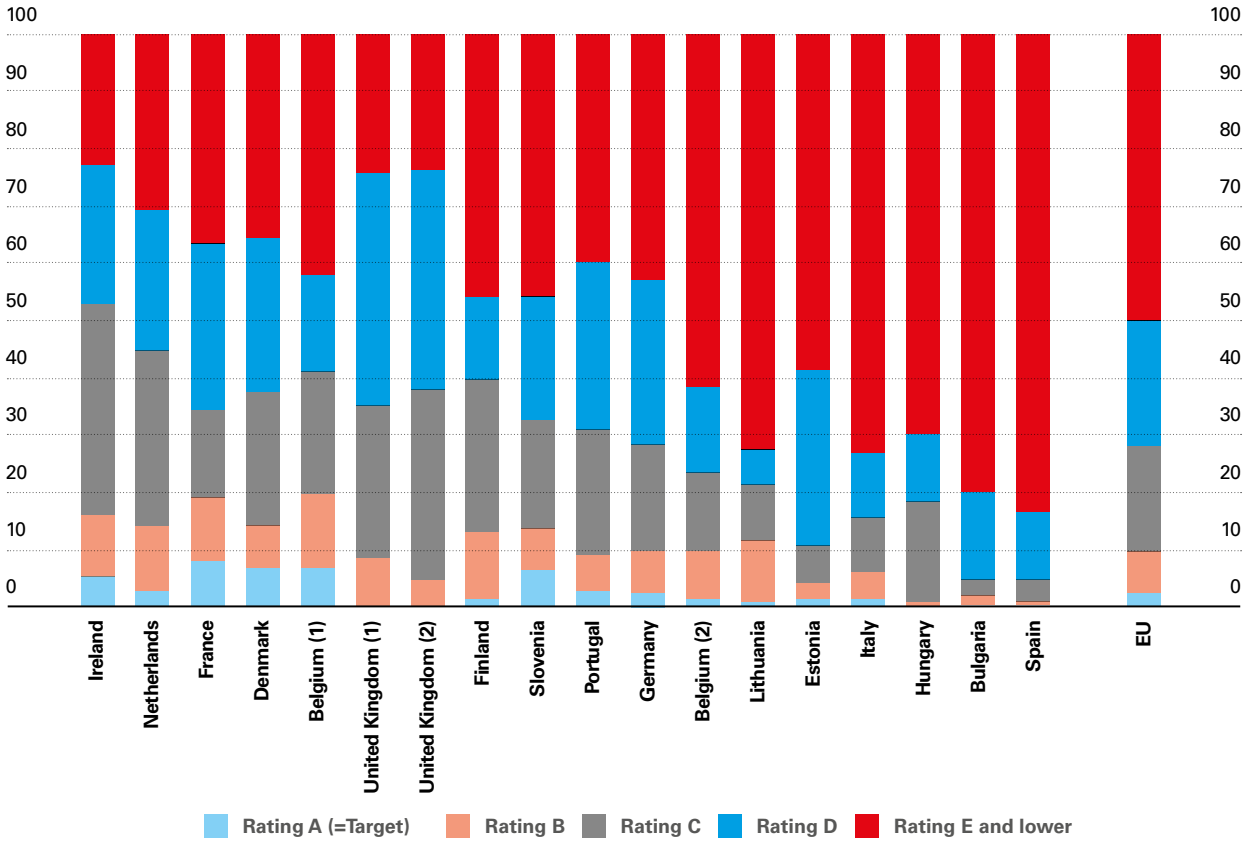
(12) For more details, see the article «Everything you ever wanted to know about the European Recovery Plan but were afraid to ask», available at: https://www.caixabankresearch.com/en/economics-markets/public-sector/everything-you-ever-wanted-know-about-european-recovery-plan-were?987=

Renovating Europe's buildings: a key goal

The European Commission has identified the renovation of Europe's buildings as one of its priorities for the ecological transition. More than 200 million buildings, representing 85% of Europe's total, were built before 2001 and most of them are not energy efficient. The following chart shows that in many countries, especially Spain, there is still much work to be done to improve the average energy efficiency of housing. The current renovation rate is too slow to meet the target of reducing emissions by 55% by 2030. According to the Commission, around 90 billion euros per year of European private and public investment is required to achieve the target renovation rate.

Share of housing by efficiency rating

Percentage of national housing by EPC efficiency rating (%)



Note: Belgium (1) = Flemish region; Belgium (2) = Walloon region; United Kingdom (1) = England and Wales; United Kingdom (2) = Scotland.
Source: CaixaBank Research, based on data from the International Monetary Fund.

