



# United States

## Country Insights and Commodity Report

Q1 2022





# United States

## Q1 2022

The US economy expanded by 5.7% in 2021, with Q4 its strongest quarter, owing to an upturn in exports and increased investment in inventory and a higher level of consumer spending. This constituted its highest annual growth figure since 1984. Existing weaknesses are being exacerbated by inflation (four-decade high), elevated interest rates and the impact of the Russia-Ukraine conflict.

The construction industry in the US contracted by 1% in 2021, according to the US Bureau of Economic Analysis. However, expansion is anticipated for 2022 at 4.5%, in spite of the downside risks at play. Similar to a number of other countries, these threats include those attributable to the Russia-Ukraine conflict – the return of volatility in material pricing and supply chain disruption. This has meant that the moderation previously anticipated, following the fluctuations seen in 2021, has not materialized.

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As material costs will continue to represent a challenge for the construction industry for the foreseeable future, Linesight will publish quarterly updates to track commodities and provide insights about future projections on movements.

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### Lumber

Lumber prices in the US are expected to remain volatile reflecting significant risks on the supply side and continued strong demand from the residential construction sector. Prices spiked in May last year and surged again late in the year and in the early part of 2022 amid labor shortages as well as reduced supplies from Canada and a jump in tariffs on imports from Canada. Prices look set to remain high in 2022 when compared to the levels in the years prior to the pandemic, with residential building activity staying buoyant.



### Concrete and aggregates

The recovery in construction activity has been driven by the residential sector, and this has bolstered demand for concrete, cement and aggregates. Higher energy prices will contribute to upward pressure on production costs, and a surge in crude oil prices will force up process for asphalt. As infrastructure spending starts to ramp up, concrete and cement prices are expected to resume their long-term upward trend.



### Concrete blocks and bricks

The expansion in the residential building sector exerted some upward pressure on prices for concrete blocks and brick in 2021, and with higher energy costs, prices are set to remain at high levels in 2022.



### Steel (rebar and structural)

Steel prices in the US jumped sharply in 2021, with average annual prices increasing by 42% and 131% for steel rebar and flat products respectively, owing to higher production costs and tight supplies. Prices will remain high in 2022 given the severe disruption to supplies of pig iron and semi-finished products from Russia and Ukraine.



### Copper









The global market was expected to remain relatively tight in 2022 even before the fall out from the Russia-Ukraine war, and the situation will be even more challenging in the coming quarters now. Demand will continue to be spurred by investment in electric vehicles and renewable energy projects. Copper prices were elevated during much of 2021, such that on an annual average basis they were up by 51%, with spikes in October amid mining disruptions in Chile and Peru.

# United States - Commodity Report



| Materials                          | Q4 2021 | Q3 Q4 2022 (f) |                         | Q4 - Q1 (e)<br>2022 |
|------------------------------------|---------|----------------|-------------------------|---------------------|
|                                    | US\$    | US\$           | 2021-22 (f)<br>% change | % change            |
| <b>Copper</b><br>(US\$/T)          | 9,914   | 10,861         | 9.5% ↑                  | 3.3% ↑              |
| <b>Steel rebar</b><br>(US\$/T)     | 1,049   | 1,177          | 12.2% ↑                 | 4.7% ↑              |
| <b>Steel flat</b><br>(US\$/T)      | 1,861   | 2,182          | 17.2% ↑                 | 8.9% ↑              |
| <b>Lumber</b><br>(US\$/cu.ft.)     | 8.5     | 16.1           | 88.6% ↑                 | 79.5% ↑             |
| <b>Asphalt</b><br>(US\$/T)         | 437     | 498            | 13.9% ↑                 | 8.1% ↑              |
| <b>Limestone</b><br>(US\$/T)       | 28.0    | 29.9           | 6.9% ↑                  | 5.9% ↑              |
| <b>Cement</b><br>(US\$/T)          | 129     | 139            | 7.7% ↑                  | 3% ↑                |
| <b>Concrete</b><br>(US\$/CY)       | 134     | 144            | 7.7% ↑                  | 3% ↑                |
| <b>Welded mesh</b><br>(US\$/unit)  | 174     | 244            | 40% ↑                   | 32.6% ↑             |
| <b>Bricks</b><br>(US\$/'000 unit)  | 680     | 712            | 4.6% ↑                  | 0.5% ↑              |
| <b>Plasterboard</b><br>(US\$/unit) | 11.1    | 11.7           | 6.1% ↑                  | 5.1% ↑              |
| <b>Diesel</b><br>(US\$/gallon)     | 0.97    | 1.21           | 24.9% ↑                 | 17.1% ↑             |

