ARCADIS

Constructing the Future: Holding Pattern

U.S. Market View
Autumn 2024

Contents

Contributors

Simon Rawlinson
Head of Strategic Research & Insight
simon.rawlinson@arcadis.com

Chris Carson
Vice President,
Director of Program & Project Controls
chris.carson@arcadis.com

Ian Goodridge
Market Intelligence Lead
ian.goodridge@arcadis.com

Gareth Holden
Estimating Manager
gareth.holden@arcadis.com

Andrew Bates
Senior Risk Manager
andrew.bates@arcadis.com

Victoria Pancoast
Associate Vice President,
Contract Solutions
victoria.pancoast@arcadis.com

HannaJo Macawili
Business Area Program Manager
hannajo.macawili@arcadis.com

John Panopio
Associate Program Manager
john.panopio@arcadis.com

Introduction

Welcome to the Autumn 2024 U.S. Market View entitled, "Constructing the Future: Holding Pattern." Following the Federal Reserve's 0.5% cut in interest rates, we highlight that the Construction sector is likely to continue to out-perform the U.S. economy during the soft landing but will not see a repeat of 2023's sharp recovery. Indeed, we anticipate the market holding steady through to the second half of 2025 before cyclical sectors including housing and commercial pick up.

September's benchmark interest rate cut of 0.5 per cent marks a turning point in the United States economic cycle but may not yet signal an upturn for the construction sector. The first rate reduction since March 2020, while more aggressive than the 0.25% change favored by the Federal Reserve, did not go as far as the 0.75% in some predictions, indicating a measured approach, to gauge the economic reaction. Further rate cuts may result from the meetings scheduled in November and December, dependent upon the effectiveness of the September rate cut.

Growth in construction output has been relatively tame through 2024 after having bounced back strongly in 2023. However, further expansion prospects are limited. With the economy forecast to grow by less than 2% in 2025 and with headwinds still affecting commercial and housing investment, demand is in a holding pattern. The easing of interest rates may help to bolster investor confidence and free up financing in the construction sector into 2025. However, electoral uncertainty and the impacts of a legislative logjam won't help to release investment in the short-term.

Construction inflation has been on a rising trend during 2023 and 2024 to 3-4% as markets have recovered from 2022's viability crunch. However, both construction costs and borrowing rates remain well above pre-Covid levels.

The successful execution of a soft-landing for the U.S. economy, stabilizing inflation without a negative impact on either growth or employment will mark an important transition for the construction sector. Assuming that lower borrowing costs are combined with increased consumer confidence, the all-important residential sector could be first in line to see a boost — potentially soaking up labor and material resources across all regions.

Although the results of the forthcoming election will be very consequential, we do not currently predict an immediate impact on market demand. Federal funding for infrastructure investment and support to the high-tech and manufacturing sectors are on a long lead-in and will continue to support overall levels of construction activity.

This is the first edition of the Arcadis U.S. Construction Market View. The report provides data-led insight into current market conditions, focusing on growth in sectors and in certain state locations. The report will be published quarterly, highlighting latest trends impacting construction demand and inflation. Our analysis includes a unique inflation-adjusted review of industry sectors, highlighting where growth and contraction are affecting the workload and prospects of contractors in different parts of the market.

Construction Market Overview

The construction sector is in its 7th quarter of a recovery cycle, but adjusted for inflation, activity is barely above pre-Covid levels recorded in Q1 2019. While the wider economy has seen a steady recovery since 2020, construction's post-Covid journey has been much more volatile, contracting by over 10% in real terms in 2021 and 2022 as inflation and high interest rates weighed down on investment.

Looking at current trends, total construction output expanded in real terms by over 8% in 2023, but since the start of the year, growth has slowed to an annualized rate of 3-4%. In line with a cooling economy, growth in both the private and publicly funded non-residential sectors has slowed, leaving the industrial sector as the main growth driver. High growth sectors that have previously sustained rapid growth including power and transportation have lost momentum in 2024, with highway workload contracting by over 5% in the past quarter. Latest data from the Census Bureau confirms that construction activity stalled during the summer, contracting by 0.1% in August compared to the previous month.

As parts of the industry slow, the new momentum story is in housing. Residential workload has recovered after two years of deep contraction. 2023 volumes were 14% below 2021 levels, resulting from increased finance costs and rampant inflation. Falling long-term lending rates are supporting a tentative recovery, with annualized growth of 4% in the latest quarter. This is illustrated in *Figure 1*, which compares quarterly and annual real terms growth for selected large segments. The strongest spending trends remain in infrastructure, particularly transportation, water supply and sewage/waste disposal. Quarterly data suggests an acceleration in activity in 2024 and figures will be boosted further by the recent award of the first tunnel boring contract for the $16 billion Hudson River Tunnel Project in New York City. While manufacturing activity is holding steady, by contrast, spending on highways and healthcare and, to a lesser extent, power, have lost momentum in the past quarter. The power sector saw the strongest growth in the year, so the recent reversal is a trend to watch.

The pivot sectors are office and residential. After a long slump, office construction grew a little in the last quarter – encouraging signs but by no means a recovery. Indeed, JLL, the commercial real estate and property investment firms, reports that despite a quarter-on-quarter increase in Q2 2024, over the past 12 months, the U.S. has seen just 6 million sq. ft. of office construction starts — the lowest 12-month volume on record — with the overall pipeline falling by nearly 70% since 2019 to just 46 million sq. ft. in Q2 2024. By contrast, the residential sector is picking up pace — growing at an annualized rate of around 10% in the past three months.

