



Building Beyond Today

A special presentation for the
Association for Bridge Construction and Design

PRESENTED BY

Michael Guckes

Chief Economist

Who is ConstructConnect?

The leading pre-construction network and provider of cloud-based, non-residential construction project data and collaboration and estimating solutions to 60,000+ customers across the US and Canada.

400,000

Non-residential Commercial
Construction Projects in the
US and Canada

100,000

Users

800

Employees

Roper
TECHNOLOGIES

Part of Roper Technologies
Group of high performing
companies (55B Market Cap).



Offices in North America
(Cincinnati, Atlanta, Markam).

Our three main lines of business include:



Project Data



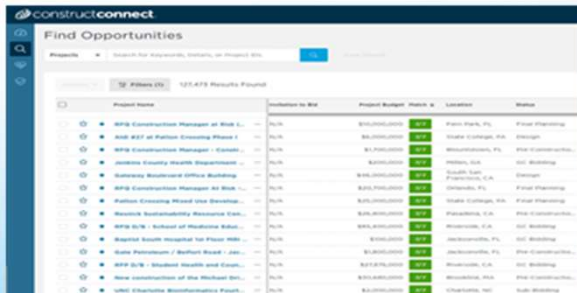
Takeoff + Estimating



Bid + Risk Management

What does ConstructConnect do?

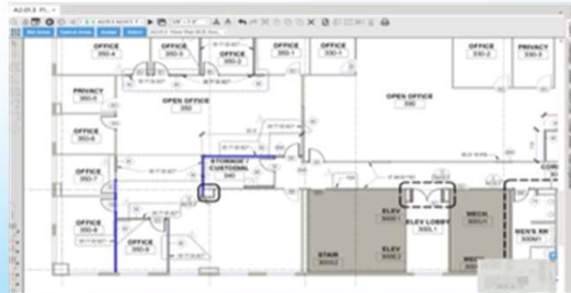
Project Data



Identify the best opportunities for your business and understand the competition.

SaaS application to manage project opportunities and ITBs with access to a database of non-residential construction project and lead data curated by ConstructConnect. Market share analytics, construction starts, and forecasts also available.

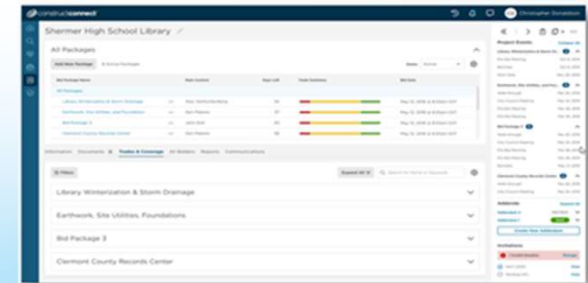
Takeoff + Estimating



Create an accurate, digital takeoff and estimate to put your best bid forward.

Software to scope material and labor needed for a project to create the foundation for a bid. AI-assisted takeoff for interior finishes, walls, and areas.

Bid + Risk Management



Find the right subcontractors to hire for a project.

Software to connect with qualified subcontractors and invite them to bid on upcoming projects.

| Our Mission

Scan Me



To help the **construction industry**
start every project on a **solid foundation.**

| Construction Strategy:

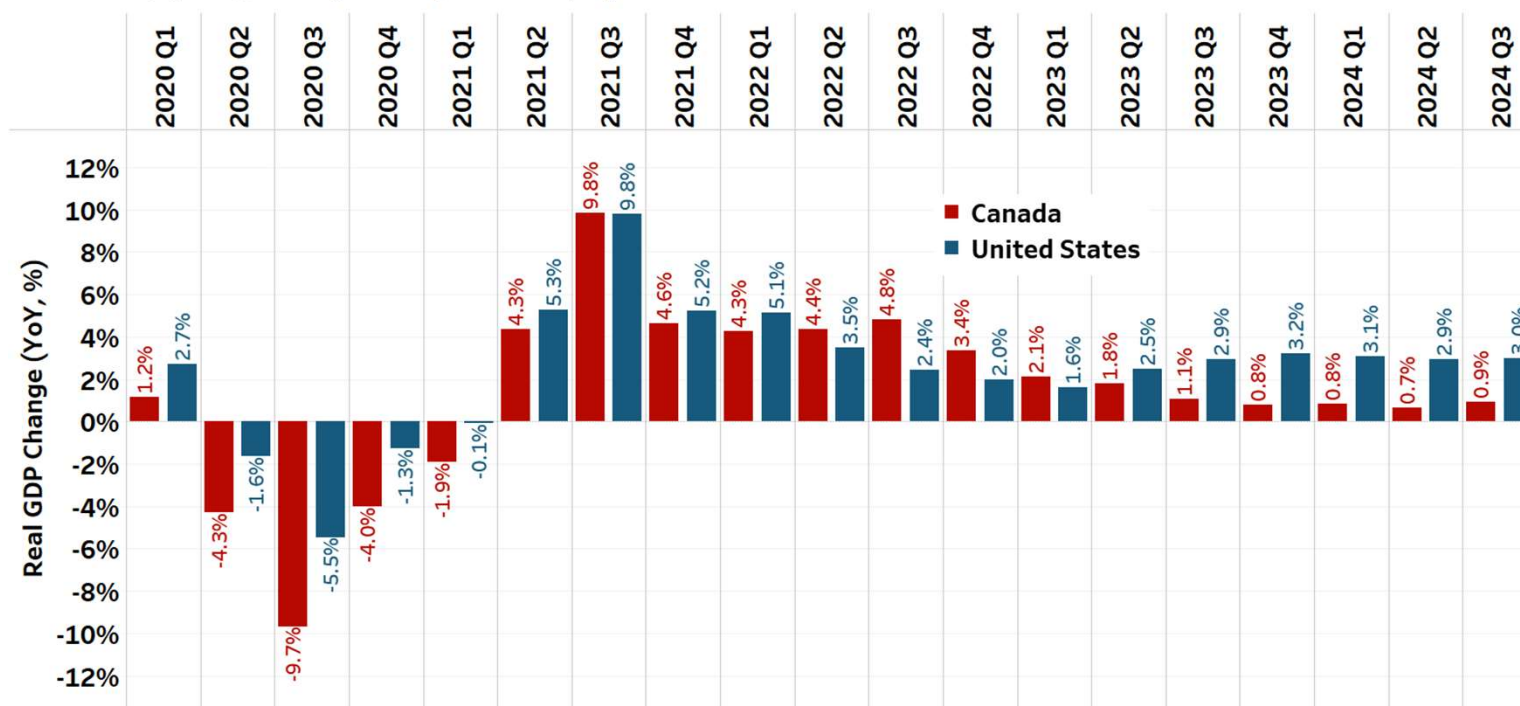
There are four primary categories which will impact every construction firm's success:

1. Macroeconomic Environment
the "terrain"
2. Labor
3. Finance
4. Entrepreneurship / Strategy
(What is possible by bringing the lenses together)



