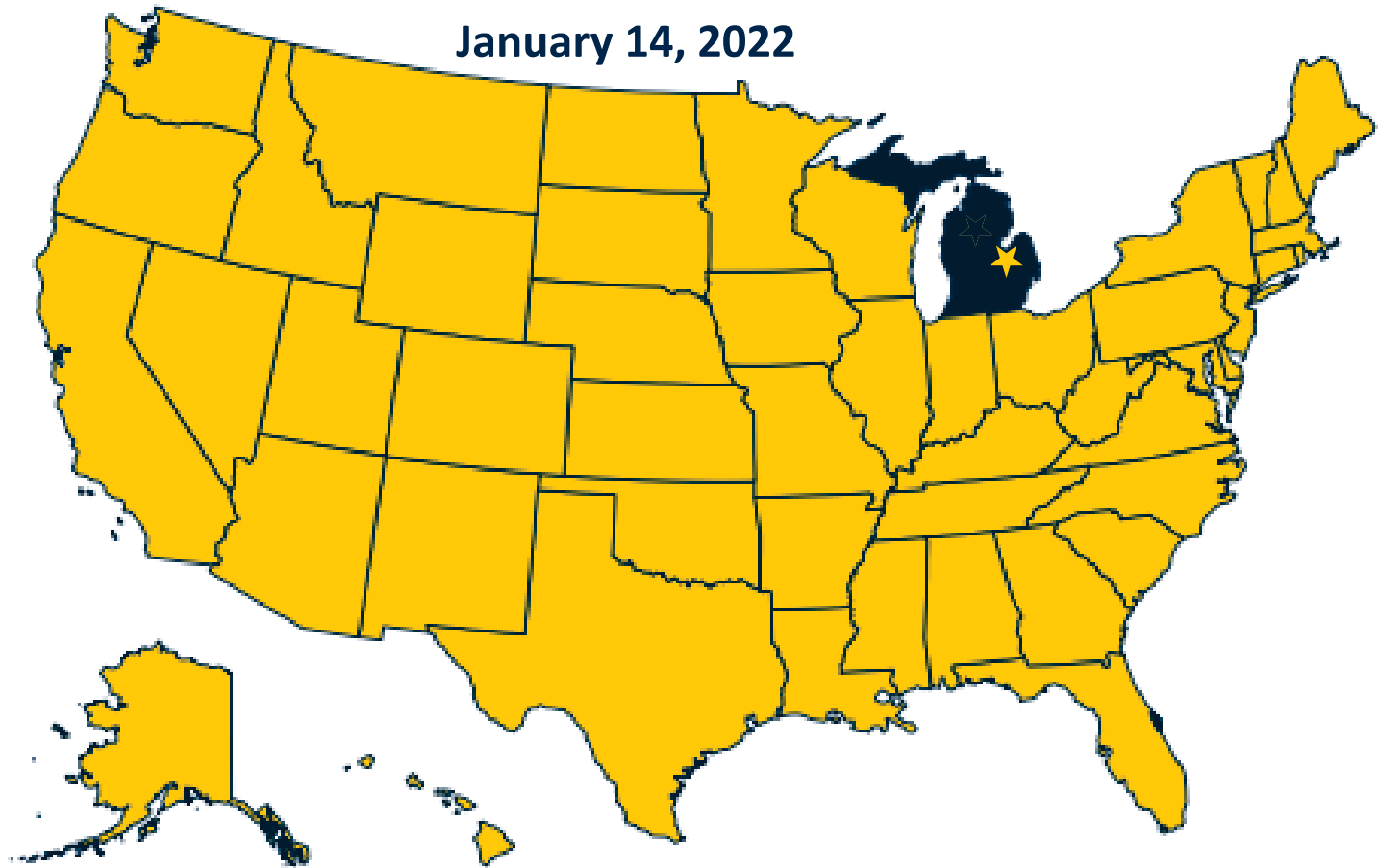


**The U.S. and Michigan Outlook for 2022–2024**  
**Consensus Revenue