

United States Q3 2022

In its recent forecasts, the IMF revised its 2022 growth forecast downwards by 0.7 percentage points to 1.6 percent, following a Q2 contraction, while the 2023 forecast remains unchanged at 1 percent. While the labor market has proven resilient, the Federal Reserve has taken a particularly aggressive stance in combatting inflation, and a lack of consensus remains as to whether the US is already in recession. In spite of two consecutive quarterly declines, there are positive indicators being recorded to suggest economic resiliency in some key areas – for example, the lowest unemployment rate in five decades.

Construction output has been weak, with a 4.3 percent contraction expected this year as activity remained subdued in Q2, and a 7.5 percent year-on-year decline in output seen for the first half of 2022. Although upward price pressures, supply chain constraints and interest hikes are impacting, the medium to long-term outlook appears to be positive, with growth expected in the coming years as inflation comes under control. However, in the near term, the Consumer Price Index (CPI) remained above 8 percent as of August for a sixth consecutive month, and this macroeconomic landscape is weighing on the industry at large. Overall, we envisage stabilization and reduced volatility prevailing, but the downside risks mentioned above will continue to impact the market.



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Lumber

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.



Cement and aggregates

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.



Concrete blocks and bricks

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.



Steel (rebar and structural)

Steel prices have flattened over the past quarter and weakening demand points to a fall in prices. The anticipation of a global recession amid a monetary tightening cycle, in addition to the faltering property sector in China, have contributed to broader global demand weakness. However, high energy prices continue to drive up production costs, and over the medium to long term, demand will be sustained by infrastructure spending in the US.



Copper

After the sharp fall in prices in early summer this year, copper has stabilized. Copper prices have faced contrasting market dynamics. Supply disruption from protests in Chile and Peru, and a lack of investment in new mining operations have contributed to production shortfalls. However, offsetting this has been negative pressure arising from growing interest rates and the deterioration of the global macroeconomic environment. Demand is expected to remain resilient in the medium to long term; continued investment in EVs, along with renewable energy production and infrastructure, will put upward pressure on prices.



United States - Commodity Report



	Q4 2022 (f)	Q4 2021 – Q4 2022 (f)		Q2 2022 - Q3 2022 (e)
			2021-22*	
Materials	US\$	US\$	% change	% change
Copper (US\$/T)	7,156	9,914	-28% ↓	-18.5% ↓ •
Steel rebar (US\$/T)	1,032	1,049	-2% ↓	-2.1% ↓ ■
Steel flat (US\$/T)	1,917	1,861	3% ↑	0.3% ↑ ■
Lumber (US\$/cu.ft.)	7	9	-17% ↓	-41.2% ↓ •
Asphalt (US\$/T)	691	437	58% ↑	8.6% ↑ •
Limestone (US\$/T)	28	28	1% 个	0.0% ↔ ■
Cement (US\$/T)	133	129	3% ↑	4.0% ↑ •
Concrete (US\$/CY)	116	134	-13% ↓	4.0% ↑ •
Welded mesh (US\$/unit (a))	242	174	39% ↑	-2.1% ↓ ■
Bricks (US\$/'000 unit)	814	680	20% ↑	0.0% ↔ ■
Drywall (US\$/unit (b))	13	11	17% ↑	4.6% ↑ •
Diesel (US\$/gallon)	4.90	0.97	407% ↑	-5.8% ↓ ■

(a)	47.2x118.1	inches,	dia0.24	inches
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⁽b) 47.2x143.7x0.49 inches (LxWxT)

	Material	% change Q3 – Q4 2022 (f)	Level of in	npact of pricing on construction procurement and supply chain *
	Copper	-0.5% ↓	o 0	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.
	Steel prices - Steel rebar - Flat steel	-1.0% ↓ -1.0% ↓	o 0	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	+0.8% ↑	oOOJ High	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	+0.8% ↑	o	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.
000	Limestone	+0.6% ↑	o Ū ∭ Moderate	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.



[•] Q2 to Q3 2022 % change greater than estimation in our Q2 report

[■] Q2 to Q3 2022 % change less than estimation in our Q2 report

United States - Commodity Report







Material	% change Q3 – Q4 2022 (f)	Level of in	npact of pricing on construction procurement and supply chain *
Cement Concrete	+0.9% 个 +0.9% 个	oO █ █ Moderate	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.
Welded mes	h -1.0% ↓	o	Reflecting the weakness in construction output and falling steel prices, welded mesh prices are expected to moderate.
 Bricks	+0.5% 个	•0000 Low	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% 个	•0000 Low	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% ↓	0000	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.