Construction Growth in Constant Prices - Major Sectors

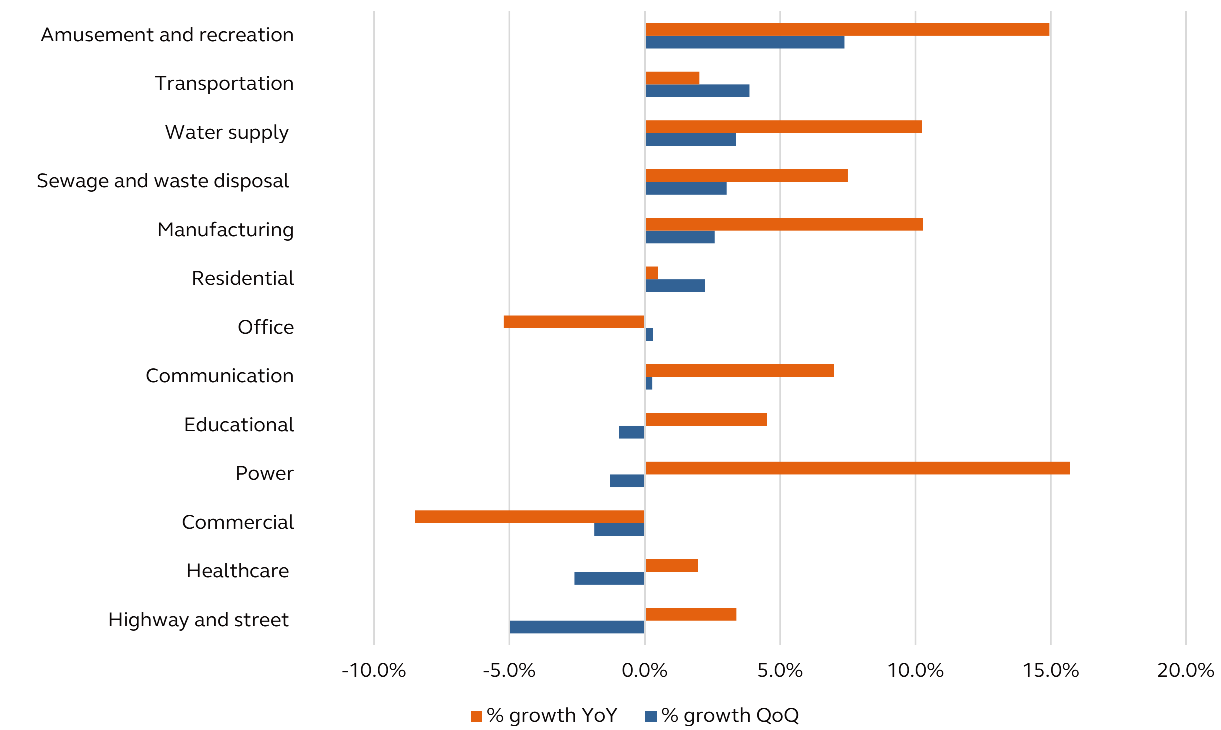


Figure 1 | Source: United States Census Bureau, Arcadis

Latest data highlights three key trends with implications for clients and the supply chain. Following the recent decision from the Federal Reserve, interest rates through the rest of 2024 will have a significant impact on demand for construction.

- **Manufacturing.** The industrial sector has seen unprecedented growth because of reshoring incentives included in the CHIPS Act and other trade policy. Volumes constructed in 2023 were 70% higher than in 2019 – even accounting for the effects of inflation. Growth is slowing after a barnstorming 2023. This is partly a result of investments being put on hold either due to uncertain demand conditions or continuing resource constraints. Manufacturing now accounts for 10% of total output. This may be unsustainable, regardless of the outcome of the election. The implications in states that have seen rapid growth in manufacturing is that workload could fall away. Market conditions for commercial and non-commercial building clients will improve.

Volumes constructed in 2023 were 70% higher than in 2019 – even accounting for the effects of inflation.

- **Public.** Public construction covering both infrastructure and buildings is contracting at an annualized rate of 5-6%. After growth of 10% in 2023, this is a significant reversal. The worst affected sectors are highways and healthcare as highlighted in *Figure 1.* One potential cause is a slowdown in procurement and approvals rather than a planned reduction in spending. General contractors had anticipated that the public sector would deliver robust growth in 2024, so this slowdown could have a wider impact on contractor bidding behavior.

- **Residential.** Single family housing accounts for over 40% of construction activity. The supply chain for single family housing is, of course, different than that for general contracting. The recovery in housing suggested by the data will absorb labor and materials but will not generate workload for general contractors. The implication of a housing recovery in 2025 is that resource-related inflation will be partially compensated for by greater competition for work in the GC sector.

Competition for general contractor capacity has always been highly localized within the U.S. market. California, New York and Texas presently attract 30% of construction investment and have the deepest resource markets. However, this market has been disrupted by new investment trends. Large manufacturing and technology investments including battery factories and data centers are being directed to locations with ample energy resources rather than deep local construction markets. Recent analysis by ConstructionDive, for instance, showed that Arizona, North Carolina and Ohio have been among the states with the largest manufacturing and construction investment since August 2022. This means that local construction markets are growing and contracting at quite different rates with further implications for resource availability. Clients need to understand local market conditions as well as the national sector dynamic to predict future market conditions. We examine this issue in more detail in connection with labor markets.

Future Outlook

Forward indicators for the U.S. economy present a mixed picture, which in turn suggest contrasting fortunes for U.S. construction markets. Overall, the economy is slowing at a trajectory consistent with a 'soft landing.' Non-farm payroll growth for August came in at an increase of 142,000 jobs — low enough to support rate cuts, but high enough to calm fears over an imminent recession. Construction accounted for 34,000 of the net increase in jobs. There remain many headwinds for investment including cyclically high costs of finance and recessionary fears. If the economy takes off again in 2025, the initial recovery is likely to be led by consumption rather than investment. Construction's time in the sun will come later.

Forward Indicators for the U.S. Economy

Forward Indicator	Values
GDP (Q2 2024, annualized)	3%
S&P Manufacturing PMI (Oct 2024)	47.4
S&P Services PMI (Oct 2024)	55.2
NAHB Housing Market Index (Sept 2024)	41.0
Housing Starts (August 2024)	+9.6%
House Sales (August 2024)	-4.7%

Latest Purchasing Managers' Index (PMI) data points to a demand-led slowdown in the manufacturing sector with implications for future requirements for new manufacturing capacity. By contrast, the services sector is seeing growth driven by an expanding inventory of new orders. With high vacancy levels in all forms of commercial real estate including retail and commercial office, a strong services sector will not immediately convert into construction workload. However, with real estate companies set to benefit from a combination of lower borrowing costs and yield compression, prospects are improving as suggested by a small recovery in office workload.

Looking at forward indicators for the construction sector, trends in architectural workload suggest a slightly weaker forward pipeline into early 2025 based on billings and numbers of live contracts. Billings have been falling for 12 months but over that period, the volume of inquiries for new work have increased month on month.

