

A long-exposure photograph of a high-speed rail station at dusk. Multiple tracks curve through the scene, with a train visible on the left. In the background, a city skyline is silhouetted against a sunset sky with streaks of light. The text 'Spain Winter market View' is overlaid in large white font.

Spain Winter market View

Sitting tight





Introduction

Despite the recently observed material price improvements and economic growth seen in the first part of 2022, the market is slowing, and inflation remains. The Bank of Spain's recent economic downgrade, driven by unprecedented energy price rises and higher inflation rates, suggests that general market conditions are set to recover more slowly than previously anticipated. However, Spain has seen a significant reduction in inflation in December 2022, putting it well below the Eurozone average. This, coupled with a higher than Eurozone average confidence index and perceived potential for investment growth from our clients, may mean the Spanish construction industry can curb the Eurozone trend.

Signs of Strain

The Arcadis Autumn 2022 Market View predicted that the construction market would slow and be 'bumpy' in the months ahead, and the evidence is now emerging to back up our viewpoint. We are seeing a number of our clients deferring projects due to viability issues related to higher costs of financing and being unable to find the savings in an inflation impact market. The Bank of Spain's (BoS) forecast has worsened its forecast in October 2022 relative to its previous update in June and as part of that forecast they had foreseen interest rates climb to a maximum of 2.5% which we have already seen exceeded. The cause of this reverse is the extreme escalation in energy costs which has continued since the forecast was published.

What might happen next?

The latest BoS forecast signals a big shift in outlook, but for the moment at least, is for a short and shallow reduction of growth. The European Central Bank (ECB) however, are planning their strategies around a less shallow downturn as they believe that if it is too short and shallow it will fail to deal with inflation. The forecast was based on several assumptions of what might happen with quantity and prices of EU supplies of gas, with better and worse cases explored. On the 19 December 2022 the European Union (EU) agreed a price cap on the trading price for gas which had split opinion within the bloc due to fears it could disrupt supplies but that it was needed to prevent supplier distortion of markets. Current prices are below the cap and it is intended to serve to prevent TTF natural gas benchmark prices across the bloc to return to levels seen in August 2022. There are fears that this may not capture all gas prices as we may see a move to more over-the-counter sales of gas which will not be captured.

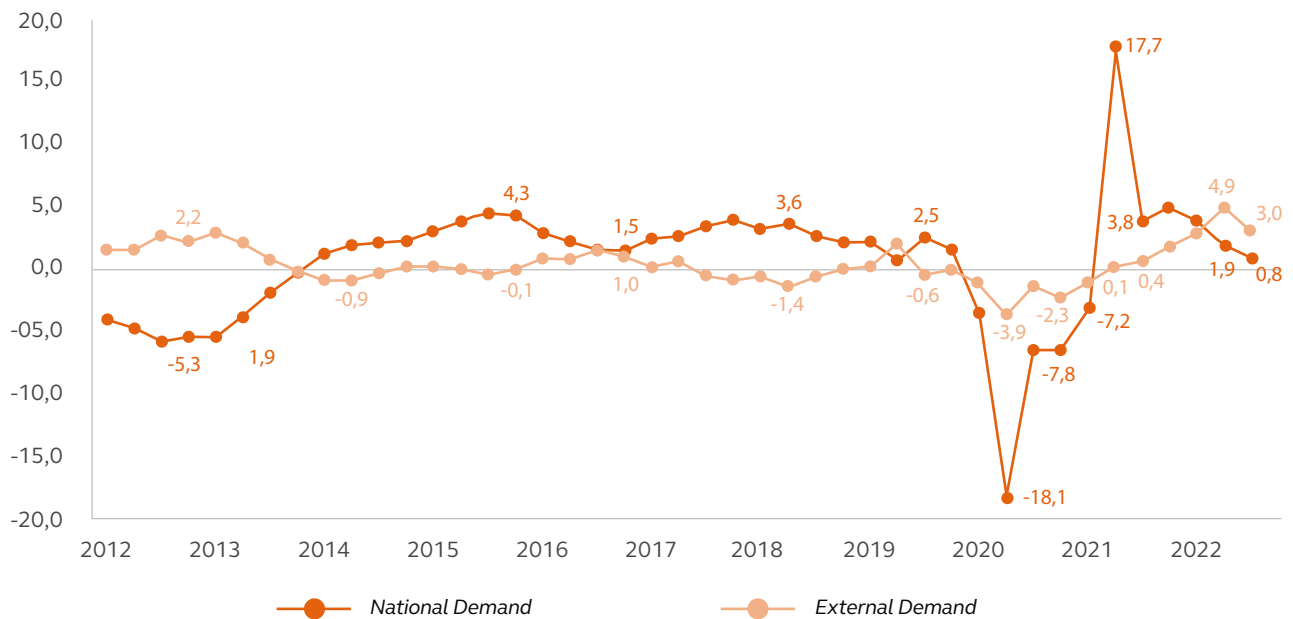
Economic growth



Figure 1. – Internal and External contributions to GDP – Year on Year growth

Source – Insituto Nacional de Estadística

GDP Forecasts



We can see that in Fig.1 and Fig. 2 that there was a slight contraction in 3Q2022 but in Fig. 3 overall a year-on-year increase of 4.5% in 2022 and a slowing in 2023 to 1.4%. In September production levels in Spain were 20% lower than before the pandemic due to demand not quite fully recovering, there was however an increase in the issue of building permits and there may be additional works coming from EU recovery funds.

Spain has been awarded one of the largest amounts under the Next Generation EU (NGEU) funding, equating to €77.6b on top of €12.4b from the REACT-EU funds (for health and education) of the Spanish investment fund of €27b for its National Recovery and Resilience Plan (post COVID recovery plan) which is due to be completed by 2026. The plan includes modernisation of the Spanish economy structured around green transformation, digital transformation, social and territorial cohesion and gender equality. Economic growth has slowed down in the third quarter due to the tourism impact in the 2nd quarter having a reduced impact. The downturn in GDP is directly related to the deterioration of global growth.



Figure 2. – Quarter by quarter change in GDP in construction

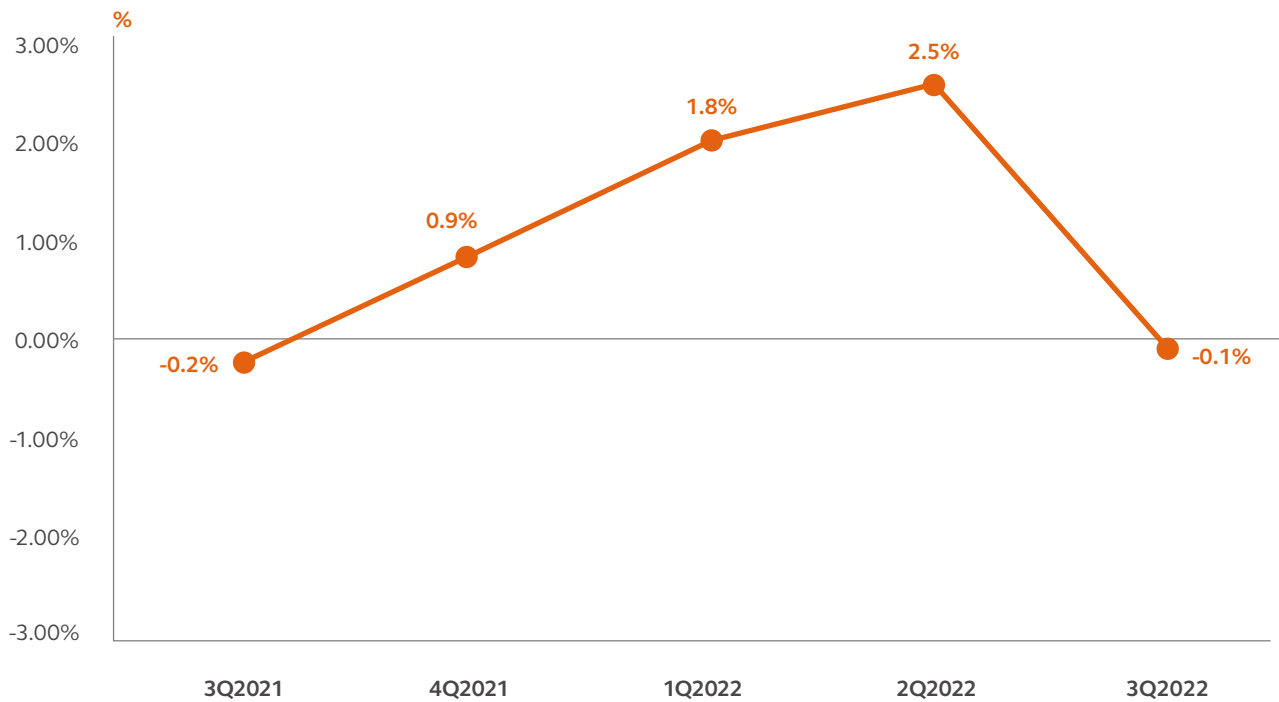


Figure 3. – Forecast of GDP (PIB), CPI (IAPC), employment hours worked and unemployment statistics

