

Global Country Commodity and Insights Reports





AMERICAS

United States

Canada

Mexico



EUROPE

Belgium Italy

Denmark Netherlands

Finland Norway

France Spain

Germany Sweden

Ireland Switzerland

Israel United Kingdom

APAC and GCC

Australia Singapore

Hong Kong South Korea

India Taiwan

Japan JAE







United States Q1 2023

Despite multiple challenges, the US economy grew by 2.1% in 2022 due to growth in manufacturing, private investment, and consumer spending. However, amid a weak global outlook, the IMF forecasts a moderate growth of 1.6% in 2023. Furthermore, the recent banking crisis has created concerns in terms of tightening lending standards, which may impact industries that rely on smaller regional banks for credit. Nonetheless, inflation has reached its lowest level in nearly two years, with a 5% year-on-year increase in March 2023. There are also signs of positivity in the job market with the unemployment rate falling to a 53-year low of 3.4% in April 2023.

The US construction industry contracted by 8.2% in 2022, due to a decline in residential output. The industry is expected to contract further in 2023 by 0.9% because of continued decline in the residential sector, ongoing labor shortages, worker unrest and elevated interest rates. The longer-range forecast is more optimistic with a projected growth rate of 4.5% CAGR from 2024 to 2027 due to increased investments in the energy, transportation, and housing sectors. The manufacturing sector will also continue to grow rapidly, aided by the government's industrial promotion programs. Furthermore, mission-critical industries such as data centers and life sciences are expanding. Supply chain issues remain but have subsided slightly. Material prices are expected to fall through the middle of the year as rising demand is offset by high inventories. Skilled labor shortages are expected to last a few more quarters.



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Lumber

Weak demand in the housebuilding sector has contributed to a decline in lumber prices, and with high interest rates and leading indicators for housebuilding suggesting further weakness, lumber prices will continue to slide. Stockpiles have also recovered, and mill capacity has improved, suggesting limited shocks on the supply-side in the coming quarters.



Cement and aggregates

Although residential construction has weakened, there has been a revival in construction activity in the industrial and infrastructure sectors, which has bolstered demand for materials such as cement and concrete. Cement manufacturers have also maintained pricing power, being able to pass on higher production costs to buyers and move towards restoring profit margins recorded prior to the surge in energy prices.



Concrete blocks and bricks

With non-residential construction demand improving, and with production costs remaining high, brick manufacturers have been successful in pushing up prices in recent months. However, prices will level off in the coming quarters.





Steel (rebar and structural)

Having risen during the first few months of the year, steel prices are expected to drop back again. Although there will be significant demand stemming from government stimulus programs, with improvements on the supply side, and cheaper imports potentially available, price pressures are likely to be contained.



Copper

Although not expected to return to the highs of March 2022, copper prices are being bolstered by demand stemming from government stimulus programs related to the energy transition, as well as demand from China, following its relaxation of COVID restrictions. The potential for further bouts of political instability and protests in Chile and Peru could disrupt supplies and generate volatility in prices.



United States – Commodity Report



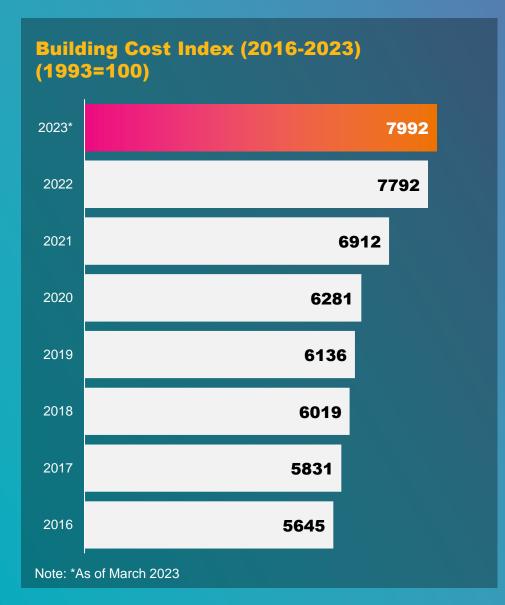
| | Q2 2023 (f) | Q2 2022 | – Q2 2023 (f) | Q4 2022 – Q1 2023 (e) |
|--|-------------|---------|--|--------------------------|
| | | | 2022-23 | |
| Materials | US\$ | US\$ | % change | % change |
| Copper (US\$/T) | 8,497 | 8,825 | -3.7% ↓ | 12.0% 个 • |
| Steel rebar (US\$/T) | 998 | 1,064 | -6.2% ↓ | 1.2 % ↑ • |
| Steel flat (US\$/T) | 1,554 | 1,931 | -19.5% ↓ | -7.5% ↓ • |
| Stainless steel (US\$/T) | 4,897 | NA | NA | 0.0% ↔ • |
| Lumber (US\$/FT ³) | 4.8 | 11.9 | -59.3% ↓ | -14.6% ↓ • |
| Asphalt (US\$/T) | 520 | 631 | -17.6% ↓ | -10.7% ↓ • |
| Limestone (US\$/T) | 30.2 | 28.1 | 7.5% 个 | 6.5% ↑ • |
| Cement (US\$/T) | 143 | 127 | 12.8% 个 | 3.2% ↑ • |
| Concrete (US\$/YD ³) | 122 | 110 | 11.3% 个 | 3.2% ↑ • |
| Welded mesh (US\$/unit) | 238 | 250 | -5.0% ↓ | 1.2% ↑ • |
| Bricks (US\$/'000 unit) | 976 | 810 | 20.5% 个 | 15.0% 个 • |
| Drywall (US\$/unit) | 13.1 | 12.2 | 7.6% 个 | 0.4% ↑ ■ |
| Diesel (US\$/gallon) | 4.27 | 5.48 | -22.1% ↓ | -13.0% ↓ • |
| (f) Forecast (e) Es | stimated | | | |
| ● Q4 2022 to Q1 20 ■ Q4 2022 to Q1 20 | | | mation in our Q4 20 tion in our Q4 2022 | |

Welded mesh: 47.2 x 118.1 in, dia.-0.24 in Drywall: 47.2 x 143.7 x 0.49 in (L x W x T)

| | Material Q | % change 11 – Q2 2023 (f) | Level of im | pact of pricing on construction procurement and supply chain * |
|---------------|---|------------------------------|---|---|
| | Copper | +2.0% ↑ | o 0 | Copper prices picked up in early 2023, with tightening supply conditions affecting Chile and Peru coupled with resurgent demand from China. Prices are expected to remain around current levels in the coming quarters. Although there are concerns over the potential for economic weakness given the recent interest rate hikes, investment in the energy transition will contribute to solid underlying demand for copper. |
| | Steel prices - Steel rebar - Flat steel* | -1.0% ↓ +2.5% ↑ | o O ■ O Moderate | Steel prices came under renewed upward pressure in Q1 2023, having declined throughout the second half of 2022. Prices for rebar in March were at the highest level since mid-2022. Flat steel also rose in Q1 2023, but on a quarterly average basis prices were below the Q4 2022 level. Prices are expected to fall back from the recent monthly highs in March, with improved supply and weakness in the residential sector helping to offset the impact of increased spending on infrastructure and industrial construction projects. However, on a quarterly average basis, flat steel prices in Q2 2023 will still be relatively high compared to the first quarter. |
| 6 | Stainless Ste | el +1.0% 个 | o 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | Stainless steel prices have been fairly stable in recent months, with the impact of relatively sluggish demand being offset by high prices for key inputs, such as nickel and molybdenum. |
| | Lumber | -1.0% ↓ | o 0 | Lumber prices continued to fall in Q1 2023, with the average quarterly price being down by 14.5% compared to Q4 last year. With weak output in residential construction, and ample supplies available, lumber prices will remain on a downward trend. |
| | Asphalt | -2.0% ↓ | o 0 | Asphalt prices fell sharply in Q1 2023, dropping by 11% compared to the average of Q4 last year. Recent trends have mainly reflected weakness in oil prices, but demand is expected to strengthen as road construction investment picks up. Prices will remain close to current levels on a quarterly average basis, but there will be bouts of volatility given the prospect for further surprise production cuts by OPEC+. |
| *flat steel p | Limestone orices refer to Hot Coiled P | +1.0% ↑ | •0000 Low | There has been a steady increase in limestone prices recently reflecting higher production costs. Increased spending on infrastructure projects will prop up demand in the coming quarters. Linesight |

United States – Commodity Report





| | Material | % change – Q2 2023 (f) | Level of in | npact of pricing on construction procurement and supply chain * |
|----|--------------------|---------------------------|----------------------|--|
| | Cement Concrete | +3.0% ↑ +1.0% ↑ | o 0 0 0 0 0 Moderate | Cement prices have continued to increase in recent months, and in February 2023 were up by 14% compared to levels in the same month last year. Producers have been able to pass on higher costs to buyers. Despite weak demand in the housebuilding sector, there is significant growth in industrial and infrastructure construction. With emerging signs of domestic supply shortages, prices are expected to continue to trend upwards. |
| | Welded mesh | +0.5% ↑ | o | Reflecting trends in steel rebar prices, prices for welded mesh have edged upwards in recent months. |
| ## | Bricks | +0.3% ↑ | o 0 | Brick prices have jumped sharply again, rising by 15% on an average quarterly basis in Q1 2023. Although demand-side pressures have eased amid the downturn in the housebuilding sector, brick manufacturers are succeeding in passing on high production costs. |
| | Drywall | +0.5% ↑ | •0000 Low | Despite weak demand in housing construction, drywall prices remained high in Q1 2023 compared to year-earlier levels, being 12% higher. This reflects the relatively high production costs still impacting manufacturers. However, after a consistent upward trend in prices since late 2020, prices are levelling off. |
| | Diesel | -3.0% ↓ | oOOO High | Diesel prices continued to fall in Q1 2023, with average quarterly prices dropping by 13% compared to Q4 last year, and in March prices were 27% lower than the July 2022 highs. Weaker demand and the decline in crude oil prices have contributed to the downturn. However, OPEC+ production cuts could generate some upward pressure on prices in the near term. |

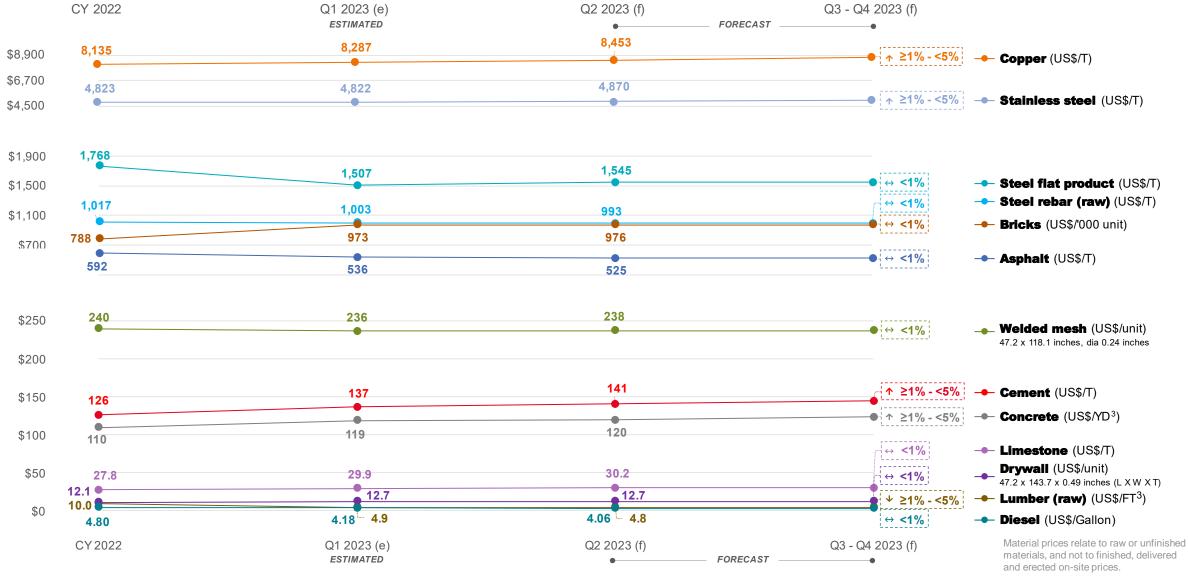
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Please note that commodity prices are based on representative materials available in the respective countries, and as these materials may not be standard across all markets, cross-country comparisons on prices can be ineffective. For example, asphalt types can vary between hot, cold or a bitumen price, and standard unit sizes for materials can vary across countries.



US Central – Construction Materials Pricing (2022-2023)

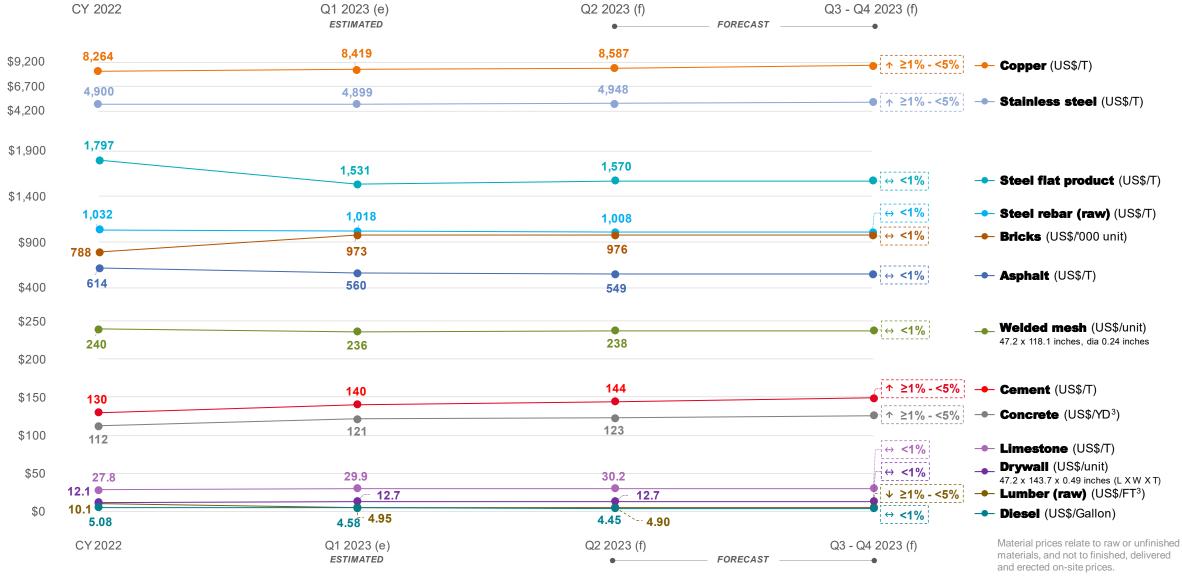






US East – Construction Materials Pricing (2022-2023)

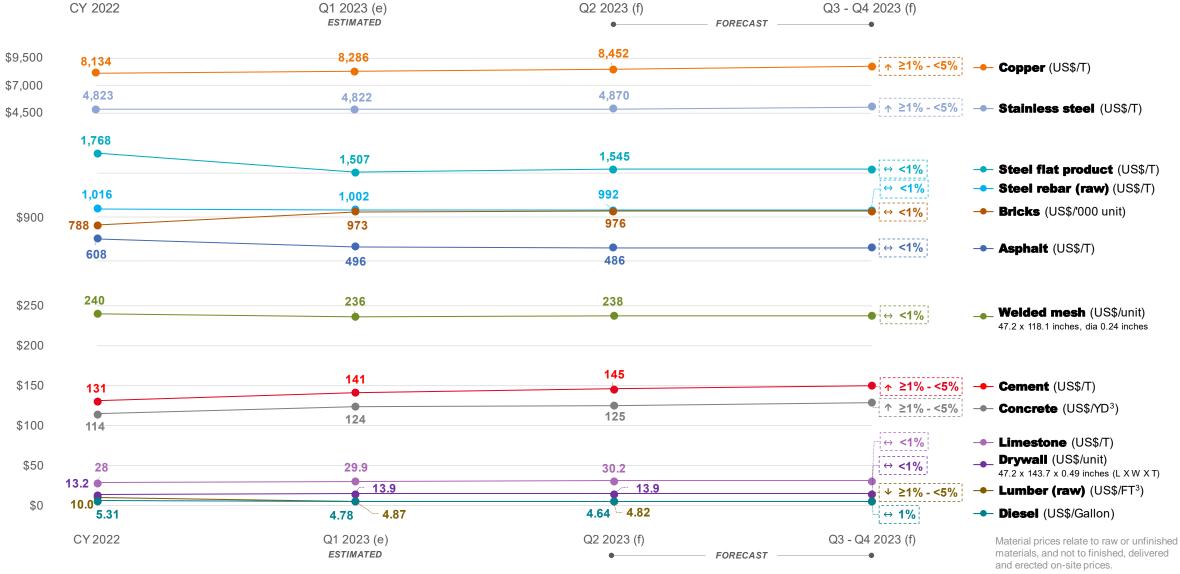






US West – Construction Materials Pricing (2022-2023)







United States – Macroeconomic overview



Economic indicators



1.58%

GDP growth in 2023 (f) and **2.07%** in 2022



4.52%

inflation rate in 2023 (f) and **7.99%** for 2022



159.38M

people employed in 2023 (f) and **158.30M** in 2022



3.83%

unemployment rate for 2023 (f) and **3.64%** in 2022



300.80

Consumer Price Index in Feb 2023 and **287.50** in Feb 2022

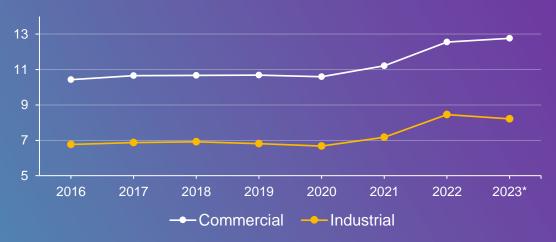


172.68

Producer Price Index in Feb 2023 and **182.57** in Feb 2022

US Energy Prices

Average Electricity Price for Commercial & Industrial Sector- Prices to Ultimate Customers (cents/kWh)



Note: *As of February 2023

Energy prices rose sharply in 2021 as a result of increased business activity following the pandemic. Weather-related factors played a significant role in raising energy prices in 2022. The year 2022 saw a mild winter and record-breaking summer temperatures across the country. The United States felt the effects of higher energy costs caused by the Russia-Ukraine conflict in February 2022. The rise in wholesale energy prices was also reflected in end-user prices. According to the EIA, natural gas prices fell by 41% from December 2022 to January 2023 as a result of higher national average winter temperatures. Following a sharp increase from 2021 to 2023, electricity costs may fall or at least slow.



United States – Construction overview



Output 2022 and 2023 (in USD millions)

| | • | • | |
|----------------------|---------------|-------------------|-------------------|
| | Total 2022 | Total 2023 (f) | Total 2024 (f) |
| Commercial | 208,032 | 215,512 | 221,931 |
| Energy and utilities | 194,561 | 221,347 | 242,695 |
| Industrial | 59,998 | 64,279 | 67,146 |
| Infrastructure | 139,588 | 156,146 | 174,276 |
| Institutional | 139,639 | 145,940 | 151,770 |
| Residential | 764,710 | 689,846 | 674,157 |

^{*}The output is in real terms at constant prices with 2017 as base year

Long lead equipment (LLE) - Supply Chain Overview

2022 was a turbulent year for the global supply chain with the fallout from the global pandemic combined with the emergence of the Russia-Ukraine conflict, leading to supply chain disruptions across the globe. However, 2023 is showing signs of relief in the market for long lead equipment (LLE). The following are the specifics of the LLE supply chain dynamic:

- 1. **Demand**: Demand for LLE has remained exceptionally high across all regions and industry sectors. Organizations have moved to expand their supply chain portfolios and include secondary and tertiary suppliers, whilst most are continuing to invest in inventory management systems to prevent any supply chain disruptions. There is no sign of reduced demand, so the constraints to the supply chain will continue for the remainder of 2023.
- 2. Supply: The stock levels of raw materials have finally started to stabilize, alleviating some recent pressures on manufacturers and suppliers. However, it is worth noting that most LLE suppliers have reported being at operational capacity, with order books full up to Q3 2024, which may cause some concern for those relying on their products. Nevertheless, there is some hope as Tier 2 and Tier 3 supply chains have started to increase their capacity and support the larger demand within the market, which may help to mitigate any negative impact of capacity restrictions.
- 3. Freight durations and costs: Freight durations have begun to shorten in early 2023 as the global infrastructure and operations have developed to meet the rising demand and freight companies are shipping much faster than they did during the pandemic. Average freight costs have also reduced to align with pre-pandemic levels suggesting a return to normality within the industry. The benefits have been experienced in early 2023 and further reductions are expected throughout the rest of 2023.



United States – Report methodology



Linesight has commissioned independent global research to track construction materials and commodity prices.

The approach and methodology for the collection of construction material pricing and other indicators is based on primary and secondary research.

Primary and secondary research

Primary research is conducted on a quarterly basis with stakeholders in the value chain, including manufacturers and suppliers/distributors of the target materials, to ascertain market information on prices in recent quarters, and also on projections for changes in the coming quarter and remainder of the year. The market analysis also involves a thorough assessment of secondary sources of data on materials and labor prices, in addition to underlying demand and supply trends that will impact market prices.

Sources include GlobalData's Construction Intelligence Center (CIC), the World Bank, IMF, OECD, as well as country specific national statistics offices, such as the U.S. Bureau of Economic Analysis, Bureau of Labor Statistics, and also industry specific associations and publications.

Definitions

- · Commodity prices are net of taxes for all the countries
- Prices are not customer delivered
- All commodities are raw materials
- Nominal and real data

Nominal data series do not exclude changes in prices and are also referred to as current prices series.

Annual changes in nominal data for construction output will include changes in construction activity, as well as changes in costs for materials and equipment.

Real data series are calculated by keeping prices constant (so, are also referred to as constant price series), and therefore, they reflect changes in activity only. Growth rates in nominal terms can overstate the pace of growth in construction activity if there is high inflation stemming from rising prices for key inputs.

Sample sources – United States

For the United States, sources for this report include, but are not limited to:

- ENR
- IMF
- GlobalData's Construction Intelligence Center (CIC)
- Federal Reserve Economic Data
- · Bureau of Economic Analysis
- · Economic Research Institute
- World Data
- · U.S. Energy Information Administration
- Save on Energy
- International Energy Agency (IEA)
- US Energy Information Administration (EIA)







Canada Q1 2023

The Canadian economy grew by 3.4% in 2022 and is expected to experience a more modest growth rate of 1.4% in 2023. However, the Bank of Canada has provided a recent update indicating that the GDP growth in Q1 2023 is stronger than previously projected in January. Inflation is expected to decrease in the near term, with the Bank of Canada anticipating a decline to around 3% by the middle of this year due to lower energy prices, improved supply chain conditions, and tighter monetary policy.

The Canadian construction industry is expected to contract by 0.9% in 2023, because of a drop in residential output coupled with elevated construction cost and a shortage of skilled labor. While supply chain pressures are easing out, the lead time for certain goods and equipment, such as doors and electrical hardware, remains very long. On a positive note, Canada's industrial construction sector is expected to remain robust, with a forecasted growth of 14.9% in 2023, supported by increased investment and permits for industrial construction, as well as the government's efforts to establish Canada as an industrial hub. The life sciences sector is also expected to grow because of investor interest and government policy support.



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Lumber

The outlook for the housebuilding sector is gloomy, with high interest rates and falling building permits indicating a decline in construction works in the coming quarters. This will limit demand growth for lumber, prices for which have continued to drop in recent months from the highs reached in the first half of last year.



Cement and aggregates

Higher energy costs have been a key factor in the recent upward trend in cement and aggregates prices. Over the medium term, higher costs due to increased environmental regulations on production will contribute to further upward pressure on prices.



Concrete blocks and bricks

Despite weak demand in the buildings construction sector, brick manufacturers have been passing on higher production costs to buyers. However, such pricing power will be limited in the coming quarters given the weak buildings construction outlook. The value of residential building permits, for example, dropped by 12% in 2022.



Steel (rebar and structural)

Steel prices rose in the first few months of 2023, having trended downwards in the second half of last year. In addition to improved demand as civil engineering works have picked up, prices rose on the back of higher input costs, lower import volumes and reports of domestic mill production delays. However, with supply improving, prices are set to fall from recent highs posted in late March.



Copper

A combination of improved demand, following China's relaxation of COVID policies and supply pressures stemming from unrest in Chile and Peru, drove up copper prices in Q1 2023. Demand over the medium to long term will be supported by the Net Zero agenda and the energy transition, especially in the US and the EU.



Canada – Commodity Report



| | Q2 2023 (f) | Q2 2022 - | Q2 2023 (f) | Q4 2022 - Q1 2023 (e) |
|-----------------------------|-------------|-----------|---------------|--------------------------|
| | | | 2022-23 | |
| Materials | CA\$ | CA\$ | % change | % change |
| Copper (CA\$/T) | 11,105 | 11,015 | 0.8% ↑ | 12.1% 个 • |
| Steel rebar (CA\$/T) | 866 | 946 | -8.4% ↓ | 7.0% 个 • |
| Steel flat (CA\$/T) | 2,093 | 2,464 | -15.1% ↓ | -7.7% ↓ • |
| Stainless steel (CA\$/T) | 6,561 | NA | NA | -0.3% ↓ ■ |
| Lumber (CA\$/cu.ft.) | 45.5 | 82 | -44.7% ↓ | -10.5% ↓ • |
| Asphalt (CA\$/T) | 1,070 | 1,144 | -6.5% ↓ | -3.0% ↓ • |
| Limestone (CA\$/T) | 37.2 | 35.4 | 5.2% 个 | 4.5% ↑ • |
| Cement (CA\$/T) | 281 | 237 | 18.5% 个 | 8.3% 个 • |
| Concrete (CA\$/CY) | 204 | 176 | 15.7% 个 | 6.4% ↑ • |
| Welded mesh (CA\$/unit) | 234 | 255 | -8.3% ↓ | 7.0% 个 • |
| Bricks (CA\$/'000 unit) | 689 | 613 | 12.4% 个 | 4.1% 个 • |
| Drywall (CA\$/unit) | 18.4 | 17.7 | 4.1% ↑ | -0.7% ↓ • |
| Diesel (CA\$/gallon) | 6.3 | 10.4 | -39.3% ↓ | -14.1% ↓ • |

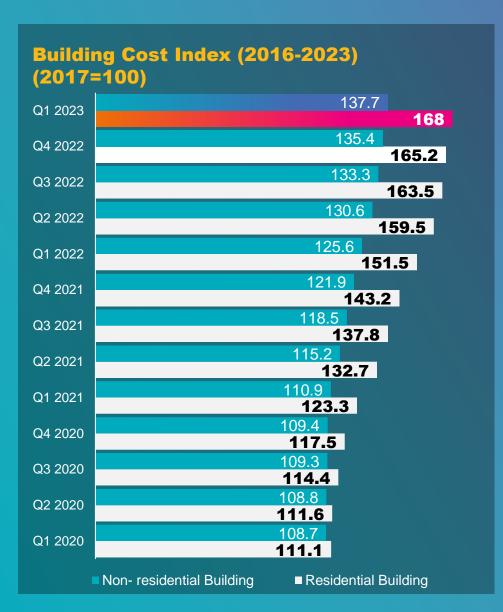
- Q4 2022 to Q1 2023 % change greater than estimation in our Q4 2022 report
- Q4 2022 to Q1 2023 % change less than estimation in our Q4 2022 report

Welded mesh: 47.2 x 118.1 in, dia.-0.24 in Drywall: 47.2 x 96.1 x 0.5 in (L x W x T)

| | Material | 6 change - Q2 2023 (f) | Level of im | pact of pricing on construction procurement and supply chain * |
|-------|---|---------------------------|---------------|--|
| | Copper | +0.5% ↑ | o 0 | Copper prices jumped in January, by around 8% compared to the average level in December, but prices have eased back since then. The elevated level reflects the impact of the re-opening of China's economy and continued momentum behind the energy transition. However, prices will be volatile in the coming quarters, given the potential for disruption on the supply side and ongoing uncertainty over the outlook for the global economy. |
| B | Steel prices - Steel rebar - Flat steel | -0.7% ↓ +2.1% ↑ | o 0 | After dropping steadily through to late last year, steel prices picked up in the first few months of 2023, reflecting higher production costs and efforts by steel manufacturers to maintain margins. Rebar prices in March were up by 6.8% compared to the December average, and hot rolled plate prices in early April were at their highest level since November last year. Although flat steel prices are likely to drop from these April highs, on a quarterly average basis they will still be relatively high when compared to the Q1 2023 average. |
| | Stainless Steel | +0.6% ↑ | • 0 0 0 0 Low | Recent trends in stainless steel prices reflect upward price pressure from key inputs being offset by weakness on the demand side. This will continue to be the case in the coming quarters. |
| | Lumber | +0.1% ↑ | oOOO | Lumber prices continued on a steep downward trend in early 2023, dropping in January to a level that was around 58% lower than the highs of March 2022. Prices have started to edge up again, but given the gloomy outlook for the residential market domestically and in the US, lumber prices are expected to remain around the current low levels. |
| A | Asphalt | +1.0% 个 | o 0 | Asphalt prices dropped sharply in Q4 2022 and remained low on a quarterly average basis in Q1 2023. However, prices picked up in March, and with crude oil prices facing upward pressure following OPEC+'s production cuts, prices will rise in Q2 2023, then remain relatively high given the prospect of an expansion in road infrastructure spending. |
| oo oo | Limestone | +0.7% ↑ | • O O O O | Limestone prices edged up in Q1 2023, and will remain fairly stable in the coming quarters. There has been an improvement in mining for limestone and primary aggregates, which will support steady supply. Linesight |

Canada – Commodity Report





| Material | % change Q1 – Q2 2023 (f) | Level of in | npact of pricing on construction procurement and supply chain * |
|--------------------|------------------------------|----------------------|--|
| Cement Concrete | +0.2% ↑ +0.2% ↑ | 00 █ █ █ Moderate | After stabilizing in Q4 last year, cement and concrete prices came under renewed upward pressure in the first few months of 2023. On an average quarterly basis, cement prices in Q1 2023 jumped by 8% compared to Q4 2022, owing to higher production costs, including coking coal price increases. |
| Welded mes | sh -0.3% ↓ | o 🕽 🗍 Moderate | Overall demand for welded mesh will ease, but production and logistical costs will remain elevated. |
| Bricks | +0.1% ↑ | 00 █ █ █ Moderate | Higher production costs have driven up brick prices, as manufacturers have pushed up prices to maintain margins. In Q1 2023 prices were up by 4.1% on a quarterly average basis compared to Q4 last year. Demand will be sluggish in the coming quarters, with buildings construction work in decline, which will contain further rises in brick prices. |
| Drywall | +4.2% ↑ | •0000 Low | Drywall prices were fairly stable in early 2023, but there is underlying upward pressure owing to high costs, with producer prices for lime and gypsum products picking up in recent months. However, demand is weak in the residential sector, which could make it difficult to pass on higher costs to buyers. |
| Diesel | -11.3% ↓ | o O O O O | Diesel prices have continued on a downward trend, dropping below CA\$7 per gallon in March for the first time since February last year. With crude oil prices picking up after OPEC+'s production cuts in March, further drops in diesel prices will be contained. |

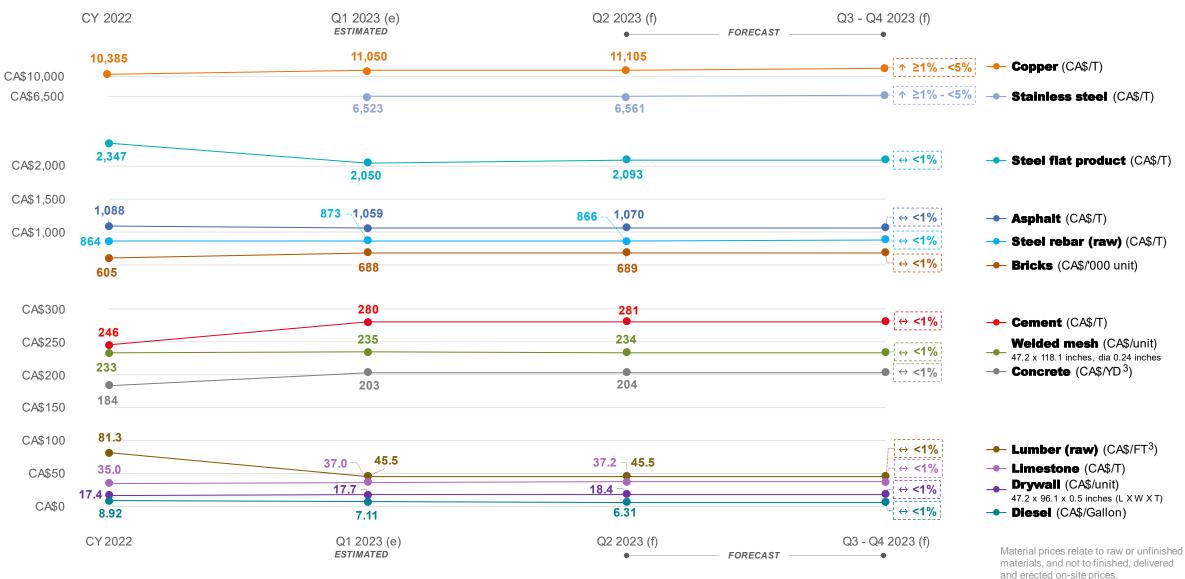
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Canada – Construction Materials Pricing (2022-2023)







Canada – Macroeconomic overview



Economic indicators



1.45%

GDP growth in 2023 (f) and **3.40%** in 2022



3.90%

inflation rate in 2023 (f) and **6.80%** for 2022



19.93M

people employed in 2023 (f) and **19.70M** in 2022



5.83%

unemployment rate for 2023 (f) and **5.28%** in 2022



154.50

Consumer Price Index in Feb 2023 and **146.80** in Feb 2022

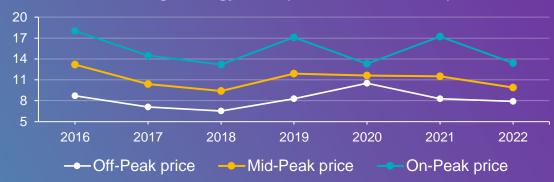


126.40

Producer Price Index in Feb 2023 and **129.00** in Feb 2022

Canada Energy Prices

Average Energy Price (Canadian cents/kWh)



Note: The above graph is for time-of-use electricity rates (yearly average- based on monthly data in the respective year) as published by Ontario Energy Board. These rates applies to residential consumers, small business and farms

Indexed quarterly average electric power selling price (2014=100)





Canada – Construction overview



Output 2022 and 2023 (in CAD millions)

| | Total 2022 | Total 2023 (f) | Total 2024 (f) | | | | |
|----------------------|---------------|-------------------|-------------------|--|--|--|--|
| Commercial | 30,858 | 30,813 | 32,395 | | | | |
| Energy and utilities | 99,636 | 100,231 | 102,413 | | | | |
| Industrial | 19,534 | 22,449 | 23,731 | | | | |
| Infrastructure | 30,175 | 30,384 | 31,260 | | | | |
| Institutional | 22,355 | 22,913 | 23,442 | | | | |
| Residential | 180,617 | 173,118 | 169,902 | | | | |

^{*}The output is in real terms at constant prices with 2017 as base year

Long lead equipment (LLE) - Supply Chain Overview

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- 3. Freight durations and costs: Freight durations have begun to shorten in early 2023 as the global infrastructure and operations have developed to meet the rising demand and freight companies are shipping much faster than they did during the pandemic. Average freight costs have also reduced to align with pre-pandemic levels suggesting a return to normality within the industry. The benefits have been experienced in early 2023 and further reductions are expected throughout the rest of 2023.



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Sources include GlobalData's Construction Intelligence Center (CIC), the World Bank, IMF, OECD, as well as country specific national statistics offices, such as the U.S. Bureau of Economic Analysis, Bureau of Labor Statistics, and also industry specific associations and publications.

Definitions

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Real data series are calculated by keeping prices constant (so, are also referred to as constant price series), and therefore, they reflect changes in activity only. Growth rates in nominal terms can overstate the pace of growth in construction activity if there is high inflation stemming from rising prices for key inputs.

Sample sources - Canada

For Canada, sources for this report include, but are not limited to:

- IMF
- · Govt of Canada
- · Bank of Canada
- Statistics Canada
- Oxford Economics
- GlobalData's Construction Intelligence Center (CIC)
- Economic Research Institute
- Ontario Energy Board







Mexico Q1 2023

According to the IMF, Mexico's GDP grew by 3% in 2022 but is expected to grow by 1.8% in 2023. The Mexican government's budget for 2023, on the other hand, predicts a 3% growth rate for the economy. Inflation is also easing out, with annual headline inflation falling to 6.24% in mid-April, the lowest level since October 2021.

The Mexican construction industry was expected to contract by 1.7% in 2023, but this has now been reduced to a 0.5% contraction. Though inflation is easing out in the country, still the construction industry is facing challenges such as elevated construction costs and subdued investor confidence amid a weak global outlook. Despite the current challenges, the industry is expected to recover in the short to medium term and to grow at an annual rate of 2.6% between 2024 and 2027. This expansion is expected because of investments in infrastructure and manufacturing projects, as well as anticipated nearshoring activities.



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Lumber

Lumber prices in Mexico have been declining, with the country importing increasing volumes of cheaper US lumbers. A decline in housebuilding in the US has contributed to a fall in lumber prices, while supply chains have improved. With demand unlikely to pick up in the coming quarters, prices will remain around current low levels.



Cement and aggregates

Producers of cement and aggregates had been warning buyers of imminent price hikes in early 2023, and these have now been reflected in recent trends. The price rises have reflected increased production costs, as well as the impact of green taxes for limestone extracting companies.



Concrete blocks and bricks

Brick prices have edged upwards but have not faced the same upward price pressures as other key materials. On a year-on-year basis, brick prices were up by around 5% in March 2023. Weak building construction activity has been a factor in containing brick price inflation.



Steel (rebar and structural)

Higher costs, in part reflecting the jump in coking coal prices in early 2023, have contributed to renewed steel price increases in recent months. However, prices are set to remain around current levels in the coming quarters, with production cost pressures likely to ease.



Copper

Copper prices will remain volatile, with the potential for further periods of concern over supply disruption stemming from unrest in key supplier markets in Chile and Peru, along with uncertainty over the strength of global demand. In the medium to long term, the EV production and the energy transition will drive up copper demand.



Mexico – Commodity Report



| | Q2 2023 (f) | Q4 2022 - Q1 2023 (e) |
|-------------------------------|-------------|--------------------------|
| Materials | MXN | % change |
| Copper (MXN/T) | 155,360 | 7.5% ↑ • |
| Steel rebar (MXN/T) | 22,098 | 8.2% ↑ • |
| Steel flat (MXN/T) | 26,013 | 0.0% ↔ ■ |
| Stainless steel (MXN/T) | 70,582 | -4.4% ↓ • |
| Lumber (MXN/cu.ft.) | 38.7 | -5.1% ↓ • |
| Asphalt (MXN/T) | 10,758 | -9.1% ↓ • |
| Limestone (MXN/T) | 191 | 8.8% ↑ • |
| Cement (MXN/T) | 3,213 | 5.0% ↑ • |
| Concrete (MXN/CY) | 1,584 | 3.2% ↑ • |
| Welded mesh (MXN/unit) | 4,962 | 6.2% ↑ • |
| Bricks (MXN/'000 unit) | 7,815 | 1.1% ↑ • |
| Drywall (MXN/unit) | 182 | 9.8% ↑ • |
| Diesel (MXN/gallon) | 85.6 | 0.6% ↑ ■ |
| (f) Forecast (e) Estim | | |

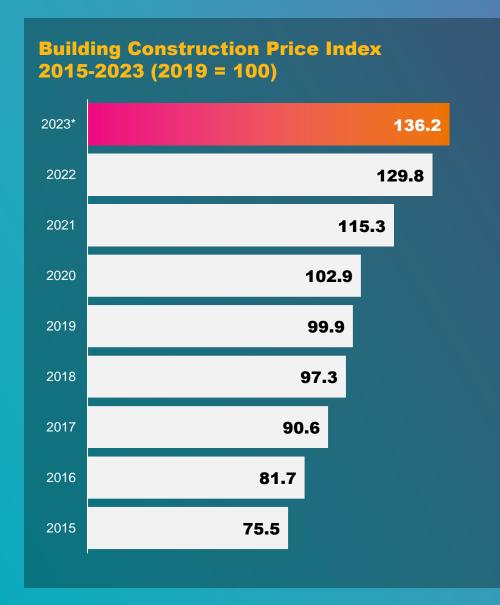
| | Material G | % change Q1 – Q2 2023 (f) | Level of im | pact of pricing on construction procurement and supply chain * |
|-------|---|------------------------------|--------------|--|
| | Copper | +2.0% ↑ | Low | There was a jump in copper prices in January, when prices reached a seven-month high, driven by expectations of a boost to demand from China, along with concerns over supply disruptions with unrest in Chile and Peru. However, prices have eased back since then. Volatility is expected to continue in the coming quarters given ongoing concerns over supplies and demand shocks. |
| | Steel prices - Steel rebar - Flat steel | +1.0% 个 +1.0% 个 | • O O O O | Steel rebar prices have regained ground in recent months, having dropped by around 28% over the course of the second half of last year. Prices for flat products have been relatively stable in comparison. Prices are still inflated when compared to levels pre 2021 as a result of high production costs and investment in railway construction. |
| | Stainless Ste | el +2.0% ↑ | • O O O O | Weak demand has contributed to an easing in stainless steel prices, but relatively high raw materials prices will be a factor in containing further price weakness. |
| | Lumber | -1.0% ↓ | •0000 Low | Rising interest will be a factor in dampening investment growth in the housebuilding sector, and this will contain lumber price inflation. Mexico's imports of wood from the US jumped in 2022, rising by 8% to the third highest volume on record. |
| Ą | Asphalt | +1.0% ↑ | • O O O O | Following a 24% drop in prices in the second half of 2022, prices have stabilized at a relatively low level. Road infrastructure spending will remain sluggish in the coming quarters, but there could be renewed upward pressure on prices stemming from a rise in crude oil prices. |
| °00°> | Limestone | +2.0% ↑ | • O O O O | Limestone prices rose sharply in the first quarter of 2023 after remaining relatively stable in the second half of last year. Producers have continued to raise prices because input costs are still elevated compounded by the |

impact of green taxes on limestone extraction companies.

Welded mesh: 98.4 X 1,574.8 in; dia-0.19 in Drywall: 56.7 X 48 X 5.1 in (L X W X T)

Mexico – Commodity Report





| | Material | % change Q1 – Q2 2023 (f) | Level of in | npact of pricing on construction procurement and supply chain * |
|---|--------------------|------------------------------|-------------------|---|
| | Cement Concrete | +2.0% ↑ +3.0% ↑ | 00000 Moderate | Facing higher production costs, cement manufacturers have pushed up prices even further in recent months, such that in March prices were up by 15% compared to levels in March last year. Concrete prices are also on an upward trend reflecting the jump in key materials. |
| | Welded mes | sh +5.0% ተ | • 0 0 0 0 Low | Welded mesh products have increased in price, jumping by around 6% on a quarterly average basis between Q1 2023 and the previous quarter. Prices will remain relatively high reflecting high production cost pressures. |
| # | Bricks | +2.0% 个 | • D D D Low | Brick prices have edge upwards in recent months. Building construction activity has been in decline, but production costs are still elevated, and these are being passed on to buyers. |
| | Drywall | +2.0% ↑ | • 0 0 0 0 Low | Drywall prices rose by close to 10% quarter on quarter in Q1 2023. As with the trends in other buildings materials, this has been entirely due to production costs being passed on to buyers, rather than improved demand. |
| | Diesel | -2.0% ↓ | • D D D Low | State subsidies have kept diesel prices relatively stable in recent quarters, with costs covered by the country's higher crude oil revenues. |

Level of impact rating reflects a combination of factors: the price movement and also price level (compared to recent past beyond the last quarter), the importance of the material, and general state of the supply chain in terms of stability.

Please note that commodity prices are based on representative materials available in the respective countries, and as these materials may not be standard across all markets, cross-country comparisons on prices can be ineffective. For example, asphalt types can vary between hot, cold or a bitumen price, and standard unit sizes for materials can vary across countries.



Mexico – Construction Materials Pricing (2022-2023)







Mexico - Macroeconomic overview

Economic indicators



1.8%

GDP growth in 2023 (f) and **3%** in 2022



2.42%

inflation rate in 2023 (f) and **0.98%** for 2022

F

97.60%

employment rate in Mar 2023 compared to **96.96%** in Mar 2022



3.28%

unemployment rate for 2023 (f) and 3.27% in 2022



128.39

Consumer Price Index in Mar 2023 and **120.16** in Mar 2022



121.26

Producer Price Index in Mar 2023 and **116.86** in Mar 2022



Mexico – Construction overview



Output 2022 and 2023 (in MXN millions)

| | Total 2022 | Total 2023 (f) | Total 2024 (f) | | | |
|----------------------|---------------|-------------------|-------------------|--|--|--|
| Commercial | 394,242 | 389,645 | 399,589 | | | |
| Energy and utilities | 497,827 | 514,713 | 531,581 | | | |
| Industrial | 293,428 | 288,791 | 294,980 | | | |
| Infrastructure | 483,547 | 479,776 | 490,559 | | | |
| Institutional | 104,990 | 101,943 | 104,245 | | | |
| Residential | 608,418 | 594,804 | 601,790 | | | |

^{*}The output is in real terms at constant prices with 2017 as base year

Long lead equipment (LLE) - Supply Chain Overview

2022 was a turbulent year for the global supply chain with the fallout from the global pandemic combined with the emergence of the Russia-Ukraine conflict, leading to supply chain disruptions across the globe. However, 2023 is showing signs of relief in the market for long lead equipment (LLE). The following are the specifics of the LLE supply chain dynamic:

- 1. **Demand**: Demand for LLE has remained exceptionally high across all regions and industry sectors. Organizations have moved to expand their supply chain portfolios and include secondary and tertiary suppliers, whilst most are continuing to invest in inventory management systems to prevent any supply chain disruptions. There is no sign of reduced demand, so the constraints to the supply chain will continue for the remainder of 2023.
- 2. Supply: The stock levels of raw materials finally started to stabilize, alleviating some recent pressures on manufacturers and suppliers. However, it is worth noting that most LLE suppliers have reported being at operational capacity, with order books full up to Q3 2024, which may cause some concern for those relying on their products. Nevertheless, there is some hope as Tier 2 and Tier 3 supply chains have started to increase their capacity and support the larger demand within the market, which may help to mitigate any negative impact of capacity restrictions.
- 3. Freight durations and costs: Freight durations have begun to shorten in early 2023 as the global infrastructure and operations have developed to meet the rising demand and freight companies are shipping much faster than they did during the pandemic. Average freight costs have also reduced to align with pre-pandemic levels suggesting a return to normality within the industry. The benefits have been experienced in early 2023 and further reductions are expected throughout the rest of 2023.



Mexico – Report methodology



Linesight has commissioned independent global research to track construction materials and commodity prices.

The approach and methodology for the collection of construction material pricing and other indicators is based on primary and secondary research.

Primary and secondary research

Primary research is conducted on a quarterly basis with stakeholders in the value chain, including manufacturers and suppliers/distributors of the target materials, to ascertain market information on prices in recent quarters, and also on projections for changes in the coming quarter and remainder of the year. The market analysis also involves a thorough assessment of secondary sources of data on materials and labour prices, in addition to underlying demand and supply trends that will impact market prices.

Sources include GlobalData's Construction Intelligence Center (CIC), the World Bank, IMF, OECD, as well as country specific national statistics offices, such as the U.S. Bureau of Economic Analysis, Bureau of Labor Statistics, and also industry specific associations and publications.

Definitions

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Sample sources – Mexico

For Mexico, sources for this report include, but are not limited to:

- IMF
- National Institute of Statistics and Geography (INEGI)
- GlobalData's Construction Intelligence Center (CIC)
- Economic Research Institute
- Public Holidays









Belgium

Q1 2023

Despite a marginal growth rate of 0.1% in Q4 2022, Belgium managed to achieve a 3.1% GDP growth in 2022. With slight improvements in economic activity, GDP is expected to grow at a 0.4% in Q1 2023. However, given the global economic outlook, GDP growth for 2023 is likely to remain around 0.7%. With energy prices falling from their peak in last year, the inflation rate is expected to fall from 10.33% in 2022 to 4.7% in 2023.