In view of this situation, **the European Commission recommends that renovating housing be one of the priorities of the national recovery and resilience plans**. Such renovations could simultaneously help to achieve the two European goals of ecological transition and digitalisation of the economy, for instance through "smart" buildings that are more energy efficient and can even produce their own energy.

As a result, Germany, France and Spain have already announced a number of renovation projects which they hope to finance via European funding. In Germany, the government has stated that it would increase funding for its energy renovation programme for buildings from the initial 1.5 billion to 2.5 billion euros, and has also announced the creation of a new 2 billion euro programme to adapt municipal buildings applying climate-friendly criteria. France's *Plan de Relance* includes 6.7 billion euros between 2021 and 2022 to renovate private housing, SME premises, public buildings and social housing.

The following article looks at how Spain will use these European funds to finance a drive to renovate its buildings.

Reconditioning and social housing

NGEU: an opportunity to relaunch Spain's real estate sector

The Recovery, Transformation and Resilience Plan (PRTR) for the Spanish economy could be an important catalyst for the real estate sector. With the help of European funds, the government plans to recondition half a million homes between 2021 and 2023, with the aim of improving their energy efficiency and thereby helping to achieve the agreed decarbonisation targets. The General State Budget (PGE) also proposes a notable increase in the funds allocated to increase the amount of rented social housing, a policy that is crucial as rents have become even less affordable for the most vulnerable members of the population.

Next Generation EU: a historic opportunity for the Spanish economy

The European Recovery Fund (Next Generation EU) represents a unique opportunity to modernise the Spanish economy and boost its growth potential. Spain will receive 72 billion euros in non-refundable transfers (grants) between 2021 and 2026, equivalent to 5.8% of its GDP in 2019.[13] Although the first instalment from the European Commission is not expected until mid-2021,[14] the government plans to advance funds to speed up investments and expects to spend over 26 billion euros in 2021, according to the preliminary proposal for the General State Budget. As we shall see, a significant proportion of these funds will be used to support the real estate sector's ecological and digital transition.

13 This amount could total 140 billion euros if loans are included. For more details, see «Next Generation EU: a golden opportunity for the Spanish economy», available at: https://www.caixabankresearch.com/en/economics-markets/public-sector/next-generation-eu-golden-opportunity-spanish-economy?index=

14 The EU is expected to pay out the first tranche of the funds, 6.4 billion euros, in Q3 2021.

NGEU and the Spain's Budget for 2021: a significant amount allocated for housing policies

In the area of housing, the Recovery, Transformation and Resilience Plan presented by the Spanish government to channel European NGEU[15] funds focuses especially on the **plan to renovate housing and urban regeneration**. This policy is well aligned with the goals set by the Commission as renovating Europe's buildings is one of its key priorities.[16] The PRTR emphasises the importance of improving housing quality and boosting the construction industry both sustainably (by increasing energy efficiency, promoting green infrastructure and deploying solar roofs) and digitally (through smart applications in buildings). Specifically, **the PRTR plans to recondition 500,000 homes between 2021 and 2023**. This is an ambitious target which, if achieved, would be very positive for the sector as well as for the environment given the current state of housing, as we will see below.

(15) In October, the government presented an outline of the Plan with the main proposals. The final plan must be submitted to the European Commission by 30 April 2021 and is expected to be approved by the European Council in June 2021.

(16) See the article «The Recovery Plan for Europe: a green wave for the real estate sector»" in this *Sector Report*.

About 6% of the European NGEU funds will be allocated to renovating housing, tripling public investment in this area

According to the Ministry of Territorial Policy, 4.5 billion euros of the NGEU (6.25% of all transfers) will be allocated to renovating housing over the next few years. **In 2021, as stated in the PGE, around 1.65 billion euros will be channelled from the NGEU to finance housing and development policies**. If this comes about, the amount alone would represent more than three times the housing items included in the country's budgets on average over the past five years, ranging from 460 to 510 million euros per year. Furthermore, this amount represents 73% of the total allocation in the 2021 Budget for housing policies (2,253 million euros) and 6.2% of the aforementioned 26,634 million euros of the European NGEU funds that are expected to be paid out in 2021.