**Q3 Q4 2022 (f):** Forecasted average  
**2021-22 % change:** % change from Q4 2021 to Q3 Q4 2022 average

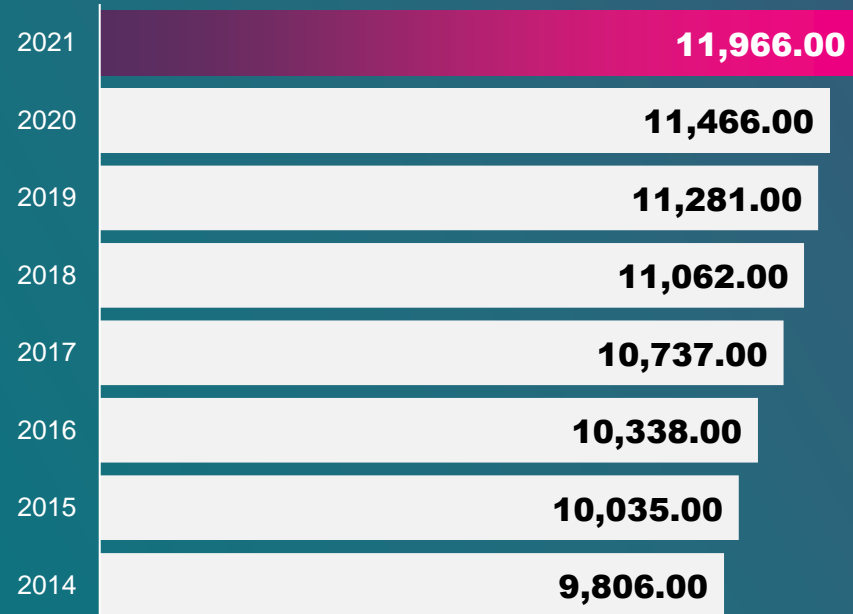
| Material   | % change<br>Q1 – Q2 2022 (f) | Level of impact of pricing on construction procurement and supply chain *                      |  |
|--|------------------------------|--|--|
|  <b>Copper</b>  | +3% ↑                        |  High       | Copper prices increased further in Q4 2021 (in terms of quarterly average prices) reflecting concerns over global supply disruptions and low inventories, along with still high levels of demand. Global conditions in the wake of the Russia-Ukraine conflict and low inventories will ensure that prices will remain elevated in 2022.   |
|  <b>Steel prices</b><br>- Steel rebar<br>- Flat steel | +4% ↑<br>+4.5% ↑             |  High       | Steel prices are facing renewed upwards pressure in the US stemming from the fallout from the Russia-Ukraine conflict, given the severe disruption this will have on imports of pig iron and semi-finished steel. Together, Russia and Ukraine account for around 60% of the US's imports of pig iron, and in 2021, 23% of semi-finished steel imports came from Russia. Demand for steel will remain high, not least because of the ongoing recovery in the construction industry. Infrastructure construction spending in 2021 was sluggish, but looking ahead a total of US\$550 billion in new spending is now planned over the next five years under the president's spending plans. Some of the major allocations over the next five years include US\$110 billion on roads and bridges, US\$66 billion on railways. |
|  <b>Cement Concrete</b>                               | +1.5% ↑<br>+1.5% ↑           |  Moderate   | Concrete and cement prices will remain high in the coming quarters, continuing the trend recorded last year, which reflects solid underlying demand from residential construction along with the proposed jump in spending on infrastructure. Higher energy costs will also be a factor in keeping prices high. Supplies will improve in the worth-west following recently announced plans from CEMEX to recommission a second kiln at a plant in north-west Mexico.   |
|  <b>Asphalt</b>                                     | +2.3% ↑                      |  Moderate | Infrastructure construction was relatively weak in 2021, but the upward trend in crude oil prices contributed to the high levels of pricing for asphalt. As infrastructure spending ramps up, demand for asphalt will rise, and the upward trend in prices will be compounded by rising crude oil prices.  |

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.