ABI Indices in 2022 to 2024

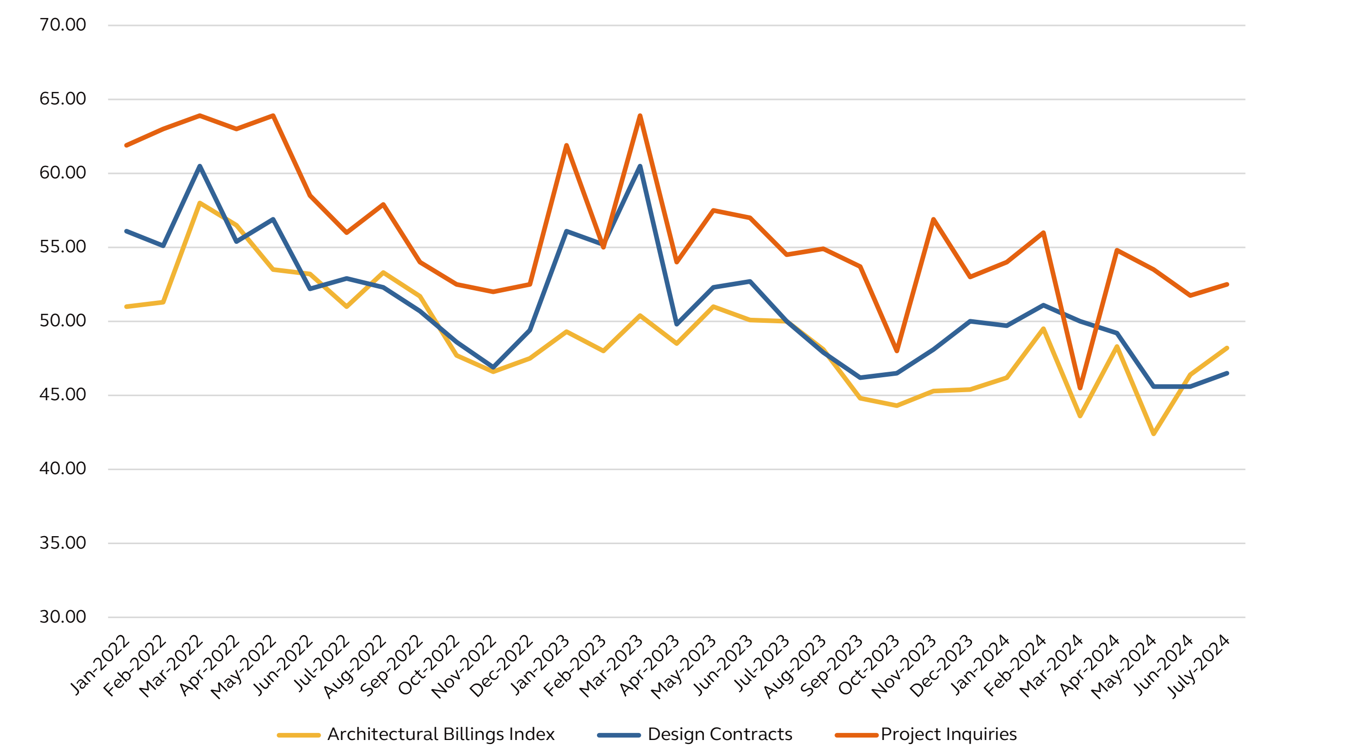


***Figure 2** | AIA/Deltek Architecture Billings Index*

While there is no guarantee that inquiries will convert into actual workload, the upward trend is a positive indicator for prospects in late 2025 and 2026.

Other workload indicators including Dodge and Associated General Contractors (AGC) are contradictory, highlighting the uncertainty of the economy as it approaches an economic and political tipping point. The Dodge Momentum Index has increased sharply since March 2024, highlighting an increase in commercial workload. By contrast, the AGC continues to anticipate stronger workload from the public sector and infrastructure, even as these opportunities are slowed by permitting and approvals delays.

In summary, mixed signals mean that predictions for growth for 2025 and beyond are challenging. Construction is likely to continue to outperform the U.S. economy during the soft landing but will not see a repeat of 2023's sharp recovery. Steady growth should be consistent with benign inflation conditions.

Forecast

The U.S. is set for a soft landing, following the base rate cut of 0.5%, signalling the end of three years of monetary tightening. However, with the election on a knife edge, future growth opportunities are difficult to predict.

Overall, activity in the sector has steadied in 2024 after rapid growth in 2023 led by manufacturing clients. Public sector spending contracted in the first half of 2024 alongside spending on power, and with the manufacturing sector close to peak levels of spend, there are a limited range of sectors where growth will come from. Early signs of recovery in the investment-led housing and offices sector point to new sources of momentum in 2025.

We anticipate moderate growth through to the second half of 2025 before cyclical sectors including housing and commercial pick up. These sectors still face significant headwinds, so recovery will be steady.

Inflationary pressures continue to moderate. Soft commodity markets mean that costs of inputs into the materials manufacturing sector are under control. Categories including steel are seeing substantial deflation. Stable levels of demand reduce the risk of scarcity that in the past has driven significant price escalation. Labor markets are tightening, highlighted by a reduction in job openings as well as an accelerating rate of payroll growth. Earnings are tracking the wider economy but have the potential to increase in some markets where growth in workload is ahead of national trends.

Public sector spending contracted in the first half of 2024 alongside spending on power, and with the manufacturing sector close to peak levels of spend, there are a limited range of sectors where growth will come from.

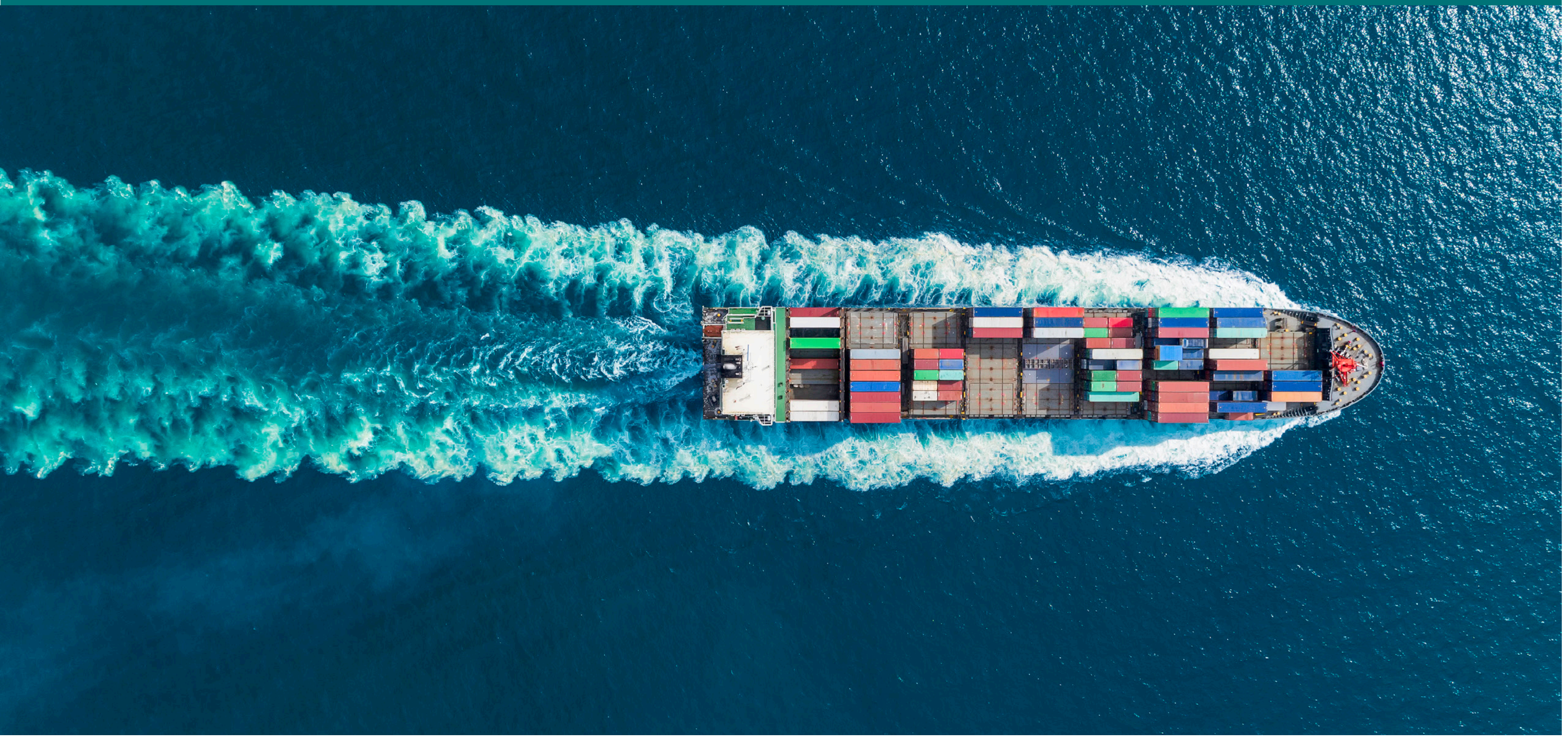
Inflation Forecast

	Construction inflation – Buildings (%)	Construction inflation – Infrastructure (%)
2024	3-4	4-5
2025	3	3-4
2026	3-4	4-5

The inflation forecast is national average. Levels of inflation in states with significantly higher levels of workload growth could potentially be exposed to inflation premiums of 1-2% related to scarcity of labor, management and other location-critical resources.

