

MDM's 4Q Economic Snapshot

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MDM's 2024 Annual Economic Outlook Report



2024 Annual MDM Economic Outlook:

Forecasts & Benchmarks for Wholesale Distribution

Published early
October

Free to MDM
Premium and NAW
Members

National Economy Mixed Signals



GDP continues to expand



Employment and income up



ISM manufacturing flat



Confidence increased



Consumption up



Prices improving



Debt growing, but at a slower rate



Business confidence shaky



Interest rates high



Industrial production down slightly



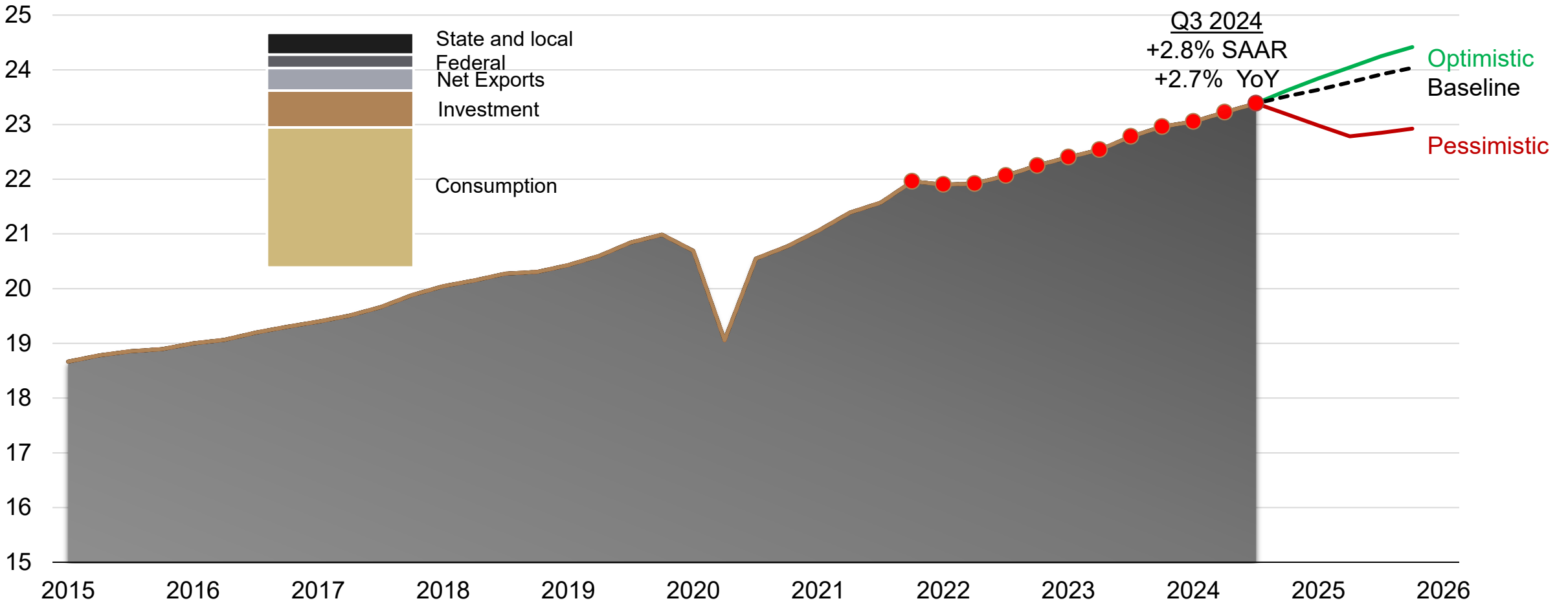
Capacity utilization notched down



Labor force growing

U.S. Real GDP

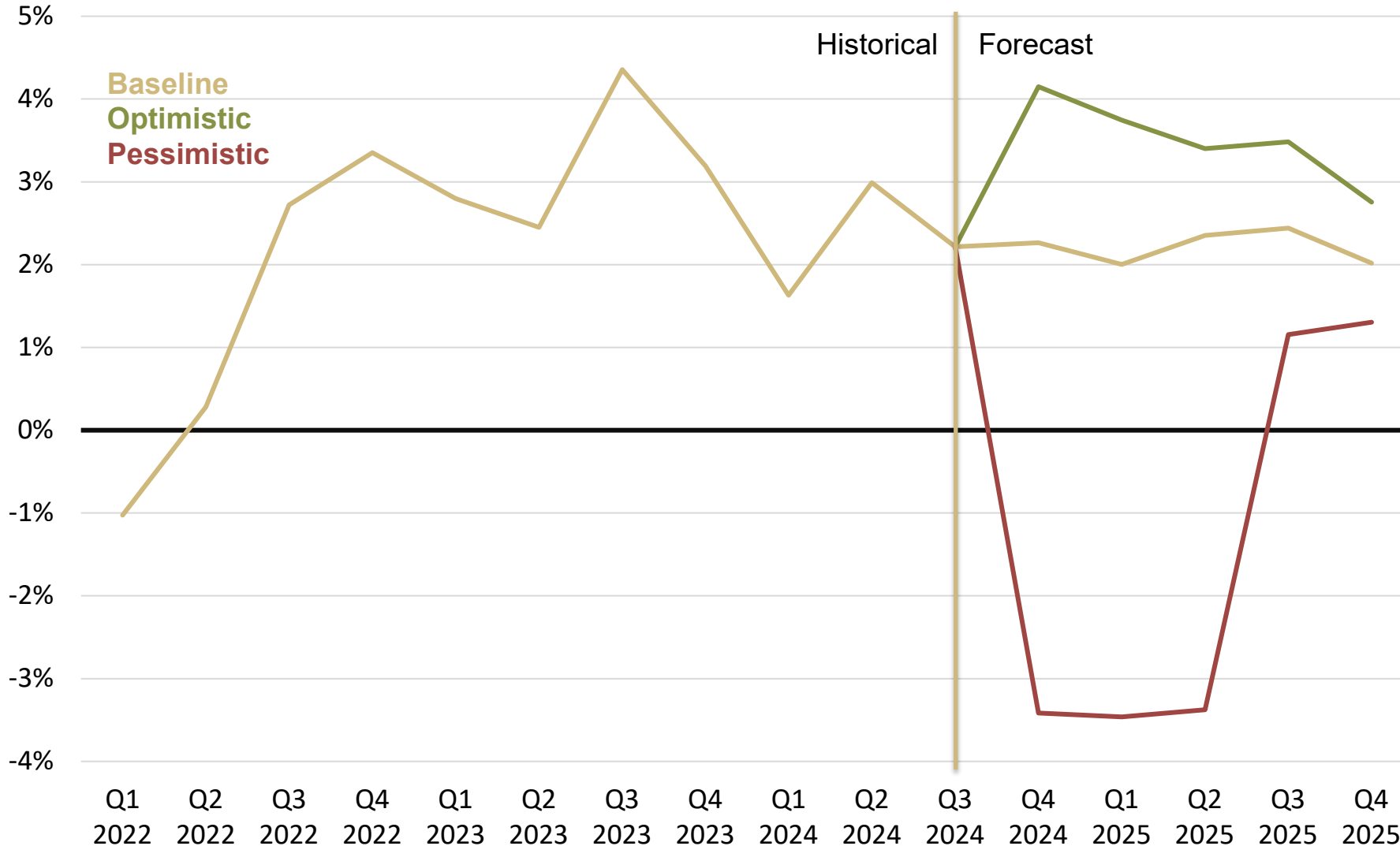
U.S. Quarterly GDP, \$ Trillions



Sources: Bureau of Economic Analysis and Moody's Analytics.

Real GDP Growth Scenarios

Alternative Scenarios – Quarterly, Seasonally Adjusted Annual Rate

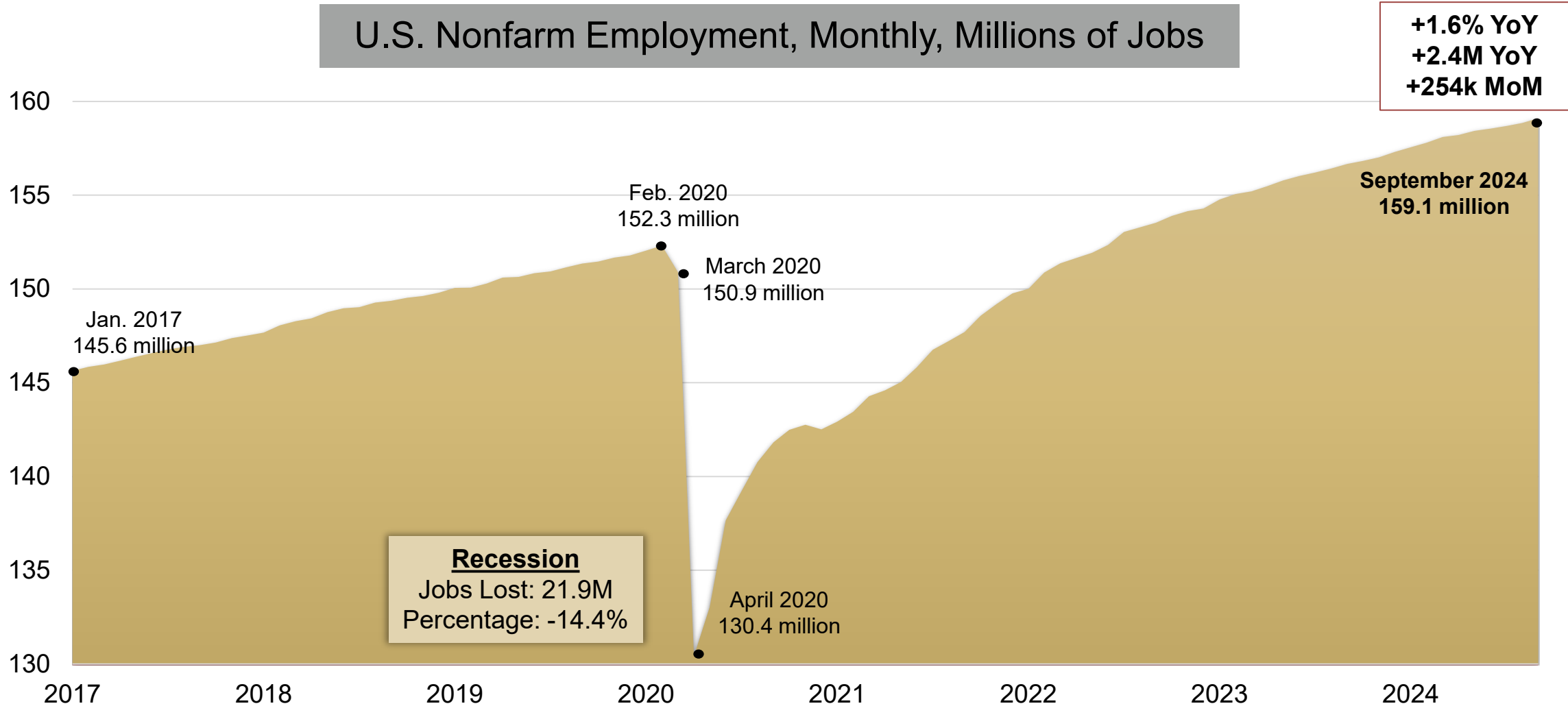


- The Wholesale Distribution activity is positively correlated with GDP growth ($r=0.72$)
- Industry activity is not decoupled from overall economic activity
- Forecasted macroeconomic scenarios produced by Moody's Analytics are used as inputs for industry-level Wholesale Distribution forecasts
- Alternative economic scenarios are modeled to take into consideration Wholesale Distribution activity under alternative economic pathways