# United States - Commodity Report



## US - construction cost index



## Knoema World Data Atlas

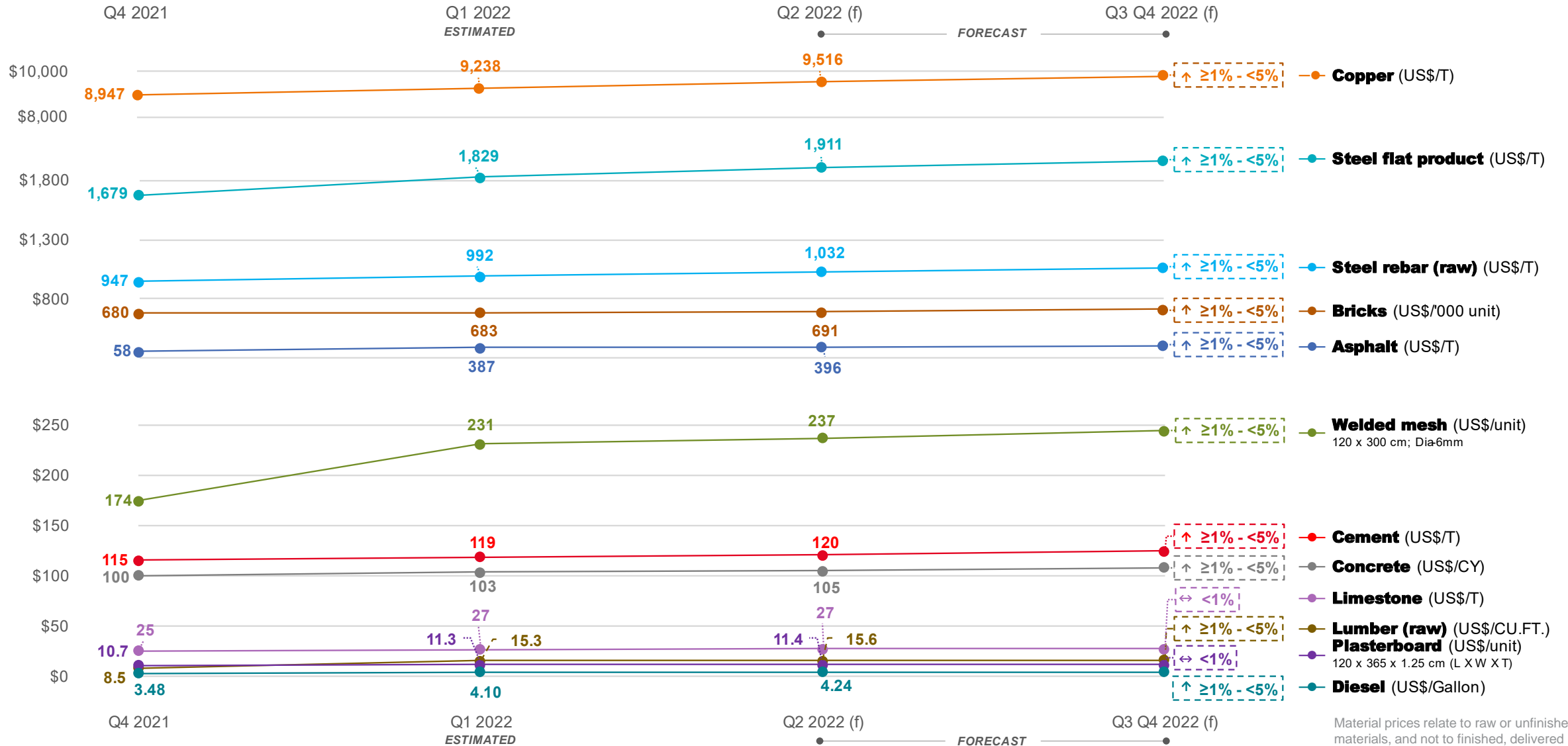
Index of economic freedom **77.8 out of 100**