Estimating Conference**  
**Lansing, Michigan**

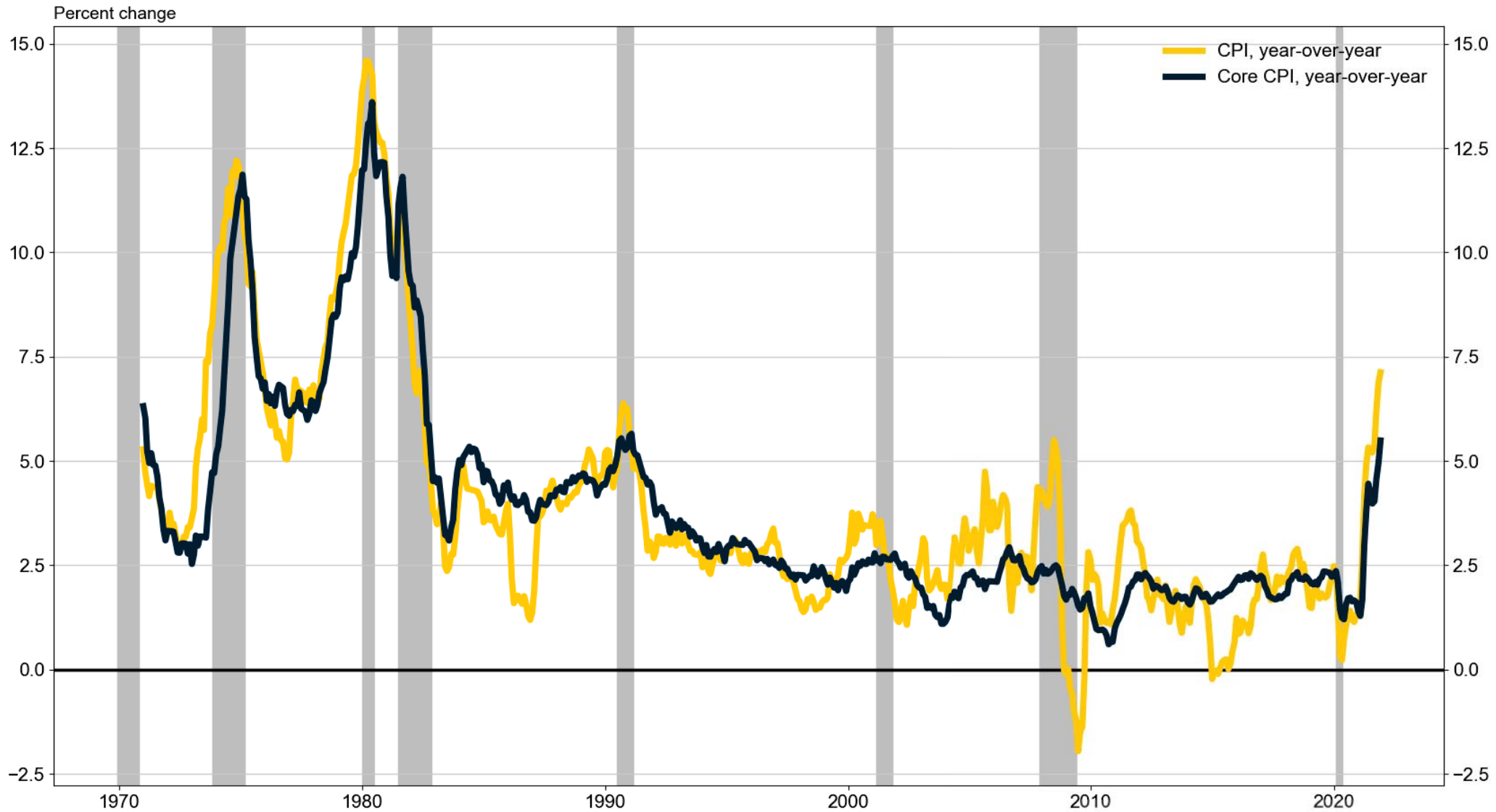
January 14, 2022



