After a prolonged period of volatility, lumber prices have been on a downward trend since the end of Q1 2022. Slower construction growth, higher interest rates and falling real incomes have put downward pressure on the demand for lumber. Supply-side fragilities have also eased; lumber mills in British Colombia have gradually rebuilt stock after flooding earlier this year and US tariffs on Canadian lumber have more than halved to 8.59 percent, putting further downward pressure on prices.

High demand and rising prices of core inputs have largely driven the rise in cement and aggregate prices. Oil prices have been turbulent over the past quarter. Downward pressure from recession expectations and rising interest rates contrasted with limited supply from Russia, while the recent announcement of production cuts by OPEC+ will add to volatility. However, the recent slowdown in construction activity in the US, primarily from the residential sector, will ease demand for cement and aggregates. Medium-term demand will be sustained by infrastructure investment, driven by the $1.2 trillion Infrastructure Investment and Jobs Act signed in late 2021.

Supply fragilities and elevated input costs compounded by strong residential demand drove a sustained price increase over the past two years. Price growth is slowing, however, amid the waning of residential demand, as a result of Federal Reserve interest rate hikes.

United States Country Report Q3 2022 - Commodities
Copper prices are declining due to the global slowdown, weaker demand, a higher dollar and rising stocks in warehouses. However, with underlying US demand exceeding supply, prices are not expected to fall much further in the coming quarters, and the longer-term outlook is one of strengthening demand for copper to support growth in electric vehicle production and renewable energy facilities.

Weaker domestic demand from the construction industry has contributed to the fall in steel prices. Despite higher production costs, the drop in prices also reflects weakness globally—particularly with the slowdown in construction activity in China, the drop in European demand and an ever-appreciating dollar. Prices over the longer term will be supported by public investment programs in the US, such as the Investment Infrastructure and Jobs Act, the CHIPS and Science Act, and the Inflation Reduction Act.

Lumber prices have fallen sharply from the highs reached in the first quarter of this year. The market has been highly volatile over the past two years, reflecting major shifts in demand at times of supply disruptions. With weak construction activity and the risk of greater-than-expected Federal Reserve rate hikes, lumber prices will remain close to current lows. However, due to the risk of railway strikes, lumber supply may be disrupted in the near future.

Asphalt prices have stayed at relatively high levels in recent months despite the drop in crude oil prices. Prices are expected to remain elevated, reflecting likely renewed upward pressure on global crude oil prices, and the expected growth in demand from infrastructure projects.

Limestone prices have stabilized at a high level. Rising production costs and disruptions in the supply chain contributed to the upward pressure recorded over the past year.
Cement and concrete prices have continued to edge upwards in recent months, primarily reflecting higher production costs (which were up by around 14 percent year-on-year in Q3 2022). Housing starts have been steadily declining since February, and the sharp increase in interest rates will further dampen demand. However, with production and transportation costs unlikely to ease markedly, cement and concrete prices will remain close to current highs.

Concrete: +0.9%

Welded mesh: -1.0%

Reflecting the weakness in construction output and falling steel prices, welded mesh prices are expected to moderate.

Bricks: +0.5%

Having jumped in early 2022, brick prices have stabilized at a high level in recent quarters, with high production costs being offset by weakening demand.

Drywall: +0.7%

Higher production costs have been a factor in keeping drywall prices at elevated levels in recent quarters. Producer prices for Gypsum building materials were up by around 18 percent year-on-year in Q3 2022. However, upward pressures on the demand side are easing, which will contain further rises in prices.

Diesel: -5.1%

As per the US Energy Information Administration, the Brent crude oil spot price is forecast at an average of $98 per barrel in Q2 2022 and $97/b in 2023. With economic growth slowing amid high inflation and rising interest rates, demand will ease, but prices will remain close to current highs given the prospect of possible supply disruptions and OPEC+ production cuts leading to supply restrictions.