The Belgian construction industry decreased by 0.4% in 2022, following the growth of 1.6% year-on-year in 2021. The industry's slowdown is expected to continue in 2023, due to rising energy and interest rates, as well as high construction costs caused by inflated material prices, supply chain disruptions, and labour shortages. However, the industry is expected to grow at a 2.4% annual rate in the period 2024-2027 driven by investments in the energy and transportation sectors. Additionally critical sectors such as life sciences and data centers will continue to grow, as a result of private investments, and support from the public sector particularly for the R&D activities in the Bio-tech sector.



Brian McClinton
Senior Director – Europe
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Lumber

Lumber prices edged up marginally in Q1 2023. The decline in construction output will however contribute to an easing in price pressure in Q2 2023. In the longer term, demand for lumber is expected to increase given the growing popularity of wood as a construction material. Lumber accounts for around a 2% share of total construction value in Belgium, which is amongst the highest in Europe.



Cement and aggregates

Following a sharp increase in Q1 2023, cement prices are expected to stabilise at a high level in the coming quarter. The weakening of demand in the Belgian construction industry is expected to keep the prices of cement and concrete in check in the short term. Several construction companies had suspended projects due to supply chain disruptions, rise in cost of materials, or due to the cancellation of contracts.



Concrete blocks and bricks

The prices of brick – which is an energy-intensive building material – is estimated to have increased by over 10% quarter-on-quarter in Q1 2023, owing to higher cost of production. In Q2 2023, a weaker demand will be a factor in containing upward price pressures, given the wider economic slowdown and rising interest rates; however, a marked reversal in materials prices is not expected.



Steel (rebar and structural)

Steel rebar prices have fallen from the highs reached during the second quarter of 2022. Prices had been falling continuously since Q3 2022, owing to a fall in steel consumption amid weakening economic growth. Steel prices are however expected to improve over the longer term, supported by the Belgian government's commitment to greater infrastructure investment.



Copper

Copper prices rebounded in Q1 2023, due to improving demand from China and tight inventories are expected to exert upward pressure on copper prices in Q2 2023. However, global macroeconomic headwinds and the risk of global recession could pose a downside risk to the demand recovery, thereby capping further price gains.



Belgium - Commodity Report



| Q2 2023 (f) | | Q2 2022 – Q2 2023 (f) | | Q4 2022 – Q1 2023 (e) | | |
|---|-------|-----------------------|---------------------|--------------------------|--|--|
| Materials | € | € | 2022-23 % change | % change | | |
| Copper (€/MT) | 8,834 | 9,212 | -4.1% ↓ | 7.1% ↑ • | | |
| Steel rebar (€/MT) | 779 | 1,268 | -38.6% ↓ | -8.9% ↓ • | | |
| Steel flat (€/MT) | 1,126 | 1,274 | -11.7% ↓ | -1.1% ↓ • | | |
| Stainless steel (€/MT) | 4,055 | NA | NA | 4.9% ↑ • | | |
| Lumber (€/M3) | 110 | 108 | 2.2% ↑ | 1.2% ↑ • | | |
| Asphalt (€/MT) | 79.5 | 79.7 | -0.3% ↓ | 1.2% ↑ • | | |
| Limestone (€/MT) | 96.0 | 76.3 | 25.9% 个 | 14.0% ↑ • | | |
| Cement (€/MT) | 256 | 206 | 24.3% ↑ | 9.7% ↑ • | | |
| Concrete (€/M3) | 144 | 95 | 51.1% ↑ | 15.8% ↑ • | | |
| Welded mesh (€/unit) | 24.3 | 37.6 | -35.3% ↓ | -7.0% ↓ • | | |
| Bricks (€/'000 unit) | 744 | 627 | 18.7% ↑ | 10.2% ↑ • | | |
| Plasterboard (€/unit) | 6.14 | 4.93 | 24.5% ↑ | 15.9% ↑ • | | |
| Diesel (€/litre) | 1.75 | 2.07 | -15.2% ↓ | -10.2% ↓ • | | |
| (f) Forecast (e) Estimated | | | | | | |
| Q4 2022 to Q1 2023 % change greater than estimation in our Q4 2022 report Q4 2022 to Q1 2022 % change less than estimation in our Q4 2022 report | | | | | | |

| | Material | % change Q1 – Q2 2023 (f) | Level of im | pact of pricing on construction procurement and supply chain * |
|-----|---|----------------------------------|---------------------------|---|
| | Copper | +1.8% ↑ | o0 I ∭ Moderate | Copper prices are estimated to have increased by 7.1% quarter-on- quarter in Q1 2023, due to increased demand from China following the removal of its zero-COVID policy. Copper prices are expected to remain high in the coming quarters, owing to an anticipated increase in demand for the commodity in line with the global clean energy transition efforts. |
| | Steel prices - Steel rebar - Flat steel | -2.2% ↓ -1.0% ↓ | • D D D | Steel rebar and steel-flat product prices have been falling since the second half of 2022, owing to weak steel demand, which is expected to continue in 2023. |
| | Stainless st | eel +2.6% ↑ | • 0 0 0 0 Low | Stainless steel prices are estimated to have increased by 4.9% quarter on-quarter in Q1 2023, with the increase in prices expected to continue into Q2 2023, with high energy and input costs offsetting impact of weak demand. |
| | Lumber | -0.5% ↓ | •0 DD Low | Following a rise in 2022, lumber prices have levelled off and are expected to remain stable in Q2 2023. Price pressures have eased owing to economic uncertainty and declining housing demand, as a result of rising interest rates. |
| A | Asphalt | +0.8% ↑ | •0 OO O | Asphalt prices are estimated to have increased marginally with strong demand from road construction keeping prices high. Moreover, the new asphalting program that will be undertaken by the Brussels-Capital Region to renovate regional roads is further expected to keep asphalt prices relatively high in the coming quarters. |
| 000 | Limestone | -0.9% ↓ | •0000 | Limestone prices are estimated to have increased sharply by 14% quarter-on-quarter in Q1 2023, as a result of an increase in |

Welded mesh: 200 x 300cm, dia.-6mm Plasterboard: 260 x 60 x 1.3cm (L x W x T)



transportation and production costs. Prices are however expected to stabilise, owing to subdued demand in the construction industry.

Belgium - Commodity Report



Construction Output Price Index 2015-2022 (2015=100)



| | Material | % change Q1 – Q2 2023 (f) | Level of im | pact of pricing on construction procurement and supply chain * |
|---|--------------------|------------------------------|---------------------|--|
| | Cement Concrete | -1.0% ↓ +1.2% ↑ | o 0 | Cement and concrete prices are expected to remain elevated, with producers managing to pass on high costs to buyers. However, weakened demand and a drop in construction projects will result in prices levelling off later this year. |
| | Welded mes | h -1.3% ↓ | • O O O O | Mesh prices declined in Q1 2023 as compared to levels of Q4 2022 reflecting the trend in rebar. Soft demand from the construction sector and expected decline in rebar prices will further contribute to weaker mesh prices in the coming quarters. |
| # | Bricks | -1.0% ↓ | •0000 Low | Brick prices jumped sharply in early 2023, reflecting a surge in production costs. Embuild, Belgium's construction association, expects prices to remain way above pre-COVID levels in 2023, with energy-intensive building materials such as bricks continuing to rise in price in the coming months. |
| | Plasterboard | d -1.0% ↓ | o 0 📗 📗 Moderate | The price of Plasterboard has increased moderately reflecting the passing on of increased manufacturing cost due to elevated energy prices. However, even with energy prices stabilizing, the price of plasterboard is expected to remain at current high levels in short term despite weak demand. |
| | Diesel | -1.6% ↓ | •0000 | Diesel prices rose above the Q1 2023 average of EUR1.78 per litre in the first week of April 2023, reaching EUR1.81 per litre. Fluctuations |

are expected to continue in the coming quarter as OPEC nations decided to cut production in early April 2023, which is expected to keep

prices around current levels.

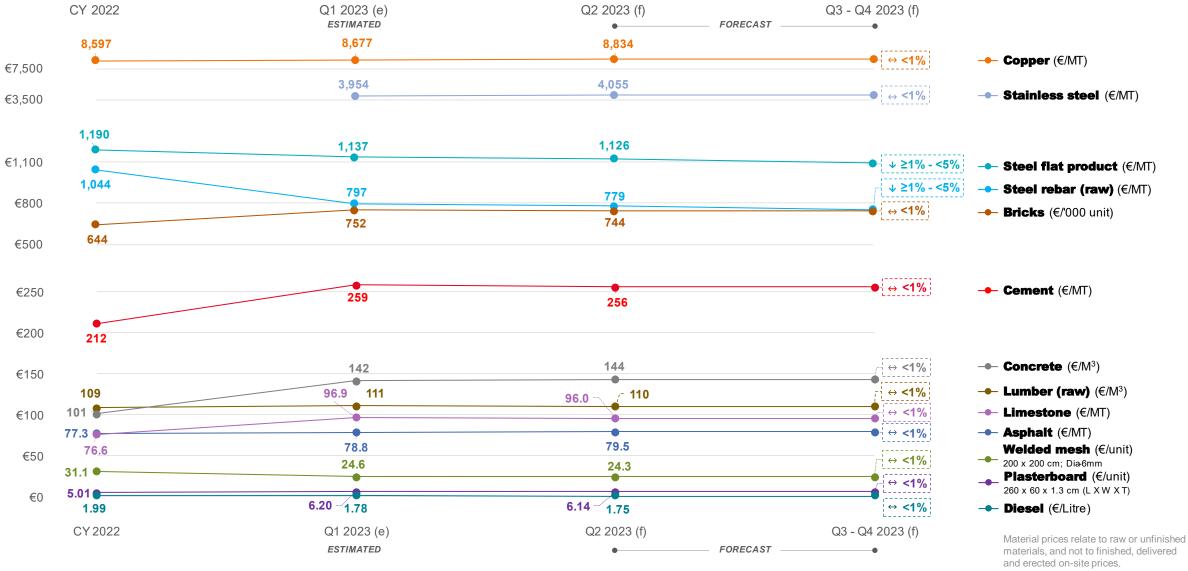


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Belgium - Construction Materials Pricing (2022-2023)







Belgium – Macroeconomic overview



Economic indicators



0.70%

GDP growth in 2023 (f) and **3.09%** in 2022



4.68%

inflation rate in 2023 (f) and **10.33%** for 2022



5.17M

people employed in 2023 (f) and **5.17M** in 2022



6.02%

unemployment rate for 2023 (f) and **5.50%** in 2022



127.67

Consumer Price Index in Mar 2023 and **119.69** in Mar 2022



180.20

Wholesale Price Index in Feb 2023 and **170.70** in Feb 2022

National holidays

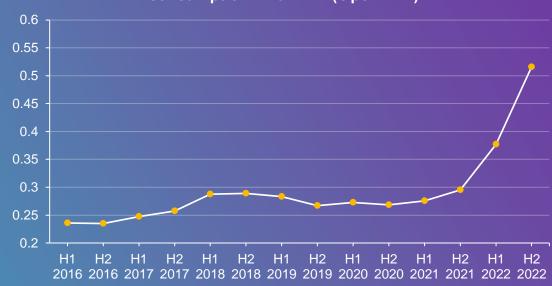


10 public holidays

in Belgium in 2023.

Energy prices





Note: All taxes and levies included



Belgium – Construction overview



Output 2022 and 2023 (in € millions)*

| | , | | , |
|----------------------|---------------|-------------------|-------------------|
| Sector | Total 2022 | Total 2023 (f) | Total 2024 (f) |
| Commercial | 12,012 | 11,488 | 11,861 |
| Energy and utilities | 6,130 | 6,474 | 6,674 |
| Industrial | 4,724 | 4,473 | 4,590 |
| Infrastructure | 16,301 | 17,291 | 17,900 |
| Institutional | 4,386 | 4,144 | 4,235 |
| Residential | 31,736 | 31,012 | 31,503 |

^{*}The output is in real terms at constant prices with 2017 as base year

Long lead equipment (LLE) - Supply Chain Overview

2022 was a turbulent year for the global supply chain with the fallout from the global pandemic combined with the emergence of the Russia-Ukraine conflict, leading to supply chain disruptions across the globe. However, 2023 is showing signs of relief in the market for long lead equipment (LLE). The following are the specifics of the LLE supply chain dynamic:

- 1. **Demand**: Demand for LLE has remained exceptionally high across all regions and industry sectors. Organizations have moved to expand their supply chain portfolios and include secondary and tertiary suppliers, whilst most are continuing to invest in inventory management systems to prevent any supply chain disruptions. There is no sign of reduced demand, so the constraints to the supply chain will continue for the remainder of 2023.
- 2. Supply: The stock levels of raw materials have finally started to stabilise, alleviating some recent pressures on manufacturers and suppliers. However, it is worth noting that most LLE suppliers have reported being at operational capacity, with order books full up to Q3 2024, which may cause some concern for those relying on their products. Nevertheless, there is some hope as Tier 2 and Tier 3 supply chains have started to increase their capacity and support the larger demand within the market, which may help to mitigate any negative impact of capacity restrictions.
- 3. Freight durations and costs: Freight durations have begun to shorten in early 2023 as the global infrastructure and operations have developed to meet the rising demand and freight companies are shipping much faster than they did during the pandemic. Average freight costs have also reduced to align with pre-pandemic levels suggesting a return to normality within the industry. The benefits have been experienced in early 2023 and further reductions are expected throughout the rest of 2023.



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Sample sources - Belgium

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- · National Bank of Belgium
- Organisation for Economic Co-operation and Development (OECD)
- GlobalData's Construction Intelligence Center (CIC)
- STATBEL (the Belgian Statistical Office)
- Economic Research Institute
- Public Holidays
- Eurostat







Denmark Q1 2023

Despite a decline in private consumption, Denmark witnessed a GDP growth of 3.6% in 2022, primarily led by high employment and strong pharmaceutical exports. However, amidst a weak global outlook, the IMF recently projected a GDP growth of just 0.5% in 2023. Nonetheless, inflationary pressures are easing, with the inflation rate expected to fall from 8.5% in 2022, to 4.8% in 2023..

In 2023, construction output in Denmark is expected to fall by 4.3% due to inflation, high interest rates, and geopolitical tensions. However, the industry is expected to regain its momentum, with annual growth of 3% from 2025 to 2027, fueled by investments in transportation, renewable energy, and housing infrastructure. With a focus on sustainability, Denmark has become the first Nordic country to incorporate embodied carbon limits into building regulation.



Damien Gallogly Senior Director - Europe damien.gallogly@linesight.com



Lumber

Lumber prices have been stable at elevated levels in recent quarters as a result of lingering supply disruptions. Despite supply-side challenges, upward pressure will be contained by weak levels of activity in the construction sector. The residential construction sector, which accounts for a large proportion of the industry's wood usage, is expected to be hit heavily by rising interest rates, notwithstanding the government's push to address the country's affordable housing shortage. Long-term demand for lumber will be strengthened by this policy, however, coupled with developments in Copenhagen under the EU's 'Build-in-Wood' initiative.



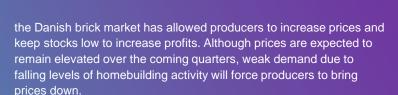
Cement and aggregates

Despite the easing of energy costs which fed heavily into high concrete and cement prices in the second half of 2022, prices have continued to edge upward in recent months due in part to low competition in the domestic cement and concrete market. However, weak demand from the construction industry will limit the extent to which prices can be raised further over the coming quarters.



Concrete blocks and bricks

Strong demand and high production and transportation owing to high energy costs caused brick prices to increase in the second half of 2022. However, prices have continued to rise despite weakening growth and easing energy costs. In large part, limited competition in





Steel (rebar and structural)

Following the spike in prices in mid-2022, steel prices in Denmark have been on a declining trend in the following quarters, with prices standing around 30% lower than Q2 2022 levels, in Q1 2023. As a net importer of steel, Denmark is highly exposed to global market volatility which could impact on prices in the coming quarters. However, weak demand from the construction and manufacturing sectors, coupled with increasing steel production in exporting countries such as China and Turkey have eased pressure on steel supplies.



Copper

Copper prices in Denmark have come under renewed pressure in recent months amid China's reopening following the lifting of its "zero-COVID" policy. Prices in Q1 2023 reached the highest levels since Q2 2022, as a result of the continued volatility in the global copper market. Weak demand amid the global economic slowdown will partially ease pressure on prices, but strong underlying demand amid the green transition, coupled with low global stockpiles will keep prices volatile over the coming quarters.



Denmark – Commodity Report



| DKK | | Q2 2023 (f) | Q2 2022 – | Q2 2023 (f) | Q4 2022 – Q1 2022 (e) |
|--|-----------|-------------|-----------|-------------|--------------------------|
| Copper (DKK/MT) 62,599 66,527 -5.9% ↓ 6.2% ↑ Steel rebar (DKK/MT) 6,450 9,099 -29.1% ↓ 0.0% ↔ IDKK/MT) Steel flat (DKK/MT) 5,317 8,201 -35.2% ↓ 0.0% ↔ IDKK/MT) Stainless steel (DKK/MT) 29,895 NA NA 6.3% ↑ 0.0% ↔ IDKK/MT) Lumber (DKK/M3) 795 800 -0.5% ↓ -0.1% ↓ 0.1% ↓ <th></th> <th></th> <th></th> <th>2022-23</th> <th></th> | | | | 2022-23 | |
| (DKK/MT) Steel rebar (DKK/MT) Steel flat (DKK/MT) Stainless steel (DKK/MT) Stainless steel (DKK/MT) Stainless steel (DKK/MT) Lumber (DKK/M3) Asphalt (DKK/MT) Limestone (DKK/MT) Cement (DKK/MT) Concrete (DKK/MT) Concrete (DKK/M3) Welded mesh (DKK/M3) Welded mesh (DKK/M3) Welded mesh (DKK/M3) Bricks (DKK/M3) Plasterboard (DKK/M10) Plasterboard (DKK/M10) Diesel 13.0 15.4 -19.9% ↓ -10.7% | Materials | DKK | DKK | % change | % change |
| DKK/MT Steel flat | | 62,599 | 66,527 | -5.9% ↓ | 6.2% 个 • |
| DKK/MT Stainless steel 29,895 | | 6,450 | 9,099 | -29.1% ↓ | 0.0% ↔ ■ |
| (DKK/MT) Lumber (DKK/M3) 795 800 -0.5% ↓ -0.1% ↓ ■ Asphalt (DKK/MT) 2,365 2,215 6.8% ↑ 1.2% ↑ ■ (DKK/MT) 1,455 1,648 -11.7% ↓ 1.5% ↑ ■ (DKK/MT) 1,679 1,585 5.9% ↑ 2.1% ↑ ■ (DKK/MT) 1,175 1,078 9.1% ↑ 2.1% ↑ ■ (DKK/M3) Welded mesh (DKK/unit) 209 334 -37.3% ↓ -19.9% ↓ ■ Welded mesh (DKK/unit) 8,181 7,335 11.5% ↑ 9.2% ↑ ■ (DKK/000 unit) 91.0 83.0 9.7% ↑ 1.2% ↑ ■ Plasterboard (DKK/unit) 91.0 83.0 9.7% ↑ 1.2% ↑ ■ Diesel 13.0 15.4 -16.1% ↓ -10.7% ↓ ■ | | 5,317 | 8,201 | -35.2% ↓ | 0.0% ↔ ■ |
| (DKK/M3) Asphalt (DKK/MT) Limestone (DKK/MT) Cement (DKK/MT) Concrete (DKK/M3) Welded mesh (DKK/M3) Welded mesh (DKK/unit) Bricks (DKK/000 unit) Plasterboard (DKK/unit) Plasterboard (DKK/unit) Diesel 13.0 15.4 -16.1% ↓ -10.7% ↓ • | | 29,895 | NA | NA | 6.3% ↑ • |
| (DKK/MT) Limestone (DKK/MT) 1,455 1,648 -11.7% ↓ 1.5% ↑ Cement (DKK/MT) 1,679 1,585 5.9% ↑ 2.1% ↑ (DKK/MT) 1,175 1,078 9.1% ↑ 2.1% ↑ (DKK/M3) 209 334 -37.3% ↓ -19.9% ↓ (DKK/unit) 8,181 7,335 11.5% ↑ 9.2% ↑ (DKK/000 unit) Plasterboard (DKK/unit) 91.0 83.0 9.7% ↑ 1.2% ↑ Diesel 13.0 15.4 -16.1% ↓ -10.7% ↓ | | 795 | 800 | -0.5% ↓ | -0.1% ↓ ■ |
| (DKK/MT) Cement (DKK/MT) 1,679 1,585 5.9% ↑ 2.1% ↑ • Concrete (DKK/M3) 1,175 1,078 9.1% ↑ 2.1% ↑ • Welded mesh (DKK/unit) 209 334 -37.3% ↓ -19.9% ↓ • Bricks (DKK/unit) 8,181 7,335 11.5% ↑ 9.2% ↑ • Plasterboard (DKK/unit) 91.0 83.0 9.7% ↑ 1.2% ↑ • Diesel 13.0 15.4 -16.1% ↓ -10.7% ↓ • | | 2,365 | 2,215 | 6.8% ↑ | 1.2% 个 • |
| (DKK/MT) Concrete (DKK/M3) Welded mesh (DKK/unit) Bricks (DKK/000 unit) Plasterboard (DKK/unit) Diesel 13.0 15.4 -16.1% 9.1% ↑ 2.1% ↑ • 2.1% ↑ • • 19.9% ↓ • • • • • • • • • • • • • • • • • • | | 1,455 | 1,648 | -11.7% ↓ | 1.5% 个 • |
| (DKK/M3) Welded mesh (DKK/unit) Bricks 8,181 7,335 11.5% ↑ 9.2% ↑ • (DKK/000 unit) Plasterboard (DKK/unit) Diesel 13.0 15.4 -16.1% ↓ -10.7% ↓ • | | 1,679 | 1,585 | 5.9% 个 | 2.1% 个 • |
| (DKK/unit) Bricks 8,181 7,335 11.5% ↑ 9.2% ↑ • (DKK/000 unit) Plasterboard 91.0 83.0 9.7% ↑ 1.2% ↑ • (DKK/unit) Diesel 13.0 15.4 -16.1% ↓ -10.7% ↓ • | | 1,175 | 1,078 | 9.1% ↑ | 2.1% 个 • |
| (DKK/'000 unit) Plasterboard 91.0 83.0 9.7% ↑ 1.2% ↑ • (DKK/unit) Diesel 13.0 15.4 -16.1% ↓ -10.7% ↓ • | | 209 | 334 | -37.3% ↓ | -19.9% ↓ • |
| (DKK/unit) Diesel 13.0 15.4 -16.1% ↓ -10.7% ↓ • | | 8,181 | 7,335 | 11.5% ↑ | 9.2% 个 • |
| | | 91.0 | 83.0 | 9.7% ↑ | 1.2% 个 • |
| | | 13.0 | 15.4 | -16.1% ↓ | -10.7% ↓ • |

- Q4 2022 to Q1 2023 % change greater than estimation in our Q4 2022 report
- Q4 2022 to Q1 2023 % change less than estimation in our Q4 2022 report

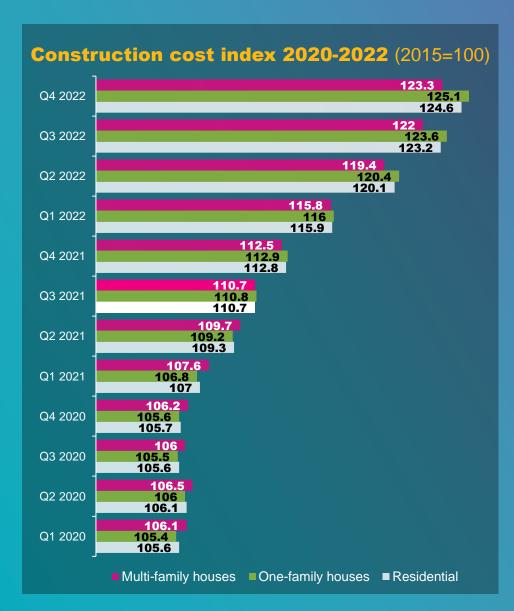
Welded mesh: 250 x 215cm, dia.-6mm Plasterboard: 240 x 90 x 1.3cm (L x W x T)

| | Material | % change Q1 – Q2 2023 (f) | Level of im | npact of pricing on construction procurement and supply chain * |
|------|---|----------------------------------|------------------|--|
| | Copper | +1.0% ↑ | o 0 | Following a 6% rise in January 2023 compared to the previous month, copper prices have risen to the highest levels since Q2 2022, reflecting renewed upward pressure from China's re-opening. Although prices in Denmark retracted slightly in March, the average price in Q1 2023 was 6.2% higher than average prices in the previous quarter. Strong underlying demand and supply-side fragility will keep prices volatile over the coming quarters. |
| | Steel prices - Steel rebar - Flat steel | -0.5% ↓ -0.5% ↓ | • 0 0 0 0 Low | Steel prices in Denmark faced some resurgence in February 2023 following nine consecutive months of decline. However, prices remain around 30% below highs reached in April 2022 and further upward pressure is expected to be limited due to weaker demand. |
| | Stainless sto | eel +1.5% ↑ | •0000 Low | Although demand for stainless steel has weakened amid slowing economic growth and subdued construction activity in recent months, the price of stainless steel continues to edge upward owing to an increase in the price of alloying materials such as nickel, which is expected to remain high due to volatile global supplies. An increase in the supply of low-cost nickel from Asia could ease supply-side pressures and help bring prices down. |
| | Lumber | +0.5% ↑ | •0000 Low | Prices have been stable in recent quarters but have remained relatively high compared to historical levels due to supply disruptions stemming from the Russia-Ukraine conflict. Prices are expected to remain stable over the coming quarters as weakness in the construction sector will offset disruptions on the supply side. |
| A | Asphalt | +1.5% ↑ | •0000 Low | Although asphalt prices remain elevated, the stabilization of crude oil prices and weakening demand has eased further upward pressure on prices in recent quarters. However, price volatility is expected to increase over the coming quarters, due to uncertainty over global supplies. |
| 000° | Limestone | -1.0% ↓ | •0000 Low | Limestone prices have retracted from Q2 2022 highs but remain elevated compared to historical levels. Prices are expected to remain stable over the coming quarters as production cuts by domestic producers will offset weaker demand from the construction industry. |



Denmark – Commodity Report





| | Material | % change Q1 – Q2 2023 (f) | Level of in | npact of pricing on construction procurement and supply chain * |
|---|--------------------|------------------------------|---------------|--|
| | Cement Concrete | +0.5% ተ +1.0% ተ | o | Cement and concrete prices have continued to edge upward in recent quarters following the initial spike in prices as a result of high energy costs. Prices rose by 2.1% quarter-on-quarter in Q1 2023, marking a continuation of the upward trend. Price hikes and production cuts by producers are expected to keep prices elevated but weak demand will limit further upward pressure. |
| | Welded mes | sh -1.0% ↓ | •0000 Low | The decline in steel rebar prices from mid-2022 highs has significantly eased pressure on welded mesh prices, which dropped by around 20% quarter-on-quarter in Q1 2023. Weak demand from the construction industry and greater availability of cheap steel imports will also keep prices relatively low in the coming quarters. |
| 盘 | Bricks | +1.0% ↑ | •0000 Low | Brick prices have continued to edge upwards in recent quarters despite the reduction in energy costs and falling demand from the construction sector. In large part, this reflects the higher production costs faced by producers in 2022. Prices are expected to remain elevated in the coming quarters before beginning to normalize. |
| | Plasterboar | d -1.9% ↓ | o 0 ● | Plasterboard prices have risen sharply over the past year. However, price pressure will be contained going forward by weakening demand in the construction sector. |
| | Diesel | -2.1% ↓ | • 0 0 0 0 low | Diesel prices in Denmark have recorded steady consecutive month-on- month declines since October 2022, owing to falling crude oil prices and weakening demand. Prices in February fell by 5.6% MoM, followed by a |

further 2% decline in March. However, growing uncertainty over global

prices over the coming months and price volatility is likely to increase.

crude oil supplies is expected to limit further downward pressure on

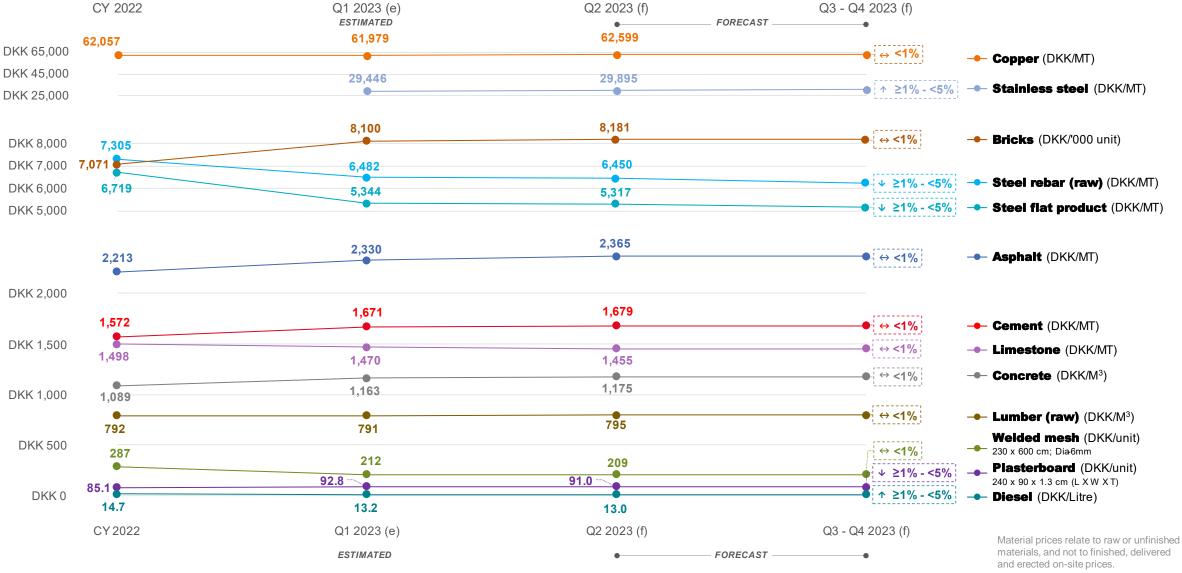
Level of impact rating reflects a combination of factors: the price movement and also price level (compared to recent past beyond the last quarter), the importance of the material, and general state of the supply chain in terms of stability.

Please note that commodity prices are based on representative materials available in the respective countries, and as these materials may not be standard across all markets, cross-country comparisons on prices can be ineffective. For example, asphalt types can vary between hot, cold or a bitumen price, and standard unit sizes for materials can vary across countries.



Denmark – Construction Materials Pricing (2022-2023)







Denmark – Macroeconomic overview



Economic indicators



0.10%

GDP growth in 2023 (f) and **3.62%** in 2022



4.8%

inflation rate in 2023 (f) and **8.53%** for 2022



2.96M

people employed in 2023 (f) and **2.98M** in 2022



5.10%

unemployment rate for 2023 (f) and **4.47%** in 2022



117.30

Consumer Price Index in Mar 2023 and 109.90 in Mar 2022



149.60

Producer Price Index in Feb 2023 and **143.30** in Feb 2022

National holidays



11 public holidays

in Denmark in 2023.

Energy prices

Electricity prices for non-household consumers, consumption < 20 MWh (€ per kWh)



Note: All taxes and levies included

Denmark – Construction overview



Output 2022 and 2023 (in DKK millions)*

| Sector | Total 2022 | Total 2023 (f) | Total 2024 (f) | | |
|----------------------|---------------|-------------------|-------------------|--|--|
| Commercial | 62,366 | 59,430 | 57,725 | | |
| Energy and utilities | 46,421 | 47,810 | 48,585 | | |
| Industrial | 17,175 | 16,778 | 16,205 | | |
| Infrastructure | 49,301 | 49,634 | 49,690 | | |
| Institutional | 11,056 | 10,750 | 10,373 | | |
| Residential | 152,038 | 139,423 | 134,059 | | |

^{*}The output is in real terms at constant prices with 2017 as base year

Long lead equipment (LLE) - Supply Chain Overview

2022 was a turbulent year for the global supply chain with the fallout from the global pandemic combined with the emergence of the Russia-Ukraine conflict, leading to supply chain disruptions across the globe. However, 2023 is showing signs of relief in the market for long lead equipment (LLE). The following are the specifics of the LLE supply chain dynamic:

- 1. **Demand**: Demand for LLE has remained exceptionally high across all regions and industry sectors. Organizations have moved to expand their supply chain portfolios and include secondary and tertiary suppliers, whilst most are continuing to invest in inventory management systems to prevent any supply chain disruptions. There is no sign of reduced demand, so the constraints to the supply chain will continue for the remainder of 2023.
- 2. Supply: The stock levels of raw materials have finally started to stabilise, alleviating some recent pressures on manufacturers and suppliers. However, it is worth noting that most LLE suppliers have reported being at operational capacity, with order books full up to Q3 2024, which may cause some concern for those relying on their products. Nevertheless, there is some hope as Tier 2 and Tier 3 supply chains have started to increase their capacity and support the larger demand within the market, which may help to mitigate any negative impact of capacity restrictions.
- 3. Freight durations and costs: Freight durations have begun to shorten in early 2023 as the global infrastructure and operations have developed to meet the rising demand and freight companies are shipping much faster than they did during the pandemic. Average freight costs have also reduced to align with pre-pandemic levels suggesting a return to normality within the industry. The benefits have been experienced in early 2023 and further reductions are expected throughout the rest of 2023.



Denmark – Report methodology



Linesight has commissioned independent global research to track construction materials and commodity prices.

The approach and methodology for the collection of construction material pricing and other indicators is based on primary and secondary research.

Primary and secondary research

Primary research is conducted on a quarterly basis with stakeholders in the value chain, including manufacturers and suppliers/distributors of the target materials, to ascertain market information on prices in recent quarters, and also on projections for changes in the coming quarter and remainder of the year. The market analysis also involves a thorough assessment of secondary sources of data on materials and labour prices, in addition to underlying demand and supply trends that will impact market prices.

Sources include GlobalData's Construction Intelligence Center (CIC), the World Bank, IMF, OECD, as well as country specific national statistics offices, such as the U.S. Bureau of Economic Analysis, Bureau of Labor Statistics, and also industry specific associations and publications.

Definitions

- · Commodity prices are net of taxes for all the countries
- Prices are not customer delivered
- All commodities are raw materials
- Nominal and real data

Nominal data series do not exclude changes in prices and are also referred to as current prices series.

Annual changes in nominal data for construction output will include changes in construction activity, as well as changes in costs for materials and equipment.

Real data series are calculated by keeping prices constant (so, are also referred to as constant price series), and therefore, they reflect changes in activity only. Growth rates in nominal terms can overstate the pace of growth in construction activity if there is high inflation stemming from rising prices for key inputs.

Sample sources – Denmark

For Denmark, sources for this report include, but are not limited to:

- IMF
- Statistics Denmark
- Nationalbanken
- GlobalData's Construction Intelligence Center (CIC)
- European Commission
- Economic Research Institute
- Public Holidays
- Eurostat
- Trading Economics







Finland Q1 2023

Finland's economy grew by 2.1% in 2022, but it is expected to contract by 0.2% in 2023, according to the latest Bank of Finland update, with the IMF expecting almost no growth this year. The expected slowdown is attributed to elevated inflation rates, a reduction in exports, the energy crisis exacerbated by Russia-Ukraine conflict and the surge in the cost of living. However, growth will return to 1.1% as the global economic outlook improves. Though inflation is expected to fall to 5.3% this year from 7.2% in 2022, underlying inflation, excluding food and energy, continues to rise, indicating that despite a reduction in energy prices, higher production costs are still being reflected in end-user pricing.

In 2022, the Finnish construction industry grew by 0.7%, but it is expected to contract by 3% in real terms in 2023. Rising construction costs and liquidity issues for ongoing projects are weighing on the industry. However, due to the government's investments in transport and renewable energy, an annual average growth rate of 1.9% is expected from 2024 to 2027. The institutional sector in real estate is a bright spot, expected to grow at around a 2% annual rate in 2023, supported by public and private investment plans in healthcare and education projects.



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Senior Director – Europe
damien.gallogly@linesight.com



Lumber

Due to the popularity of wood products in Finland's construction industry, strong underlying demand will limit downward pressure on lumber prices. Despite slowing levels of activity in the construction sector amid deteriorating economic conditions, the availability of wood will play a key role in sustaining activity in the sector. Global supply-side disruption has caused some volatility in prices over the past year despite domestic production being able to meet domestic demand. Greater external demand for Finnish lumber to fill the global supply gap will increase pressure on Finland's domestic supply.



Cement and aggregates

The price of ready-mixed concrete soared in Q1 2023, while cement prices continue to edge upwards despite the easing of energy costs. This reflects price hikes and production cuts by domestic producers which are trying to recover losses from 2022. However, over the longer term, growing popularity of recycled materials will help to bring prices down.



Concrete blocks and bricks

Following the easing of energy costs which factored heavily in the rise in brick prices in the second half of 2022. Prices are on a downward trend due to a fall in demand for housing and low confidence among investors and developers. However, prices remain elevated compared to 2021 levels and could see some resurgence once demand picks up again.



Steel (rebar and structural)

Finland has been in a precarious position over the last year due to its reliance on imported Russian steel. However, with weakening demand combined with an increase in exports from China, prices have been declining and stand at 30% below Q2 2022 levels. Plans by the Finnish government to develop transport infrastructure over the coming years, however, will spur demand and renew upward pressure on prices.



Copper

Copper prices have been volatile over the past year and price fluctuations are expected to continue over the coming quarters due to uncertainty over global supplies, the performance of the global economy and strong underlying demand amid the green transition. The recent spike in global copper prices in Q1 2023 resulted from the increase in demand from China following the reopening of its economy from its "zero-Covid" policy.



Finland – Commodity Report



| | Q2 2023 (f) | Q2 2022 | – Q2 2023 (f) | Q4 2022 - Q1 2023 (e) |
|--------------------------------|-------------|---------|----------------|--------------------------|
| | | | 2022-23 | |
| Materials | € | € | % change | % change |
| Copper (€/MT) | 8,337 | 8,942 | -6.8% ↓ | 3.6% ↑ • |
| Steel rebar (€/MT) | 820 | 1,223 | -33.0% ↓ | -6.6% ↓ • |
| Steel flat (€/MT) | 918 | 1,102 | -16.7% ↓ | 3.3% 个 • |
| Stainless steel (€/MT) | 4,014 | NA | NA | 3.7% 个 • |
| Lumber (€/M3) | 73.8 | 67.0 | 10.2% 个 | 2.6% 个 • |
| Asphalt (€/MT) | 72.7 | 79.8 | -9.0% ↓ | -4.8% ↓ • |
| Limestone (€/MT) | 62.7 | 56.2 | 11.6% ↑ | 7.1% ↑ • |
| Cement (€/MT) | 300 | 288 | 4.4% 个 | 0.9% ↑ ■ |
| Concrete (€/M3) | 163 | 139 | 17.5% 个 | 7.7% ↑ • |
| Welded mesh (€/unit) | 81.3 | 107.5 | -24.4% ↓ | -6.6% ↓ • |
| Bricks (€/'000 unit) | 783 | 803 | -2.5% ↓ | -3.4% ↓ • |
| Plasterboard (€/unit) | 17.8 | 12.3 | 45.3% 个 | 20.2% ↑ • |
| Diesel (€/litre) | 2.00 | 2.27 | -12.1% ↓ | -4.8% ↓ ● |
| (f) Forecast (e) Est | timated | | | |

- Q4 2022 to Q1 2023 % change greater than estimation in our Q4 2022 report
- Q4 2022 to Q1 2022 % change less than estimation in our Q4 2022 report

Welded mesh: 235 x 500cm, dia.-8mm Plasterboard: 120 x 240 x 1.3cm (L x W x T)

| | Material Q | % change 1 – Q2 2023 (f) | Level of in | npact of pricing on construction procurement and supply chain * |
|------|---|-----------------------------|--------------|--|
| | Copper | +0.2% ↑ | •0000 Low | Increasing demand from China following the re-opening of its economy has renewed upward pressure on copper prices. Prices jumped by around 6% in January 2023 compared to the previous month and remain elevated compared to Q4 2022 despite a slight easing of prices in February and March. Prices are expected to remain volatile over the medium term. |
| B | Steel prices - Steel rebar - Flat steel | -1.0% ↓ -0.5% ↓ | •0000 Low | Steel prices in Finland have been in decline in recent quarters owing to weak demand amid falling levels of economic and construction activity. Rebar prices in January 2023 were over 30% lower than the highs of Q2 2022 but rose marginally in February. Flat steel, however, has remained relatively stable at around €900/Ton since falling from highs of €1,254/Ton in April 2022. |
| | Stainless stee | ┨ +1.5% 个 | • 0 OO O | Stainless steel prices are expected to continue to edge upward over the coming quarters as a result of high prices for raw materials used in the alloying process. Weak demand for steel from the construction sector amid slowing economic growth will limit rapid price hikes in the short-to-medium term. |
| | Lumber | +1.5% ↑ | •0000 Low | Lumber prices have been relatively stable at high levels in recent quarters, despite falling demand from the construction sector. Global supply issues amid the Russia-Ukraine conflict have increased external demand for Finnish lumber, while the popularity of wood as a construction material in Finland has helped sustain underlying demand for domestic supplies. |
| A | Asphalt | +2.0% 个 | •0000 Low | Stabilizing crude oil prices have eased further upward pressure on asphalt prices in recent quarters. Weaker demand amid slowing economic growth has caused prices to decline in the previous two quarters. Price volatility is expected to increase over the coming quarters, however, due to uncertainty over supplies from OPEC+. |
| 0000 | Limestone | +2.0% ↑ | •0000 Low | Limestone prices were pushed up by high energy and transportation costs in Q2 2022 and have remained elevated in the following quarters. In the second half of 2022, prices were stable at around €57/MT but have since |

easing of energy prices.

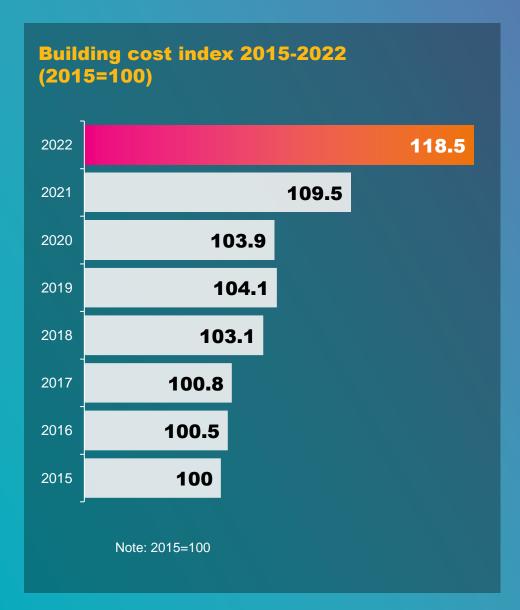
increased by 7.1% quarter-on-quarter in Q1 2023, reflecting supply cuts

and price increases by domestic producers recuperating profits amidst the

Finland Country Report Q1 2023 - Commodities

Finland - Commodity Report





| Material | % change Q1 – Q2 2023 (f) | Level of in | npact of pricing on construction procurement and supply chain * |
|--------------------|------------------------------|---------------------|--|
| Cement Concrete | +1.0% | o Ū Ū Ū Moderate | High energy and transportation costs have impacted on supplies, putting upward pressure on prices in the second half of 2022. Prices are continuing to edge upwards due to low production and price hikes by domestic producers. Ready-mixed concrete recorded the sharpest increase among cement and concrete products in Q1 2023, rising by an estimated 8% compared to Q4 2022. |
| Welded mes | h -2.0% ↓ | •0000 Low | Declining steel rebar prices are expected to cause mesh prices in Finland to fall over the coming quarters. Weak demand amid falling levels of construction activity, coupled with an influx of cheaper imports is limiting price elevation. Supply-side uncertainty over the medium term will limit downward pressure beyond Q3 2023. |
| Bricks | -0.5% ↓ | •0000 Low | Brick prices in Finland have been in decline in recent quarters as energy and transportation costs have eased following the highs of mid-2022. Weak demand from the construction industry has forced domestic producers to reduce prices, which are expected to continue to weaken over the coming quarters. |
| Plasterboard | i +5.0% 个 | •0000 Low | Plasterboard prices in Finland rose sharply by 20% quarter-on-quarter in Q1 2023, following quarter-on-quarter growth of 13% in Q4. Building construction activity has slowed, but producers have still been able to pass on the higher energy costs that have fed into production. The easing of energy prices will limit the further acceleration of prices in the coming quarters, which are expected to lose momentum and stabilise. |
| Diesel | -1.5% ↓ | •0000 Low | Diesel prices have fallen back from highs reached in mid-2022 and have maintained a downward trend in recent months, aided by falling crude oil prices. Prices in March dipped below €2/litre for the first time in a year. |

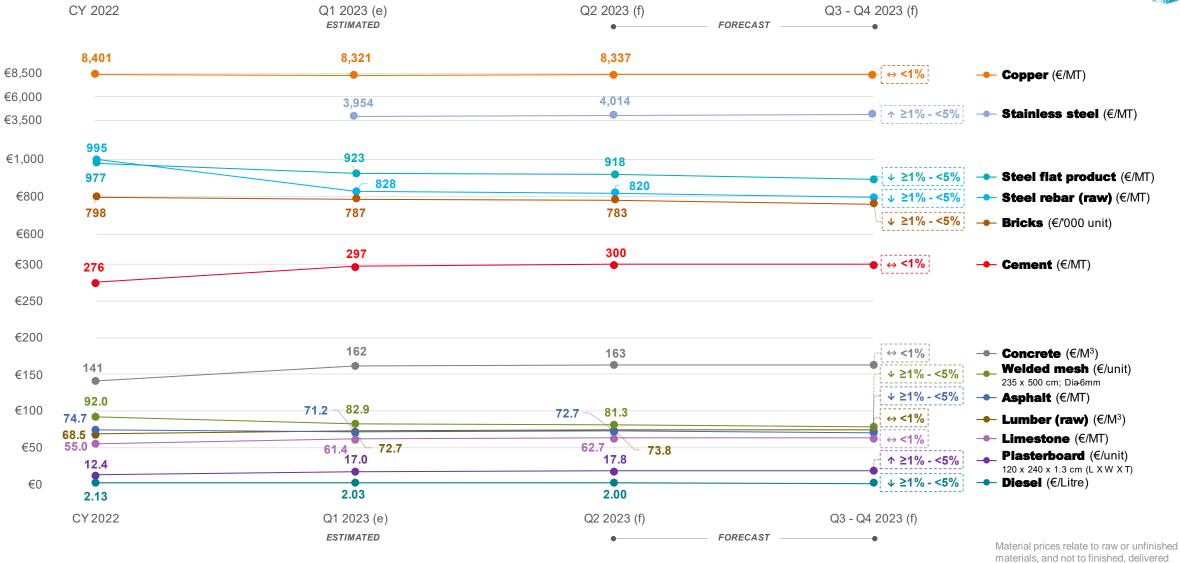
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Finland – Construction Materials Pricing (2022-2023)







Finland - Macroeconomic overview



Economic indicators



0.05%

GDP growth in 2023 (f) and **2.08%** in 2022



5.30%

inflation rate in 2023 (f) and 7.17% for 2022



2.62M

people employed in 2023 (f) and **2.62M** in 2022



7.47%

unemployment rate for 2023 (f) and **6.78%** in 2022



119.75

Consumer Price Index in March 2023 and **110.95** in March 2022



134.20

Producer Price Index in March 2023 and **140.10** in March 2022

National holidays

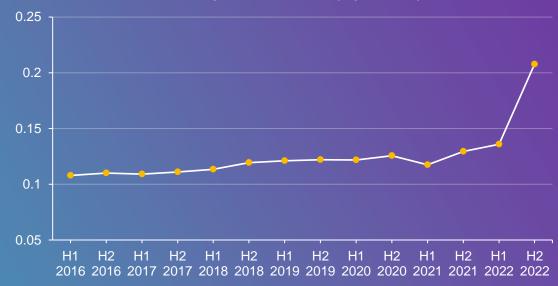


15 public holidays

in Finland in 2023.