Source – Banco de España

	2020	2021	2022	2023	2024
GDP – Year on Year % change	-11.3%	5.5%	4.5%	1.4%	2.9%
Consumer Price Index	-0.3%	3.0%	8.7%	5.6%	1.9%
Employment - Hours Worked	-11.4%	7.2%	4.0%	0.8%	2.5%
% Unemployed	15.5%	14.8%	12.8%	12.9%	12.4%

In the public sector, there have been 1,455 tenders worth €653m up to the start of October that have not received any bids compared with 500 in 2021 (according to the National Construction Federation CNC). This was considered to be due to the fact that tendering strategies were not aligned to the volatile market conditions and contractors believed they would not make any profit from these schemes. Some tenders were even rejected once more following a relaunch to take into account the market conditions. During procurement, clients should consider a balanced approach to risk in their procurement strategies to ensure they secure interest in the bidding phase and then a collaborative contractor during construction.

Figure 4. – Banco de España predictions from their latest October 2022 forecast vs their previous June 2022 forecast

Source – Banco de España

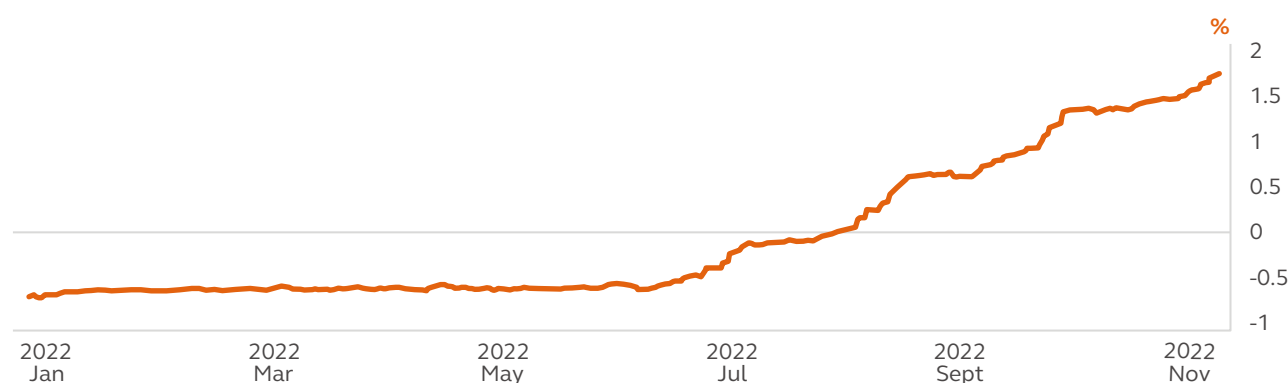
	GDP				Consumer Price Index			
	2021	2022	2023	2024	2021	2022	2023	2024
Oct-22	5.50%	4.50%	1.40%	2.90%	3.00%	8.70%	5.60%	1.90%
Jun-22	5.10%	4.10%	2.80%	2.60%	3.00%	7.20%	2.60%	1.80%
Delta	0.40%	0.40%	-1.40%	0.30%	0.00%	1.50%	3.00%	0.10%

As mentioned previously in the introduction, we can see the reductions in outlook between the Banco de España’s forecast in June 2022 and October 2022. Showing a reduction of GDP in 2023 and increase of inflation from 2022 to 2024. The reduction in GDP in 2023, however, is forecast to push into 2024 with higher GDP growth forecast.

Interest Rates

Figure 5. – Interest Rates, 1 month Euribor rate – Average Interest Rates at which large European Banks borrow funds from one another

Source – EURIBOR



We can see that the EURIBOR interest rates have risen steeply in line with the adjustments to the ECB refinancing rates. The Euribor tends to follow the ECB refinancing or minimum bid rate (the minimum rate that banks have to pay when they borrow money from the ECB). The ECB refinancing rate is currently at 2.50%, raised 50 bps from 2.00% on 21 December 2022 following an increase of 75 bps from 1.25% on 27 October 2022 and 75 bps from 0.5% on 08 September 2022. It had stood at 0% from 10 March 2014 until 21 July 2022. Eurozone inflation reduced in November from 10.6 to 10%, core inflation remained steady at 5%, and on this basis the ECB inflation rate increase was reduced to 50bp to 2.5% rather than the previous 2 increases of 75bp. The ECB have advised that “interest rates will still have to rise significantly at a steady pace”, some analysts are forecasting an interest rate of between 3.5/4% by the end of 2023.

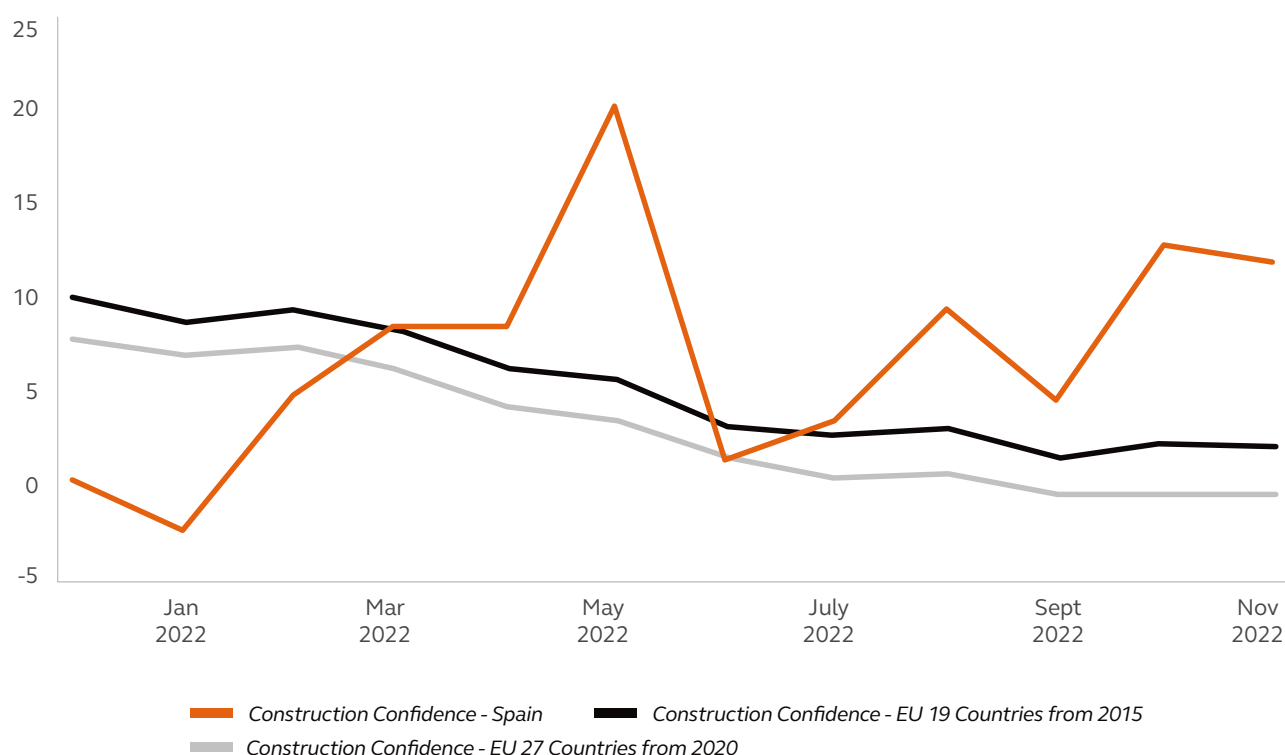
Market Confidence

Future investments are forecast to be more prudent and selective due to the reliance on own capital, increased costs of borrowing and inflationary pressures on construction. The office and shopping centre markets were noted to have had a difficult period and investors are looking towards more flexible assets to react to changing demand and behaviours. From discussions with other partners in real estate the purchases in 4Q2022 were done on 100% equity, in the majority of instances, with a view to recapitalise in the future.