| Material   | % change Q1 – Q2 2022 (f) | Level of impact of pricing on construction procurement and supply chain *  |
|--|---------------------------|--|
|  <b>Limestone</b>                     | +0.9% ↑                   |  Moderate<br>Prices for limestone will remain high in 2022, due to the growing demand for limestone-related products across several industries like metallurgy and construction sector.   |
|  <b>Lumber</b>                        | +2% ↑                     |  High<br>Lumber prices have remained highly volatile. Having eased back in the second half of 2021 from the high prices recorded Q2 2021 when supply disruption and a surge in demand resulted in a spike in lumber prices, prices more than doubled between mid-November last year and early March 2022. A significant factor in this has been an increase in tariffs on Canadian lumber imports into the US, more than doubling to 17.99%. High domestic demand will continue to keep pressure on supplies, which will also be subject to disruptions stemming from shortages of workers at sawmills as well as transportation and logistical challenges, although some signs of a cooling housing market will help to contain lumber price pressures in the coming quarters. |
|  <b>Welded mesh</b>                   | +2.5% ↑                   |  High<br>Similar to the steel price trend and expected rise in demand for mesh products due to residential and infrastructure projects, the price of wired mesh will rise further in the coming quarters.   |
|  <b>Bricks</b><br><b>Plasterboard</b> | +1.1% ↑<br>+1% ↑          |  Low<br>The double-digit expansion in residential construction buildings work in 2020 and 2021 has contributed to high demand for bricks and plasterboard. Continued demand along with restocking efforts by building material suppliers will keep prices at relatively high levels in 2022.  |
|  <b>Diesel</b>                      | +3.5% ↑                   |  High<br>With crude oil prices rising sharply in the wake of the Russia-Ukraine conflict, diesel prices crossed the \$5 per gallon level in March. The diesel market remains much more tightly supplied than gasoline, and will be volatile 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.

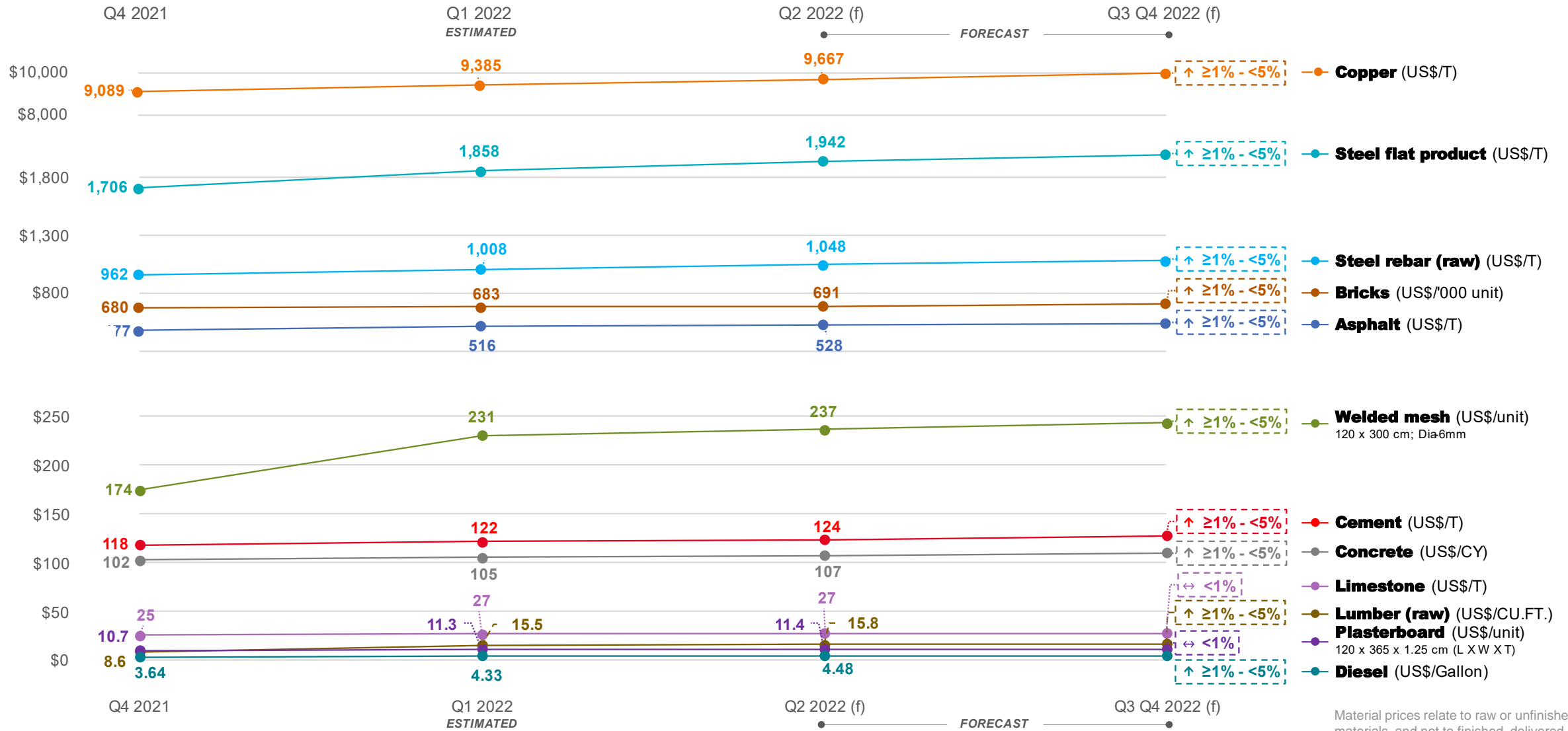
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# US Central - Construction Materials Pricing (2021-2022)