Inflation drivers	Deflation drivers
• Localized labor shortages • Growth in investment-driven sectors • Network infrastructure investment	• Lower rates of growth across national markets • Falling commodity prices • Delays affecting public sector investment programs • Slowdown in manufacturing capital investment

Inflation Drivers



Commodity Price Trends

U.S. commodity markets are currently soft, providing some protection in the short term from external price shocks. Oil and gas prices fell by around 5% in August and gas prices are down by over 10% year on year. Global metal prices are also weak, reflecting sluggish demand from China. Aluminum, copper and nickel prices have typically fallen by around 10% in the past quarter, as the chart below indicates.

Copper and Aluminum Prices — Annual and 3-month inflation (August 2024)*

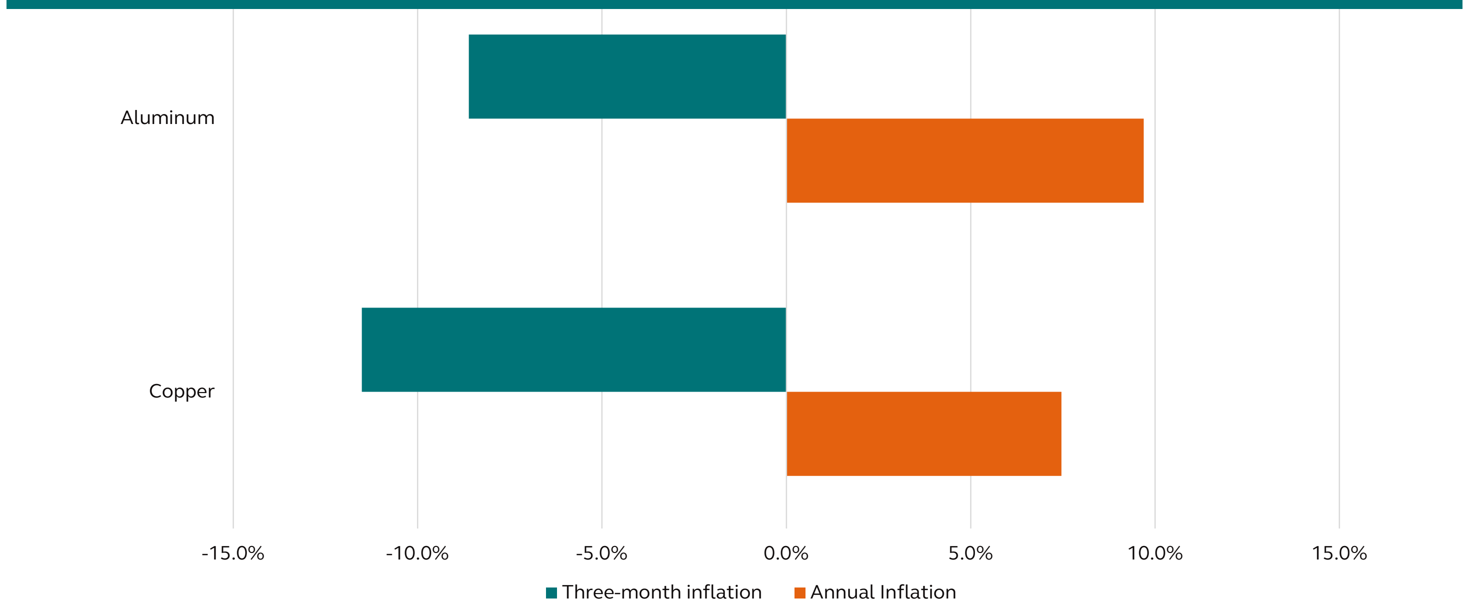


Figure 3 | *Source: World Bank* | **More recent data is available but the changes are not material*

The outlook for commodity prices is mixed. Latest PMI data points to a contraction in most manufacturing economies, even as GDP growth recovers.

One watch-out commodity is plywood as a proxy for wider timber demand, increasing by over 6% in the past quarter.

Material Price Inflation

Material price inflation was the number one problem for the construction section in the immediate aftermath of Covid. Double digit inflation and rapidly rising finance costs triggered the 2021-2022 workload crash that took place even as the wider U.S. economy continued to recover. Consequently, the construction sector has still not returned to work volumes seen in 2019.