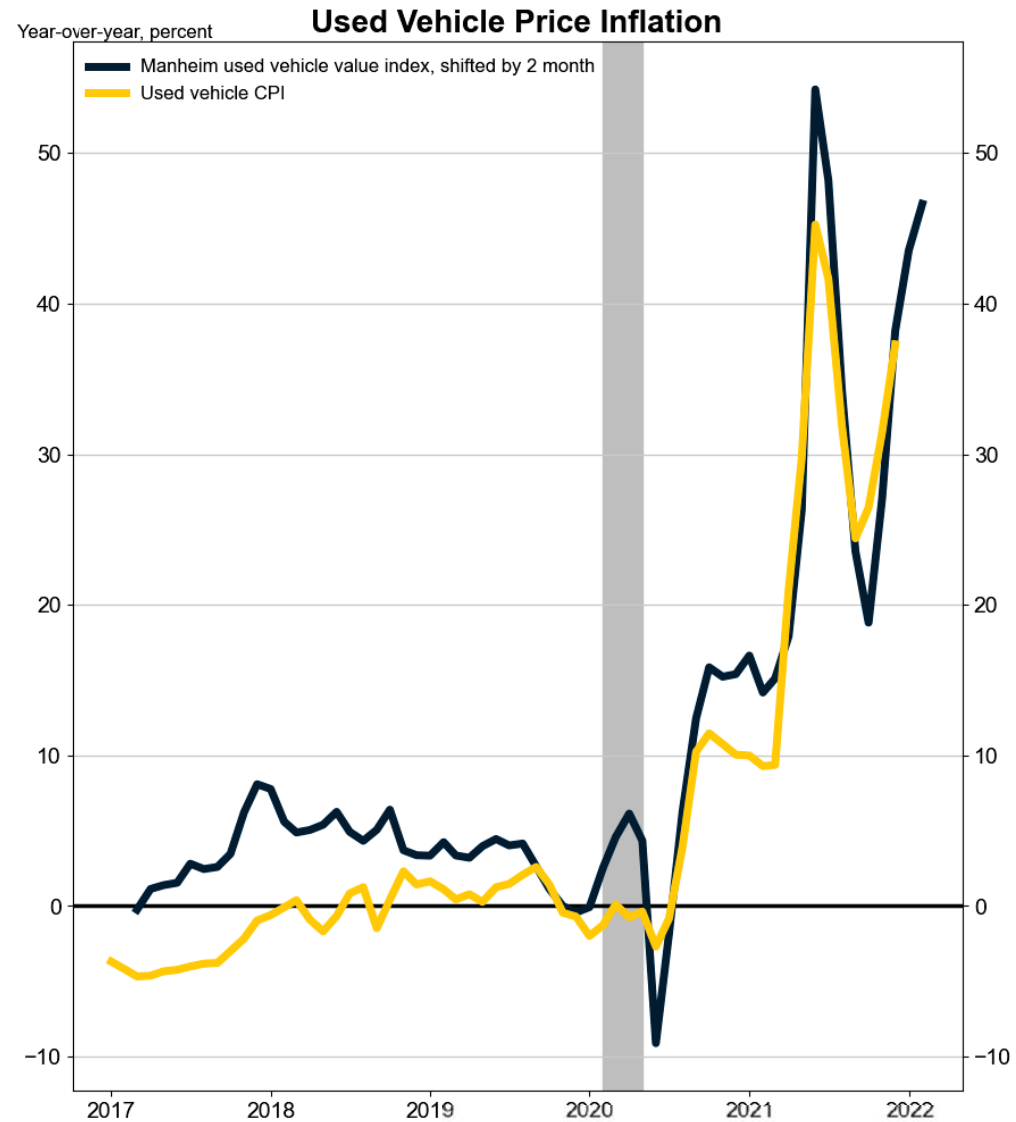
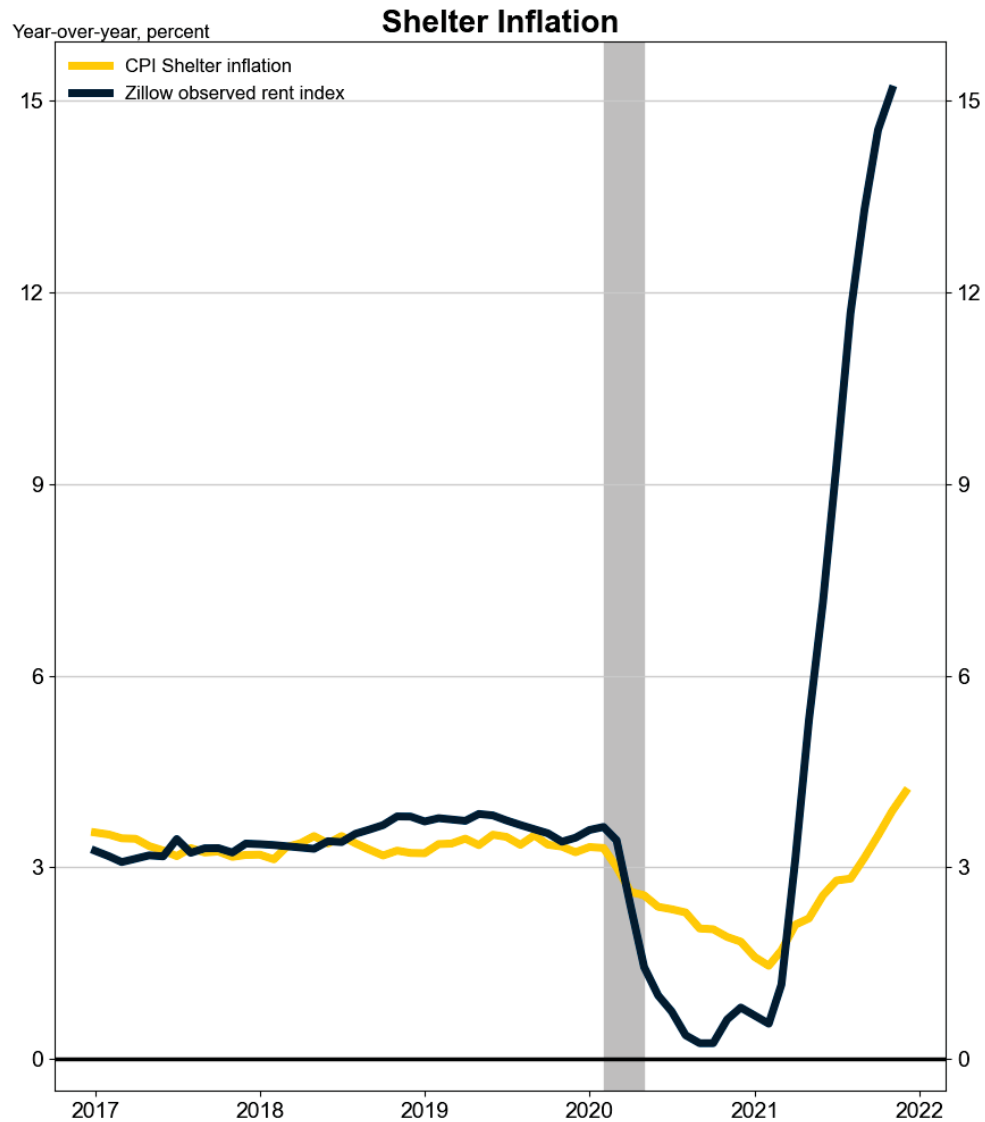
**Research Seminar in Quantitative Economics**