We are also seeing around half of the projects that we are involved in being delayed by our clients due to financing issues, extended negotiations and/or inflationary pressures on the budgets. We are seeing around half of the contracts we are working with having some form of fluctuation-based mechanism and the remaining majority being traditional fixed price contracts.

Figure 6. – Eurostat Construction Confidence Indicator, monthly, seasonally adjusted data, not calendar adjusted data.

Source – Eurostat



Whilst experts are pessimistic about the EU construction sector generally, and as shown by the confidence levels falling between 50. We can see in Fig.6 that Spain is gaining momentum in confidence contrary to this trend and may buck this pessimistic forecast. Improved Consumer Confidence in November is not enough to prevent an economic contraction in 4Q2022.

The services sentiment index (PMI) fell below 50 in September, signalling the 4th consecutive fall showing that the impact of Spanish tourism reopening is becoming less prominent. The manufacturing PMI remains in deep contraction following a 5th reduction in a row in November due to increased energy costs and reduced demand due to households and businesses postponing buying decisions. Eurozone PMI was 47.8 in November which whilst slightly better than October still signals an economic contraction. From a survey of our staff in Spain & Portugal we also have 62% of respondents say that they were experienced static or reducing activity and 75% saying they are seeing main contractor workload stable or decreasing.

We have noted that Health, Life Sciences, Logistics, Data Centres are among some sectors that are not being as impacted by the slow down. We have seen appetite growing in the Build to Rent sector as higher interest rates discourage buyers and rental growths continue to be strong in Madrid and Barcelona. Some investors are spreading their strategies to focus on the secondary cities of Spain rather than the crowded markets of Madrid and Barcelona.

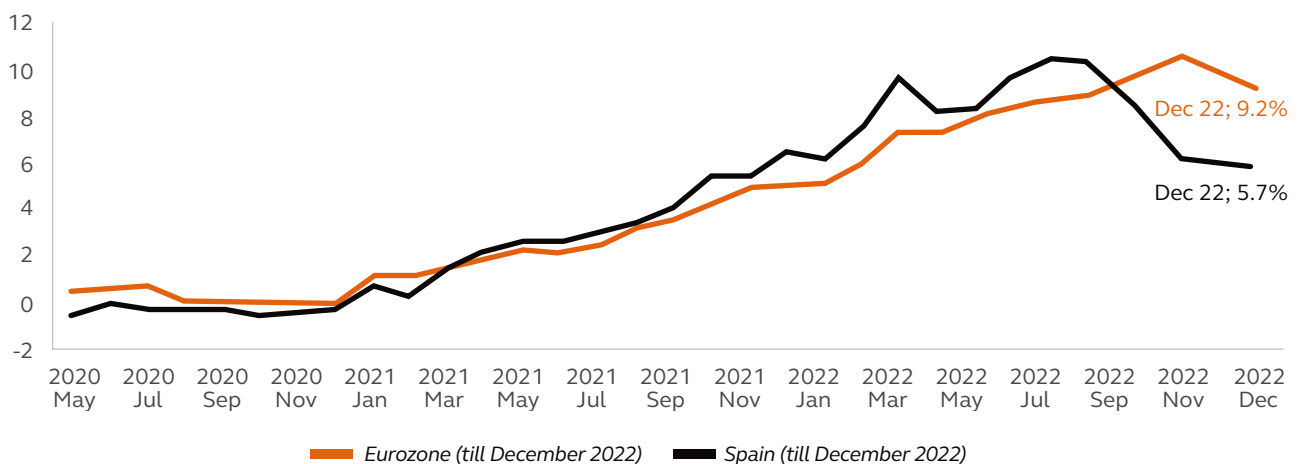
Inflation

Headline inflation in Spain peaked in June 2022 at 10.8% year on year, reducing to 7.3% in October and then fell sharply in November 2022 to 6.8% and December to 5.7% year on year and is now 5.1% below the peak in July. This reduction is mainly linked to the fall in fuel prices in October due to a warmer winter and higher than average supply stocks. The reduction puts Spanish headline inflation significantly lower than the eurozone average.

Figure 7. – Year-on-year inflation of Spain and the Eurozone

Source – Instituto Nacional de Estadística

Spain's Inflation slowdown has set in earlier



Inflation has fell sharply in Spain to 5.7% putting it significantly below the eurozone average

In 2023 the stabilisation of energy prices and reduced demand are expected to reduce inflation to 4.8%. Inflation is forecast to remain high in the medium term, in 2024 it is expected to eventually reduce to 2.3% in line with Fig. 8. Core inflation remains high due to the pass-through impact of energy prices into food and other core goods, with core inflation levels (7%) overtaking headline inflation (5.7%) in December 2022.

Notes from the ECB meeting in October show that they believe a shallow recession will not be sufficient to bring down inflation. They see the housing market as a channel for reducing inflation and during a shallow recession will look to continue to normalise and tighten monetary policy.



Figure 8. – Forecast split of Year on Year Inflation (not accumulated) by Source

Source – Banco de España

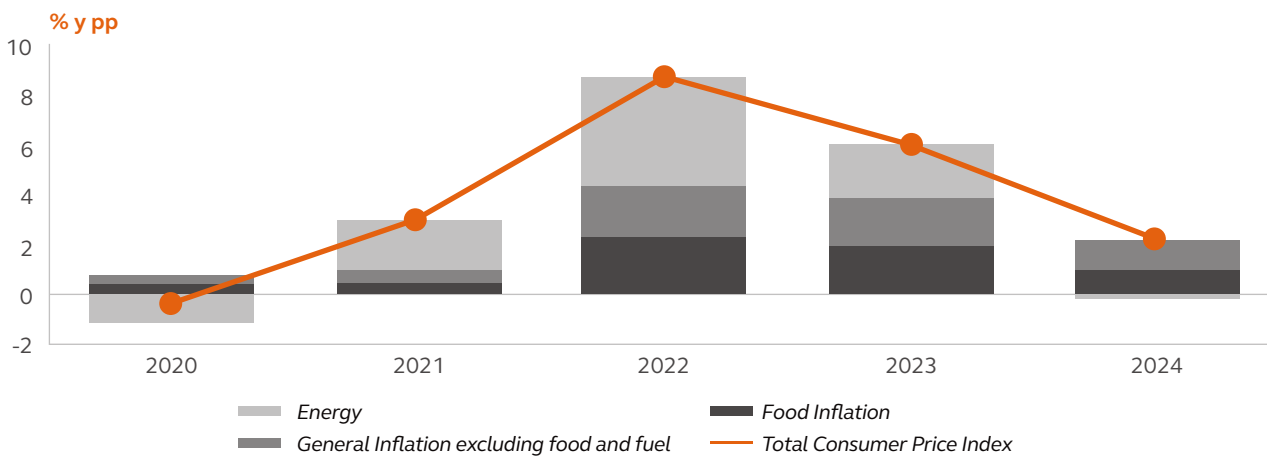
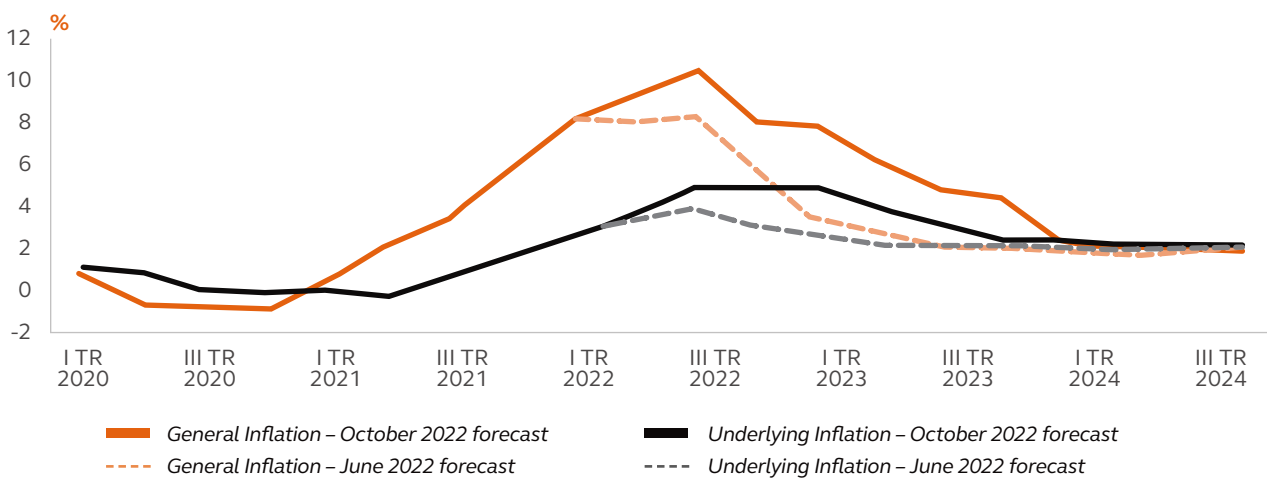