Macroeconomic Terrain

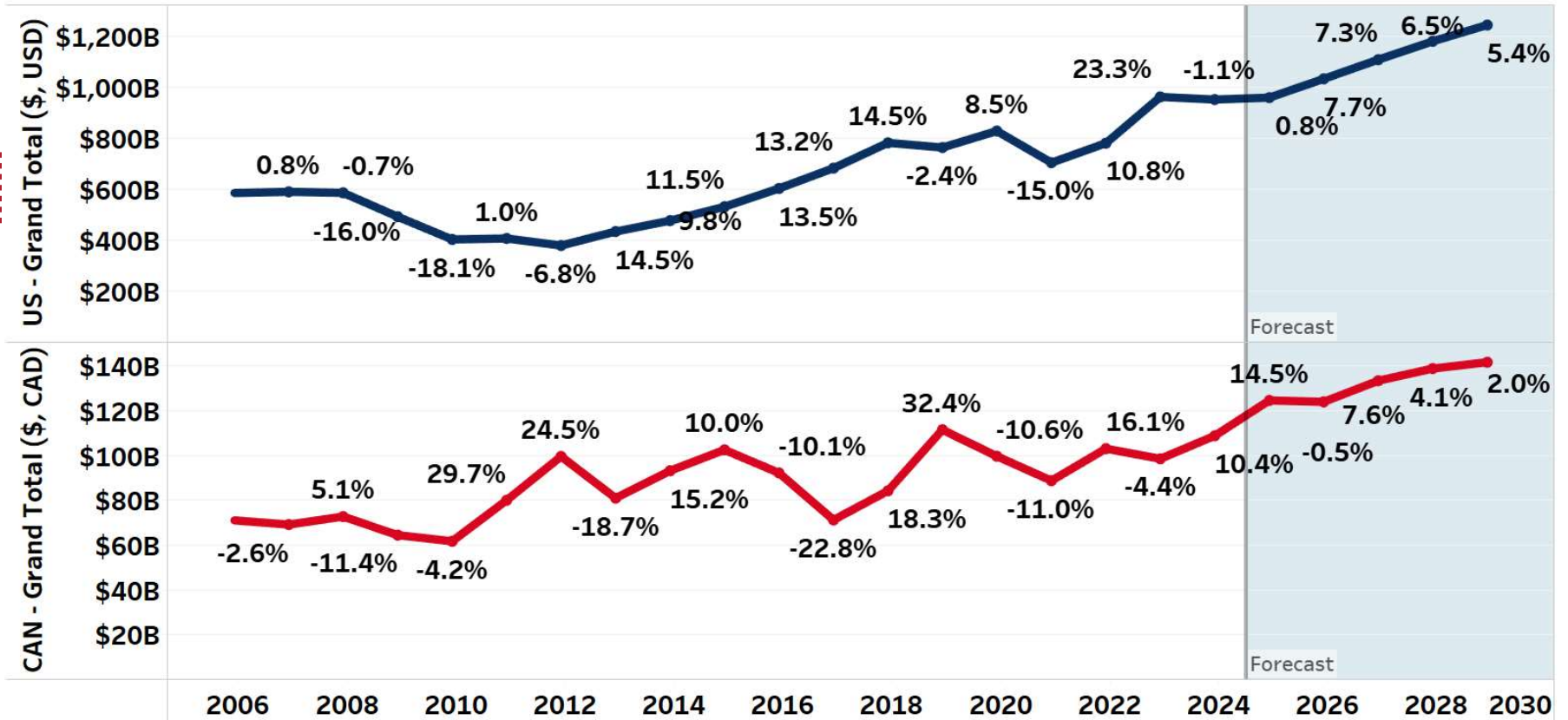
Higher Interest Rates Are Having a Slowing Effect on Economic Growth Across North America, (GDP growth year-on-year "YoY", %)



Source: Bureau of Economic Analysis

Canadian & U.S. Grand Total Historic Starts and Forecast

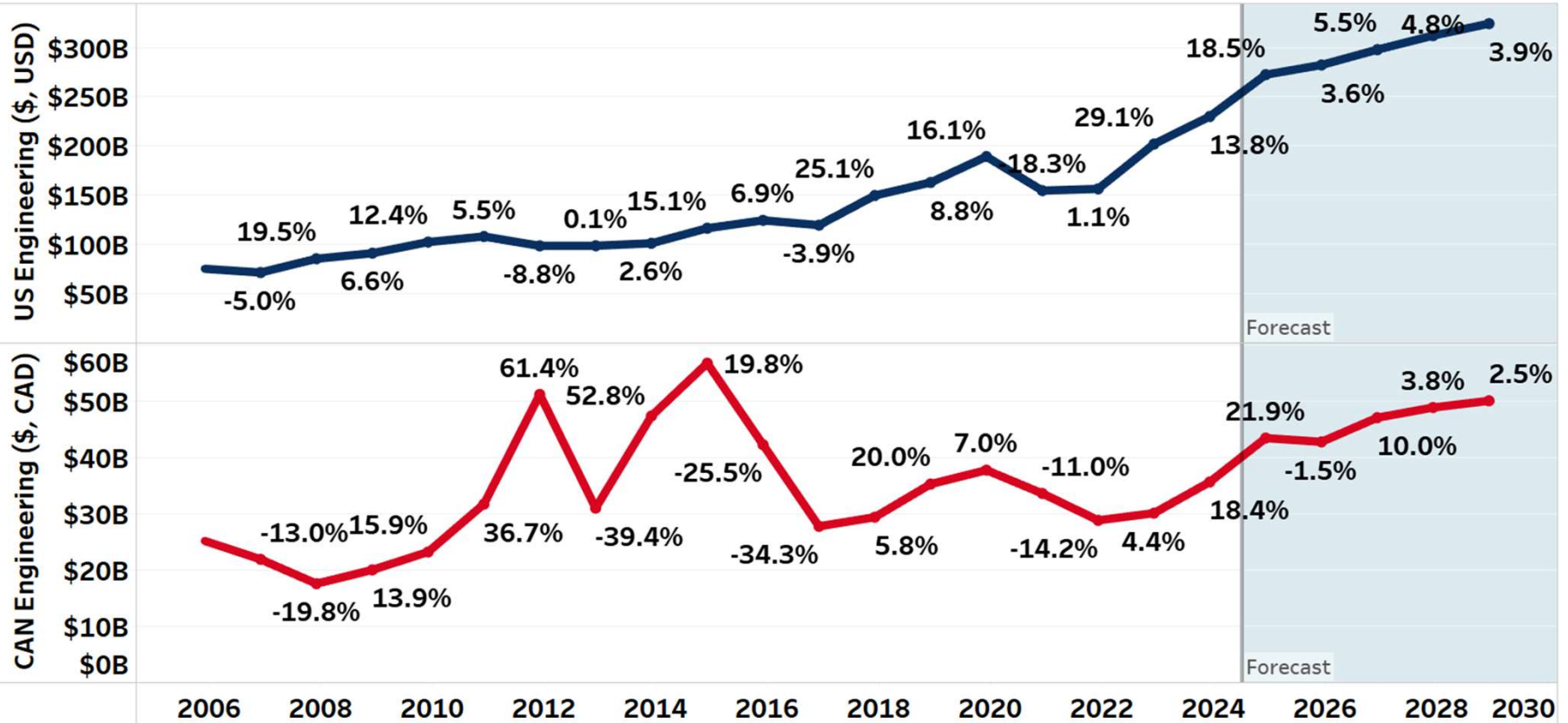
(Billions of \$ in native currency, NSA)



Source: ConstructConnect Starts Forecast, 3Q2024 Release

Canadian & U.S. Engineering Starts and Forecast

(Billions of \$ in native currency, NSA)