Month on Month Material Price Delta

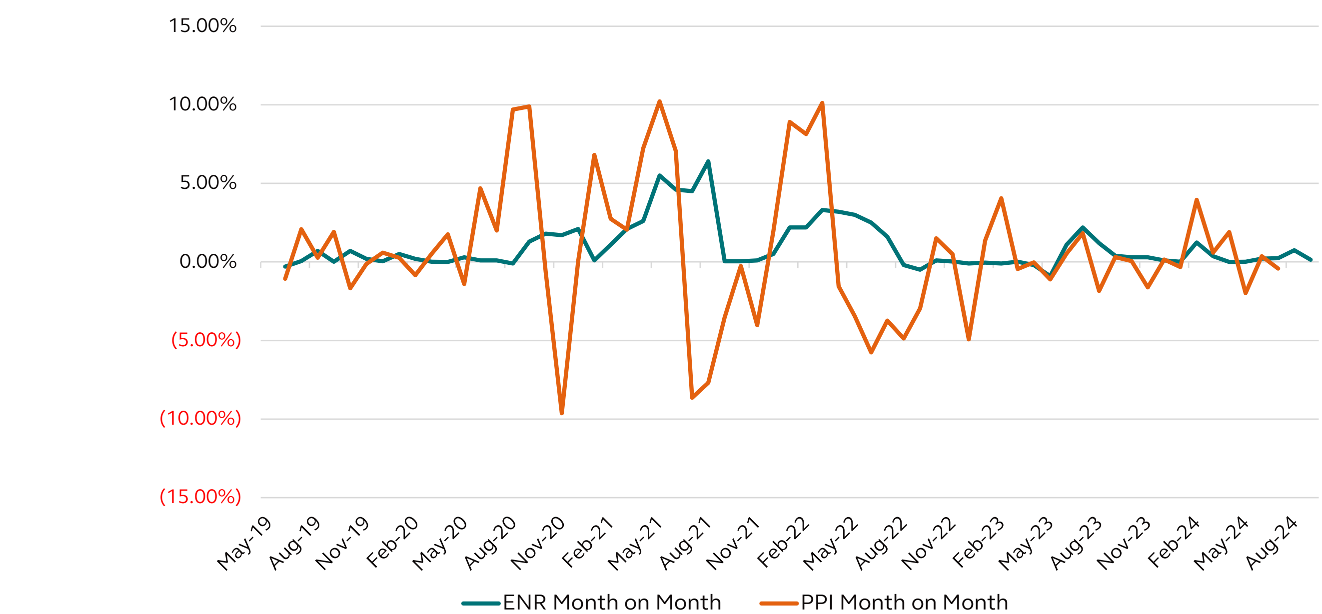


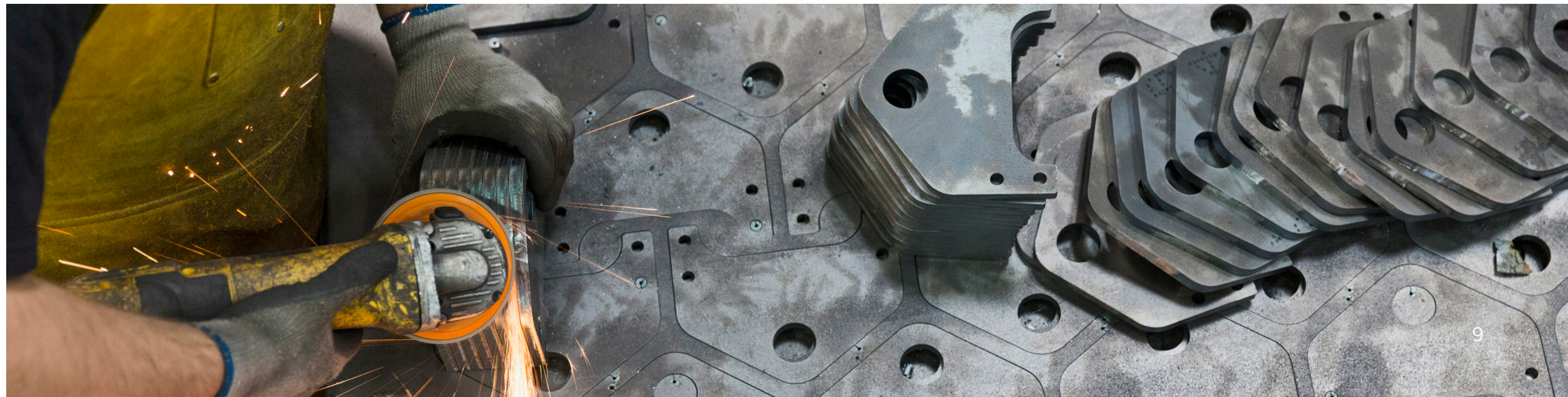
Figure 4 | *Source: Engineering News-Record (ENR) Construction Economics Reports Materials Cost Index and Federal Reserve Bank of St Louis (FRED) Producer Price Index by Industry*

Price volatility continued until Q2 2022 when the housing construction market peaked. More stable material prices, highlighted in *Figure 4* helped to usher in a broad recovery across most construction sectors in 2023, where markets benefited from structural deflation as previous high inflation fell out of the CPI calculation.

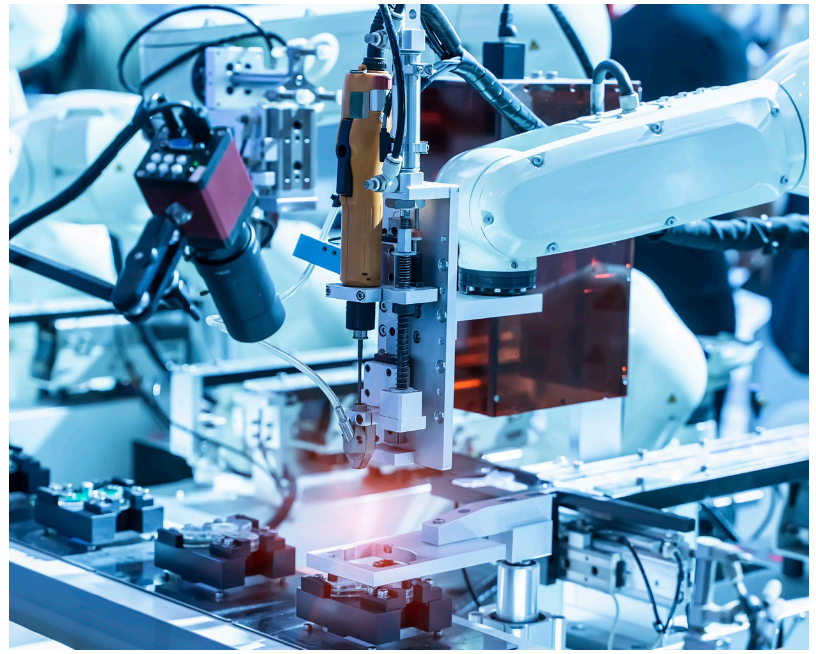
Two years on from market disruptions, material prices are more exposed to current levels of supply and demand and wider global energy cost and commodity price trends, potentially creating more uncertainty for contractors and their clients.

Figure 5 analyzing price trends on a quarterly and annual basis highlights a wide range of different price trends taking place. The overall trend is a marginally reduced rate of price increase. Our basket of materials decreased by -0.3% in the quarter after having increased by 0.3% in the year.

> More stable material prices helped to usher in a broad recovery across most construction sectors in 2023, where markets benefited from structural deflation as previous high inflation fell out of the CPI calculation.



- Quarterly inflation measured by the ENR CCI is running at an annualized rate of 5% — much faster than our basket of materials including steel, plywood and precast concrete.
- The most cyclical product types, steel and lumber, saw falling prices during the past year. Hot rolled and cold formed steel prices are still relatively high but are 20% down from their cyclical peak.
- Steel deflation is accelerating across most categories. Steel mill product prices are falling at an annualized rate of 40%. By contrast, although lumber costs might be 50% down from a 2022 peak, prices are on an upward trend. Timber prices could be a risk in a recovering housing market.
- The rate of inflation affecting heavy side materials including ready-mix concrete, precast concrete and felt/asphalt is falling after rising strongly in 2023.
- Costs of MEP plant, represented by switchgear, continue to increase at a steady rate of 6-7%.