Figure 9. – Forecast of General and Underlying Inflation from October 2022 forecast

Source – Banco de España



We can see in Figure 9 that the new inflationary forecasts of the Banco de España show a slower recovery from inflation with its forecast to be experienced at a higher rate for longer.

Figure 10. – Construction Cost Indices (Jan 2015 Base = 100)

Source – Gobierno de España Ministerio de Transportes, Movilidad y Agenda Urbana

Construction Indices

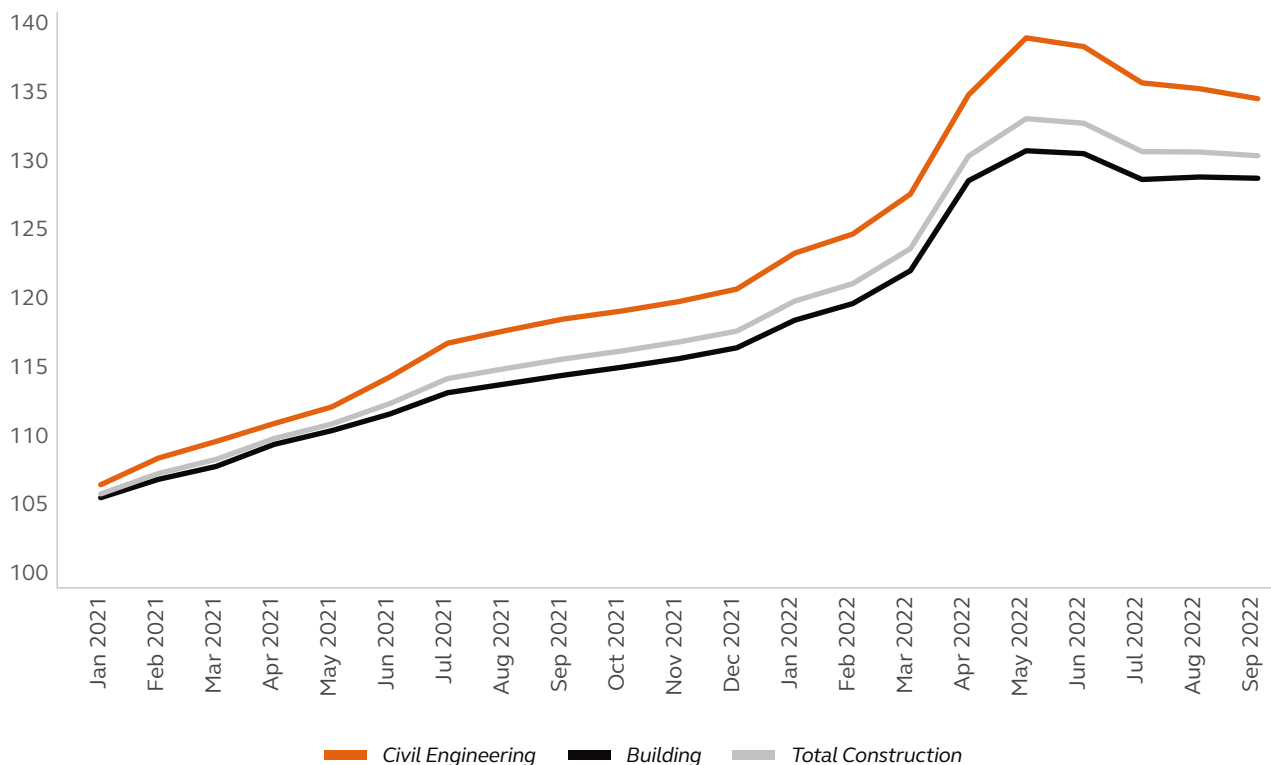


Figure 11. – Construction Cost Indices

Source – Gobierno de España Ministerio de Transportes, Movilidad y Agenda Urbana

	Year on Year Change – Sep 2021 to Sep 2022	Previous Quarter – Jun 2022 to Sep 2022
	Year on Year	Quarterly Change
General Construction Index	12.90%	-1.78%
Building Construction Index	12.59%	-1.36%
Civil Engineering Construction Index	13.65%	-2.72%

Specific indices for construction show that construction prices are beginning to reduce however the sharp drop seen between June to August 2022 has appeared to level out which is in line with the previous comments of inflation recovery being slower than previously expected. Even with a reduction in demand and increased competition, without a reduction in the base level costs for materials in construction, we are unlikely to see large reductions in inflation.

Labour

We previously forecasted that labour would be the long-term inflationary driver and whilst we still remain of this opinion due to the already high labour shortages combined with a shallow recession being forecast, the slowing economy is easing some pressure and the people going into work is slowing for the time being.

Figure 12.

Source – Instituto Nacional de Estadística

	Total (000s)	Variation in quarter (000s)	As a %	Variation in the year (000s)	As a %
Construction Employed – No. of people	1,328.8	-9.4	-0.7%	35.2	2.72%
Construction Unemployed – No. of people	101.2	-14.9	-12.86%	-38.3	-27.46%

We can see in Fig.12 that there was a reduction of 9,400 people employed in construction in the previous quarter which represents a reduction of 0.7%. However, across the year there is still an increase of 35,200 people which represents 2.72%.