# Current State of the U.S. Economy

# Consumer Price Index



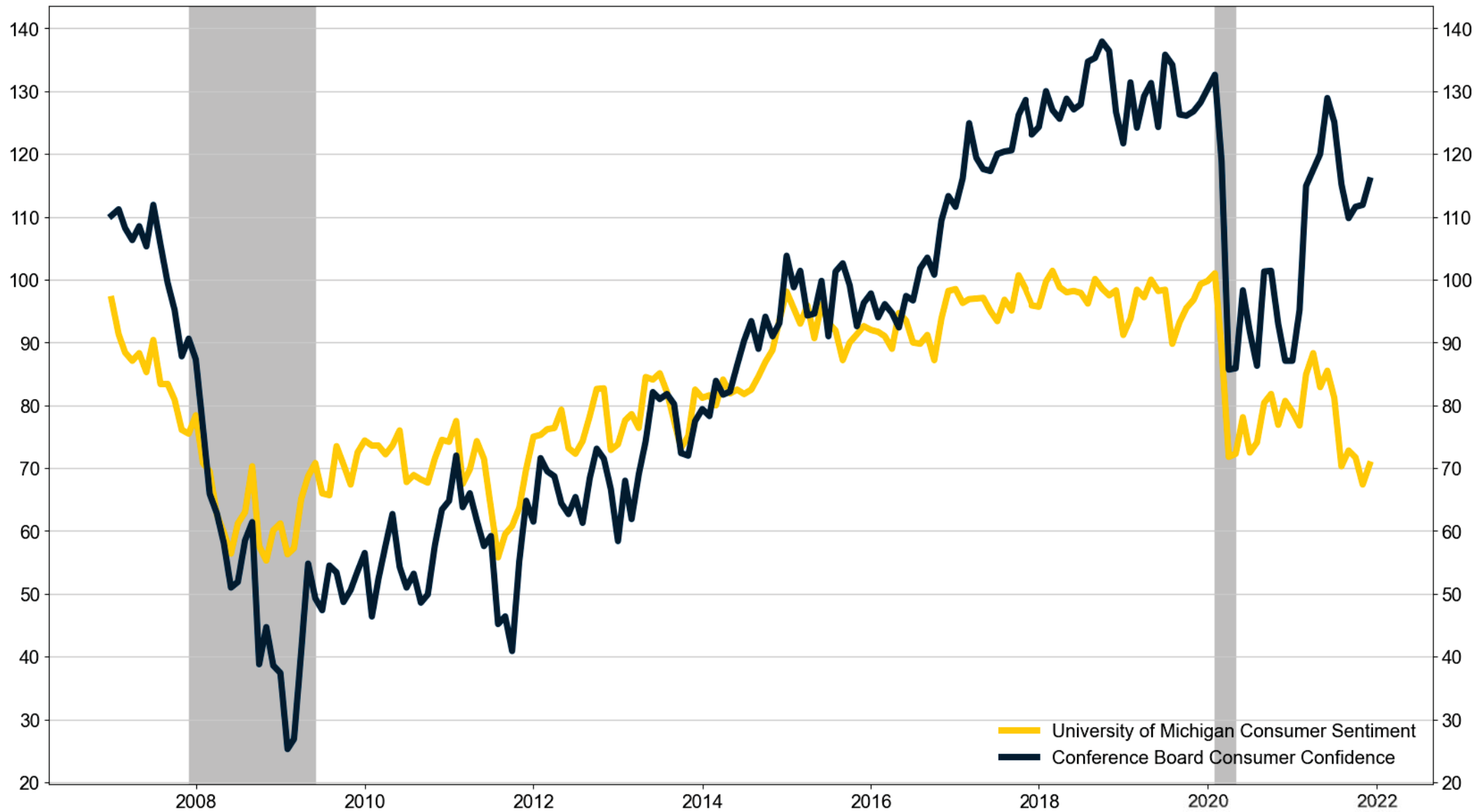
# Inflation Pressures



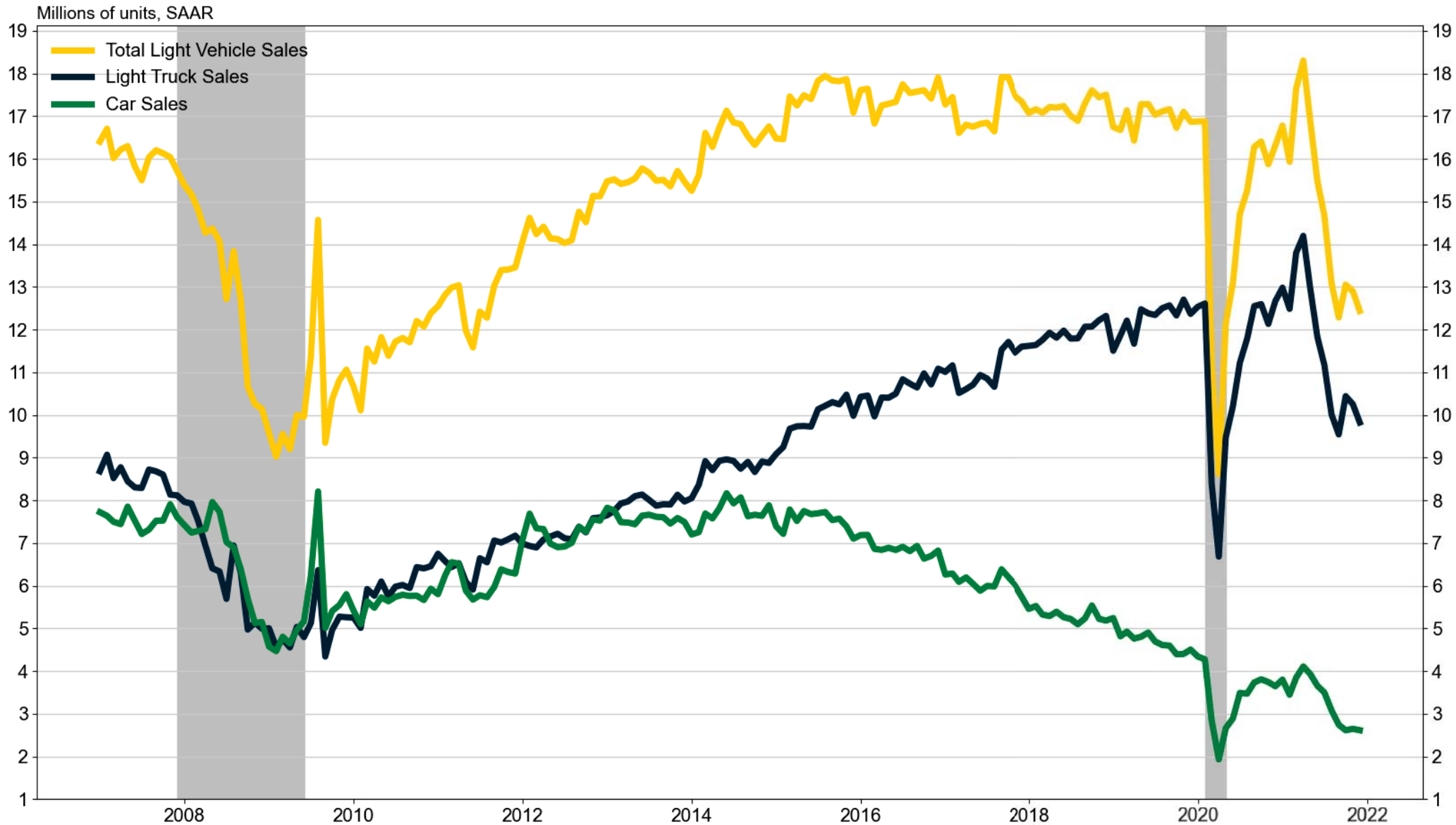