Source: ConstructConnect Starts Forecast, 3Q2024 Release

U.S. Type-of-Structure Construction 'Starts' Forecasts

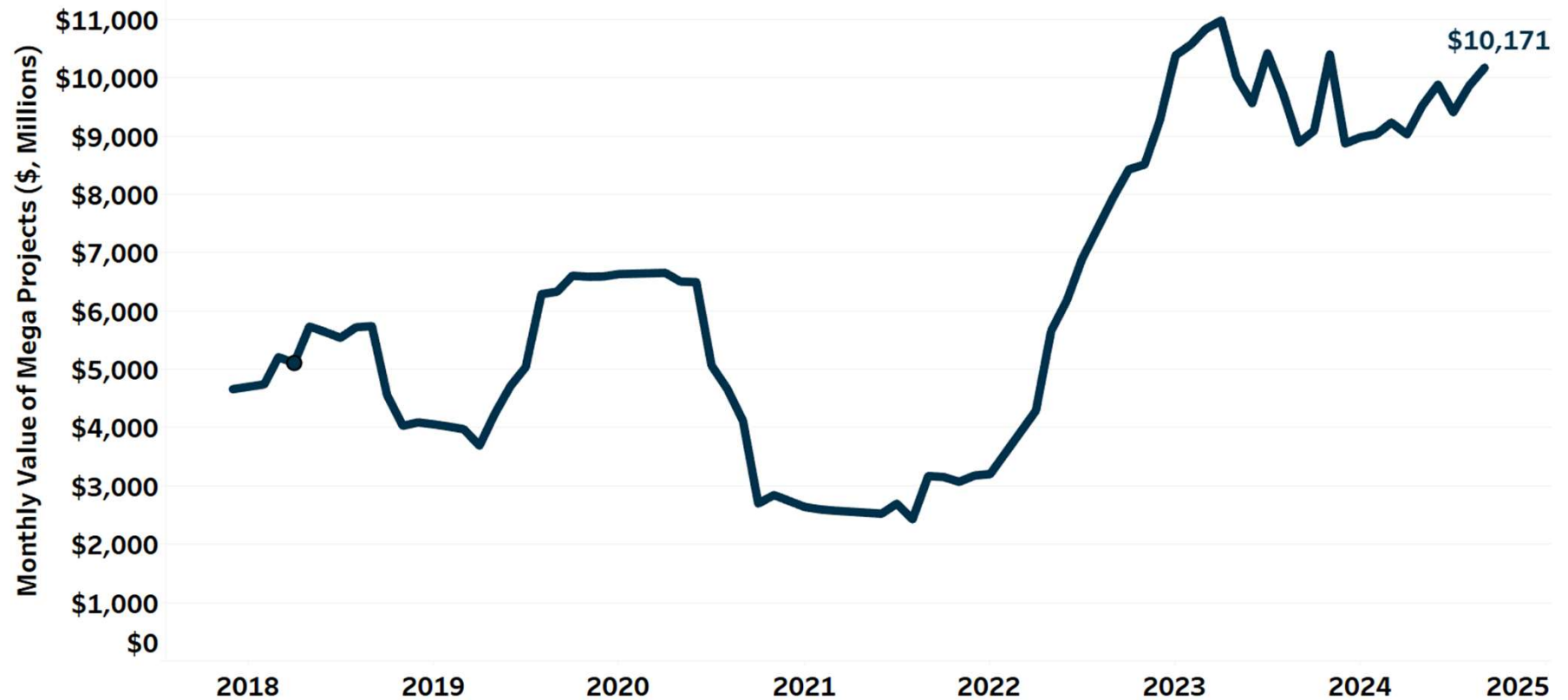
(\$, Billions USD)

	Actuals		Forecasts				
	2022	2023	2024	2025	2026	2027	2028
Main Categories							
Residential	373.7	317.8	316.5	359.2	405.9	450.8	487.9
(Yr/yr % change)	3.1%	-15.0%	-0.4%	13.5%	13.0%	11.1%	8.2%
Commercial	130.9	139.7	134.0	146.2	155.6	163.7	171.7
(Yr/yr % change)	14.8%	6.7%	-4.1%	9.1%	6.4%	5.2%	4.9%
Industrial (Manufacturing)	115.4	103.3	70.1	72.8	70.0	68.3	69.3
(Yr/yr % change)	229.0%	-10.5%	-32.1%	3.8%	-3.9%	-2.3%	1.4%
TOTAL NON-RES BUILDING	388.2	405.9	372.3	393.5	406.6	419.5	434.3
(Yr/yr % change)	47.6%	4.5%	-8.3%	5.7%	3.3%	3.2%	3.5%
Engineering	202.0	229.9	272.4	282.2	297.8	312.0	324.2
(Yr/yr % change)	29.1%	13.8%	18.5%	3.6%	5.5%	4.8%	3.9%
GRAND TOTAL	963.9	953.6	961.1	1,034.9	1,110.2	1,182.3	1,246.4
(Yr/yr % change)	23.3%	-1.1%	0.8%	7.7%	7.3%	6.5%	5.4%

Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect

U.S. Mega Projects Are Providing Substantial Support to the Industry

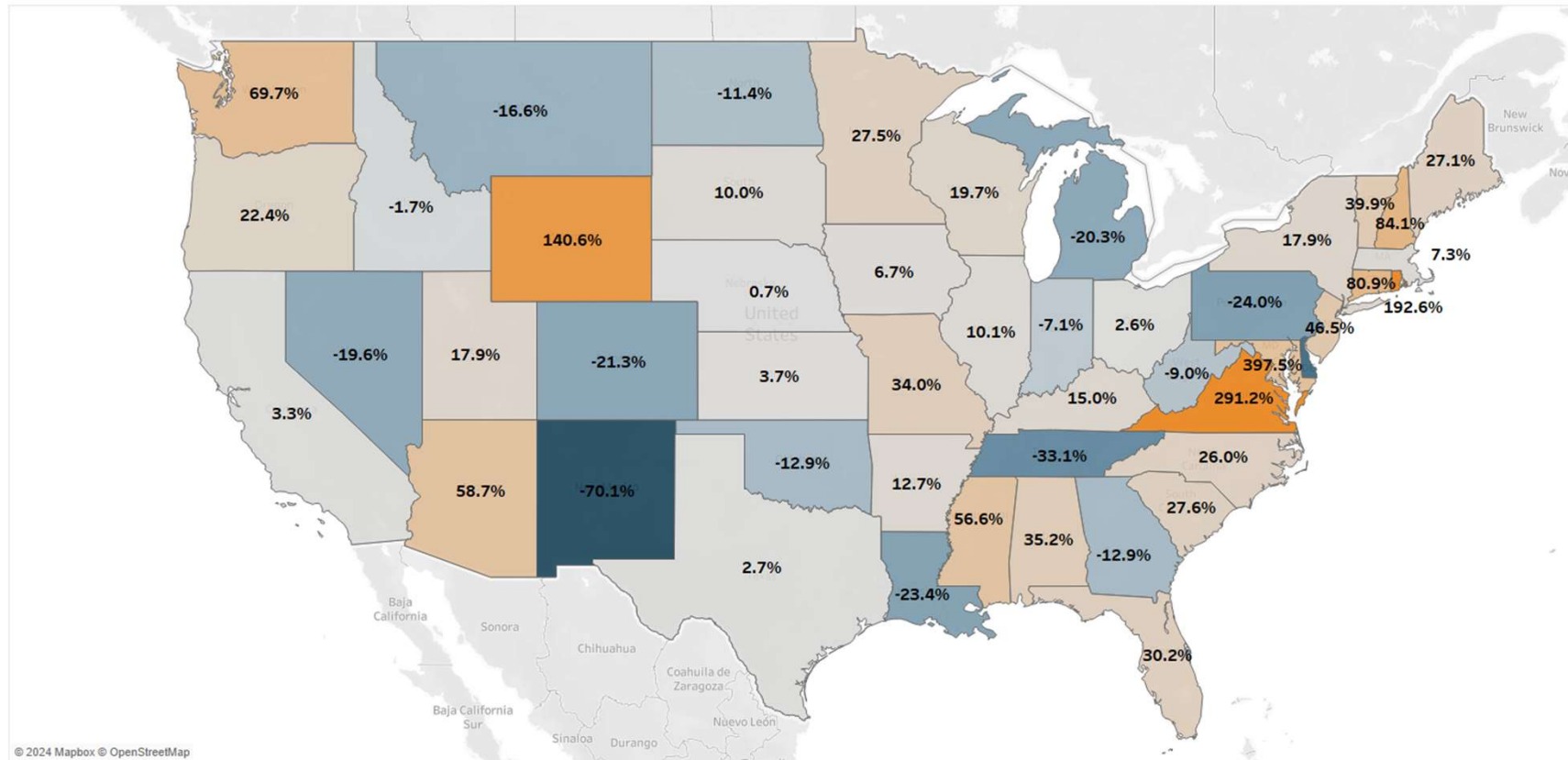
(Value of Mega Projects, \$ Millions, 12-month moving average)



Source: ConstructConnect Project Intelligence / Construct Connect Insight Leads

Heavy Engineering Starts

Year-to-date percentage change from same period 1-year ago (%)



© 2024 Mapbox © OpenStreetMap

Source: ConstructConnect Industry Snapshot

| Starts Statistics Highlights

- Engineering Leads the Way!
 - Dam/Marine, Water/Sewage, Miscellaneous Civil
 - Population growth and shifts is creating shortages of Water & Electricity in specific geographies
- Growing value of future heavy engineering projects “on the horizon”

Many of the above resources are FREELY available

- <https://www.constructconnect.com/economic-resources>

Economic Insights

Access the latest construction economic news, forecasts, and webinars.