Construction Material Price Trends

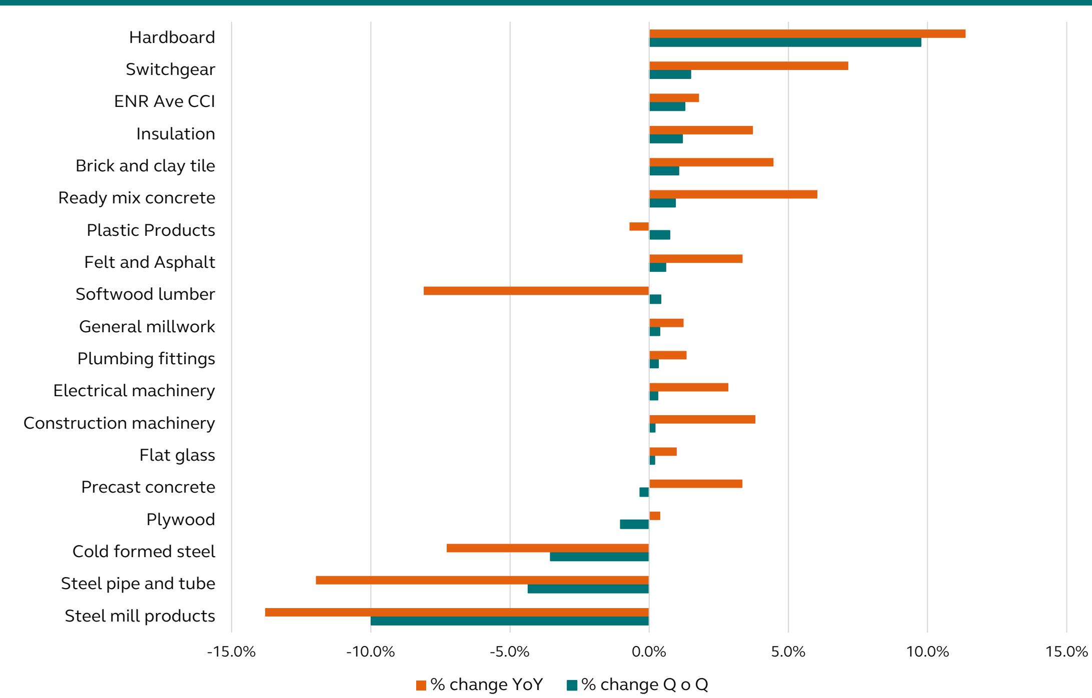


Figure 5 | *Source: BLS Producer Price Indices*

The implication of this data is that the pace of materials inflation continues to ease in the second half of 2024. Commercial projects may benefit from the continuing weakness of steel prices, but other segments are seeing growing inflationary pressure. With demand conditions flat and with no immediate pickup in workload, inflation related to construction materials should remain in the range of 3-4%.

Construction Labor

The construction labor market is in good health — even as the rate of growth in construction output slows. The rate of annual payroll growth has been slowing to below 3% since peaking at 5% in 2022/3. However, recent growth rates have accelerated and are running at an annualized rate of 4.8%. Unemployment at 3.2% is well down on levels seen over the past year, while the number of job openings, at 250,000 in September 2024, exceeded expectations.

So far, there is no evidence that growth in payroll is affecting levels of earnings, which are in line with national trends. The latest Workforce Survey by the Associated General Contractors of America (AGC) found that 94% of respondents were struggling to fill some positions, with 54% reporting that it was causing projects to be delayed. Shortages are focused on specific locations and trades, such as the perennial challenge of attracting skilled MEP labor to work on remotely located data centers and other technology projects.

> The construction labor market is in good health — even as the rate of growth in construction output slows.

There is a paradox in the U.S. construction labor market in that presently, employment is 10% higher than in early 2019, when the industry produced the same volume of work. Available labor is used less productively than before. As payroll growth rates accelerate, will the existing workforce be better utilized, keeping costs down, or will there be an inflationary wage spiral?

Arcadis has undertaken an analysis of BLS data to understand the drivers of these trends and what the implications might be. This is summarized in *Figure 6*.

- The key trend is that the rate of job openings has been increasing far faster than the overall rate of employment. One potential explanation is that growth in construction work has been taking place in locations where the existing workforce is insufficient and that more openings need to be created to allocate the work. The pattern of job openings is cyclical and the trough in 2022 coincided with the 2023 output recovery. Job openings are now falling at a rapid rate, highlighting that the wider labor market is tightening.
- Unemployment, although cyclical, has been on a downward trend since 2021. Our interpretation is that the market continues to rebalance as output growth remains steady during 2024.