# Monthly Payroll Job Gains



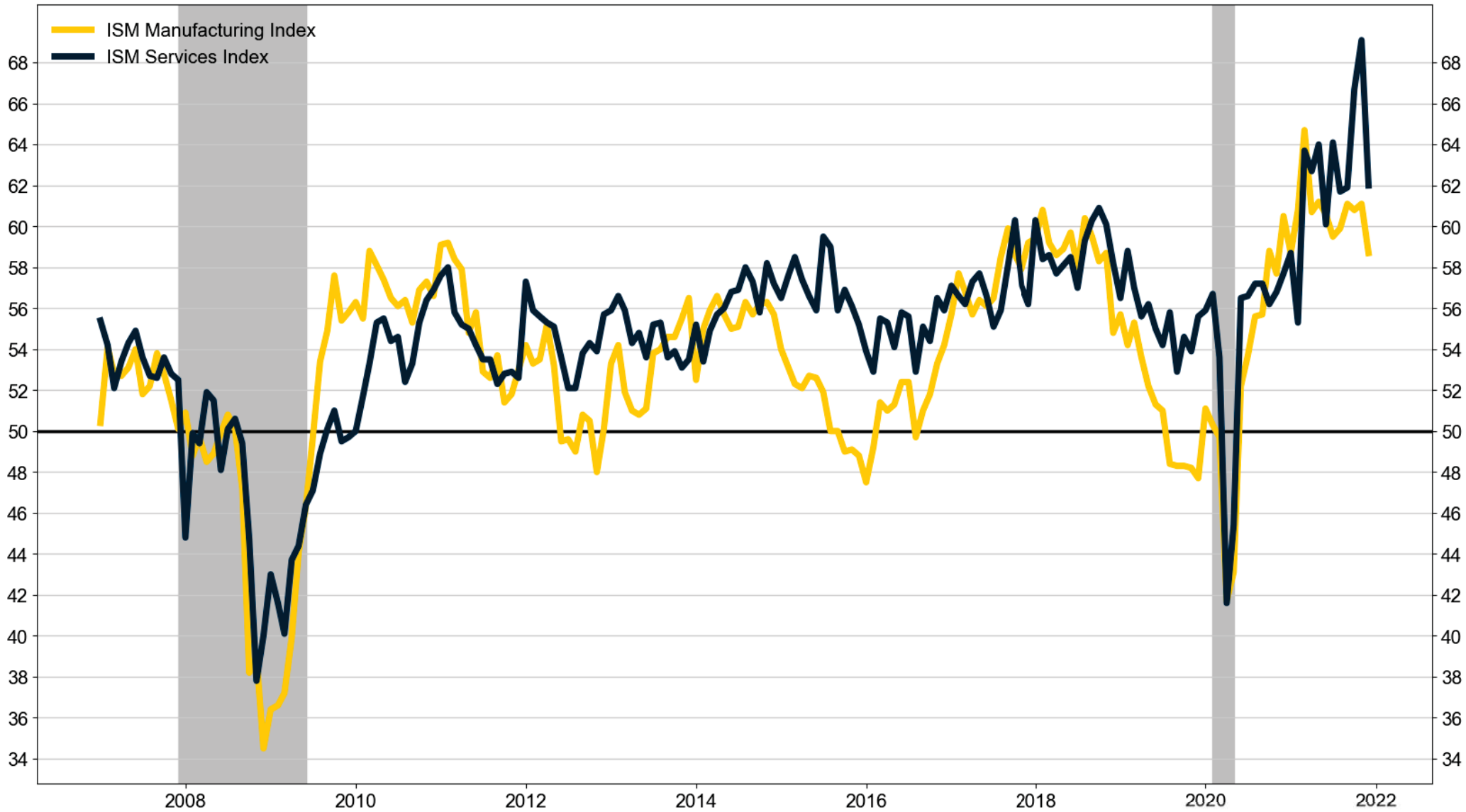
# Consumer Sentiment



# Monthly Light Vehicle Sales



# ISM PMIs





# Inputs

# Pandemic