Reporting
Project Stress Index
Economic Brief
Expansion Index
Economic Webcast
News
Media Kit
Contact

Construction Economy Reporting

Resource data may be used in publications with attribution to ConstructConnect and, where applicable, the ConstructConnect economist.



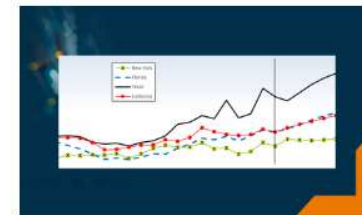
Construction Economy Snapshot

Monthly Construction starts include the total estimated dollar value and square footage of all nonresidential projects on which ground is broken.



Construction Starts Forecast

Quarterly A 5-year forecast of construction starts by type of structure and by state as well as drivers influencing each building sector.



Put-in-Place Forecast

Quarterly A 5-year forecast of work-in-progress payments, created in partnership with Oxford Economics, and covers 18 types of construction across residential, commercial/industrial, and infrastructure.

Ohio Specific Considerations & Challenges

Ohio's Economy is Steady but Modestly Underwhelming

- Unemployment rate: +4.5% (Sept)
 - US unemployment rate: 4.1%

- Ohio Real GDP: +2.8% (2Q2024)
 - US Real GDP: 3.0%

- Ohio Population Growth: +0.2% (2023)
 - Total US: +0.5%



| What Does The 2021 IIJA Mean for Bridge Construction?

- 5-years of enhanced spending on road & bridge investments
 - \$350 Billion for all Federal Highway programs *(source: FHWA)*
 - \$110 Billion dedicated to surface transportation programs
- FHWA Ohio Apportionments under Continuing Appropriations & IIJA:

Year Estimates	2024	2025	2026
Ohio (\$, Billions)	\$1.847	\$1.884	\$1.922

- Largest 1-time capital allotment since the creation of the highway interstate system
 - However, this has been eroded by a 21% increase in final construction costs between Nov21 and Sep24.

Civil Starts Forecast 2024 – 2028 (Sorted by 2025 value)

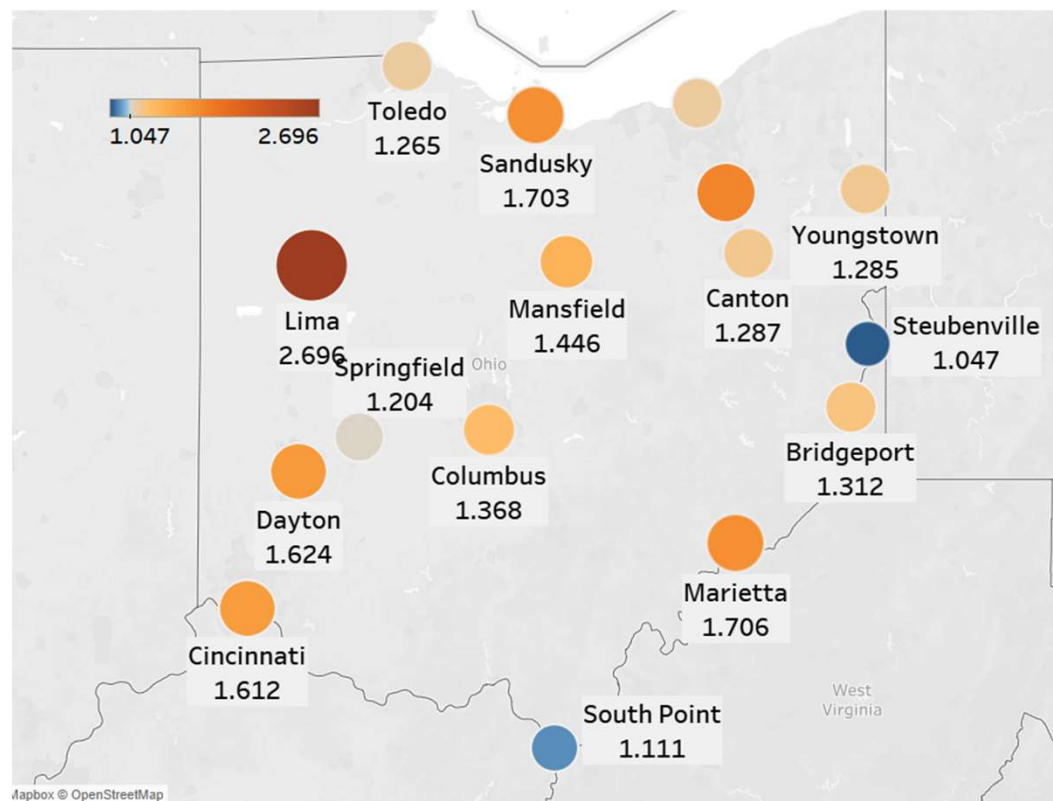
Civil Construction by MSA (in \$, Millions)	2024	2025	2026	2027	2028
Columbus OH	\$ 1,374.5	\$ 1,158.5	\$ 1,225.6	\$ 1,289.3	\$ 1,346.3
Cincinnati-Middletown OH-KY-IN	\$ 1,078.8	\$ 1,121.5	\$ 1,184.2	\$ 1,242.2	\$ 1,293.1
Cleveland-Elyria-Mentor OH	\$ 1,291.5	\$ 944.0	\$ 995.7	\$ 1,041.3	\$ 1,079.9
Akron OH	\$ 366.7	\$ 497.6	\$ 525.1	\$ 548.9	\$ 569.0
Dayton OH	\$ 376.7	\$ 376.8	\$ 397.2	\$ 415.8	\$ 431.8
Toledo OH	\$ 360.0	\$ 350.8	\$ 368.9	\$ 385.8	\$ 400.7
Huntington-Ashland WV-KY-OH	\$ 165.9	\$ 228.5	\$ 240.2	\$ 250.8	\$ 259.8
Youngstown-Warren-Boardman OH-PA	\$ 156.8	\$ 189.9	\$ 199.6	\$ 207.8	\$ 214.3
Weirton-Steubenville WV-OH	\$ 211.1	\$ 161.0	\$ 167.7	\$ 173.7	\$ 179.0
Canton-Massillon OH	\$ 135.4	\$ 149.1	\$ 156.5	\$ 163.2	\$ 169.0
Parkersburg-Marietta WV-OH	\$ 119.2	\$ 146.5	\$ 154.4	\$ 161.5	\$ 167.4
Wheeling WV-OH	\$ 91.4	\$ 124.3	\$ 131.3	\$ 137.3	\$ 142.3
Sandusky OH	\$ 45.4	\$ 78.1	\$ 81.7	\$ 85.0	\$ 87.8
Lima OH	\$ 48.8	\$ 55.0	\$ 57.9	\$ 60.5	\$ 62.7
Mansfield OH	\$ 74.2	\$ 54.1	\$ 56.9	\$ 59.4	\$ 61.4
Springfield OH	\$ 33.1	\$ 27.7	\$ 29.2	\$ 30.5	\$ 31.6

Source: ConstructConnect Insight Forecast, data pulled September 2024

Expansion Index by Ohio MSA

Expansion Index values are calculated as the ratio of all “ideated” spending now compared to one year ago.

Expansion Index Values do not measure actual spending such as with Starts or Put-in-Place spending.



Source: ConstructConnect Expansion Index

Operational Considerations in the Construction Space

| The Remaining Actionable Pieces of the Puzzle:

Labor: How you find and build-up your labor resources?