Figure 13. – Annual variation rate of employment

Source – Instituto Nacional de Estadística

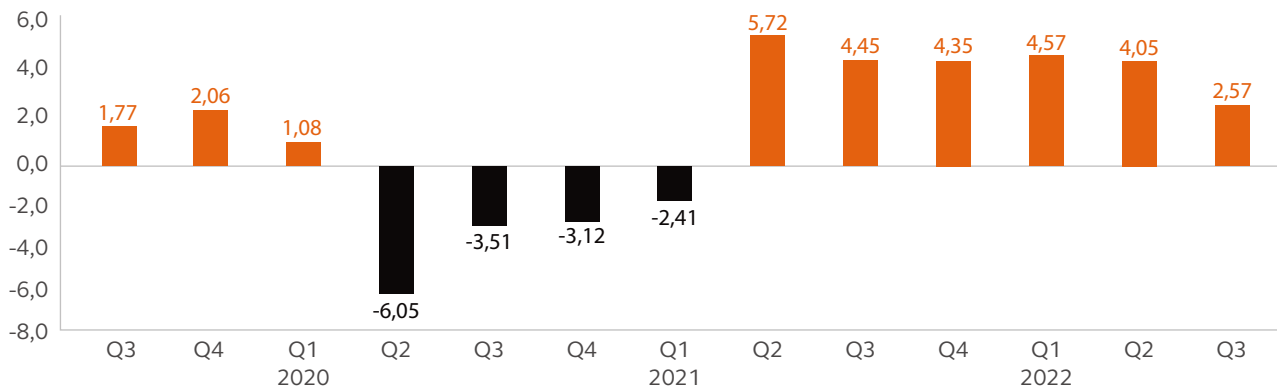
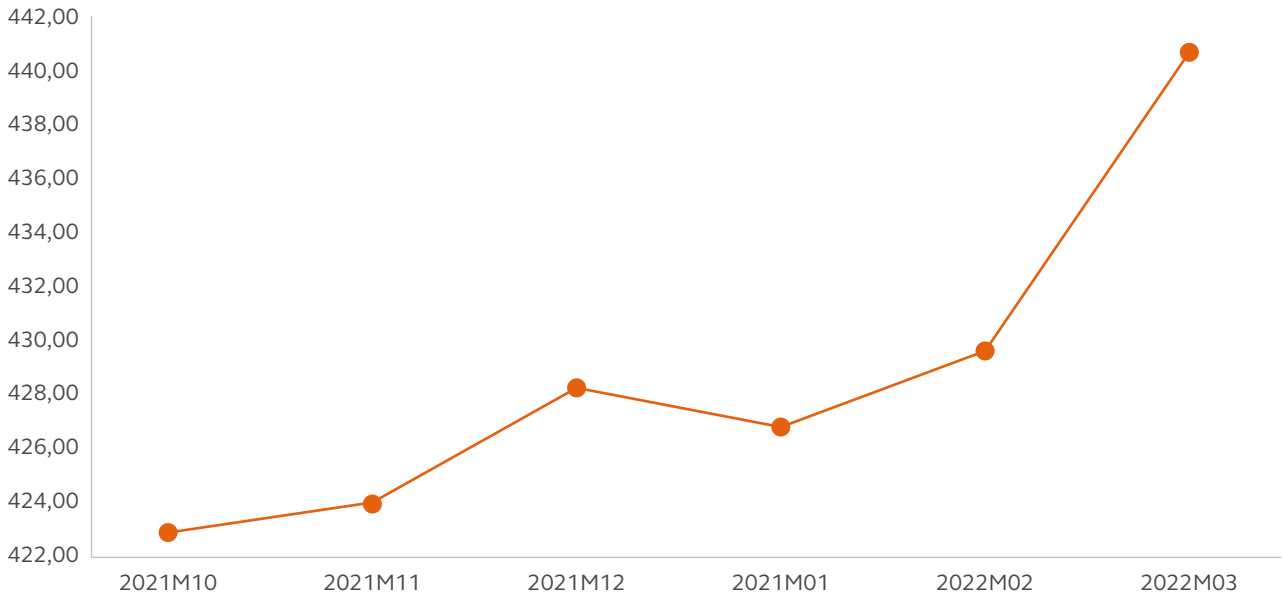


Fig.13 shows us that the employment recovery seen from Q22021 to Q22022 has now slowed in Q32022 in reaction to the market uncertainty and contracting economy.

Figure 14. – Index – National Construction Labour Cost (July 1980 base of 100) Oct 2021 to Mar 2022

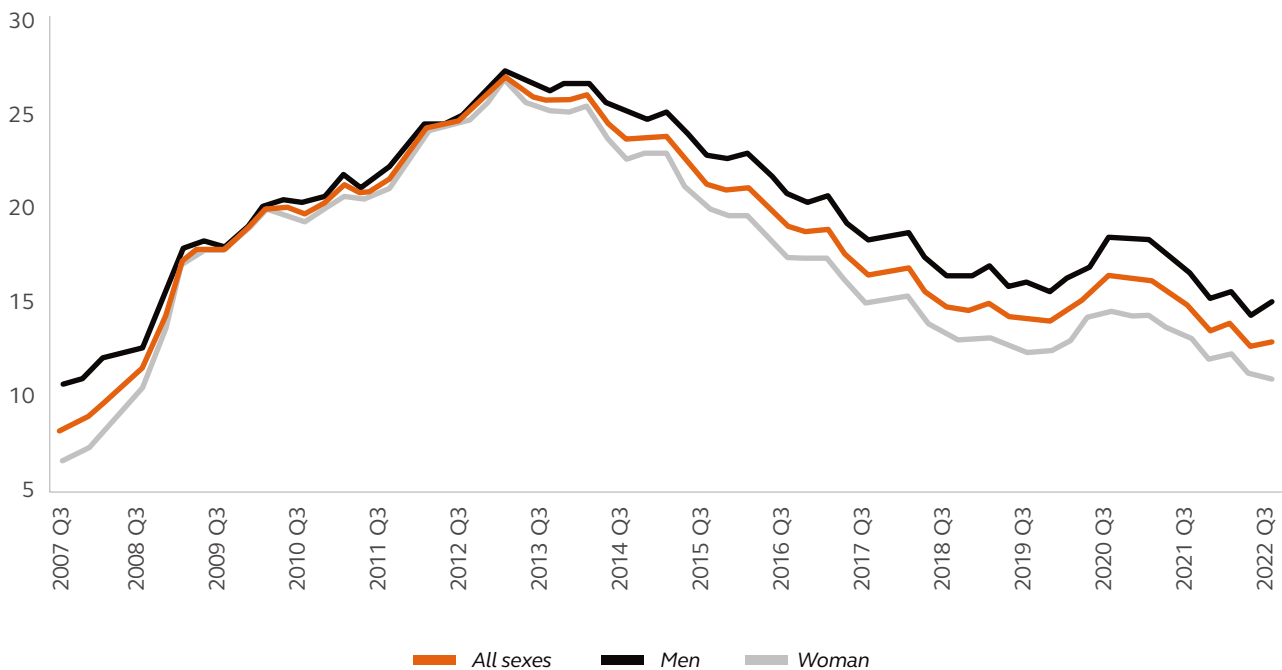
Source – Insituto Nacional de Estadística



From the data available from the Instituto Nacional de Estadística for the index of construction labour up to March 2022 we can see that as with our previous market report, labour costs remain on an upward trend. The forecast for these costs in late 2022 and early 2023 will depend on the impact of the recession and employers’ approaches to cost of living increases.

Figure 15. – Unemployment Rates in Spain as a % of Population

Source – Insituto Nacional de Estadística



The Spanish labour market is still experiencing declining unemployment including a further reduction of 43,727 people in December 2022 which gives a level of total unemployed at 2,837,653, which is the lowest number since 2007, but with a winter recession this is expected to slow. In Fig.15 we can see a small upturn in both categories that reflects this.

Materials

Material price inflation remains the short-term driver of price increases. There is some evidence of greater price stability, indicated by steel prices falling from their peak and suppliers offering longer-term price fixes.

There is no room for complacency. Manufacturers have succeeded in passing inflation to clients and all-important energy price markets remain highly volatile.

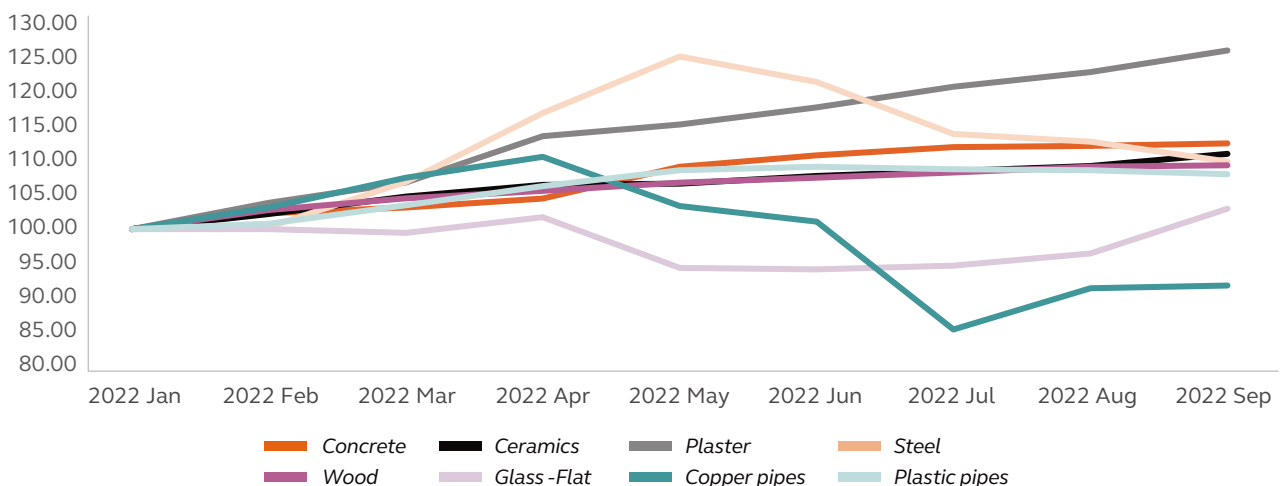
Our feature on the impact of energy costs on material production highlights the extent to which energy costs determine overall product prices. As energy costs are hedged, the timing of energy purchase deals is a significant source of uncertainty for both producers and purchasers.