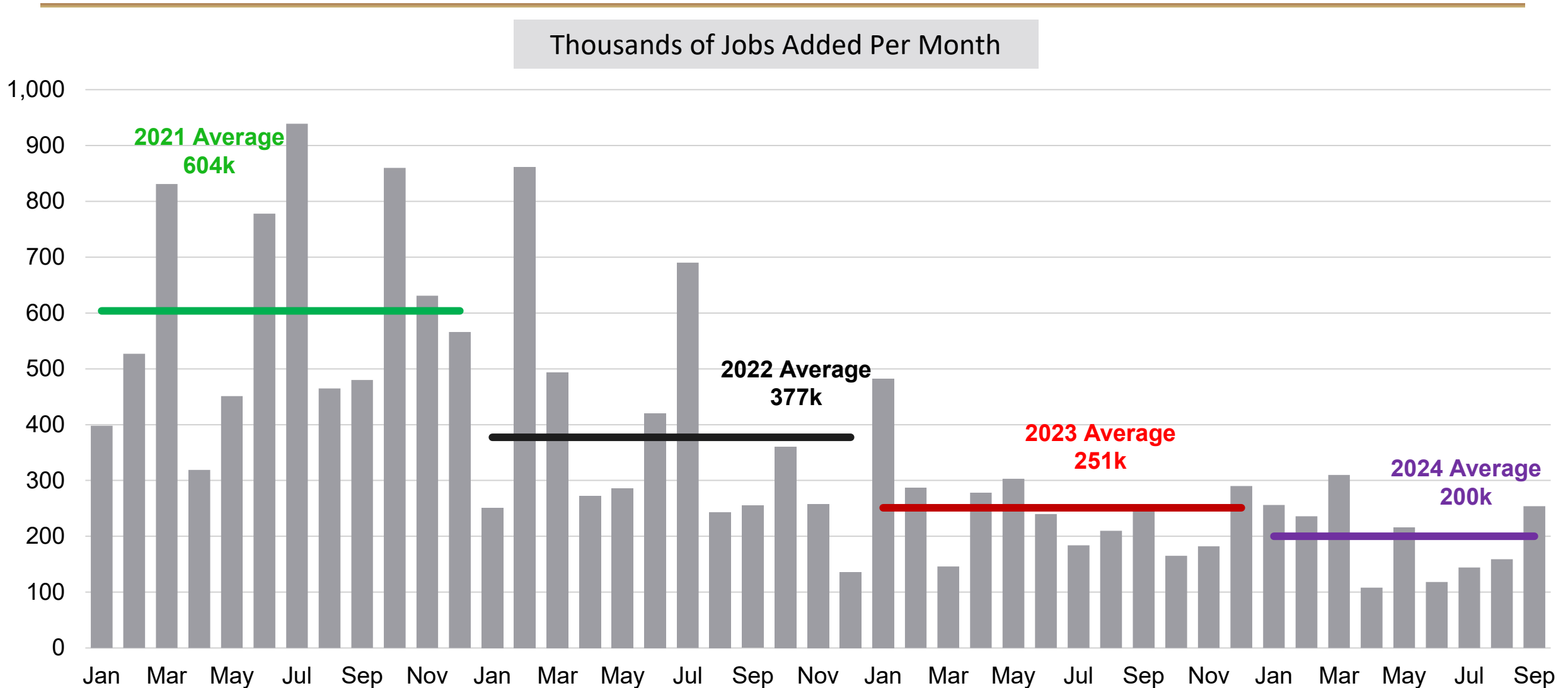
1) Labor market pressures are easing

U.S. Nonfarm Employment

U.S. Nonfarm Employment, Monthly, Millions of Jobs

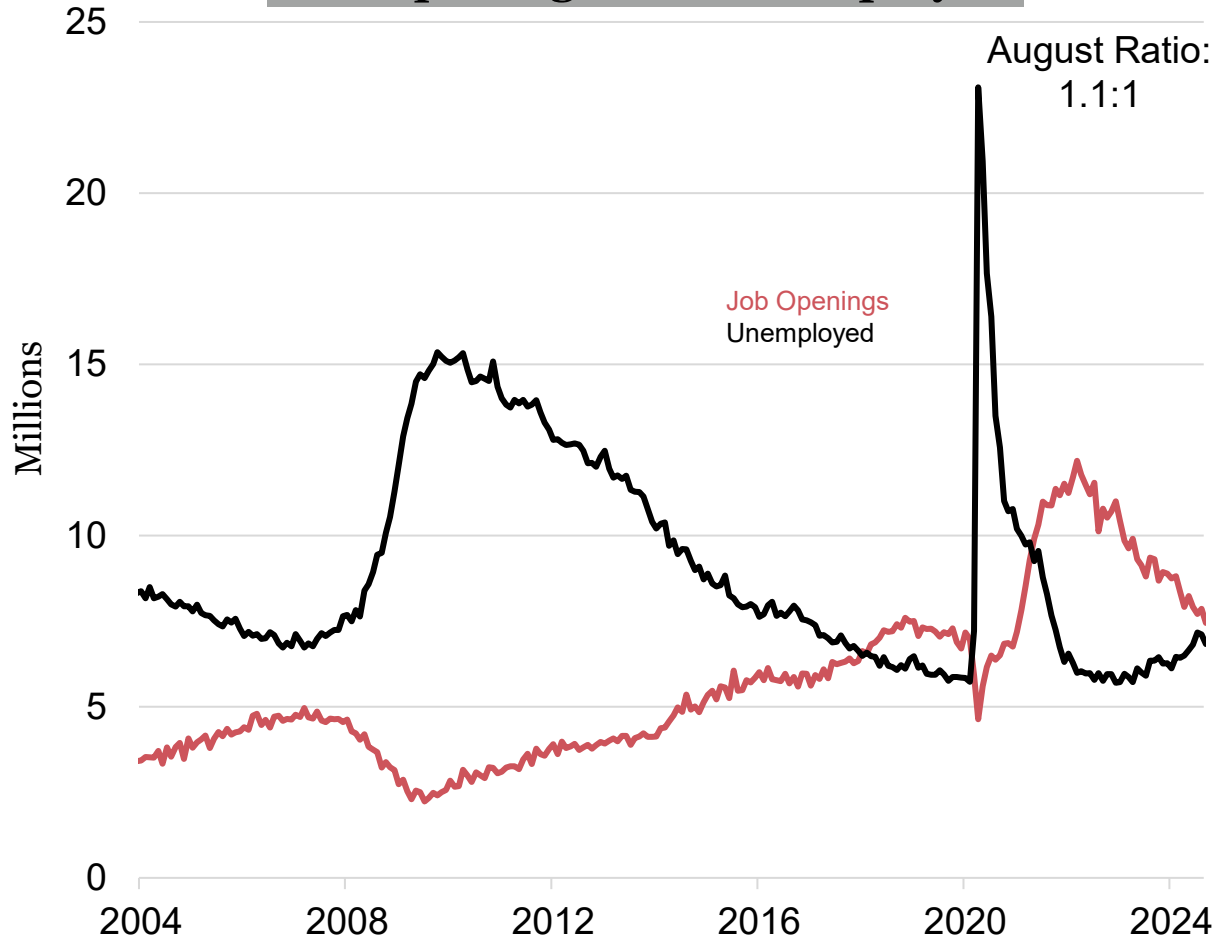


U.S. Nonfarm Employment Growth

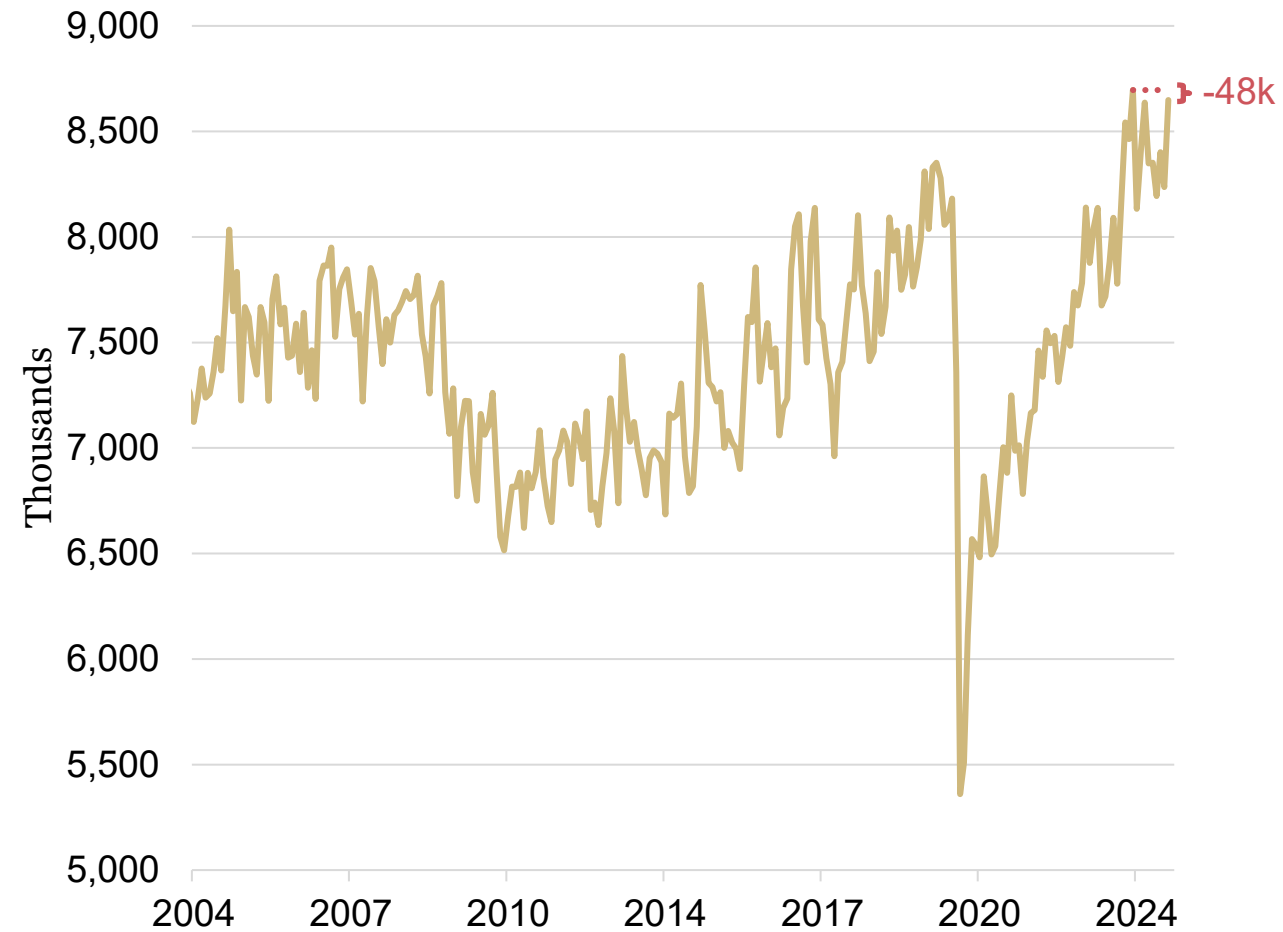


National Labor Shortage

Job Openings and Unemployed



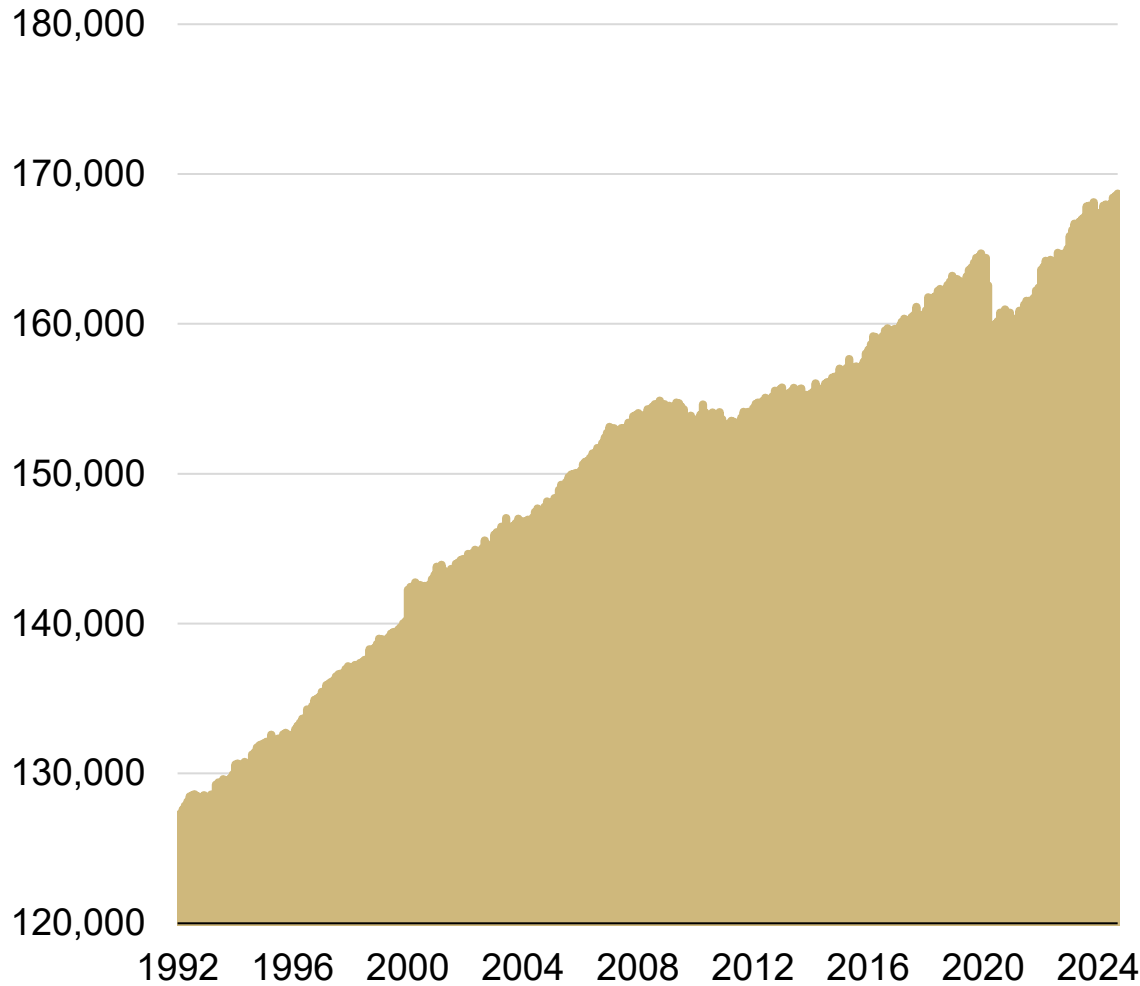
National Multiple Jobholders



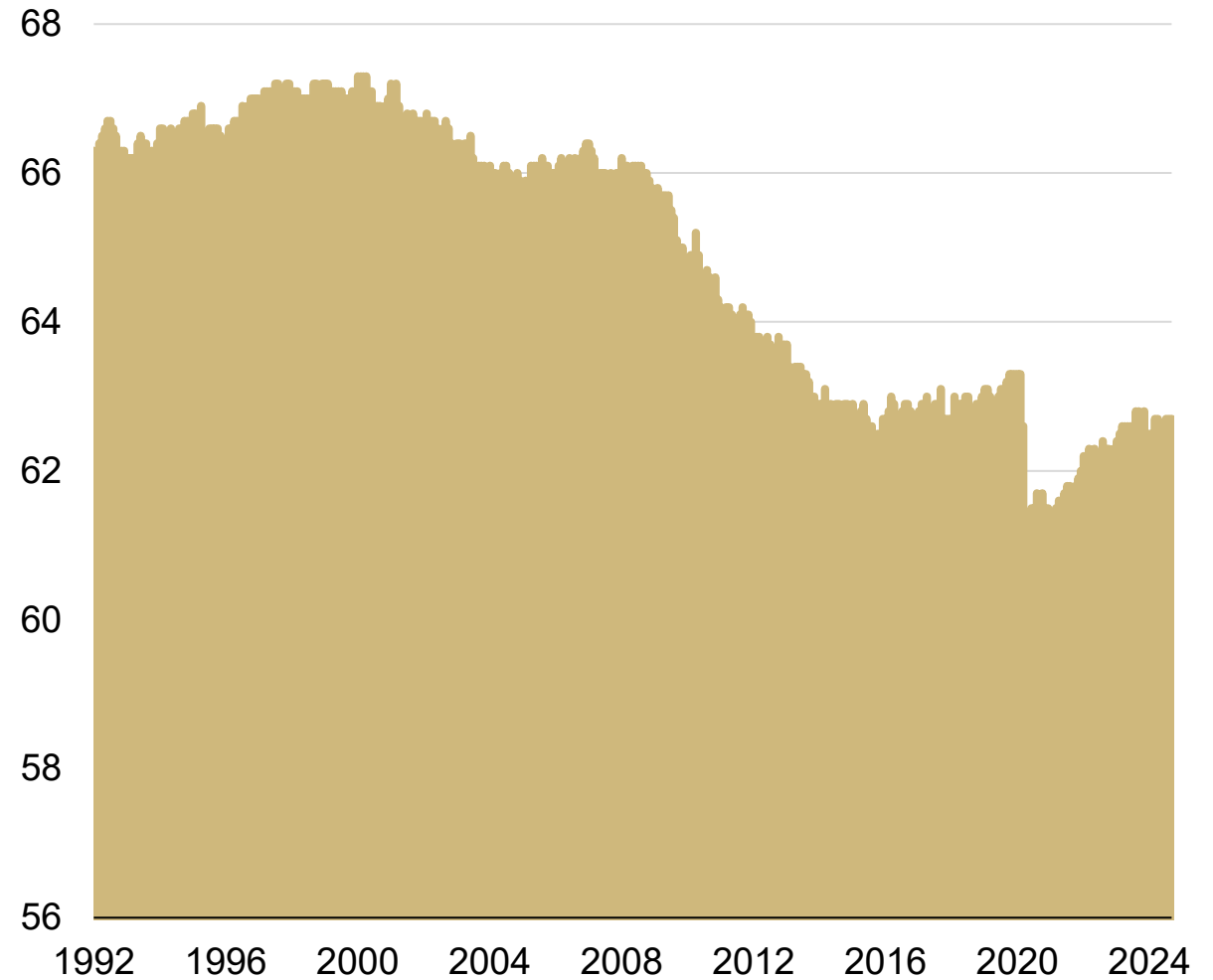
Sources: Bureau of Labor Statistics, JOLTS, and the Current Population Survey (NSA) .

National Labor Force

Labor Force, Thousands



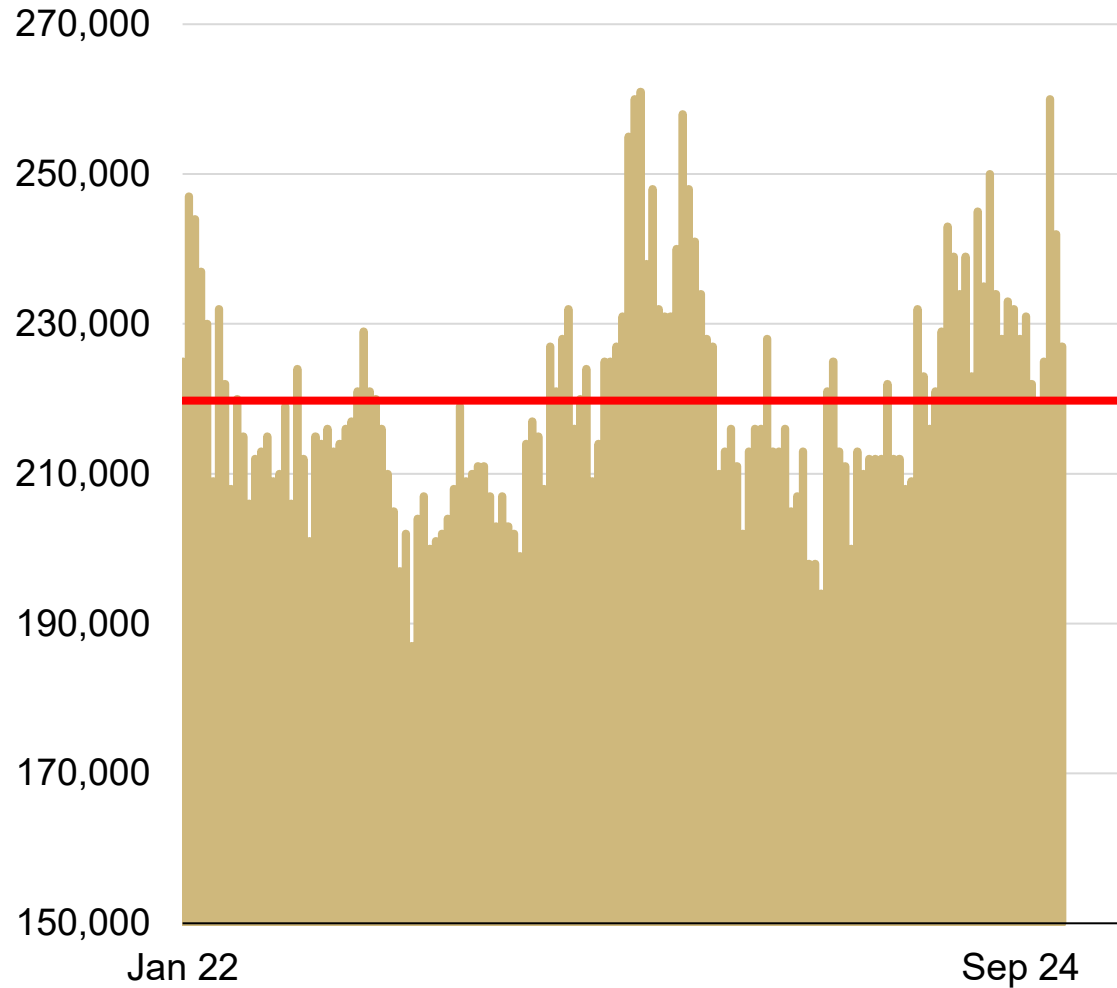
Labor Force Participation Rate



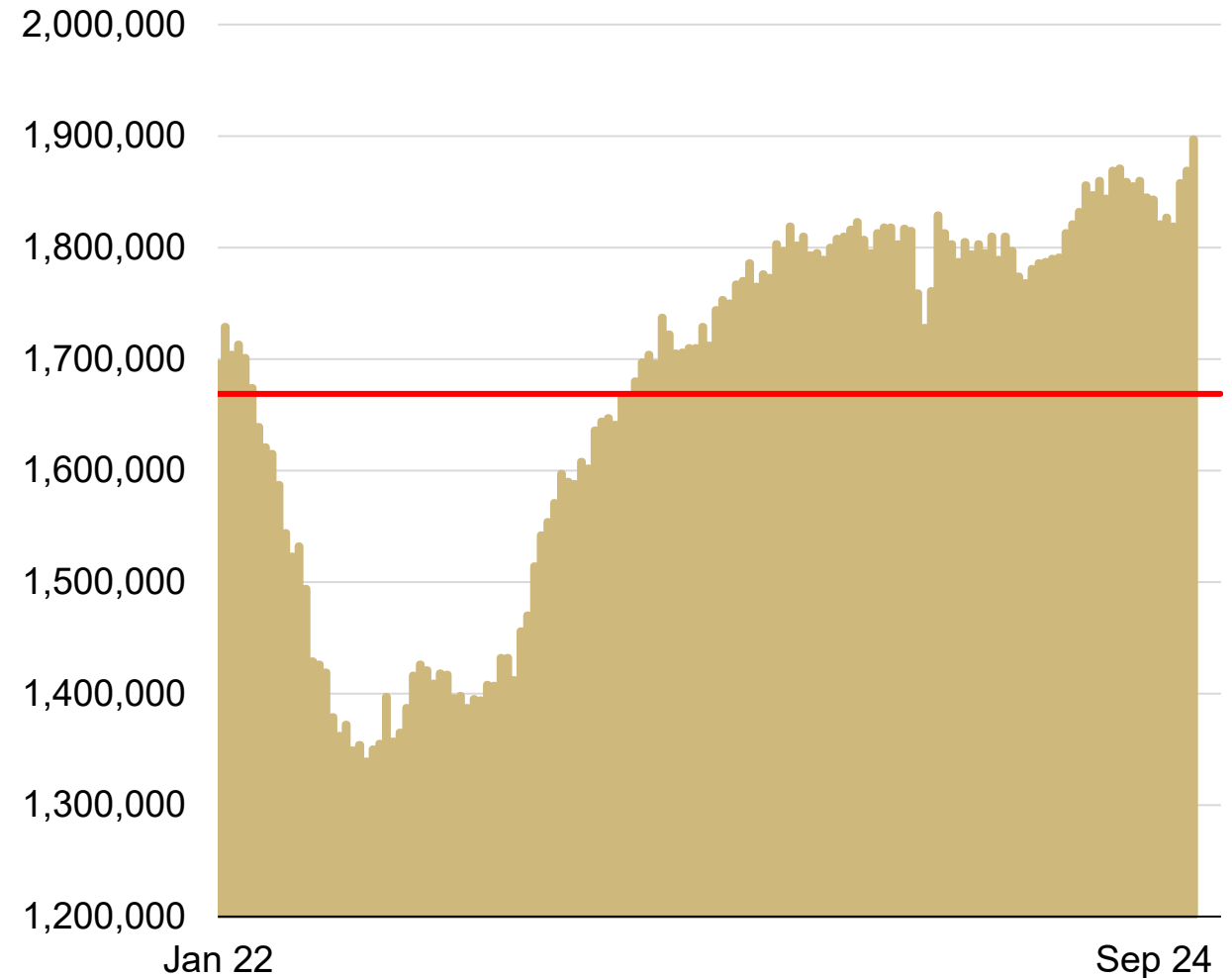
Source: Bureau of Labor Statistics.