* 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.
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Material prices relate to raw or unfinished materials, and not to finished, delivered and erected on-site prices.
US East - Construction Materials Pricing (2021-2022)

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# United States - Macroeconomic overview

## Economic indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>2022 (f)</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP growth</td>
<td>1.67%</td>
<td>5.70%</td>
</tr>
<tr>
<td>Inflation rate</td>
<td>7.90%</td>
<td>4.70%</td>
</tr>
<tr>
<td>Unemployment rate</td>
<td>4.09%</td>
<td>5.36%</td>
</tr>
<tr>
<td>Consumer Price Index</td>
<td>134.08</td>
<td>124.26</td>
</tr>
<tr>
<td>Producer Price Index</td>
<td>183.04</td>
<td>167.05</td>
</tr>
</tbody>
</table>

## Labor cost growth - YoY June 2022

<table>
<thead>
<tr>
<th>Category</th>
<th>Growth rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Civilian workers</td>
<td>5.3%</td>
</tr>
<tr>
<td>Wages and salaries</td>
<td>5.1%</td>
</tr>
<tr>
<td>Compensation costs</td>
<td>4.8%</td>
</tr>
<tr>
<td>Benefits</td>
<td></td>
</tr>
<tr>
<td>Local government and state workers</td>
<td>3.4%</td>
</tr>
<tr>
<td>Wages and salaries</td>
<td>3.2%</td>
</tr>
<tr>
<td>Compensation costs</td>
<td>3.6%</td>
</tr>
<tr>
<td>Benefits</td>
<td></td>
</tr>
</tbody>
</table>
United States - Macroeconomic overview

Labor productivity

Labor productivity per hour worked in 2021 international dollars, converted using Purchasing Power Parities
Output 2021 and 2022 (in millions)

<table>
<thead>
<tr>
<th>Total 2021</th>
<th>Total 2021</th>
<th>Total 2022 (f)</th>
<th>% change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial</td>
<td>$224,842</td>
<td>$209,399</td>
<td>-6.9%</td>
</tr>
<tr>
<td>Energy and utilities</td>
<td>$222,848</td>
<td>$204,235</td>
<td>-8.4%</td>
</tr>
<tr>
<td>Industrial</td>
<td>$53,753</td>
<td>$59,580</td>
<td>10.8%</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>$162,473</td>
<td>$146,135</td>
<td>-10.1%</td>
</tr>
<tr>
<td>Institutional</td>
<td>$168,636</td>
<td>$146,632</td>
<td>-13%</td>
</tr>
<tr>
<td>Residential</td>
<td>$809,044</td>
<td>$804,715</td>
<td>-0.5%</td>
</tr>
</tbody>
</table>

Long-lead equipment (LLE) and Supply Chain narrative

Long-lead equipment (LLE) lead times have changed drastically since the start of 2022. Suppliers have seen the implications of material shortages, delays and price hikes throughout the supply chain, which is leading to extended lead times and reduced commitment from suppliers for new projects. The key areas in focus are:

1. **Demand**: The demand for long-lead equipment in the data centre sector has continued to increase in Q3 2022. More data centre and crypto mining providers are joining the market, and this continued demand far outweighs the capacity of the supply chain. Entry onto the production line remains a significant challenge, with suppliers reporting fully booked capacity until Q2 2024. There has been some growth in the development of Tier 2 and Tier 3 suppliers to support this demand. However, it will take time to build an extended supply chain. There has also been no sign of a decline in demand yet in early Q4 2022.

2. **Material shortage**: Just as material availability started to improve, the further threat of escalation with the Russia-Ukraine conflict has cast further uncertainties of future material stocks and reserves. The supply chain has continued to seek alternative sources of raw materials, and although this has been with partial success, market lead times remain conservative.

3. **Freight durations and costs**: Heightened by the increase in fuel costs, and compounded by the instability of labour and container availability, freight durations have been particularly volatile in recent times. Early indications from Q4 2022 suggest some stabilization in shipping durations is returning to the market, but the associated costs remain volatile due to the global fuel crisis. As clients consider alternative solutions, it almost becomes cost prohibitive to use quicker forms of transport, such as air freight, due to these increasing fuel costs.
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. A more comprehensive list of sources is included below.

### 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
- US Bureau of Labor Statistics
- GlobalData’s Construction Intelligence Center (CIC)
- Federal Reserve Economic Data
- Bureau of Economic Analysis