The 2021 General State Budget allocates 2,253 million euros for housing, of which 1,651 million euros come from the European funds and will be used to recondition housing, while 569 million euros will be invested in social housing policies

Real Estate

The 1.65 billion euros from the NGEU funds in 2021 will be used by three programmes: one to renovate residential environments (housing and neighbourhoods), managed mainly by the autonomous regions via agreements and totalling 1.55 billion euros; another focusing on the digital and sustainable reconditioning of public buildings, worth 81 million, and another programme with a budget of 20 million to renew the country's architectural heritage. Consequently, although European funds will not directly finance social housing programmes, they will enable funds to be released and thereby increase the budget for this area in the 2021 General State Budget: **the total allocation of 2,253 million euros for housing includes 569 million euros for social housing**, 20% more than in previous budgets. This allocation will be used mainly to subsidise rent for vulnerable households and for the plan to provide 20,000 homes under the social rent scheme.

The PGE includes 500 million euros from the NGEU funds for the circular economy, which should help to improve the efficient use of resources as well as the competitiveness of various strategic sectors. However, details of whether some of this budget will be devoted specifically to the construction industry have not been disclosed.

The state of housing in Spain: old and not very energy efficient

The plan to renovate housing is a unique opportunity to promote the decarbonisation of the real estate sector but also to alleviate some of the problems faced by housing at present. Especially, in addition to the age of housing (50% of homes in Spain are 40 years old or more), there is also a great deal of variability regarding their characteristics and performance in terms of energy efficiency, habitability and access.

Spain's housing tends to be old and much of it was built with little attention paid to energy efficiency

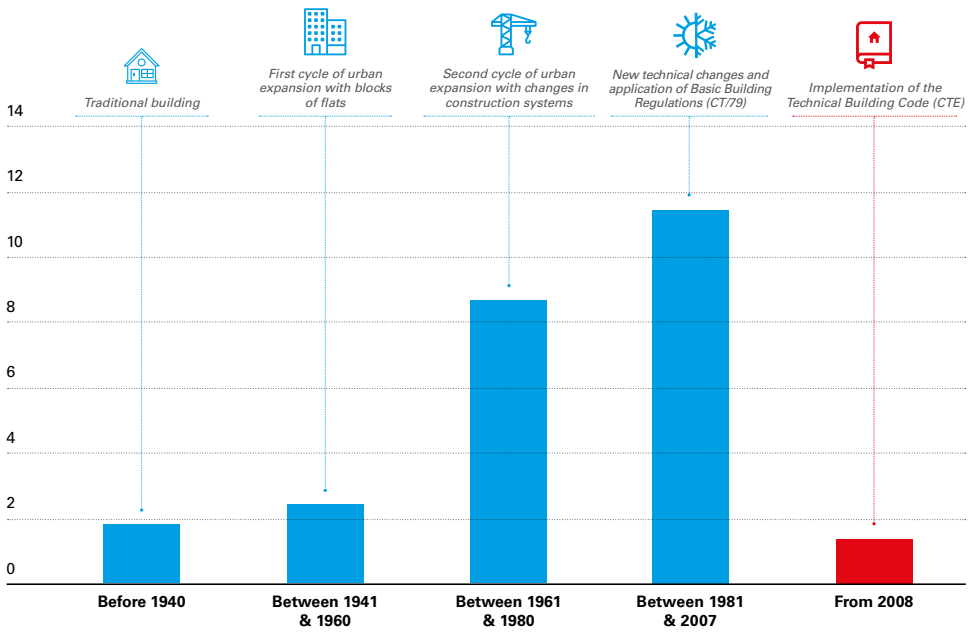
In some cases these differences are the result of the technical regulations in force at the time they were built. For example, and as the following chart shows, half of Spain's housing was built before the first basic building regulations came into force in 1980. In other words, around 12.8 million homes were built according to standards that regulated the safety of the structure but did not consider issues related to thermal insulation or energy consumption.[17] Likewise, an additional 44% of homes (some 11.4 million) were built between 1981 and 2007, before the First Technical Building Code came into force which established minimum requirements for safety, habitability and energy efficiency.[18] The result is **that Spanish homes are largely inefficient from an energy point of view** and require a thorough renovation to meet the greenhouse gas reduction targets the country has undertaken to achieve.

17 From 1960 onwards, several provincial ordinances were introduced which regulated the thermal insulation of social housing, albeit to a limited extent.

18 However, as they were built after the Basic Building Regulations CT/79, these homes have a certain degree of thermal insulation (façades and roofs), which guarantees a minimum of thermal comfort. In addition, this period saw an increasing use of aluminium and double glazing in both doors and windows, also helping to improve a home's thermal insulation.

Segmentation of housing in Spain according to year of construction and technical regulations

Millions of homes



Source: CaixaBank Research, based on data from «Estrategia a largo plazo para la rehabilitación energética en el sector de la edificación en España» (ERESEE, 2020).