National Jobless Claims

Initial Jobless Claims, Weekly

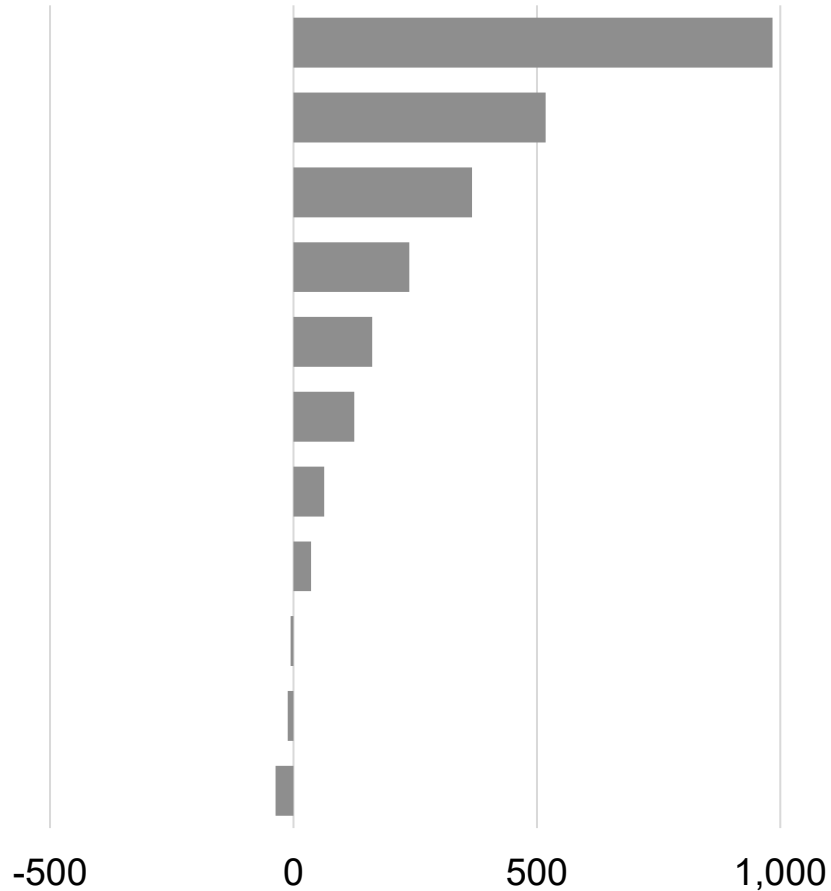


Continued Jobless Claims, Weekly

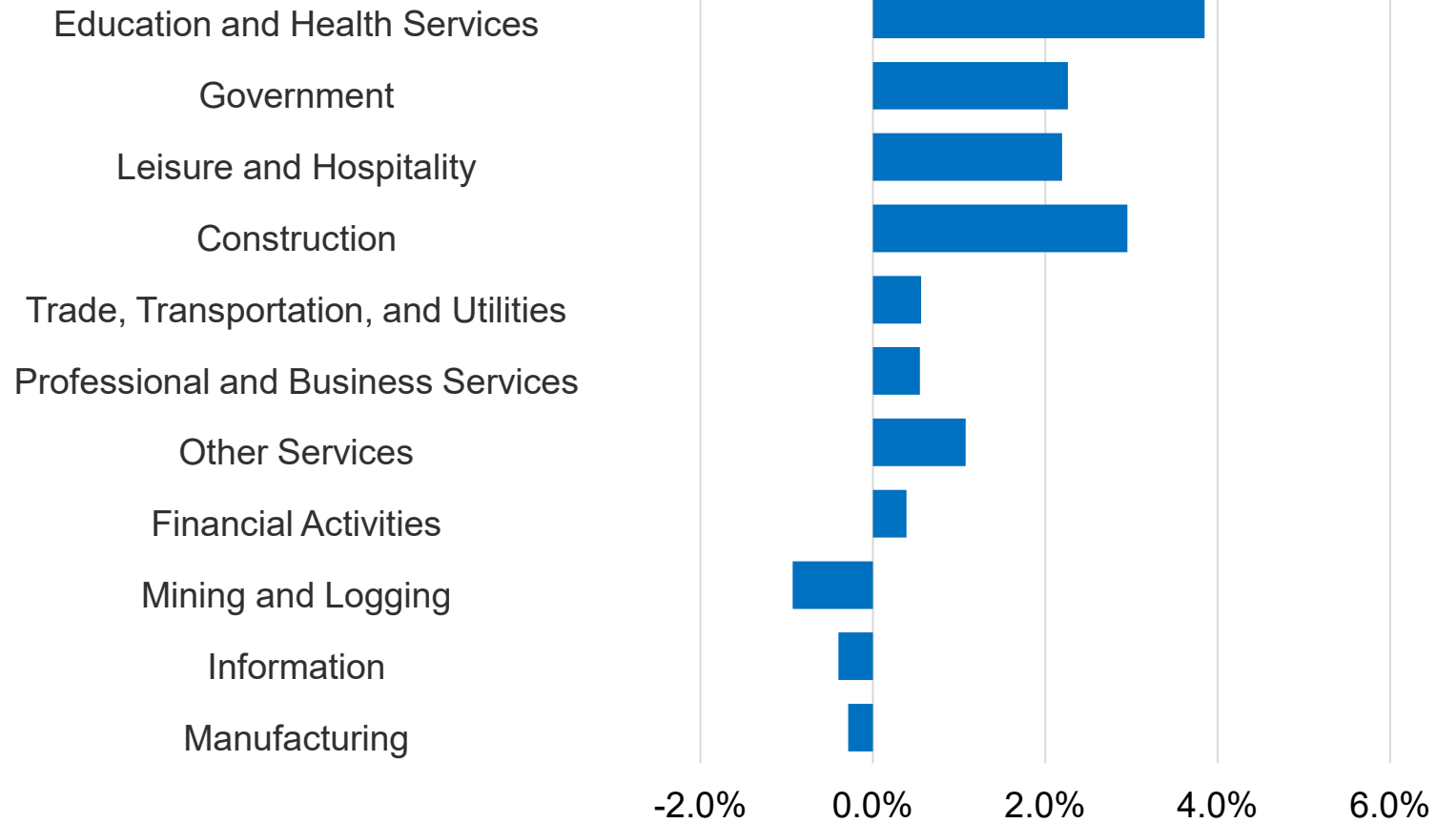


U.S. Employment Change September 2024, YoY

Jobs Added (Thousands)

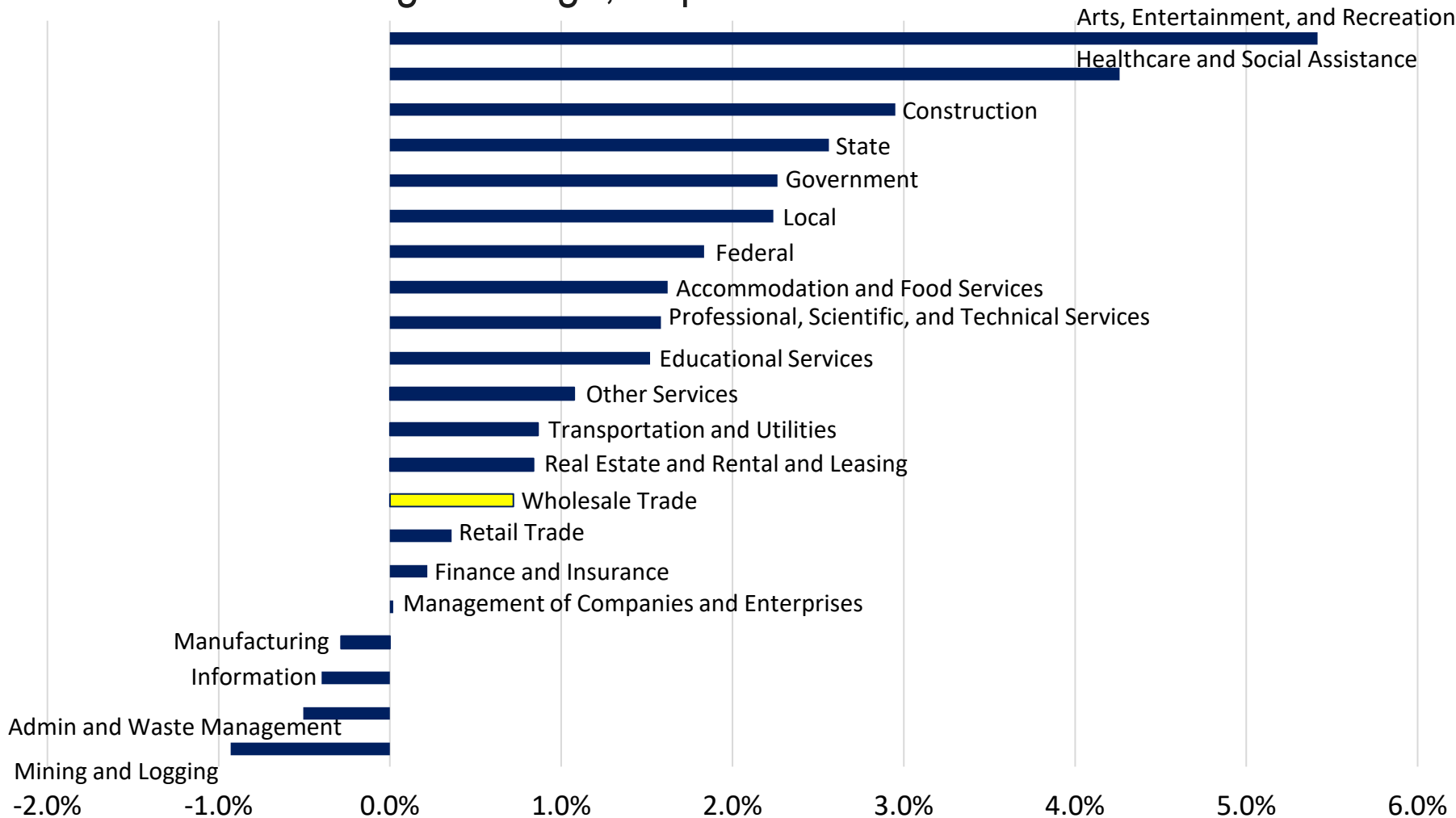


Percent Change



Employment Growth

1-Year Percentage Change, September 2024

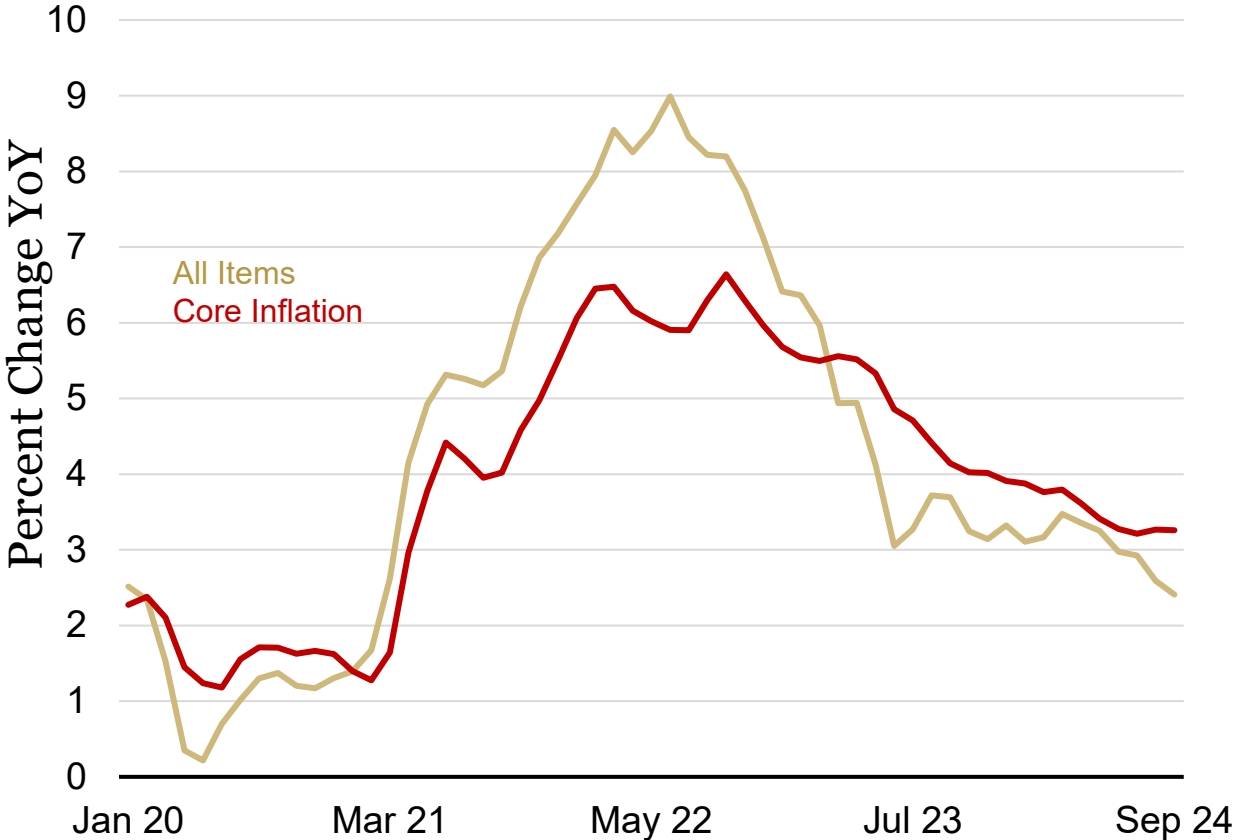


- Wholesale Trade employment accounts for 3.9% of all US covered jobs*
- Industry employment grew 0.7% year-over-year in September 2024, compared to 1.6% for total employment in the US economy
- The fastest growth was recorded in Arts, Entertainment, and Recreation while the fastest decline was recorded in Mining and Logging
- Wholesale Trade average weekly employee earnings increased 3.2% year-over-year in September 2024 compared to 3.4% for all private-sector employers
- Industry average weekly wages were 22.6% higher than the national average for all industries in September 2024