Energy prices





Note: All taxes and levies included



Finland – Construction overview



Output 2022 and 2023 (in € millions)*

| Sector | Total 2022 | Total 2023 (f) | Total 2024 (f) | | |
|----------------------|---------------|-------------------|-------------------|--|--|
| Commercial | 8,810 | 8,166 | 8,409 | | |
| Energy and utilities | 4,656 | 4,760 | 4,882 | | |
| Industrial | 2,607 | 2,438 | 2,463 | | |
| Infrastructure | 6,458 | 6,635 | 6,775 | | |
| Institutional | 2,643 | 2,697 | 2,791 | | |
| Residential | 14,017 | 13,337 | 13,035 | | |

^{*}The output is in real terms at constant prices with 2017 as base year

Long lead equipment (LLE) - Supply Chain Overview

2022 was a turbulent year for the global supply chain with the fallout from the global pandemic combined with the emergence of the Russia-Ukraine conflict, leading to supply chain disruptions across the globe. However, 2023 is showing signs of relief in the market for long lead equipment (LLE). The following are the specifics of the LLE supply chain dynamic:

- 1. **Demand**: Demand for LLE has remained exceptionally high across all regions and industry sectors. Organizations have moved to expand their supply chain portfolios and include secondary and tertiary suppliers, whilst most are continuing to invest in inventory management systems to prevent any supply chain disruptions. There is no sign of reduced demand, so the constraints to the supply chain will continue for the remainder of 2023.
- 2. Supply: The stock levels of raw materials have finally started to stabilise, alleviating some recent pressures on manufacturers and suppliers. However, it is worth noting that most LLE suppliers have reported being at operational capacity, with order books full up to Q3 2024, which may cause some concern for those relying on their products. Nevertheless, there is some hope as Tier 2 and Tier 3 supply chains have started to increase their capacity and support the larger demand within the market, which may help to mitigate any negative impact of capacity restrictions.
- 3. Freight durations and costs: Freight durations have begun to shorten in early 2023 as the global infrastructure and operations have developed to meet the rising demand and freight companies are shipping much faster than they did during the pandemic. Average freight costs have also reduced to align with pre-pandemic levels suggesting a return to normality within the industry. The benefits have been experienced in early 2023 and further reductions are expected throughout the rest of 2023.

Construction Health and Safety practices and culture



23 deaths in the workplace reported in Finland in 2022

according to the Finnish Workers' Compensation Center, while in 2021 this number was 12.



Finland – Report methodology



Linesight has commissioned independent global research to track construction materials and commodity prices.

The approach and methodology for the collection of construction material pricing and other indicators is based on primary and secondary research.

Primary and secondary research

Primary research is conducted on a quarterly basis with stakeholders in the value chain, including manufacturers and suppliers/distributors of the target materials, to ascertain market information on prices in recent quarters, and also on projections for changes in the coming quarter and remainder of the year. The market analysis also involves a thorough assessment of secondary sources of data on materials and labour prices, in addition to underlying demand and supply trends that will impact market prices.

Sources include GlobalData's Construction Intelligence Center (CIC), the World Bank, IMF, OECD, as well as country specific national statistics offices, such as the U.S. Bureau of Economic Analysis, Bureau of Labor Statistics, and also industry specific associations and publications.

Definitions

- · Commodity prices are net of taxes for all the countries
- Prices are not customer delivered
- All commodities are raw materials
- Nominal and real data

Nominal data series do not exclude changes in prices and are also referred to as current prices series.

Annual changes in nominal data for construction output will include changes in construction activity, as well as changes in costs for materials and equipment.

Real data series are calculated by keeping prices constant (so, are also referred to as constant price series), and therefore, they reflect changes in activity only. Growth rates in nominal terms can overstate the pace of growth in construction activity if there is high inflation stemming from rising prices for key inputs.

Sample sources – Finland

For Finland, sources for this report include, but are not limited to:

- IMF
- · Statistics Finland
- Finnish Institute of Occupational Health (FIOH)
- GlobalData's Construction Intelligence Center (CIC)
- · Conference-board.org
- Economic Research Institute
- Public Holidays
- Eurostat







France Q1 2023

French GDP grew by 2.6% in 2022 but the growth is expected to slow to 0.7% in 2023, following weak economic performance in the second half of last year. However, business sentiment has improved as supply chain challenges and inflationary pressures have eased, with headline inflation falling to 5.6% in March from 6.3% in February 2023..

France's construction industry is expected to shrink by 0.6% in 2023. However, the industry is expected to rebound in 2024, driven by investments in transport and renewable energy infrastructure projects. While other real estate sectors face challenges, niche sectors, such as data centres and research facilities, are expected to maintain the growth momentum.



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Lumber

In the short term, weaker demand will limit further upward pressure on lumber prices, which edged upward in recent quarters following a decline from mid-2022 highs. Demand will remain strong assisted by a recent law passed in 2020, requiring developers for half of materials to be wood in the construction of public buildings. Furthermore, new buildings for the 2024 Summer Olympics (measuring eight stories or less) are required to be made entirely from wood.



Cement and aggregates

Concrete and cement prices were driven up in the second half of 2022 by high production costs owing to the sharp rise in energy costs. Weakening demand and easing energy costs have since caused prices to retract from mid-2022 highs. Nevertheless, due to a time lag in reflecting price changes in these commodities, prices are expected to remain elevated for some time. Weakening demand from France's residential and commercial construction sectors, which are both set to contract in 2023, will limit further upward pressure on prices in 2023 which are expected to gradually fall.



Concrete blocks and bricks

Rising production costs were the primary driver of high brick prices throughout the second half of 2022. Falling energy prices and weakening levels of construction activity in the residential and commercial sectors will limit further upward pressure on brick prices over the coming quarters, but prices are likely to be sticky over short to medium term.



Steel (rebar and structural)

Domestic steel prices have remained high in recent quarters despite the global steel market cooling after reaching record highs in mid-2022, largely due to production cuts. Increasing use of competitively priced imported steel is likely to ease pressure on prices over the coming quarters, but prices are expected to remain relatively high as global steel demand strengthens. Moreover, France's large pipeline of rail projects and infrastructure spending commitments will keep steel demand high over the medium to long term.



Copper

Copper prices continued on an upward trend in early 2023, reflecting trends on the London Metal Exchange (LME). Following a sharp jump in January owing largely to a rebound in demand from China, copper prices retracted in March, exemplifying the volatility in the copper market. Prices are expected to remain volatile over the coming quarters, with strong underlying demand stemming from net-zero commitments likely to sustain upward pressure on prices over the long term.



France – Commodity Report



| | Q2 2023 (f) | Q2 2022 | – Q2 2023 (f) | Q4 2022 - Q1 2023 (e |
|---------------------------|-------------|---------|---------------------|-------------------------|
| Materials | € | € | 2022-23 % change | % change |
| Copper (€/MT) | 8,736 | 9,173 | -4.8% ↓ | 7.0% 个 |
| Steel rebar (€/MT) | 727 | 880 | -17.4% ↓ | -2.0% ↓ |
| Steel flat (€/MT) | 825 | 901 | -8.4% ↓ | 0.9% 个 |
| Stainless steel (€/MT) | 4,082 | NA | NA | 4.4% ↑ |
| Lumber (€/M³) | 102 | 100 | 2.0% 个 | 0.8% 个 |
| Asphalt (€/MT) | 84.1 | 86.0 | -2.2% ↓ | 1.6% ↑ |
| Limestone (€/MT) | 59.7 | 52.0 | 14.7% 个 | 10.0% ↑ |
| Cement (€/MT) | 196 | 163 | 20.5% ↑ | 10.1% ↑ |
| Concrete (€/M³) | 175 | 145 | 20.9% 个 | 10.1% ↑ |
| Welded mesh (€/unit) | 146 | 169 | -13.4% ↓ | -2.0% ↓ |
| Bricks (€/'000 unit) | 1,106 | 900 | 22.8% 个 | 0.0% ↔ |
| Plasterboard (€/unit) | 3.74 | 3.00 | 24.6% ↑ | 17.6% ↑ |
| Diesel (€/litre) | 1.93 | 1.96 | -1.64% ↓ | 2.5% ↑ |
| (f) Forecast (e) Est | timated | | | |

Welded mesh: 240 x 600cm, dia.-7mm Plasterboard: 250 x 120 x 1.3cm (L x W x T)

| | Material | % change Q1 – Q2 2023 (f) | Level of im | spact of pricing on construction procurement and supply chain * |
|------|---|------------------------------|------------------|--|
| | Copper | +1.0% | oOOD High | Copper prices jumped in mid-January 2023 owing to the sudden increase in demand from China, which has renewed upward pressure on copper prices following a period of relative price stability in Q3 and Q4 2022. The re-opening of China's economy following the end of its "Zero Covid" Policy has significantly increased pressure on global supplies, leading to increased copper prices in France as well as globally. |
| | Steel prices - Steel rebar - Flat steel | +0.5% 个 +1.0% 个 | o | Steel prices have been in decline since June 2022, and are expected to stabilise over the coming quarters. Despite falling demand, prices however rose by 8.6% in March compared to February, driven by increase in prices by the domestic producers. However, falling demand is expected to sustain downward pressure on prices. |
| | Stainless st | eel +1.0% ↑ | •0000 Low | Despite subdued demand for stainless steel limiting further significant upward pressure on prices in the short term, high prices for key raw materials used for alloying will keep prices high over the coming quarters. Owing to the expectation of rising raw material prices, stainless steel prices remain on a long-term upward trend. |
| | Lumber | +0.5% ↑ | •QQQ Low | Lumber prices had eased from the highs of mid-2022 but have since begun to edge upward in Q1 2023. Despite subdued demand from the construction sector, supply-side issues continue to weigh on the lumber market in France. However, slowing growth in the construction sector will limit upward pressure on prices, which are expected to remain around current levels over the coming quarters. |
| A | Asphalt | +2.0% ↑ | • 0 0 0 0 Low | Asphalt prices have stabilised in recent quarters, owing primarily to stable crude oil prices. However, industrial action by energy workers in response to the French government's pension reform is expected to hit the volume of crude oil imports in France over the coming months. This could lead to asphalt shortages which will exert upward pressure on prices. |
| 0000 | Limestone | -0.5% ↓ | •0000 Low | Although limestone prices have edged upward in recent quarters owing to production costs, an increase in supply and relatively weak demand have caused prices to stabilise in recent months. Prices are expected to fall marginally but remain high compared to historical levels over the |

| m | pact of pricing on construction procurement and supply chain * |
|---|--|
| | Copper prices jumped in mid-January 2023 owing to the sudden increase in demand from China, which has renewed upward pressure on copper prices following a period of relative price stability in Q3 and Q4 2022. The re-opening of China's economy following the end of its "Zero Covid" Policy has significantly increased pressure on global supplies, leading to increased copper prices in France as well as globally. |
| | Steel prices have been in decline since June 2022, and are expected to stabilise over the coming quarters. Despite falling demand, prices however rose by 8.6% in March compared to February, driven by increase in prices by the domestic producers. However, falling demand is expected to sustain downward pressure on prices. |
| | Despite subdued demand for stainless steel limiting further significant upward pressure on prices in the short term, high prices for key raw materials used for alloying will keep prices high over the coming quarters. Owing to the expectation of rising raw material prices, stainless steel prices remain on a long-term upward trend. |
| | Lumber prices had eased from the highs of mid-2022 but have since begun to edge upward in Q1 2023. Despite subdued demand from the construction sector, supply-side issues continue to weigh on the lumber market in France. However, slowing growth in the construction sector will limit upward pressure on prices, which are expected to remain around current levels over the coming quarters. |
| | Asphalt prices have stabilised in recent quarters, owing primarily to stable crude oil prices. However, industrial action by energy workers in response to the French government's pension reform is expected to hit the volume of crude oil imports in France over the coming months. This could lead to asphalt shortages which will exert upward pressure on prices. |
| | Although limestone prices have edged upward in recent quarters owing |

coming quarters.

France - Commodity Report



| Cost o (2010= | f Construction Index :100) | (CCI | l) 201 | 9-2022 |
|------------------|-------------------------------|------|---------------|--------|
| Q4 2022 | | | | 2,052 |
| Q3 2022 | | | 2 | 2,037 |
| Q2 2022 | | | 1,966 | |
| Q1 2022 | | 1, | 948 | |
| Q4 2021 | 1 | ,886 | | |
| Q3 2021 | 1 | ,886 | | |
| Q2 2021 | 1,821 | | | |
| Q1 2021 | 1,822 | | | |
| Q4 2020 | 1,795 | | | |
| Q3 2020 | 1,765 | | | |
| Q2 2020 | 1,753 | | | |
| Q1 2020 | 1,770 | | | |
| Q4 2019 | 1,769 | | | |
| Q3 2019 | 1,746 | | | |
| Q2 2019 | 1,746 | | | |
| Q1 2019 | 1,728 | | | |

| | Material | % change Q1 – Q2 2023 (f) | Level of in | npact of pricing on construction procurement and supply chain * |
|---|--------------------|------------------------------|---------------------|--|
| | Cement Concrete | +1.0% ተ +1.0% ተ | o D D D High | High energy and raw materials costs caused prices to rise rapidly in mid- 2022 as producers passed on higher prices to consumers. Despite input costs decreasing in recent months, the same has not been reflected in the selling prices. However, in coming quarters prices are expected to gradually fall. |
| | Welded mes | h +0.5% 个 | o | The price of welded mesh is expected to remain elevated in the short-term owing to high rebar prices. Prices are likely to begin to decline beyond Q3 2023. |
| 盘 | Bricks | +0.5% ↑ | o 0 📗 🗎 Moderate | Despite the decline in energy prices, the prices for bricks remained high at the start of the year and the trend continued throughout the first quarter. The prices are expected to steadily decline but remain elevated over the coming quarters. |
| | Plasterboard | d +0.5% ↑ | o 0 📗 Moderate | Plasterboard prices rose sharply in Q1 2023, with prices standing around 17% higher than in Q2 2022. This has largely been due to high production costs stemming from high energy costs. Over the coming months, the easing of energy prices will limit further upward pressure on plasterboard prices, which are expected to remain elevated. |
| | Diesel | +2.0% ↑ | • 0 0 0 0 Low | Diesel prices have retracted slightly from mid-2022 highs amid the easing of crude oil prices and have been stable in recent months. Diesel prices in Q1 2023 were 3.4% lower than in Q2 2022 on average. However, risks to supplies stemming from striking energy sector workers and global oil production cuts are likely to put upward pressure on diesel prices over |

the coming quarters, which are expected to be volatile.

Level of impact rating reflects a combination of factors: the price movement and also price level (compared to recent past beyond the last quarter), the importance of the material, and general state of the supply chain in terms of stability.
Please note that commodity prices are based on representative materials available in the respective countries, and as these materials may not be standard across all markets, cross-country comparisons on prices can be ineffective. For example, asphalt types can vary between hot, cold or a bitumen price, and standard unit sizes for materials can vary across countries.



France – Construction Materials Pricing (2022-2023)





Please note that commodity prices are based on representative materials available in the respective countries, and as these materials may not be standard across all markets, cross-country comparisons on prices can be ineffective. For example, asphalt types can vary between hot, cold or a bitumen price, and standard unit sizes for materials can vary across countries.



France - Macroeconomic overview



Economic indicators



0.70%

GDP growth in 2023 (f) and **2.61%** in 2022



5.05%

inflation rate in 2023 (f) and **5.90%** for 2022



28.36M

people employed in 2023 (f) and 28.36M in 2022



7.36%

unemployment rate for 2023 (f) and **7.29%** in 2022



116.79

Consumer Price Index in March 2023 and **110.49** in March 2022



152.40

Producer Price Index in Feb 2023 and **135.00** in Feb 2022

National holidays

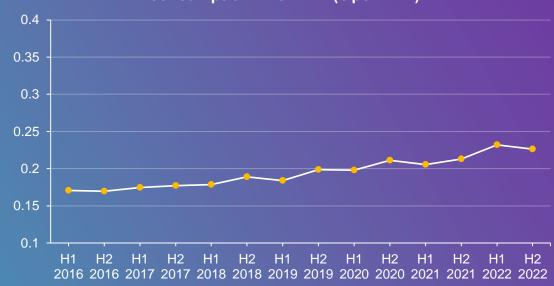


11 public holidays

in France in 2023.

Energy prices

Electricity prices for non-household consumers, consumption < 20 MWh (€ per kWh)



Note: All taxes and levies included



France – Construction overview



Output 2022 and 2023 (in € millions)*

| | • | | , |
|----------------------|---------------|-------------------|-------------------|
| Sector | Total 2022 | Total 2023 (f) | Total 2024 (f) |
| Commercial | 45,635 | 45,294 | 47,155 |
| Energy and Utilities | 24,018 | 24,149 | 24,615 |
| Industrial | 27,769 | 27,340 | 27,925 |
| Infrastructure | 56,537 | 56,907 | 57,408 |
| Institutional | 23,313 | 23,106 | 23,456 |
| Residential | 118,668 | 117,268 | 120,880 |

^{*}The output is in real terms at constant prices with 2017 as base year

Long lead equipment (LLE) - Supply Chain Overview

2022 was a turbulent year for the global supply chain with the fallout from the global pandemic combined with the emergence of the Russia-Ukraine conflict, leading to supply chain disruptions across the globe. However, 2023 is showing signs of relief in the market for long lead equipment (LLE). The following are the specifics of the LLE supply chain dynamic:

- 1. **Demand**: Demand for LLE has remained exceptionally high across all regions and industry sectors. Organizations have moved to expand their supply chain portfolios and include secondary and tertiary suppliers, whilst most are continuing to invest in inventory management systems to prevent any supply chain disruptions. There is no sign of reduced demand, so the constraints to the supply chain will continue for the remainder of 2023.
- 2. Supply: The stock levels of raw materials have finally started to stabilise, alleviating some recent pressures on manufacturers and suppliers. However, it is worth noting that most LLE suppliers have reported being at operational capacity, with order books full up to Q3 2024, which may cause some concern for those relying on their products. Nevertheless, there is some hope as Tier 2 and Tier 3 supply chains have started to increase their capacity and support the larger demand within the market, which may help to mitigate any negative impact of capacity restrictions.
- 3. Freight durations and costs: Freight durations have begun to shorten in early 2023 as the global infrastructure and operations have developed to meet the rising demand and freight companies are shipping much faster than they did during the pandemic. Average freight costs have also reduced to align with pre-pandemic levels suggesting a return to normality within the industry. The benefits have been experienced in early 2023 and further reductions are expected throughout the rest of 2023.



France – Report methodology



Linesight has commissioned independent global research to track construction materials and commodity prices.

The approach and methodology for the collection of construction material pricing and other indicators is based on primary and secondary research.

Primary and secondary research

Primary research is conducted on a quarterly basis with stakeholders in the value chain, including manufacturers and suppliers/distributors of the target materials, to ascertain market information on prices in recent quarters, and also on projections for changes in the coming quarter and remainder of the year. The market analysis also involves a thorough assessment of secondary sources of data on materials and labour prices, in addition to underlying demand and supply trends that will impact market prices.

Sources include GlobalData's Construction Intelligence Centre (CIC), the World Bank, IMF, OECD, as well as country specific national statistics offices, such as the U.S. Bureau of Economic Analysis, Bureau of Labour Statistics, and also industry specific associations and publications.

Definitions

- Commodity prices are net of taxes for all the countries
- Prices are not customer delivered
- All commodities are raw materials
- Nominal and real data

Nominal data series do not exclude changes in prices and are also referred to as current prices series.

Annual changes in nominal data for construction output will include changes in construction activity, as well as changes in costs for materials and equipment.

Real data series are calculated by keeping prices constant (so, are also referred to as constant price series), and therefore, they reflect changes in activity only. Growth rates in nominal terms can overstate the pace of growth in construction activity if there is high inflation stemming from rising prices for key inputs.

Sample sources – France

For France, sources for this report include, but are not limited to:

- IMF
- Eurostat
- French National Institute of Statistics and Economic Studies (INSEE)
- GlobalData's Construction Intelligence Center (CIC)
- The Conference Board Total Economy Database™
- Economic Research Institute
- Public Holidays







Germany

Q1 2023

Despite facing challenges from rising inflation and supply chain disruptions, Germany registered an economic growth rate of 1.8% in 2022, supported by an improvement in energy prices and policy support to businesses and households. However, amid weak global outlook the economy is expected to contract by 0.1% in 2023. Nonetheless, according to the latest estimates by the IMF, Germany's GDP is projected to increase by 1.1% in 2024. Energy prices, which have been a major contributor to inflation, have now begun to fall, resulting in a drop in the Consumer Price Index to 7.4% in March 2023, after continuing highs in the first two months of 2023.

Germany's construction industry is expected to contract by 3.6% in real terms in 2023 due to higher material and energy prices, labour shortages, and monetary policy tightening. However, it is expected to regain momentum from 2024, aided by investments in transport, renewable energy, housing, and manufacturing projects. The government has set aside a budget of €28 billion, focusing on developing renewable energy sources. The main objective is for 80% of electricity production to be generated from renewable sources by 2030, with a further goal of climate neutrality targeted by 2045.



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Lumber

Germany's buildings construction industry has continued to weaken. However, for some key building materials, such as lumber, prices have been held at a relatively high-level. This is mostly due to squeezed supplies, made worse by bans on Russian imports contributing to the sustained high price points.



Cement and aggregates

Cement prices have recently risen, owing to key producers' ability to pass on higher production costs. Although Heidelberg Materials, a major German cement manufacturer, expects sales volume to increase, it is concerned that raw material and energy cost volatility will reduce operating profit.



Concrete blocks and bricks

Brick prices have rocketed in recent months, up by 30% in Q1 2023 compared to the same period in 2022. The trend has been primarily supply-side driven, given the weakness in demand in the construction industry.



Steel (rebar and structural)

Steel prices continued on a downward trend in early 2023, with prices falling sharply when compared to the highs of mid-2022. There could be some renewed upward pressure in the coming quarters given the prospect of constrained supplies and producers cut back on output.



Copper

Copper prices have picked up again on the back of expectations of improved demand in China and disruptions in supply stemming from instability in key producing markets in Latin America. The weak outlook for global economy will contain upward pressure, but demand will be bolstered by investment in energy transition projects.



Germany – Commodity Report



| | Q2 2023 (f) | Q2 2022 | – Q2 2023 (f) | Q4 2022 - Q1 2023 (e) |
|--------------------------------|-------------|---------|----------------|--------------------------|
| | | | 2022-23 | |
| Materials | € | € | % change | % change |
| Copper (€/MT) | 8,872 | 8,900 | -0.3% ↓ | 11.1% 个 • |
| Steel rebar (€/MT) | 538 | 626 | -14.0% ↓ | -10.2% ↓ • |
| Steel flat (€/MT) | 721 | 714 | 1.1% 个 | -8.0% ↓ • |
| Stainless steel (€/MT) | 3,943 | NA | NA | 3.0% ↑ • |
| Lumber (€/M³) | 132 | 114 | 15.6% 个 | 1.0% 个 • |
| Asphalt (€/MT) | 75.6 | 60.0 | 26.0% 个 | 0.6% ↑ ■ |
| Limestone (€/MT) | 40.1 | 35.7 | 12.4% 个 | 5.2% 个 • |
| Cement (€/MT) | 193 | 130 | 47.9% ↑ | 19.4% 个 • |
| Concrete (€/M³) | 213 | 168 | 27.2% 个 | 16.8% 个 • |
| Welded mesh (€/unit) | 65.0 | 75.6 | -14.0% ↓ | -10.2% ↓ • |
| Bricks (€/'000 unit) | 793 | 610 | 30.0% ↑ | 11.0% 个 • |
| Plasterboard (€/unit) | 3.61 | 2.89 | 25.0% 个 | 7.6% 个 • |
| Diesel (€/litre) | 1.80 | 1.78 | 0.8% 个 | -9.9% ↓ • |

| (f) Forecast (e) Estima | atod | |
|-------------------------|------|--|

[•] Q4 2022 to Q1 2023 % change greater than estimation in our Q4 2022 report

Welded mesh: 600 x 230cm, dia.-6mm Plasterboard: 200 x 60 x 1.25cm (L x W x T)

| | Material | % change - Q2 2023 (f) | Level of im | pact of pricing on construction procurement and supply chain * |
|---|---|---------------------------|---------------------------|---|
| | Copper | -0.71% ↓ | oOOO High | The quarterly average copper prices increased by more than 11% quarter-on-quarter in Q1 2023 owing to the tight supply and improving demand from China. Prices will remain elevated in the coming quarters, with demand bolstered by investment in energy transition projects. |
| | Steel prices - Steel rebar - Flat steel | -1.00% ↓ +0.50% ↑ | 00 I ∭ Moderate | Steel prices were still relatively low in early 2023, but have started to regain ground on the back of improving order books and constrained supplies owing to the import ban on Russian steel and limited production due to the energy crisis. However, generally weak domestic demand on account of sluggish performance of key steel end-user sectors is expected to contain growth in demand. |
| | Stainless steel | +2.00% ↑ | • O O O O | The price for stainless steel has continued on an upward trend, and a further increase is expected in the coming quarter owing to volatility in supply of nickel, given the economic sanctions placed on imports from Russia. |
| | Lumber | +1.00% ↑ | •OOO Low | Lumber prices have remained relatively high, with weak demand from the construction sector being offset by tight supply and ongoing disruptions stemming from the Russia-Ukraine conflict. |
| Ą | Asphalt | +1.00% ↑ | o 0 | Asphalt prices edged upwards in Q1 2023, despite relatively weak demand recently. However, with the government allocating €1.3 billion for federal road projects in the 2023 Budget, there is scope for a pick up in demand for asphalt, but as a portion of which will be met by recycled materials upward price pressure will be contained. |
| | Limestone | +0.80% ↑ | • [] [] Low | Although the overall buildings construction industry remains in decline, prices for materials including limestone have trended upwards reflecting ongoing upward pressure on production. |



[■] Q4 2022 to Q1 2023 % change less than estimation in our Q4 2022 report

Germany – Commodity Report





| Material (| % change Q1 – Q2 2023 (f) | Level of im | pact of pricing on construction procurement and supply chain * |
|--------------------|------------------------------|---|---|
| Cement Concrete | +1.00% ↑ +1.00% ↑ | o O O O O O O O O O O O O O O O O O O O | Cement and concrete prices have risen sharply in recent months, with prices for cement in February 2023 being 24% higher than in December last year and 52% up from levels in February last year. High gas and electricity prices continue to keep producer prices high, with major cement manufacturers passing on these costs to buyers. |
| Welded mesh | -1.00% ↓ | 00 📗 📗 Moderate | Welded mesh prices dropped by 10% in Q1 2023 compared to the average of Q4 last year. Local producers have been seeking to push up prices, but demand has been limited. |
| Bricks | +0.50% ↑ | o 0 📗 🗎 Moderate | Brick prices jumped by an estimated 11% in Q1 2023 compared to the average price in the previous quarter. Despite limited growth in demand, high production costs continue to beset manufacturers. |
| Plasterboard | +0.50% ↑ | o | Owing to high production costs, including energy and raw materials, plasterboard prices remain relatively high, rising by 7.6% on a quarterly average basis in Q1 2023. |
| Diesel | +1.00% ↑ | •0 OOD | Diesel prices have continued to fall in recent months, dropping below €1.70 per litre at the end of March, the lowest level since February last year and down from highs of €2.15 per litre in October. Weak domestic demand will contain upward price pressures, but the recent decision by OPEC+ to cut crude oil production could generate renewed price volatility in the short term. |

Level of impact rating reflects a combination of factors: the price movement and also price level (compared to recent past beyond the last quarter), the importance of the material, and general state of the supply chain in terms of stability.

Please note that commodity prices are based on representative materials available in the respective countries, and as these materials may not be standard across all markets, cross-country comparisons on prices can be ineffective. For example, asphalt types can vary between hot, cold or a bitumen price, and standard unit sizes for materials can vary across countries.



Germany – Construction Materials Pricing (2022-2023)





Please note that commodity prices are based on representative materials available in the respective countries, and as these materials may not be standard across all markets, cross-country comparisons on prices can be ineffective. For example, asphalt types can vary between hot, cold or a bitumen price, and standard unit sizes for materials can vary across countries.



Germany - Macroeconomic overview



Economic indicators



-0.11%

GDP growth in 2023 (f) and **1.77%** in 2022



6.19%

inflation rate in 2023 (f) and **8.66%** for 2022



42.44M

people employed in 2023 (f) and **42.41M** in 2022



3.27%

unemployment rate for 2023 (f) and **3.07%** in 2022



116.10

Consumer Price Index in Mar 2023 and **108.80** in Mar 2022



134.90

Wholesale Price Index in Feb 2023 and **132.50** in Feb 2022

National holidays



9 public holidays

in Germany in 2023.

Energy prices

Average electricity price for small to medium-sized industrial companies (cent per kWh)



Note: Included taxes

* Till Feb 2023

Germany – Construction overview



Output 2022 and 2023 (in € millions)*

| Output 2022 and 2020 (in a miniona) | | | | | |
|-------------------------------------|---------------|-------------------|-------------------|--|--|
| Sector | Total 2022 | Total 2023 (f) | Total 2024 (f) | | |
| Commercial | 49,093 | 48,309 | 48,920 | | |
| Energy and Utilities | 16,610 | 16,623 | 16,802 | | |
| Industrial | 18,275 | 18,329 | 18,562 | | |
| Infrastructure | 44,422 | 43,820 | 44,752 | | |
| Institutional | 19,699 | 19,266 | 19,354 | | |
| Residential | 153,902 | 144,672 | 148,413 | | |

^{*}The output is in real terms at constant prices with 2017 as base year

Long lead equipment (LLE) - Supply Chain Overview

2022 was a turbulent year for the global supply chain with the fallout from the global pandemic combined with the emergence of the Russia-Ukraine conflict, leading to supply chain disruptions across the globe. However, 2023 is showing signs of relief in the market for long lead equipment (LLE). The following are the specifics of the LLE supply chain dynamic:

- 1. **Demand**: Demand for LLE has remained exceptionally high across all regions and industry sectors. Organizations have moved to expand their supply chain portfolios and include secondary and tertiary suppliers, whilst most are continuing to invest in inventory management systems to prevent any supply chain disruptions. There is no sign of reduced demand, so the constraints to the supply chain will continue for the remainder of 2023.
- 2. Supply: The stock levels of raw materials have finally started to stabilise, alleviating some recent pressures on manufacturers and suppliers. However, it is worth noting that most LLE suppliers have reported being at operational capacity, with order books full up to Q3 2024, which may cause some concern for those relying on their products. Nevertheless, there is some hope as Tier 2 and Tier 3 supply chains have started to increase their capacity and support the larger demand within the market, which may help to mitigate any negative impact of capacity restrictions.
- 3. Freight durations and costs: Freight durations have begun to shorten in early 2023 as the global infrastructure and operations have developed to meet the rising demand and freight companies are shipping much faster than they did during the pandemic. Average freight costs have also reduced to align with pre-pandemic levels suggesting a return to normality within the industry. The benefits have been experienced in early 2023 and further reductions are expected throughout the rest of 2023.



Germany – Report methodology



Linesight has commissioned independent global research to track construction materials and commodity prices.

The approach and methodology for the collection of construction material pricing and other indicators is based on primary and secondary research.

Primary and secondary research

Primary research is conducted on a quarterly basis with stakeholders in the value chain, including manufacturers and suppliers/distributors of the target materials, to ascertain market information on prices in recent quarters, and also on projections for changes in the coming quarter and remainder of the year. The market analysis also involves a thorough assessment of secondary sources of data on materials and labour prices, in addition to underlying demand and supply trends that will impact market prices.

Sources include GlobalData's Construction Intelligence Center (CIC), the World Bank, IMF, OECD, as well as country specific national statistics offices, such as the U.S. Bureau of Economic Analysis, Bureau of Labor Statistics, and also industry specific associations and publications.

Definitions

- Commodity prices are net of taxes for all the countries
- Prices are not customer delivered
- All commodities are raw materials
- Nominal and real data

Nominal data series do not exclude changes in prices and are also referred to as current prices series.

Annual changes in nominal data for construction output will include changes in construction activity, as well as changes in costs for materials and equipment.

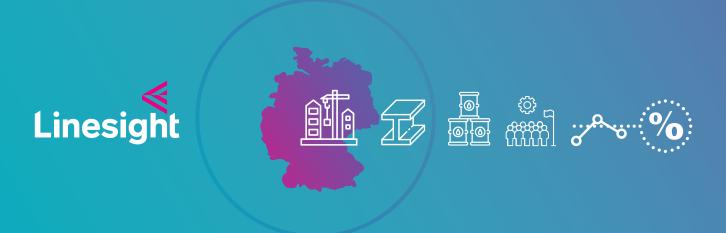
Real data series are calculated by keeping prices constant (so, are also referred to as constant price series), and therefore, they reflect changes in activity only. Growth rates in nominal terms can overstate the pace of growth in construction activity if there is high inflation stemming from rising prices for key inputs.

Sample sources – Germany

For Germany, sources for this report include, but are not limited to:

- IMF
- Destatis
- GlobalData's Construction Intelligence Center (CIC)
- BDEW Federal Association of Energy and Water Germany
- The Conference Board Total Economy Database™
- Economic Research Institute
- · Public Holidays
- Eurostat







Ireland Q1 2023

The latest updates from IMF show that Ireland's GDP is expected to grow by 5.6% in real terms, which is higher than the previous forecast made in autumn 2022. There was a strong 26% increase in investment growth in 2022, partially driven by multinationals. Although inflation pressures are easing, with a predicted inflation rate of 5% for 2023, compared to the average of 8.1% in the previous year, there is still a disparity between supply and demand that is expected to keep inflation elevated in 2023 and 2024.

The Irish construction industry is expected to contract by 4% in 2023, but to grow by 2% in real terms by 2024. Despite ongoing challenges such as a skilled labour shortages, elevated construction costs, and supply chain issues, the construction industry in Ireland is expected to grow in medium to long term as the economy grows, particularly in Dublin, Cork, and Galway. With government's emphasis on affordable housing development, the residential sector is expected to grow at a 4% annual rate in 2024. Mission-critical industries such as data centres and life sciences are expected to continue to expand.



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Lumber

Lumber prices have fallen from the highs of mid-2022 when supply disruptions caused prices to spike, and there are signs of stabilisation and possibly upwards price movements. A recent report from the Irish Farmer's Association highlighted ongoing concerns relating to forestry licensing issues.



Cement and aggregates

Although still high compared to early 2022, cement prices are expected to fall in the coming quarters assuming energy costs decline. However, a 5% levy on concrete products is still due to come into effect in September this year to fund the defective blocks scheme for redress for homeowners affected by mica.



Concrete blocks and bricks

High interest rates will contribute to the slowdown in the construction industry in the short term, which will contain any further upward pressure on brick prices. Energy costs are also expected to fall. Given the energy intensive nature of brick production, high energy costs in recent quarters has been a key factor driving up brick prices.



Steel (rebar and structural)

Steel prices will be on a general downward trend in the coming quarters given a combination of weaker demand in the construction industry and an expected easing in production costs pressures as energy prices fall from recent highs.



Copper

Reflecting trends on the London Metal Exchange (LME), copper prices continued on an upward trend in early 2023. However, a decline in March is indicative of a degree of volatility that can be expected in the coming quarters.



Ireland – Commodity Report



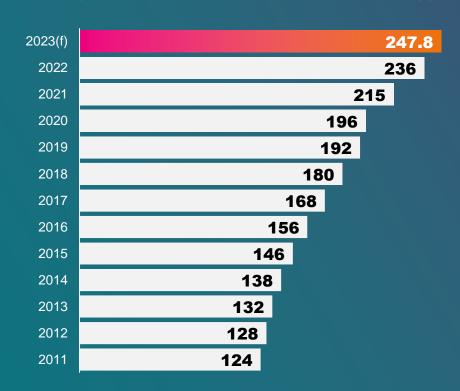
| | Q2 2023 (f) | Q2 2022 | – Q2 2023 (f) | Q4 2022 – Q1 2023 (e) | | | |
|---|----------------------------|---------|---------------|--------------------------|--|--|--|
| | | | 2022-23 | | | | |
| Materials | € | € | % change | % change | | | |
| Copper (€/MT) | 8,988 | 9,044 | -0.6% ↓ | 12.6% 个 • | | | |
| Steel rebar (€/MT) | 795 | 919 | -13.5% ↓ | -3.4% ↓ • | | | |
| Steel flat (€/MT) | 1,271 | 1,030 | 23.4% 个 | 8.7% 个 • | | | |
| Stainless stee (€/MT) | 3,044 | NA | NA | -2.9% ↓ • | | | |
| Lumber (€/M³) | 88.4 | 106.3 | -16.8% ↓ | -2.8% ↓ • | | | |
| Asphalt (€/MT) | 960 | 876 | 9.6% 个 | 0.7% 个 • | | | |
| Limestone (€/MT) | 94.0 | 91.4 | 2.9% 个 | 0.2% 个 ■ | | | |
| Cement (€/MT) | 273 | 235 | 16.1% ↑ | 2.5% 个 • | | | |
| Concrete (€/M³) | 91.0 | 78.2 | 16.4% 个 | 0.7% ↑ ■ | | | |
| Welded mesh (€/unit) | 53.8 | 62.2 | -13.5% ↓ | -8.8% ↓ • | | | |
| Bricks (€/'000 unit) | 878 | 802 | 9.5% 个 | 0.9% ↑ ■ | | | |
| Plasterboard (€/unit) | 14.7 | 11.7 | 25.6% 个 | 0.0% ↔ ■ | | | |
| Diesel (€/litre) | 1.68 | 1.96 | -14.5% ↓ | -23.5% ↓ • | | | |
| (f) Forecast (e) Es | (f) Forecast (e) Estimated | | | | | | |
| Q4 2022 to Q1 2023 % change greater than estimation in our Q4 2022 report Q4 2022 to Q1 2023 % change less than estimation in our Q4 2022 report | | | | | | | |
| | | | | | | | |
| Welded mesh: 240 x 480cm, dia6mm Plasterboard: 240 x 120 x 1.25cm (L x W x T) | | | | | | | |

| | Material (| % change Q1 – Q2 2023 (f) | Level of im | pact of pricing on construction procurement and supply chain * |
|-----|---|----------------------------------|------------------------------|--|
| | Copper | -0.7% ↓ | o 0 0 0 0 Moderate | Copper prices picked up again in the first few months of 2023, posting an increase of 4% in Q1 2023 compared to Q4 last year. Global copper demand will be strengthened by China's reopening. There will be an improvement in global supply, which should keep prices relatively stable on a quarterly average basis, but there will still be volatility around these levels. |
| B | Steel prices - Steel rebar - Flat steel | -1.0% ↓ -1.0% ↓ | o0 ■ | Steel rebar prices have continued to trend downward in recent months, as domestic demand in the construction industry has weakened. February's price was 14% lower than the May 2022 high. However, compared to early 2022 levels, prices are still slightly higher, a reflection of the higher input costs faced by the producers. Flat steel prices jumped in January, but edged down in February, and are expected to continue to ease back from recent highs given sluggish demand growth. |
| | Stainless ste | el -1.0% ↓ | •0000 Low | While pressure on demand has eased, ongoing high prices for raw materials such as nickel will prevent a marked decline in stainless steel. |
| | Lumber | +0.5% ↑ | o | Weak demand has contributed to the steady decline in lumber prices, which were down by 21% in February 2023 compared to the mid-2022 highs. A recent survey of timber prices conducted by the Irish Farmers' Association suggested a recovery in prices, but this will be from a low base. |
| A | Asphalt | +0.5% ↑ | o0 ██ Moderate | Asphalt prices have continued to rise in recent months, with prices in February 17% higher than in the same month last year. Although civil engineering construction has been fairly flat over the past year, significant road infrastructure spending was outlined in the current National Development Plan (NDP) 2021–30. |
| 000 | Limestone | +1.0% ↑ | •0 000 Low | Although prices have edged up steadily on a quarterly average basis, there has been some volatility in monthly pricing levels for aggregates in general. |

Ireland - Commodity Report



Linesight tender price index 2011-2023(f)



Note: The above infers a full-year increase of +9.8% for 2022. Our 2022 estimate is broken down @ +7.5% for H1 2022 and +2.3% for H2 2022. Our forecast for full year 2023 is c. +5%. This is driven by stabilisation in commodity prices but pressures on wage levels associated with sectoral employment orders and skilled labour shortages. We will review this on an on-going basis.

| | Material | % change Q1 – Q2 2023 (f) | Level of in | npact of pricing on construction procurement and supply chain * |
|---|--------------|------------------------------|-----------------|--|
| | Cement | -0.5% ↓ | oOOJ High | Cement prices have steadied at a high level, with prices in Q1 2023 being around 2.5% higher than the average for Q4 2022 and 24% higher than in Q1 2022. Although construction activity has weakened, high production costs have been a factor in keeping cement prices high. However, prices are expected to ease as energy prices fall back in the coming quarters. |
| | Concrete | -0.5% ↓ | o O O O O High | As with cement, prices for concrete are still high on a year-on-year basis, having levelled off in recent months. Weaker demand and easing energy costs will likely see prices fall back in the coming quarters. |
| | Welded mes | sh -1.0% ↓ | o | In line with price trends for steel rebar, prices for welded mesh are expected to decline in the coming quarters owing to weak demand from the construction sector. |
| # | Bricks | -1.0% ↓ | 00 👭 Moderate | Brick prices have been stable in recent months, but after the upward trend over the past year, prices are up by 16% year-on-year in Q1 2023. Given signs of easing upward pressure on the supply side, as energy prices fall back from recent highs, brick prices are expected to decline. |
| | Plasterboard | d -2.0% ↓ | • 0 0 0 0 Low | Plasterboard prices have stayed relatively high in recent months, up by around 30% compared to levels in early 2022. High production costs have been a key factor in keeping prices high, but with energy prices easing back, further upward pressure will be contained. |
| | Diesel | +0.2% ↑ | o () () () High | Diesel prices have fallen in recent months, falling to €1.66 per litre in March having been as high as €2 per litre in mid-2022. The government will gradually restore excise rates from June 2023, which will keep prices close to current levels in the coming quarters. |

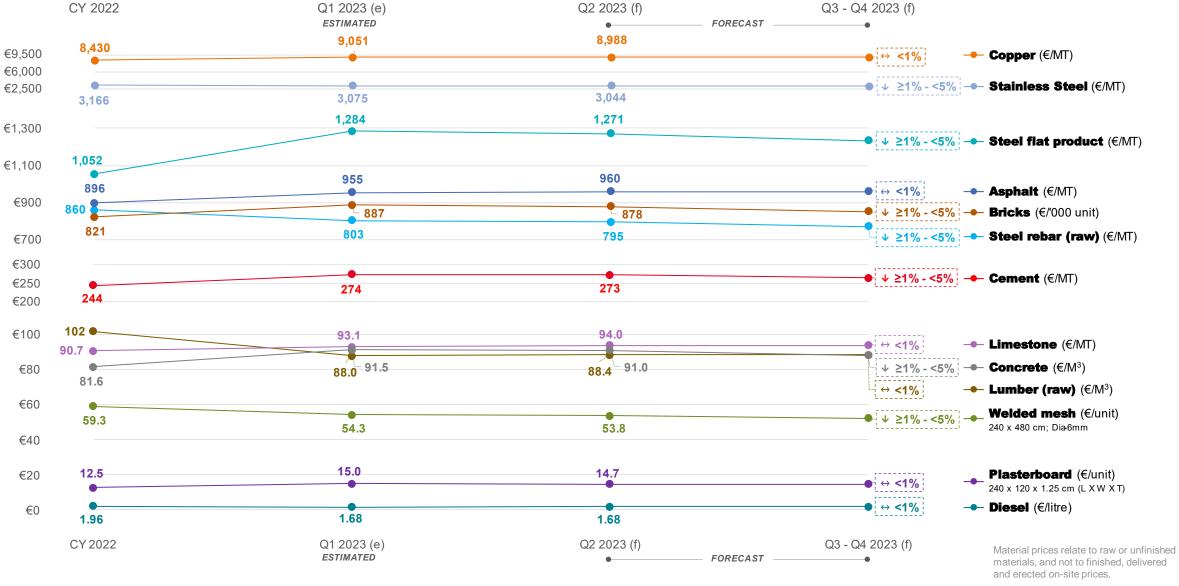
Level of impact rating reflects a combination of factors: the price movement and also price level (compared to recent past beyond the last quarter), the importance of the material, and general state of the supply chain in terms of stability.

Please note that commodity prices are based on representative materials available in the respective countries, and as these materials may not be standard across all markets, cross-country comparisons on prices can be ineffective. For example, asphalt types can vary between hot, cold or a bitumen price, and standard unit sizes for materials can vary across countries.



Ireland – Construction Materials Pricing (2022-2023)







Ireland - Macroeconomic overview



Economic indicators



5.60%

GDP growth in 2023 (f) and **12.0%** in 2022



5.00%

inflation rate in 2023 (f), and **8.10%** for 2022



2.57M

people employed in 2023 (f) and **2.55M** in 2022



4.48%

unemployment rate for 2023 (f) and **4.50%** in 2022



118.00

Consumer Price Index in Mar 2023 and **109.60** in Mar 2022



87.10

Wholesale Price Index in Mar 2023 and **85.8** in Mar 2022

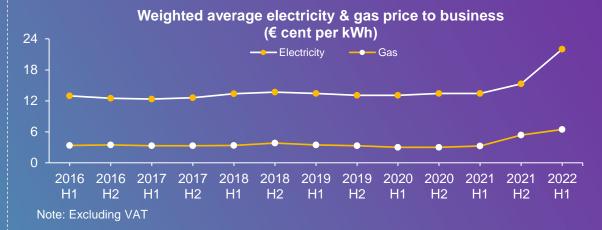
National holidays



10 public holidays

in Ireland in 2023.

Energy and gas prices



Wholesale price index - energy



Note: Excluding VAT

Ireland - Construction overview



Output 2022 and 2023 (in € millions)*

| | | | - |
|----------------------|---------------|-------------------|-------------------|
| Sector | Total 2022 | Total 2023 (f) | Total 2024 (f) |
| Commercial | 3,938 | 3,781 | 5,051 |
| Energy and utilities | 1,181 | 1,153 | 1,576 |
| Industrial | 1,408 | 1,356 | 1,831 |
| Infrastructure | 3,053 | 2,984 | 4,071 |
| Institutional | 2,001 | 1,924 | 2,723 |
| Residential | 8,262 | 8,051 | 11,427 |

^{*}The output is in real terms at constant prices with 2017 as base year

In a change in methodology from previous reports, the time series mainly reflects trends in the CSO's Production in Building and Construction Index rather than the CSO's Construction Value in the national accounts data. In recent quarters the trends in this data have widely diverged. For example, the production index showed growth of 2.0% in 2022, and the construction industry in the national accounts data showed growth of 14.4%.

Long lead equipment (LLE) - Supply Chain Overview

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Construction Health and Safety practices and culture



26

people lost their lives in work-related incidents in 2022 compared to 38 in 2021.

Lowest figure recorded since the Authority was established over thirty years ago. Construction and Farming sectors account for almost three quarters of all work-related fatalities. Dublin, Galway and Wexford recorded the highest level of fatalities with three in each county.