Part of Spain's housing also suffers from various problems related to its habitability and quality. One of these problems is the small size of some housing. Specifically, 13% of homes in Spain are less than 60 m² in size, while 46% are between 61 m² and 90 m². Renovation aimed at improving the use of space (such as enclosing terraces) can be of great help in increasing the net surface area of such homes.

Another problem that affects some housing is its poor state of conservation. Specifically, nearly 1.8 million homes in Spain (7% of the total) are in a state of repair that can be classed as dilapidated, bad or deficient,[19] placing Spain slightly below the EU average in relative terms: 15% of Spain's population lives in a property with conservation problems compared with 13% in the EU.[20]

Architectural barriers and poor means of access, which affects 13.2% of the residential stock, are other major shortcomings of housing in Spain. About 3.4 million homes are in buildings of four storeys or more without a lift.

Energy consumption in the residential sector: we're not so bad

Partly due to the climate, the energy demand of Spain's residential sector is lower than that of the EU, both in absolute[21] and relative terms.[22] This lower energy consumption necessarily results in a lower savings potential than in other European countries. This is an important aspect, since one of the arguments in favour of energy reconditioning is that future energy savings (especially in HVAC) can be higher than the cost of the investment/work carried out.[23]

If we look at how the energy consumed by Spanish households is used, most is for heating (see the chart below). However, Spain's share of energy consumption is much lower than that of the EU: 42% in Spain compared with 64% in the EU.[24]

Lighting and household appliances also account for a large part of the energy consumed by households, but in this case the proportion of energy consumed is higher than in the EU: 14% in the EU compared with 32% in Spain. This is important, since households have more and more equipment and appliances, so these need to be increasingly energy efficient to avoid a parallel increase in electricity consumption.

19 Data from the last housing census (2011).

20 Eurostat data.

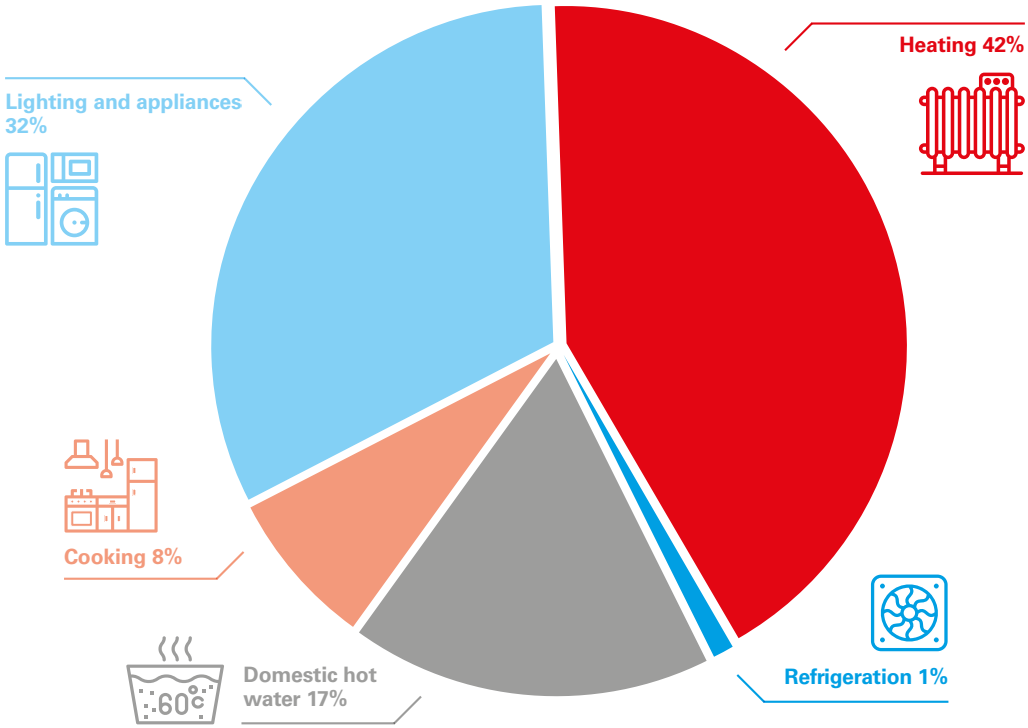
21 The average annual consumption per household in Spain is 9,224.1 KWh per dwelling, while the average consumption in the EU is 16,526 KWh per dwelling. A similar conclusion is reached when we compare the energy consumption in residential buildings per m².