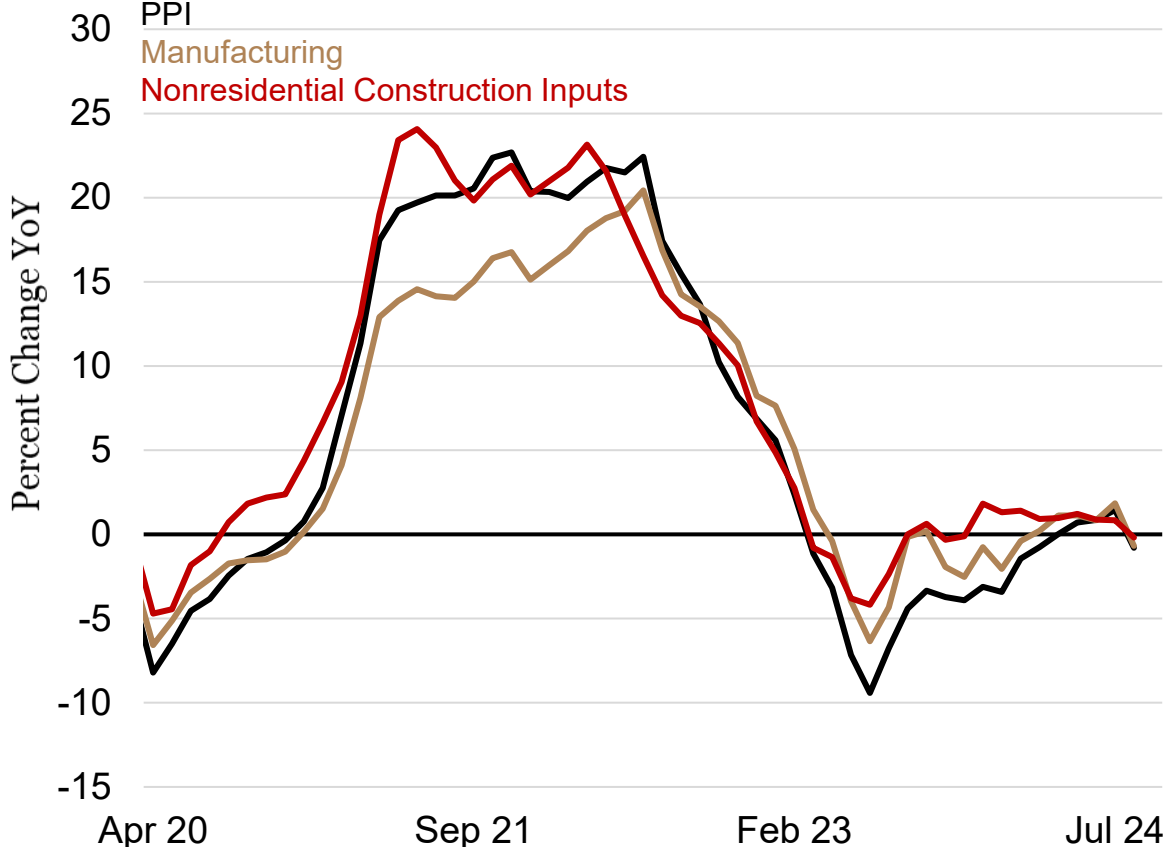
2) Inflation is normalizing

Inflation

U.S. Consumer Price Index

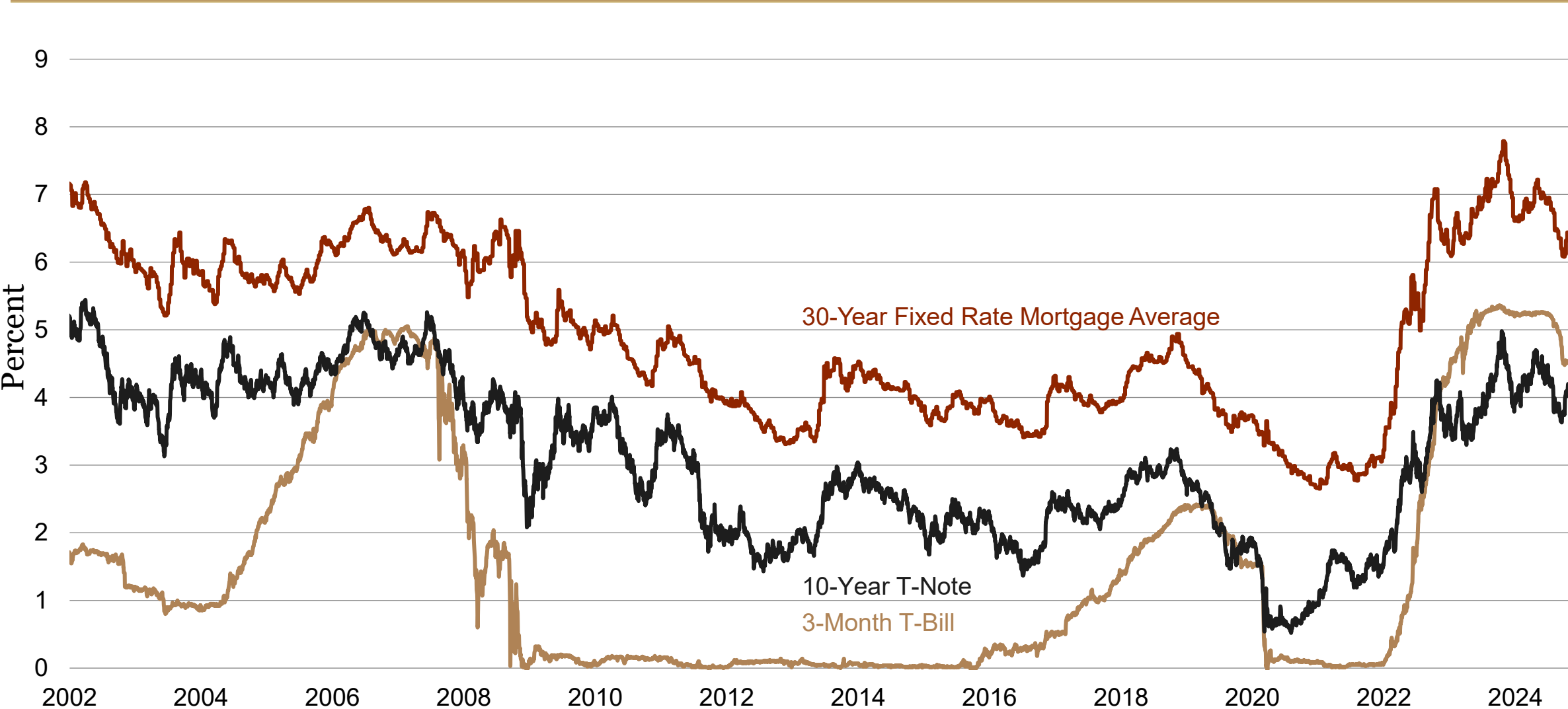


U.S. Producer Price Index

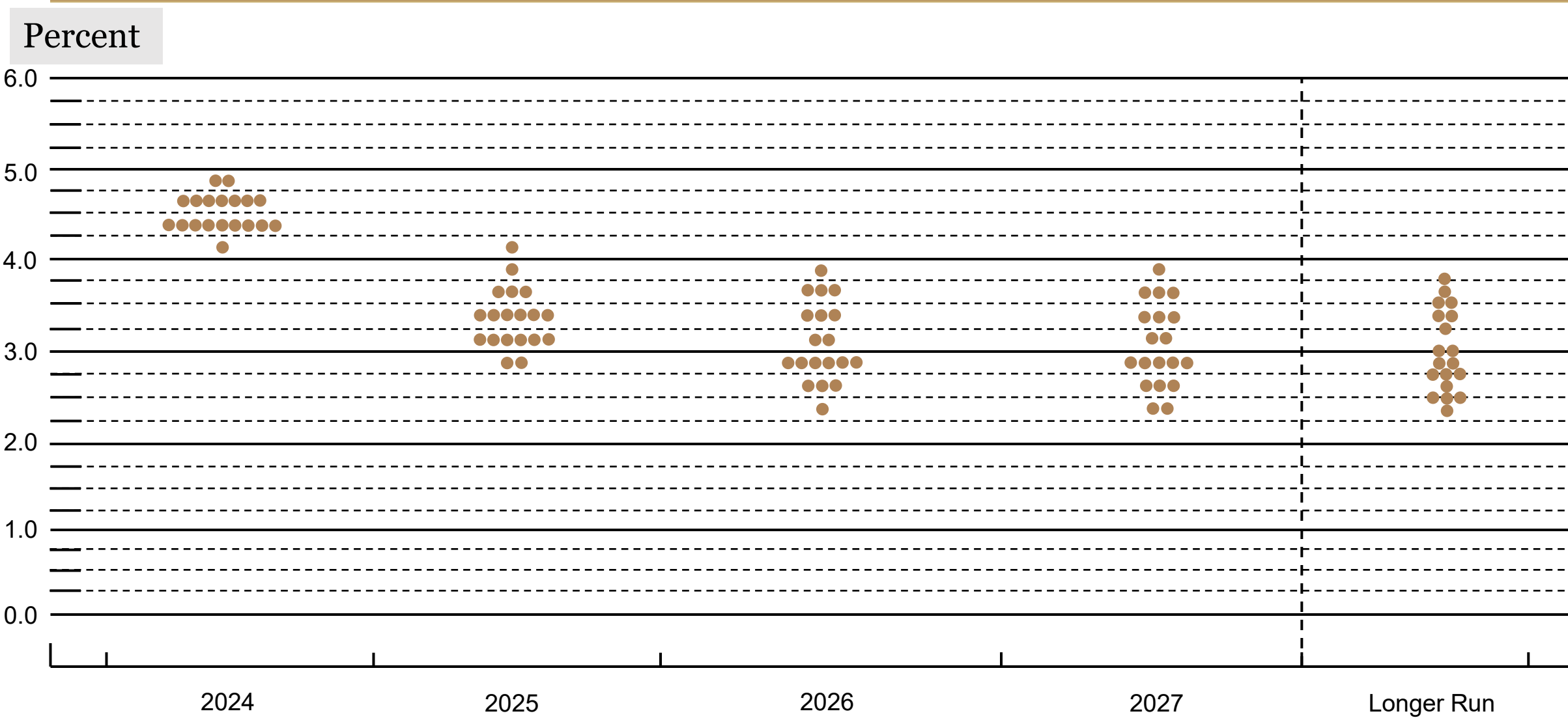


3) Interest rates are decreasing

Interest Rates



Federal Reserve Dot Plot



Percent

2024

2025

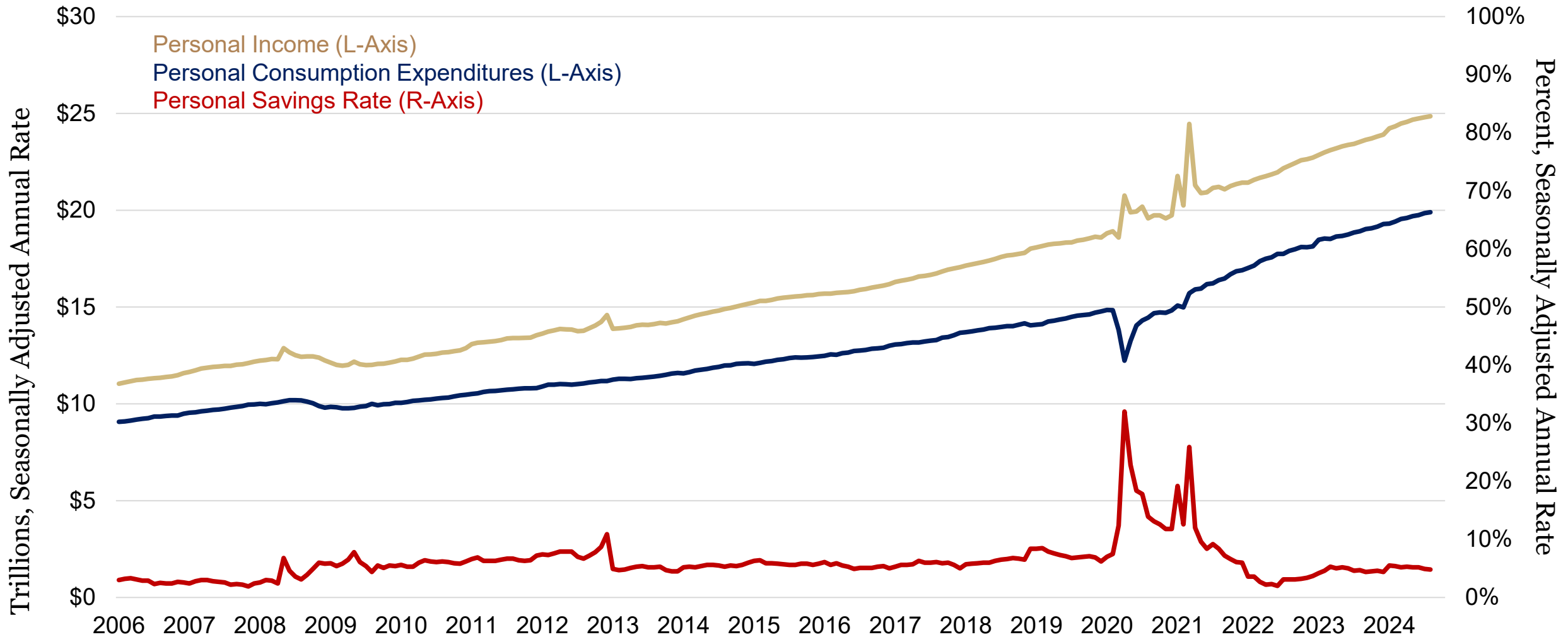
2026

2027

Longer Run

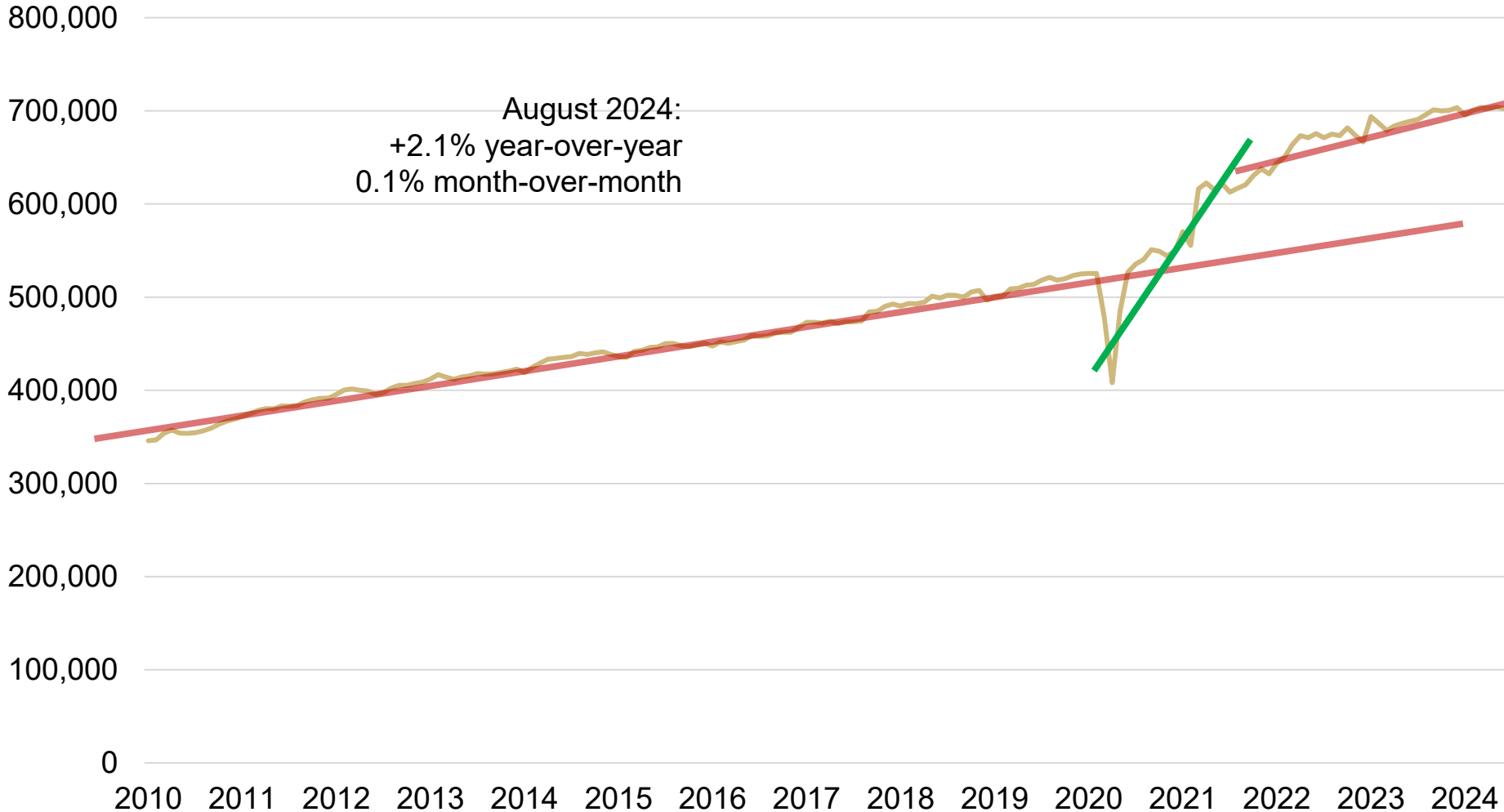
4) Consumption is moderating

Personal Income and Savings



National Retail Sales

\$ Millions, Seasonally Adjusted



- Moving one step down the value chain from wholesale distribution revenue, this chart shows U.S. Census data on national retail sales from 2010 to 2024
- National retail sales grew at a relatively consistent rate from 2010-2020, growing at an annual CAGR of 4.8%
- During the Covid-19 pandemic, national retail sales dipped to \$408 billion in April 2020 before reaching an all time high of \$711 billion in August 2024
- Year-over-year growth in August 2024 was 2.1%
- Month-over-month growth in August 2024 was 0.1%