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

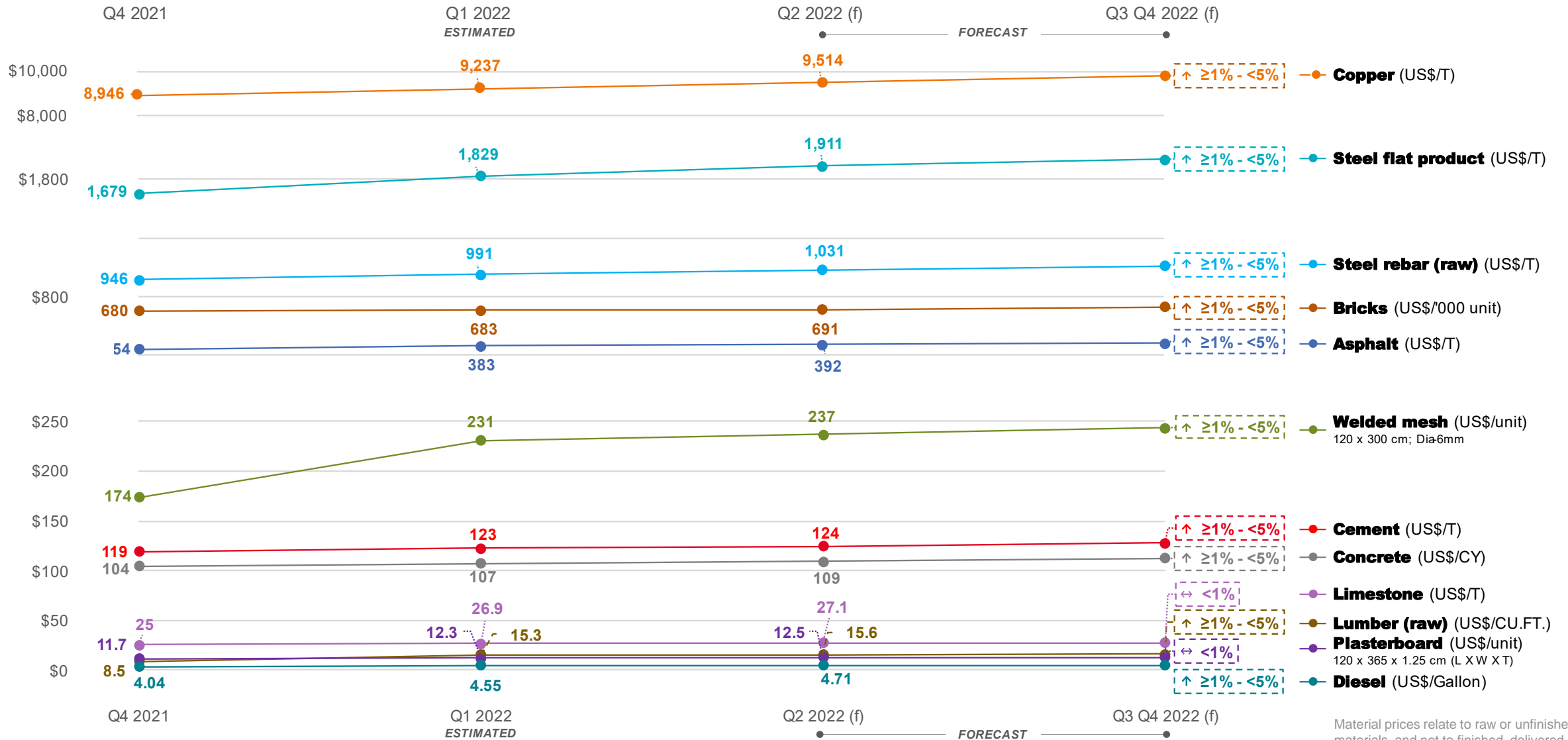
# US East - Construction Materials Pricing (2021-2022)