Ireland – Average construction costs



| Building type | Cost ran | ge | | M&E (inc. @) |
|---------------------------------|----------|--------|-----------|--------------|
| Commercial offices | | | | |
| Suburban, naturally ventilated | | | | |
| Shell and core | €1,850 | €2,700 | per sq.m. | 10-15% |
| Developer standard | €2,050 | €2,600 | per sq.m. | 15-20% |
| Extra for air-conditioning | €325 | €600 | per sq.m. | - |
| City centre, air conditioned | | | | |
| Shell and core | €2,400 | €3,700 | per sq.m. | 15-20% |
| Developer standard (CAT A) | €2,900 | €5,000 | per sq.m. | 25-30% |
| Office fit-out | | | | |
| 95% open-plan, no catering | €725 | €1,150 | per sq.m. | 20-30% |
| 75% open-plan, limited catering | €935 | €1,450 | per sq.m. | 20-30% |
| 60% open-plan, full catering | €1,350 | €2,050 | per sq.m. | 25-35% |
| Corporate HQ | €2,050 | €2,800 | per sq.m. | 25-35% |
| High-tech industrial | | | | |
| Shell and core | €1,550 | €2,250 | per sq.m. | 20-25% |
| Fit-out | €1,150 | €2,150 | per sq.m. | 25-45% |

| Building type | Cost ra | nge | | M&E (inc. @) |
|--|---------------|----------|-------------|--------------|
| Residential | | | | |
| Estate house (approx. 100sq.m.) | €1,450 | €2,100 | per sq.m. | 10-20% |
| Purpose-built student accommodation (incl. FF&E) | €3,000 | €3,700 | per sq.m. | 10-20% |
| Apartments - suburban/city edge (su | perstructure) | | | |
| BTR - 4-8 storey (incl. FF&E) | €2,400 | €2,850 | per sq.m. | 15-20% |
| BTS - 4-8 storey | €2,300 | €2,700 | per sq.m. | 15-20% |
| Apartments - Urban (superstructure |) | | | |
| BTR - 5-8 storey (incl. FF&E) | €2,500 | €3,200 | per sq.m. | 20-25% |
| BTR - 12-15 storey (incl. FF&E) | €2,700 | €3,650 | per sq.m. | 20-25% |
| BTS - 5-8 storey | €2,400 | €3,100 | per sq.m. | 15-20% |
| BTS - 12-15 storey | €2,600 | €3,400 | per sq.m. | 20-25% |
| Co-living Co-living | €2,900 | €3,800 | per sq.m. | 20-25% |
| Shopping centres | | | | |
| Anchor unit | €1,050 | €1,500 | per sq.m. | 10-15% |
| Unit shops | €1,400 | €2,200 | per sq.m. | 10-15% |
| Mall | €2,500 | €4,500 | per sq.m. | 20-25% |
| Retail fit-out | €1,900 | €2,800 | per sq.m. | 25-30% |
| Site development business parks | | | | |
| Roads and primary services | €245,000 | €825,000 | per hectare | \ |
| Warehouses | | | | |
| Without offices | €850 | €1,250 | per sq.m. | 8-12% |
| With 10% offices | €1,050 | €1,800 | per sq.m. | 10-15% |



Ireland – Average construction costs



| Building type | Cost ran | ge | | M&E (inc. @) |
|--------------------------------|----------|---------|-----------|--------------|
| Healthcare | | | | |
| Tertiary care | €5,400 | €6,900 | per sq.m. | 35-40% |
| Acute teaching hospital | €4,700 | €5,950 | per sq.m. | 35-40% |
| General hospital | €4,250 | €5,400 | per sq.m. | 30-35% |
| Nursing home | €2,600 | €3,850 | per sq.m. | 20-25% |
| Car park | | | | |
| Surface | €1,700 | €2,300 | per space | |
| Multistorey | €14,500 | €30,000 | per space | |
| Undercroft | €18,000 | €27,000 | per space | |
| Single-level basement | €24,000 | €51,000 | per space | |
| Double-level basement | €31,000 | €68,000 | per space | - |
| Basement (no car parking) | | | | |
| Bicycle storage general | €1,450 | €2,750 | per sq.m. | |
| Shower and changing facilities | €1,900 | €3,500 | per sq.m. | |
| Plant space (excl. plant) | €1,300 | €2,600 | per sq.m. | |
| Education | | | | |
| Primary-level (DoES) | - | €1,990* | per sq.m. | 10-15% |
| Second-level (DoES) | - | €1,990* | per sq.m. | 15-20% |
| Third-level | €2,600 | €4,150 | per sq.m. | 20-25% |

| Building type | Cost rang | е | | M&E (inc. @) |
|----------------------------------|-----------|--------|-----------|--------------|
| Leisure | | | | |
| Hotel building 3-4* (incl. FF&E) | €2,600 | €3,850 | per sq.m. | 25-35% |
| Hotel building 5* (incl. FF&E) | €3,300 | €6,000 | per sq.m. | 30-40% |
| Aparthotels | €3,000 | €4,500 | per sq.m. | 25-35% |
| Restaurant | €2,500 | €4,050 | per sq.m. | 25-30% |
| Cinema | €2,050 | €3,550 | per sq.m. | 20-30% |
| Sports hall | €1,450 | €2,500 | per sq.m. | 10-15% |
| Swimming pool | €3,200 | €2,700 | per sq.m. | 30-40% |
| Municipal | | | | |
| Fire station | €3,000 | €3,800 | per sq.m. | 15-25% |
| Prison | €3,100 | €4,200 | per sq.m. | 20-30% |
| Courthouse | €4,000 | €5,400 | per sq.m. | 20-30% |

Notes:

- 1. Costs are based on March 2023 prices and based on gross floor area. Average costs as indicated should not be used for insurance valuation purposes. The costs are representative of typical valuations for each type of project. Unique designs or challenging sites may not be within the cost range shown. The rates shown are average construction build only and do not include VAT, professional fees, any other soft costs, or allow for future inflation.
- 2. The building costs noted above for the various building types are exclusive of site development costs and external works, which can vary significantly based on the specific site.
- 3. The costs associated with brownfield sites can vary significantly and the building costs above exclude abnormal contamination.
- 4. The basic building costs above exclude basement construction costs. Should a basement be required, this should be costed separately.
- 5. Costs per car parking space assume a large, efficient car park layout, providing a gross 28-34sq.m. per car parking space. Note that this relates to pure car parking areas, and additional basement spaces such as bicycle parking, plant rooms, shower and changing facilities are not accounted for, and should be costed separately.
- * Current basic building cost (BBC) limit based on May 2021 circular and includes VAT, but excludes external works, fitted furniture and abnormal cost provisions.
- 6. Costs exclude further market-driven forces.



Ireland – Main contractors' turnover (>= €100m)



| | | ý | |
|-----------------------------------|----------------------------|---------------------------|------------------------------|
| Contractor | Est. global (€m) – 2022 | Est. Irish (€m) – 2022 | Actual global (€m) – 2021 |
| John Sisk & Son Limited | €1,737.10 | €990.14 | €1,485.70 |
| Winthrop Engineering Limited | €1,033.00 | €427.00 | €685.00 |
| BAM Contractors Limited * | €689.00 | €689.00 | €626.00 |
| John Paul Construction Limited | €605.00 | €507.00 | €544.00 |
| PJ Hegarty & Sons Limited | €501.00 | €436.00 | €366.00 |
| Walls Construction Limited | €475.00 | €475.00 | €303.00 |
| Collen Construction Limited | €450.00 | €450.00 | €494.00 |
| Bennett Construction Limited | €345.00 | €265.00 | €320.00 |
| JJ Rhatigan & Co Limited | €320.00 | €228.00 | €260.00 |
| Murphy Ireland | €211.50 | €145.10 | €158.30 |
| StructureTone Limited ** | €202.00 | €202.00 | €127.00 |
| Wills Bros Limited | €200.77 | €126.48 | €197.73 |
| Ardmac Limited | €174.81 | €106.63 | €135.40 |
| Mac Group | €163.50 | €98.00 | €144.00 |
| Conack Construction Ltd | €152.64 | €152.64 | €121.87 |

| | | ý | |
|--|----------------------------|---------------------------|------------------------------|
| Contractor | Est. global (€m) – 2022 | Est. Irish (€m) – 2022 | Actual global (€m) – 2021 |
| Elliott Group | €145.00 | €120.00 | €75.00 |
| Flynn Management & Contractors Limited | €132.00 | €99.00 | €105.00 |
| Monami Construction Ltd | €126.39 | €126.39 | €106.57 |
| Townmore Construction | €102.00 | €80.00 | €84.00 |

Notes: Global turnover refers to that serviced out of Ireland.

Ireland Country Report Q1 2023 - Insights

Linesight

^{*} Royal BAM Group Turnover is €6.6bn

^{**} Structure Tone Limited Global Turnover is \$10bn

Ireland – Mechanical and Electrical Subcontractors' turnover



| Subcontractor | Est. global (€m) – 2022 | ≨ Est. Irish (€m) – 2022 | Actual global (€m) – 2021 |
|---|-------------------------|------------------------------------|---------------------------|
| Mercury Engineering Group | €1,700.10 | €580.60 | €1,481.40 |
| Jones Engineering Group | €1,074.00 | €659.00 | €916.00 |
| Dornan Engineering Limited | €467.00 | €150.00 | €370.00 |
| Kirby Group Engineering Limited | €454.10 | €269.28 | €402.69 |
| Suir Engineering Limited | €314.00 | €244.92 | €240.00 |
| Specialist Technical Engineering Services (STS Group) | €220.00 | €73.00 | €239.78 |
| Designer Group Engineering Contractors Limited | €202.00 | €111.10 | €196.00 |
| King & Moffat Building Services | €155.15 | €46.35 | €128.57 |
| B.M.D & Company Limited | €64.60 | €64.60 | €62.60 |
| CJK Electrical Limited | €62.10 | €62.10 | €43.85 |
| DMG Engineering Limited | €53.00 | €53.00 | €47.42 |
| L. Lynch & Co. Limited | €48.00 | €48.00 | €44.27 |
| Alucraft Ltd | €43.32 | €36.20 | €84.79 |
| Tritech Engineering | €39.21 | €39.21 | €36.25 |
| Weltec | €30.00 | €30.00 | €26.00 |
| Rockwell Engineering | €25.00 | €25.00 | €20.00 |
| T Bourke & Co. Limited | €24.95 | €24.95 | €14.42 |



Ireland - Report methodology



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Definitions

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Sample sources - Ireland

For Ireland, sources for this report include, but are not limited to:

- IMF
- · Central Bank
- CSO
- SCSI
- GlobalData's Construction Intelligence Center (CIC)
- The Conference Board Total Economy Database $^{\mathsf{TM}}$
- · Sustainable Energy Authority of Ireland
- Public Holidays







Israel Q1 2023

Israel posted a strong GDP growth of 6.4% in 2022 supported by a rapid increase in private consumptions, exports and investments-mainly in residential sector. However as per a recent update by the IMF, the growth is likely to moderate to 2.9% amid a slowing global economy, rising inflation, tightening monetary conditions and geopolitical risks. Inflation remains around 5%, well above the government's target range of 1% to 3%.

The Israeli construction industry grew by 9.2% in 2022 due to robust construction output and public infrastructure projects but faces challenges in 2023 such as supply chain disruption, high inflation, and unemployment. Despite this, the industry is projected to maintain growth momentum with an expected expansion of 4% in 2023. Industrial and commercial sectors are likely to be the fastest growing real estate sectors with investments in office and manufacturing projects.



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Lumber

Lumber prices are expected to remain stable in the first half of 2023. This is largely due to a weak global economy and a decline in residential construction in Europe and North America, which could weigh on lumber demand in key export markets. Increased interest rates will impact domestic housing demand in the short term, and in turn reduce demand for residential construction.



Cement and aggregates

Israel is heavily reliant on imported cement, with around 60% of the cement being imported from Turkey. The earthquake reconstruction efforts in Turkey will lead to an increase in demand and consumption there, thereby putting an upward pressure on import prices, compounded by the falling value of the Israeli shekel. Additionally, the Israeli government's focus on investing in transport infrastructure projects will also lead to an increase in the prices of cement and aggregate prices in the coming quarters.



Concrete blocks and bricks

Concrete block and brick prices are anticipated to remain stable in the first half of 2023, as a result of subdued demand in the housing market. Rising interest rates, falling real income and decrease in apartment sales will contain inflationary pressure. However, investments in public housing programs will maintain demand and prices at around current levels in the latter part of 2023.



Steel (rebar and structural)

Steel prices are anticipated to remain relatively high in the coming quarters however they are trending downwards globally. As Israel relies heavily on steel imports to meet demand, this should feed into domestic prices. However, the weakness in the Israeli shekel will make imports relatively more expensive.



Copper

Copper prices are expected to remain elevated in 2023, as a rebound in Chinese demand is likely to deplete already low inventory. Disruptions to the production of copper in Chile and Peru is also expected to weigh on supply and lead to further increase in prices, compounded by the Israeli shekel's depreciation. Global demand will also be buoyed by increased investment in EVs, renewable energy and infrastructure.



Israel – Commodity Report



| | Q2 2023 (f) | Q2 202 | 2 – Q1 2023 (f) | Q4 2022 - Q1 2023 (e) |
|------------------------------------|-------------|--------|---------------------|--------------------------|
| Materials | ILS | ILS | 2022-23 % change | % change |
| Copper (ILS/MT) | 32,253 | 32,125 | 0.4% 个 | 13.1% ↑ • |
| Steel rebar (ILS/MT) | 2,561 | 2,775 | -7.7% ↓ | 8.8% ተ • |
| Steel flat (ILS/MT) | 2,279 | 2,602 | -12.4% ↓ | 16.9% 个 • |
| Stainless steel (ILS/MT) | 16,709 | NA | NA | -2.4% ↓ • |
| Lumber (ILS/M3) | 765 | 773 | -1.0% ↓ | 1.1% 个 • |
| Asphalt (ILS/MT) | 2,488 | 2,417 | 2.9% ↑ | 0.0% ↔ ■ |
| Limestone (ILS/MT) | 229 | 225 | 1.8% 个 | 0.2% ↑ ■ |
| Cement (ILS/MT) | 396 | 365 | 8.6% ↑ | 1.1% ↑ ■ |
| Concrete (ILS/M3) | 443 | 400 | 10.8% 个 | 3.1% ↑ ■ |
| Welded mesh (ILS/unit) | 215 | 239 | -10.1% ↓ | -1.3% ↓ • |
| Concrete blocks (ILS/'000 unit) | 3,427 | 3,293 | 4.1% ↑ | 0.0% ↔ ■ |
| Plasterboard (ILS/unit) | 44.2 | 43.0 | 2.8% 个 | 0.8% ↑ • |
| Diesel (ILS/litre) | 6.63 | 7.29 | -8.9% ↓ | 5.0% 个 • |
| (f) Forecast (e) Estim | atod | | | |

| /#\ E/ | orecast | (0) | Ectim | 2100 |
|--------|---------|-----|----------|------|
| | ulecasi | 161 | -5111111 | |

- Q4 2022 to Q1 2023 % change greater than estimation in our Q4 2022 report
- Q4 2022 to Q1 2023 % change less than estimation in our Q4 2022 report

| | | | | • |
|-----|---|------------------------------|---------------------|---|
| | Material Q | % change 21 – Q2 2023 (f) | Level of im | pact of pricing on construction procurement and supply chain * |
| | Copper | +2.0% ↑ | •000 Low | Copper prices rose sharply by 13% quarter-on-quarter in Q1 2023, owing to rising demand from China, amid the removal of its zero-COVID policy. Prices are expected to remain high in 2023, due to rising demand, coupled with the risk of supply-side constraints stemming from disruptions to production in the world's two biggest copper producers – Chile and Peru. |
| | Steel prices - Steel rebar - Flat steel | +2.0% ↑ +1.0% ↑ | • O O O O | Both rebar and flat steel prices have increased continuously for the last four months (December-March). However, sluggish demand from the Israeli residential construction sector will contain price inflation for the coming quarter. |
| | Stainless stee | el +0.5% ↑ | •OOOO Low | Stainless steel prices showed no significant change in Q1 2023, but prices are expected to rise in the next quarter, owing to rising nickel and other key alloying materials prices. Stainless steel prices are however expected to rise only at a marginal rate in the short term, as rising global production of nickel will keep prices in check. |
| | Lumber | +0.5% ↑ | o Ū █ █ Moderate | Lumber prices edged up in Q1 2023, amid rising demand. Prices are however expected to remain stable in Q2 2023, as increased interest rates will keep the demand from residential construction soft in the short term. |
| A | Asphalt | -0.5% ↓ | •0000 Low | Asphalt prices remained stable in Q1 2023. Prices are expected to ease marginally in the next quarter owing to subdued demand in the construction industry. In the long term, however, prices could see an upward trend supported by the government's plan to accelerate infrastructure projects in the transportation sector. |
| 000 | Limestone | 0.0% ↔ | •0000 Low | Limestone prices will remain stable in the short term, but potential shortages of the material could lead to a steady increase in prices over the longer term. |

Israel Country Report Q1 2023 - Commodities

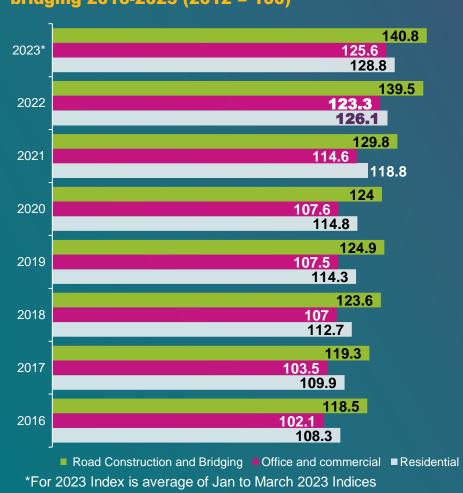
Israel - Commodity Report



stabilise in the coming months, with Israeli shekel set to regain some ground against the US dollar. However, there will continue to be

volatility in global crude oil prices given OPEC+ production cuts.

| Price index of input in residential, office and |
|---|
| commercial buildings, road construction and |
| bridging 2016-2023 (2012 = 100) |



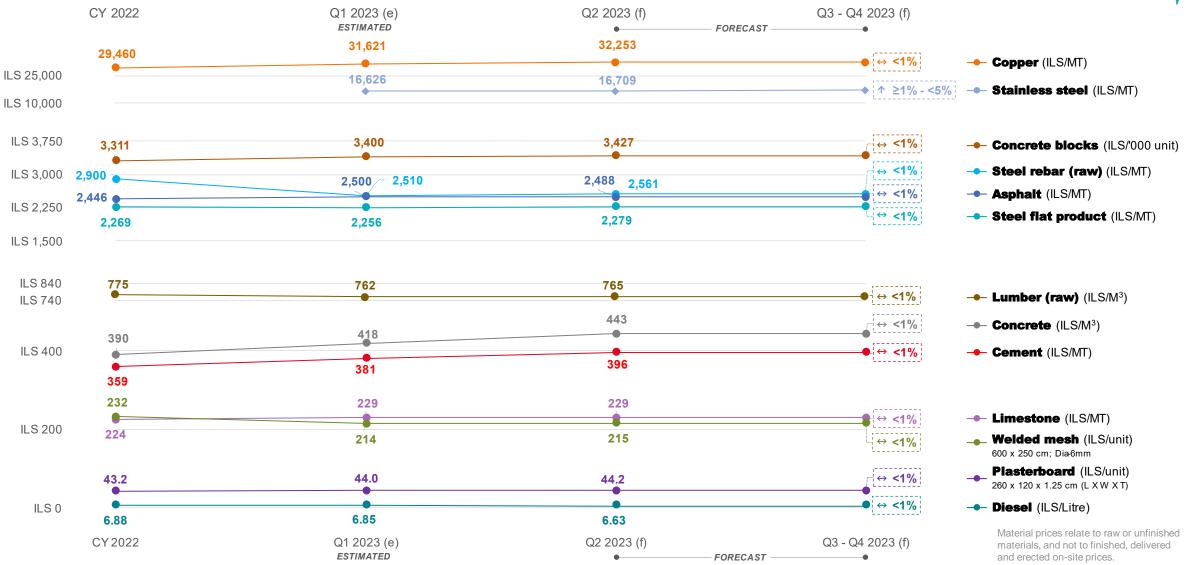
| | Material | % change Q1 – Q2 2023 (f) | Level of im | pact of pricing on construction procurement and supply chain * |
|---|--------------------|------------------------------|-----------------------|--|
| | Cement Concrete | +4.0% ↑ +6.0% ↑ | o 0 █ █ █ Moderate | Cement and concrete prices are expected to remain high in the first half of 2023. Additionally, the recent lifting of a ban on concrete deliveries to the Gaza Strip (in January 2023) following a two-month ban is expected to boost demand for the commodity and put upward pressure on concrete prices in the short term. |
| | Welded mes | sh +0.5% ↑ | •0000 Low | Welded mesh fell by 1.3% quarter-on-quarter in Q1 2023, amid soft demand from the construction industry. Welded mesh prices are however expected to increase marginally in the coming months, owing to an anticipated steady increase in steel rebar prices. |
| # | Concrete blocks | +0.8% ↑ | o 0 █ █ █ Moderate | Brick prices have remained stable and have not witnessed any significant change from the level of Q4 2022. This is attributed to subdued demand for bricks amid a slowdown in the housing market, caused by higher interest rates. However, brick prices are expected to edge slightly upward in the short term, due to high production costs. |
| | Plasterboar | d +0.5% 个 | •0000 Low | Plasterboard prices rose marginally in Q1 2023. Prices are expected to remain stable in the coming months, in the wake of subdued demand in the construction industry, particularly in the residential sector. |
| | Diesel | -3.1% ↓ | •0000 | Diesel prices increased on a quarterly average by 5% quarter-on- quarter in Q1 2023, but prices fell back in March. Prices are forecast to |

Level of impact rating reflects a combination of factors: the price movement and also price level (compared to recent past beyond the last quarter), the importance of the material, and general state of the supply chain in terms of stability. Please note that commodity prices are based on representative materials available in the respective countries, and as these materials may not be standard across all markets, cross-country comparisons on prices can be ineffective. For example, asphalt types can vary between hot, cold or a bitumen price, and standard unit sizes for materials can vary across countries.



Israel – Construction Materials Pricing (2022-2023)





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Israel – Macroeconomic overview



Economic indicators



2.87%

GDP growth in 2023 (f) and **6.43%** in 2022



4.28%

inflation rate in 2023 (f) and 4.40% for 2022



4.29M

people employed in 2023 (f) and **4.19M** in 2022



3.80%

unemployment rate for 2023 (f) and 3.76% in 2022



103.20

Consumer Price Index in Mar 2023 and **104.90** in Mar 2022



121.80

Producer Price Index in Mar 2023 and **123.10** in Mar 2022

National holidays



8 public holidays

in Israel in 2023.

Energy prices

LV Electricity cost for buildings for craft, industry, or commerce (ILS per kWh)



Note: Excluding VAT

Price for 2023 is for Jan 2023

Israel – Construction overview



Output 2022 and 2023 (in ILS millions)*

| 2 | , | / | | |
|---|---------------|-------------------|-------------------|--|
| Sector | Total 2022 | Total 2023 (f) | Total 2024 (f) | |
| Commercial | 20,479 | 21,514 | 22,431 | |
| Energy and utilities | 15,809 | 16,496 | 17,084 | |
| Industrial | 7,597 | 7,990 | 8,324 | |
| Infrastructure | 18,507 | 19,402 | 20,212 | |
| Institutional | 21,381 | 22,231 | 22,999 | |
| Residential | 113,623 | 117,659 | 120,297 | |

^{*}The output is in real terms at constant prices with 2017 as base year

Long lead equipment (LLE) - Supply Chain Overview

2022 was a turbulent year for the global supply chain with the fallout from the global pandemic combined with the emergence of the Russia-Ukraine conflict, leading to supply chain disruptions across the globe. However, 2023 is showing signs of relief in the market for long lead equipment (LLE). The following are the specifics of the LLE supply chain dynamic:

- 1. **Demand**: Demand for LLE has remained exceptionally high across all regions and industry sectors. Organizations have moved to expand their supply chain portfolios and include secondary and tertiary suppliers, whilst most are continuing to invest in inventory management systems to prevent any supply chain disruptions. There is no sign of reduced demand, so the constraints to the supply chain will continue for the remainder of 2023.
- 2. Supply: The stock levels of raw materials have finally started to stabilise, alleviating some recent pressures on manufacturers and suppliers. However, it is worth noting that most LLE suppliers have reported being at operational capacity, with order books full up to Q3 2024, which may cause some concern for those relying on their products. Nevertheless, there is some hope as Tier 2 and Tier 3 supply chains have started to increase their capacity and support the larger demand within the market, which may help to mitigate any negative impact of capacity restrictions.
- 3. Freight durations and costs: Freight durations have begun to shorten in early 2023 as the global infrastructure and operations have developed to meet the rising demand and freight companies are shipping much faster than they did during the pandemic. Average freight costs have also reduced to align with pre-pandemic levels suggesting a return to normality within the industry. The benefits have been experienced in early 2023 and further reductions are expected throughout the rest of 2023.

Construction Health and Safety practices and culture



14 accidents

per 100,000 workers accident rate across all labor market sectors in 2022



1.66
fatalities
per 100,000
workers
fatality rate in
2022



Construction sector 2022 accident rate is

112.66 accidents per 100,000 workers

and the fatality rate was

12.25 fatalities per 100,000 workers.



Israel - Report methodology



Linesight has commissioned independent global research to track construction materials and commodity prices.

The approach and methodology for the collection of construction material pricing and other indicators is based on primary and secondary research.

Primary and secondary research

Primary research is conducted on a quarterly basis with stakeholders in the value chain, including manufacturers and suppliers/distributors of the target materials, to ascertain market information on prices in recent quarters, and also on projections for changes in the coming quarter and remainder of the year. The market analysis also involves a thorough assessment of secondary sources of data on materials and labour prices, in addition to underlying demand and supply trends that will impact market prices.

Sources include GlobalData's Construction Intelligence Center (CIC), the World Bank, IMF, OECD, as well as country specific national statistics offices, such as the U.S. Bureau of Economic Analysis, Bureau of Labor Statistics, and also industry specific associations and publications.

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Sample sources – Israel

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- IMF
- The Central Bureau of Statistics
- GlobalData's Construction Intelligence Center (CIC)
- Economic Research Institute









Italy Q1 2023

Italy's economy experienced a growth of 3.7% in 2022, but this is expected to slow down to 0.7% in 2023, as per the latest update from the IMF. However, amid challenges, there are signs of improvement. Inflation, which had been in the double digits for four consecutive months until January, has started to decrease and dropped to 8.2% (year-on-year) in March. Additionally, both consumer and business confidence are growing, which could signal a positive turn for the economy.

The Italian construction industry is expected to decline by 8.6% in real terms in 2023 and 6.1% in 2024 after experiencing growth of 10.2% in 2022 and 20.7% in 2021. The growth in recent years was due to government incentive schemes, particularly for residential construction, which are now ending. High interest rates and construction material prices are also affecting the industry. However, the renewable energy sector is expected to grow as a result of government investment in the area.



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Lumber

Lumber prices have dropped from the highs of the first half of last year, and with residential construction activity set to decline after rapid growth since 2021, lumber prices will remain relatively low.



Cement and aggregates

With high production costs being passed on to buyers, cement prices have continued on an upward trend. Prices will remain high in the coming quarters, with demand being bolstered by investment in infrastructure projects.



Concrete blocks and bricks

Residential construction is set to fall from recent highs, but brick prices have remained high in recent months, with producers passing on their higher production costs, and this situation will persist in the coming quarters.



Steel (rebar and structural)

Steel prices have continued on a downward trend, despite costs of production staying relatively high. Buyers are reportedly holding off purchasing, and steel output levels have been declining - crude steel output was down by 7% year-on-year in February, the ninth consecutive month that output was lower than year-earlier levels.



Copper

Copper prices picked up in January, with expectations of stronger demand in China likely to keep global price levels elevated. There will also be demand stemming from investments in renewable energy projects and electric vehicle manufacturing.



Italy - Commodity Report



| | Q2 2023 (f) | Q2 2022 | – Q2 2023 (f) | Q4 2022 - Q1 2023 (e) | | | |
|---|-------------|-----------------|--------------------|--------------------------|--|--|--|
| | | | 2022-23 | | | | |
| Materials | € | € | % change | % change | | | |
| Copper (€/MT) | 8,271 | 8,941 | -7.5% ↓ | 6.5% 个 • | | | |
| Steel rebar (€/MT) | 861 | 1,039 | -17.1% ↓ | -3.5% ↓ • | | | |
| Stainless steel (€/MT) | 901 | 1,236 | -27.1% ↓ | 0.3% ↑ ■ | | | |
| Steel flat (€/MT) | 4,014 | NA | NA | 4.9% ↑ • | | | |
| Lumber (€/M3) | 88 | 115 | -23.8% ↓ | 9.2% 个 • | | | |
| Asphalt (€/MT) | 109 | 105 | 4.2% 个 | 5.4% ↑ • | | | |
| Limestone (€/MT) | 59.7 | 50.8 | 17.4% 个 | 1.2% ↑ • | | | |
| Cement (€/MT) | 247 | 208 | 18.6% 个 | 9.4% ↑ • | | | |
| Concrete (€/M3) | 145 | 145 | 0.1% 个 | 1.5% 个 • | | | |
| Welded mesh (€/unit) | 41.3 | 50.9 | -18.8% ↓ | -10.8% ↓ • | | | |
| Bricks (€/'000 unit) | 899 | 745 | 20.6% 个 | 2.3% ↑ • | | | |
| Plasterboard (€/unit) | 13.1 | 12.7 | 3.2% 个 | -1.0% ↓ ■ | | | |
| Diesel (€/litre) | 1.79 | 1.82 | -1.9% ↓ | 2.6% ↑ • | | | |
| (f) Forecast (e) Es | stimated | | | | | | |
| | | eater than esti | mation in our Q4 2 | 022 report | | | |
| ■ Q4 2022 to Q1 20 | | | | | | | |
| Welded mesh: 3m x 2m, dia6mm Plasterboard: 13mm x 200 x 120cm (L x W x T) | | | | | | | |

| | Material C | % change Q1 – Q2 2023 (f) | Level of im | pact of pricing on construction procurement and supply chain * |
|------|---|------------------------------|---------------|--|
| | Copper | -1.0% ↓ | o 0 | Copper prices rose in January, reflecting the improvement in demand globally stemming from China's easing of COVID restrictions. Prices will remain relatively high, but there will be periods of volatility in the coming quarters given uncertainty over global economic growth in the short term and possible disruptions in supply. |
| | Steel prices - Steel rebar - Flat steel | -1.0% ↓ +1.0% ↑ | o | Steel rebar prices have declined in recent months, while steel flat products have been relatively stable. Despite the growth in the construction industry in recent quarters, rebar distributors have noted sluggish demand which has made it difficult to push up prices amid high costs. Given this recent weakness, producers are operating below capacity. |
| | Stainless ste | el +1.5% ↑ | • 0 0 0 0 Low | Stainless steel prices have stayed relatively high, given trends in prices for key inputs. Demand though will remain sluggish. |
| | Lumber | +2.0% ↑ | • 0 0 0 0 Low | Lumber prices have declined slightly from the levels of Q4 2022. Demand from residential construction is set to weaken given high interest rates and the plans to scrap the "Superbonus" incentive scheme, a tax credit scheme aimed at making homes energy-efficient. |
| A | Asphalt | -1.0% ↓ | •0000 Low | Asphalt prices have registered an upward trend reflecting higher prices for key inputs. With OPEC+ cutting crude oil output levels, prices for asphalt are expected to remain elevated. Domestic demand could also be boosted by government plans to spend €4.5 billion on major road development works in Sicily, Calabria, Puglia and Lazio. |
| 0000 | Limestone | -1.0% ↓ | •0000 Low | Limestone prices have stayed relatively high. Although demand is set to weaken with residential works falling from recent highs, production costs are also still relatively high. |

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Italy - Commodity Report



Construction cost index for residential buildings (Q1 2020 – Q1 2023) (2015=100)



| Material (| % change Q1 – Q2 2023 (f) | Level of in | npact of pricing on construction procurement and supply chain * |
|--------------------|------------------------------|---------------------|--|
| Cement Concrete | -1.0% ↓ +0.8% ↑ | o O O D High | Cement prices continued to rise in the first few months of 2023, with the average quarterly price in Q1 2023 being 68% higher than in Q1 2022. There has been a boom in residential construction over the past year, and increased production costs have also contributed to the sharp rise in cement prices. However, concrete prices have not risen in line with cement in recent months, suggesting an absorption of price hikes by cement manufacturers. In the short term the price of cement and related products is expected to remain elevated, but residential construction work is set to fall back from recent highs. |
| Welded mesh | -0.5% ↓ | o 0 🚺 🗎 Moderate | Prices for welded mesh have fallen recently, reflecting the trend of rebar prices. With soft demand from the construction sector, the price of mesh is expected to remain close to current levels in the short term. |
| Bricks | -1.0% ↓ | 00 📗 Moderate | Brick prices picked up sharply in the first few months of this year. Demand in the residential sector is still high, and production costs have also been a factor in keeping prices high. |
| Plasterboard | -1.0% ↓ | o | Plasterboard prices have levelled off in recent months but remain relatively high, with ongoing high demand in the residential sector. |
| Diesel | -2.8% ↓ | •0000 Low | Diesel prices have been fairly volatile in recent quarters, and on a quarterly average basis, prices edged up again in Q1 2023 having eased in the previous quarters. Prices are set to remain volatile given shifts in global crude oil prices amid planned OPEC+ production cuts. |

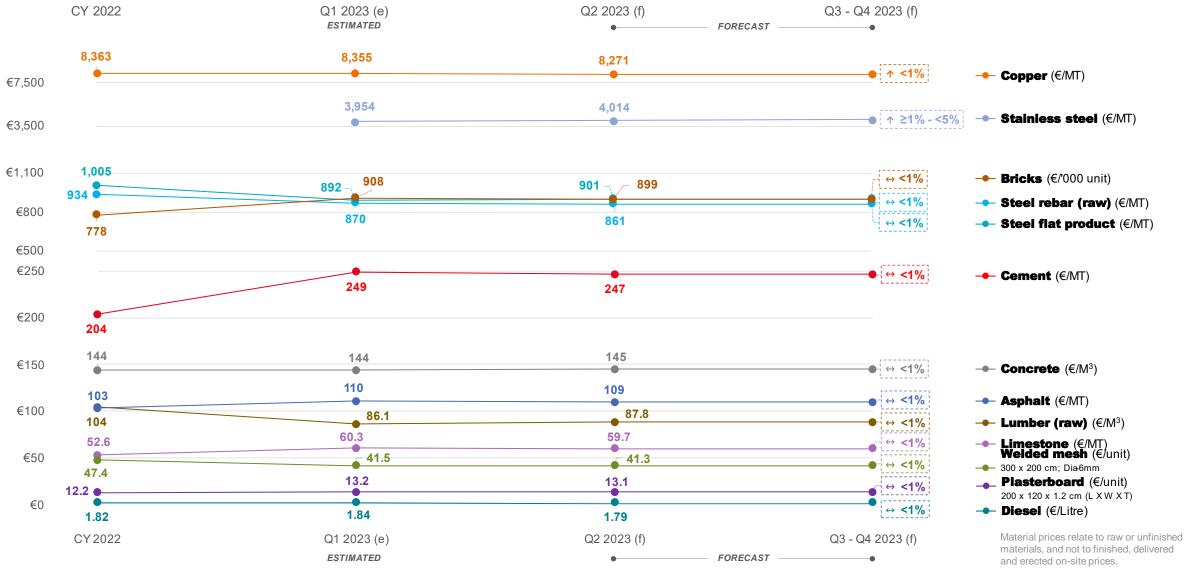
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Italy – Construction Materials Pricing (2022-2023)





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Italy - Macroeconomic overview



Economic indicators



0.65%

GDP growth in 2023 (f) and **3.68%** in 2022



4.45%

inflation rate in 2023 (f) and **8.74%** for 2022



23.15M

people employed in 2023 (f) and 23.10M in 2022



8.30%

unemployment rate for 2023 (f) and **8.09%** in 2022



118.80

Consumer Price Index in March 2023 and **110.40** in March 2022



149.80

Producer Price Index in Feb 2023 and **142.20** in Feb 2022

National holidays



12 public holidays

in Italy in 2023.

Energy prices

Electricity prices for non-household consumers, consumption < 20 MWh (€ per kWh)



Note: All taxes and levies included

Italy - Construction overview



Output 2022 and 2023 (in € millions)*

| Sector | Total 2022 | Total 2023 (f) | Total 2024 (f) | | | | |
|----------------------|---------------|-------------------|-------------------|--|--|--|--|
| Commercial | 21,202 | 19,800 | 19,607 | | | | |
| Energy and Utilities | 10,981 | 11,263 | 11,452 | | | | |
| Industrial | 6,604 | 6,313 | 6,159 | | | | |
| Infrastructure | 36,076 | 37,273 | 37,915 | | | | |
| Institutional | 16,033 | 15,619 | 15,304 | | | | |
| Residential | 149,730 | 129,652 | 116,098 | | | | |

^{*}The output is in real terms at constant prices with 2017 as base year

Long lead equipment (LLE) - Supply Chain Overview

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- 2. Supply: The stock levels of raw materials finally started to stabilise, alleviating some recent pressures on manufacturers and suppliers. However, it is worth noting that most LLE suppliers have reported being at operational capacity, with order books full up to Q3 2024, which may cause some concern for those relying on their products. Nevertheless, there is some hope as Tier 2 and Tier 3 supply chains have started to increase their capacity and support the larger demand within the market, which may help to mitigate any negative impact of capacity restrictions.
- 3. Freight durations and costs: Freight durations have begun to shorten in early 2023 as the global infrastructure and operations have developed to meet the rising demand and freight companies are shipping much faster than they did during the pandemic. Average freight costs have also reduced to align with pre-pandemic levels suggesting a return to normality within the industry. The benefits have been experienced in early 2023 and further reductions are expected throughout the rest of 2023.



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Sample sources – Italy

For Italy, sources for this report include, but are not limited to:

- IMF
- ISTAT
- Eurostat
- GlobalData's Construction Intelligence Center (CIC)
- Economic Research Institute
- Public Holidays
- Eurostat







Netherlands Q1 2023

Annual GDP growth for Netherlands was around 4.5% in 2022, which is expected to revert to a modest 1% in 2023. However, this is expected to slightly rise to 1.3% in 2024, driven by lower inflation and a partial recovery in household purchasing power and lowering of raw material input cost. As per the recent updates by Statistics Netherlands an increase in consumer confidence, export volume, and household consumption are likely to fuel economic growth in the short to medium term.

The Dutch construction industry output is expected to shrink by 0.7% in 2023, reflecting a slowdown in the demand, as well as elevated construction costs. There has been a focus on sustainability in construction. As a result, there are stricter environmental rules, such as subsequent levels of PFAS in the soil, resulting in a short-term delay in the project permits, which is expected to improve in the medium to long term. Chemical and pharmaceutical plant investments, as well as data centre investments, are likely to continue.



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Lumber

Lumber prices have remained relatively high, reflecting high-cost levels. The Netherlands has a relatively high share of wood products used in construction, behind only Finland, Sweden, and Austria, but residential construction demand will be constrained as investment levels are impacted by rising interest rates.



Cement and aggregates

Prices for cement and concrete products are expected to remain high in the first half of 2023, reflecting elevated costs. However, buildings construction activity will be sluggish in the coming quarters, containing further upwards price pressure.



Concrete blocks and bricks

Despite weakness on the demand side, brick manufacturers have been able to pass on higher costs to buyers, and this has been reflected in a jump in brick prices recently. However, upward pressure will ease as demand weakens in the coming quarters.



Steel (rebar and structural)

Steel prices will continue on a downwards trend. Although producers are still struggling with high energy costs, demand in general will ease and supply-side challenges will subside. However, there could be some upward pressure in the short-term reflecting disruption in supplies from Turkey, and domestic demand could be buoyed by government investment in infrastructure projects.



Copper

Copper prices picked up in early 2023, reflecting improving demand from China and concerns over supply side risks. However, global macroeconomic headwinds will contain demand in the short term, but investment in renewable energy projects and electric vehicle manufacturing will sustain long-term demand growth.



Netherlands – Commodity Report



| | Q2 2023 (f) | Q2 2022 · | – Q2 2023 (f) | Q4 2022 - Q1 2023 (e) | | |
|---|-------------|-----------|---------------|--------------------------|--|--|
| | | | 2022-23* | | | |
| Materials | € | € | % change | % change | | |
| Copper (€/MT) | 9,881 | 8,941 | 10.5% ↑ | 3.9% ↑ • | | |
| Steel rebar (€/MT) | 768 | 834 | -7.9% ↓ | -3.1% ↓ • | | |
| Steel flat (€/MT) | 824 | 895 | -7.9% ↓ | -3.1% ↓ • | | |
| Stainless steel (€/MT) | 3,522 | NA | NA | -3.1% ↓ • | | |
| Lumber (€/M3) | 106 | 103 | 3.0% ↑ | -3.1% ↓ ■ | | |
| Asphalt (€/MT) | 84.6 | 84.3 | 0.4% ↑ | -9.1% ↓ • | | |
| Limestone (€/MT) | 94.1 | 87.5 | 7.6% ↑ | 0.4% ↑ ■ | | |
| Cement (€/MT) | 187 | 165 | 13.6% ↑ | 7.4% ↑ • | | |
| Concrete (€/M3) | 209 | 159 | 31.8% ↑ | 19.6% 个 • | | |
| Welded mesh (€/unit) | 71.6 | 82.5 | -13.3% ↓ | -7.8% ↓ • | | |
| Bricks (€/'000 unit) | 666 | 545 | 22.2% ↑ | 16.5% 个 • | | |
| Plasterboard (€/unit) | 10.9 | 11.4 | -4.2% ↓ | 0.0% ↔ ■ | | |
| Diesel (€/litre) | 1.63 | 2.05 | -20.4% ↓ | -11.2% ↓ • | | |
| (f) Forecast (e) Es | timated | | | | | |
| Q4 2022 to Q1 2023 % change greater than estimation in our Q4 2022 report Q4 2022 to Q1 2022 % change less than estimation in our Q4 2022 report | | | | | | |
| Welded mesh: 200 x 300cm, dia6mm Plasterboard: 300 x 120 x 1.25cm (L x W x T) | | | | | | |

| | Material | % change – Q2 2023 (f) | Level of im | pact of pricing on construction procurement and supply chain * |
|------|---|----------------------------------|------------------------------|---|
| | Copper | +1.5% ↑ | 00 00 Moderate | There will continue to be a high degree of volatility in the copper market. Prices jumped in early 2023, reflecting the impact of expectations of increased demand in China. The domestic sales price index for copper increased by 11.3% year-on-year in the first two months of 2023. |
| | Steel prices - Steel rebar - Flat steel | -1.0% ↓ -1.0% ↓ | 00 📗 🗎 Moderate | Steel prices edged downwards in early 2023, reflecting a stronger delivery of steel products and a reduction in energy prices. This trend is expected to continue in the coming quarters. |
| | Stainless steel | -0.5% ↓ | o | Lower demand for stainless steel consumption and increased production capacity in major countries has weakened stainless steel prices. Higher input costs will contribute to some upward pressure, but offsetting this will be weakness on the demand side. |
| | Lumber | -1.0% ↓ | 00 0 0 0 0 0 0 0 0 0 | Although easing back from recent highs, lumber prices have stayed elevated in recent months. Further price pressure will be contained by weakness on the demand side, with residential construction slowing as reflected in the drop in building permits. |
| A. | Asphalt | +1.5% ↑ | 00 0 0 0 0 0 0 0 0 0 | Asphalt prices have been fairly volatile in recent months. Demand will be stimulated by the government's infrastructure investment plans. To reduce the increasing pressure on roads and other transport infrastructure, the government plans to invest €25 billion in the coming five years. |
| 0000 | Limestone | +0.4% ↑ | •0000 Low | Despite weaker buildings construction demand, higher production and transportation costs have kept limestone prices at recent high levels. |

Netherlands - Commodity Report



New dwellings; input price indices building costs (2015-2023) (2015=100)



Note: new dwellings; input price indices building costs 2015=100, *(p): provisional

| Material | % change Q1 – Q2 2023 (f) | Level of ir | npact of pricing on construction procurement and supply chain * |
|--------------------|------------------------------|----------------|---|
| Cement Concrete | +1.0% ↑ +1.0% ↑ | 00 I | Cement and concrete prices remained high in February and March 2023, with producers passing on higher costs. The producer price index for ready-mixed concrete increased 19.3% year-on-year in February 2023. Prices are expected to remain high in the coming quarters. |
| Welded mes | sh -0.5% ↓ | o 0 ● | Welded mesh prices fell back in Q1 2023, reflecting general trends in rebar prices. This trend is expected to continue in the coming quarters, as demand weakens. |
| Bricks | +0.5% ↑ | o 0 ● | Brick prices have remained high in recent months, with higher costs being passed on to buyers. The producer price index for bricks was up by 23.5% year-on-year in February 2023. |
| Plasterboar | d -0.2% ↓ | o 0 📗 Moderate | Plasterboard prices have stayed relatively high, but as demand growth slows, prices are expected to fall in the coming quarters. |
| Diesel | -4.4% ↓ | o 0 0 0 0 High | Diesel prices have remained low in recent months, with an average quarterly value of €1.70 in Q1 2023. Prices dropped below €1.60 in mid-March, but have since edged upwards. Pressure on global crude oil prices stemming from OPEC+ productions cuts will keep diesel prices around current levels. |

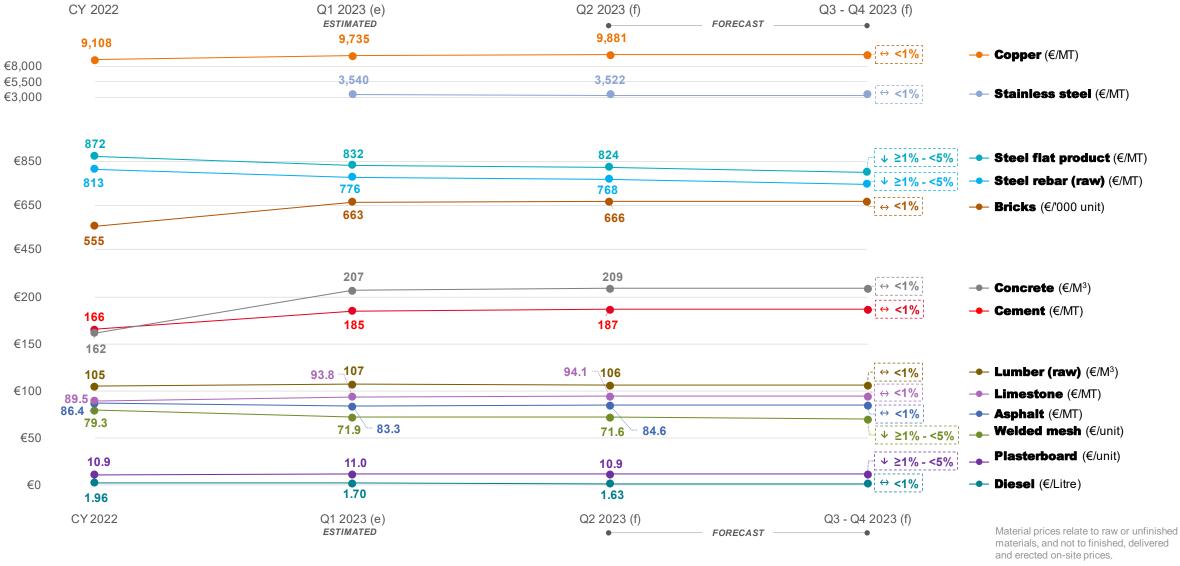
* Level of impact rating reflects a combination of factors: the price movement and also price level (compared to recent past beyond the last quarter), the importance of the material, and general state of the supply chain in terms of stability.

Please note that commodity prices are based on representative materials available in the respective countries, and as these materials may not be standard across all markets, cross-country comparisons on prices can be ineffective. For example, asphalt types can vary between hot, cold or a bitumen price, and standard unit sizes for materials can vary across countries.



Netherlands – Construction Materials Pricing (2022-2023)







Netherlands - Macroeconomic overview



Economic indicators



1.03%

GDP growth in 2023 (f) and **4.52%** in 2022



3.86%

inflation rate in 2023 (f) and 11.63% for 2022



9.57M

people employed in 2023 (f) and **9.55M** in 2022



3.90%

unemployment rate for 2023 (f) and **3.54%** in 2022



123.20

Consumer Price Index in Jan 2023 and **114.50** in Jan 2022



140.40

Producer Price Index in Feb 2023 and **136.50** in Feb 2022

National holidays



11 public holidays

in Netherlands in 2023.

Energy prices

Average monthly electricity wholesale price in the Netherlands from Q1 2019 to Q4 2022 (in € per MWh)





Netherlands – Construction overview



Output 2022 and 2023 (in € millions)*

| | , | | , |
|----------------------|---------------|-------------------|-------------------|
| Sector | Total 2022 | Total 2023 (f) | Total 2024 (f) |
| Commercial | 15,246 | 14,730 | 14,966 |
| Energy and Utilities | 6,175 | 6,347 | 6,504 |
| Industrial | 3,711 | 3,632 | 3,683 |
| Infrastructure | 20,637 | 20,944 | 21,355 |
| Institutional | 7,888 | 7,864 | 8,015 |
| Residential | 60,640 | 58,230 | 59,148 |

^{*}The output is in real terms at constant prices with 2017 as base year

Long lead equipment (LLE) - Supply Chain Overview

2022 was a turbulent year for the global supply chain with the fallout from the global pandemic combined with the emergence of the Russia-Ukraine conflict, leading to supply chain disruptions across the globe. However, 2023 is showing signs of relief in the market for long lead equipment (LLE). The following are the specifics of the LLE supply chain dynamic:

- 1. **Demand**: Demand for LLE has remained exceptionally high across all regions and industry sectors. Organizations have moved to expand their supply chain portfolios and include secondary and tertiary suppliers, whilst most are continuing to invest in inventory management systems to prevent any supply chain disruptions. There is no sign of reduced demand, so the constraints to the supply chain will continue for the remainder of 2023.
- 2. Supply: The stock levels of raw materials have finally started to stabilise, alleviating some recent pressures on manufacturers and suppliers. However, it is worth noting that most LLE suppliers have reported being at operational capacity, with order books full up to Q3 2024, which may cause some concern for those relying on their products. Nevertheless, there is some hope as Tier 2 and Tier 3 supply chains have started to increase their capacity and support the larger demand within the market, which may help to mitigate any negative impact of capacity restrictions.
- 3. Freight durations and costs: Freight durations have begun to shorten in early 2023 as the global infrastructure and operations have developed to meet the rising demand and freight companies are shipping much faster than they did during the pandemic. Average freight costs have also reduced to align with pre-pandemic levels suggesting a return to normality within the industry. The benefits have been experienced in early 2023 and further reductions are expected throughout the rest of 2023.