Wholesale Trade

Expectations by Sector

Major Sector (Largest to Smallest Sector Revenues)	2020 Revenue	2021 Revenue	2022 Revenue	2023 Revenue	2024 Forecast	2025 Forecast
Oil and Gas Products Wholesale Distributors	-29.8%	61.8%	38.8%	-11.3%	-2.9%	5.4%
Pharmaceutical Wholesalers	6.0%	7.9%	10.3%	12.8%	8.1%	8.4%
Grocery and Foodservice Wholesale Distributors	-1.5%	13.1%	13.3%	1.5%	2.5%	3.4%
Electrical and Electronics Wholesalers	1.1%	18.7%	12.8%	0.1%	9.1%	10.1%
Industrial Distributors	-3.2%	12.1%	17.3%	5.7%	-0.4%	3.1%
Motor Vehicles and Motor Vehicle Parts Wholesale Distributors	-8.7%	11.0%	13.4%	8.1%	6.0%	9.2%
Miscellaneous Durable Goods Wholesale Distributors	7.9%	31.3%	3.6%	-9.4%	-0.3%	2.5%
Other Consumer Products Wholesale Distributors	2.0%	16.0%	14.1%	-5.2%	-3.0%	2.2%
Computer Equipment and Software Wholesale Distributors	1.1%	9.7%	4.8%	-8.3%	4.4%	7.4%
Commercial Equipment and Supplies Wholesale Distributors	-2.9%	13.3%	5.7%	1.5%	5.3%	3.7%
Agricultural Products Wholesale Distributors	2.9%	29.1%	22.3%	-10.1%	-15.0%	-0.1%
Metal Service Centers	-19.5%	53.3%	18.4%	-10.5%	-8.8%	3.3%
Building Material and Construction Wholesale Distributors	5.2%	29.6%	13.6%	-13.3%	-3.4%	6.2%
Hardware, Plumbing, and Heating Equipment/Supplies Wholesalers	2.6%	18.6%	12.9%	-0.1%	5.8%	5.0%
Beer, Wine and Liquor Wholesalers	7.5%	9.4%	2.3%	-1.7%	0.6%	8.6%
Apparel and Piece Goods Wholesale Distributors	-22.2%	25.0%	6.7%	-9.0%	2.1%	4.0%
Chemicals and Plastics Wholesale Distributors	-8.5%	26.0%	16.4%	-7.3%	-2.1%	2.5%
Furniture and Home Furnishing Wholesale Distributors	-1.4%	15.7%	2.9%	-5.0%	-1.3%	3.4%
Office Product Wholesalers and Paper Merchants	-6.8%	9.4%	12.6%	-7.0%	-2.2%	3.2%
Total Wholesale Distribution Industry	-4.5%	20.5%	15.1%	-1.7%	1.7%	5.7%

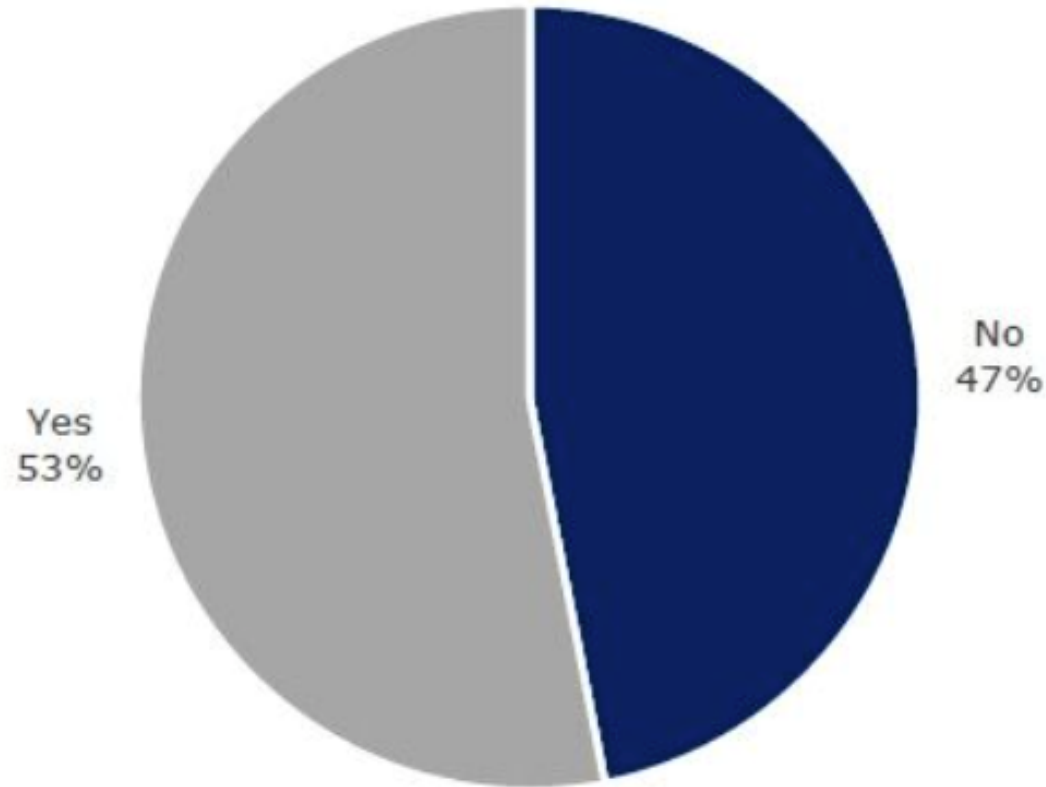
Expectations by Sector

Major Sector (Largest to Smallest Sector Revenues)	2024 Forecast	2025 Forecast
Oil and Gas Products Wholesale Distributors	-2.9%	5.4%
Pharmaceutical Wholesalers	8.1%	8.4%
Grocery and Foodservice Wholesale Distributors	2.5%	3.4%
Electrical and Electronics Wholesalers	9.1%	10.1%
Industrial Distributors	-0.4%	3.1%
Motor Vehicles and Motor Vehicle Parts Wholesale Distributors	6.0%	9.2%
Miscellaneous Durable Goods Wholesale Distributors	-0.3%	2.5%
Other Consumer Products Wholesale Distributors	-3.0%	2.2%
Computer Equipment and Software Wholesale Distributors	4.4%	7.4%
Commercial Equipment and Supplies Wholesale Distributors	5.3%	3.7%
Agricultural Products Wholesale Distributors	-15.0%	-0.1%
Metal Service Centers	-8.8%	3.3%
Building Material and Construction Wholesale Distributors	-3.4%	6.2%
Hardware, Plumbing, and Heating Equipment/Supplies Wholesalers	5.8%	5.0%
Beer, Wine and Liquor Wholesalers	0.6%	8.6%
Apparel and Piece Goods Wholesale Distributors	2.1%	4.0%
Chemicals and Plastics Wholesale Distributors	-2.1%	2.5%
Furniture and Home Furnishing Wholesale Distributors	-1.3%	3.4%
Office Product Wholesalers and Paper Merchants	-2.2%	3.2%
Total Wholesale Distribution Industry	1.7%	5.7%

- The wholesale distribution forecast is updated monthly, incorporating new economic data and providing a real-time forecast for industry activity
- The fastest growth in 2024 is projected in Electrical and Electronics Wholesalers and Pharmaceutical Wholesalers
- The 2024 forecast decreased from 2.2% in July to 1.7% in August
- The downward revision was driven by the price-volatile Oil and Gas Products Wholesalers—the second largest wholesale sector, representing 12.8% of the industry
- The leading upward revisions, in dollars, were recorded in Electrical and Electronics Wholesalers and in Computer Equipment and Software Wholesale Distributors

How is the U.S. Presidential Election Impacting Demand?

**Baird-MDM 3Q24 Industrial Distribution Survey:
“Are you seeing signs of actual demand being negatively impacted by the upcoming election?”**



~400 respondents, the vast majority representing distribution executives

Wholesale Trade Expectations

% Change vs. Previous Year

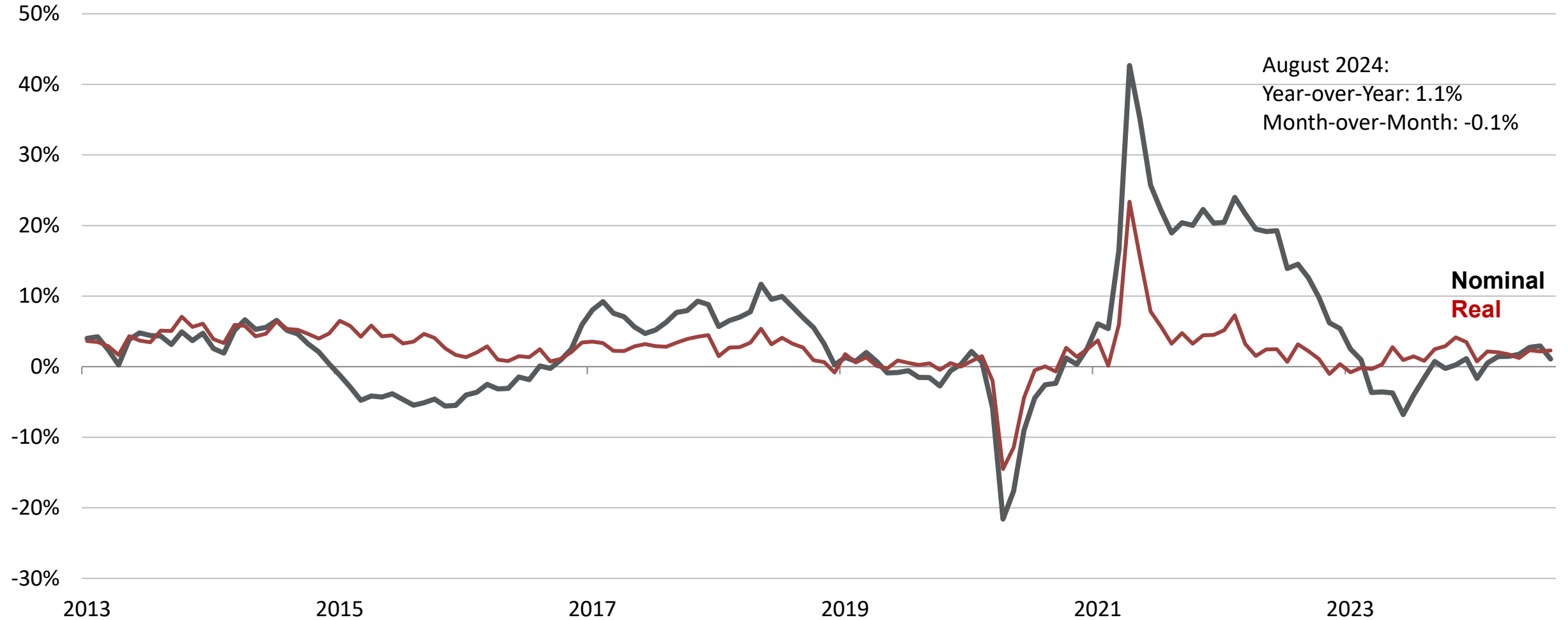
Quarter	Value (\$B)	Baseline	Optimistic	Pessimistic
2022	\$8,056.1	15.1%	-	-
2023	\$7,921.8	-1.7%	-	-
2024	\$8,059.4	1.7%	1.9%	1.2%
2025	\$8,517.7	5.7%	7.0%	-0.4%

Quarter	Value (\$B)	Baseline	Optimistic	Pessimistic
2024Q1	\$1,926.7	0.4%	-	-
2024Q2	\$2,032.5	1.8%	-	-
2024Q3	\$2,029.5	1.8%	1.8%	1.8%
2024Q4	\$2,070.7	2.9%	3.4%	0.8%
2025Q1	\$2,017.3	4.7%	5.8%	0.4%
2025Q2	\$2,143.4	5.5%	6.9%	-0.8%
2025Q3	\$2,163.6	6.6%	8.2%	-0.9%
2025Q4	\$2,193.4	5.9%	7.2%	-0.3%

Measure	Period	Number	Percent Change
Gross Margin	2022	\$1,618.0	11.4%
Gross Margin as a Percent of Sales	2022	20.1%	-0.7%
Purchases (\$B)	2022	\$6,576.6	16.0%
Industry Inventories (\$B)	2024 Q2	\$2,691.7	-3.0%
Inventory-to-Sales Ratio, 3-Month Moving Average	2024 Q2	1.35	-0.04
Total Employment (Annual Average)	2022	5,466,200	4.7%
Total Employment (Annual Average)	2023	5,602,400	2.5%
Total Employment	8/1/2024	5,898,600	1.1%
Average Annual Revenues per Employee	2023	\$1,414,004	-4.1%
Establishments (4-Quarter Average)	2024 Q1	519,415	2.1%
Average Number of Employees per Establishment	2024 Q1	10.8	-8.9%
Total Wages (\$B) (4-Quarter Sum)	2024 Q1	607.4	4.0%
Total Wages as a Percent of Revenue	2024 Q1	7.7%	
Average Annual Pay (average weekly wages x 52)	8/1/2024	\$77,011	3.2%