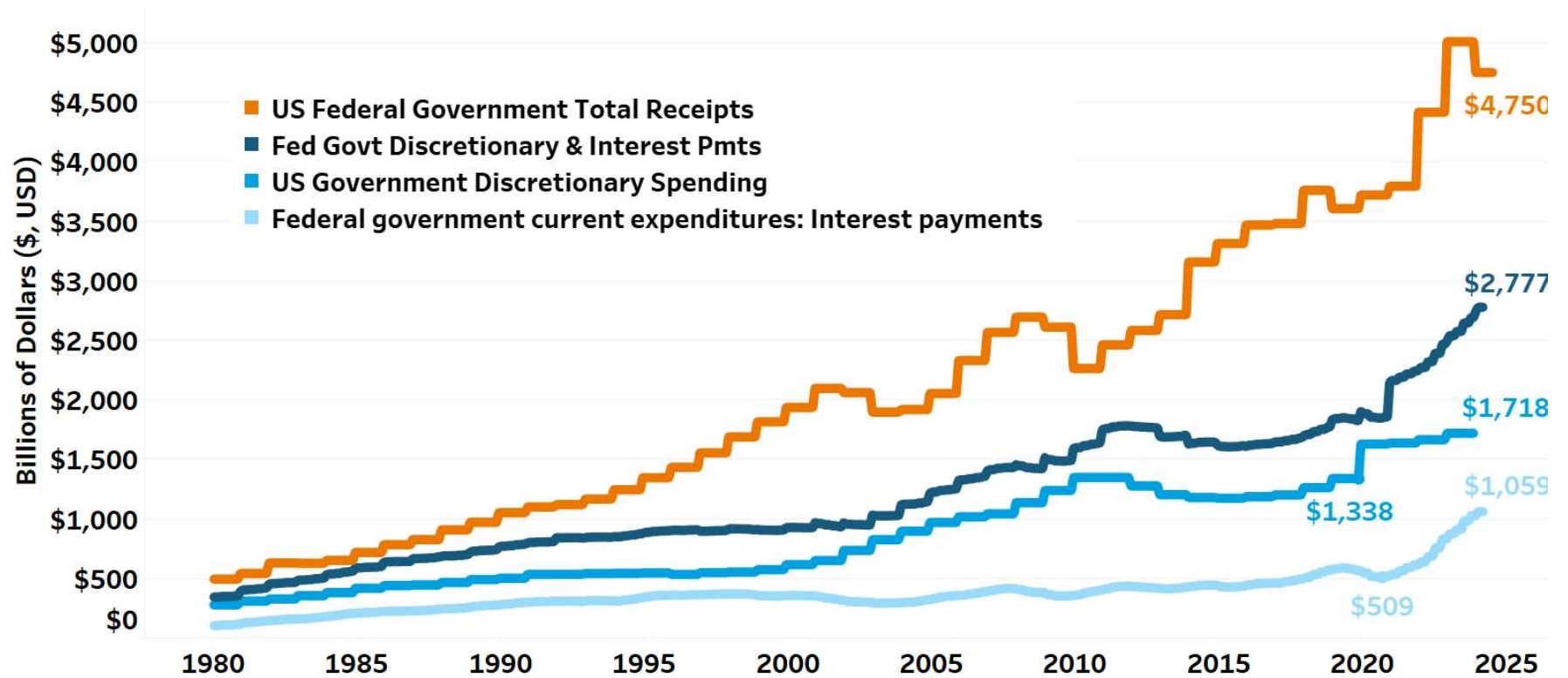
Finance: How will you continue to access capital and at what cost?

Strategy: How will use this knowledge to make smart and profitable decisions for your firm?



Discretionary Spending AND Interest Expense Combined Consume Nearly 60% of Total Federal Government Income

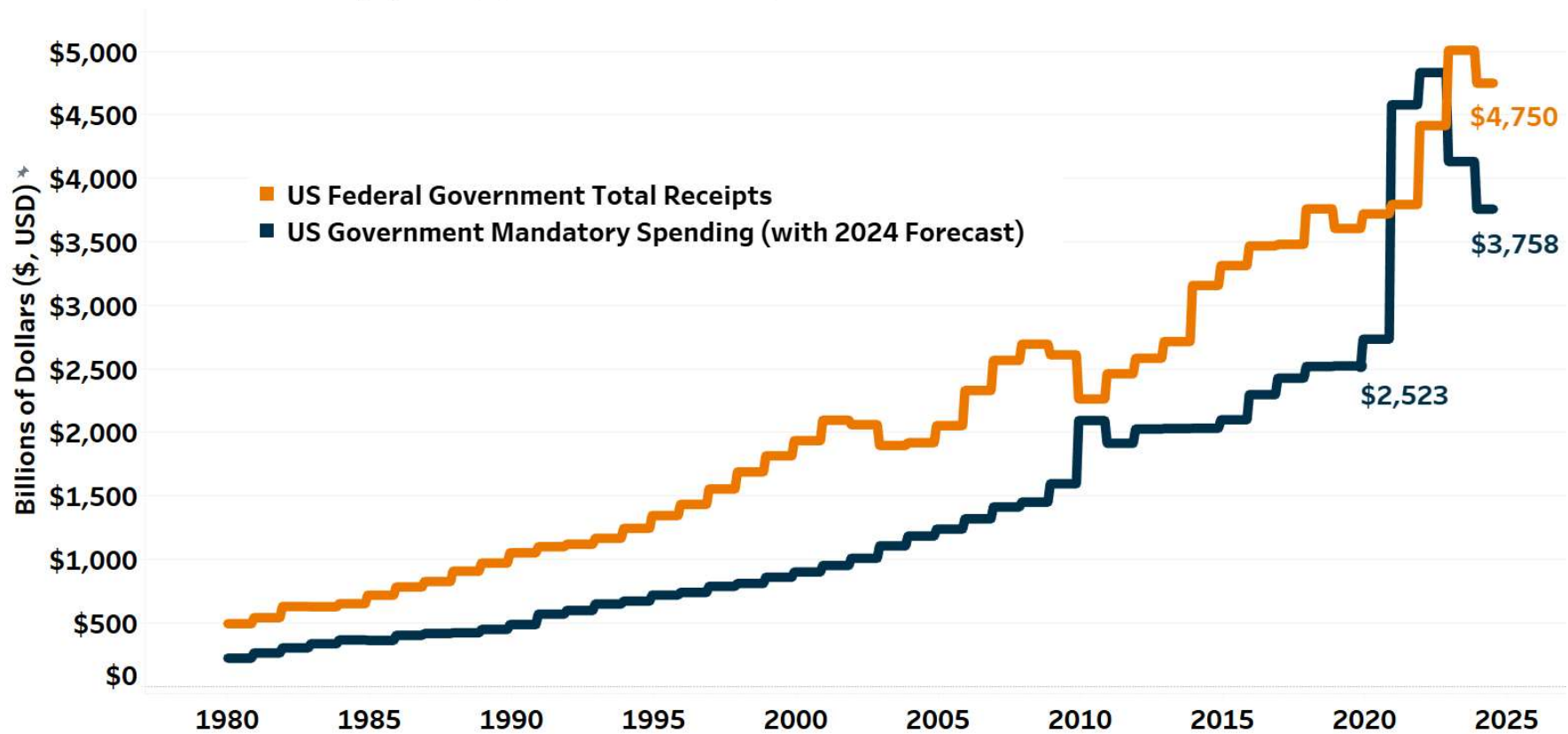
(annualized results, seasonally adjusted where available)