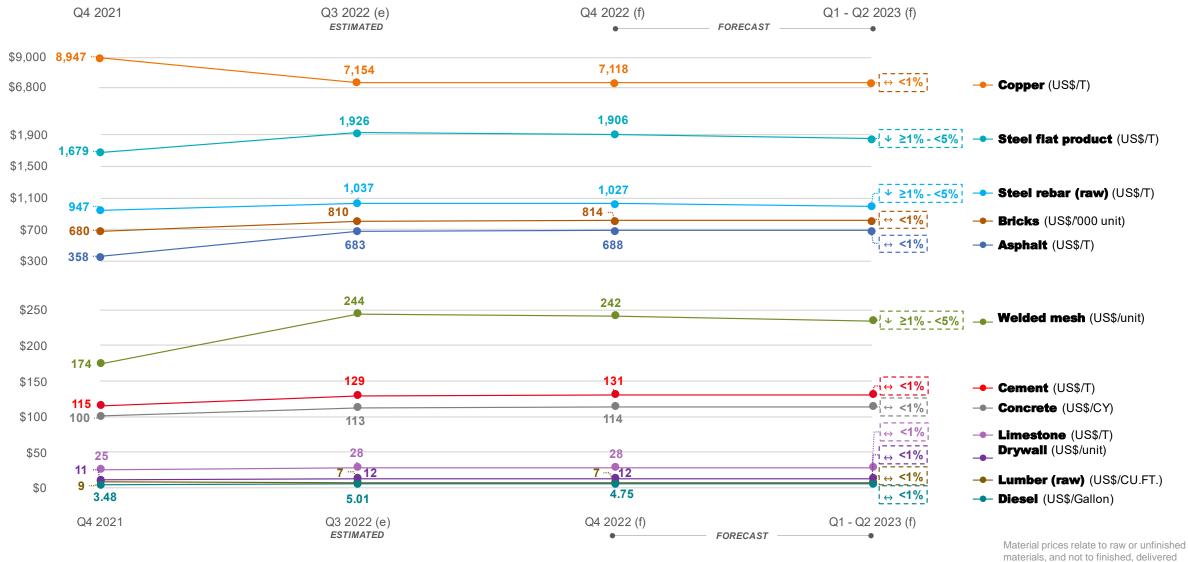
Please note that commodity prices are based on representative materials available in the respective countries, and as these materials may not be standard across all markets, cross-country comparisons on prices can be ineffective. For example, asphalt types can vary between hot, cold or a bitumen price,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



^{*} 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.

US Central - Construction Materials Pricing (2021-2022)



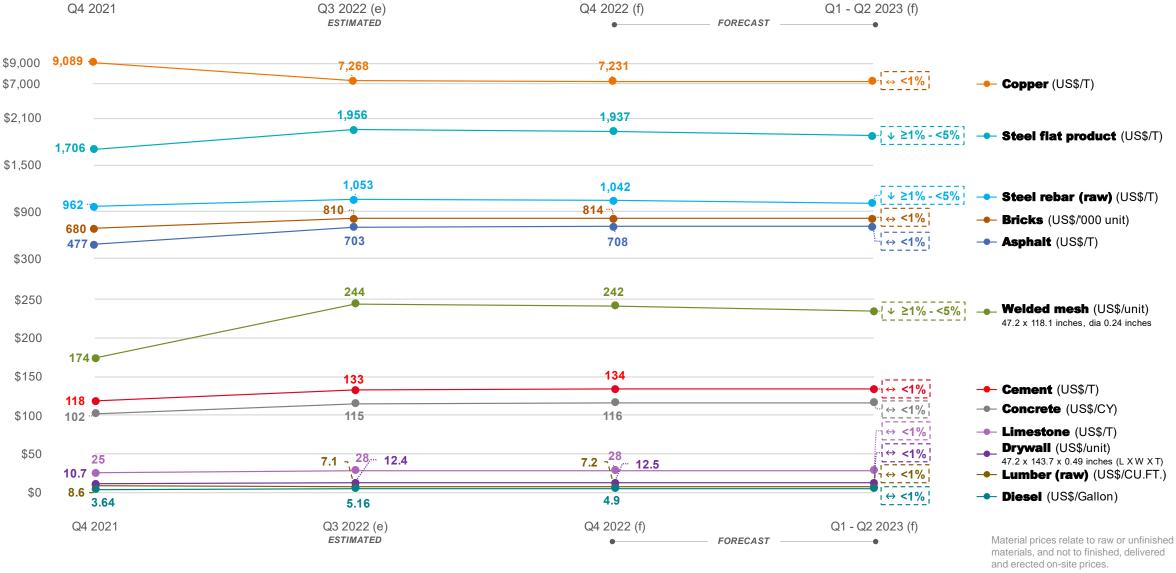




and erected on-site prices.