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# US West - Construction Materials Pricing (2021-2022)



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# United States - Macroeconomic overview



## Economic indicators



**4%**

GDP growth in 2022 (f) and 5.7% in 2021



**3.46%** inflation rate in 2022 (f) and **4.28%** for 2021



**158.5M** people

employed in March 2022 and 150.9M in March 2021



**3.53%** unemployment rate in 2022 (f) and 5.43% in 2021



**284.18** Consumer Price Index in 2022 (f) and 280.13 in 2021

## National holidays



**11** annual federal holidays in the United States. Most time off is taken during December, 10 days for Christmas period (from 23<sup>rd</sup> December till 3<sup>rd</sup> January)

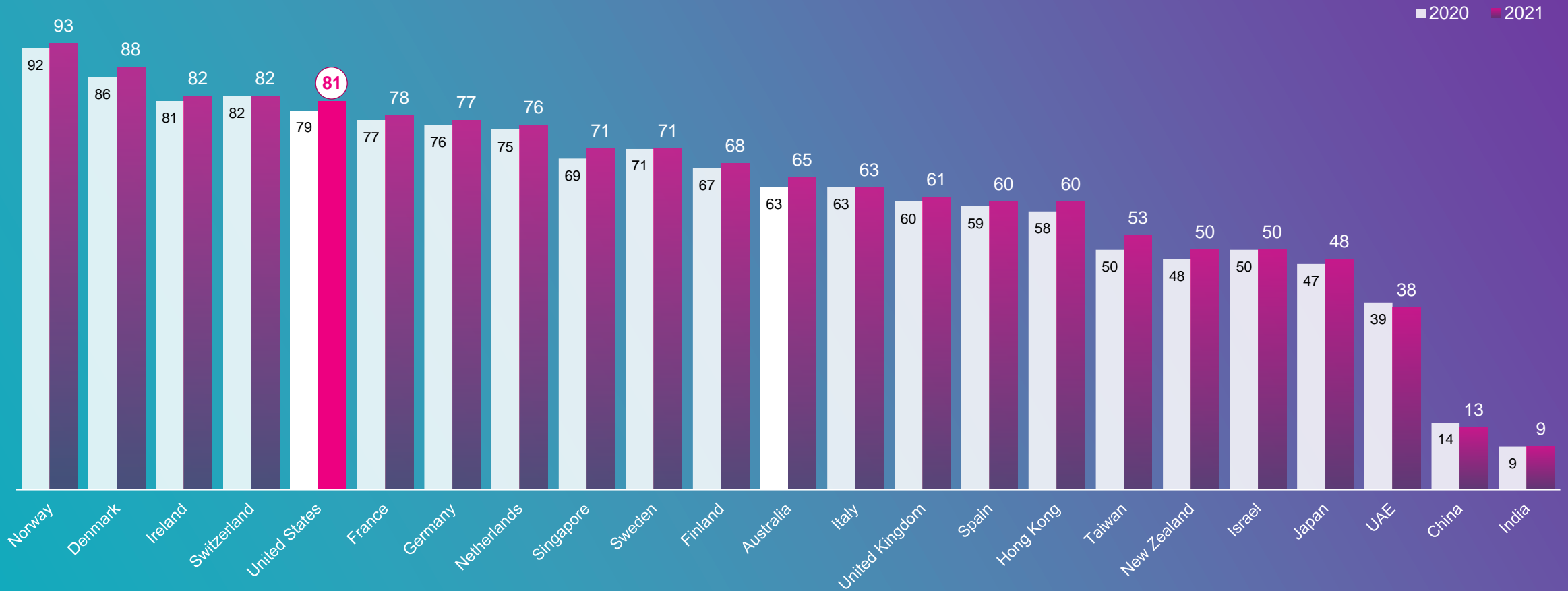
- New Year's Day, Jan 1st
- Martin Luther King Day, Jan 16th
- President's Day, Feb 21st
- Memorial Day, May 30th
- Juneteenth, June 20th
- Independence Day, July 4th
- Labor Day, Sept. 5th
- Columbus Day, Oct 10th
- Veterans Day, Nov 11th
- Thanksgiving Day, Nov 24th
- Christmas Day, Dec 25th