Dynamics Assumptions

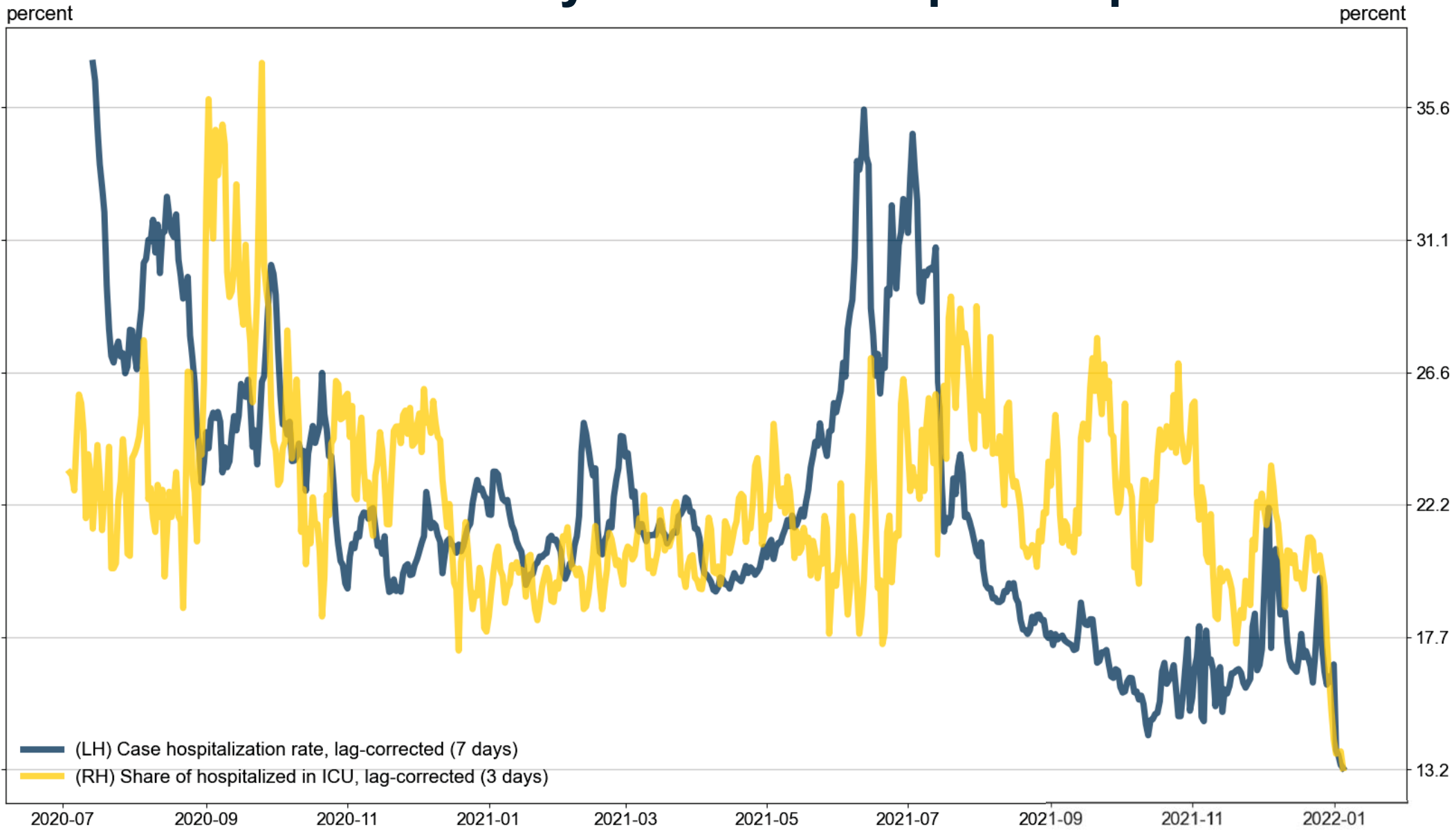
Omicron spreads quickly, infects vaccinated more easily, but seems considerably milder than previous strains