US East - Construction Materials Pricing (2021-2022)

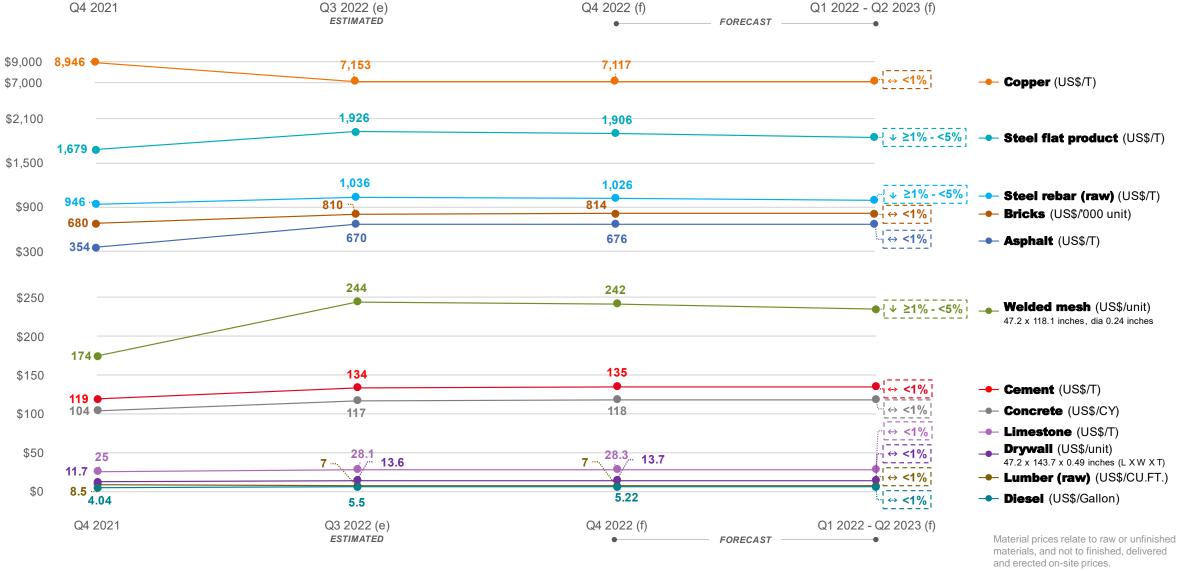






US West - Construction Materials Pricing (2021-2022)







United States - Macroeconomic overview



Economic indicators



1.67%

GDP growth in 2022 (f) and **5.70%** in 2021



7.90%

inflation rate in 2022 (f), and **4.70**% for 2021



145.22M

people employed in 2022 (f) and **140.98M** in 2021



4.09%

unemployment rate for 2022 (f) and **5.36%** in 2021



134.08

Consumer Price Index in 2022 (f) and **124.26** in 2021



183.04

Producer Price Index in 2022 (f) and **167.05** in 2021

Labor cost growth - YoY June 2022

Civilian workers

5.3%

wages and salaries

5.1%

compensation costs

4.8% benefits



Local government and state workers 3.4%

government wages and salaries

3.2%

compensation costs

3.6% benefits

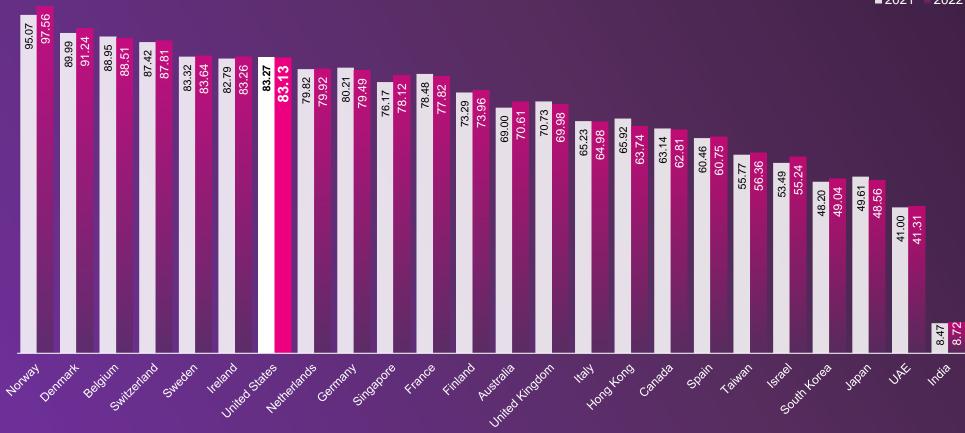


United States - Macroeconomic overview



Labor productivity







United States - Macroeconomic overview



Output 2021 and 2022 (in millions)

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

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.



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. 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



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