Source: Bureau of Economic Analysis

Mandatory Spending Consumes About 80% of Total Government Receipts

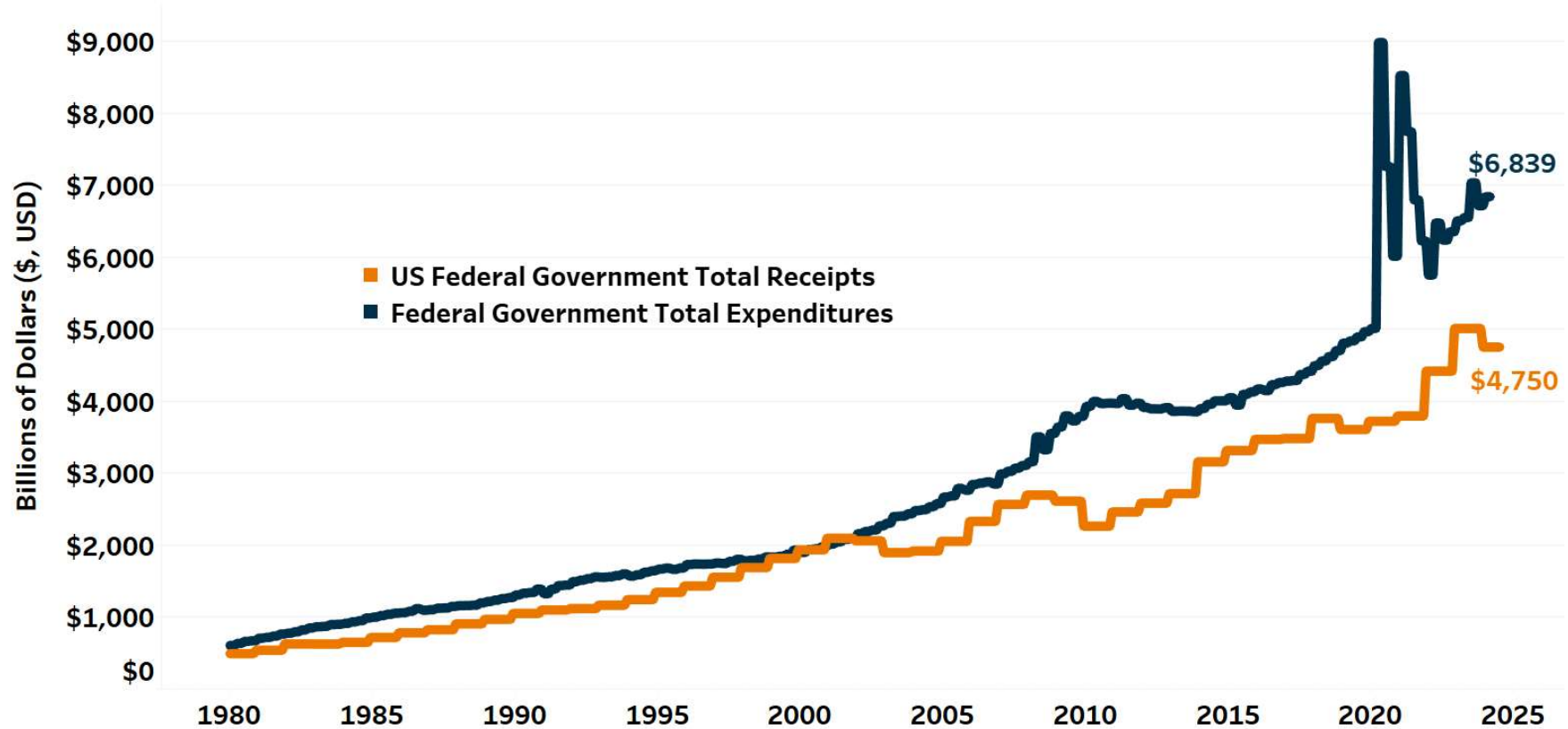
More than 50% of mandatory spending goes to Social Security and Medicaid



Source: Bureau of Economic Analysis

Total Federal Spending is Over 140% of Total Government Receipts

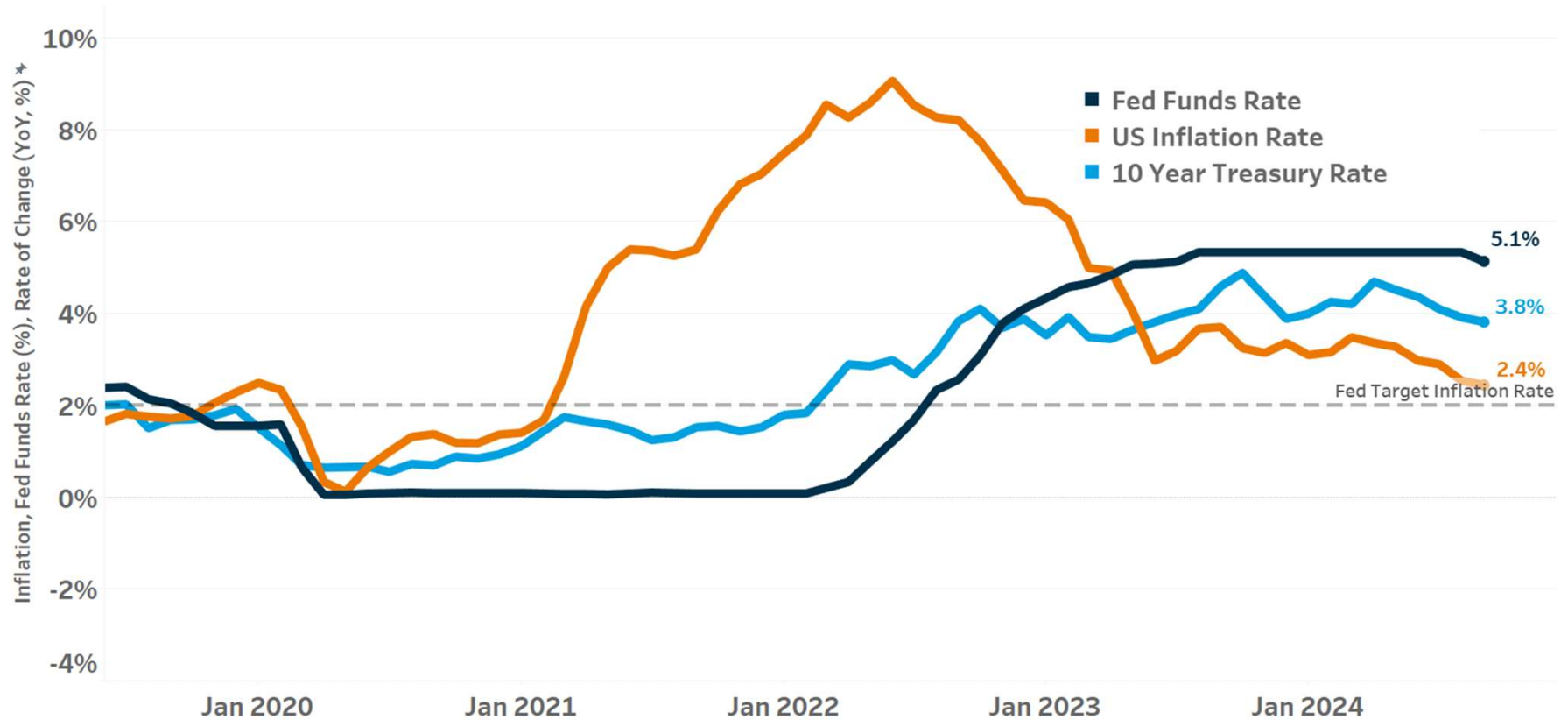
Balancing the budget would require a 30% reduction in federal spending



Source: Bureau of Economic Analysis, Total Expenditures is different by \$300B (4.4%) from the sum of the previously shown parts due to forecasting

U.S. Inflation Approaching 2% Inflation Target

Could this be a signal for future Fed rate cuts? (%)