22 The residential sector accounts for approximately 17% of energy consumption in Spain compared with 26% in the EU, according to data from IDAE-MITECO (2018).

23 Another aspect that may make it difficult to capitalise on energy savings within a reasonable period of time is the energy tariff structure, which in Spain consists of a high proportion of fixed costs related to the power under contract and taxes.

24 The unit consumption per m² for heating is also much lower than in the EU.

Final energy consumption of the Spanish residential sector broken down by use (2018)



Source: CaixaBank Research, based on data from the Institute for the Diversification and Saving of Energy (IDEA).

The reconditioning of housing gets a boost from European funds

As already mentioned, the **Recovery, Transformation and Resilience Plan for the Spanish economy proposes to recondition 500,000 homes between 2021 and 2023**. This provides a significant boost for the goals set out in the National Integrated Energy and Climate Plan (PNIEC 2021-2030),[25] which includes the renovation of the thermal envelope (façades and roofs) of 1,200,000 homes by 2030, starting with 30,000 homes per year in 2021 and ending with 300,000 homes per year in 2030.[26]

> **European funds will support the renovation of Spanish housing but there are certain limitations that may hinder the rate proposed**

The European funds should therefore considerably help to speed up the rate at which Spanish housing is renovated. However, there are certain aspects that could hinder the plan's complete implementation. Firstly, the ambition of the Recovery, Transformation and Resilience Plan contrasts with the current rate of housing renovation (close to 25,000 homes per year); in fact, achieving the target of 500,000 homes in three years entails multiplying the current rate of renovation by six by 2023.

(25) The National Integrated Energy and Climate Plan (PNIEC 2021-2030) is a strategic document drawn up by the government (at the request of the EU) which sets out the strategy for decarbonising the Spanish economy.

(26) The PNIEC also proposes the renovation of heating and hot water installations in an average of 300,000 homes per year.

Secondly, the investment to improve the energy efficiency of housing ranges from 5,000 to 10,000 euros for the building's envelope and from 12,000 to 40,000 euros for complete projects,[27] a high cost for many households. **It will be crucial for renovation support to also reach the hardest hit and most vulnerable households**, as well as zones with the greatest needs in terms of reconditioning.

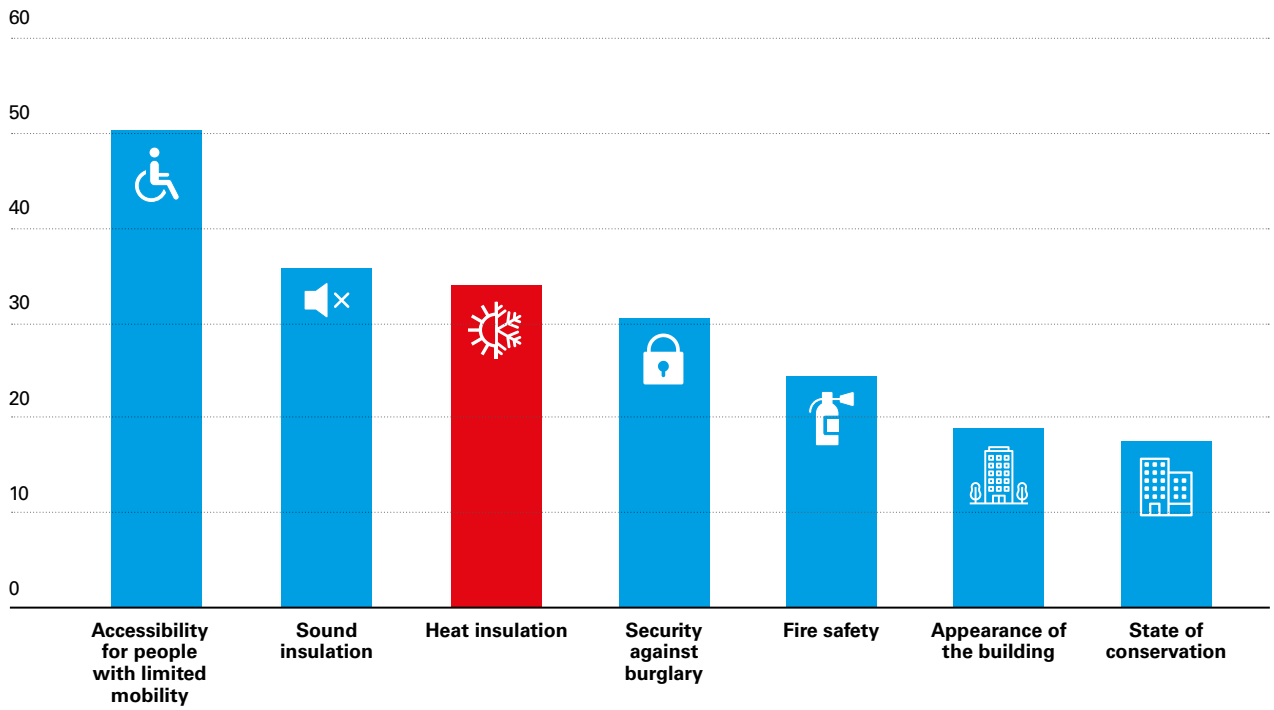
Thirdly, **in general the population is relatively unwilling to carry out building work**. According to the Housing Barometer (CIS, 2018), 87% of those surveyed did not plan to carry out any improvements or reforms to their homes in the following year (most because they did not think their homes needed them). Moreover, among those who did plan to carry out work, decorative reforms (such as in the kitchen or bathroom) were clearly prioritised over those related to energy efficiency (such as replacing doors and windows).

