

CONSTRUCTION MARKET UPDATE

Q1 2024

By the time you read this, the presidential election season will be in full swing.

Elections have the potential to affect government policy, tax policy, laws and international relations. This year is no different.

But while all these factors may affect our customers in one way or another, their day to day, as well as ours, is more dictated by **economic factors such as inflation, interest rates and the supply chain**.

2023 is a good reminder to be humble about our (and others') ability to predict economic events. Forecasters predicted sluggish growth, 4% inflation, growing unemployment and a good possibility of recession — none of which came to pass. At the end of the day, what we're seeing on the ground tells us more about where we're headed than any professional forecast.

THREE TAKEAWAYS

1. WHILE THE ELECTION SEASON ADDS ADDITIONAL CHALLENGES, BROADER ECONOMIC FACTORS HAVE MORE OF AN IMPACT ON CONSTRUCTION.
2. DATA CENTERS AND INFRASTRUCTURE LEAD GROWTH HEADING INTO 2024.
3. WHETHER YOUR CONCERN IS SUPPLY CHAIN OR CYBERSECURITY, ENGAGE US EARLY.

As we head into 2024, two drivers of growth are **data centers and infrastructure**. AI is contributing to the demand for data centers, but power availability will continue to be a challenge. And as more infrastructure projects transition from planning to reality through the IRA, IIJA and other programs, **we will see investment in roads, bridges, power and water**. As it goes with increased demand, those sectors will also likely experience **increased supply chain challenges**.

In this quarter's update, Victor Atkins discusses an additional challenge we don't often think about in construction: **cyberattacks**. He talks about the **importance of considering that risk early** in the development of capital projects, as well as protections that an existing facility can implement. According to the [FBI](#) (page 13), there were nearly 900 reports in 2022 of ransomware attacks **targeting organizations belonging to a critical infrastructure sector**, with healthcare and critical manufacturing targeted the most. Such attacks can have a devastating impact on your operations. If this is something that keeps you up at night, give Victor's column a read.

Thanks for reading and stay safe.



BRETT WILLIAMS
PRESIDENT
CONSTRUCTION GROUP

LOOKING BACK

Whoever coined the term “hindsight is 20/20” has never dealt with economists. If inflation remains low, it will be an ongoing source of debate among economists about how much credit the Federal Reserve is due.

The fact that official models mistakenly predicted major increases in unemployment and a slow reduction in inflation will cause less rethinking of those models than one would expect. It's clear now that inflation was already moving down prior to the major rate increases, meaning that resolving supply chains and falling energy prices were probably important factors.

Whatever the reason, we've avoided a recession for now, with a sustained period of low unemployment, [rising real wages](#), GDP growth of 3.1% (in 2023), and inflation that has leveled off.

END OF THE VIBECESSION?

Consumer sentiment has generally been more pessimistic than economic conditions would suggest — a condition that has been termed “vibeceession.” People consistently rate their own finances highly, while [rating the economy poorly](#).

Some contributing factors include:

- [People mistakenly think economic conditions have gotten worse](#) on a host of metrics where they've actually improved — both short term (inflation rate, wages) and long term (poverty, wealth, unemployment over the last 30 years).

- Consumer sentiment has become drastically more partisan. Starting in 2016 and increasing in 2020, people's view of the economy and their expectations for the future are much more closely tied to [whether their preferred political party is in the White House](#).
- Sentiment tends to lag economic and market changes, and consumers are still facing higher prices (even if increases have slowed).

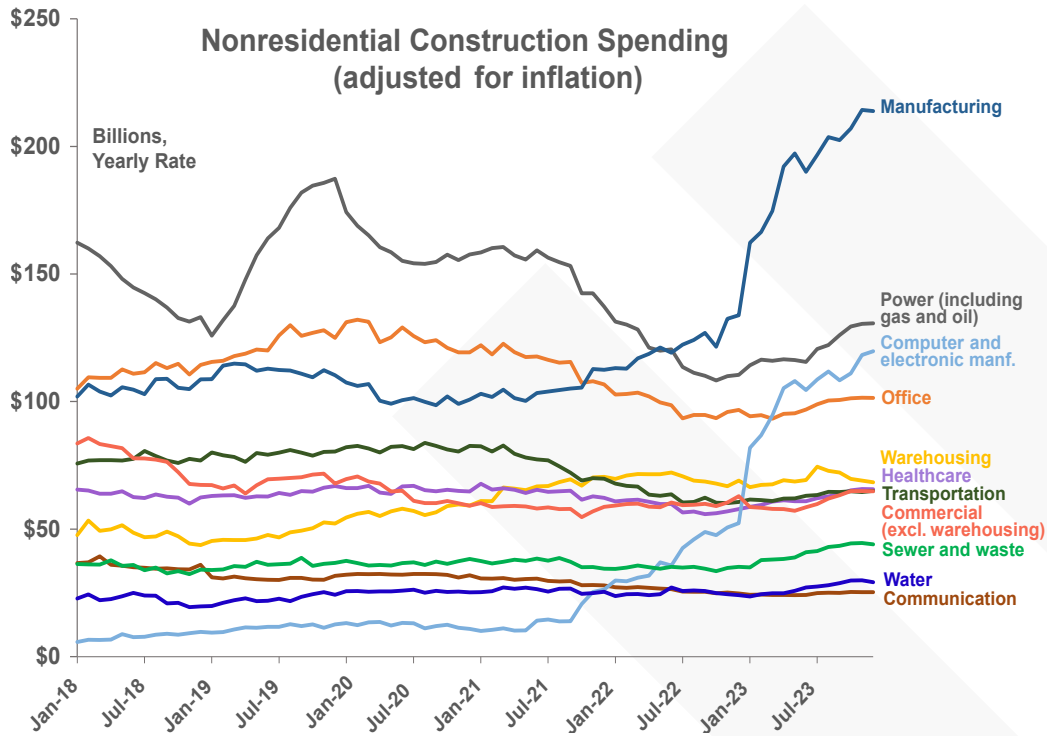
However, sentiment may be turning around. [The University of Michigan's Index of Consumer Sentiment](#) jumped 13% in January 2024 from December 2023, climbing 21% over the last year.