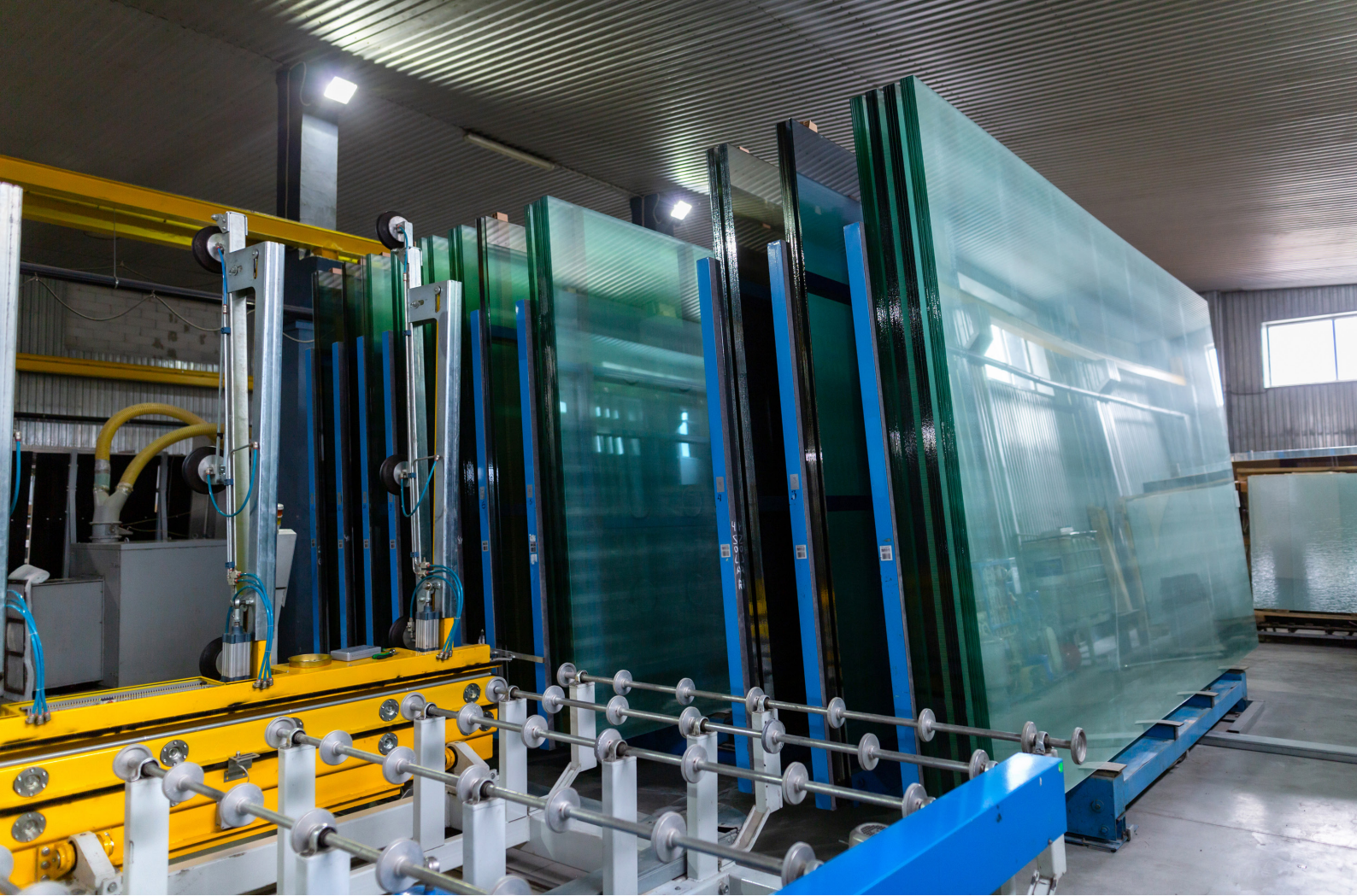
Our analysis suggests that despite falling commodity prices, European energy cost increases that have taken place since we published the Autumn Market view could potentially result in material cost increases for basic materials like glass and cement. As many manufacturers secure long-term energy deals, these increases could be passed on at any point in the economic cycle. This is a significant downside inflation risk. In the short-term, scarcity could be more of a problem. Manufacturers are shutting down plants because they are uneconomic at current energy prices. Low water levels in European waterways are also disrupting manufacture and distribution. Looking forward to the winter heating season, energy rationing could lead to a reduction in production rates. Even as risks associated with project pricing subside, new risks associated with material availability are emerging.

Figure 16. – Indices for key materials showing key changes between Jan 2022 and Sep 2022. All materials baselined to an index of 100 in January to show key changes relatively

Source – Ministerio de Transportes, Movilidad y Agenda Urbana

Materials Cost Movements 1Q-3Q2022





As referenced above we can see in Fig.16 and Fig.17 that materials that are energy intensive in manufacture (glass in this example) are on an upward trend due to high energy prices. Plaster is on an upward trend because of the price of the core component gypsum being volatile currently. The minor recovery seen in June 2022 has not continued and most costs have held at levels higher than pre-Ukraine war costs.

Figure 17. - Indices for key materials showing key changes between 3Q2021 and 3Q2022
All materials baselined to an index of 100 in 3Q2021

Source – Gobierno de España Ministerio de Transportes, Movilidad y Agenda Urbana

Quarterly Increases in Materials 3Q2021-3Q2022

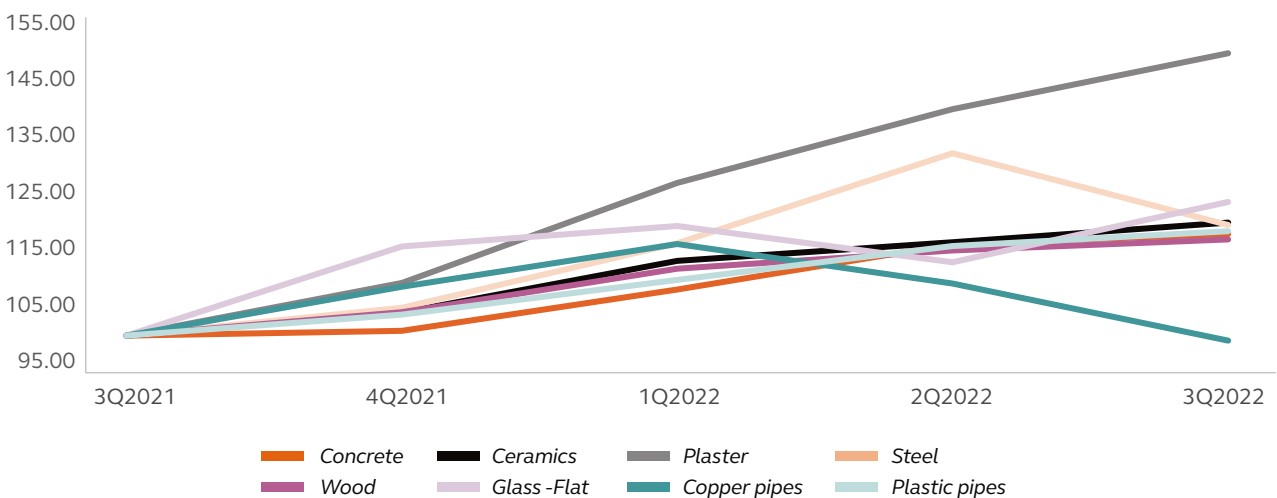


Figure 18. - % Changes in materials in the last year 3Q2021 to 3Q2022 and in the 3Q2022 quarter.