We should also note the predominant type of housing in Spain, mostly multi-family buildings of three or more storeys, these accounting for 67% of the total housing. **It tends to be more difficult to make decisions in communities of several owners and this can present an additional barrier to some of the work required being carried out**.

And, finally, **the extent of public concern or awareness regarding energy efficiency is relatively lower than other housing-related issues**. According to the latest housing barometer (CIS, 2018), concern about thermal comfort (35%) is similar to other concerns such as noise and security against burglary, and lower than other issues such as the lack of a lift in some buildings.

27 Includes changing HVAC and hot water installations. Estimates from the «Estrategia a largo plazo para la rehabilitación energética en el sector de la edificación en España», Ministry of Economy (2020).

Percentage of households that are little or not at all satisfied with the following aspects of the building in which their home is located



Source: CaixaBank Research, based on data from the Housing Barometer (CIS, 2018).

In short, the reconditioning of housing is key to reducing energy consumption and thereby greenhouse gas emissions. However, in order to encourage such building works, it is also important to convince people that renovating their dwelling is a great opportunity to improve the comfort and interior habitability of their homes (an issue that lockdown has made even more evident), as well as to increase the property's value. It is therefore essential to direct the available public resources appropriately in order to address the main problems of Spain's housing together with its citizens.

Social housing for rent: the big task ahead

In addition to renovation, another priority for housing policy over the coming years is to **increase the amount of public housing aimed at social or affordable rents**. Spain is one of the European countries with the highest percentage of tenants who spend more than 40% of their income on rent, a sign of the extra effort many households have to make to meet their housing costs. This extra effort is also disproportionately high for low-income households and young people. Moreover, the coronavirus crisis has aggravated the existing problems of affordable rented accommodation, especially among the most vulnerable people, as pointed out by the International Monetary Fund (IMF) in its latest report on the Spanish economy.[28] The IMF recommends increasing the number of homes allocated for social rented accommodation as Spain has one of the lowest figures in Europe: social housing accounts for 2.5% of the total number of primary residences in Spain compared with a European average of 9.3%, according to Eurostat data. To reach the European average, 1.2 million additional social housing units would be needed, a figure that would be difficult to achieve without public-private partnerships.

(28) IMF Country Report no. 20/299. Spain. Selected Issues. **Available at** https://www.imf.org/-/media/Files/Publications/CR/2020/English/1ESPEA2020002.ashx