CONSTRUCTION RECAP

The biggest story in construction in 2023 was the massive rise in computer, electronics and electrical manufacturing, the category that includes semiconductors, batteries and solar panels. Spurred by federal incentives, construction spending in this sector grew 129% since December 2022, and a total of 354% from December 2021 (inflation-adjusted figures). At a \$119.7 billion annual rate in December 2023, the sector is seeing more construction dollars than office or healthcare markets.

Other major sectors also saw growth in 2023:

- Power, office, commercial (excluding warehousing), and transportation still remain well below their peaks. While there is significant construction spending on warehouses, the dramatic growth from 2019-2021 has come to an end.
- Healthcare and highway/streets are nearing their previous peaks.
- Sewer and water are above pre-pandemic levels, with combined growth of 23% in 2023.



Nonresidential construction prices have fallen around 2% over the last 12 months, though they are still 37% higher than in January 2020. Most major categories have come down or leveled off, with transformers and electrical components the main exceptions.

LOOKING FORWARD

[Businesses expectations](#) for inflation have fallen to just over 2% for the next year. Long-term interest rates have fallen since the end of October in expectation of future interest rate cuts from the Federal Reserve.

Dodge is forecasting 2% growth for nonresidential construction starts in 2024; ConstructConnect is forecasting 5.5% growth. While both predict strength in infrastructure categories, they diverge on manufacturing, with Dodge predicting sizable growth and ConstructConnect a 14% decline.

Several long-term trends are likely to be influential in 2024:

- Already a growing market, AI is adding to demand for data centers, but power availability and use will increasingly be a challenge. [The International Energy Agency](#) predicts that global electricity demand from data centers could double between 2022 and 2026.
- Infrastructure spending is just getting started. More infrastructure projects are entering the planning stage, but much of the infrastructure bill funding has yet to be awarded. S&P is forecasting 4.2% growth in 2024 capex for major electric and gas utilities and a 20% increase for investor-owned water utilities.
- The shortage of construction labor continues. Job openings in construction have increased throughout the past year and are nearing peak levels.
- Commercial and office sectors are potentially in trouble. Telework and e-commerce have led to the [highest office vacancy rates in decades](#). Higher interest rates make debt refinancing much more costly.

CONSIDERING CYBER EARLY IN THE PROJECT PLAN

Cybersecurity standards don't exist in today's design and engineering specifications, so an owner looking to optimize system performance might not think about potential risks until the project is built. Given recent cybersecurity threats, **that's too late.**

We rarely think of cyber as a method by which a system could fail. While there are many benefits gained by adding more automation and digital tools into a process control environment, **these approaches could also introduce vulnerabilities.** Any network connection or communication pathway used to optimize control, monitoring or safety also can potentially be exploited to disrupt or manipulate that system to make it fail. We know how to build systems to safeguard against known risks, like weather and earthquakes, but we don't have much information on cyberattacks, so how do we build a system to survive those?



VICTOR ATKINS
DIRECTOR, SECURITY AND
RISK CONSULTING

An emerging approach, [Cyber-Informed Engineering \(CIE\)](#) considers the risks that cyber assets and connectivity introduce to systems early in the design phase of complex systems for protection in the final product. Understanding potential risks to critical functions, as well as the implication of system downtime or disruption, will **help identify opportunities to “engineer out” cyber risks and develop backup strategies to quickly get back online** if — or, more likely, when — an incident occurs. [Considering cybersecurity at project conception](#) is **more cost-effective** than later in the project life cycle and allows for a **better chance of reducing cyber risk over the system's life.**

For existing facilities, [Consequence-Driven Cyber-Informed Engineering \(CCE\)](#) incorporates a critical function assurance assessment to determine cyber-related dependencies within the facility. There's no way to protect everything equally, so it's beneficial to **identify which systems and services would have the most consequences or impact should they go down.** Think of an Air Force base or port that services the military; those are likely targets for adversaries. CCE informs **appropriate mitigation strategies that can be implemented to eliminate network entry points.**

With our technological advancements, there are too many pathways in and out of systems to guard effectively. If you assume your system is already compromised, then the job is not how to keep bad actors out but how to eliminate catastrophic failure. **It's not an issue of security; it's about resilience and maintaining operations even after an attack.**