Employment Trends - U.S. Construction

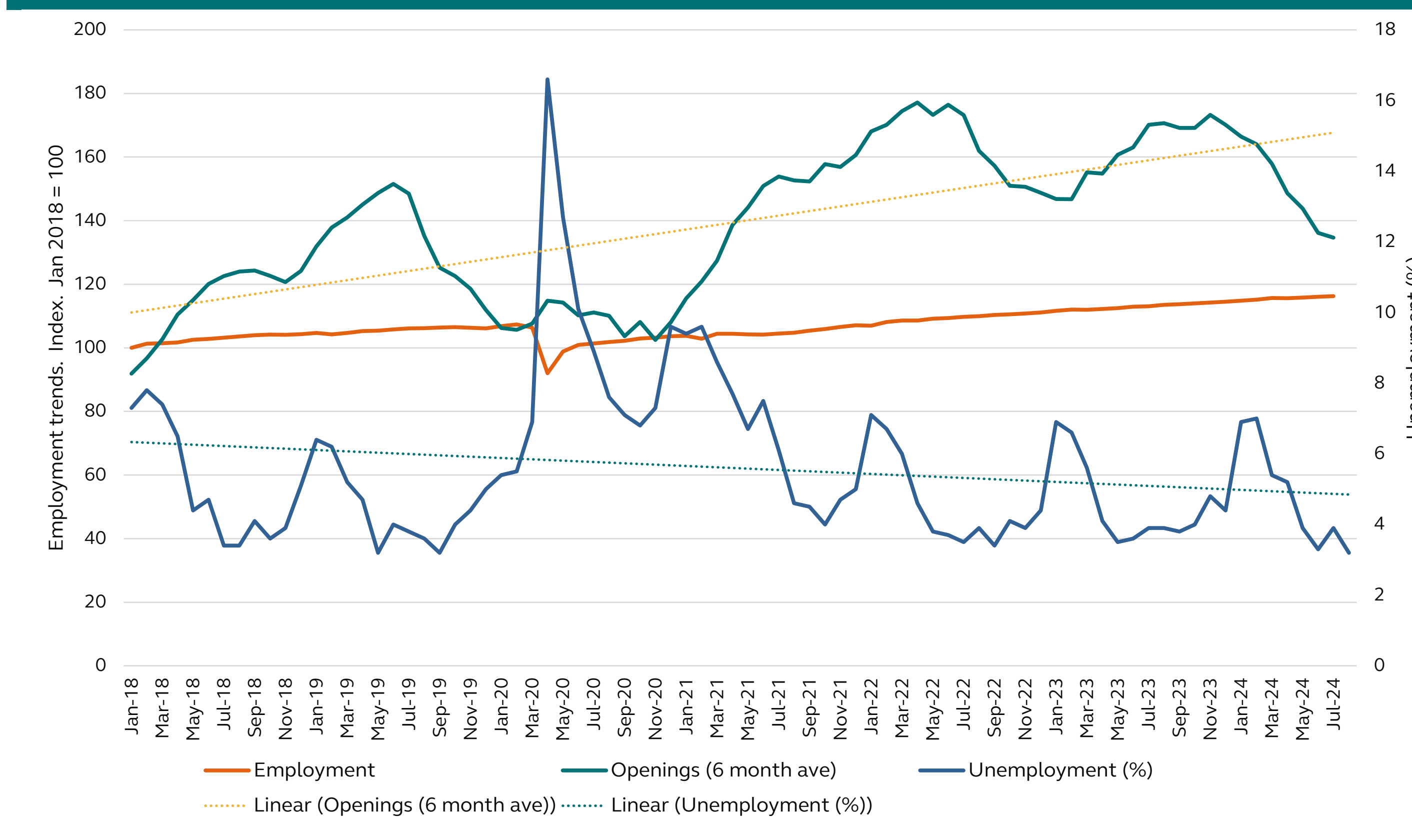


Figure 6 | *Source: U.S. Bureau of Labor Statistics, Arcadis*

One potential implication is that, for markets exposed to rapid growth in workload and where there are a relatively large number of job openings, wage inflation pressures will be high. Contractors will need to offer better terms to attract their workforce. However, in more static markets, access to labor will be much easier.

A preliminary analysis of workforce growth at the state level undertaken by Arcadis highlights that large and small state markets have over- and under-performed from the perspective of workforce growth. Florida and Idaho, which have quite different state construction markets, have both seen rapid workforce growth well above the national trend. By contrast, both New York and Louisiana have seen a contraction in workforce in line with a contraction in workload over the past three years. Such trends will have influenced job creation and wage levels.

Construction Workforce Growth in Selected States, 2018 to 2024

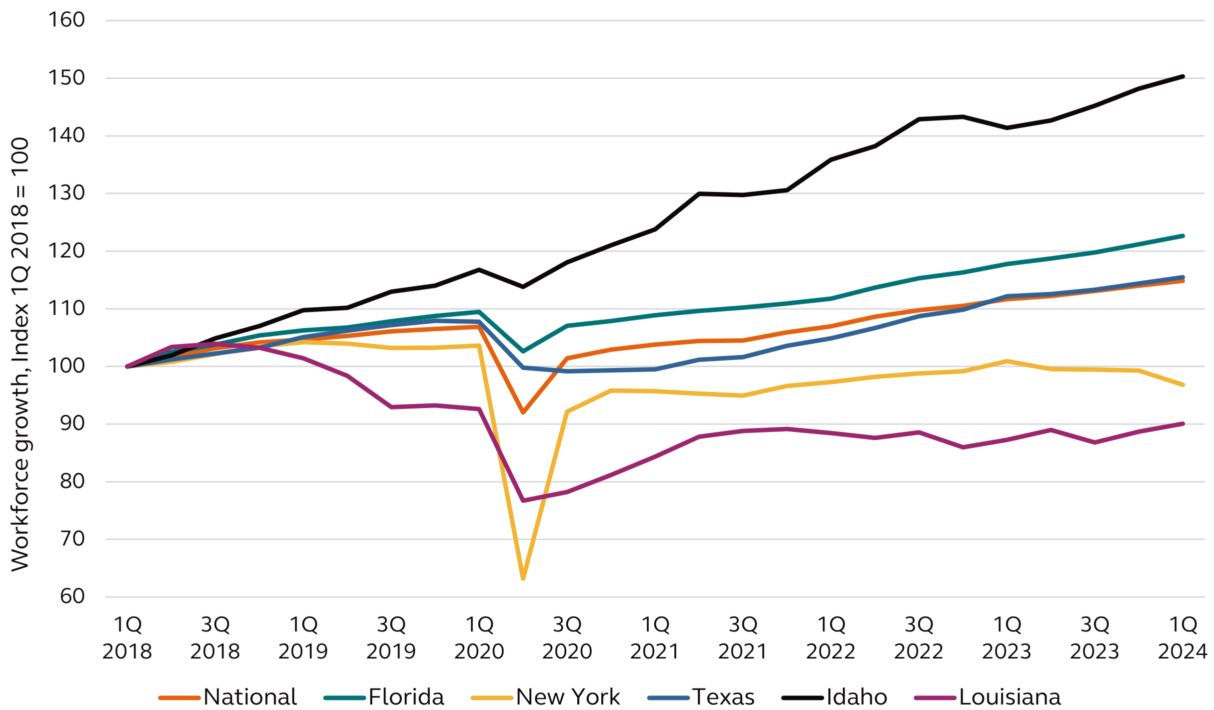


Figure 7 | *Source: Federal Reserve, Arcadis*

Ahead of more detailed analysis, our view is that growth in construction in 2024 will be more broadly based than in 2022 and 2023, when rapid growth in manufacturing workload was changing the map of construction in the U.S.. We aim to detail this analysis in future forecast reports. **Looking forward, we anticipate that construction earnings growth will stabilize at around 3-4% in 2024, in line with the wider national jobs market, with pockets of higher wage inflation in high demand states with a persistent workforce shortage.**

Do state-level construction markets differ in the U.S., and what are the implications?

Initial results of an Arcadis analysis of BLS state-level data are starting to generate new insights into the dynamics of state and regional construction markets. Enabled by our unique, inflation adjusted analysis of construction output since 2018, we can analyze which states have seen:

- Growth or contraction in real terms output
- Growth or contraction in the construction workforce, including growth compared to change in workload
- Growth trends in earnings including quarterly and annual growth trends
- Improvements in productivity over time

> Preliminary results highlight dramatic differences in state construction activity, affecting price levels and productivity. Smaller markets like Arizona and Idaho have outpaced larger ones like New York and California.

The preliminary results of our findings highlight that there are dramatic differences between construction activity in states that will not only affect price levels but also the productivity of the local labor force. Major U.S. markets like New York and California have struggled to return to pre-Covid levels of workload, but smaller state markets including Arizona and Idaho have outpaced the new economy powerhouses of Florida and Texas and will have seen higher levels of employment growth.