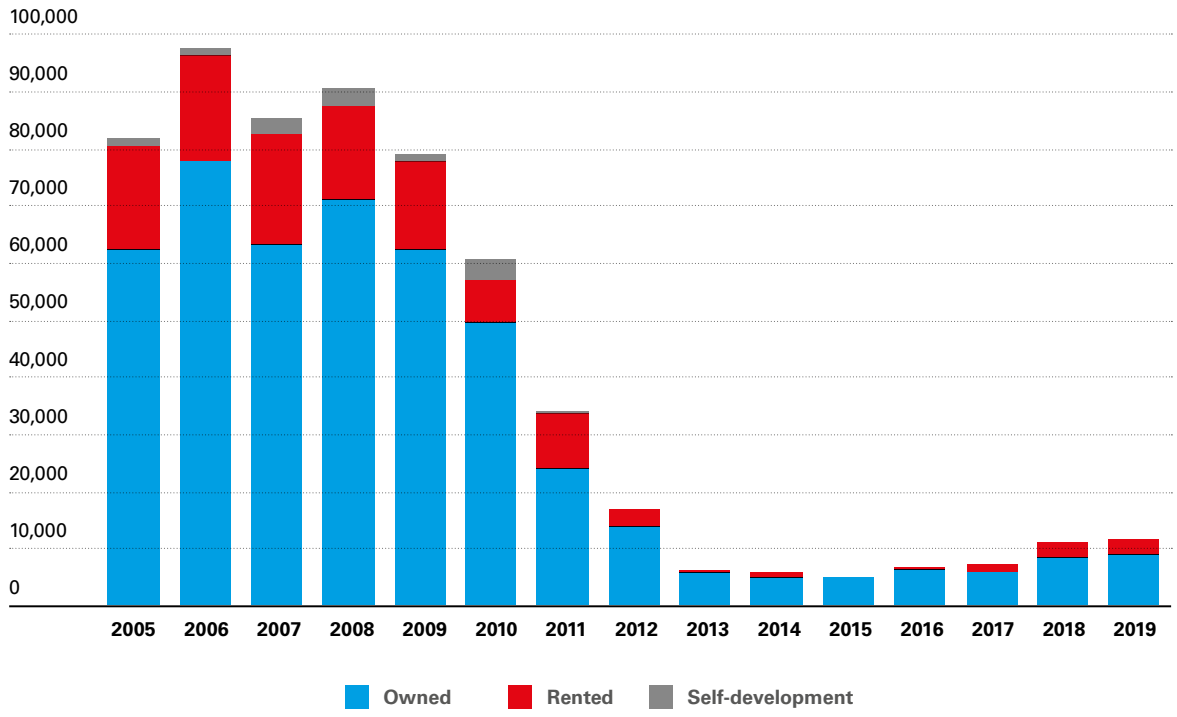
Real Estate

In the past 4 decades, almost 2.4 million social dwellings have been built in Spain, most of them intended for ownership, not rent. As a result, there is very little rented social housing, approximately 290,000 homes

This lack of rented social housing is the result of housing policies that have historically been aimed at developing social housing via ownership. Between 1981 and 2019, almost 11 million homes were completed in Spain, 21.6% of which were social housing. During this same period, households grew by just under 8 million, so we can conclude that social housing has covered the accommodation needs of approximately 30% of Spanish households in the past four decades, a highly significant figure. However, most of the social housing built in Spain has been destined for ownership (see the chart below). Consequently, after a few years these properties have now acquired the status of free housing on the market, thereby losing their original social purpose.

The development of social housing for rent has been very limited in Spain

Number of social housing units under tenancy



Note: data based on provisional classifications.
Source: CaixaBank Research, based on data from the Ministry of Transport, Mobility and Urban Agenda.

Very little social housing has been developed since 2010, affecting rented accommodation to a greater extent. In fact, between 2013 and 2016 the development of this kind of property has been almost zero (368 homes per year on average), increasing the prevalence of social housing under ownership. However, since 2017 rental accommodation seems to have regained some of its relative weight. Specifically, 12,496 social homes were built in Spain in 2019, of which 2,585 (20.7%) were for rent. Nevertheless, these figures are clearly not enough to significantly increase the stock of rented social housing.

According to recent estimates by the Ministry of Transport, Mobility and Urban Agenda,[29] Spain's stock of publicly-owned social housing for rent totals about 290,000 homes. Of these, around 180,000 are owned by the autonomous region and 110,000 by the local council. These 290,000 rented social homes cover 1.6% of the 18.6 million households in Spain (data from the «Cuestionario sobre vivienda social», 2019).

29 «Boletín especial vivienda social», 2020, Ministry of Transport, Mobility and Urban Agenda.

Final points

The European funds represent a historic opportunity to recondition Spain's old, poorly energy-efficient housing, renovations that will also contribute, simultaneously, to the two European goals of ecological transition and digitalisation of the economy, for instance through more energy-efficient «smart» buildings. Similarly, the strong economic and social impact of the COVID-19 crisis has highlighted the need to create a large amount of public housing available for rent in order to resolve the current shortage and be able to provide a housing solution for the most vulnerable in society. These policies should drive a green, social and digital recovery.

CaixaBank Research

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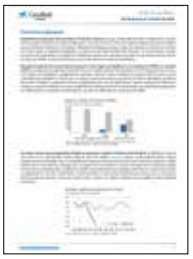
index that classifies 67 countries according to their potential for Spanish companies seeking to expand internationally.

COUNTRY FILES
Detailed analysis of 30 advanced, emerging and developing countries.