Netherlands – Report methodology



Linesight has commissioned independent global research to track construction materials and commodity prices.

The approach and methodology for the collection of construction material pricing and other indicators is based on primary and secondary research.

Primary and secondary research

Primary research is conducted on a quarterly basis with stakeholders in the value chain, including manufacturers and suppliers/distributors of the target materials, to ascertain market information on prices in recent quarters, and also on projections for changes in the coming quarter and remainder of the year. The market analysis also involves a thorough assessment of secondary sources of data on materials and labour prices, in addition to underlying demand and supply trends that will impact market prices.

Sources include GlobalData's Construction Intelligence Center (CIC), the World Bank, IMF, OECD, as well as country specific national statistics offices, such as the U.S. Bureau of Economic Analysis, Bureau of Labor Statistics, and also industry specific associations and publications.

Definitions

- · Commodity prices are net of taxes for all the countries
- Prices are not customer delivered
- All commodities are raw materials.
- Nominal and real data

Nominal data series do not exclude changes in prices and are also referred to as current prices series.

Annual changes in nominal data for construction output will include changes in construction activity, as well as changes in costs for materials and equipment.

Real data series are calculated by keeping prices constant (so, are also referred to as constant price series), and therefore, they reflect changes in activity only. Growth rates in nominal terms can overstate the pace of growth in construction activity if there is high inflation stemming from rising prices for key inputs.

Sample sources - Netherlands

For the Netherlands, sources for this report include, but are not limited to:

- IMF
- · Statistics Netherlands (CBS)
- Organisation for Economic Co-operation and Development (OECD)
- GlobalData's Construction Intelligence Center (CIC)
- · Economic Research Institute
- Public Holidays
- Eurostat







Norway Q1 2023

The Norwegian economy experienced a high level of activity in 2022, with a 3.3% increase in GDP. It is expected to slow to 2.2% growth in 2023, but to remain higher than previous projections. Petroleum investment and exports will help keep the economy going, while lower household income will reduce consumption. Lower energy prices are expected to reduce future consumer price inflation, but underlying inflation will be sustained for a longer period of time due to the krone's recent depreciation and higher wage growth.

The construction sector in Norway grew by 4% in real terms in 2022, however it is expected to contract by 1.7% in 2023. The key factors affecting the industry are rising construction costs, labour shortages and high inflation. The sector is likely to bounce back in 2024 with a growth rate of 1.3% given the government's investments in transport and renewable energy sectors.



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Lumber

The growing popularity of wood as a sustainable building material is expected to keep underlying demand for lumber strong over the longer term. The EU's 'Build-in-Wood' initiative will help to drive the growth of wood-based developments in cities such as Trondheim, an early adopter of the initiative. However, demand remains subdued owing to a weak construction sector and falling demand for new housing, which has caused prices to steadily fall in recent quarters.



Cement and aggregates

Cement and concrete prices have stabilised recently as upward pressure from high energy costs has subsided and weakening demand from the construction sector has eased pressure on supplies. However, prices are likely to remain elevated due to price stickiness stemming from low competition in the domestic market. Moreover, imported cement from Germany, France and Denmark, will be more costly given price rises in those markets.



Concrete blocks and bricks

Brick prices have continued to trend upwards in recent quarters despite the easing of energy costs which weighed heavily on production and transportation costs in the second half of 2022. Although construction activity is weakening, particularly in the homebuilding sector, limited competition among brick producers continues to place upward pressure on prices. However, further significant upward pressure on prices will be contained by falling demand over the coming year.



Steel (rebar and structural)

Declining steel prices globally amid weakening demand from manufacturing and construction sectors will continue to put downward pressure on domestic steel prices over the coming quarters, despite Norway's strong domestic production output. Owing to its position as a net exporter of steel, Norway is well-positioned to avoid global shortages and market volatility. However, medium-to-long term demand is set to increase as the government undertakes new railway developments under the National Transport Plan, which will limit further price declines.



Copper

Copper prices in Norway have increased in recent months following China's reopening, which has significantly increased global demand for copper, coupled with supply tightness which is clouding the outlook over the coming quarters. Prices in Q1 2023 reached the highest levels since Q2 2022. Strong underlying demand and limited stocks will sustain upward pressure on prices, notwithstanding short-term fluctuations.



Norway - Commodity Report



| | Q2 2023 (f) | Q2 2022 - | - Q2 2023 (f) | Q4 2022 – Q1 2023 (e) | | |
|---|-------------|-----------|---------------------|--------------------------|--|--|
| Materials | NOK | NOK | 2022-23 % change | % change | | |
| Copper (NOK/MT) | 85,870 | 89,454 | -4.0% ↓ | 7.0% 个 • | | |
| Steel rebar (NOK/MT) | 8,359 | 11,495 | -27.3% ↓ | -16.4% ↓ • | | |
| Steel flat (NOK/MT) | 7,291 | 10,336 | -29.5% ↓ | -4.2% ↓ ■ | | |
| Stainless steel (NOK/MT) | 44,087 | NA | NA | 10.8% 个 • | | |
| Lumber (NOK/M3) | 408 | 501 | -18.6% ↓ | -6.5% ↓ • | | |
| Asphalt (NOK/MT) | 1,165 | 1,096 | 6.3% ↑ | 0.9% ↑ ■ | | |
| Limestone (NOK/MT) | 594 | 563 | 5.4% 个 | 0.0% ↔ ■ | | |
| Cement (NOK/MT) | 4,520 | 4,460 | 1.3% 个 | 0.3% ↑ ■ | | |
| Concrete (NOK/M3) | 1,858 | 1,545 | 20.3% ↑ | 9.5% 个 • | | |
| Welded mesh (NOK/unit) | 212 | 214 | -1.0% ↓ | 2.4% 个 • | | |
| Bricks (NOK/'000 unit) | 11,891 | 10,000 | 18.9% 个 | 8.6% 个 • | | |
| Plasterboard (NOK/unit) | 182 | 179 | 1.4% 个 | 2.1% 个 • | | |
| Diesel (NOK/litre) | 20.4 | 22.6 | -9.8% ↓ | -9.6% ↓ • | | |
| (f) Forecast (e) Est | imated | | | | | |
| Q4 2022 to Q1 2023 % change greater than estimation in our Q4 2022 report Q4 2022 to Q1 2022 % change less than estimation in our Q4 2022 report | | | | | | |

Welded mesh: 120 x 240cm, dia.-5mm Plasterboard: 240 x 120 x 1.25cm (L x W x T)

| | Material Q1 | % change I – Q2 2023 (f) | Level of im | npact of pricing on construction procurement and supply chain * |
|-----|---|----------------------------------|--------------------|--|
| | Copper | +1.5% ↑ | o0 ŪŪŪ Moderate | Copper prices have seen a resurgence in recent months and are set to rise further in Q1 2023. The easing of the zero-Covid policy by China has kept the upward pressure on the copper prices, despite weakening global economic growth. Moreover, the potential for supply disruption at Chilean mines and political instability in Peru could further exacerbate upward pressure on prices. |
| | Steel prices - Steel rebar - Flat steel | -1.5% ↓ -1.0% ↓ | •0000 Low | Steel rebar prices fell by 16% in Q1 2023, marking a sharp acceleration in the downward trend in steel prices. On a monthly basis, however, prices rose slightly in February after falling sharply in January. Falling demand from the construction sector, coupled with a rise in cheaper available imports will keep prices relatively low in the coming quarters. |
| | Stainless stee | I +1.5% 个 | • 0 0 0 0 Low | Weakening demand in the short term will partially ease upward pressure on stainless steel prices. However, volatility in the price of key alloying materials such as nickel will keep prices elevated. |
| | Lumber | -1.0% ↓ | •0000 Low | Lumber prices have declined moderately in recent quarters. Weaker demand and an improvement in supply is expected to keep lumber on a declining trend. However, the rising popularity of wood as a construction material is likely to limit downward pressure on prices over the longer term. |
| A | Asphalt | +1.0% ↑ | • 0 0 0 0 Low | Relatively stable demand from the road construction sector has kept asphalt prices elevated in recent quarters. Increased volatility in crude oil prices could exacerbate upward pressure on asphalt prices over the coming quarters. |
| 000 | Limestone | -1.0% ↓ | •0000 Low | Weak demand from the construction sector amid rising interest rates and slowing economic growth is expected contain further upward pressure on prices. However, prices are expected to remain stable but elevated despite the easing of energy costs. |

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Norway - Commodity Report





| Material | % change Q1 – Q2 2023 (f) | Level of im | pact of pricing on construction procurement and supply chain * |
|--------------------|------------------------------|--------------|---|
| Cement Concrete | +1.0% ተ +0.5% ተ | o | Cement prices have only been edged up in recent quarters in Norway, unlike other markets in Europe, where there has been stronger upward pressure. However, prices are still high compared to year-earlier levels reflecting higher production costs. |
| Welded mes | h -1.0% ↓ | •0000 Low | Welded mesh prices have increased slightly from the levels of Q4 2022. However, with steel rebar prices following a downward trend, the price of mesh is expected to remain at current levels in short term before beginning to decline. |
| Bricks | +1.0% ↑ | •0000 Low | Brick prices continue on an upward trend despite stabilizing energy prices due to limited competition in the sector. |
| Plasterboard | I +1.0% ↑ | o 0 | Plasterboard prices have been steadily rising in recent quarters, with prices in Q1 2023 following this trend. However, with easing energy prices and weakening demand from the construction sector expected to limit further upward pressure, the price of plasterboard is expected to stabilise in the coming quarters. |
| Diesel | -3.3% ↓ | •0000 | The stabilization of international crude oil prices, coupled with a tax reduction on diesel enacted at the beginning of the year has caused |

reduction on diesel enacted at the beginning of the year has caused diesel prices to fall by around 10% quarter-on-quarter in Q1 2023.

However, a surprise cut in crude oil production volumes announced by OPEC+ nations could lead to more volatility in international oil markets which could renew upward pressure on diesel prices in the coming

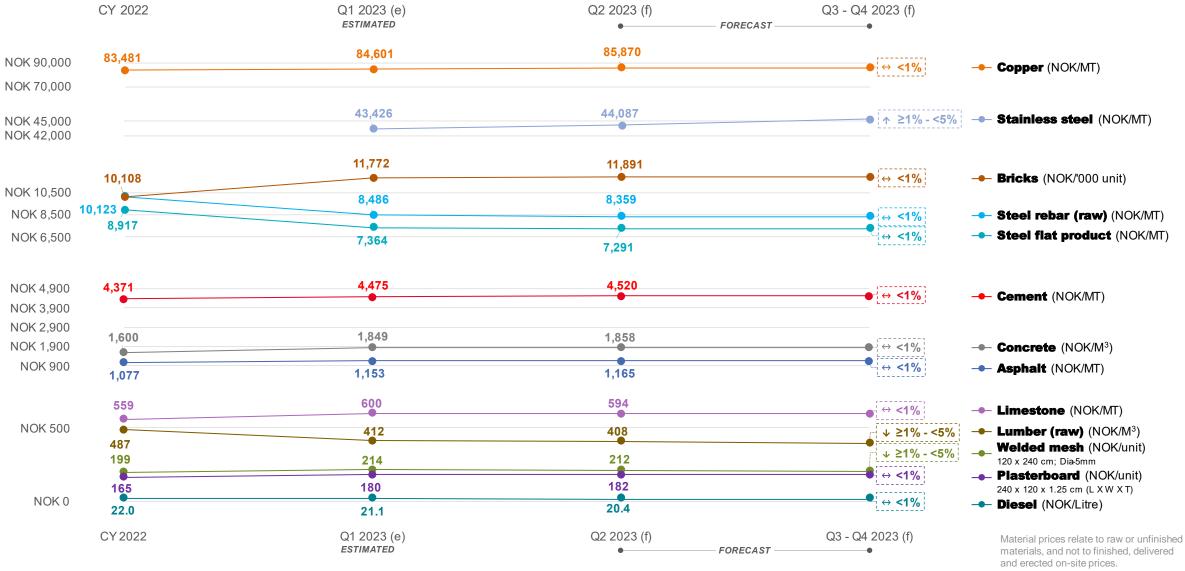
months.



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Norway – Construction Materials Pricing (2022-2023)







Norway – Macroeconomic overview



Economic indicators



2.15%

GDP growth in 2023 (f) and **3.28%** in 2022



4.90%

inflation rate in 2023 (f) and **5.76%** for 2022



2.86M

people employed in 2023 (f) and **2.85M** in 2022



3.50%

unemployment rate for 2023 (f) and **3.25%** in 2022



127.60

Consumer Price Index in Mar 2023 and **119.80** in Mar 2022



165.80

Producer Price Index in Mar 2023 and **212.40** in Mar 2022

National holidays

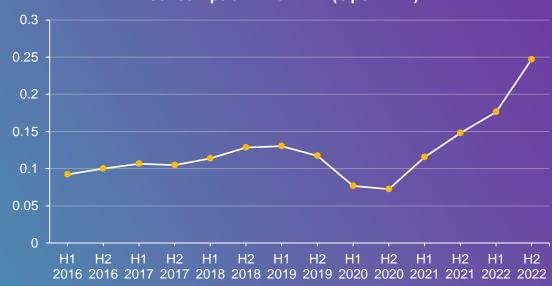


12 public holidays

in Norway in 2023.

Energy prices

Electricity prices for non-household consumers, consumption < 20 MWh (€ per kWh)



Note: All taxes and levies included



Norway – Construction overview



Output 2022 and 2023 (in NOK millions)*

| • | | | | | | |
|----------------------|---------------|-------------------|-------------------|--|--|--|
| Sector | Total 2022 | Total 2023 (f) | Total 2024 (f) | | | |
| Commercial | 124,316 | 121,360 | 123,353 | | | |
| Energy and utilities | 39,690 | 40,376 | 41,360 | | | |
| Industrial | 21,855 | 23,043 | 23,167 | | | |
| Infrastructure | 148,074 | 147,660 | 151,624 | | | |
| Institutional | 33,068 | 32,146 | 32,472 | | | |
| Residential | 253,121 | 244,716 | 245,505 | | | |

^{*}The output is in real terms at constant prices with 2017 as base year

Long lead equipment (LLE) - Supply Chain Overview

2022 was a turbulent year for the global supply chain with the fallout from the global pandemic combined with the emergence of the Russia-Ukraine conflict, leading to supply chain disruptions across the globe. However, 2023 is showing signs of relief in the market for long lead equipment (LLE). The following are the specifics of the LLE supply chain dynamic:

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- 2. Supply: The stock levels of raw materials have finally started to stabilise, alleviating some recent pressures on manufacturers and suppliers. However, it is worth noting that most LLE suppliers have reported being at operational capacity, with order books full up to Q3 2024, which may cause some concern for those relying on their products. Nevertheless, there is some hope as Tier 2 and Tier 3 supply chains have started to increase their capacity and support the larger demand within the market, which may help to mitigate any negative impact of capacity restrictions.
- 3. Freight durations and costs: Freight durations have begun to shorten in early 2023 as the global infrastructure and operations have developed to meet the rising demand and freight companies are shipping much faster than they did during the pandemic. Average freight costs have also reduced to align with pre-pandemic levels suggesting a return to normality within the industry. The benefits have been experienced in early 2023 and further reductions are expected throughout the rest of 2023.



Norway – Report methodology



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Sources include GlobalData's Construction Intelligence Center (CIC), the World Bank, IMF, OECD, as well as country specific national statistics offices, such as the U.S. Bureau of Economic Analysis, Bureau of Labor Statistics, and also industry specific associations and publications.

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Real data series are calculated by keeping prices constant (so, are also referred to as constant price series), and therefore, they reflect changes in activity only. Growth rates in nominal terms can overstate the pace of growth in construction activity if there is high inflation stemming from rising prices for key inputs.

Sample sources – Norway

For Norway, sources for this report include, but are not limited to:

- IMF
- · Statistics Norway
- GlobalData's Construction Intelligence Center (CIC)
- Statistisk Sentralbyrå (SSB)
- Economic Research Institute
- Public Holidays
- Eurostat









Spain Q1 2023

Spain's GDP grew by 5.5% in 2022 and the economy is expected to grow at a rate 1.5% in 2023, according to the most recent update from the IMF. Growth has slowed due to persistent inflation and higher interest rates. However, Spanish business confidence has reached its highest level since the third quarter of 2019, with the INE reporting a 2.7% quarter-on-quarter increase in the second quarter of this year, indicating continued economic recovery from last year's energy crisis. Inflationary pressures are also easing, with March inflation falling to 3.3%, the lowest annual rate since August 2021.

After growing by 4% in 2022, Spain's construction industry is expected to contract by 0.3% in real terms in 2023, due to high construction costs, rising interest rates, labour shortages, and supply chain constraints. However, investments in the industrial and renewable energy sectors are expected to drive growth, and the construction industry is expected to grow at a 3% annual rate between 2024 and 2027. Growth in the industrial sector will be largely supported by the construction of semi-conductor and battery manufacturing plants.



Damien Gallogly
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Lumber

Lumber prices will stabilise in the medium term as domestic demand declines and residential construction weakens owing to high interest rates.



Cement and aggregates

Prices of cement and concrete continue to be impacted by high production costs being passed on to buyers. Although buildings construction growth will slow, the implementation of EU-funded public works projects will provide support on the demand side.



Concrete blocks and bricks

Brick prices are expected to remain high in the short-term owing to elevated production costs, but weaker demand side growth will contain further price pressure.



Steel (rebar and structural)

Steel prices have been pushed up by higher production costs as well as a boost to demand in the region stemming from material shortages resulting from disruption in Turkey following the recent earthquake.



Copper

Having jumped in early 2023, copper prices will be volatile in the coming quarters given the prospect for higher demand in China but concerns over supply-side constraints and weakening global economic growth. There will be sustained demand from the expansion in investment in renewable energy facilities and electric vehicle production.



Spain – Commodity Report



| | Q2 2023 (f) | Q2 2022 | – Q2 2023 (f) | Q4 2022 – Q1 2023 (e) | | | |
|---|-------------|---------|----------------------|--------------------------|--|--|--|
| | | | 2022-23 | | | | |
| Materials | € | € | % change | % change | | | |
| Copper (€/MT) | 8,411 | 8,984 | -6.4% ↓ | 3.9% ↑ • | | | |
| Steel rebar (€/MT) | 774 | 848 | -8.7% ↓ | -0.7% ↓ ■ | | | |
| Steel flat (€/MT) | 707 | 1,049 | -32.6% ↓ | 0.5% ↑ ■ | | | |
| Stainless steel (€/MT) | 3,885 | NA | NA | 4.5% ↑ • | | | |
| Lumber (€/M3) | 149 | 141 | 5.8% 个 | 1.5% ↑ • | | | |
| Asphalt (€/MT) | 92.3 | 99.3 | -7.1% ↓ | -5.0% ↓ • | | | |
| Limestone (€/MT) | 66.6 | 54.3 | 22.5% 个 | 8.3% ↑ • | | | |
| Cement (€/MT) | 157 | 144 | 9.4% 个 | 8.3% ↑ • | | | |
| Concrete (€/M3) | 148 | 137 | 8.1% 个 | 5.7% 个 • | | | |
| Welded mesh (€/unit) | 97.4 | 95.5 | 2.1% 个 | 2.9% ↑ • | | | |
| Bricks (€/'000 unit) | 941 | 850 | 10.7% 个 | 10.2% 个 • | | | |
| Plasterboard (€/unit) | 4.67 | 3.92 | 19.4% 个 | 6.4% ↑ • | | | |
| Diesel (€/litre) | 1.57 | 1.91 | -18.1% ↓ | -11.4% ↓ • | | | |
| (f) Forecast (e) Es | timated | | | | | | |
| Q4 2022 to Q1 2023 % change greater than estimation in our Q4 2022 report Q4 2022 to Q1 2022 % change less than estimation in our Q4 2022 report | | | | | | | |
| Welded mesh: 100 x 100 x 6cm Plasterboard: 125 x 60 x 1.3cm (L x W x T) | | | | | | | |

| | Material Q | % change 11 – Q2 2023 (f) | Level of im | spact of pricing on construction procurement and supply chain * |
|-----|---|------------------------------|-----------------------|--|
| | Copper | +1.0% ↑ | 00 📗 🗎 | Copper prices jumped in Q1 2023 amid expectations of higher demand from China and tightened supply from key source markets. Further price inflation will be contained by the slowing global economy. |
| | Steel prices - Steel rebar - Flat steel | +1.0% 个 +1.0% 个 | o 0 █ █ █ Moderate | Steel prices will remain elevated in the short term, with local demand stemming from railway infrastructure investment will be a contributing factor. Domestic production has also slowed. It dropped by 16.2% year-on-year in the first two months of 2023. High production costs have squeezed profit margins, and as a result producers have cut output levels. |
| | Stainless stee | el +1.5% 个 | •0000 Low | Despite sluggish demand growth, stainless steel prices have been held up by high raw material costs. |
| | Lumber | +0.5% 个 | • O O O O | Lumber prices will remain flat in the coming months because of the slowdown in demand from the construction industry. Fuel and electricity prices are also expected to fall from recent highs, which will help to contain inflationary pressure. |
| A | Asphalt | -0.5% ↓ | • 0 0 0 0 Low | Prices will fall further in the short term as a result of weaker raw materials costs. However, demand will continue to be supported by the government's ongoing investment in road improvements. |
| 000 | Limestone | +0.8% ↑ | •0000 Low | Sluggish demand in buildings construction due to high interest rates and weaker economic growth will result in weaker demand for limestone. High production costs have been a factor in keeping prices relatively high in recent quarters. |

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Spain – Commodity Report





| Material | % change Q1 – Q2 2023 (f) | Level of ir | npact of pricing on construction procurement and supply chain * |
|--------------------|------------------------------|---------------------|---|
| Cement Concrete | +1.0% ↑ +0.8% ↑ | o () () () High | Concrete and cement prices have been pushed up by high production costs, and investment in infrastructure and civil works projects will sustain demand. |
| Welded mes | s h +0.5% ↑ | o 0 █ ∭ Moderate | Welded mesh prices have edged upwards, but with weaker building construction demand, prices are expected to stabilise in 2023. |
| Bricks | +0.5% ↑ | 00 I | Brick prices jumped in early 2023, with the main driver being higher production costs being passed on to buyers. Prices are expected to stabilise as domestic demand weakens in the coming quarters. |
| Plasterboar | rd +0.5% ↑ | o 0 I | Plasterboard prices continued to increase in Q1 2023 with producers passing on higher costs. However, with weaker demand predicted in the buildings construction sector, price pressure will moderate. |
| Diesel | -4.0% ↓ | •0000 Low | Diesel prices have continued to retreat from mid-2022 highs. The diesel price dropped to €1.57 in the final week of March 2023, reaching its lowest point since the Russia-Ukraine conflict began in February last year. On a quarterly average basis, prices will remain around current levels, but with increased volatility in global crude oil prices, diesel prices could also be subject to significant shifts in the |

coming quarters.

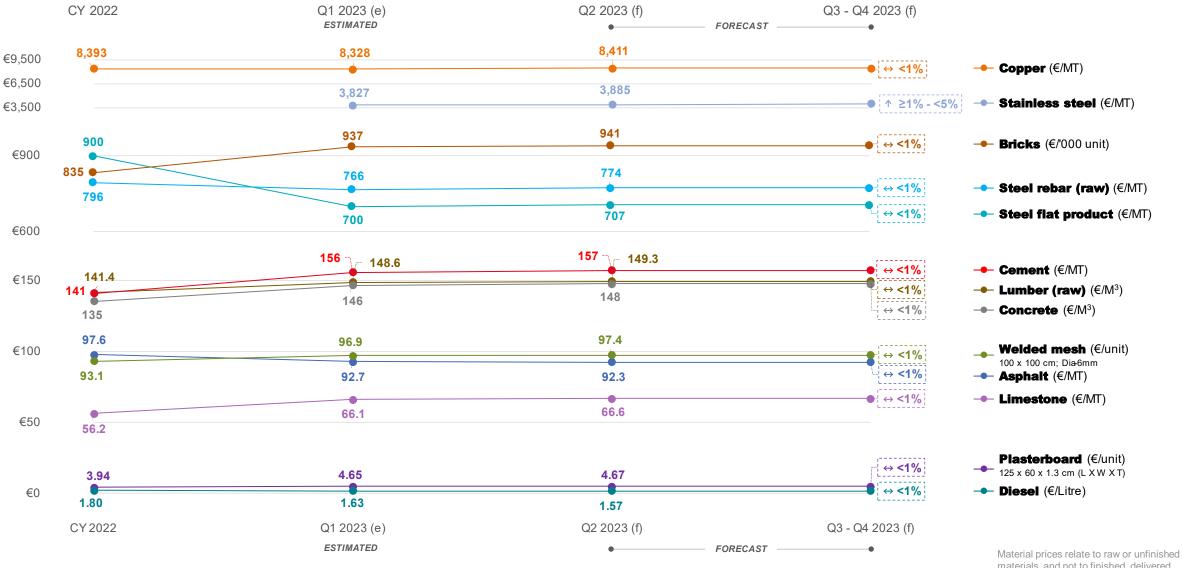


^{*} Level of impact rating reflects a combination of factors: the price movement and also price level (compared to recent past beyond the last quarter), the importance of the material, and general state of the supply chain in terms of stability.

Please note that commodity prices are based on representative materials available in the respective countries, and as these materials may not be standard across all markets, cross-country comparisons on prices can be ineffective. For example, asphalt types can vary between hot, cold or a bitumen price, and standard unit sizes for materials can vary across countries.

Spain – Construction Materials Pricing (2022-2023)





Material prices relate to raw or unfinished materials, and not to finished, delivered and erected on-site prices.



Spain – Macroeconomic overview



Economic indicators



1.51%

GDP growth in 2023 (f) and **5.48%** in 2022



4.30%

inflation rate in 2023 (f) and **8.32%** for 2022



20.55M

people employed in 2023 (f) and **20.39M** in 2022



12.63%

unemployment rate for 2023 (f) and 12.92% in 2022



111.11

Consumer Price Index in March 2023 and **107.56** in March 2022



156.26

Producer Price Index in Feb 2023 and **144.92** in Feb 2022

National holidays

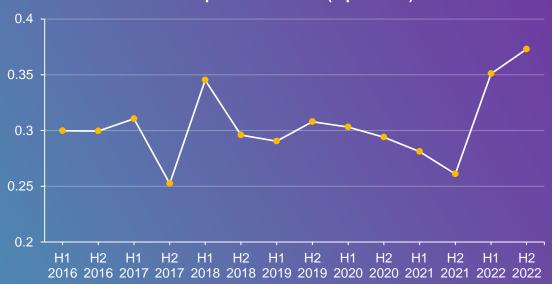


10-14 public holidays

dependant on different regions

Energy prices

Electricity prices for non-household consumers, consumption < 20 MWh (€ per kWh)



Note: All taxes and levies included

Spain – Construction overview



Output 2022 and 2023 (in € millions)*

| | • | | , |
|----------------------|---------------|-------------------|-------------------|
| Sector | Total 2022 | Total 2023 (f) | Total 2024 (f) |
| Commercial | 15,967 | 15,927 | 16,114 |
| Energy and utilities | 5,992 | 6,116 | 6,274 |
| Industrial | 5,742 | 5,808 | 6,242 |
| Infrastructure | 26,092 | 26,831 | 28,238 |
| Institutional | 11,055 | 10,911 | 11,198 |
| Residential | 64,773 | 63,668 | 65,697 |

^{*}The output is in real terms at constant prices with 2017 as base year

Long lead equipment (LLE) - Supply Chain Overview

2022 was a turbulent year for the global supply chain with the fallout from the global pandemic combined with the emergence of the Russia-Ukraine conflict, leading to supply chain disruptions across the globe. However, 2023 is showing signs of relief in the market for long lead equipment (LLE). The following are the specifics of the LLE supply chain dynamic:

- 1. **Demand**: Demand for LLE has remained exceptionally high across all regions and industry sectors. Organizations have moved to expand their supply chain portfolios and include secondary and tertiary suppliers, whilst most are continuing to invest in inventory management systems to prevent any supply chain disruptions. There is no sign of reduced demand, so the constraints to the supply chain will continue for the remainder of 2023.
- 2. Supply: The stock levels of raw materials have finally started to stabilise, alleviating some recent pressures on manufacturers and suppliers. However, it is worth noting that most LLE suppliers have reported being at operational capacity, with order books full up to Q3 2024, which may cause some concern for those relying on their products. Nevertheless, there is some hope as Tier 2 and Tier 3 supply chains have started to increase their capacity and support the larger demand within the market, which may help to mitigate any negative impact of capacity restrictions.
- 3. Freight durations and costs: Freight durations have begun to shorten in early 2023 as the global infrastructure and operations have developed to meet the rising demand and freight companies are shipping much faster than they did during the pandemic. Average freight costs have also reduced to align with pre-pandemic levels suggesting a return to normality within the industry. The benefits have been experienced in early 2023 and further reductions are expected throughout the rest of 2023.

Construction Health and Safety practices and culture



80,114

accidents produced in the period January - February 2023 with sick leave, of which 560 accidents were serious and 96 accidents were fatal.



6.16 per 1000 persons

Is the accident incidence rate

Comparing these data with those of the same period of the year previous year, there were 26 more serious accidents and 22 fewer fatal accidents.



Spain – Report methodology



Linesight has commissioned independent global research to track construction materials and commodity prices.

The approach and methodology for the collection of construction material pricing and other indicators is based on primary and secondary research.

Primary and secondary research

Primary research is conducted on a quarterly basis with stakeholders in the value chain, including manufacturers and suppliers/distributors of the target materials, to ascertain market information on prices in recent quarters, and also on projections for changes in the coming quarter and remainder of the year. The market analysis also involves a thorough assessment of secondary sources of data on materials and labour prices, in addition to underlying demand and supply trends that will impact market prices.

Sources include GlobalData's Construction Intelligence Center (CIC), the World Bank, IMF, OECD, as well as country specific national statistics offices, such as the U.S. Bureau of Economic Analysis, Bureau of Labor Statistics, and also industry specific associations and publications.

Definitions

- · Commodity prices are net of taxes for all the countries
- · Prices are not customer delivered
- All commodities are raw materials
- Nominal and real data

Nominal data series do not exclude changes in prices and are also referred to as current prices series.

Annual changes in nominal data for construction output will include changes in construction activity, as well as changes in costs for materials and equipment.

Real data series are calculated by keeping prices constant (so, are also referred to as constant price series), and therefore, they reflect changes in activity only. Growth rates in nominal terms can overstate the pace of growth in construction activity if there is high inflation stemming from rising prices for key inputs.

Sample sources – Spain

For Spain, sources for this report include, but are not limited to:

- IMF
- National Statistics Institute (INE)
- · International Labour Organization
- Eurostat
- GlobalData's Construction Intelligence Center (CIC)
- Economic Research Institute
- · Public Holidays
- Eurostat







Sweden Q1 2023

Sweden's GDP grew by 2.6% in 2022, despite a decline of 1.1% in Q4 2022. Furthermore, a contraction of 0.5% is forecasted for 2023 amid supply chain disruptions and increased inflation. On a positive note, the headline rate for the core CPI is easing out slightly, from 9.4% in February to 8% in March this year, but it is still significantly higher than the central bank's target rate of 2%.

The Swedish construction industry is expected to contract by 4.8% in 2023 due to high material costs and a weak global economic outlook. However, it is likely to rebound with an annual growth rate of 2.2% from 2024 to 2026, supported by the government's investment in transport and energy infrastructure. The industrial sector is likely to sustain the growth momentum, supported by a positive trend in manufacturing activities and the nation's investment in automobile industry.



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Lumber

Demand for lumber in Sweden is generally driven by the homebuilding sector, which is set to weaken significantly in 2023. As a result, lumber demand will be subdued compared to historical levels, which will cause short-term prices to decline. However, the popularity of wood products in Sweden's construction industry will ensure that long-term demand will remain strong. Moreover, as Europe's largest timber exporter, rising demand for sustainable construction materials across Europe will increase pressure on Sweden's timber stocks, which will exacerbate upward pressure on prices over the long term.



Cement and aggregates

Concrete and cement prices are continuing to rise despite the easing of energy costs, as the reduction in input costs is yet to be reflected in producers' prices. However, greater certainty over cement and limestone supplies following the resolution of the environmental dispute regarding Cementa's mining license has improved the market's outlook and limited further upward pricing pressure. Nevertheless, greater awareness of environmental degradation, coupled with the rise of sustainable materials is expected to reduce demand for traditional concrete and aggregate materials over the long term.



Concrete blocks and bricks

Brick prices have continued to rise in recent quarters despite weakening construction activity, particularly in the residential sector. However, given the weakening of the homebuilding sector, coupled with a high proportion of wooden housing developments relative to brick and mortar, further significant upward pressure on prices will be limited.



Steel (rebar and structural)

Demand for steel will be partially buoyed by a high-value pipeline of infrastructure projects over the coming years, which will limit downward pressure on prices. As a net exporter of steel, Sweden's steel productive capacity has provided enough resilience to avoid major price fluctuations stemming from shortages. However, weakening external demand and a rise in cheaper imports will keep prices on a downward trend.



Copper

Global copper prices remain volatile following disruption from the Russia-Ukraine conflict, leading to ongoing supply tightness. Further demand shocks stemming from China's re-opening, have led to an increase in prices in Q1 2023. Copperstone Resources' decision to increase domestic production in 2023, by re-opening the Viscaria copper mine in Kiruna, will help to ease supply-side pressures, but prices will continue to be driven primarily by the global market.



Sweden – Commodity Report



| | Q2 2023 (f) | Q2 2022 | – Q2 2023 (f) | Q4 2022 – Q1 2022 (e |
|---------------------------------|-------------|---------|---------------|-------------------------|
| | | | 2022-23 | |
| Materials | SEK | SEK | % change | % change |
| Copper (SEK/MT) | 85,939 | 93,747 | -8.3% ↓ | 2.0% 个 |
| Steel rebar (SEK/MT) | 7,115 | 8,675 | -18.0% ↓ | -4.9% ↓ |
| Steel flat (SEK/MT) | 6,739 | 8,176 | -17.6% ↓ | -4.9% ↓ |
| Stainless steel (SEK/MT) | 45,272 | NA | NA | 7.6% 个 |
| Lumber (SEK/M3) | 706 | 959 | -26.3% ↓ | -2.9% ↓ |
| Asphalt (SEK/MT) | 818 | 1,059 | -22.8% ↓ | -15.6% ↓ |
| Limestone (SEK/MT) | 721 | 546 | 32.0% 个 | 9.4% ↑ |
| Cement (SEK/MT) | 3,128 | 2,319 | 34.9% 个 | 14.8% ↑ |
| Concrete (SEK/M3) | 1,480 | 1,278 | 15.8% 个 | 4.1% ↑ |
| Welded mesh (SEK/unit) | 784 | 938 | -16.4% ↓ | -4.7% ↓ |
| Bricks (SEK/'000 unit) | 9,879 | 8,643 | 14.3% 个 | 8.0% 个 |
| Plasterboard (SEK/unit) | 107.1 | 92.2 | 16.1% 个 | 10.2% ↑ |
| Diesel (SEK/litre) | 23.3 | 24.4 | -4.5% ↓ | -9.1% ↓ |
| (f) Forecast (e) Est | timated | | | |

| | Material | % change Q1 – Q2 2023 (f) | Level of i | mpact of pricing on construction procurement and supply chain * |
|------------|--|------------------------------|---------------|--|
| | Copper | -2.0% ↓ | • D D D Low | The re-opening of China's economy following the end of its zero-Covid po coupled with subdued output at major copper mines has significantly increased pressure on global supplies, leading to higher copper prices. As result, prices peaked in February before retracting slightly in March. The global copper market is expected to remain volatile over the coming quarter |
| 2 | Steel price - Steel rebar - Flat steel | es · -1.0% ↓ -0.5% ↓ | •0000 Low | Prices for steel rebar dropped significantly in the second half of 2022 an were down through January of this year. Although prices somewhat increased in February and March, subdued demand from manufacturing and construction will exacerbate the downward trend over the coming quarters. Flat steel products will follow a similar downward trend. |
| ⟨ € | Stainless | steel +2.0% ↑ | • 0 0 0 0 Low | Although there has been a slight increase in stainless steel prices, a larging rise is anticipated in the upcoming quarter due to the instability of nickel supplies as a result of the trade restrictions on Russian imports. Despite volatility in nickel prices, market participants are closely monitoring the continuing influx of inexpensive nickel from Asia. |
| | Lumber | -0.5% ↓ | •0000 Low | Lumber prices have been on a downward trend in recent quarters on a quarterly average basis. Prices dropped by 5% MoM in December 2022 before rebounding slightly in January. Despite supply limitations and increased demand for exports as many countries pivot away from Russi supplies, overall weak demand is expected to keep prices close to curre levels in the coming quarters. |
| <u>. }</u> | Asphalt | +1.0% 个 | •0000 Low | Despite the stability of crude oil prices in Q1, recent sanctions placed on the imports of bitumen and asphalt from Russia may lead to tighter supp which will ultimately impact on prices in Sweden. Additionally, production cuts by OPEC+ countries could also exacerbate upward pressure on pri and so prices are likely to be volatile in coming quarters. |
| ~ | Limestone | +0.8% ↑ | •0000 | Limestone prices rose throughout 2022 owing to tight supplies and strongrowth in the Swedish construction sector. Prices in Q1 2023 were up 4 |

| n | pact of pricing on construction procurement and supply chain * |
|---|---|
| | The re-opening of China's economy following the end of its zero-Covid policy, coupled with subdued output at major copper mines has significantly increased pressure on global supplies, leading to higher copper prices. As a result, prices peaked in February before retracting slightly in March. The global copper market is expected to remain volatile over the coming quarters. |
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the stability of crude oil prices in Q1, recent sanctions placed on orts of bitumen and asphalt from Russia may lead to tighter supply, Il ultimately impact on prices in Sweden. Additionally, production OPEC+ countries could also exacerbate upward pressure on prices, orices are likely to be volatile in coming quarters.

ne prices rose throughout 2022 owing to tight supplies and strong growth in the Swedish construction sector. Prices in Q1 2023 were up 40% year-on-year, and are expected to remain elevated in the coming months but further upward pressure will be limited due to weakening demand.

Welded mesh: 500 x 230cm, dia.-6mm Plasterboard: 250 x 90 x 1.25cm (L x W x T)



[■] Q4 2022 to Q1 2023 % change less than estimation in our Q4 2022 report

Sweden – Commodity Report



| Construction cost Index (Input Price): 2015-2022 (1939=100) | | | | |
|---|-------|--|--|--|
| 2022 | 5,674 | | | |
| 2021 | 5,023 | | | |
| 2020 | 4,732 | | | |
| 2019 | 4,709 | | | |
| 2018 | 4,549 | | | |
| 2017 | 4,405 | | | |
| 2016 | 4,296 | | | |
| 2015 | 4,226 | | | |
| | | | | |

| Material | % change Q1 – Q2 2023 (f) | Level of in | npact of pricing on construction procurement and supply chain * |
|--------------------|------------------------------|--------------|--|
| Cement Concrete | +1.0% ተ +1.0% ተ | o | Prices rose rapidly in mid-2022 as a result of companies passing on greater expenses to consumers due to increasing energy and raw material costs. Despite recent drops in input costs, prices remain elevated. Throughout the ensuing quarters, prices are anticipated to remain stable. |
| Welded mes | sh -1.0% ↓ | •0000 Low | Welded mesh prices have been on a declining trend since spiking in Q2 2022, reflecting falling steel rebar prices. Prices in Q1 2023 fell by almost 5% quarter-on-quarter, marking a deceleration from a 10% quarter-on-quarter decline in Q4 2022. Prices are expected to remain relatively low in the coming quarters. |
| Bricks | +0.5% ↑ | •0000 Low | Brick prices have continued on an upward trend in recent quarters, rising by around 8% quarter-on-quarter in Q1 2023 despite the fall in energy prices and weakening demand, particularly in the residential sector. Over the upcoming quarters, it is anticipated that the prices will remain at elevated levels. |
| Plasterboar | rd +0.5% ↑ | o 0 0 | Plasterboard prices increased by 10% quarter-on-quarter in Q1 2023, marking an acceleration in the price growth from previous quarters. Relatively high demand due to strong levels of renovation activity, coupled with supply shortages and elevated raw materials costs have increased upward pressure on prices which have been rising since mid-2022. |
| Diesel | +1.0% ↑ | •0000 Low | Due to the decline in crude oil prices, diesel prices have declined from their mid-2022 highs, but there has been some stability in recent months. Global crude oil production cuts are expected to increase volatility in oil prices which are likely to impact diesel prices. |

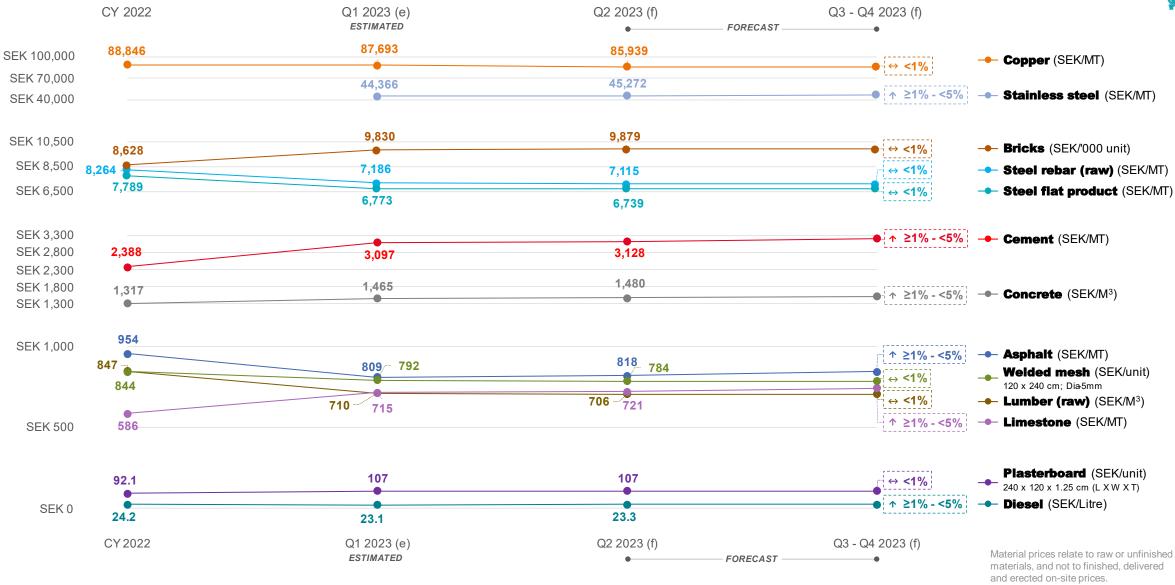
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Sweden – Construction Materials Pricing (2022-2023)







Sweden – Macroeconomic overview



Economic indicators



-0.48%

GDP growth in 2023 (f) and **2.64%** in 2022



6.82%

inflation rate in 2023 (f) and **8.01%** for 2022



5.17M

people employed in 2023 (f) and **5.18M** in 2022



7.80%

unemployment rate for 2023 (f) and **7.47%** in 2022



398.08

Consumer Price Index in March 2023 and 359.80 in March 2022



134.60

Producer Price Index in Feb 2023 and **129.90** in Feb 2022

National holidays

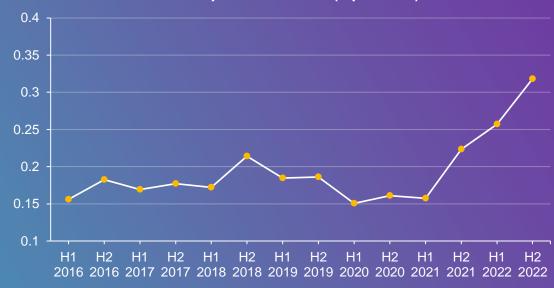


13 public holidays

in Sweden in 2023.

Energy prices

Electricity prices for non-household consumers, consumption < 20 MWh (€ per kWh)



Note: All taxes and levies included



Sweden – Construction overview



Output 2022 and 2023 (in SEK millions)*

| Sector | Total 2022 | Total 2023 (f) | Total 2024 (f) | | |
|----------------------|---------------|-------------------|-------------------|--|--|
| Commercial | 83,602 | 79,226 | 82,719 | | |
| Energy and utilities | 33,863 | 35,288 | 36,783 | | |
| Industrial | 80,642 | 85,765 | 87,601 | | |
| Infrastructure | 99,016 | 103,938 | 112,051 | | |
| Institutional | 41,912 | 45,302 | 46,998 | | |
| Residential | 330,670 | 288,087 | 276,007 | | |

^{*}The output is in real terms at constant prices with 2017 as base year

Long lead equipment (LLE) - Supply Chain Overview

2022 was a turbulent year for the global supply chain with the fallout from the global pandemic combined with the emergence of the Russia-Ukraine conflict, leading to supply chain disruptions across the globe. However, 2023 is showing signs of relief in the market for long lead equipment (LLE). The following are the specifics of the LLE supply chain dynamic:

- 1. **Demand**: Demand for LLE has remained exceptionally high across all regions and industry sectors. Organizations have moved to expand their supply chain portfolios and include secondary and tertiary suppliers, whilst most are continuing to invest in inventory management systems to prevent any supply chain disruptions. There is no sign of reduced demand, so the constraints to the supply chain will continue for the remainder of 2023.
- 2. Supply: The stock levels of raw materials have finally started to stabilise, alleviating some recent pressures on manufacturers and suppliers. However, it is worth noting that most LLE suppliers have reported being at operational capacity, with order books full up to Q3 2024, which may cause some concern for those relying on their products. Nevertheless, there is some hope as Tier 2 and Tier 3 supply chains have started to increase their capacity and support the larger demand within the market, which may help to mitigate any negative impact of capacity restrictions.
- 3. Freight durations and costs: Freight durations have begun to shorten in early 2023 as the global infrastructure and operations have developed to meet the rising demand and freight companies are shipping much faster than they did during the pandemic. Average freight costs have also reduced to align with pre-pandemic levels suggesting a return to normality within the industry. The benefits have been experienced in early 2023 and further reductions are expected throughout the rest of 2023.



Sweden – Report methodology



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The approach and methodology for the collection of construction material pricing and other indicators is based on primary and secondary research.

Primary and secondary research

Primary research is conducted on a quarterly basis with stakeholders in the value chain, including manufacturers and suppliers/distributors of the target materials, to ascertain market information on prices in recent quarters, and also on projections for changes in the coming quarter and remainder of the year. The market analysis also involves a thorough assessment of secondary sources of data on materials and labour prices, in addition to underlying demand and supply trends that will impact market prices.

Sources include GlobalData's Construction Intelligence Center (CIC), the World Bank, IMF, OECD, as well as country specific national statistics offices, such as the U.S. Bureau of Economic Analysis, Bureau of Labor Statistics, and also industry specific associations and publications.

Definitions

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Real data series are calculated by keeping prices constant (so, are also referred to as constant price series), and therefore, they reflect changes in activity only. Growth rates in nominal terms can overstate the pace of growth in construction activity if there is high inflation stemming from rising prices for key inputs.

Sample sources – Sweden

For Sweden, sources for this report include, but are not limited to:

- IMF
- Mynak
- Statistics Sweden
- Organisation for Economic Co-operation and Development (OECD)
- GlobalData's Construction Intelligence Center (CIC)
- Economic Research Institute
- Public Holidays
- Eurostat



Linesight





Switzerland Q1 2023

Switzerland experienced a growth rate of 2.1% in 2022, but the economic outlook for 2023 appears to be challenging with GDP growth predicted to decline to 0.8% due to weaker global growth, tighter monetary policy, and the recent banking crisis in the country. Additionally, inflation levels have surpassed the Swiss National Bank's price stability range, with figures for March at a rate of 2.9%.