# United States - Macroeconomic overview









## Labor productivity



Labor productivity per hour worked in 2020 international dollars, converted using Purchasing Power Parities

# United States - Construction overview



| Output 2021 and 2022 (f) (in millions)  |                      |                      |             |
|---|----------------------|----------------------|-------------|
| Sector  | Total 2021           | Total 2022(f)        | % change    |
| Commercial<br>           | \$219,072.40         | \$225,617.40         | 3.0%        |
| Energy and utilities<br> | \$217,129.80         | \$243,507.00         | 12.1%       |
| Industrial<br>           | \$52,374.10          | \$57,571.70          | 9.9%        |
| Infrastructure<br>       | \$158,304.00         | \$177,984.50         | 12.4%       |
| Institutional<br>      | \$164,308.40         | \$165,549.40         | 0.8%        |
| Residential<br>        | \$788,283.50         | \$801,928.70         | 1.7%        |
| <b>Total output</b>   | <b>\$1,599,472.1</b> | <b>\$1,672,158.7</b> | <b>4.5%</b> |

## Long-lead equipment (LLE) – time risks

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:

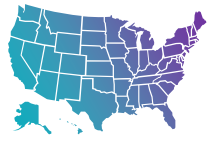
- Demand:** The demand for long-lead equipment in the data centre sector has increased exponentially with the growing demand. More data centre and crypto mining providers are joining the market, and this new demand far outweighs the capacity of the supply chain. Entry onto the production line has become a significant challenge, with suppliers reporting fully booked capacity until Q1 2023. Opportunities exist for the development of Tier 2 and Tier 3 suppliers to Tier 1 status. However, it will take time to develop an extended supply chain.
- Material shortage:** The end of Q1 2022 saw a significant drop in the availability of raw materials used for LLE production. Global factors such as the Russia-Ukraine conflict and the resurgence of COVID-19 has halted production, which is at its lowest levels in recent years. The ethical approach, which is to manoeuvre away from the use of Russian gas and oil, has reduced production levels and added longer lead times within the supply chain – even for the US, as the European impact is felt. The raw material shortages are expected to continue into Q2 2022, whilst there is uncertainty for the security of the supply chain.
- Freight durations and costs:** Heightened by the increase in fuel costs and compounded by the shortage of labor and low supply of shipping containers, freight durations have soared as suppliers look for ways to mitigate these challenges. The demand for freight services has grown across all markets in recent years and the competition amongst industries has had a negative effect on availability and durations. As clients consider alternative solutions, it almost becomes cost prohibitive to use quicker forms of transport, such as air freight, due to increasing fuel costs.

## Construction health & safety practices and culture



Federal OSHA oversees this area, with approximately 1,850 inspectors in conjunction with state partners. These inspectors are responsible for the health and safety of 130 million workers, employed at more than 8 million worksites around the nation — which equates to about one compliance officer for every 70,000 workers.

# United States - Report methodology



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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.

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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 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
- Economy.com
- The Global Economy
- Weather Spark
- US Bureau of Labor Statistics
- GlobalData's Construction Intelligence Center (CIC)
- Conference-board.org
- Federal Reserve Economic Data

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