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Indicators and forecasts

Annual change (%), unless otherwise specified

	Average 2000-2007	Average 2008-2014	Average 2015-2018	Data 2019	Forecast 2020[1]	Forecast 2021[1]
Economic activity indicators						
Total GDP	3.4	–1.3	2.8	2.0	–11.4	6.0
GVA construction	3.1	–9.8	3.3	4.3	–13.7	8.0
Investment in construction	5.4	–9.4	5.8	1.7	–16.8	4.0
Residential investment	5.4	–8.5	11.5	4.1	–20.5	4.8
Investment in rest of construction	3.1	–9.8	3.3	–1.5	–11.7	3.1
New building permits (thousands)	642	94	74	106	80	90
New building permits	2.8	–28.7	26.6	5.5	–24.7	12.5
Certificates of final completion (thousands)	482	230	51	79	85	90
Certificates of final completion	8.3	–34.9	12.5	22.4	7.9	5.9
Confidence in the construction sector (level)[5]	13.1	–41.8	–24.1	–7.0	–18.8	–
Labour market						
Total workers registered with Social Security	3.5	–2.4	3.2	2.6	–2.2	1.4
Registered workers in construction	6.1	–13.5	5.2	5.1	–1.8	1.1
Construction of buildings	–	–14.4	7.1	6.8	–2.2	1.1
Civil engineering	–	–16.4	0.5	3.4	–1.6	1.6
Specialised construction	–	–8.9	4.4	4.1	–1.5	1.1
Registered workers in real estate activities	10.3	2.1	6.4	5.8	–1.4	0.5
Total employees (LFS)	4.1	–2.7	2.7	2.3	–3.3	0.0
Employees in construction (LFS)	6.7	–14.0	4.4	4.6	–3.8	0.2
Temporary employment rate in construction (%)	57.6	39.6	41.7	40.2	37.1	39.0
Unemployment rate in construction (%)	7.5	22.8	13.1	9.7	11.1	11.0
Demand for housing						
Sales[2] (thousands)	886	388	437	505	404	421
Sales[2]	–0.1	–8.7	13.4	–2.4	–20.0	4.0
New housing[2,5]	12.1	–13.4	6.0	1.3	–15.4	–
Second-hand housing[2,5]	–7.8	–5.0	15.2	–3.2	–23.6	–
Foreign sales[3]	–22.1	6.7	10.4	0.8	–42.1	38.7
Second home sales[4]	–7.6	–7.6	11.6	–2.6	–14.5	7.6
Prices						
House prices (Min. Public Works)	12.9	–5.7	2.5	3.2	–1.5	–2.0
House prices (INE)	–	–6.8	5.8	5.1	–0.5	–2.3
New housing[2]	–	–5.7	6.3	7.3	4.2	–
Second-hand housing[2]	–	–7.7	5.8	4.7	1.8	–
Land prices	17.5	–8.7	1.5	0.7	–4.8	–0.9
CPI rent[5]	4.3	0.8	0.5	1.5	1.2	–
Affordability ratios						
House prices (% gross disposable income)[5]	6.5	7.5	6.5	6.9	7.1	–
Theoretical burden (% gross disposable income)[5]	14.2	31.3	29.4	23.0	30.3	–
Return on rent (%)[5]	4.5	3.5	4.3	3.9	3.7	–
Financing[(5)]						
Number of mortgages	5.8	–20.9	12.2	3.7	–7.6	–
Outstanding balance of credit to purchase housing	14.8	–1.4	–2.5	–1.3	–1.8	–
New loans, housing	17.7	–24.9	16.0	2.3	–6.9	–
Outstanding balance of credit for property development	23.6	–12.8	–10.8	–11.8	–5.7	–
NPL ratio of credit for housing (%)	0.5	3.5	4.8	3.8	3.5	–
NPL ratio of credit for property development (%)	0.5	20.2	23.6	7.7	5.9	–

Notes: 1. Forecasts at 1 December 2020. 2. The 2000-2007 average for house sales corresponds to the period 2004-2007 and the data come from the Ministry of Public Works. National Statistics Institute's sales figures as from 2007. 3. Foreign sales according to Mitma. 4. Sales of second homes are estimated based on the sales carried out in a different province than the buyer's residence. 5. The data in the column "Forecast 2020" correspond to cumulative data up to the latest data available for 2020.

Source: CaixaBank Research, based on data from the National Statistics Institute (INE), Ministry of Transport, Mobility and Urban Agenda (Mitma), Ministry of Transport, Ministry of Employment and Social Security and the Bank of Spain.

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