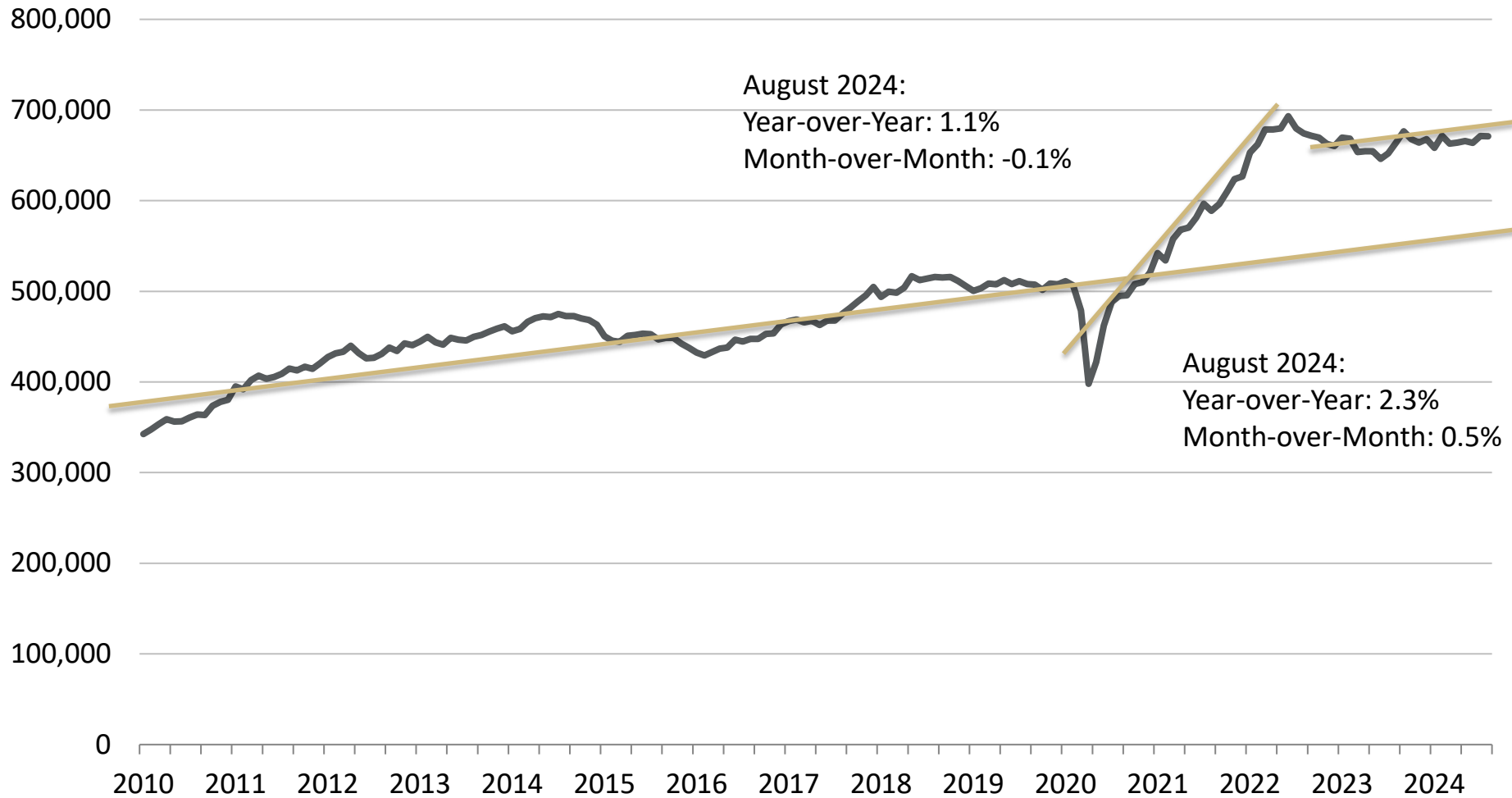
Wholesale Distribution Revenue Growth

YoY Percent Change



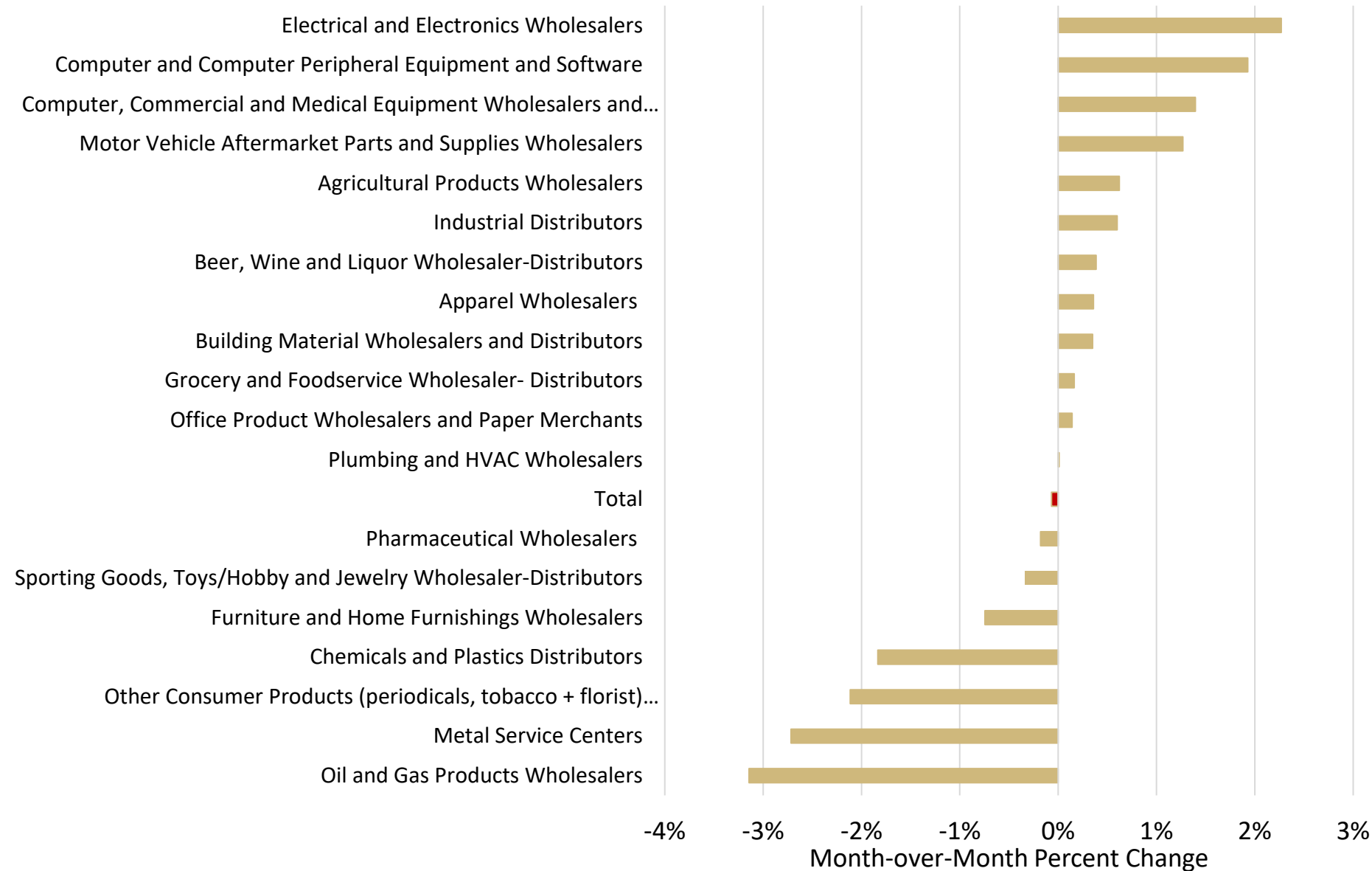
Wholesale Distribution Revenue

\$ Millions, Seasonally Adjusted



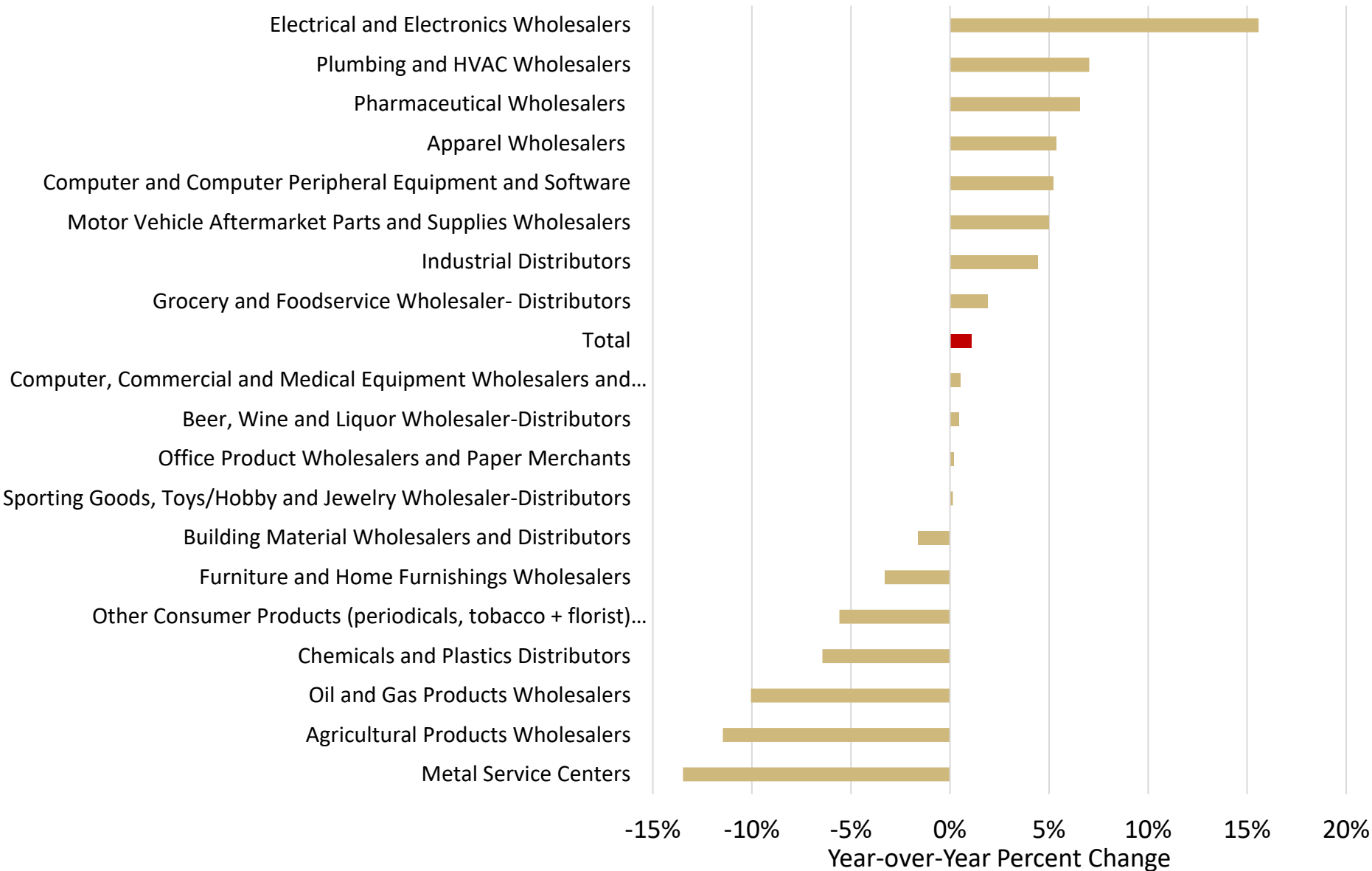
- This chart shows the medium-term trend of wholesale distribution revenue, on a seasonally adjusted monthly basis
- Coming out of the 2008 financial crisis, wholesale distribution revenue grew to a peak of \$475 billion in July 2014 at a CAGR of 7.1% from July 2010 to July 2014
- Wholesale distribution revenue then dipped in 2015-2016 before rebounding in 2017-2019
- The Covid-19 pandemic had a temporary impact on wholesale distribution revenue in 2020, but rebounded through 2021 and 2022
- Year-over-year growth in August 2024 was 1.1%
- Month-over-month growth in August 2024 was -0.1%

Wholesale by Sector, August 2024, Month-over-Month



- Wholesale Trade sales decreased 0.1% from July to August
- Month-to-month volatility is not unusual in this industry—one-third of months from 1992 to 2024 recorded a decrease in sales while only 1 out of 6 months recorded year-over-year decreases
- Activity decreased by \$453 million from July to August 2024
- There was a wide distribution in growth rates for the month, with 12 industries growing month-over-month led by
 1. Electrical and Electronics Wholesales and Computer Wholesales and Software Wholesalers
 2. Computer Peripheral Equipment and Software Wholesalers
- Some industries decreased month-over-month, led by
 1. Oil and Gas Products Wholesalers
 2. Metal Service Centers

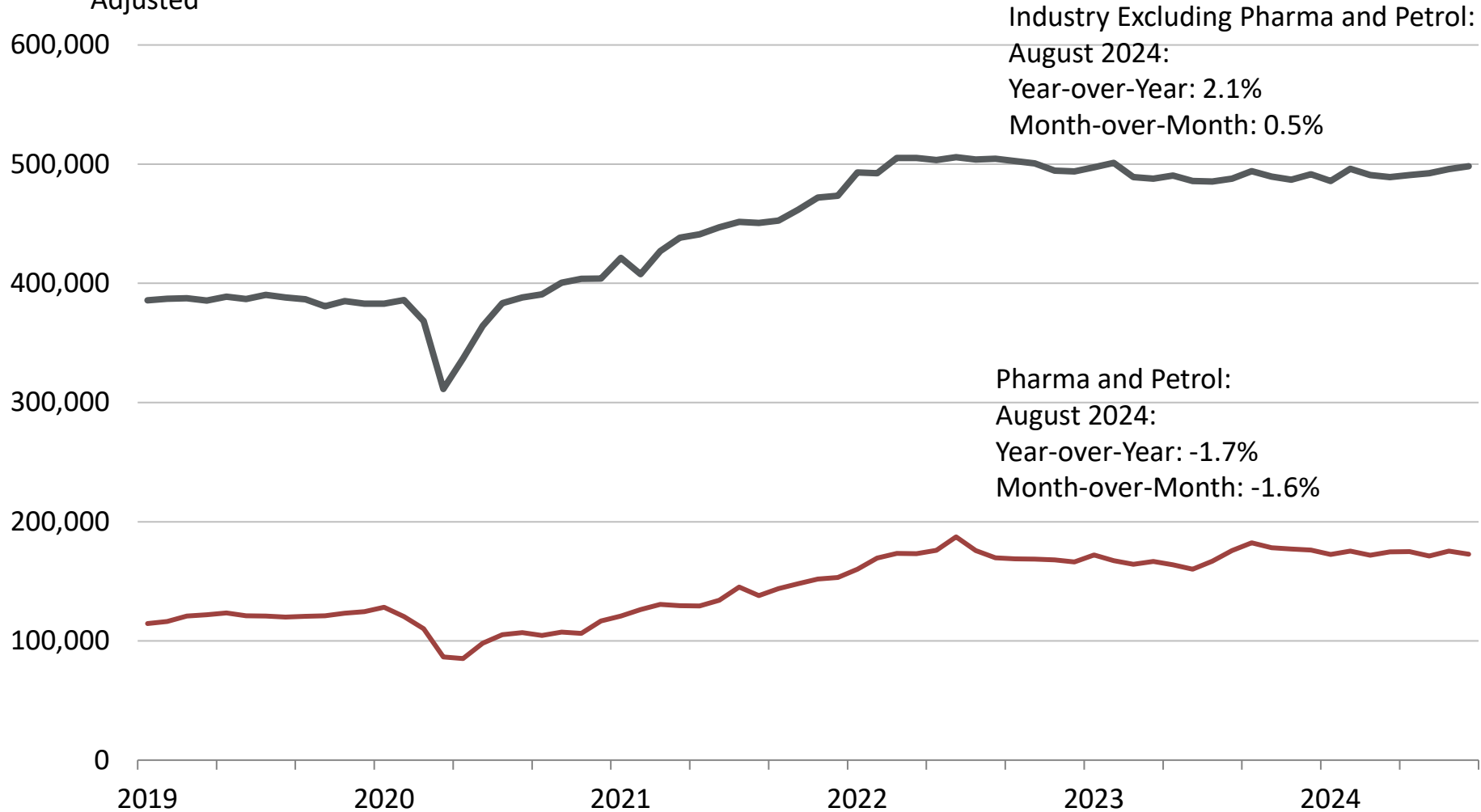
Wholesale by Sector, August 2024, Year-over-Year



- Wholesale Trade sales increased 1.1% from July to August
- Activity increased by \$7.2 billion from July to August 2024
- There was a wide distribution in growth rates for the month, with 12 industries growing year-over-year led by
 1. Electrical and Electronics Wholesales and Computer
 2. Plumbing and HVAC Wholesalers
- Some industries decreased month-over-month, led by
 1. Metal Service Centers
 2. Agricultural Products Wholesalers

Wholesale Distribution Revenue

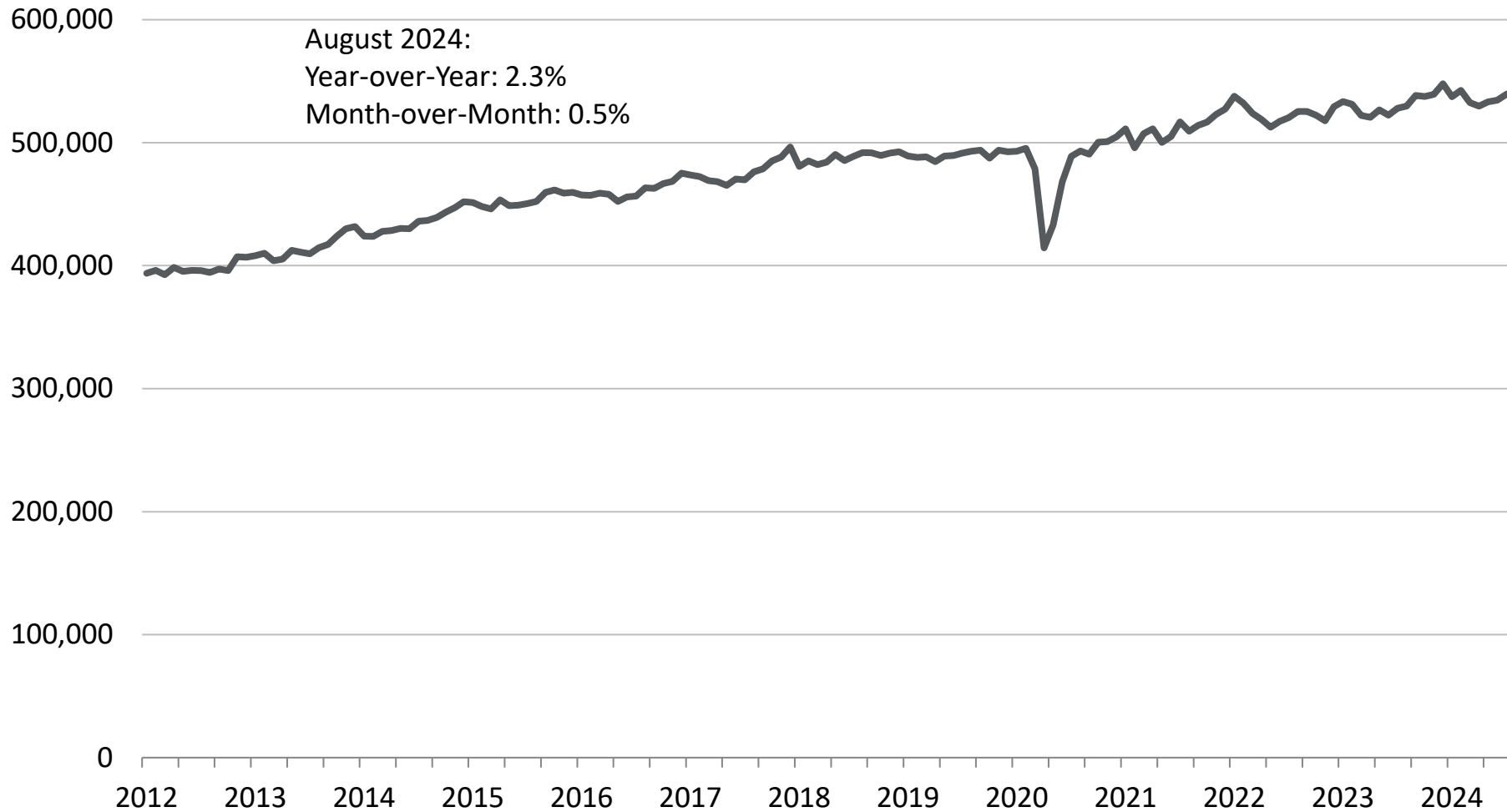
\$ Millions, Seasonally Adjusted



- Pharmaceuticals and petroleum wholesale sectors comprise about 25% of the total Wholesale Distribution industry
- Petroleum products are especially price-sensitive to oil prices.
- While the overall industry grew 1.1% year-over-year in August, the industry excluding pharmaceuticals and petroleum wholesalers grew 2.1% and the combined pharma and petroleum industries decreased 1.7%