- Just-released [Kaiser Permanente comparison of Omicron to Delta](#) shows:
  - ~60% lower case hospitalization rate, ~70% shorter hospital stays (by 3.4 days)
  - ~75% lower case ICU admission rate, ~90% lower mortality rate
  - Note: early estimates, with wide confidence bands.
- New York City data tells similar story. Omicron dominant since mid-December
- With no harsh mitigation Omicron will spread widely and quickly
- Moderate impact on 2022Q1 GDP and job growth due to labor supply disruption

We assume no future strains of significantly higher severity

- SARS-CoV-2 mutation patterns so far are quite unusual

# New York City Omicron Hospital Impact



# Monetary Policy

- Chair Powell reconfirmation imminent
- December 2021 unemployment rate below 4 percent
  - Payroll job count still 3.5 million shy of pre-pandemic peak
- Inflation very high, supply chain stress lingers
- Near-term inflation expectations rising, but long-term expectations still anchored
- We expect the first fed funds rate hike in May 2022
  - March is likely to soon to assess the damage due to the Omicron wave
- Rate range will reach 0.75–1.00 percent by the end of 2022
- 1.75–2.00 percent by the end of 2024

# Fiscal Policy

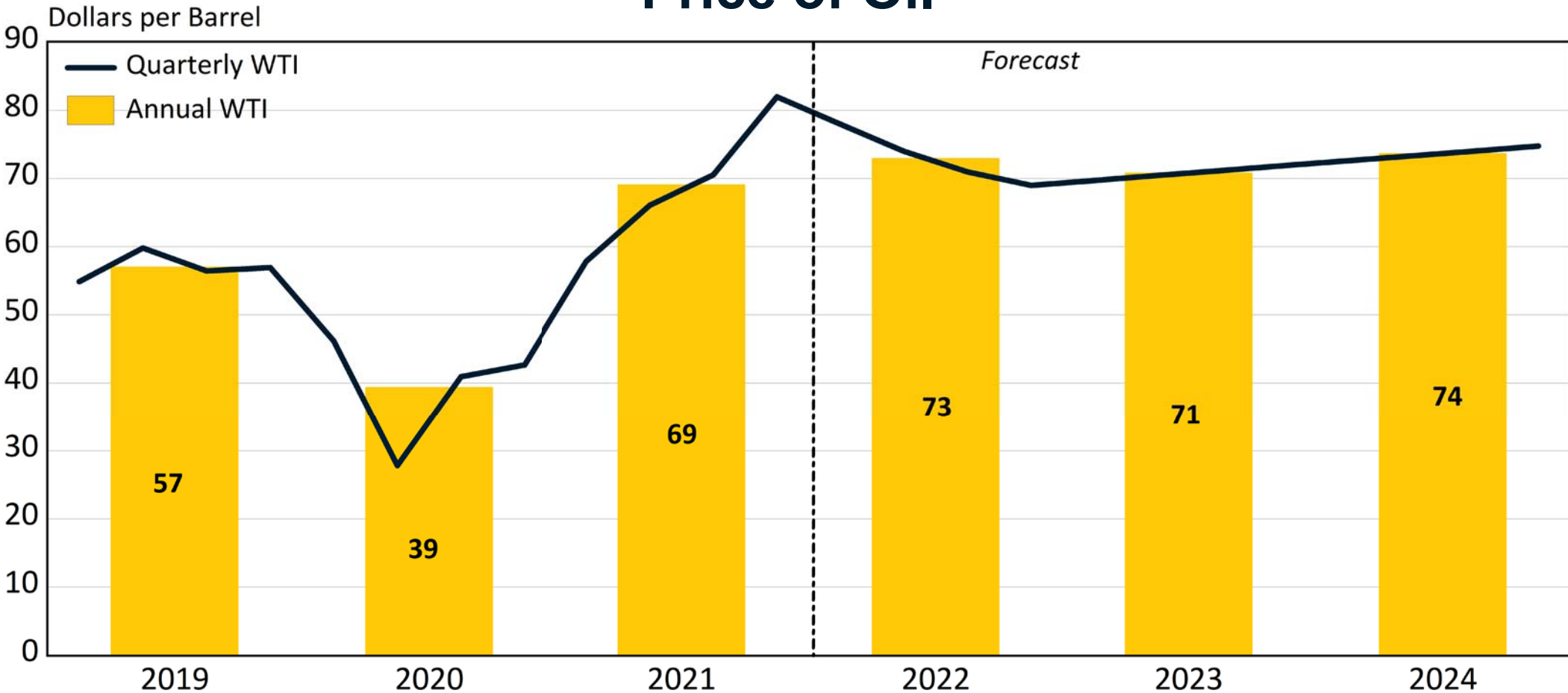
Biden Agenda currently on life support

- Child Tax Credit, ACA credits, EITC credits lapsed. Will lower growth in 2022Q1