The Swiss construction industry is predicted to slow in 2023 and decrease by 1.6% in real terms due to inflation, rising interest rates, and labour shortages. The KOF Business Tendency Surveys indicate that construction prices will likely continue to rise amid labour shortages. While the industry has shown nominal growth in investment and output over the last three years, real values reveal a decline in both for consecutive quarters when considering the increase in construction service costs. Nonetheless ,the industry is likely to rebound at an average annual growth rate of 1.7% from 2024 to 2026, led by investments in renewable energy and transportation sectors. Lifesciences sector represented more than 39% of Swiss exports in 2022 and is expected to continue to grow.



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Lumber

The energy price hike has led to an increase in demand for firewood, but strong inventories and reduced production in response to lower winter demand has contributed to weaker prices. Moreover, rising interest rates and falling real incomes are expected to impact housing construction, and weigh on lumber prices in the short term.



Cement and aggregates

Prices of cement and aggregates have continued to increase amid cost-push pressures stemming from the energy crisis. However, inflationary pressure is expected to be more subdued in the months ahead given the contraction in the construction sector and the subsequent slowing of demand for cement.



Concrete blocks and bricks

Facing a surge in energy costs, brick manufacturers have been cutting production and shutting down kilns. Brick prices have therefore been on an upward trend despite signs of weaker demand in the construction industry. Price are expected to remain high in the short-term owing primarily to high cost of energy, which will impose a tight squeeze on profit margins.



Steel (rebar and structural)

Given its heavy dependence on steel imports, local prices are greatly exposed to fluctuations in global prices. With energy costs still high, prices have remained elevated despite weaker demand. The decarbonization effort will contribute to higher production costs further ahead.



Copper

China's reopening following the ending of zero-COVID policies along with supply disruptions in Chile and Peru, the two largest copper producing countries globally, contributed to renewed upward pressure on copper prices in early 2023. Switzerland is heavily dependent on imported copper, with the majority of copper imports sourced from Zambia which is then re-exported by Swiss-based traders.



Switzerland - Commodity Report

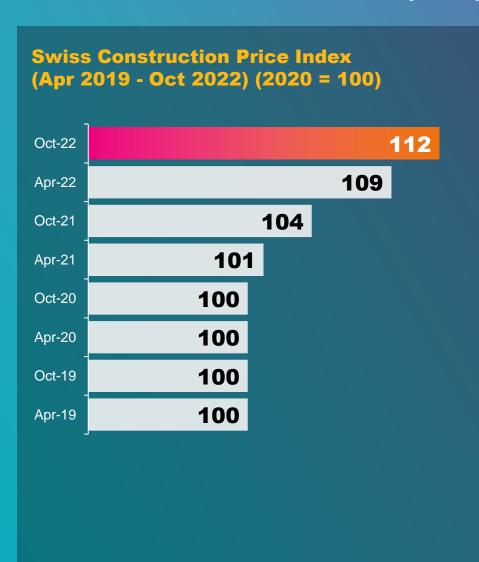


| | Q2 2023 (f) | Q2 2022 | – Q2 2023 (f) | Q4 2022 - Q1 2022 (e) | |
|---|-------------|-----------------|---------------------|--------------------------|--|
| | | | 2022-23 | | |
| Materials | CHF | CHF | % change | % change | |
| Copper (CHF/MT) | 8,341 | 9,321 | -10.5% ↓ | 7.2 % ↑ • | |
| Steel rebar (CHF/MT) | 840 | 1,221 | -31.2% ↓ | -11.2% ↓ • | |
| Steel flat (CHF/MT) | 794 | 1,258 | -36.9% ↓ | -1.7% ↓ • | |
| Stainless steel (CHF/MT) | 3,743 | NA | NA | 1.1% ↑ • | |
| Lumber (CHF/M3) | 96.7 | 95.0 | 1.8% 个 | 0.3% ↑ ■ | |
| Asphalt (CHF/MT) | 120 | 117 | 2.4% 个 | 1.1% ↑ • | |
| Limestone (CHF/MT) | 43.9 | 40.0 | 9.8% 个 | 4.3% ↑ • | |
| Cement (CHF/MT) | 207 | 189 | 9.9% 个 | 4.3% ↑ • | |
| Concrete (CHF/M3) | 163 | 147 | 11.3% 个 | 5.8% 个 • | |
| Welded mesh (CHF/unit) | 93.5 | 125 | -25.0% ↓ | -10.1% ↓ • | |
| Bricks (CHF/'000 unit) | 1,073 | 994 | 7.9% 个 | 3.3% ↑ • | |
| Plasterboard (CHF/unit) | 6.46 | 6.08 | 6.4% 个 | 3.0% ↑ • | |
| Diesel (CHF/litre) | 2.04 | 2.29 | -10.9% ↓ | -8.7% ↓ ■ | |
| (f) Forecast (e) Est | imated | | | | |
| | | otov thon anti- | motion in our O4 of | 022 report | |
| Q4 2022 to Q1 2023 % change greater than estimation in our Q4 2022 report Q4 2022 to Q1 2022 % change less than estimation in our Q4 2022 report | | | | | |
| | | | | | |
| Welded mesh: 150 x 300cm, dia5mm Plasterboard: 200 x 60 x 1.25cm (L x W x T) | | | | | |

| | Material | % change Q1 – Q2 2023 (f) | Level of im | pact of pricing on construction procurement and supply chain * |
|---|---|----------------------------------|--------------|--|
| | Copper | +1.0% 个 | •0000 Low | Copper prices increased by 7.2% quarter-on-quarter in Q1 2023, due to increase in demand following the re-opening of the Chinese economy, coupled with supply disruptions from Peru. Prices will remain high in the coming quarters, but concerns over the global economic outlook may dampen demand. |
| | Steel prices - Steel rebar - Flat steel | +0.8% 个 +1.0% 个 | •0000 Low | Steel rebar prices continued to decline in early 2023, but steel flat product prices held up relatively well, with demand in the latter being stronger. Although demand in general will weaken amid the drop in construction output, further price declines will be contained by enduring high energy costs. |
| 6 | Stainless st | eel -0.1% ↓ | •0000 Low | Stainless steel prices are expected to remain relatively high given the importance of alloying materials such as nickel and chromium, prices for which remain high. |
| | Lumber | -1.0% ↓ | •0000 Low | Lumber prices have been fairly stable in recent quarters. High interest rates are expected to further weigh on housing demand and construction activities in the short-term, thereby leading to a decline in lumber prices in the coming quarter. |
| A | Asphalt | -1.0% ↓ | •0000 Low | Asphalt prices have remained elevated owing to high input costs. Although set to ease back, prices will be held up by demand stemming from the government's focus on developing transport infrastructure, including road tunnel projects. |
| | Limestone | +1.0% 个 | •0000 Low | Limestone prices are estimated to have increased by 4.3% quarter-on- quarter in Q1 2023, owing to rising production costs amid elevated energy prices. However, owing to weakening demand in the construction industry, prices will level off in the coming quarters. |

Switzerland - Commodity Report





| Material | % change Q1 – Q2 2023 (f) | Level of im | pact of pricing on construction procurement and supply chain * |
|--------------------|------------------------------|-------------------|---|
| Cement Concrete | +1.0% 个 +1.0% 个 | 00000 Moderate | With increasing cost of production, cement and concrete prices rose sharply in early 2023, with manufacturers passing on these higher costs to buyers. However, falling cement orders amid subdued demand will keep the prices of cement and concrete in check in the short-term. |
| Welded mes | h -1.0% ↓ | • 0 0 0 0 Low | Welded mesh prices have dropped in line with trends in the price for steel reinforcement bars. The downward trend in prices is forecast to continue into Q2 2023, owing to the slowdown in demand. |
| Bricks | +1.0% ↑ | • 0 0 0 0 Low | Brick prices increased further in Q1 2023 owing primarily to the high cost of energy. Although brick prices are expected to remain high in the coming quarters, weakening demand in the construction industry will likely contain further inflationary pressures. |
| Plasterboard | d +1.0% ↑ | • 0 0 0 0 Low | Plasterboard prices are estimated to have increased by 3% quarter-on- quarter in Q1 2023, owing to high production costs. With demand easing, prices are expected to flatten in the coming months. |
| Diesel | +1.0% ↑ | •0000 | Diesel prices in Switzerland were on a downward trend in Q1 2023, with prices dropping below CHF2/liter in March 2023. With the gloomy |

OPEC+ production cuts.

economic outlook, and more refineries coming onstream in Europe, North America, and Asia, diesel prices are expected to further fall in Q2 2023. However, global crude oil prices will be volatile given potential for further

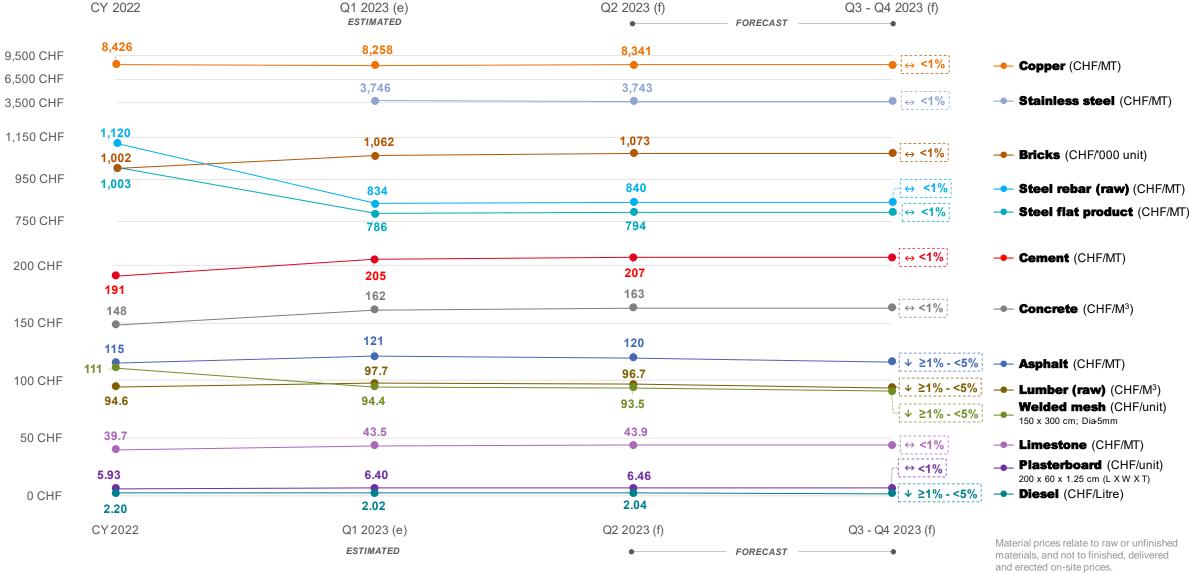
Level of impact rating reflects a combination of factors: the price movement and also price level (compared to recent past beyond the last quarter), the importance of the material, and general state of the supply chain in terms of stability.

Please note that commodity prices are based on representative materials available in the respective countries, and as these materials may not be standard across all markets, cross-country comparisons on prices can be ineffective. For example, asphalt types can vary between hot, cold or a bitumen price, and standard unit sizes for materials can vary across countries.



Switzerland – Construction Materials Pricing (2022-2023)







Switzerland - Macroeconomic overview



Economic indicators



0.83%

GDP growth in 2023 (f) and **2.13%** in 2022



2.45%

inflation rate in 2023 (f) and 2.84% for 2022



5.20M

people employed in 2023 (f) and **5.18M** in 2022



2.33%

unemployment rate for 2023 (f) and **2.17%** in 2022



106.00

Consumer Price Index in Mar 2023 and **103.00** in Mar 2022



109.25

Producer Price Index in Mar 2023 and **108.40** in Mar 2022

National holidays



5 public holidays

in Switzerland in 2023.

Energy prices

Average monthly electricity wholesale price in Switzerland (€ per MWh)



* Till Jan 2023



Switzerland – Construction overview



Output 2022 and 2023 (in CHF millions)*

| | ` | | • |
|----------------------|---------------|-------------------|-------------------|
| Sector | Total 2022 | Total 2023 (f) | Total 2024 (f) |
| Commercial | 15,929 | 15,868 | 16,200 |
| Energy and utilities | 7,440 | 7,254 | 7,398 |
| Industrial | 7,594 | 7,479 | 7,567 |
| Infrastructure | 16,111 | 15,683 | 15,817 |
| Institutional | 6,872 | 6,817 | 7,033 |
| Residential | 25,617 | 25,181 | 25,605 |

^{*}The output is in real terms at constant prices with 2017 as base year

Long lead equipment (LLE) - Supply Chain Overview

2022 was a turbulent year for the global supply chain with the fallout from the global pandemic combined with the emergence of the Russia-Ukraine conflict, leading to supply chain disruptions across the globe. However, 2023 is showing signs of relief in the market for long lead equipment (LLE). The following are the specifics of the LLE supply chain dynamic:

- 1. **Demand**: Demand for LLE has remained exceptionally high across all regions and industry sectors. Organizations have moved to expand their supply chain portfolios and include secondary and tertiary suppliers, whilst most are continuing to invest in inventory management systems to prevent any supply chain disruptions. There is no sign of reduced demand, so the constraints to the supply chain will continue for the remainder of 2023.
- 2. Supply: The stock levels of raw materials have finally started to stabilise, alleviating some recent pressures on manufacturers and suppliers. However, it is worth noting that most LLE suppliers have reported being at operational capacity, with order books full up to Q3 2024, which may cause some concern for those relying on their products. Nevertheless, there is some hope as Tier 2 and Tier 3 supply chains have started to increase their capacity and support the larger demand within the market, which may help to mitigate any negative impact of capacity restrictions.
- 3. Freight durations and costs: Freight durations have begun to shorten in early 2023 as the global infrastructure and operations have developed to meet the rising demand and freight companies are shipping much faster than they did during the pandemic. Average freight costs have also reduced to align with pre-pandemic levels suggesting a return to normality within the industry. The benefits have been experienced in early 2023 and further reductions are expected throughout the rest of 2023.



Switzerland – Report methodology



Linesight has commissioned independent global research to track construction materials and commodity prices.

The approach and methodology for the collection of construction material pricing and other indicators is based on primary and secondary research.

Primary and secondary research

Primary research is conducted on a quarterly basis with stakeholders in the value chain, including manufacturers and suppliers/distributors of the target materials, to ascertain market information on prices in recent quarters, and also on projections for changes in the coming quarter and remainder of the year. The market analysis also involves a thorough assessment of secondary sources of data on materials and labour prices, in addition to underlying demand and supply trends that will impact market prices.

Sources include GlobalData's Construction Intelligence Center (CIC), the World Bank, IMF, OECD, as well as country specific national statistics offices, such as the U.S. Bureau of Economic Analysis, Bureau of Labor Statistics, and also industry specific associations and publications.

Definitions

- · Commodity prices are net of taxes for all the countries
- Prices are not customer delivered
- All commodities are raw materials.
- Nominal and real data

Nominal data series do not exclude changes in prices and are also referred to as current prices series.

Annual changes in nominal data for construction output will include changes in construction activity, as well as changes in costs for materials and equipment.

Real data series are calculated by keeping prices constant (so, are also referred to as constant price series), and therefore, they reflect changes in activity only. Growth rates in nominal terms can overstate the pace of growth in construction activity if there is high inflation stemming from rising prices for key inputs.

Sample sources - Switzerland

For Switzerland, sources for this report include, but are not limited to:

- IMF
- BFS
- · Swiss Federal Statistic Office
- GlobalData's Construction Intelligence Center (CIC)
- OECD
- Economic Research Institute
- Public Holidays
- Statista







United Kingdom Q1 2023

The IMF has revised the UK's 2023 economic forecast, predicting a smaller GDP contraction of 0.3%, down from the previous estimate of 0.6%. Despite narrowly avoiding recession in 2022, the UK economy has demonstrated resilience in the early part of 2023, with the Bank of England projecting nominal growth in the second quarter, after a minor contraction in the first quarter. However, inflation rose to 10.4% in February 2023, driven by higher food and energy prices, after three months of decline.

Due to inflationary pressures, rising interest rates, labour productivity challenges, elevated energy costs, and uncertain global conditions, the UK's construction industry is expected to contract by 2.5% in real terms in 2023. Following a 15.2% increase in 2021, the average construction material price index increased by 19.2% in 2022. Digitisation in the industry, as well as close monitoring of budgets and supply chains, can assist the industry in overcoming these challenges. The industry is expected to grow at a 2.9% annual rate from 2024 to 2027, led by investments in the transportation, energy, healthcare, and infrastructure sectors.



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Lumber

In the upcoming quarters, the overall decrease in building construction is expected to result in a reduction in lumber demand, leading to a decline in prices. Timber Development UK reported a 20% decline in volume compared to 2021. However, this was partly due to improvements in domestic supply.



Cement and aggregates

Despite signs of weakening demand, prices for cement have remained high in recent months, driven largely by high production costs. Aggregates prices have eased back from recent highs, although still much higher than a year ago. Reflecting the decline in demand, ready-mixed concrete deliveries were down by 11% year-on-year in Q4 last year. Seasonally-adjusted delivery volumes in Q4 2022 were at the lowest level in over 10 years (excluding Q2 2020).



Concrete blocks and bricks

Brick production has been declining, reflecting weakening demand with latest data showing production of all types were down by 10% YOY in January 2023. Conversely, stock levels were up by 18% year-on-year, reaching the highest level since 2019. Despite this weak demand backdrop, prices have remained high, reflecting continued high production costs that are being passed on to buyers.





Steel (rebar and structural)

Steel prices will continue to fall from the highs reached in mid-2022, with weak demand impacting steel producers' efforts to keep prices high in the face of elevated production costs. British Steel sought to increase prices in early 2023 with an increase of GBP75 per tonne on structural steel, but reports suggest that there has been push back from buyers given weak demand. The British steelmaking industry remains in a troubled financial state, given current high costs of production and the investment required to decarbonise.



Copper

Copper prices have remained high buoyed by a more optimistic demand outlook following China's reopening. However, there was some weakness towards the end of Q1 2023, and there is likely to be further bouts of volatility in the coming quarters with the potential for supply-side disruptions.



United Kingdom – Commodity Report



| | Q2 2023 (f) | Q2 2022 | – Q2 2023 (f) | Q4 2022 – Q1 2023 (e) |
|-------------------------|-------------|---------|---------------|--------------------------|
| | | | 2022-23 | |
| Materials | £ | £ | % change | % change |
| Copper (£/MT) | 7,314 | 7,575 | -3.4% ↓ | 7.8% ↑ • |
| Steel rebar (£/MT) | 598 | 769 | -22.2% ↓ | -5.5% ↓ • |
| Steel flat (£/MT) | 715 | 888 | -19.5% ↓ | 6.6% ↑ • |
| Stainless steel (£/MT) | 2,017 | NA | NA | 0.0% ↔ ● |
| Lumber (£/M³) | 50.8 | 70.1 | -27.6% ↓ | -2.8% ↓ • |
| Asphalt (£/MT) | 591 | 530 | 11.6% 个 | 0.5% ↑ ■ |
| Limestone (£/MT) | 39.2 | 39.4 | -0.5% ↓ | -1.2% ↓ • |
| Cement (£/MT) | 247 | 205 | 20.2% 个 | 6.1% 个 • |
| Concrete (£/M³) | 158 | 133 | 19.1% 个 | 4.2% ↑ • |
| Welded mesh (£/unit) | 39.7 | 44.6 | -11.0% ↓ | -8.3% ↓ • |
| Bricks (£/'000 unit) | 1,308 | 1,046 | 25.1% 个 | 8.0% ↑ ■ |
| Plasterboard (£/unit) | 11.1 | 8.4 | 32.5% 个 | 11.4% 个 • |
| Diesel (£/litre) | 1.6 | 1.8 | -11.2% ↓ | -7.6% ↓ • |
| (f) Forecast (e) Es | timated | | | |

[•] Q4 2022 to Q1 2023 % change greater than estimation in our Q4 2022 report

Welded mesh: 240 x 480cm, dia.-6mm Plasterboard: 240 x 120 x 1.25cm (L x W x T)

| | Material C | % change Q1 – Q2 2023 (f) | Level of im | pact of pricing on construction procurement and supply chain * |
|------|---|----------------------------------|-------------|---|
| | Copper | -0.5% ↓ | 00 I | Copper prices continued to rise in early 2023, extending a general upward trend that started in July 2022. But prices have levelled off more recently. The relaxation in China's zero COVID policy has contributed to prices holding at a relatively high level, while investment in renewable energy and electric vehicle production will be a factor in keeping prices elevated. |
| 6 | Steel prices - Steel rebar - Flat steel | -0.8% ↓ -2.1% ↓ | o | Steel rebar prices fell sharply during the second half of 2022 and continued to drop in January this year, when prices were around 25% lower than in June 2022. Prices edged up in February and March, but there will be a general downward trend over the coming quarters as demand weakens. There will be similar trends for flat steel products, with steel producers struggling to continue to pass on higher production costs. |
| | Stainless ste | el -0.5% ↓ | • D D D Low | The price impact of weak demand has been offset by declining production and relatively high prices for key raw materials. The outlook for demand is weak, and prices will edge downwards in the coming quarter. |
| | Lumber | -8.5% ↓ | o | Lumber prices have continued to fall from the highs of the first half of 2022. Prices dropped by 22% between June 2022 and January 2023 albeit they are still at elevated levels when compared to previous years. |
| Ą | Asphalt | +0.2% ↑ | o 0 | Despite a general weakening in crude oil prices, there has yet to be a marked drop in asphalt prices, which reflects disruptions on the supply side as well as relatively high demand. The vale of new orders for road construction was up by 27% in 2022. |
| 0000 | Limestone | -1.2% ↓ | • D D D Low | Weakening demand will start to weigh on prices, resulting in a steady decline in the coming quarters. |



[■] Q4 2022 to Q1 2023 % change less than estimation in our Q4 2022 report

United Kingdom – Commodity Report





| | Material | % change Q1 – Q2 2023 (f) | Level of in | npact of pricing on construction procurement and supply chain * |
|---|--------------------|------------------------------|---------------------------|--|
| | Cement Concrete | +5.1% ↑ +5.3% ↑ | o | Owing to continued elevated energy costs and high levels of energy consumption in cement manufacturing, prices have risen further in recent months. However, demand will fall back in the coming quarters, and producers will struggle to continue to pass on higher costs to buyers. |
| | Welded mes | sh -0.8% ↓ | o () () () High | In line with trends in steel prices, welded mesh prices have fallen from recent highs. |
| 盘 | Bricks | +0.9% ↑ | 00 I ∭ Moderate | Despite weakening demand, brick prices have risen further in recent months, such that in March prices were up by an average of 8% compared to levels in December. Upward price pressure is expected to ease in the coming quarters. |
| | Plasterboard | d +4.7% ↑ | •0000 Low | As expected, reflecting indications from manufacturers, plasterboard prices have continued on an upward trend in recent months. In late March prices were around 11% higher than in late December, and 33% higher than in March 2022. High production costs have been the key factor in driving up prices. |
| | Diesel | -4.7% ↓ | o | Diesel prices have continued on a steady decline in recent months, falling to a quarterly average of £1.70 per litre in Q1 2023, down by 7.5% from Q4 2022. However, prices are still relatively high; prices were up by 8.6% in Q1 2023 when compared to Q1 2022. |

Level of impact rating reflects a combination of factors: the price movement and also price level (compared to recent past beyond the last quarter), the importance of the material, and general state of the supply chain in terms of stability.

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United Kingdom – Construction Materials Pricing (2022-2023)







United Kingdom – Macroeconomic overview



Economic indicators



-0.30%

GDP growth in 2023 (f) and **4.0%**in 2022



6.80%

inflation rate in 2023 (f) and **9.10%** for 2022



32.80M

people employed in 2023 (f) and **32.74M** in 2022



4.15%

unemployment rate for 2023 (f) and **3.70%** in 2022



126.00

Consumer Price Index in Feb 2023 and **115.40** in Feb 2022



136.70

Producer Price Index in Feb 2023 and **121.90** in Feb 2022

National holidays



10 public holidays

in UK in 2023.

Energy prices

Average electricity price for non-domestic consumers (pence per kWh)



Note: Excluding the Climate Change Levy (CCL)

United Kingdom – Construction overview



Output 2022 and 2023 (in £ millions)*

| Sector | Total 2022 | Total 2023 (f) | Total 2024 (f) | |
|----------------------|---------------|-------------------|-------------------|--|
| Commercial | 61,503 | 61,044 | 62,335 | |
| Energy and utilities | 23,236 | 25,982 | 28,755 | |
| Industrial | 10,718 | 10,370 | 10,273 | |
| Infrastructure | 37,858 | 38,874 | 39,618 | |
| Institutional | 32,239 | 32,551 | 32,840 | |
| Residential | 148,436 | 137,202 | 137,417 | |

^{*}The output is in real terms at constant prices with 2017 as base year

Long lead equipment (LLE) - Supply Chain Overview

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- 1. **Demand**: Demand for LLE has remained exceptionally high across all regions and industry sectors. Organizations have moved to expand their supply chain portfolios and include secondary and tertiary suppliers, whilst most are continuing to invest in inventory management systems to prevent any supply chain disruptions. There is no sign of reduced demand, so the constraints to the supply chain will continue for the remainder of 2023.
- 2. Supply: The stock levels of raw materials have finally started to stabilise, alleviating some recent pressures on manufacturers and suppliers. However, it is worth noting that most LLE suppliers have reported being at operational capacity, with order books full up to Q3 2024, which may cause some concern for those relying on their products. Nevertheless, there is some hope as Tier 2 and Tier 3 supply chains have started to increase their capacity and support the larger demand within the market, which may help to mitigate any negative impact of capacity restrictions.
- 3. Freight durations and costs: Freight durations have begun to shorten in early 2023 as the global infrastructure and operations have developed to meet the rising demand and freight companies are shipping much faster than they did during the pandemic. Average freight costs have also reduced to align with pre-pandemic levels suggesting a return to normality within the industry. The benefits have been experienced in early 2023 and further reductions are expected throughout the rest of 2023.

Construction Health and Safety practices and culture



1.62 fatal injuries per **100,000** workers in construction industry (from April 2020-March 2021)



30 fatalities occurred in the construction sector between April 2021 and March 2022 Compared to 40 in 2020–2021 and 42 in 2019–20.



59,000* non- fatal work-related injuries in construction sector in UK.

*estimated annual average 2019/20-2021/22



United Kingdom – Report methodology



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Primary and secondary research

Primary research is conducted on a quarterly basis with stakeholders in the value chain, including manufacturers and suppliers/distributors of the target materials, to ascertain market information on prices in recent quarters, and also on projections for changes in the coming quarter and remainder of the year. The market analysis also involves a thorough assessment of secondary sources of data on materials and labour prices, in addition to underlying demand and supply trends that will impact market prices.

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Sample sources – United Kingdom

For the United Kingdom, sources for this report include, but are not limited to:

- IMF
- ONS
- Gov.uk
- GlobalData's Construction Intelligence Center (CIC)
- BCIS
- The Conference Board Total Economy Database™
- Gov.uk
- Economic Research Institute









Australia Q1 2023

In Q4 2022, Australia's economic growth decelerated due to rising interest rates and high inflation, although trade improved. The annual growth rate for 2022 was 3.7%, down from 5.2% in 2021. RBA predicts that economic growth will slow to 1.5% by the end of 2023 due to rising interest rates, high living costs, and declining incomes. However, the rebound in tourism and education-related travel is expected to support growth in coming years. Inflation is also gradually easing, with the annual Consumer Price Index standing at 7% in the March quarter, 80 points lower than the December quarter last year.

Australian construction industry is predicted to decrease by 2.6% in real terms, following a 0.6% increase in 2022. Supply chain problems, labour constraints, and the country's residential sector's persistent difficulties all weighing on the industry's growth. Nonetheless, due to the government's sustained emphasis on infrastructure development, the industry is predicted to grow at a 3.1% annual rate from 2024 to 2027. Another sector that is seeing investment, particularly in health, education, and research projects, is the institutional sector, which is expected to expand by 8.8% in 2023.



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Lumber

New residential construction activity, a leading indicator for lumber demand, continued to decline in early 2023, with the number of private sector houses approved falling to an 11-year low of 7,560 in January 2023. With this trend expected to continue through this year, lumber prices are expected to plateau, with the fall in demand in the residential construction sector offsetting upwards pressure on prices generated by tariffs on imported Russian and Belarussian timber and demand from the non-residential construction sector.



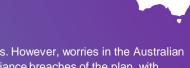
Cement and aggregates

Government's wholesale price cap on natural gas and thermal coal and a projected decline in overall construction activity in Australia this year is expected to see cement prices trend downwards. Coal remains the primary energy source used by Australia's cement manufacturers, with the cap expected to result in an appreciable reduction in costs. However, Labor's tightening of the Safeguard Mechanism, which will see many cement manufacturers required to reduce their CO_2 emissions by 4.9% per annum from July 2023, may generate some upwards pressure on prices.



Concrete blocks and bricks

Declining residential and commercial construction activity this year is expected to see demand for brick and concrete blocks moderate, weighing on prices this year. The AUD12 per gigajoule price cap on natural gas through the Energy Price Relief Plan will continue to generate



further downwards pressure on prices. However, worries in the Australian LNG industry over unintended compliance breaches of the plan, with energy deals being assessed on a case-by-case basis, may see some tightness of LNG supply to industry, preventing a large decline in brick and concrete block prices.



Steel (rebar and structural)

With risks of economic recession easing globally and many central banks coming to the end of their tightening cycles, manufacturing and construction output in China continuing to strengthen, and demand in the Australian civil engineering sector expected to remain robust this year, demand for steel is expected to rise in the coming quarters. A potential 2.5% cut in Chinese crude steel output this year will keep pressure on prices as supply tightens.



Copper

Robust demand in China, due to both a strengthening of manufacturing activity and its expansive investment in renewable energy and electricity grid infrastructure, and a brighter outlook for global economic growth is expected to see global prices trend upwards in the coming quarters. In Australia, spending on electricity infrastructure as part of Labor's Rewiring the Nation initiative and the beginning of construction works on the \$1.7 billion Townsville to Mount Isa transmission line development will keep domestic prices high this year.



Australia - Commodity Report



| | Q2 2023 (f) | Q2 2022 | – Q2 2023 (f) | Q4 2022 – Q1 2023 (e) |
|----------------------------------|-----------------|----------------|---------------------|--------------------------|
| | | | 2022-23 | |
| Materials | AU\$ | AU\$ | % change | % change |
| Copper (AU\$/MT) | 13,235 | 13,677 | -3.2% ↓ | 6.4% 个 |
| Steel rebar (AU\$/MT) | 902 | 1,027 | -12.1% ↓ | 11.3% 个 |
| Steel flat (AU\$/MT) | 949 | 1,021 | -7.1% ↓ | 11.0% 个 |
| Stainless steel (AU\$/MT) | 2,112 | NA | NA | 0.1% ↑ |
| Lumber (AU\$/M³) | 142 | 133 | 6.9% ↑ | 1.1% ↑ |
| Asphalt (AU\$/MT) | 1,616 | 1,448 | 11.5% ↑ | -1.6% ↓ |
| Limestone (AU\$/MT) | 50.3 | 60.0 | -16.3% ↓ | 0.0% ↔ |
| Cement (AU\$/MT) | 547 | 518 | 5.7% ↑ | 0.0% ↔ |
| Concrete (AU\$/M³) | 332 | 326 | 1.8% ↑ | 0.2% 个 |
| Welded mesh (AU\$/unit) | 133 | 123 | 8.4% ↑ | 6.1% 个 |
| Bricks (AU\$/'000 unit) | 1,508 | 1,691 | -10.8% ↓ | -8.1% ↓ |
| Plasterboard (AU\$/unit) | 37.9 | 35.8 | 5.9% ↑ | 4.4 % 个 |
| Diesel (AU\$/litre) | 2.0 | 2.1 | -7.3% ↓ | -9.7% ↓ |
| (f) Forecast (e) Est | imated | | | |
| Q4 2022 to Q1 20 | 23 % change gre | ater than esti | mation in our Q4 20 | 22 report |

|)22 – 23 (e) | |
|-----------------|--|
| ange | |
| % ↑ • | |
| % ↓ • | |
| % ↔ ■ | |
| % ↔ ■ | |
| % ↑ ■ | |
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| % ↓ • | |
| % ↑ • | |
| % ↓ • | |
| | |
| | |

| | Material Q | % change 1 – Q2 2023 (f) | Level of im | pact of pricing on construction procurement and supply chain * |
|-----|---|-----------------------------|--------------|--|
| | Copper | +0.9% ↑ | •ODD Low | Copper prices in Australia appreciated by in excess of 6% quarter-on-quarter in the first quarter of this year, though prices did slow towards the end of the quarter. With demand in China strengthening and global copper inventories at their lowest in over a decade, prices are expected to continue to rise. In Australia, weak building construction will somewhat soften the impact of the global increase in demand on domestic prices. |
| | Steel prices - Steel rebar - Flat steel | +2.2% ↑ +4.3% ↑ | •OIII | Steel rebar and flat are estimated to have registered growth of more than 10% quarter-on-quarter in Q1 2023. Within the quarter, prices for both steel flat and rebar rose, being in excess of 7% higher in March 2023 than in January 2023. Stronger demand in China and robust demand in the Australian civil engineering sector have been the primary drivers of this price increase. |
| | Stainless Stee | el +1.5% ↑ | •0000 Low | With input prices, such as nickel and ferrochrome, rising on low inventories and stronger demand, stainless steel prices are expected to rise in the coming quarters. Higher iron ore prices, with demand in China expected to remain robust, will add yet further upwards pressure on stainless steel prices. |
| | Lumber | +0.3% ↑ | •0000 Low | Lumber prices are estimated to have risen marginally in the first quarter of this year, increasing by 1.1% QoQ. However, with housing demand softening as high interest rates and inflation erode homebuyer demand, declining new residential construction is expected to see lumber prices plateau. Residential building approvals declined by 14.7% in 2022. |
| | Asphalt | -0.7% ↓ | •0000 Low | Asphalt prices are estimated to have declined marginally in the first quarter of this year, primarily due to a fall in diesel prices during the quarter. Prices are expected to continue to decline in line with diesel prices, though the decline will be softened by healthy demand from the road infrastructure construction sector. |
| 000 | Limestone | +0.5% ↑ | • D D D Low | Limestone prices have remained stable and have not recorded any notable change in Q1 2023, in comparison to Q4 2022. Declining demand from the residential construction sector is expected to maintain prices at close to their current levels in the upcoming quarter. |



Australia - Commodity Report



AIQS Building Cost Index 2020-2023(f) (1985=100) Oct-23 (f) 391 Jul-23 (f) 386 Apr-23(f) 380 Jan-23 375 Oct-22 364 Jul-22 358 Apr-22 352 348 Jan-22 Oct-21 343 Jul-21 335 Apr-21 327 Jan-21 325 Oct-20 323 Jul-20 322 Apr-20 321 Jan-20 318

| | Material | % change Q1 – Q2 2023 (f) | Level of im | pact of pricing on construction procurement and supply chain * |
|---|--------------------|------------------------------|--------------|---|
| | Cement Concrete | -1.1% ↓ -0.4% ↓ | o 0 | Cement prices remained stable in Q1 2023 and have not recorded any notable change from their Q4 2022 levels. In line with the negligible change in cement prices, concrete prices have also exhibited little change from the levels of Q4 2022. However, with overall construction activity expected to decline in Australia this year, cement and related product prices are expected to decline marginally in the coming quarters. |
| | Welded mes | sh +2.1% ተ | •0000 Low | Welded mesh prices are estimated to have increased by in excess of 6% in the first quarter of this year, in comparison to Q4 2022, primarily due to an increase in steel rebar prices. Prices are expected to continue to rise in Q2 2023, by approximately 2.1% quarter-on-quarter, in line with the projected increase in rebar prices. An expected decline in construction activity in Australia will, however, soften the increase in prices this year. |
| 盘 | Bricks | -0.3% ↓ | o 0 | Brick prices are estimated to have fallen by 8% in Q1 2023 compared to their Q4 2022 levels. This decrease in price is expected to have been due to a fall in new demand from the residential construction sector. With inflation expected to remain elevated in the short-term and interest rates high, demand from the residential construction sector is expected to continue to soften in the coming quarters. |
| | Plasterboar | d -0.7% ↓ | •0 ON Low | Plasterboard prices are expected to have registered a moderate growth of approximately 3% in Q1 2023, in comparison to their prices in Q4 2022. Prices are expected to decline in the coming quarters however, with demand from the residential construction sector expected to soften as declining new residential investment weighs on construction activity. |
| | Diesel | -3.6% ↓ | •OOD Low | In Q1 2023, diesel prices declined by 10% in comparison to their Q4 2022 price levels. The pace of decline slowed through the quarter, with the average diesel price in March 2023 falling 2.2% month on month, in February 2023 by 3.0%. With international crude oil prices set to stabilize around current levels, diesel prices are expected to remain just below AUD 2 per litre in the coming quarters. |

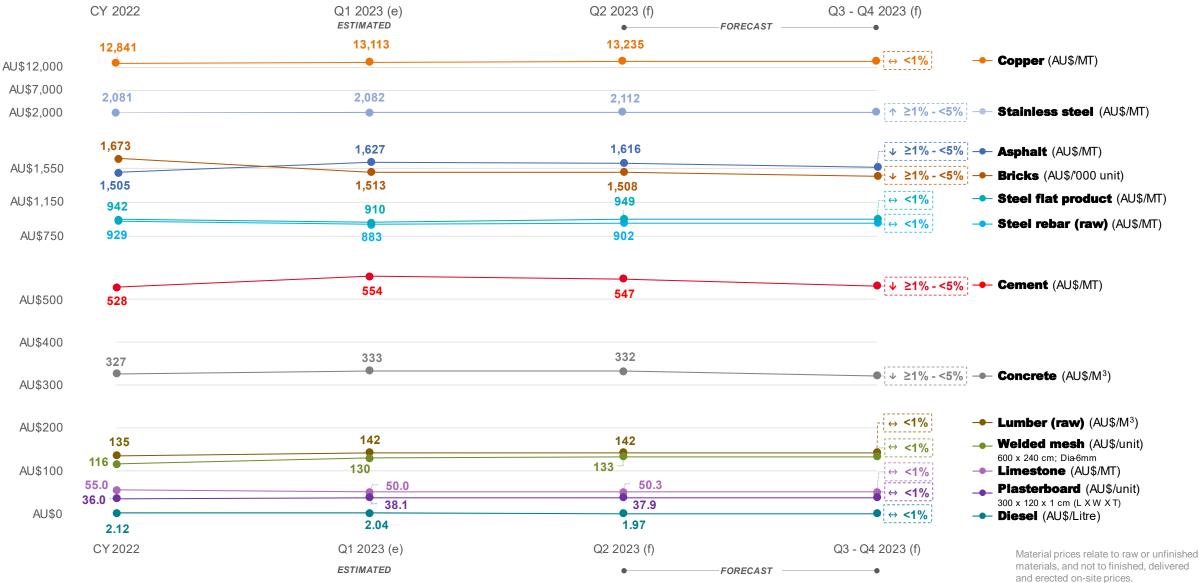
Level of impact rating reflects a combination of factors: the price movement and also price level (compared to recent past beyond the last quarter), the importance of the material, and general state of the supply chain in terms of stability.

Please note that commodity prices are based on representative materials available in the respective countries, and as these materials may not be standard across all markets, cross-country comparisons on prices can be ineffective. For example, asphalt types can vary between hot, cold or a bitumen price, and standard unit sizes for materials can vary across countries.



Australia – Construction Materials Pricing (2022-2023)







Australia - Macroeconomic overview



Economic indicators



1.60%

GDP growth in 2023 (f) and **3.66%** in 2022



5.35%

inflation rate in 2023 (f) and **6.62%** for 2022



13.71M

people employed in 2023 (f) and **13.58 M** in 2022



3.96%

unemployment rate for 2023 (f) and **3.71%** in 2022



132.60

Consumer Price Index in March 2023 and **123.90** in March 2022



124.40

Producer Price Index in March 2023 and **118.30** in March 2022

National holidays



8 public holidays

in Australia, each year

Australia Energy Prices

Average wholesale spot energy price across national electricity market regions in Australia (AU\$/MWh)



Note:

* As of March 2023

Annual year refers to the financial year, not calendar year

Australia - Construction overview



Output 2022 and 2023 (in AU\$ millions)

| Output 2022 and 2020 (iii /10 \$ iiiiiioiio) | | | | | | |
|--|---------------|-------------------|-------------------|--|--|--|
| | Total 2022 | Total 2023 (f) | Total 2024 (f) | | | |
| Commercial | 31,516 | 30,499 | 31,958 | | | |
| Energy and utilities | 36,144 | 36,643 | 38,913 | | | |
| Industrial | 14,646 | 14,591 | 15,153 | | | |
| Infrastructure | 36,509 | 37,959 | 40,775 | | | |
| Institutional | 15,055 | 16,374 | 17,014 | | | |
| Residential | 70,785 | 63,368 | 61,886 | | | |

^{*}The output is in real terms at constant prices with 2017 as base year

Long lead equipment (LLE) - Supply Chain Overview

2022 was a turbulent year for the global supply chain with the fallout from the global pandemic combined with the emergence of the Russia-Ukraine conflict, leading to supply chain disruptions across the globe. However, 2023 is showing signs of relief in the market for long lead equipment (LLE). The following are the specifics of the LLE supply chain dynamic:

- 1. Demand: Demand for LLE has remained exceptionally high across all regions and industry sectors. Organizations have moved to expand their supply chain portfolios and include secondary and tertiary suppliers, whilst most are continuing to invest in inventory management systems to prevent any supply chain disruptions. There is no sign of reduced demand, so the constraints to the supply chain will continue for the remainder of 2023.
- 2. Supply: The stock levels of raw materials finally started to stabilize, alleviating some recent pressures on manufacturers and suppliers. However, it is worth noting that most LLE suppliers have reported being at operational capacity, with order books full up to Q3 2024, which may cause some concern for those relying on their products. Nevertheless, there is some hope as Tier 2 and Tier 3 supply chains have started to increase their capacity and support the larger demand within the market, which may help to mitigate any negative impact of capacity restrictions.
- 3. Freight durations and costs: Freight durations have begun to shorten in early 2023 as the global infrastructure and operations have developed to meet the rising demand and freight companies are shipping much faster than they did during the pandemic. Average freight costs have also reduced to align with pre-pandemic levels suggesting a return to normality within the industry. The benefits have been experienced in early 2023 and further reductions are expected throughout the rest of 2023.

Construction Health and Safety practices and culture



160 Australian worker fatalities on the job in 2022.

Fatalities in key sectors in 2022:

Transport, postal & warehousing 65 fatalities

Agriculture, forestry & fishing

37 fatalities

Manufacturing and Construction 17 fatalities



Australia – Report methodology



Linesight has commissioned independent global research to track construction materials and commodity prices.

The approach and methodology for the collection of construction material pricing and other indicators is based on primary and secondary research.

Primary and secondary research

Primary research is conducted on a quarterly basis with stakeholders in the value chain, including manufacturers and suppliers/distributors of the target materials, to ascertain market information on prices in recent quarters, and also on projections for changes in the coming quarter and remainder of the year. The market analysis also involves a thorough assessment of secondary sources of data on materials and labour prices, in addition to underlying demand and supply trends that will impact market prices.

Sources include GlobalData's Construction Intelligence Center (CIC), the World Bank, IMF, OECD, as well as country specific national statistics offices, such as the U.S. Bureau of Economic Analysis, Bureau of Labor Statistics, and also industry specific associations and publications.

Definitions

- · Commodity prices are net of taxes for all the countries
- Prices are not customer delivered
- All commodities are raw materials.
- Nominal and real data

Nominal data series do not exclude changes in prices and are also referred to as current prices series.

Annual changes in nominal data for construction output will include changes in construction activity, as well as changes in costs for materials and equipment.

Real data series are calculated by keeping prices constant (so, are also referred to as constant price series), and therefore, they reflect changes in activity only. Growth rates in nominal terms can overstate the pace of growth in construction activity if there is high inflation stemming from rising prices for key inputs.

Sample sources – Australia

For Australia, sources for this report include, but are not limited to:

- IMF
- ABS
- AIQS
- RBA
- Safe Work Australia
- GlobalData's Construction Intelligence Center (CIC)
- The Conference Board Total Economy Database™
- · Australian Energy Market Operator
- Economic Research Institute
- Public Holidays
- AEMO







Hong Kong Q1 2023

Hong Kong's economy, which suffered a contraction of 3.5% in 2022 due to strict Covid restrictions and weakened global demand, is expected to return to growth and expand by 3.5% in 2023. With the relaxation of COVID related curbs, economic growth is likely to be supported by rise in industries such as tourism, real estate, and trade. Inflation rate in Hong Kong stood at 1.88% in 2022 which is expected to remain at 2.3% in 2023.

The construction industry's growth was estimated to be around 1.42% in 2022, and it is expected to grow by 1.95% in real terms in 2023. Like other regions, the industry has faced challenges, including labour shortages, inflated construction costs, and supply chain issues. However, with these challenges expected to get settled gradually, the industry will grow at a 2.3% annual average growth rate from 2024 to 2027, also supported by investments in infrastructure, housing, and industrial sectors.



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Lumber

Despite lumber prices declining in the first quarter of this year, an improvement in construction activity in the coming quarters is expected to see demand pick up. The government's commitment to complete approximately 13,000 public housing units this year and a further 31,800 in 2024 is expected to underpin lumber prices around current levels.



Cement and aggregates

An easing of thermal coal costs, seasonally slow construction activity in Hong Kong and the continued downturn in the Chinese residential construction sector, saw cement and concrete prices decline in early 2023. With demand for thermal coal in China strengthening in March and expected to continue in the coming quarter, rising input costs are expected to see cement prices increase in Q2 2023. However, with RMC producers not fully passing on the decline in cement prices in Q1 2023, concrete prices are expected to marginally soften in Q2 2023.



Concrete blocks and bricks

With construction activity in Hong Kong expected to have been relatively soft in the first quarter of 2023 and thermal costs falling during the quarter, brick prices moderated, though only marginally. As construction activity begins to pick up and thermal coal costs firm on increased demand, brick prices are expected to trend upwards in Q2 2023.





Steel (rebar and structural)

Amid weak global manufacturing outlook, the price of steel flat products continued to decline in Hong Kong. Rebar prices, in contrast, are expected to have strengthened following their decline in Q4 2022. With construction activity in Hong Kong expected to improve in Q2 2023, increased domestic demand for steel is expected to see steel prices rise, though moderating iron ore and metallurgical coal prices will ensure this is relatively marginal.



Copper

Unrest in Peru and robust Chinese construction activity, is expected to have seen copper prices in Hong Kong rise in Q1 2023. However, with disruption in Peru easing in March 2023 and Chinese copper smelters announcing lower refining and treatment charges for Q2 2023, the growth of copper prices is expected to moderate in Q2 2023.