Source – Gobierno de España Ministerio de Transportes, Movilidad y Agenda Urbana

Material	3Q2021 to 3Q2022 - Yearly % Increase	3Q2022 - Quarterly % Increase
Glass - Flat	24%	9%
Alarms and Detectors	36%	7%
Lime	50%	7%
Plaster	50%	7%
Explosives	17%	4%
Glass - Hollow	28%	4%
Aggregates	16%	3%
Ceramics	20%	3%
Ceramic tiles	20%	3%
Radiators and Boilers	14%	3%
Carpentry - Metal	18%	2%
Hardware	15%	2%
Mortar	16%	2%
Wood	17%	2%
Carpentry Wood	17%	2%
Non Electrical Appliances	8%	2%
Concrete	18%	2%
Ornamental Stone	6%	1%
Electric Appliances	9%	1%
Cement	18%	1%
Electric Switchgear	7%	1%
Lifts	7%	1%
Air Conditioning and Ventilation	6%	1%
Kitchen and Bathroom Furniture	8%	1%
Prefabricated	16%	1%
Fibre cement pipes	16%	1%
Fire Extinguishers Hoses	7%	1%
Paints, Varnishes and Putties	16%	0%
Plaster Derivatives	21%	0%
Valves and Taps	9%	0%
Lighting Appliances	4%	0%
Antennas, Public Address System	1%	0%
Rubber	8%	0%
Synthetics	15%	-1%
Plastic pipes	15%	-1%
Electronics	3%	-1%
Asphalts	9%	-3%
Fibre Glass	9%	-3%
Electrical Cables	3%	-3%
Fibre Optic	3%	-3%
Copper pipes	-1%	-9%
Steel	20%	-10%

Surging energy prices are pushing up the cost of cement, bricks and concrete as they are materials that are very energy intensive to manufacture. Fig.18 is ordered by quarterly movement in descending order, and we can see that a number of these energy intensive materials remain in an upward trend. There are forecasts that materials supply issues are abating, and the reducing workload is giving headroom to restock so that when we overcome the shallow recession, we will be in a better position to supply materials in accordance with the demand present.

Figure 19. – Forecasted costs of gas in 3 forecasted scenarios

Source – Banco de España

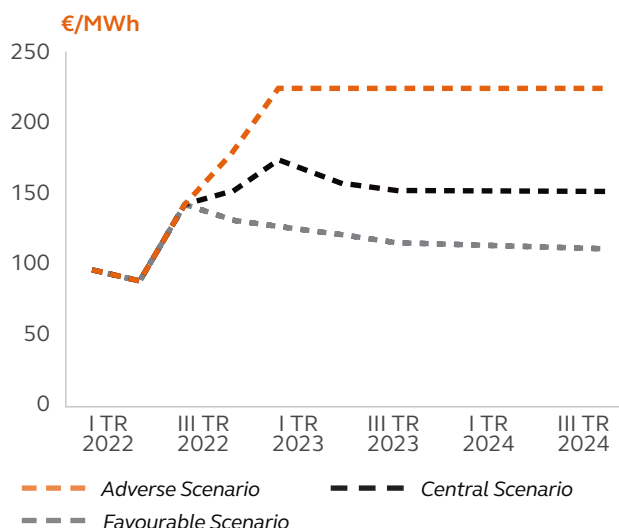
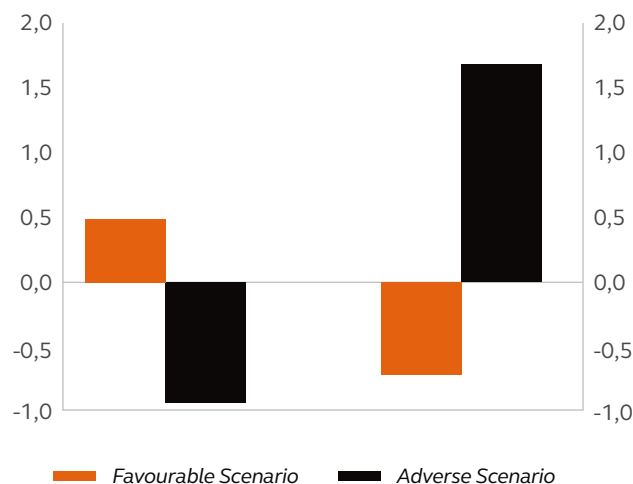


Figure 20. – Impact on GDP (PIB) and Inflation (Inflación) in 2023-2024 in the adverse and favourable situations of gas prices

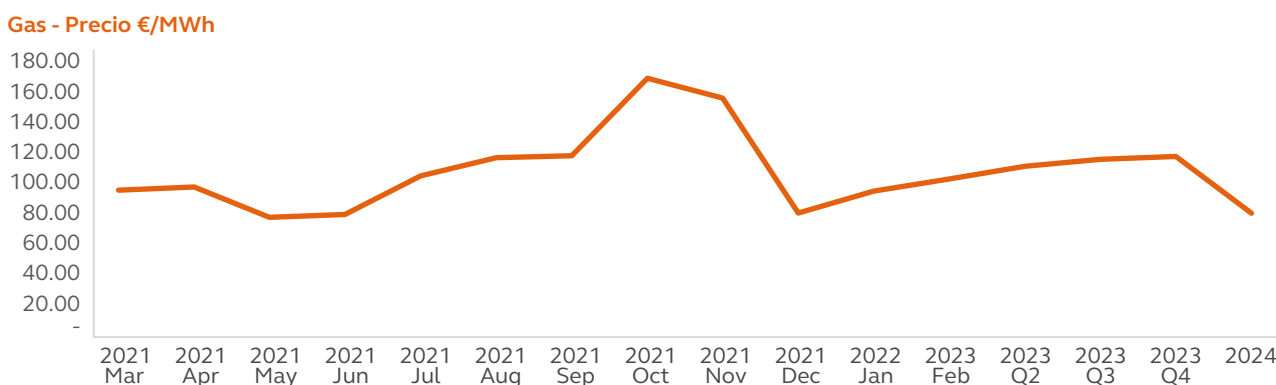
Source – Banco de España



The Banco de España’s latest economic forecast outlined 3 scenarios for future GDP and Inflation based on the price €/MWh for gas, outlining the direct impact it has on the Spanish economy. There forecasts review the cost but also the availability of gas. Fig.20 shows how much volatility that is within their forecasts across 2023 and 2024, with a range approx. 1.5% for GDP and approx. 2.8% for inflation.

Figure 21. – PVB Historic and Forecast Gas Trading Prices – Price €/MWh

Source – MIBGAS



A lower gas demand from China has eased the impact globally on prices but with a strong recovery forecast for next year there may be a return of strong pressure to gas prices. Fig.21 shows the steep reduction in gas prices over Q42022 which has translated into a steep reduction in inflation, but the forecast shows that there are likely increases during 2023 and 2024 which we keep inflation high.

Government measures to mitigate the impact of high energy prices included reductions of VAT on electricity and gas, the €0.20/litre fuel rebate and additional assistances to low-income households have cost 1.6% of GDP. Despite these increased costs the government deficit is continuing to reduce albeit at a reduced rate.

The EU has announced their price cap on gas trading on 19 December 2022 and it will apply for one year from 15 February 2023. The price cap has been agreed at 180€/MWh which is comfortably above the levels forecasted in Figure 21. above but is intended to serve to prevent the prices seen during August 2022. The cap will come into effect if the Dutch TTF natural benchmark remains above the capped level for three consecutive days and in addition there is a price difference of 35€/MWh with international markets.



Zoom into: Energy Crisis

Wholesale energy costs had doubled over Q2-Q32022. Energy costs are the main driver of inflation in the wider economy, as evidenced by the 80% increase in the retail energy price cap announced by Ofgem in Q32022. Here we investigate impacts of energy on construction materials costs and the inflation sensitivity.

Energy cost model

To examine the impact of energy inflation, we have developed a model for the manufacturing input costs of steel, glass, and cement. The model is based on a typical manufacturing process and uses a combination of input constants and UK price data. Energy costs are based on daily quoted wholesale prices. The model does not account for transport and distribution costs and cannot account for the hedging and pricing strategies undertaken by individual manufacturers.

The analysis suggests that the manufacture of construction materials with relatively low-cost, locally sourced commodity inputs, such as glass and cement, are most at risk from continued energy price rises. Results highlighting this finding are summarised in Table 1.

Analysis of impacts of energy price increases

Table 1 plots price increases as an index. It shows the dramatic changes in the overall production costs for float glass and cement during 2022 up until August as wholesale energy prices soared.

For example, our cost assessment for cement calculates a rise of 95% between the end of January and August 1, while for Float Glass, the rise was 45%. By comparison, steel production using an Electric Arc Furnace rose by only 11% during the same period, while for steel produced using the more common Basic Oxygen Furnace (BOF) method, the overall costs have fallen by 8% since the start of the year.