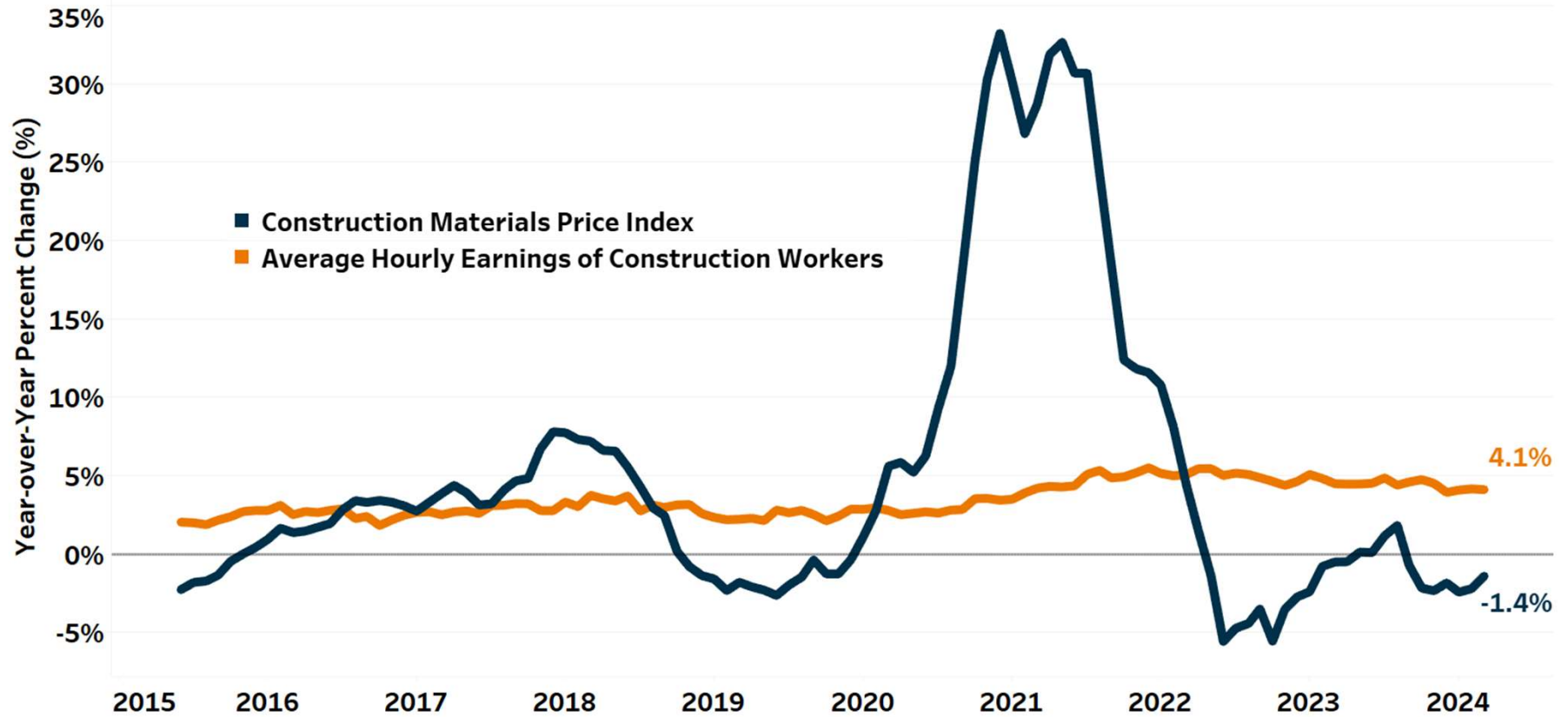
Sources: Fed Funds Rate & 10Y Treasury, U.S. Federal Reserve; Inflation measures, Bureau of Economic Analysis

| Labor



Wage Growth Will Remain the Top Cost Concern in 2025

Strong demand for construction laborers likely to keep wage growth above the national average



Source: U.S. Bureau of Labor Statistics

The Ratio of Construction Openings to Experienced Job Seekers Stuck Near Parity

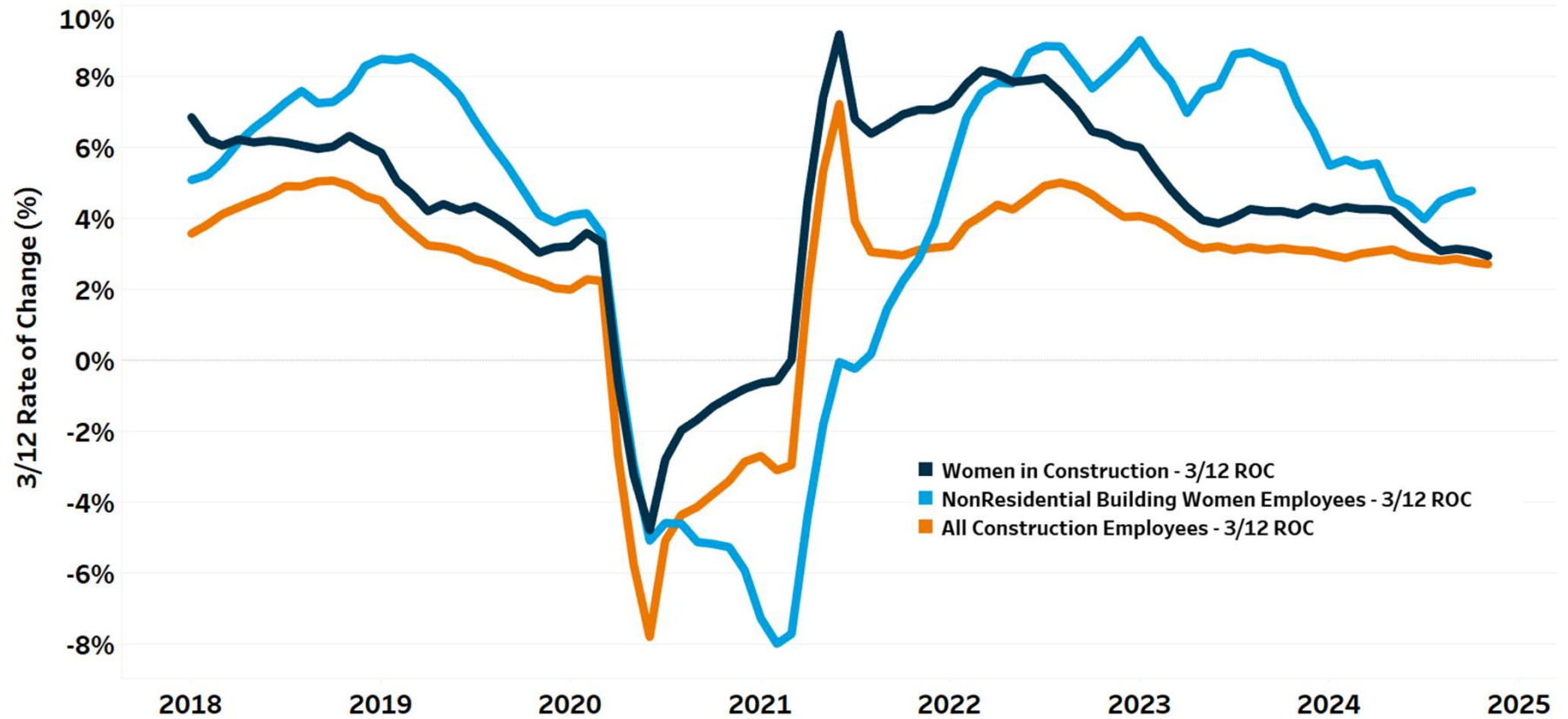
Since 2022 there have frequently been more construction openings than there are job-seeking laborers with construction experience.