Real (Inflation Adjusted) Wholesale Distribution Revenue

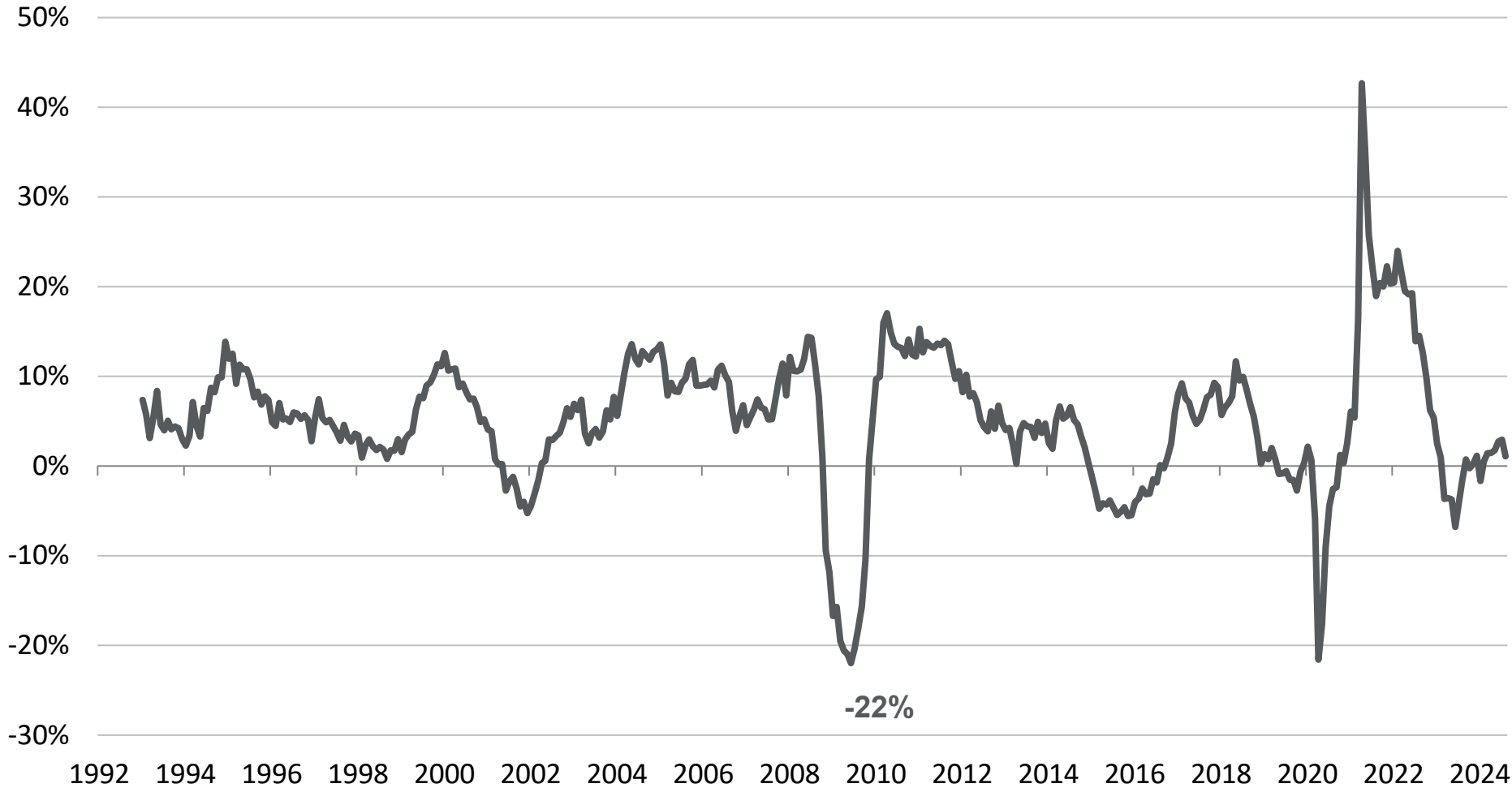
\$ Millions, Seasonally Adjusted



- This graph shows the real wholesale distribution revenue from 2012 to 2024
- The metric adjusts wholesale distribution revenue for the prevailing US inflation rate throughout the time series
- When taking inflation out of the picture, we still see growth in wholesale distribution revenue at an annual CAGR of 2.7%
- The only deviation away from this trend comes during the Covid-19 pandemic in 2020
- This also demonstrates that the outsized growth seen in the nominal wholesale distribution revenue charts from 2021-2022 was largely being driven by the inflation at the time

Wholesale Distribution Revenue Growth

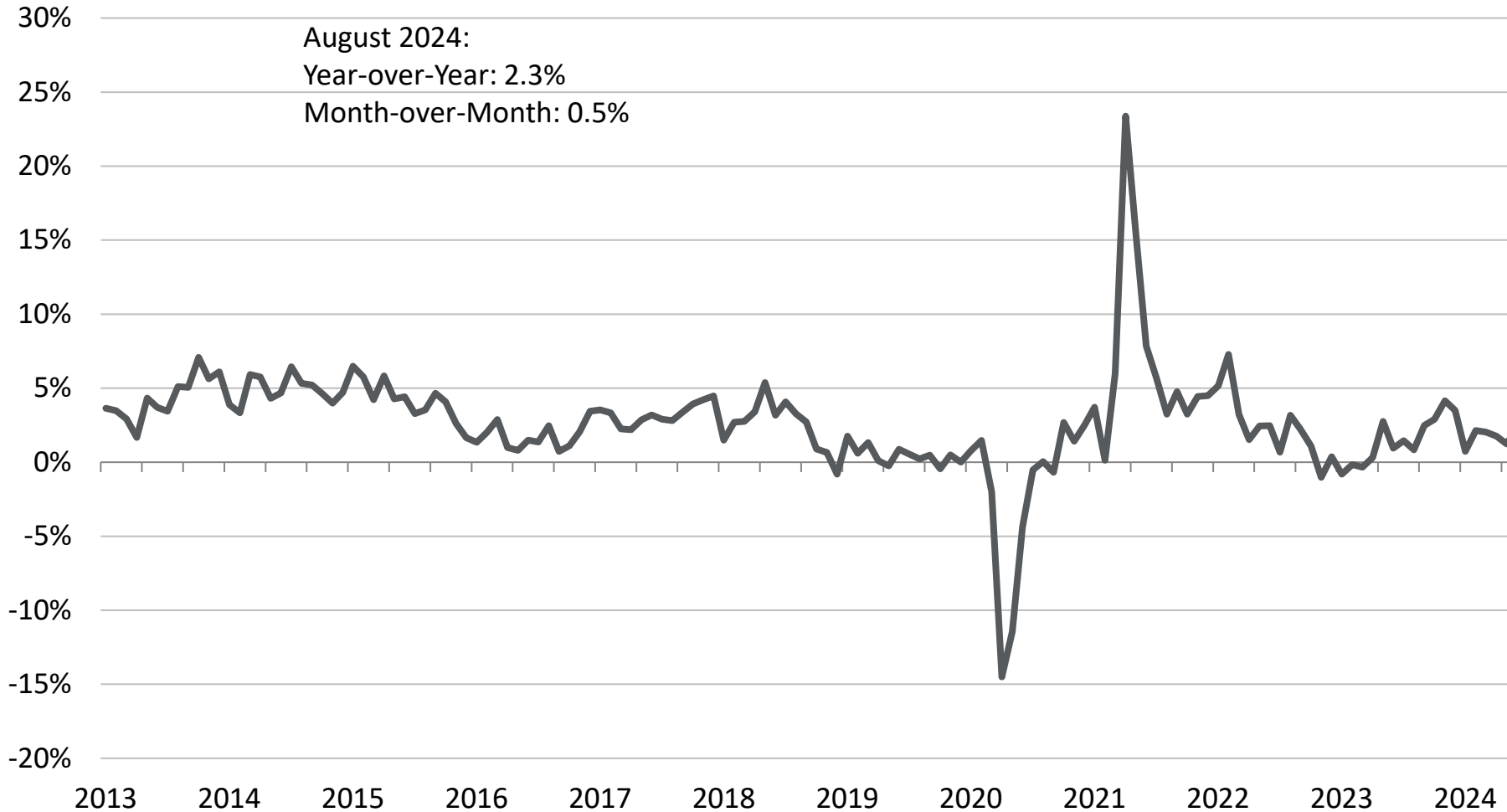
YoY Percent Change



- This graph shows the percentage rate of growth or decrease of wholesale revenue on a year-over-year basis
- The calculation for the July 2024 percent change is to take the July 2024 nominal wholesale distribution revenue and divide it by the July 2023 number and subtract 1
- During the 2008 financial crisis, wholesale distribution revenue growth declined at a peak of 22% in June 2009
- After Covid-19 pandemic shock, wholesale distribution revenue grew 43% year-over-year in April 2021
- In August 2024, year-over-year growth was 1.1%
- Month-over-month growth in July 2024 was -0.1%

Real (Inflation Adjusted) Wholesale Distribution Revenue Growth

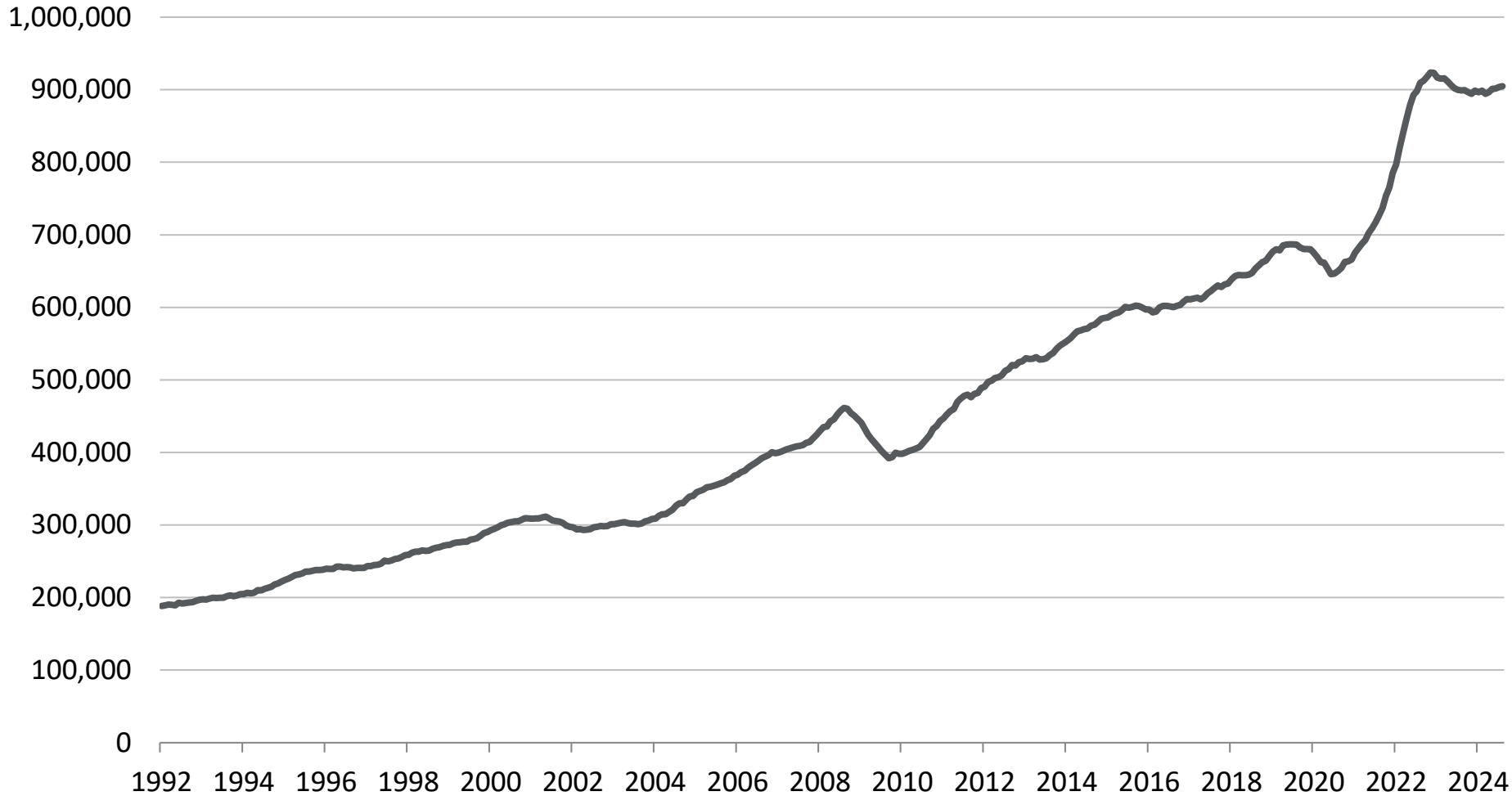
YoY Percent Change



- This graph shows the percentage growth or reduction of real wholesale revenue on a year-over-year basis from 2013 to 2024
- The calculation for the July 2024 percent change is to take the July 2024 nominal wholesale distribution revenue and divide it by the July 2023 number and subtract 1
- Because real wholesale revenue is adjusted for inflation, this chart demonstrates that for the majority of the last decade, there has been growth in wholesale distribution revenue in excess of the inflation impacts
- Real wholesale revenue peaked at a growth rate of 23.4% in April 2021, after a trough of 14.5% on April 2020

Wholesale Distribution Inventory

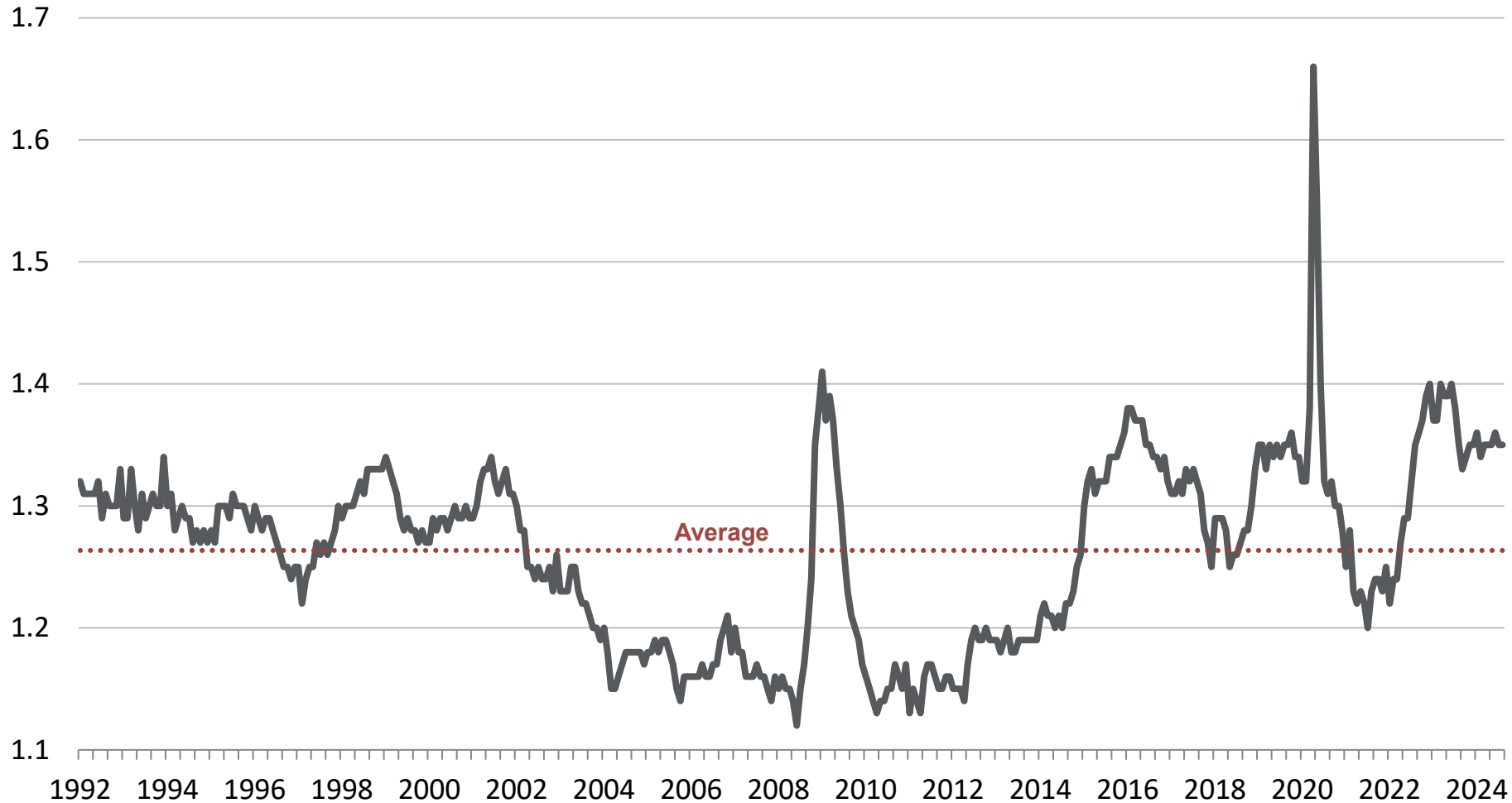
\$ Millions, Seasonally Adjusted



- This chart shows the total value of wholesale distribution inventory in the United States from 1992 to 2024
- Wholesale distribution inventory is the stock of unsold goods held by wholesalers
- Over the 32 years show in the graph, wholesale distribution inventory has grown at an annual CAGR of 5.0%
- Wholesale distribution inventory reached a peak of \$924 billion in November 2022
- Inventory is trending up again, increasing to \$905 billion in August 2024