To understand the disparity between overall production costs for these materials during this timeframe, we need to look more closely at what has happened to the cost of raw material and energy inputs during recent months.

Whilst global prices of metals and minerals had fallen by 24% between February 2022 and Q32022, energy prices overall had increased by 28%.

Steel manufacture involves globally traded commodities including iron ore, metallurgical coal and scrap steel that are subject to other supply and demand factors. For Electric Arc steel production, steel scrap represents a major input and costs for this had fallen by 19% between January and Q32022.

However, it is when modelling steel production using the Basic Oxygen Furnace (BOF) process that we can really see the impact that recent major reductions in the price of key raw material inputs can have on overall costs. Iron ore and metallurgical coal costs were down 16% and 34% respectively from early 2022 to Q32022, leading to an overall 8% decrease in costs of BOF-produced steel.

Table 1 - Changes in construction material production cost during 2022

Manufacturing Process	Cost - January 2022 (Index - Jan 2022 = 100)	Cost - July 2022 (Index - Jan 2022 = 100)	Cost - August 2022 (Index - Jan 2022 = 100)
Cement	100	158	195
Float Glass	100	122	145
Steel - Electric Arc Furnace	100	98	111
Steel - Basic Oxygen Furnace	100	80	92

Evidence from the marketplace

Our assessments need to be treated with care, because so far there is little evidence of the cost increases evidenced by our models being reflected in list prices and official data.

Steel prices increased dramatically when supply chains were disrupted by the Ukraine war, and these impacts cannot be captured in the modelling. The modelling does however help to explain the recent easing in steel prices and suggests that this is a steel specific development rather than a trend that can be read across all material categories.

In other segments, even if list prices have not increased, energy price surcharges have become more common and more unpredictable.

Accordingly, even if the official data is not showing the increases, energy cost inflation is in the system, and if futures markets are to be believed, they will eventually feed through to finished material prices. We are seeing this longer term impact of high energy prices in the steady increase of core inflation.

What are the likely impacts on construction?

The biggest price rises by far have been in structural steel and rebar. Lower cost products like cement have increased at a low rate in 2022 and are more exposed to impacts from volatile energy costs.

Up until now, it is noticeable that while some producers have been able to pass on energy costs to their customers through higher prices, others, such as cement manufacturer Heidelberg, have had to absorb some of the rises, with consequent impacts on their bottom line.

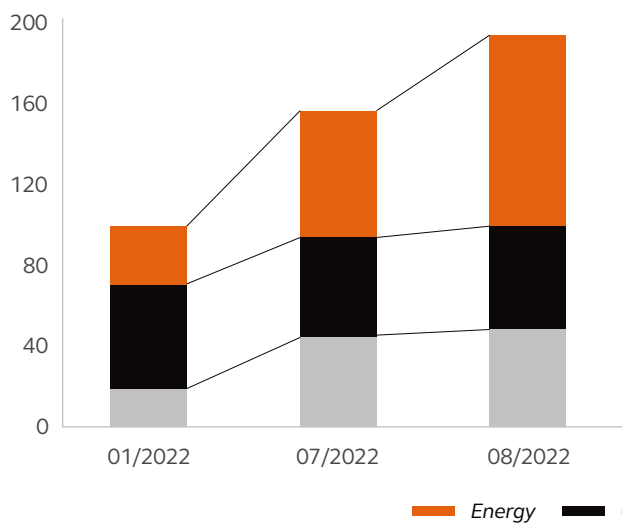
Conclusion

Against the backdrop of an economic slowdown, our modelling has revealed that as other commodity prices fall due to a global slowdown, basic materials with a high energy content like cement will remain ever more sensitive to inflationary pressure.

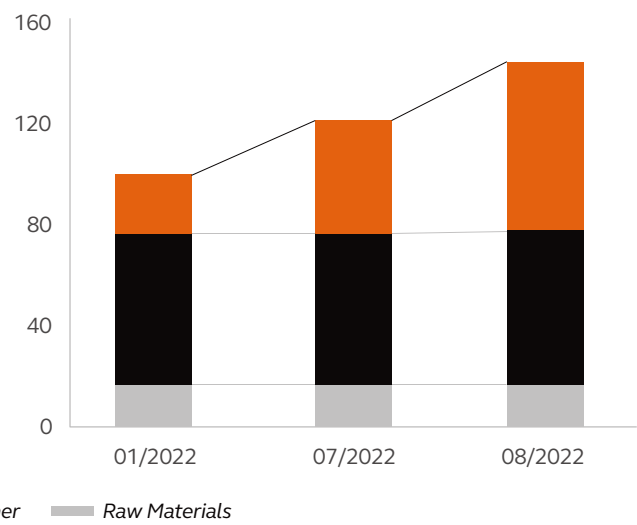
Potential future energy price hikes will have other, unforeseen consequences too. Less low carbon recycled steel will be produced as Electric Arc furnaces are mothballed due to high energy costs. Materials including zinc and aluminium may become scarce as over half of European manufacturing capacity is curtailed.

So, even as markets slow, there is a remaining downside risk that material price inflation could grow, either related to input costs or scarcity. What is clear is that the current energy crisis, whilst having improved during Winter, looks set to continue for several more months at least and the signs are that it will have a further sapping effect on construction markets.

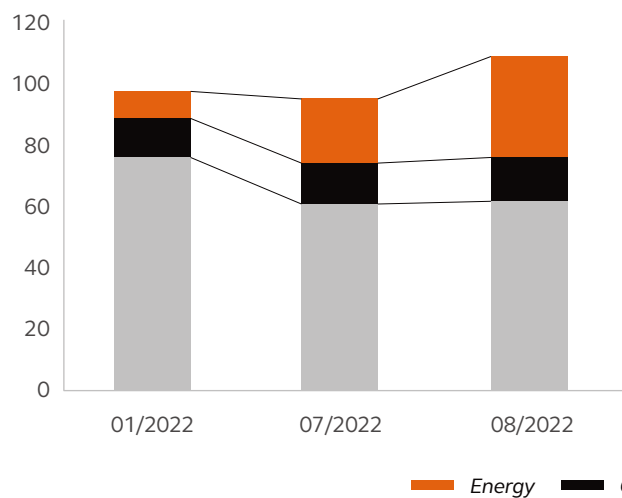
Cement Major Inputs to Overall Production Costs



Float Glass Major Inputs to Overall Production Costs



Electric Arc Furnace Major Inputs to Overall Production Costs



Basic Oxygen Furnace Major Inputs to Overall Production Costs

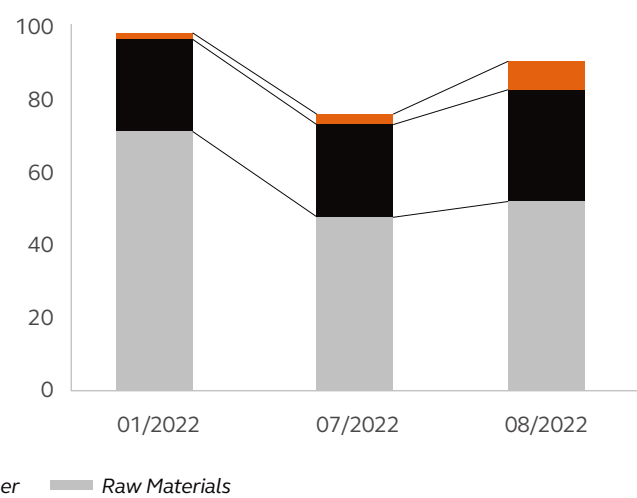


Figure 1 - Relationship between the costs of energy and raw materials for production of selected construction materials



About Arcadis

Our world is under threat – from climate change and rising sea levels to rapid urbanisation and pressure on natural resource. We're here to answer these challenges at Arcadis, whether it's clean water in Sao Paulo or flood defences in New York; rail systems in Doha or community homes in Nepal. We're a team of 33,000 and each of us is playing a part.

Contact us



Pedro Izquierdo

Head of Places

E pedro.izquierdo@arcadis.com



Emilio Garcia

Head of Cost Management

E emilio.garcia@arcadis.com



Chris Hill

Associate Cost Manager

E chris.hill@arcadis.com

Disclaimer

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