Source: Bureau of Labor Statistics

Growth of Female Construction Labor Beats Overall Trends

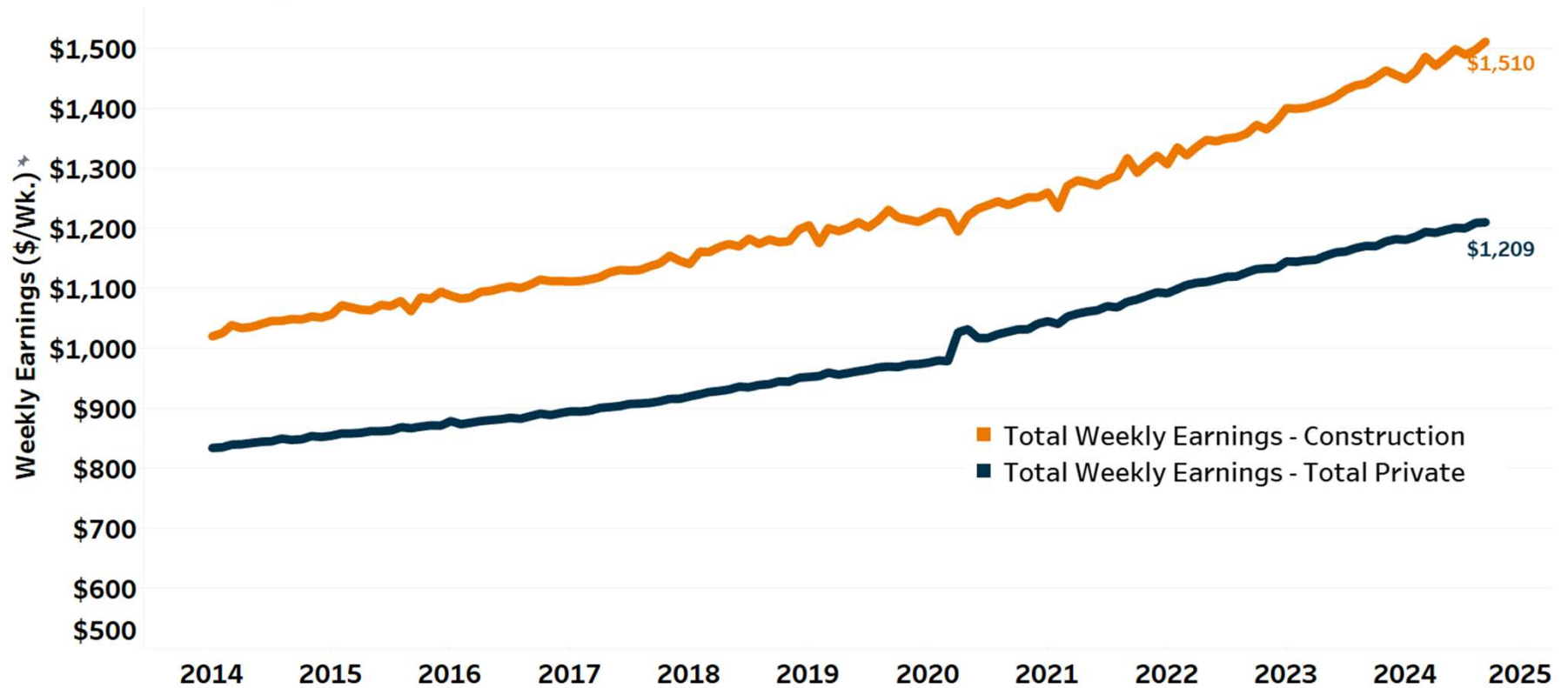
Women and minority laborers are replacing the void left by baby-boomers



Source: Bureau of Labor Statistics

Weekly Construction and Total Private Earnings

The combination of a higher average hourly wage and more work hours allows construction workers to earn 25% more per week than their average nonfarm worker.

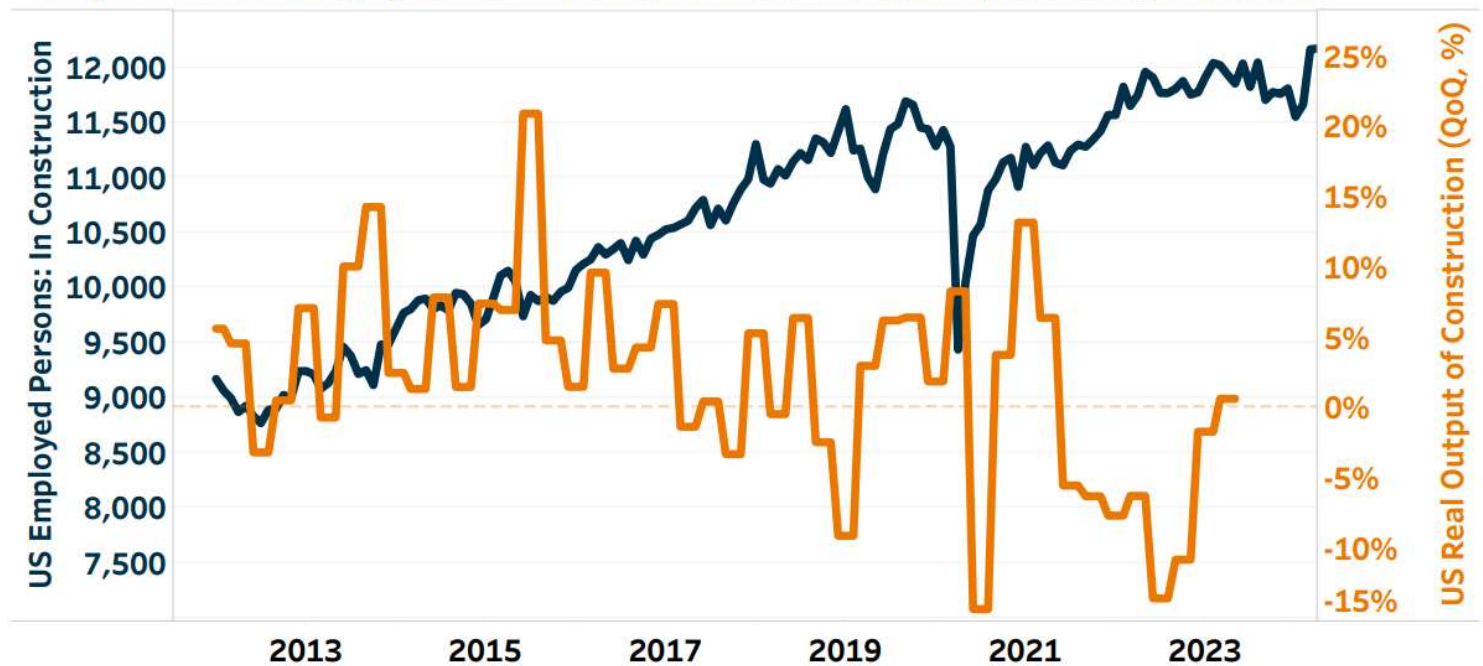


Source: U.S. Bureau of Labor Statistics

Labor Training is a MUST:

- How will you prepare for the future: “AI is not going to take your job, someone using AI is”.
- The desperation for labor diluted the productivity of the average laborer.

US Real Construction Output Trend Contrasts with Labor Levels
 A simple increase in labor post-COVID did not correlate with added productivity and output



Source: U.S. Bureau of Economic Analysis

Bringing It All Together: Strategy

Strategy: How you use your market knowledge (*macroeconomics*) along with the resources available to you (*Labor, Finance*) to create outsized returns for your business.



| Strategy: Macroeconomic Conditions

- IIJA provides near-term opportunities to push through critical public infrastructure projects
- Current presidential candidates have opposing views about the use of regulations (labor, environmental)
- Decades of public budget deficits jeopardize long-run spending ambitions
 - Construction will have to compete with education and defense objectives

| Strategy: Finance

- Public funding will be a great source of opportunity... while it lasts.
- Strength of the US economy may keep rates higher for longer.
- Lots of unspent funding for infrastructure of various types.
 - But strong demand for civil work may also stimulate inflation.

| Strategy: Labor

- Accept that today's labor challenges are structural and require firms to take a refreshed, long-run approach to one's labor strategy.
 - The ability to rehire former labor is –and will remain- a greater challenge than in the past.
- You can't force people to stay, but you can work hard to **create steady paychecks, and training program that get them to stay.**
- *“The worst thing that can happen is NOT that you train someone and they leave, but that you DON'T train them and they stay.”*



Question & Answer

Michael Guckes

Chief Economist

Michael.Guckes@constructconnect.com

www.linkedin.com/in/michaelguckes/