Hong Kong – Commodity Report

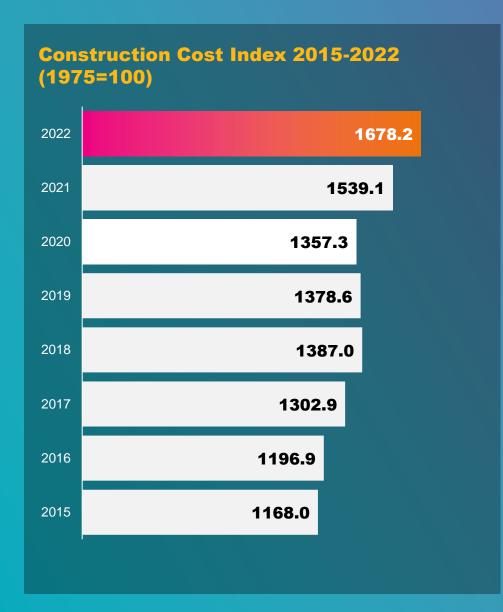


| | Q2 2023 (f) | Q2 2022 – | Q2 2023 (f) | Q4 2022 - Q1 2023 (e) | | |
|---|-------------|-----------|-------------|--------------------------|--|--|
| | | | 2022-23 | | | |
| Materials | HK\$ | HK\$ | % change | % change | | |
| Copper (HK\$/MT) | 66,557 | 67,249 | -1.0% ↓ | 6.3% ↑ • | | |
| Steel rebar (HK\$/MT) | 5,824 | 6,003 | -3.0% ↓ | 1.8% 个 • | | |
| Steel Flat (HK\$/MT) | 6,820 | 8,026 | -15.0% ↓ | -1.2% ↓ • | | |
| Stainless Steel (HK\$/MT) | 9,655 | NA | NA | 1.8% 个 • | | |
| Lumber (HK\$/M3) | 7,796 | 7,842 | -0.6% ↓ | -0.4% ↓ ■ | | |
| Asphalt (HK\$/MT) | 9,740 | 9,553 | 2.0% 个 | -1.9% ↓ • | | |
| Limestone (HK\$/MT) | 73.8 | 62.8 | 17.6% 个 | -0.5% ↓ • | | |
| Cement (HK\$/MT) | 881 | 884 | -0.4% ↓ | -6.0% ↓ • | | |
| Concrete (HK\$/M3) | 1,114 | 1,163 | -4.2% ↓ | -1.4% ↓ • | | |
| Welded mesh (HK\$/unit) | 72.8 | 74.9 | -2.7% ↓ | 2.0% ↑ • | | |
| Bricks (HK\$/'000 unit) | 3,332 | 3,390 | -1.7% ↓ | -0.4% ↓ • | | |
| Plasterboard (HK\$/unit) | 100.0 | 100.0 | 0.0% ↔ | 0.0% ↔ ■ | | |
| Diesel (HK\$/litre) | 17.9 | 15.9 | 12.1% 个 | -4.3% ↓ • | | |
| (f) Forecast (e) Estimated | | | | | | |
| Q4 2022 to Q1 2023 % change greater than estimation in our Q4 2022 report | | | | | | |
| ■ Q4 2022 to Q1 2023 % change less than estimation in our Q4 2022 report | | | | | | |
| Welded mesh: 100 x 100cm, dia6mm Plasterboard: 122 x 244 x 1.2cm (L x W x T) | | | | | | |

| Material | % change Q1 – Q2 2023 (f) | Level of im | npact of pricing on construction procurement and supply chain * |
|---|------------------------------|--------------|---|
| Copper | +4.3% ↑ | • O O O | Copper prices rose by over 6% in Q1 2023 compared to the average price in Q4 2022. However, prices declined in March 2023, with the average copper price being 1.5% lower than in January 2023, but prices are expected to continue to rise in Q2 2023. |
| Steel prices - Steel rebar - Flat steel | +1.3% ↑ +0.7% ↑ | •0000 Low | While steel rebar prices rose marginally on a quarterly average basis in 1.8% in Q1 2023, prices for steel flat products edged downwards by 1.2%, in part owing to weaker demand from manufacturing activity. However, in Q2 2023, the price of both rebar and flat is expected to rise with demand in construction set to improve following recent weakness. |
| Stainless St | eel +0.3% ↑ | •0000 Low | The price of stainless steel is estimated to have risen by approximately 1.8% in the first quarter of this year. Rising ferrochrome and iron ore prices, and still elevated nickel prices, are expected to have driven this increase. With nickel pig iron prices declining, the increase in stainless steel prices is expected to moderate in Q2 2023. |
| Lumber | +0.4% ↑ | o 0 | Seasonally weaker residential construction activity and an easing of supply chain pressures resulted in lumber prices falling marginally in the first quarter of this year. However, prices are expected to rise in the coming quarters, as construction activity begins to pick up. |
| Asphalt | +2.2% ↑ | • O O O O | Asphalt prices continued on a downward trend in the first quarter of this year, primarily due to the decline in crude oil prices during the quarter. However, with an expected rise in crude prices following OPEC+ production cuts, asphalt prices will come under upward pressure. |
| Limestone | +0.4% ↑ | • O O O O | No significant change in limestone prices is expected in the coming quarters, though prices are projected to trend marginally upwards as construction activity improves. |

Hong Kong – Commodity Report





| Material | % change Q1 – Q2 2023 (f) | Level of in | npact of pricing on construction procurement and supply chain * |
|--------------------|------------------------------|---------------------------|---|
| Cement Concrete | +0.7% ↑ -1.1% ↓ | 0 D D D Moderate | Cement and concrete prices are expected to have fallen in the first quarter of this year, primarily due to seasonally slow construction activity in Hong Kong and the continued downturn in residential construction activity in China. Cement prices are expected to rise slightly in Q2 2023, as construction picks up in Hong Kong and the Chinese construction industry enters its peak season. |
| Welded mes | h +1.4% ተ | •0000 Low | Driven by a rise in steel rebar prices in the first quarter of this year, welded mesh prices are estimated to have increased by approximately 2% in comparison to their Q4 2022 levels. Prices are expected to continue to rise in Q2 2023, in line with the projected increase in rebar prices. |
| Bricks | +0.4% ↑ | 00 I ∭ Moderate | Brick prices fell in Q4 2022, weighed down by soft demand from the residential construction sector. With construction output in Hong Kong forecast to strengthen in 2023, brick demand is expected to improve and a marginal rise in prices is anticipated in the first half of 2023. |
| Plasterboard | 0.0% ↔ | •0000 Low | No notable change in plasterboard prices is expected to have occurred in the first quarter of this year. Prices are expected to remain similarly stable in Q2 2023. |
| Diesel | +2.8% ↑ | • OOD Low | Diesel prices are expected to fall by approximately 4.3% in the first quarter of 2023, though prices did pick up towards the end of the quarter. The average diesel price in March 2023 was estimated to be 1.2% higher than in February and 0.9% higher than in January 2023. With OPEC+ announcing output cuts in April 2023, oil prices are expected to rise, |

driving higher diesel prices in Q2 2023.

Level of impact rating reflects a combination of factors: the price movement and also price level (compared to recent past beyond the last quarter), the importance of the material, and general state of the supply chain in terms of stability.

Please note that commodity prices are based on representative materials available in the respective countries, and as these materials may not be standard across all markets, cross-country comparisons on prices can be ineffective. For example, asphalt types can vary between hot, cold or a bitumen price, and standard unit sizes for materials can vary across countries.



Hong Kong – Construction Materials Pricing (2022-2023)







Hong Kong – Macroeconomic overview

Economic indicators



3.47%

GDP growth in 2023 (f) and **-3.51%** in 2022



2.30%

inflation rate in 2023 (f) and **1.88%** for 2022



3.64M

people employed in 2023 (f) and **3.62M** in 2022



3.43%

unemployment rate for 2023 (f) and **4.20%** in 2022



103.10

Consumer Price Index in Feb 2023 and **104.90** in Feb 2022



110.70

Producer Price Index in Jan 2023 and 111.1 in Jan 2022

National holidays



11 public holidays

in Hong Kong each year



Hong Kong – Construction overview



Output 2022 and 2023 (in HK\$ millions)

| | Total 2022 | Total 2023 (f) | Total 2024 (f) | | |
|----------------------|---------------|-------------------|-------------------|--|--|
| Commercial | 47,794 | 49,346 | 51,151 | | |
| Energy and utilities | 21,093 | 21,814 | 22,648 | | |
| Industrial | 4,479 | 4,542 | 4,583 | | |
| Infrastructure | 56,998 | 57,191 | 57,201 | | |
| Institutional | 13,081 | 13,214 | 13,348 | | |
| Residential | 72,014 | 73,549 | 75,234 | | |

^{*}The output is in real terms at constant prices with 2017 as base year

Long lead equipment (LLE) - Supply Chain Overview

2022 was a turbulent year for the global supply chain with the fallout from the global pandemic combined with the emergence of the Russia-Ukraine conflict, leading to supply chain disruptions across the globe. However, 2023 is showing signs of relief in the market for long lead equipment (LLE). The following are the specifics of the LLE supply chain dynamic:

- 1. **Demand**: Demand for LLE has remained exceptionally high across all regions and industry sectors. Organizations have moved to expand their supply chain portfolios and include secondary and tertiary suppliers, whilst most are continuing to invest in inventory management systems to prevent any supply chain disruptions. There is no sign of reduced demand, so the constraints to the supply chain will continue for the remainder of 2023.
- 2. Supply: The stock levels of raw materials finally started to stabilize, alleviating some recent pressures on manufacturers and suppliers. However, it is worth noting that most LLE suppliers have reported being at operational capacity, with order books full up to Q3 2024, which may cause some concern for those relying on their products. Nevertheless, there is some hope as Tier 2 and Tier 3 supply chains have started to increase their capacity and support the larger demand within the market, which may help to mitigate any negative impact of capacity restrictions.
- 3. Freight durations and costs: Freight durations have begun to shorten in early 2023 as the global infrastructure and operations have developed to meet the rising demand and freight companies are shipping much faster than they did during the pandemic. Average freight costs have also reduced to align with pre-pandemic levels suggesting a return to normality within the industry. The benefits have been experienced in early 2023 and further reductions are expected throughout the rest of 2023.

Construction Health and Safety practices and culture



29.5 per 1,000 workers construction industry accident rate in Hong Kong in 2022 up to Q3 2022

3,065 industrial accidents were recorded on construction sites in 2022 (up to Q3 2022)



0.162 per 1000 workers fatality rate for the construction industry recorded in 2022



Hong Kong – Report methodology



Linesight has commissioned independent global research to track construction materials and commodity prices.

The approach and methodology for the collection of construction material pricing and other indicators is based on primary and secondary research.

Primary and secondary research

Primary research is conducted on a quarterly basis with stakeholders in the value chain, including manufacturers and suppliers/distributors of the target materials, to ascertain market information on prices in recent quarters, and also on projections for changes in the coming quarter and remainder of the year. The market analysis also involves a thorough assessment of secondary sources of data on materials and labour prices, in addition to underlying demand and supply trends that will impact market prices.

Sources include GlobalData's Construction Intelligence Center (CIC), the World Bank, IMF, OECD, as well as country specific national statistics offices, such as the U.S. Bureau of Economic Analysis, Bureau of Labor Statistics, and also industry specific associations and publications.

Definitions

- · Commodity prices are net of taxes for all the countries
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- Nominal and real data

Nominal data series do not exclude changes in prices and are also referred to as current prices series.

Annual changes in nominal data for construction output will include changes in construction activity, as well as changes in costs for materials and equipment.

Real data series are calculated by keeping prices constant (so, are also referred to as constant price series), and therefore, they reflect changes in activity only. Growth rates in nominal terms can overstate the pace of growth in construction activity if there is high inflation stemming from rising prices for key inputs.

Sample sources – Hong Kong

For Hong Kong, sources for this report include, but are not limited to:

- IMF
- Civil Engineering and Development Department The Government of the Hong Kong Special Administrative Region
- The Census and Statistics Department
- GlobalData's Construction Intelligence Center (CIC)
- Economic Research Institute
- Public Holidays
- Trading Economics







India Q1 2023

The IMF forecasts 6.83% growth in the Indian economy in FY 2023, and the Ministry of Statistics' second advance estimates indicate growth of around 7%. Although there will be some moderation in growth due to global challenges and slower consumption, the IMF predicts a growth rate of 5.9 % for FY 2024. Additionally, inflation has eased, falling to 5.8% in March 2023, which is within the RBI's tolerance band.

India's construction industry is anticipated to grow by 5% in real terms in 2023, bolstered by government investments to complete significant infrastructure projects. From 2024 to 2027, the industry is projected to experience an annual growth rate of 6.3%, driven by investments and government's support in renewable energy, housing, and transport sectors. Notably, data centres, industrial and logistics, and healthcare are expected to be among the fastest-growing real estate sectors due to continued investments. However, rising construction costs and supply chain constraints are likely to remain a challenge for the industry. The construction market has been evolving and there has also been an increased focus on sustainability aspects in the construction, use of digital tools, and construction cost benchmarking.



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Lumber

Lumber prices are expected to ease in the first half of 2023. However, domestic demand for lumber is expected to remain strong, owing to India's urbanisation efforts, rebound in real estate market, and healthy outlook for building construction in the hospitality and healthcare sectors.



Cement and aggregates

Cement prices are expected to remain elevated in 2023, supported by strong demand amid increased government spending, accelerated project executions, rising real-estate and urban housing demand, and increasing private capital expenditure. The upward pressure from demand side is likely to be offset by expected reduction of GST on cement.



Concrete blocks and bricks

Brick prices are estimated to have increased in the first quarter of 2023, due to a surge in the cost of coal. Prices are expected to rise further in the coming quarters, due to a ban on use of coal at the brick-kilns in the National Capital Region (NCR), which came into effect on January 1st, 2023.



Steel (rebar and structural)

The imposition of a 15% duty on steel exports (in May 2022) resulted in an increase in supply in the domestic market, thereby leading to a decline in steel prices in India. Steel-rebar and steel-flat product prices fell by approximately 6% quarter-on-quarter in Q4 2022, but they rebounded in early 2023 owing to the removal of export duty on steel products in November 2022. Moreover, the increased capital expenditure in the recent Indian budget is expected to boost demand for steel in 2023.



Copper

Copper prices increased sharply in Q1 2023 owing to an increase in consumer and industrial demand, amid a loosening of COVID-19 restrictions in China. In India, copper prices are expected to remain relatively high in 2023, amid higher government spending on infrastructure and demand from automobile and energy sectors.



India – Commodity Report



| | Q2 2023 (f) | Q2 2022 - | - Q2 2023 (f) | Q4 2022 - Q1 2023 (e) | | | |
|---|-----------------|------------------|----------------------|--------------------------|--|--|--|
| | | | 2022-23 | | | | |
| Materials | INR | INR | % change | % change | | | |
| Copper (INR/MT) | 810,767 | 849,931 | -4.6% ↓ | 11.7% 个 • | | | |
| Steel rebar (INR/MT) | 61,717 | 67,500 | -8.6% ↓ | 10.3% 个 • | | | |
| Steel flat (INR/MT) | 59,428 | 68,033 | -12.6% ↓ | 4.7% ↑ • | | | |
| Stainless steel (INR/MT) | 195,980 | NA | NA | 2.6% ↑ • | | | |
| Lumber (INR/M ³) | 12,373 | 11,813 | 4.7% 个 | -4.2% ↓ • | | | |
| Asphalt (INR/MT) | 62,297 | 59,126 | 5.4% 个 | 7.8% 个 • | | | |
| Limestone (INR/MT) | 477 | 450 | 6.1% 个 | 0.0% ↔ ■ | | | |
| Cement (INR/MT) | 8,056 | 8,423 | -4.4% ↓ | 1.5% ↑ ■ | | | |
| Concrete (INR/M³) | 4,606 | 4,400 | 4.7% 个 | 4.4 % ↑ • | | | |
| Welded mesh (INR/unit) | 324 | 368 | -11.9% ↓ | 9.6% 个 • | | | |
| Bricks (INR/'000 unit) | 9,548 | 9,257 | 3.1% ↑ | 4.0% ↑ • | | | |
| Plasterboard (INR/unit) | 358 | 360 | -0.6% ↓ | 0.1% ↑ ■ | | | |
| Diesel (INR/litre) | 89.6 | 93.1 | -3.8% ↓ | 0.0% ↔ ■ | | | |
| (f) Forecast (e) Est | imated | | | | | | |
| • Q4 2022 to Q1 20 | 23 % change gre | eater than estir | nation in our Q4 20 | 22 report | | | |
| ■ Q4 2022 to Q1 20 | | | | | | | |
| Welded mesh: 100 x 100cm, dia6mm Plasterboard: 120 x 180 x 1.25cm (L x W x T) | | | | | | | |

| | Material | % change – Q2 2023 (f) | Level of im | pact of pricing on construction procurement and supply chain * |
|------|---|---------------------------|---------------|--|
| | Copper | -0.8% ↓ | oOOJ High | Domestic copper prices rose in line with global prices and peaked in February, due to low inventories and rising Chinese demand. Global supply issues erupted due to protests in Peru where key mines reduced or temporarily halted production in January and February 2023. Although Peru's top mines have stabilized since early March 2023 and hope to increase output in the remaining part of the year, the potential for further bouts of instability could disrupt supplies again in the coming quarters. |
| | Steel prices - Steel rebar - Flat steel | +1.0% ↑ +1.0% ↑ | o 0 | Steel prices have continued to increase in recent months, owing to increases in input prices of materials such as iron ore and coking coal. Additionally, the removal of export duty on steel in November 2022 has also contributed to the increase of steel prices in India. The prices are expected to remain strong over the next quarter, owing to low inventories and strong domestic demand. |
| | Stainless Steel | +0.5% ↑ | •0000 Low | Stainless steel prices are expected to remain high in 2023, amid export demand from sanction hit Russian buyers coupled with strong domestic demand. India's biggest stainless-steel manufacturer, Jindal Stainless expects its exports to reach a five-year high in FY2023-24. |
| | Lumber | +1.0% ↑ | • D | Lumber prices are estimated to have shrunk by 4.2% quarter-on-quarter in Q1 2023, owing to easing of supply chain disruption and reduced global demand for lumber. Prices are expected to remain stable in 2023, supported by demand from key construction sectors, notably residential and commercial buildings. |
| A | Asphalt | +1.0% ↑ | •OOOO Low | Bitumen prices remain at an elevated level. Prices are expected to remain high in the next few quarters, as demand for the commodity will be supported by an infrastructure push by the government. Moreover, demand for bitumen is likely to outpace supply this year, despite steady domestic production and imports. |
| 0000 | Limestone | +0.5% ↑ | • 0 0 0 0 Low | Although limestone prices have remained relatively unchanged in the past quarter, owing to stable supply and demand, prices are expected to continue at an elevated level owing to high production costs. |

≪ Linesiah

India - Commodity Report





| | Material | % change Q1 – Q2 2023 (f) | Level of in | npact of pricing on construction procurement and supply chain * |
|---|--------------------|------------------------------|---------------------|---|
| | Cement Concrete | -2.5% ↓ -2.0% ↓ | o O O O O | Cement prices rose in January 2023, owing to factors such as a seasonal uptick in demand, and shortage due to closure of some plants in Himachal Pradesh, amid truckers' strike over freight charges. Prices have however declined albeit marginally in February and March 2023, due to discounts, incentives, and price cuts offered by manufacturers, to meet their financial year-end volume targets. Government planning to reduce the GST on cement from 28% to 18%, as part of the updated tax scheme is expected to lead to a reduction in cement prices in the coming quarters. |
| | Welded mes | h +1.0% | o D █ ∭ Moderate | The prices for welded mesh increased in Q1 2023, on account of hike in steel rebar prices. Furthermore, the industry is expected to witness price fluctuations, owing to varied prices of steel rebar across the regions. |
| 盘 | Bricks | +0.5% ↑ | •0000 Low | Brick prices are expected to rise marginally in the coming months, due to factors such as increasing coal rates – which is one of the primary raw materials for bricks. Businesses are likely to shut down their kilns temporarily if coal rates are not reduced. This could further impact output of bricks and put upward pressure on brick prices. |
| | Plasterboard | i 0.0% ↔ | •0000 Low | Plasterboard prices are expected to remain relatively stable in the coming quarters, with demand remaining strong. |
| | Diesel | 0.0% ↔ | •0000 Low | Diesel prices in India have remained stable since May 2022. The price of diesel is expected to remain unchanged in the coming months, despite global decline in crude oil price, as oil marketing companies (OMCs) have to recover accumulated losses of INR180 billion (\$2.2 billion) that have been incurred due to high crude prices. |

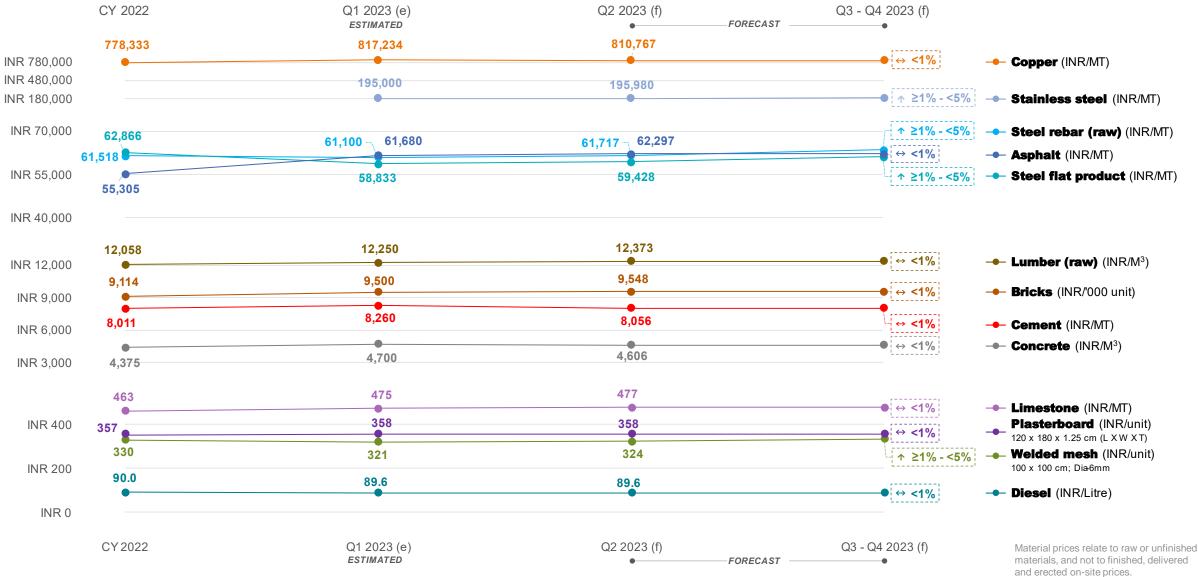
Level of impact rating reflects a combination of factors: the price movement and also price level (compared to recent past beyond the last quarter), the importance of the material, and general state of the supply chain in terms of stability.

Please note that commodity prices are based on representative materials available in the respective countries, and as these materials may not be standard across all markets, cross-country comparisons on prices can be ineffective. For example, asphalt types can vary between hot, cold or a bitumen price, and standard unit sizes for materials can vary across countries.



India – Construction Materials Pricing (2022-2023)







India – Macroeconomic overview



Economic indicators



5.89%

GDP growth in FY 2024 (f) and **6.83%** in FY 2023 (e)



4.95%

inflation rate in 2023 (f) and **6.67%** for 2022



410.20

people employed in 2022 and **406.00** in 2023



7.80%

unemployment rate for Mar 2023 and **7.60%** in 2022



177.20

Consumer Price Index (general) in Mar 2023 (p) and **167.7** in 2022



150.90

Wholesale Price Index in March 2023 and **148.90** in Mar 2022

National holidays



17 public holidays

in India each year

India – Construction overview



Output 2022 and 2023 (in INR millions)

| Output Lozz and Lozo (in little inilitions) | | | | | | |
|---|---------------|-------------------|-------------------|--|--|--|
| | Total 2022 | Total 2023 (f) | Total 2024 (f) | | | |
| Commercial | 2,827,450 | 2,943,604 | 3,088,132 | | | |
| Energy and utilities | 11,547,018 | 12,165,699 | 13,061,052 | | | |
| Industrial | 3,127,772 | 3,264,263 | 3,483,287 | | | |
| Infrastructure | 9,987,885 | 10,602,596 | 11,332,416 | | | |
| Institutional | 1,453,144 | 1,503,780 | 1,577,993 | | | |
| Residential | 12,081,669 | 12,610,352 | 13,428,314 | | | |

^{*}The output is in real terms at constant prices with 2017 as base year

Long lead equipment (LLE) - Supply Chain Overview

2022 was a turbulent year for the global supply chain with the fallout from the global pandemic combined with the emergence of the Russia-Ukraine conflict, leading to supply chain disruptions across the globe. However, 2023 is showing signs of relief in the market for long lead equipment (LLE). The following are the specifics of the LLE supply chain dynamic:

- 1. **Demand**: Demand for LLE has remained exceptionally high across all regions and industry sectors. Organizations have moved to expand their supply chain portfolios and include secondary and tertiary suppliers, whilst most are continuing to invest in inventory management systems to prevent any supply chain disruptions. There is no sign of reduced demand, so the constraints to the supply chain will continue for the remainder of 2023.
- 2. Supply: The stock levels of raw materials finally started to stabilize, alleviating some recent pressures on manufacturers and suppliers. However, it is worth noting that most LLE suppliers have reported being at operational capacity, with order books full up to Q3 2024, which may cause some concern for those relying on their products. Nevertheless, there is some hope as Tier 2 and Tier 3 supply chains have started to increase their capacity and support the larger demand within the market, which may help to mitigate any negative impact of capacity restrictions.
- 3. Freight durations and costs: Freight durations have begun to shorten in early 2023 as the global infrastructure and operations have developed to meet the rising demand and freight companies are shipping much faster than they did during the pandemic. Average freight costs have also reduced to align with pre-pandemic levels suggesting a return to normality within the industry. The benefits have been experienced in early 2023 and further reductions are expected throughout the rest of 2023.

Construction Health and Safety practices and culture



40% fatalities due to falls
8% stuck by objects fatalities
8.5% fatalities by electrocution*



165 per 1,000 workers accident rate*

^{*} Based on A study on construction jobsite safety management, *International Journal of Innovative Research in Science, Engineering and Technology*, vol. 3



^{*} Based on Studies on Labour Safety in Construction Sites Volume 2015 | Article ID 590810

India – Report methodology



Linesight has commissioned independent global research to track construction materials and commodity prices.

The approach and methodology for the collection of construction material pricing and other indicators is based on primary and secondary research.

Primary and secondary research

Primary research is conducted on a quarterly basis with stakeholders in the value chain, including manufacturers and suppliers/distributors of the target materials, to ascertain market information on prices in recent quarters, and also on projections for changes in the coming quarter and remainder of the year. The market analysis also involves a thorough assessment of secondary sources of data on materials and labour prices, in addition to underlying demand and supply trends that will impact market prices.

Sources include GlobalData's Construction Intelligence Center (CIC), the World Bank, IMF, OECD, as well as country specific national statistics offices, such as the U.S. Bureau of Economic Analysis, Bureau of Labor Statistics, and also industry specific associations and publications.

Definitions

- · Commodity prices are net of taxes for all the countries
- Prices are not customer delivered
- All commodities are raw materials
- Nominal and real data

Nominal data series do not exclude changes in prices and are also referred to as current prices series.

Annual changes in nominal data for construction output will include changes in construction activity, as well as changes in costs for materials and equipment.

Real data series are calculated by keeping prices constant (so, are also referred to as constant price series), and therefore, they reflect changes in activity only. Growth rates in nominal terms can overstate the pace of growth in construction activity if there is high inflation stemming from rising prices for key inputs.

Sample sources - India

For India, sources for this report include, but are not limited to:

- World Bank
- · Reserve Bank of India
- Ministry of Statistics and Programme Implementation (MoSPI)
- ILO
- Construction Industry Development Council (CIDC)
- GlobalData's Construction Intelligence Center (CIC)
- Power Finance Corporation Limited
- Economic Research Institute
- · Public Holidays
- Statista
- · Centre for Monitoring Indian Economy Pvt. Ltd.
- Office of Economic Advisor







Japan Q1 2023

The Japanese economy experienced a decline in its GDP growth rate, dropping from 2.1% in 2021 to 1.1% in 2022, which was largely attributed to a deceleration in its export growth. However, the latest report from the IMF anticipates a rebound and predicts a growth rate of 1.3% for 2023. Additionally, there is a noticeable relaxation of inflationary pressures, with the Consumer Price Index estimated to be 3.3% in 2022, showing a decrease from 3.8% in the previous year.

Japan's construction grew by 2.5% in real terms in 2022 and is expected to continue to expand with a growth rate of 0.9% in 2023. This is attributed to a surge in private investment in building construction, particularly in the renewable energy infrastructure, telecommunications, and manufacturing sectors. The industry is expected to maintain an annual growth rate of 1% from 2024 to 2027, supported by ongoing investments in these sectors. The government's emphasis on 6G communication and the semiconductor industry is also likely to spur investments in data centres and high-tech industrial sectors. Despite these positive developments, there are still risks to the industry's overall outlook, such as elevated material costs and shortage of skilled labour.



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Lumber

Weak residential investment in the final quarter of 2022 and sluggish demand for new housing construction, which is projected to expand by only 0.3% this year, is expected to weigh on lumber demand in 2023. New housing loans fell by approximately 1.5% in 2022, due entirely to a 5.0% decline in the second half of the year. Imports of softwood lumber, which accounts for a relatively significant proportion of Japanese lumber consumption, declined in the first two months of this year.



Cement and aggregates

While the increase in cement prices seen in Q1 2023 was not as sharp as in Q4 2022, despite thermal coal costs remaining elevated, prices are expected to continue to rise in the coming quarters. Major cement companies, such as Taiheiyo and Sumitomo Osaka, are in the process of deciding price revisions, which are likely to see cement prices rise. Sumitomo Osaka, which last increased its prices in October 2022, is expected to revise its prices from April 2023.



Concrete blocks and bricks

Brick and concrete block prices are projected to appreciate slightly in the short-term, with the latter impacted by the increase in cement costs. Increase in import costs will add further upward pressure to the pricing.





Steel (rebar and structural)

The continued decline in factory activity in Japan, which contracted for the fifth consecutive month in March 2023, and the weak outlook for the manufacturing sector is expected to see steel prices decline in the second quarter of this year. Elevated metallurgical coal costs and a strengthening of demand in China will soften the decline in domestic steel prices.



Copper

Copper prices continued to rise in Q1 2023 as Chinese demand continued to strengthen, though concerns of a potential global economic recession eased price growth during the quarter. With the global economic outlook appearing brighter, copper prices are expected to continue to appreciate in the second quarter of this year. Further upwards pressure on prices will be driven by efforts by the Japanese government to enhance electricity grid and transmission infrastructure to enable it to meet its decarbonisation targets.



Japan - Commodity Report



| | Q2 2023 (f) | Q2 2022 – | Q2 2023 (f) | Q4 2022 - Q1 2023 (e) |
|-------------------------------------|-------------|-----------|---------------------|--------------------------|
| Materials | JPY | JPY | 2021-22 % change | % change |
| Copper (JPY/MT) | 1,254,788 | 1,297,000 | -3.3% ↓ | 3.5% ↑ • |
| Steel rebar (JPY/MT) | 114,386 | 115,900 | -1.3% ↓ | 0.4% ↑ ■ |
| Steel flat (JPY/MT) | 146,730 | 141,950 | 3.4% ↑ | -0.5% ↓ ■ |
| Stainless steel (JPY/MT) | 173,705 | NA | NA | -2.8% ↓ • |
| Lumber (JPY/M ³) | 71,453 | 70,000 | 2.1% ↑ | -2.1% ↓ • |
| Asphalt (JPY/MT) | 96,929 | 104,000 | -6.8% ↓ | -17.1% ↓ • |
| Limestone (JPY/MT) | 81,152 | 90,722 | -10.5% ↓ | 0.0% ↔ ■ |
| Cement (JPY/MT) | 15,368 | 12,992 | 18.3% 个 | 2.0% ↑ ■ |
| Concrete (JPY/M³) | 18,905 | 15,067 | 25.5% 个 | 6.2% 个 • |
| Welded mesh (JPY/unit) | 671 | 669 | 0.3% ↑ | 0.7% ↑ ■ |
| Bricks (JPY/'000 unit) | 136,576 | 127,589 | 7.0% ↑ | 1.0% 个 • |
| Plasterboard (JPY/unit) | 1,603 | 1,540 | 4.1% ↑ | 3.9% ↑ • |
| Diesel (JPY/litre) | 149 | 151 | -1.9% ↓ | -0.4% ↓ ■ |
| (f) Forecast (e) Es | timated | | | |

- Q4 2022 to Q1 2023 % change greater than estimation in our Q4 2022 report
- Q4 2022 to Q1 2023 % change less than estimation in our Q4 2022 report

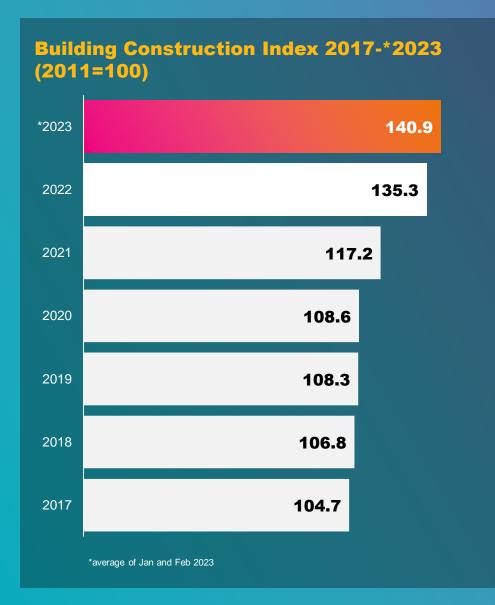
Welded mesh: 100 x 200cm, dia.-5mm Plasterboard: 182 x 91 x 0.95cm (L x W x T)

| | Matarial | % change – Q2 2023 (f) | Level of in | npact of pricing on construction procurement and supply chain * |
|-----|---|---------------------------|------------------|---|
| | Copper | +1.6% ↑ | •0000 Low | Copper prices in Japan rose by around 3% in Q1 2023, in comparison to their Q4 2022 levels. Domestic prices fell marginally in March 2023 on a monthly basis, in part reflecting concerns over banking sector risks in the US, but prices picked up towards the end of the month and are expected to remain relatively high in the coming quarters. |
| B | Steel prices - Steel rebar - Flat steel | -0.2% ↓ -0.4% ↓ | •0000 Low | Trends in prices for steel rebar and flat products diverged in Q1 2023, with rebar prices edging up and flat prices falling marginally. This in part reflects weak manufacturing output in Japan, particularly in its automotive sector, which has constrained demand for flat products. Prices of both rebar and flat are expected to decline steadily, with weaker demand offsetting ongoing supply side pressures. |
| | Stainless Stee | I -0.7% ↓ | • 0 D D Low | Despite, rising input costs, with ferrochrome, nickel and iron ore prices all rallying on increase demand from China following its reopening, weak demand from the Japanese manufacturing sector is expected to see stainless steel prices soften in the coming quarters. |
| | Lumber | -1.3% ↓ | o D D D Moderate | Lumber prices are estimated to have declined by 2% in the first quarter of this year. Driving down prices was a decline in demand from the residential construction sector. Private residential investment was weak in 2022, declining by 4.7%, and this trend is expected to have continued in early 2023. Lumber prices are expected to continue to decline in the second quarter of this year as a result. |
| - A | Asphalt | +1.3% ↑ | •0000 Low | With the international crude oil prices stabilising, the prices of asphalt has witnessed a decline of more than 10%. However, with major road maintenance projects underway, the demand for asphalt is expected to remain strong. The asphalt price is expected to remain at current levels for next quarter. |
| | Limestone | -0.6% ↓ | • O O O O | Limestone prices remained unchanged from their Q4 2022 levels in the first quarter of this year. A softening of demand from the construction sector amid elevated inflation and weak investment levels is expected to keep prices around their current levels in the coming quarters. |



Japan - Commodity Report





| | Material | % change Q1 – Q2 2023 (f) | Level of ir | npact of pricing on construction procurement and supply chain * |
|---|--------------------|------------------------------|---------------------|---|
| | Cement Concrete | +3.2% ↑ +3.5% ↑ | o 0 █ ∭ Moderate | The price for cement and related products rose in the first quarter of this year, in comparison to their Q4 2022 levels. Prices rose predominantly due to the passing on of elevated thermal coal costs. Prices are expected to continue to rise in the second quarter of this year, by 3-4%. |
| | Welded mes | sh -0.1% ↓ | •0000 Low | Welded mesh prices recorded a marginal increase in Q1 2023 in comparison to Q4 2022 in line with the rise in steel rebar prices. With steel rebar prices expected to soften in the coming quarters, the price of welded mesh is expected to decline further in Q2 2023. |
| # | Bricks | +0.4% ↑ | o 0 █ ∭ Moderate | Brick prices slightly increased in Q1 2023, in comparison to their Q4 2022 levels. Although demand will be relatively sluggish in the construction sector, containing growth in demand, elevated energy costs will keep the price of bricks around its current levels in the coming quarters. |
| | Plasterboar | rd +0.2% ↑ | •0 DDD | Plasterboard price recorded a moderate increase of approximately 3% in Q1 2023, in comparison to prices in Q4 2022. High energy costs have been a major driver for this increase in price. However, with demand from the construction sector relatively soft, the price for plasterboard is expected to remain around its current levels in the coming quarter. |
| | Diesel | +0.5% ↑ | • O D D Low | Diesel prices in Q1 2023 declined by 0.4%, in comparison to prices in Q4 2022. Prices fell through Q1 2023, with the average diesel price being 0.4% lower in March 2023 than in January 2023. Government subsidies and lower crude oil prices have driven this decline. However, with crude |

in Q2 2023.



oil prices beginning to firm, diesel prices are expected to rise marginally

Level of impact rating reflects a combination of factors: the price movement and also price level (compared to recent past beyond the last quarter), the importance of the material, and general state of the supply chain in terms of stability.

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Japan – Construction Materials Pricing (2022-2023)







Japan – Macroeconomic overview



Economic indicators



1.30%

GDP growth in 2023 (f) and **1.07%** in 2022



2.73%

inflation rate in 2023 (f) and **2.50%** for 2022



67.65M

people employed in 2023 (f) and **67.28M** in 2022



2.30%

unemployment rate for 2023 (f) and **2.56%** in 2022



104.20

Consumer Price Index in Feb 2023 and **100.70** in Feb 2022



119.40

Producer Price Index in March 2023 and **113.20** in March 2022

National holidays

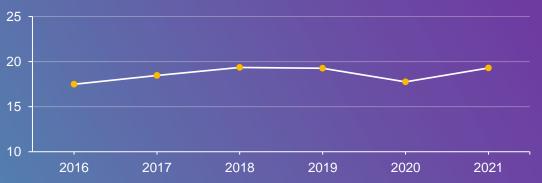


16 public holidays

in Japan each year

Japan Energy Prices

Electricity costs for the industry in yen per kWh in Japan



Labour Unit Price Trends

Public works design labour unit price Trends in the national average for all occupations



The chart shows the unit price of public works design labour published by the Ministry of Land, Infrastructure, Transport and Tourism Japan. As labour costs continue to rise in Japan over the past 11 years, they have increased by 5.2% in 2023 (a 9-year high), reflecting the latest labour market prices. The above-mentioned prices are in JPY per 8 hours, working within the prescribed working hours.



Japan – Construction overview



Output 2022 and 2023 (in JPY millions)

| | Total 2022 | Total 2023 (f) | Total 2024 (f) | | | |
|----------------------|---------------|-------------------|-------------------|--|--|--|
| Commercial | 8,186,668 | 8,300,831 | 8,422,602 | | | |
| Energy and utilities | 11,040,562 | 11,090,321 | 11,156,688 | | | |
| Industrial | 4,848,901 | 4,884,348 | 4,894,561 | | | |
| Infrastructure | 17,821,699 | 18,092,623 | 18,368,676 | | | |
| Institutional | 2,774,342 | 2,815,624 | 2,859,029 | | | |
| Residential | 19,430,980 | 19,506,100 | 19,596,918 | | | |

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Long lead equipment (LLE) - Supply Chain Overview

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- 2. Supply: The stock levels of raw materials finally started to stabilize, alleviating some recent pressures on manufacturers and suppliers. However, it is worth noting that most LLE suppliers have reported being at operational capacity, with order books full up to Q3 2024, which may cause some concern for those relying on their products. Nevertheless, there is some hope as Tier 2 and Tier 3 supply chains have started to increase their capacity and support the larger demand within the market, which may help to mitigate any negative impact of capacity restrictions.
- 3. Freight durations and costs: Freight durations have begun to shorten in early 2023 as the global infrastructure and operations have developed to meet the rising demand and freight companies are shipping much faster than they did during the pandemic. Average freight costs have also reduced to align with pre-pandemic levels suggesting a return to normality within the industry. The benefits have been experienced in early 2023 and further reductions are expected throughout the rest of 2023.

Construction Health and Safety practices and culture



288 fatalities due to occupational accidents in 2021 in construction* industry

21% reduction in fatalities due to occupational accidents in construction industry in the period 2012-2021



^{*}construction industry includes building construction work

Japan – Report methodology



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Primary and secondary research

Primary research is conducted on a quarterly basis with stakeholders in the value chain, including manufacturers and suppliers/distributors of the target materials, to ascertain market information on prices in recent quarters, and also on projections for changes in the coming quarter and remainder of the year. The market analysis also involves a thorough assessment of secondary sources of data on materials and labour prices, in addition to underlying demand and supply trends that will impact market prices.

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Sample sources – Japan

For Japan, sources for this report include, but are not limited to:

- Japan Industrial Safety and Health Association
- · Statistics Bureau of Japan
- GlobalData's Construction Intelligence Center (CIC)
- Bank of Japan (BOJ)
- Construction Prices Research Institute
- Statista
- Economic Research Institute
- Pubic Holidays
- Ministry of Land, Infrastructure, Transport and Tourism



Linesight





Singapore Q1 2023

Singapore's GDP is expected to grow at a 1.5% in 2023, down from a growth of 3.6% in 2022. The slowing growth is primarily due to manufacturing contraction amid global slowdown. Singapore's Monetary Authority has stopped tightening and is maintaining its exchange rate policy band. Consumer Price Inflation (CPI-AII) is still expected to be high in 2023, with the MAS projecting inflation to be in the range of 5.5% and 6.5%.

Last year, the construction sector in Singapore experienced a real-term expansion of 6.6%, which can be attributed to the uptick in consumer and investor confidence, along with the easing of COVID-19-related travel and business restrictions. The industry is also expected to grow at a 5.4% annual rate in 2023, due to planned public housing projects. The industry still faces challenges such as labour shortages and high prices; however, conditions are improving, and the industry is expected to regain momentum in the medium to long term.



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Lumber

Lumber prices have remained stable but elevated and are likely to stay in the similar price range in the coming quarters due to consistent demand driven from the incentives for sustainable construction through the use of engineered lumber and the expansion in residential construction, which is recovering from the 2020 slump.



Cement and aggregates

After rising sharply in the first half of last year, cement prices have remained elevated, held up by high production costs and improving demand. Construction output is expanding following the sharp slump in 2020, with particularly strong growth in investment in infrastructure and residential, and this will contribute to upward pressure on cement and aggregates prices.



Concrete blocks and bricks

Brick prices have been relatively stable, but with construction demand picking up, there will be increased upwards pressure on prices in the coming quarters.





Steel (rebar and structural)

Having dropped throughout the second half of last year and into early 2023, steel prices are set to pick up again, buoyed by rising demand, with the commencement of works on a number of large civil engineering projects. Demand across the region will also pick up given the expansion in China's demand. Raw materials prices are set to remain volatile, but not returning to highs of the first half of 2022.



Copper

Copper prices rose sharply in January 2023 as global copper demand strengthened, owing in part to China's reopening following the end of its zero-COVID policy. Prices did slow in the period from Jan-March 2023, however despite the drop, prices remained high on a quarterly basis. Domestic copper prices will also rise in the long run as a result of public infrastructure development projects under Singapore's Green Plan 2030.



Singapore – Commodity Report



| | Q2 2023 (f) | Q2 2022 | – Q2 2023 (f) | Q4 2022 - Q1 2023 (e) |
|-----------------------------------|-------------|------------|---------------|--------------------------|
| | | | 2022-23 | |
| Materials | S \$ | S\$ | % change | % change |
| Copper (S\$/MT) | 13,777 | 13,108 | 5.1% ↑ | 11.2% ↑ • |
| Steel rebar (S\$/MT) | 961 | 1,254 | -23.4% ↓ | -6.2% ↓ • |
| Steel flat (S\$/MT) | 1,381 | 1,357 | 1.8% ↑ | -1.5% ↓ • |
| Stainless steel (S\$/MT) | 3,585 | NA | NA | 1.8% ↑ • |
| Lumber (S\$/M ³) | 122 | 117 | 4.0% ↑ | 0.0% ↔ ■ |
| Asphalt (S\$/MT) | 453 | 507 | -10.7% ↓ | -3.5% ↓ • |
| Limestone (S\$/MT) | 41.8 | 41.7 | 0.2% ↑ | -1.0% ↓ • |
| Cement (S\$/MT) | 119 | 115 | 3.1% ↑ | 0.0% ↔ ■ |
| Concrete (S\$/M ³) | 118 | 118 | 0.0% ↔ | -0.7% ↓ • |
| Welded mesh (S\$/unit) | 13.6 | 15.0 | -9.7% ↓ | -3.8% ↓ • |
| Bricks (S\$/'000 unit) | 3,437 | 3,587 | -4.2% ↓ | 0.2% ↑ ■ |
| Plasterboard (S\$/unit) | 9.42 | 9.40 | 0.2% ↑ | 0.0% ↔ ■ |
| Diesel (S\$/litre) | 2.66 | 2.97 | -10.4% ↓ | -3.3% ↓ • |
| (f) Forecast (e) Es | timated | | | |
| • Q4 2022 to Q1 20 | | | | |

■ Q4 2022 to Q1 2023 % change less than estimation in our Q4 2022 report

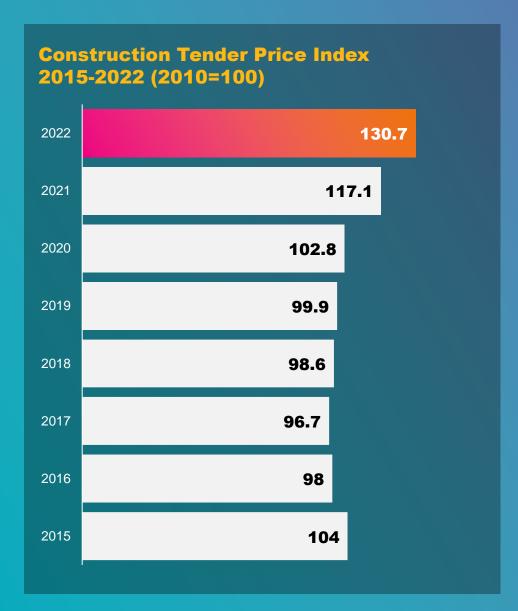
Welded mesh: 200 x 300cm, dia.-4mm Plasterboard: 10 x 20 x 1.25cm (L x W x T)

| | Material Q | % change 1 – Q2 2023 (f) | Level of in | npact of pricing on construction procurement and supply chain * |
|------|---|-----------------------------|-------------------|--|
| | Copper | +0.4% ↑ | o 0 | Copper prices rose sharply in Q1 2023, with strengthening demand in China contributing to an 11% QoQ increase in prices. Prices did, however, slow through the quarter, being approximately 3% lower in March 2023 in comparison to January 2023. Prices are expected to rise in the coming quarters, albeit at a slower pace. |
| B | Steel prices - Steel rebar - Flat steel | +2.3% ↑ +1.6% ↑ | oOOO High | Prices for both steel rebar and steel flat products declined on a quarterly average basis in the first quarter of this year, with prices dropping by 6.2% and 1.5%, respectively, in comparison to their Q4 2022 levels. A seasonal moderation of construction activity in Singapore is expected to have driven the larger fall in rebar prices at the start of the year, but prices have picked up since January, and in Q2 2023, prices for both rebar and flat are expected to rally. |
| | Stainless Stee | ≱I +0.8% ↑ | o Ū ∭ Moderate | Due to high input costs, stainless steel prices are expected to rise in the second quarter of this year, following the 1.8% QoQ price increase recorded in Q1 2023. A potential moderation of nickel pig iron prices as supply increases may, however, soften price growth in Q2 2023. |
| | Lumber | +0.2% ↑ | oOOO | Lumber prices remained stable in Q1 2023, after witnessing an increase in Q3 2022. The Singapore Housing Development Board estimates it will build approximately 20,000 flats in 2023, roughly matching the 20,064 flats built in 2022. Lumber demand is expected to be stable as a result, with prices expected to remain around their current levels in Q2 2023. |
| A | Asphalt | +1.3% ↑ | o 0 | Asphalt prices declined by approximately 3.5% Q1 2023, in comparison to Q4 2022 levels. A fall in crude oil prices is expected to have driven this decline. In Q2 2023, prices are projected to rise, with crude prices anticipated to trend upwards following the recent OPEC+ output cuts and a continued strengthening of oil demand in China. |
| 0000 | Limestone | +0.2% ↑ | • O O O O | Prices for limestone remained relatively stable in Q1 2023, with prices declining by a marginal 0.7%. Limestone prices are projected to remain around their current levels in Q2 2023, with an expected improvement in construction activity contributing to upwards pressure. |



Singapore - Commodity Report





| Material Q | % change 1 – Q2 2023 (f) | Level of ir | npact of pricing on construction procurement and supply chain * |
|--------------------|-----------------------------|-----------------------------|---|
| Cement Concrete | +0.1% ↑ +0.2% ↑ | o 0 ■ | Cement and concrete prices declined marginally in recent months due to a seasonal moderation in construction activity. Cement prices are estimated to have declined by 0.04% in Q1 2023, while concrete prices are anticipated to have fallen by 0.7%. Prices are expected to rise marginally in Q2 2023, as construction activity begins to pick up. |
| Welded mesh | +2.1% 个 | o 0 0 0 0 High | Welded mesh prices declined in the first quarter of this year, as steel rebar prices fell. In line with the expected increase in rebar prices in Q2 2023, welded mesh prices are projected to rise. |
| Bricks | +1.1% ↑ | 00 I ∫ ∫ Moderate | A moderation in energy prices, easing supply chain disruption and softer construction activity have kept brick prices relatively stable; prices are estimated to have increased by just 0.2% in Q1 2023, in comparison to their Q4 2022 levels. As construction activity ramps up in the coming quarters, brick demand is expected to strengthen, with prices expected to rise. |
| Plasterboard | 0.0% ↔ | • 0 0 0 0 Low | The price of plasterboard is estimated to have remained stable in the first quarter of this year, with no notable price change recorded. Prices are expected to remain around their current levels in Q2 2023, though may trend upwards as construction activity accelerates. |
| Diesel | +1.5% ↑ | 00 DD Moderate | Diesel prices in Singapore fell 3.5% in the first quarter of this year, due to a drop in global crude oil prices. With OPEC+ recently cutting their oil output by 1.16 million barrels per day, crude prices are expected to trend upwards in the coming quarters, and this is expected to drive an increase |

in diesel prices in Singapore in Q2 2023.