Real Construction Output, 2017 Prices — Selected Smaller States

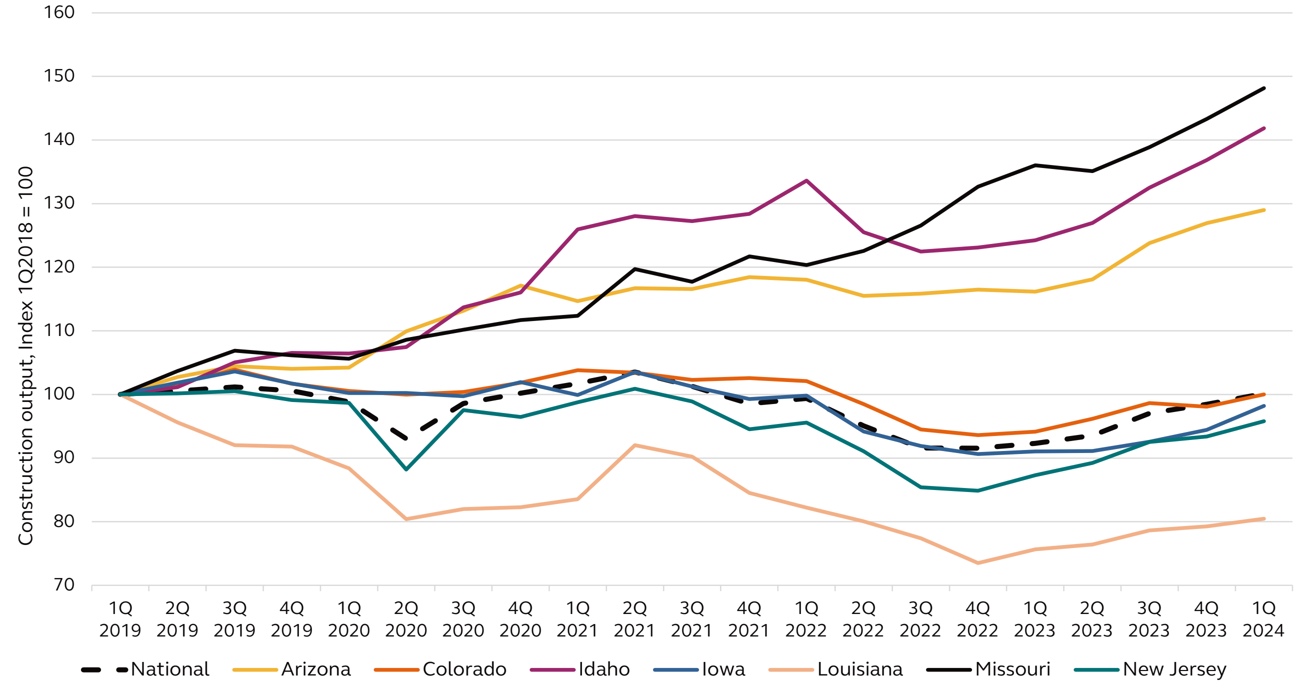
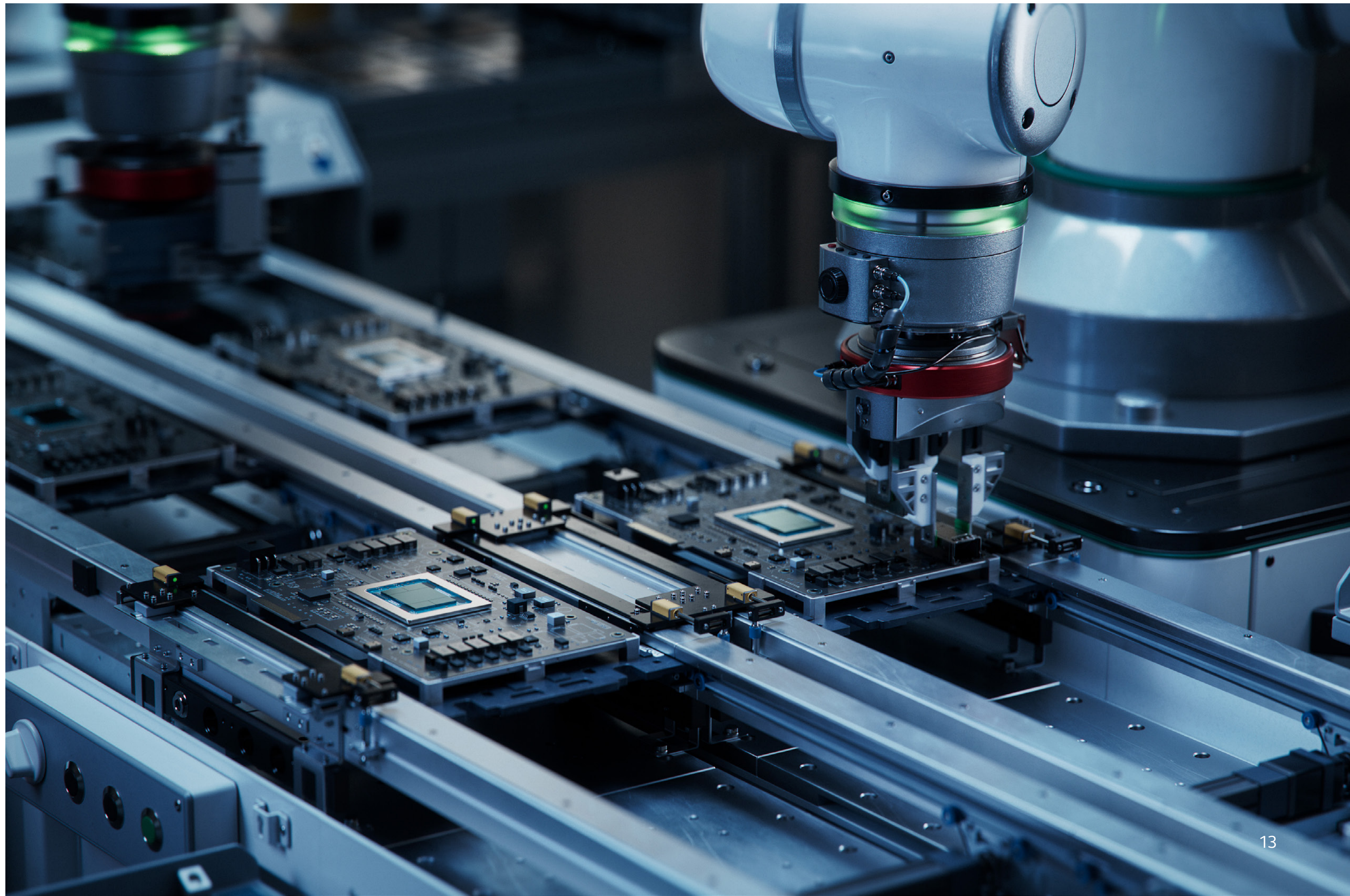


Figure 8 | *Source: Federal Reserve, Arcadis*

As we prepare for the potential of a renewed growth cycle, we will present further results of our analysis in future editions of the Arcadis Market View.



About Arcadis

Arcadis is the world's leading company delivering data-driven sustainable design, engineering, and consultancy solutions for natural and built assets. We are more than 36,000 architects, data analysts, designers, engineers, project planners, water management and sustainability experts, all driven by our passion for improving quality of life. As part of our commitment to accelerating a planet positive future, we work with our clients to make sustainable project choices, combining digital and human innovation, and embracing future-focused skills across the environment, energy and water, buildings, transport, and infrastructure sectors. We operate in over 30 countries, and in 2023 reported €5.0 billion in gross revenues.

www.arcadis.com

Arcadis. Improving quality of life.

Contact Us

For additional information or inquiries, please connect with us at the details below.

Nilesh Parmar
Business Area Director
nilesh.parmar@arcadis.com

Matthew DeMarco
Business Area Sales Director
matt.demarco@arcadis.com

Connect with us @ArcadisGlobal Arcadis @ArcadisGlobal @ArcadisGlobal