Inventory to Sales Ratio

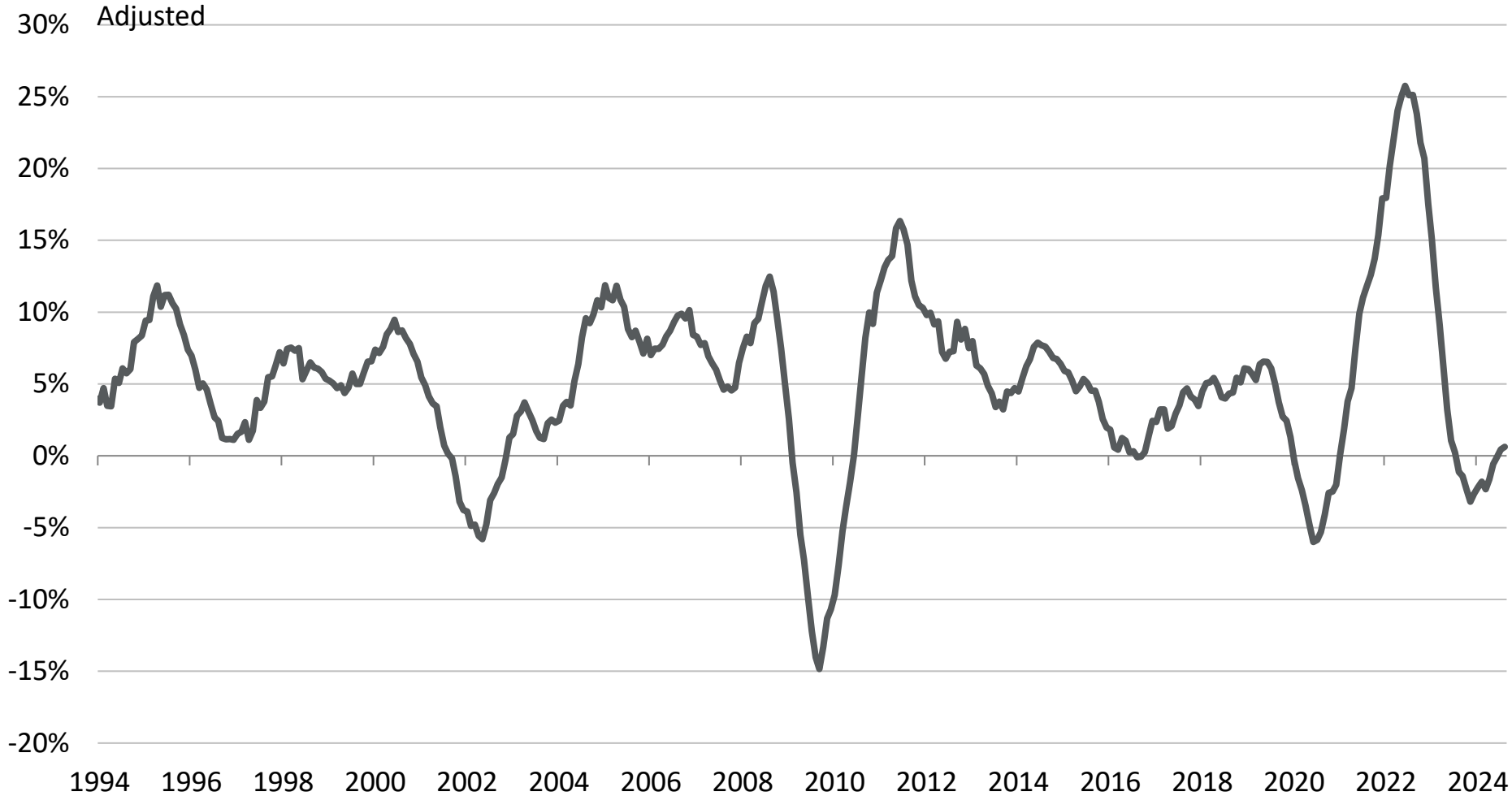
Seasonally Adjusted



- This chart shows the average inventory to sales ratio in the United States from 1992 to 2024
- Inventory to sales ratio is calculated by taking the cost of good sold and dividing it by the average inventory over a period
- The metric demonstrates how effectively wholesalers are converting inventory into sales quickly, with a higher number meaning there may be a surplus of stock
- Unsurprisingly, in April 2020, inventory to sales ratio reached a peak of 1.66
- The average inventory to sales ratio from 1992 to 2024 is 1.26
- The current inventory to sales ratio in August 2024 is 1.35

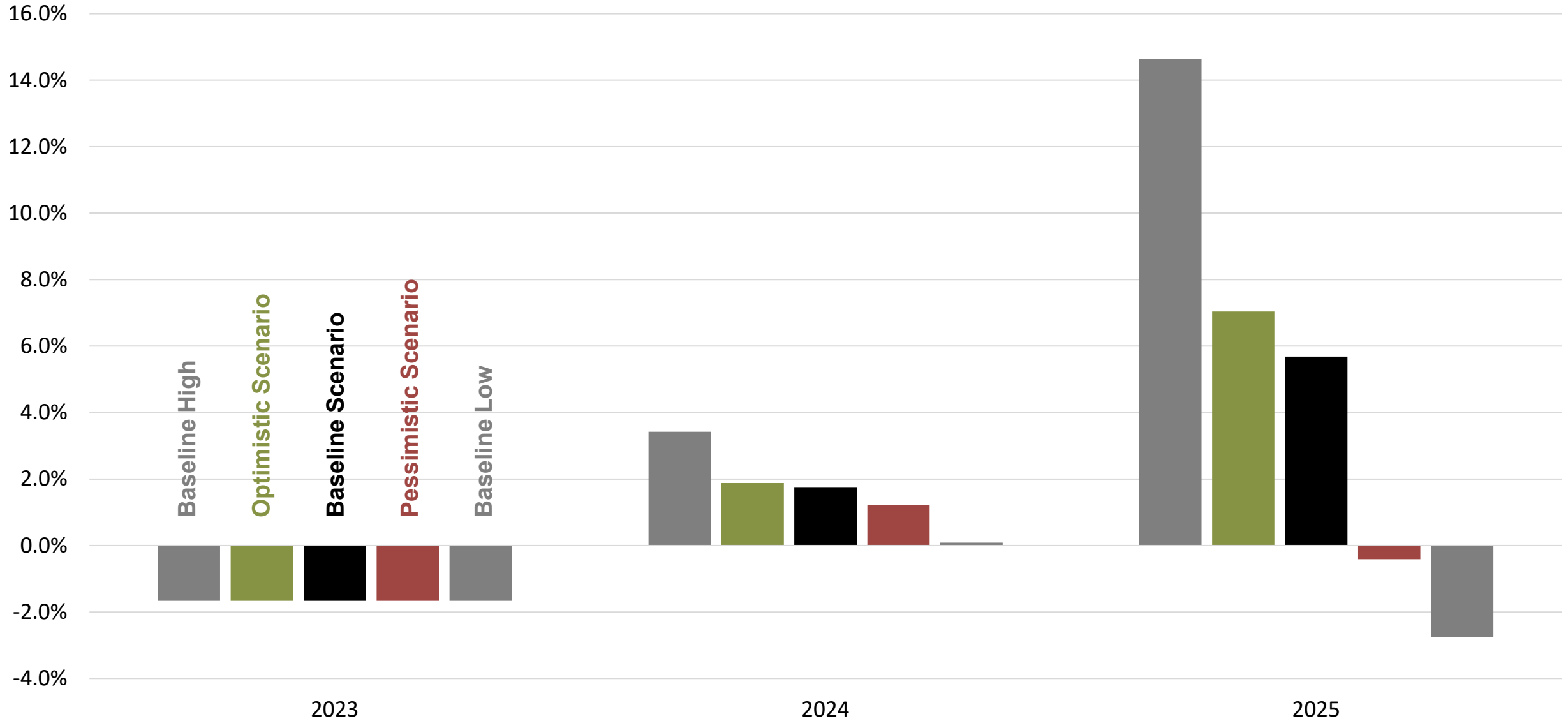
Wholesale Distribution Inventory Change

Year-over-Year Percent
Change, Seasonally
Adjusted

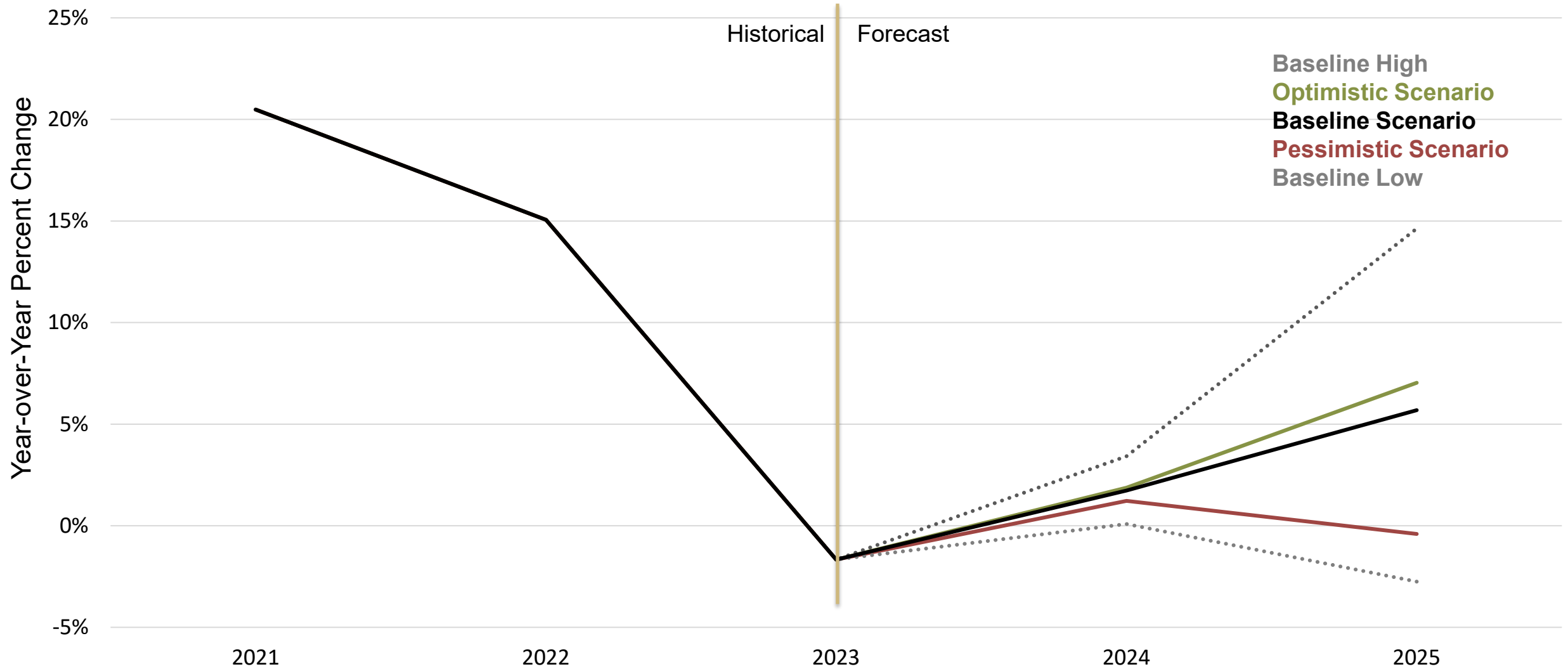


- This chart shows the year-over-year change in wholesale distribution inventory in the United States from 1994 to 2024
- The calculation for the July 2024 percent change is to take the July 2024 nominal wholesale distribution revenue and divide it by the July 2023 number and subtract 1
- This chart demonstrates that for the majority of this period, we have seen growth in wholesale distribution inventory
- Wholesale distribution inventory growth reached a peak in June 2022, sitting at 25.8%
- Growth in August 2024 stood at 0.6%

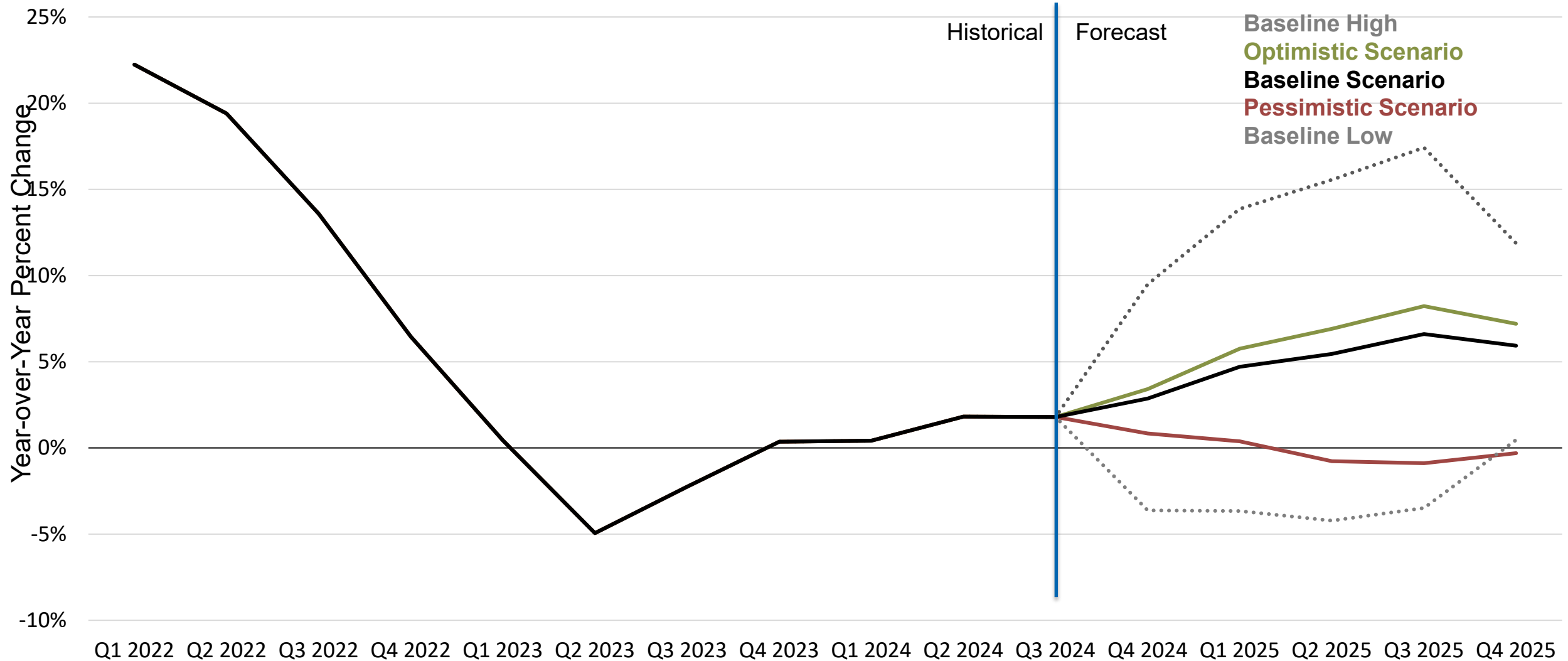
Alternative Scenarios - Annual



Alternative Scenarios – Annual



Alternative Scenarios - Quarterly



Tailwinds

Employment Growth
Key Industries
Productivity
Consumption
Retail Sales
Income Growth
Infrastructure Spending

Headwinds

Inflation
Insurance
Office Vacancy
Interest Rates
Fed Policy
Labor
Demographics
Construction
Debt
Climate
Water

Unknowns

Election
AI
Supply Chain Disruptions
Human Behavior
Global Trade
Remote Work

Industry Sentiment – 3Q24 Baird-MDM Survey

Industrial Distributors Commentary

- *“Several of our major OEMs are down significantly compared to this time last year. With interest rates so high, new equipment is not selling as much.”*
- *“The OEM sector has been slow since May and is not showing signs of rebounding before [year end].”*
- *“Most OEMs are down over 2023, a few are surging in 2024 over 2023. Election, labor, and large OEMs are cautious and pulling back on delivery dates.”*
- *“Our customers have shown a considerable decrease in tooling consumption. Part of it is decreased demand and some of it is the apprehension of the upcoming election and its potential fallout.”*
- *“As capital projects are placed on hold or cancelled, the battle for the MRO market becomes a ‘race-to-the-bottom’ for some local competitors. The unnecessary practice of targeting new business through reduced margins is driving a steady loss of profitability.”*
- *“I would say what is happening is normal historically. Customers looking for cost improvements, always starts with price of the commodity. Suppliers stressed to implement cost of goods increase to distribution. Distribution in the middle fighting to keep margin. This is everyday life right now with a pretty flat demand period.”*

Industry Sentiment – 3Q24 Baird-MDM Survey

Electrical Distributors Commentary

- *“While sales have slowed over the past couple of months, there isn't one overall reason. Some sectors remain very strong, others very weak. We are both concerned and optimistic sales will strengthen in next 3-6 months due to feedback and strong quotations.”*
- *“Beginning to see pricing pressure in our product categories. Commercial market definitely slowing.”*
- *“Reduced margins due to contractors putting all purchases out for bid to multiple distributors - everything is being bid now.”*
- *“Supplier price increases in 2025 may be difficult to pass through, thus impacting distributor and contractor margins.”*
- *“Margins continue to slide due to competition and big box store not raising their price.”*

Plumbing Distributors Commentary

- *“We have discovered that deflation has been primarily commodity driven. Not just this, but we are having to quote lower prices to win jobs, furthering the deflationary environment that we've seen over the past 18 months.”*
- *“There has been more competition and that has been driving prices lower. We've had to engage with suppliers to decrease some prices to compete. Particularly against the home centers.”*

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Building Products Distributors Commentary

- *“Interest rates have killed the housing market, and in turn killed the home improvements [market] from [people not] buying/selling homes. This election has everyone scared to death on the outcome and people are not spending any money on ‘upgrades’ for their current residences.”*
- *“Tremendous uncertainty (high interest rates, lending challenges, insurance costs, upcoming election, international geo-political unrest) has crushed demand for new construction and building materials. Even though material costs have mostly stabilized, extremely weak demand has resulted in desperation among competitors who have cut margins to the quick.”*
- *“Prices are up, wages are stagnant so middle market is slow. I believe most people are broke but not admitting it.”*
- *“Demand is down, competitive pricing is up, and pricing increase announcements are unlikely to stick without unified efforts from all manufacturers. We are reentering a 2015-2020 market period of stagnant pricing (best case scenario) or possibly even a 2010 market of deflationary pricing (worst case scenario).” Wallboard/Gypsum*
- *“Too much old mindset distribution salespeople out there making pricing decisions on history, not thinking about how manufacturers costs have risen. Large distributors are telling contractors no price increases and bidding below today’s numbers.” (Wallboard/Gypsum)*