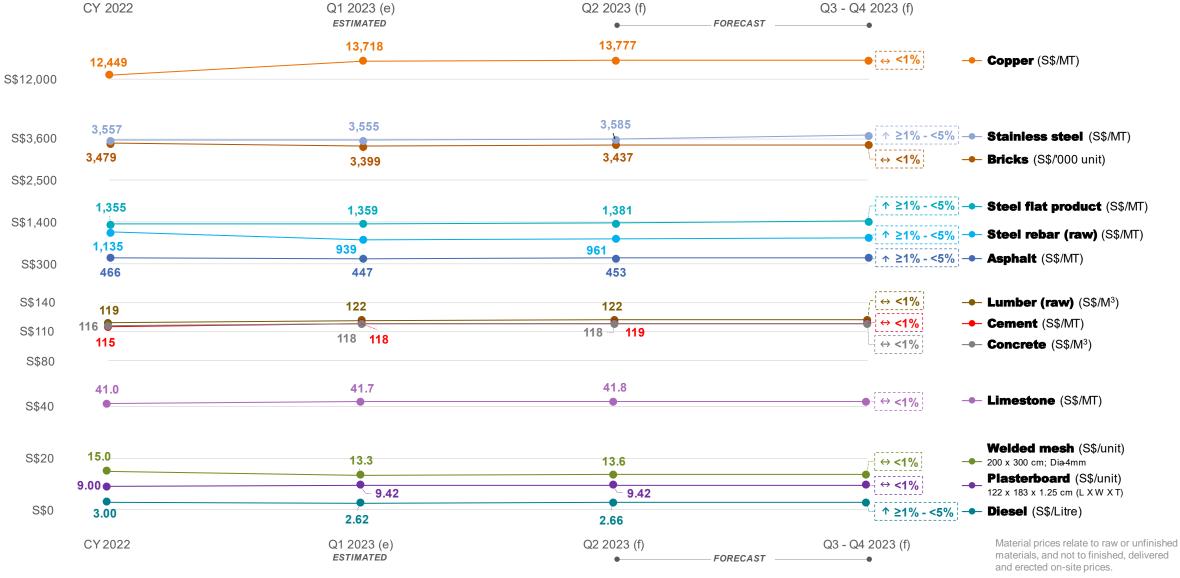
Level of impact rating reflects a combination of factors: the price movement and also price level (compared to recent past beyond the last quarter), the importance of the material, and general state of the supply chain in terms of stability.

Please note that commodity prices are based on representative materials available in the respective countries, and as these materials may not be standard across all markets, cross-country comparisons on prices can be ineffective. For example, asphalt types can vary between hot, cold or a bitumen price, and standard unit sizes for materials can vary across countries.



Singapore – Construction Materials Pricing (2022-2023)







Singapore – Macroeconomic overview



Economic indicators



1.50%

GDP growth in 2023 (f) and **3.65%** in 2022



5.80%

inflation rate in 2023 (f) and **6.12%** for 2022



3.82M

people employed in 2023 (f) and **3.80M** in 2022



2.10%

unemployment rate for 2023 (f) and **2.10%** in 2022



112.60

Consumer Price Index in Mar 2023 and **106.7** in Mar 2022



107.9

Manufactured Products Price Index in Mar 2023 and **112.8** in Mar 2022

National holidays



11 public holidays

in Singapore each year (Most holidays are taken during New Year and Christmas)

Singapore Energy Prices

Average Uniform Singapore Energy Price (USEP in S\$/MWh)



Note:

*As of March 2023

Excludes Goods & Services Tax

The Uniform Singapore Energy Price (USEP) is the half-hourly energy price in the Singapore Wholesale Electricity Market. Energy withdrawal from the national grid is settled at the USEP



Singapore – Construction overview



Output 2022 and 2023 (in SG\$ millions)

| | • | | / |
|----------------------|---------------|-------------------|-------------------|
| | Total 2022 | Total 2023 (f) | Total 2024 (f) |
| Commercial | 1,386 | 1,473 | 1,574 |
| Energy and utilities | 1,939 | 2,001 | 2,079 |
| Industrial | 5,344 | 5,656 | 5,988 |
| Infrastructure | 4,033 | 4,186 | 4,349 |
| Institutional | 3,316 | 3,491 | 3,660 |
| Residential | 6,183 | 6,590 | 6,735 |

^{*}The output is in real terms at constant prices with 2017 as base year

Long lead equipment (LLE) - Supply Chain Overview

2022 was a turbulent year for the global supply chain with the fallout from the global pandemic combined with the emergence of the Russia-Ukraine conflict, leading to supply chain disruptions across the globe. However, 2023 is showing signs of relief in the market for long lead equipment (LLE). The following are the specifics of the LLE supply chain dynamic:

- 1. **Demand**: Demand for LLE has remained exceptionally high across all regions and industry sectors. Organizations have moved to expand their supply chain portfolios and include secondary and tertiary suppliers, whilst most are continuing to invest in inventory management systems to prevent any supply chain disruptions. There is no sign of reduced demand, so the constraints to the supply chain will continue for the remainder of 2023.
- 2. Supply: The stock levels of raw materials finally started to stabilize, alleviating some recent pressures on manufacturers and suppliers. However, it is worth noting that most LLE suppliers have reported being at operational capacity, with order books full up to Q3 2024, which may cause some concern for those relying on their products. Nevertheless, there is some hope as Tier 2 and Tier 3 supply chains have started to increase their capacity and support the larger demand within the market, which may help to mitigate any negative impact of capacity restrictions.
- 3. Freight durations and costs: Freight durations have begun to shorten in early 2023 as the global infrastructure and operations have developed to meet the rising demand and freight companies are shipping much faster than they did during the pandemic. Average freight costs have also reduced to align with pre-pandemic levels suggesting a return to normality within the industry. The benefits have been experienced in early 2023 and further reductions are expected throughout the rest of 2023.

Construction Health and Safety practices and culture



3.3 fatal injuries per 100,000 workers in 2021 in construction industry

2.9 fatal injuries per 100,000 workers

in 2022 in construction industry



Singapore – Report methodology



Linesight has commissioned independent global research to track construction materials and commodity prices.

The approach and methodology for the collection of construction material pricing and other indicators is based on primary and secondary research.

Primary and secondary research

Primary research is conducted on a quarterly basis with stakeholders in the value chain, including manufacturers and suppliers/distributors of the target materials, to ascertain market information on prices in recent quarters, and also on projections for changes in the coming quarter and remainder of the year. The market analysis also involves a thorough assessment of secondary sources of data on materials and labour prices, in addition to underlying demand and supply trends that will impact market prices.

Sources include GlobalData's Construction Intelligence Center (CIC), the World Bank, IMF, OECD, as well as country specific national statistics offices, such as the U.S. Bureau of Economic Analysis, Bureau of Labor Statistics, and also industry specific associations and publications.

Definitions

- · Commodity prices are net of taxes for all the countries
- Prices are not customer delivered
- All commodities are raw materials.
- Nominal and real data

Nominal data series do not exclude changes in prices and are also referred to as current prices series.

Annual changes in nominal data for construction output will include changes in construction activity, as well as changes in costs for materials and equipment.

Real data series are calculated by keeping prices constant (so, are also referred to as constant price series), and therefore, they reflect changes in activity only. Growth rates in nominal terms can overstate the pace of growth in construction activity if there is high inflation stemming from rising prices for key inputs.

Sample sources – Singapore

For Singapore, sources for this report include, but are not limited to:

- IMF
- Ministry of Trade and Industry
- · Singapore Institute of Surveyors and Valuers
- BCA
- GlobalData's Construction Intelligence Center (CIC)
- Energy Market Authority Singapore
- · Ministry of Manpower Singapore
- · Economic Research Institute
- Public Holidays
- Energy Market Authority of Singapore







South Korea Q1 2023

South Korea's GDP grew by 2.6% in 2022 and is expected to grow by 1.5% in 2023. The economy is expected to slowdown in the first half of 2023, due to weak global economic outlook and interest rate hikes, but it is likely to gradually improve, as global economy picks up. Consumer prices are forecasted to rise by 3.5% in 2023 and then reduce to 2.6% in 2024.

The construction industry in South Korea grew marginally by 0.2% in 2022, due to headwinds caused by inflation, supply chain disruptions and elevated interest rates. It is predicted to gradually regain its growth momentum and register a growth of 0.8% in 2023. Furthermore, with investments in the energy, transport, and industrial sectors, the sector is likely to grow at a 3.6% average annual growth from 2024-2027.



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Lumber

Lumber price inflation is expected to be contained by sluggishness in the residential construction sector, which reflects the impact of recent interest rate hikes. The total number of residential construction permits issued in the country declined by 26% year-on-year in January-February 2023; this followed a drop of 23% in Q4 2022.



Cement and aggregates

Despite a moderation of bituminous coal prices in the first quarter of this year, the Korean government's decision to hike electricity rates by 13.1 won per kilowatt-hour has driven an increase in cement prices. Cement and concrete prices are expected to continue rise this year as electricity rates increase, with KEPCO calling for a total increase of 51.6 won per kilowatt-hour this year, though the government has delayed its decision on raising electricity rates in Q2 2023.



Concrete blocks and bricks

With construction activity relatively soft in the final quarter of 2022 and into the first quarter of this year, subdued demand for bricks ensured prices remained stable. This trend is expected to be maintained in the coming quarters, with the Korean construction industry projected to record only a marginal growth of 0.8% this year.



Steel (rebar and structural)

Steel flat prices declined in the first quarter of this year, primarily driven by a fall in demand due to the downturn of activity in the Korean manufacturing industry and a fall in trade volumes as external demand slowed. In contrast, robust demand for rebar from the Chinese construction industry saw rebar prices rise. In the coming quarters, prices are expected to remain relatively stable, with prices capped by a moderation of iron ore and metallurgical coal prices.



Copper

Robust copper demand and increased optimism of a rapid economic rebound in China in early-2023 saw the average copper price in the first quarter of 2023 rise. A weaker Korean won further drove up domestic prices, with prices rising through the quarter despite a marginal fall in USD prices. Prices are expected to continue to rise in the second quarter of 2023, though the increase is expected to be moderate due to an increase in supply following the end of protests that had disrupted output at Peruvian copper mines.



South Korea - Commodity Report



| | Q2 2023 (f) | Q2 2022 - Q2 2023 (f) | | Q4 2022 - Q1 2023 (e) |
|--------------------------------|-------------|-----------------------|---------------------|--------------------------|
| Materials | KRW | KRW | 2022-23 % change | % change |
| Copper (KRW/MT) | 11,466,398 | 11,811,542 | -2.9% ↓ | 6.0% ↑ • |
| Steel rebar (KRW/MT) | 959,999 | 1,111,667 | -13.6% ↓ | 2.5% ↑ • |
| Steel flat (KRW/MT) | 986,632 | 1,006,448 | -2.0% ↓ | -1.0% ↓ • |
| Stainless steel (KRW/MT) | 1,834,753 | NA | NA | 0.0% ↔ ■ |
| Lumber (KRW/M3) | 354,170 | 346,000 | 2.4% ↑ | -2.6% ↓ • |
| Asphalt (KRW/MT) | 66,289 | 66,200 | 0.1% ↑ | 0.0% ↔ ■ |
| Limestone (KRW/MT) | 814,650 | 964,912 | -15.6% ↓ | -3.8% ↓ • |
| Cement (KRW/MT) | 411,438 | 375,000 | 9.7% ↑ | 1.5% ↑ ■ |
| Concrete (KRW/M3) | 160,307 | 142,753 | 12.3% ↑ | 2.0% ↑ • |
| Welded mesh (KRW/unit) | 8,065 | 9,398 | -14.2% ↓ | 2.0% ↑ • |
| Bricks (KRW/'000 unit) | 650,000 | 650,000 | 0.0% ↔ | 0.0% ↔ ■ |
| Plasterboard (KRW/unit) | 4,121 | 4,125 | -0.1% ↓ | 0.0% ↔ ■ |
| Diesel (KRW/litre) | 1,612 | 2,076 | -22.3% ↓ | 3.8% ↑ • |

| (131377/1011) | | | | |
|--|---------------|------------------|--------------------|--------|
| Cement (KRW/MT) | 411,438 | 375,000 | 9.7% ↑ | 1.5% 1 |
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| Diesel (KRW/litre) | 1,612 | 2,076 | -22.3% ↓ | 3.8% 1 |
| (f) Forecast (e) Est | imated | | | |
| ● Q4 2022 to Q1 202 ■ Q4 2022 to Q1 202 | | | | |
| Welded mesh: 100 x 2 | 200cm, dia5mm | Plasterboard: 90 | x 180 x 1.2cm (L > | (WxT) |

| | Material Q | % change 1 – Q2 2023 (f) | Level of in | npact of pricing on construction procurement and supply chain * |
|-----|---|-----------------------------|----------------------|--|
| | Copper | +0.7% ↑ | •0000 Low | Copper prices rose by approximately 6% in the first quarter of this year, in comparison to their Q4 2022 levels. Increased copper demand in China and the depreciation of the Korean Won were the primary drivers of this price growth. Prices rose through the quarter, with the average copper price 2.7% higher in March 2023 than in January 2023. |
| | Steel prices - Steel rebar - Flat steel | +0.3% ↑ +0.8% ↑ | o D D D D Moderate | Steel rebar prices picked up by 2.5% in the first quarter of this year, while the price of steel flat products eased back by 1.0%. Weaker manufacturing activity, both domestically and in the Eurozone and the United States, contributed to the decline in steel flat prices, but marginal growth in the construction industry in the coming quarters will keep prices for both steel rebar and flat products around current levels. |
| | Stainless stee | el +0.3% ↑ | o O D D High | An increase in nickel supply from Indonesia and falling nickel pig iron prices have kept stainless steel prices fairly stable in the first quarter of this year. Stainless steel prices are expected to trend marginally upwards in the coming quarters. |
| | Lumber | -1.9% ↓ | 00 █ █ █ Moderate | Lumber prices recorded a decline of 2.6% in Q1 2023, in comparison to their Q4 2022 levels. Although construction output will edge upward from recent low levels of activity, improved supply from Vietnam and Indonesia will weigh on lumber prices in the coming quarters. |
| | Asphalt | +0.1% 个 | •0000 Low | Asphalt prices are estimated to have remained stable in the first quarter of this year. With demand from the construction sector expected to remain soft, the price of asphalt is expected to remain around its current levels in the short term. However, a potential increase in crude oil prices following recent OPEC+ output cuts may generate some upwards pressure on prices. |
| 000 | Limestone | -1.4% ↓ | •0000 Low | Limestone prices fell by 3.8% on a quarterly average basis in Q1 2023, in comparison to their Q4 2022 levels. Sluggish demand from the construction sector, amid rising interest rates, has contributed to this decline. Limestone prices are expected to continue to fall in Q2 2023. |

though the pace of the decline is expected to slow.

South Korea – Commodity Report





| Material | % change Q1 – Q2 2023 (f) | Level of in | npact of pricing on construction procurement and supply chain * |
|----------|------------------------------|---------------------------|--|
| Cemen | | o | Cement and concrete prices rose in Q1 2023, with input costs increasing following the government's decision to increase electricity rates. The increase in prices was, however, softened by weak demand from the construction sector, with activity in the infrastructure sector moderating in the first quarter of 2023. Cement and concrete prices are expected to edge up further in Q2 2023. |
| Welded | l mesh +0.2% ↑ | • D D D Low | Welded mesh prices are predominantly driven by the trend of steel rebar prices and are estimated to have risen in line with the increase in rebar prices in Q1 2023. With the price of rebar expected to record only a marginal increase in the second quarter of this year, the price of welded mesh is expected to remain around its current levels. |
| Bricks | 0.0% ↔ | 00 I ∭ Moderate | Brick prices remained stable in the first quarter of this year. Despite an increase in electricity rates by the government, weak demand growth from the construction sector, particularly in the residential sector, will keep brick prices close to their current levels in the coming quarters. |
| Plaster | board -0.1% ↓ | •0 DDD | Plasterboard prices are estimated to have remained at their Q4 2022 levels in the first quarter of this year. Weak construction activity and a moderation of residential demand are expected to contain upward price pressures. |
| Diesel | +0.1% 个 | • ODD | Diesel prices rose by 3.8% in the first quarter of this year on a quarter- on-quarter basis. However, prices fell through the quarter. With the government planning to remove its diesel subsidy after May 2023, the price of diesel is expected to continue to rise in Q2 2023. |

Level of impact rating reflects a combination of factors: the price movement and also price level (compared to recent past beyond the last quarter), the importance of the material, and general state of the supply chain in terms of stability.

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South Korea – Construction Materials Pricing (2022-2023)







South Korea - Macroeconomic overview

Economic indicators



1.51%

GDP growth in 2023 (f) and **2.56%** in 2022



3.54%

inflation rate in 2023 (f) and **5.09%** for 2022

9= 28.27M



people employed in 2023 (f) and **28.09M** in 2022



3.65%

unemployment rate for 2023 (f) and 2.88% in 2022



110.56

Consumer Price Index in Mar 2023 and **106.06** in Mar 2022



120.42

Producer Price Index in Feb 2023 and **116.70** in Feb 2022

National holidays



11 public holidays

in South Korea each year

South Korea – Construction overview



Output 2022 and 2023 (in KRW millions)

| | Total 2022 | Total 2023 (f) | Total 2024 (f) | | |
|----------------------|---------------|-------------------|-------------------|--|--|
| Commercial | 45,505,382 | 45,395,350 | 46,714,044 | | |
| Energy and utilities | 8,707,746 | 8,751,406 | 8,978,934 | | |
| Industrial | 36,746,428 | 37,557,049 | 38,117,333 | | |
| Infrastructure | 35,957,538 | 35,705,392 | 36,448,138 | | |
| Institutional | 16,437,382 | 16,672,645 | 17,188,859 | | |
| Residential | 93,234,115 | 94,375,296 | 97,879,102 | | |

^{*}The output is in real terms at constant prices with 2017 as base year

Long lead equipment (LLE) - Supply Chain Overview

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- 2. Supply: The stock levels of raw materials finally started to stabilize, alleviating some recent pressures on manufacturers and suppliers. However, it is worth noting that most LLE suppliers have reported being at operational capacity, with order books full up to Q3 2024, which may cause some concern for those relying on their products. Nevertheless, there is some hope as Tier 2 and Tier 3 supply chains have started to increase their capacity and support the larger demand within the market, which may help to mitigate any negative impact of capacity restrictions.
- 3. Freight durations and costs: Freight durations have begun to shorten in early 2023 as the global infrastructure and operations have developed to meet the rising demand and freight companies are shipping much faster than they did during the pandemic. Average freight costs have also reduced to align with pre-pandemic levels suggesting a return to normality within the industry. The benefits have been experienced in early 2023 and further reductions are expected throughout the rest of 2023.

Construction Health and Safety practices and culture



4.7 fatalities per 10,000 workers per working week construction industry occupational fatality rate in 2022.

Ranks 34 out of 38 OECD countries.



South Korea – Report methodology



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The approach and methodology for the collection of construction material pricing and other indicators is based on primary and secondary research.

Primary and secondary research

Primary research is conducted on a quarterly basis with stakeholders in the value chain, including manufacturers and suppliers/distributors of the target materials, to ascertain market information on prices in recent quarters, and also on projections for changes in the coming quarter and remainder of the year. The market analysis also involves a thorough assessment of secondary sources of data on materials and labour prices, in addition to underlying demand and supply trends that will impact market prices.

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Sample sources - South Korea

For South Korea, sources for this report include, but are not limited to:

- IMF
- · Statistics Korea
- The Korean Statistical Information System (KOSIS)
- · Bank of Korea
- Korea Institute of Civil Engineering and Building Technology (KICT)
- GlobalData's Construction Intelligence Center (CIC)
- The Conference Board Data Central
- · Economic Research Institute







TaiwanQ1 2023

Taiwan's GDP is projected to grow by 2.1% in 2023, a reduction from the 2.45% growth forecast for 2022. This downward revision is attributed to weak export performance at the beginning of the year. However, the inflationary pressures in the country are showing signs of easing, with the Consumer Price Index (CPI) dropping from 2.4% in February 2023 to 2.35% year-on-year in March 2023.

Taiwan's construction industry grew by 1.5% in real terms in 2022 and is expected to grow by 0.5% in 2023. Growth has slowed due to rising construction costs, subdued demand and a scarcity of skilled labour and contractors. However, it is forecasted that the industry will continue to grow at an average annual growth of 3.6% from 2023 to 2027. The country is emerging as one of the major connectivity hubs in APAC, and data centers are one of the sectors experiencing rapid growth in the country.



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Lumber

An expected weakening of construction activity in the first quarter of this year is anticipated to have resulted in a decline in lumber prices. An additional interest rate hike by the Central Bank of the Republic of China at its March 2023 meeting is expected to further constrain residential construction demand, weighing on lumber demand and prices in the coming quarters.



Cement and aggregates

A glut of domestic supply, a moderation of thermal coal prices and a decline in demand from the construction sector as activity slowed saw cement prices fall sharply in the first quarter of this year. In contrast, concrete prices rose marginally. Some upwards pressure on prices will be generated by the enforcement of tariffs on Vietnamese cement and clinker exports.



Concrete blocks and bricks

Falling thermal coal prices and a moderation of domestic demand as construction activity slowed have weighed on prices in early-2023. Taiwan is reliant on imports from China and Vietnam to meet demand given the steady reduction in domestic production since 2013.



Steel (rebar and structural)

China Steel Corp, Taiwan's largest steel mill, increased its list prices of steel products in March 2023 and April 2023, citing increased input costs due to rising iron ore and metallurgical coal prices. Global steel demand is expected to strengthen as infrastructure construction activity ramps up in the coming months, generating further upwards pressure on steel prices in Taiwan. However, weak manufacturing activity in Japan, the Eurozone and the United States will weigh on steel demand, softening the rise in steel prices.



Copper

Stronger demand from China, disrupted supply due to widespread anti-government protests in Peru and depleted inventories saw copper prices rise sharply in the first quarter of this year. Price increases are expected to moderate in the coming quarters as Peruvian supply recovers, though robust Chinese demand and the more positive global economic outlook will drive continual price growth. Domestically, a less positive economic outlook and weaker manufacturing activity will partly offset the expected global increase in copper prices.



Taiwan – Commodity Report



| | Q2 2023 (f) | Q2 2022 | – Q2 2023 (f) | Q4 2022 - Q1 2023 (e) |
|------------------------------------|-------------|---------|---------------------|--------------------------|
| Materials | NT\$ | NT\$ | 2022-23 % change | % change |
| Copper (NT\$/MT) | 275,452 | 264,945 | 4.0% ↑ | 8.4% 个 • |
| Steel rebar (NT\$/MT) | 21,295 | 24,011 | -11.3% ↓ | 5.3% 个 • |
| Steel flat (NT\$/MT) | 32,010 | 33,747 | -5.1% ↓ | -1.6% ↓ • |
| Stainless steel | 37,924 | NA | NA | 2.1% ↑ • |
| Lumber (NT\$/M ³) | 6,805 | 6,927 | -1.8% ↓ | 0.1% ↑ ■ |
| Asphalt (NT\$/MT) | 13,244 | 13,541 | -2.2% ↓ | 0.2% ↑ ■ |
| Limestone (NT\$/MT) | 1,796 | 1,839 | -2.4% ↓ | -1.9% ↓ • |
| Cement (NT\$/MT) | 3,379 | 3,697 | -8.6% ↓ | -11.0% ↓ • |
| Concrete (NT\$/M ³) | 1,730 | 1,599 | 8.2% ↑ | 2.4% ↑ • |
| Welded mesh (NT\$/unit) | 362 | 373 | -2.9% ↓ | 0.0% ↔ ■ |
| Bricks (NT\$/'000 unit) | 17,452 | 17,797 | -1.9% ↓ | -0.1% ↓ ■ |
| Plasterboard (NT\$/unit) | 250 | 250 | 0.0% ↔ | 0.0% ↔ ■ |
| Diesel (NT\$/litre) | 27.6 | 27.8 | -0.8% ↓ | 1.7% 个 • |

[•] Q4 2022 to Q1 2023 % change greater than estimation in our Q4 2022 report

Welded mesh: 200 x 300cm, dia.-4mm Plasterboard: 10 x 20 x 1.25cm (L x W x T)

| | Material Q | % change 11 – Q2 2023 (f) | Level of in | npact of pricing on construction procurement and supply chain * |
|------|---|------------------------------|--------------|--|
| | Copper | +1.4% ↑ | •0000 Low | Copper prices are estimated to have risen by approximately 8% in Q1 2023, primarily due to stronger demand in China. Prices did, however, decline through the quarter, being 1.3% lower in March 2023 than in January 2023. Weak manufacturing output in Taiwan and concerns of a weak global economy weighed on prices during the quarter. Copper prices are expected to continue to rise in Q2 2023. |
| | Steel prices - Steel rebar - Flat steel | +1.7% ↑ +2.4% ↑ | •0000 Low | Steel rebar prices increased by approximately 5% in Q1 2023. In contrast, steel flat product prices declined by 1.6%. Weaker global manufacturing activity during the quarter weighed on steel flat demand, while robust demand from China's construction sector underpinned rebar price growth. Prices for both steel flat and rebar are expected to rise in the second quarter of this year. |
| | Stainless Stee | el +2.8% ↑ | •0000 Low | Stainless steel prices are estimated to have risen by approximately 2.1% in the first quarter of this year, primarily due to higher input costs as iron ore and ferrochrome prices rose. With input costs expected to remain elevated, stainless steel prices are projected to continue to rise into the second quarter of this year. |
| | Lumber | -0.2% ↓ | o 0 | Lumber prices remained fairly flat in the first quarter of this year. In the coming quarters, lumber prices are expected to stay around their current levels, with risk to the price outlook weighted to the downside. |
| | Asphalt | +0.5% ↑ | • 0 D D Low | Asphalt prices edged up in the first quarter of this year. With diesel prices likely to increase in the coming quarters, as crude prices rise on the recent OPEC+ output cut and improving demand in China, asphalt prices are expected to appreciate. |
| 0000 | Limestone | -1.2% ↓ | • O O O O | Limestone prices are estimated to have fallen by approximately 1.9% in the first quarter of this year, in comparison to their Q4 2022 levels. A contraction of construction activity this year is expected to weigh on |

Q2 2023.

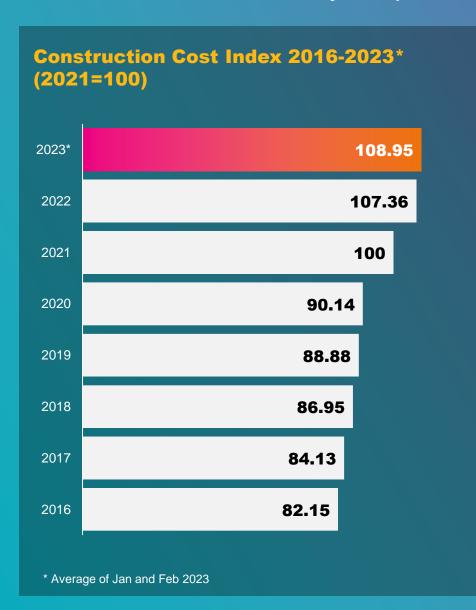


demand for limestone, with prices projected to continue to decline in

[■] Q4 2022 to Q1 2023 % change less than estimation in our Q4 2022 report

Taiwan – Commodity Report





| | Material | % change Q1 – Q2 2023 (f) | Level of impact of pricing on construction procurement and supply chain * | | |
|-----|--------------------|----------------------------------|---|--|--|
| | Cement Concrete | -0.3% ↓ -0.5% ↓ | o 0 🛮 🗓 Moderate | Cement prices fell by 11% in Q1 2023, but concrete prices expected to have risen marginally. Weak construction activity is expected to have weighed on cement demand in the first quarter of this year and will continue to soften prices in the coming quarters. The prices of cement and concrete are both expected to decline in the second quarter of this year. | |
| | Welded mes | h +0.7% 个 | • 0 0 0 0 Low | Welded mesh prices have remained stable and recorded no notable change from their Q4 2022 levels. With steel rebar prices expected to rise, welded mesh prices are expected to increase marginally in Q2 2023. | |
| === | Bricks | -0.5% ↓ | 00 DIII Moderate | Brick prices have remained relatively stable, recording only a marginal decline from their Q4 2022 levels. Soft demand from the construction sector weighed on brick prices in the first quarter of this year. With construction activity expected to remain relatively weak in the short-term, brick prices are expected to continue fall in Q2 2023. | |
| | Plasterboard | d 0.0% ↔ | •0000 Low | Plasterboard prices have been stable in the past quarter. With interest rates rising and economic activity slowing, the demand for plasterboard from the housing sector is expected to soften, preventing any notable increase in prices. The price of plasterboard is expected to remain around its current level in Q2 2023. | |
| | Diesel | +0.4% ↑ | • 0 0 0 0 Low | Diesel prices increased between January and mid-February, with Taiwan's CPC and Formosa Petrochemical Corp increasing their prices. In March 2023, CPC and FPC reduced their diesel prices in accordance with the government's requirement that fuel prices in Taiwan remain lower than those in neighbouring economies. With crude prices likely to | |

pressure.



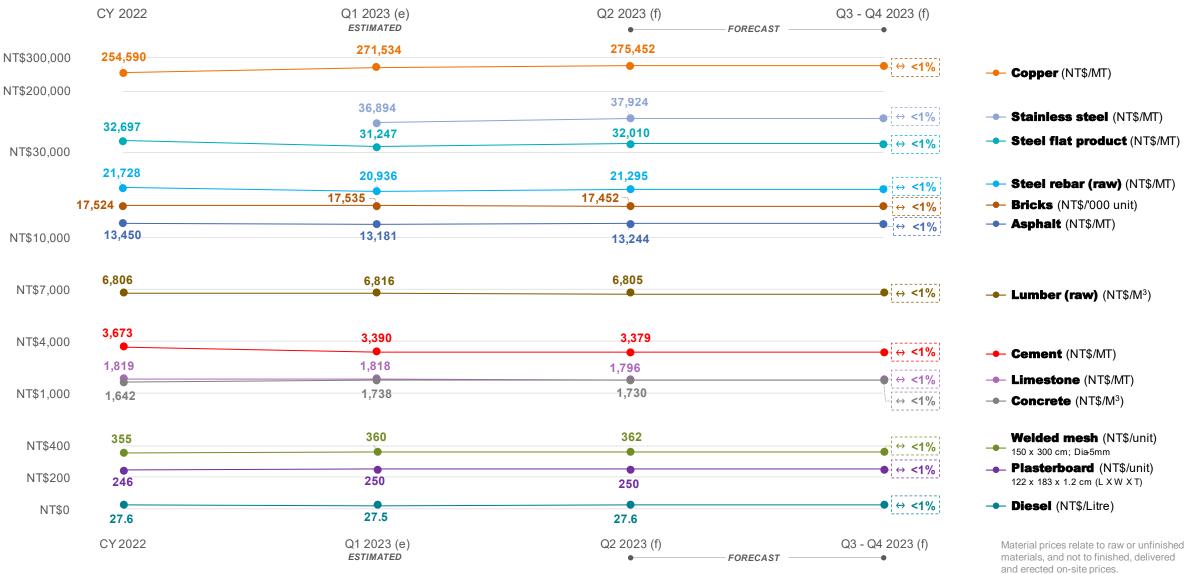
rise on OPEC+ production cuts, diesel prices could face some upwards

Level of impact rating reflects a combination of factors: the price movement and also price level (compared to recent past beyond the last quarter), the importance of the material, and general state of the supply chain in terms of stability.

Please note that commodity prices are based on representative materials available in the respective countries, and as these materials may not be standard across all markets, cross-country comparisons on prices can be ineffective. For example, asphalt types can vary between hot, cold or a bitumen price, and standard unit sizes for materials can vary across countries.

Taiwan – Construction Materials Pricing (2022-2023)







Taiwan – Macroeconomic overview



Economic indicators



2.10%

GDP growth in 2023 (f) and **2.45%** in 2022



1.92%

inflation rate in 2023 (f) and **2.94%** for 2022

11.49M

people employed in 2023 (f) and 11.45M in 2022



3.53%

unemployment rate for Feb 2023 (f) and **3.65%** in Feb 2022



104.32

Consumer Price Index in Mar 2023 and **101.92** in Mar 2022



109.38

Producers Prices Index in Mar 2023 and 109.14 in Mar 2022

National holidays



14 public holidays

in Taiwan each year

Taiwan Energy Prices





Note: Electricity Prices are from Taiwan Power company

*For 2023 its average from Jan to March 2023

Taiwan – Construction overview



Output 2022 and 2023 (in NT\$ millions)

| | Total 2022 | Total 2023 (f) | Total 2024 (f) | | | |
|----------------------|---------------|-------------------|-------------------|--|--|--|
| Commercial | 106,262 | 104,906 | 108,592 | | | |
| Energy and utilities | 326,403 | 332,567 | 341,021 | | | |
| Industrial | 261,135 | 256,771 | 264,183 | | | |
| Infrastructure | 484,275 | 502,309 | 524,745 | | | |
| Institutional | 92,783 | 93,558 | 95,853 | | | |
| Residential | 555,148 | 545,659 | 566,855 | | | |

^{*}The output is in real terms at constant prices with 2017 as base year

Long lead equipment (LLE) - Supply Chain Overview

2022 was a turbulent year for the global supply chain with the fallout from the global pandemic combined with the emergence of the Russia-Ukraine conflict, leading to supply chain disruptions across the globe. However, 2023 is showing signs of relief in the market for long lead equipment (LLE). The following are the specifics of the LLE supply chain dynamic:

- 1. **Demand**: Demand for LLE has remained exceptionally high across all regions and industry sectors. Organizations have moved to expand their supply chain portfolios and include secondary and tertiary suppliers, whilst most are continuing to invest in inventory management systems to prevent any supply chain disruptions. There is no sign of reduced demand, so the constraints to the supply chain will continue for the remainder of 2023.
- 2. Supply: The stock levels of raw materials finally started to stabilize, alleviating some recent pressures on manufacturers and suppliers. However, it is worth noting that most LLE suppliers have reported being at operational capacity, with order books full up to Q3 2024, which may cause some concern for those relying on their products. Nevertheless, there is some hope as Tier 2 and Tier 3 supply chains have started to increase their capacity and support the larger demand within the market, which may help to mitigate any negative impact of capacity restrictions.
- 3. Freight durations and costs: Freight durations have begun to shorten in early 2023 as the global infrastructure and operations have developed to meet the rising demand and freight companies are shipping much faster than they did during the pandemic. Average freight costs have also reduced to align with pre-pandemic levels suggesting a return to normality within the industry. The benefits have been experienced in early 2023 and further reductions are expected throughout the rest of 2023.

Construction Health and Safety practices and culture



7.75 per 100 persons is the occupational injury incidence rate

for Construction in Taiwan for 2022. It was 8.60 in 2021



Taiwan - Report methodology



Linesight has commissioned independent global research to track construction materials and commodity prices.

The approach and methodology for the collection of construction material pricing and other indicators is based on primary and secondary research.

Primary and secondary research

Primary research is conducted on a quarterly basis with stakeholders in the value chain, including manufacturers and suppliers/distributors of the target materials, to ascertain market information on prices in recent quarters, and also on projections for changes in the coming quarter and remainder of the year. The market analysis also involves a thorough assessment of secondary sources of data on materials and labour prices, in addition to underlying demand and supply trends that will impact market prices.

Sources include GlobalData's Construction Intelligence Center (CIC), the World Bank, IMF, OECD, as well as country specific national statistics offices, such as the U.S. Bureau of Economic Analysis, Bureau of Labor Statistics, and also industry specific associations and publications.

Definitions

- · Commodity prices are net of taxes for all the countries
- Prices are not customer delivered
- All commodities are raw materials
- Nominal and real data

Nominal data series do not exclude changes in prices and are also referred to as current prices series.

Annual changes in nominal data for construction output will include changes in construction activity, as well as changes in costs for materials and equipment.

Real data series are calculated by keeping prices constant (so, are also referred to as constant price series), and therefore, they reflect changes in activity only. Growth rates in nominal terms can overstate the pace of growth in construction activity if there is high inflation stemming from rising prices for key inputs.

Sample sources – Taiwan

For Taiwan, sources for this report include, but are not limited to:

- IMF
- · National Statistics
- Directorate General of Budget, Accounting and Statistics (DGBAS)
- GlobalData's Construction Intelligence Center (CIC)
- Research and Markets
- Economic Research Institute
- Public Holidays
- Bureau of Energy Taiwan







UAEQ1 2023

In 2022, UAE's GDP grew by 7.4%, the fastest pace since 2010, due to higher oil production and a rebound in the non-oil sector. Despite uncertainties related to the global economic outlook, the IMF predicts that the economy will still grow by 3.5% in 2023. Inflation is also expected to decrease, with the Consumer Price Index projected to be around 3.4% in 2023, compared to 4.8% in 2022.

The UAE's construction industry grew by 2% in real terms in 2022, benefiting from an economic recovery after the easing of COVID-19 restrictions and increased oil receipts. It is anticipated to grow by 3.3% in 2023, supported by the government's continued emphasis on infrastructure investments. Despite concerns over material costs, skills shortages amid increasing labour demand in neighboring states the country's construction sector remains resilient and strong.



Ciaran McCormack
Director – GCC
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Lumber

The expected improvement in construction output in the UAE, supported by government investment, will contribute to domestic demand for lumber, prices for which have eased globally. With most imports sourced from Europe and North America, where prices have dropped, local price inflation will be contained.



Cement and aggregates

Cement prices will remain at an elevated level in 2023, as consumption increases due to investment in infrastructure and major buildings projects. As the UAE not only has sufficient capacity to meet domestic consumption needs, but is also an exporter, so rising demand would be met by domestic suppliers. Prices are therefore set to remain around current high levels.



Concrete blocks and bricks

Benefiting from the high oil price environment, the UAE is set to push ahead with investment programs that will support a pickup in construction activity. This will generate stronger demand for key building materials, such as bricks, thereby keeping prices at relatively high levels.



Steel (rebar and structural)

Steel prices picked up in the first quarter, and prices will remain high in the coming quarters as producers seek to pass on higher production costs to buyers. Domestic steel production has been positive in recent quarters, with Emirates Steel Arkan, the UAE's largest public steel company, reporting a net profit of AED 125 million in Q4 2022.



Copper

Copper prices will stabilize in the second half of 2023, as an easing in major economic growth constraints in developed countries combined with the restart of production and recovery of consumption by Chinese companies (which consume approximately 52% of the world's copper). Although prices are expected to remain near current lows in the second quarter, demand is expected to increase due to the metal's importance in the energy transition drive.



UAE – Commodity Report



| | Q2 2023 (f) | Q2 2022 | 2 – Q2 2023 (f) | Q4 2022 – Q1 2023 (e) | | |
|---|-------------|---------|---------------------|--------------------------|--|--|
| Materials | AED | AED | 2022-23 % change | % change | | |
| Copper (AED/MT) | 30,026 | 36,162 | -17.0% ↓ | 7.4% ↑ • | | |
| Steel rebar (AED/MT) | 2,507 | 2,975 | -15.7% ↓ | 10.3% ↑ • | | |
| Steel flat (AED/MT) | 2,504 | 3,398 | -26.3% ↓ | 13.9% ↑ • | | |
| Stainless steel (AED/MT) | 4,650 | NA | NA | 5.0% ↑ • | | |
| Lumber (AED/M ³) | 644 | 650 | -1.0% ↓ | 0.0% ↔ ■ | | |
| Asphalt (AED/MT) | 1,721 | 1,900 | -9.4% ↓ | -7.0% ↓ • | | |
| Limestone (AED/MT) | 455 | 449 | 1.4% ↑ | 1.0% 个 • | | |
| Cement (AED/MT) | 222 | 217 | 1.9% ↑ | 0.0% ↔ ■ | | |
| Concrete blocks (AED/M ³) | 231 | 230 | 0.5% 个 | 0.0% ↔ ■ | | |
| Welded mesh (AED/unit) | 84.4 | 94.6 | -10.8% ↓ | 0.0% ↔ ■ | | |
| Bricks (AED/'000 unit) | 1,809 | 1,700 | 6.4% ↑ | 0.0% ↔ ■ | | |
| Plasterboard (AED/unit) | 14.0 | 13.9 | 0.8% ↑ | 0.0% ↔ ■ | | |
| Diesel (AED/litre) | 3.2 | 4.1 | -22.7% ↓ | -14.8% ↓ • | | |
| (f) Forecast (e) Estimated | | | | | | |
| Q4 2022 to Q1 2023 % change greater than estimation in our Q4 2022 report Q4 2022 to Q1 2023 % change less than estimation in our Q4 2022 report | | | | | | |
| Welded mesh: 244 x 488cm dia -6mm Plasterhoard: 122 x 244 x 1 2cm (L x W x T) | | | | | | |

| | Material | % change Q1 – Q2 2023 (f) | Level of im | pact of pricing on construction procurement and supply chain * |
|---|---|------------------------------|----------------------------|--|
| | Copper | +1.0% ↑ | •OOD Low | After rising continuously from October to January, copper prices fell in February and March 2023. Despite the drop, Q1 2023 prices remain high due to increased demand from China following its reopening. In the short term, the global slowdown in economic activity, combined with the fear of a recession, will keep price pressures in check, but prices are expected to rise slightly in the coming quarters. |
| B | Steel prices - Steel rebar - Flat steel | +2.0% ↑ +1.0% ↑ | •OOD Low | Steel rebar prices in the UAE are expected to trend upwards in the short term, following a 3.8% M-o-M increase in March and a 6.9% increase since the start of 2023. Meanwhile, steel flat prices have increased by more than 10% from the price level of Q4 2022. Expectations of big projects to be awarded in first half of 2023, along with an extended import duty period for rebar till November 2023 will keep the demand strong and keep prices relatively high. |
| | Stainless St | eel +1.8% ↑ | o 0 I ∭ Moderate | High raw materials prices have kept stainless-steel prices relatively high. The price of stainless steel has increased by nearly 5% in the current quarter compared to the previous price level in Q4 2022. Stabilising energy and nickel prices are expected to keep stainless steel prices steady at a high level in the coming quarters. |
| | Lumber | -1.0% ↓ | o Ū Ū Ū Moderate | Lumber price have witnessed no notable change from the level of Q4 2022. Improvements in the supply chain and reduced transportation cost due to stabilisation of international crude oil prices have improved the supply of imported lumber in the region. The price for lumber is expected to remain at current levels for the next quarter. |
| A | Asphalt | +3.5% ↑ | • O O O O | Asphalt prices have fallen sharply from the levels of Q4 2022. However, prices are expected to rise in the short-term owing to production cuts by OPEC as well as rising demand stemming from road construction projects in the country. |
| | Limestone | -0.5% ↓ | • O O O | Limestone prices edged up slightly in Q1 2023 compared to the price level of Q4 2022. Continued demand from construction sector and stabilising energy costs will likely keep limestone prices close to current |

levels over the coming quarters.

Welded mesh: 244 x 488cm, dia.-6mm Plasterboard: 122 x 244 x 1.2cm (L x W x T)

UAE Country Report Q1 2023 - Commodities

UAE – Commodity Report



Construction Cost Index 2015-2022 (Dubai) (2019=100) 2022 103.2 2021 100.0 2020 98.5 2019 100.0 2018 100.0 2017 94.0 2016 94.0 2015 94.3

| Material | % change Q1 – Q2 2023 (f) | Level of in | npact of pricing on construction procurement and supply chain * |
|--------------------|----------------------------------|--|--|
| Cement Concrete | +1.0% ↑ +0.5% ↑ | 00 █ █ █ Moderate | Cement and concrete prices have remained stable in recent months. With many large construction projects expected to be awarded in first half of 2023, the demand for cement and related products is expected to remain strong, keeping prices relatively high. |
| Welded mes | sh +0.5% ↑ | •0000 Low | Welded mesh price are expected to edge upwards marginally reflecting the increasing prices of rebar in next quarter. An increase in demand in line with the expansion in buildings projects will keep prices high in the coming quarters. |
| Bricks | +0.5% ↑ | 00 I ∭ Moderate | Prices of concrete blocks have remained stable recently. As with other building materials, demand will be strengthened by commencement of key projects by major developers in the region, and this will keep prices close to current highs. |
| Plasterboar | d +0.8% ↑ | •0000 Low | Plasterboard prices are expected to remain stable in the first half of 2023 with no significant changes witnessed in comparison to the prices of Q4 2022. Stabilising energy prices and improvement in supply of domestic gypsum will keep the prices contained. |
| | Cement Concrete Welded mes | Material Q1 - Q2 2023 (f) Cement Concrete +1.0% ↑ +0.5% ↑ Welded mesh +0.5% ↑ Bricks +0.5% ↑ | Q1 - Q2 2023 (f) Cement Concrete +1.0% ↑ 00 00 00 00 00 00 00 00 00 00 00 00 0 |

Diesel prices have fluctuated in the UAE in the past few months. The price of diesel per litre rose from AED3.29 in January to AED3.38 in February before dropping back to AED3.14 in March 2023. On a quarterly average basis, the price of diesel fell from AED3.84/litre in Q4 2022 to 3.27/litre in Q1 2023. The decline in prices has mainly reflected a general decline in international crude oil prices. However, in the coming quarters, prices are expected to remain volatile, with recent OPEC+ production cuts resulting in a jump in crude prices.

-3.6% ↓

Diesel



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UAE – Construction Materials Pricing (2022-2023)







UAE – Macroeconomic overview



Economic indicators



3.52%

GDP growth in 2023 (f) and **7.41%** in 2022



3.42%

inflation rate in 2023 (f) and **4.83%** for 2022

رک

3.00%

unemployment rate for 2023 (f) and **3.50%** in 2022



107.19

Consumer Price Index in March 2023 and **102.75** in March 2022

National holidays



14 public holidays

in UAE each year

UAE Energy Prices

Average Electricity Charges in UAE (fills/kWh) – Commercial Use



Note:

100 fills = 1 AED

Electricity cost have not changed in the last 5 years for commercial use

UAE – Construction overview



Output 2022 and 2023 (in AED millions)

| | Total 2022 | Total 2023 (f) | Total 2024 (f) | | | |
|----------------------|---------------|-------------------|-------------------|--|--|--|
| Commercial | 39,358 | 40,768 | 42,850 | | | |
| Energy and utilities | 75,354 | 78,199 | 81,406 | | | |
| Industrial | 14,570 | 14,903 | 15,386 | | | |
| Infrastructure | 60,637 | 63,305 | 66,756 | | | |
| Institutional | 8,432 | 8,643 | 8,943 | | | |
| Residential | 99,048 | 101,351 | 103,968 | | | |

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Sample sources – UAE

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- World Bank
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- Dubai Statistics Center
- Statistics Center Abu Dhabi
- GlobalData's Construction Intelligence Center (CIC)
- Central Bank of UAE
- · Economic Research Institute