We still expect a trimmed-down reconciliation bill to pass this spring

- Scaled-down climate agenda
- Lapsed tax credits partially reinstated, funded for 10 years
- Limited personal and corporate tax increases/tweaks
- SALT deduction cap repeal targeted at the middle class
- About \$1.8 trillion total, fully paid-for

# Price of Oil



## 4th Quarter to 4th Quarter % Change

WTI	-3.1	-25.1	92.2	-15.9	4.2	4.0
Imports*	-9.0	-29.4	93.4	-12.8	4.2	3.9

\*Implicit deflator for petroleum & products

# Single-Family Home Price Appreciation

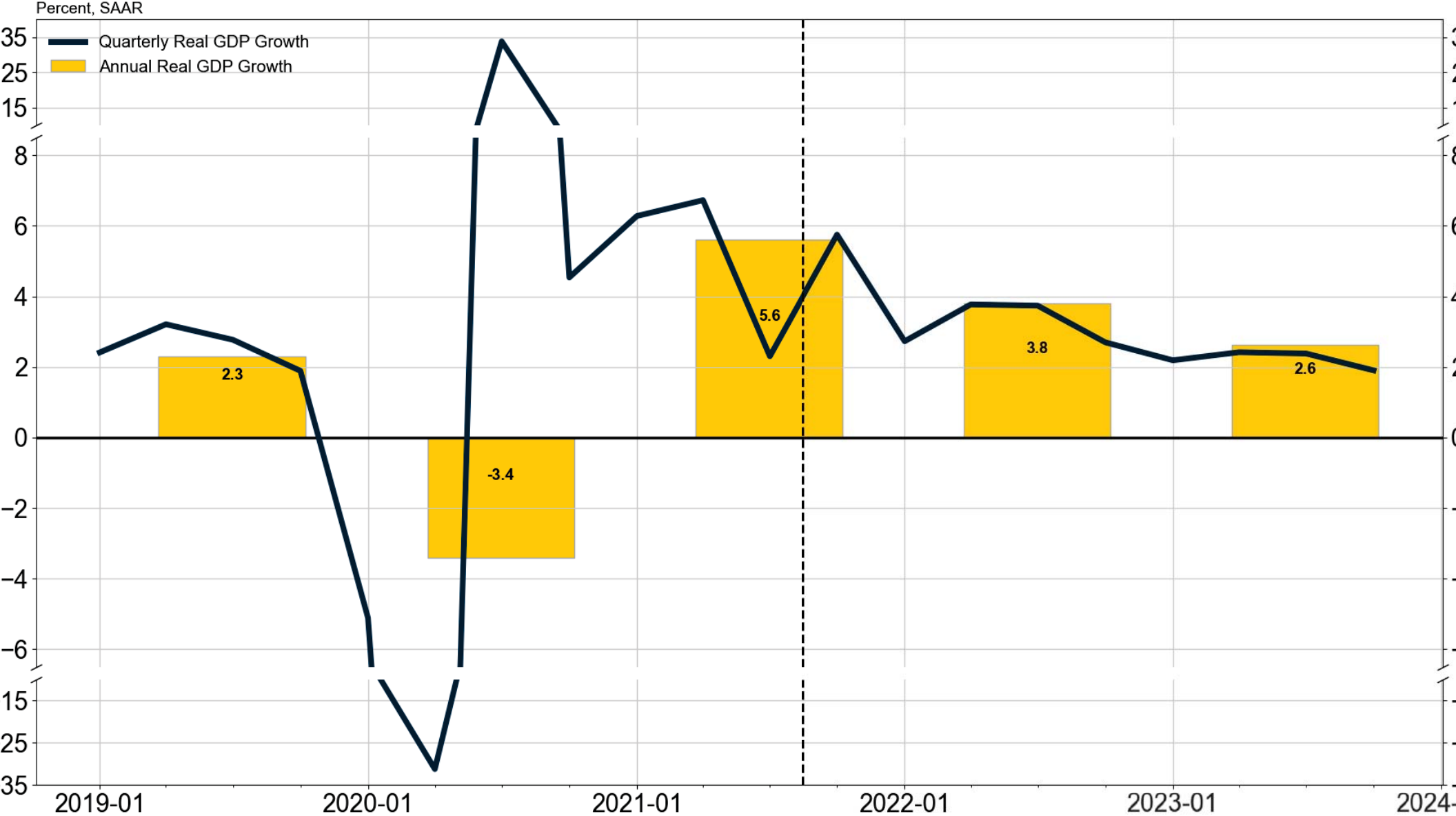
Percent change



# U.S. Forecast

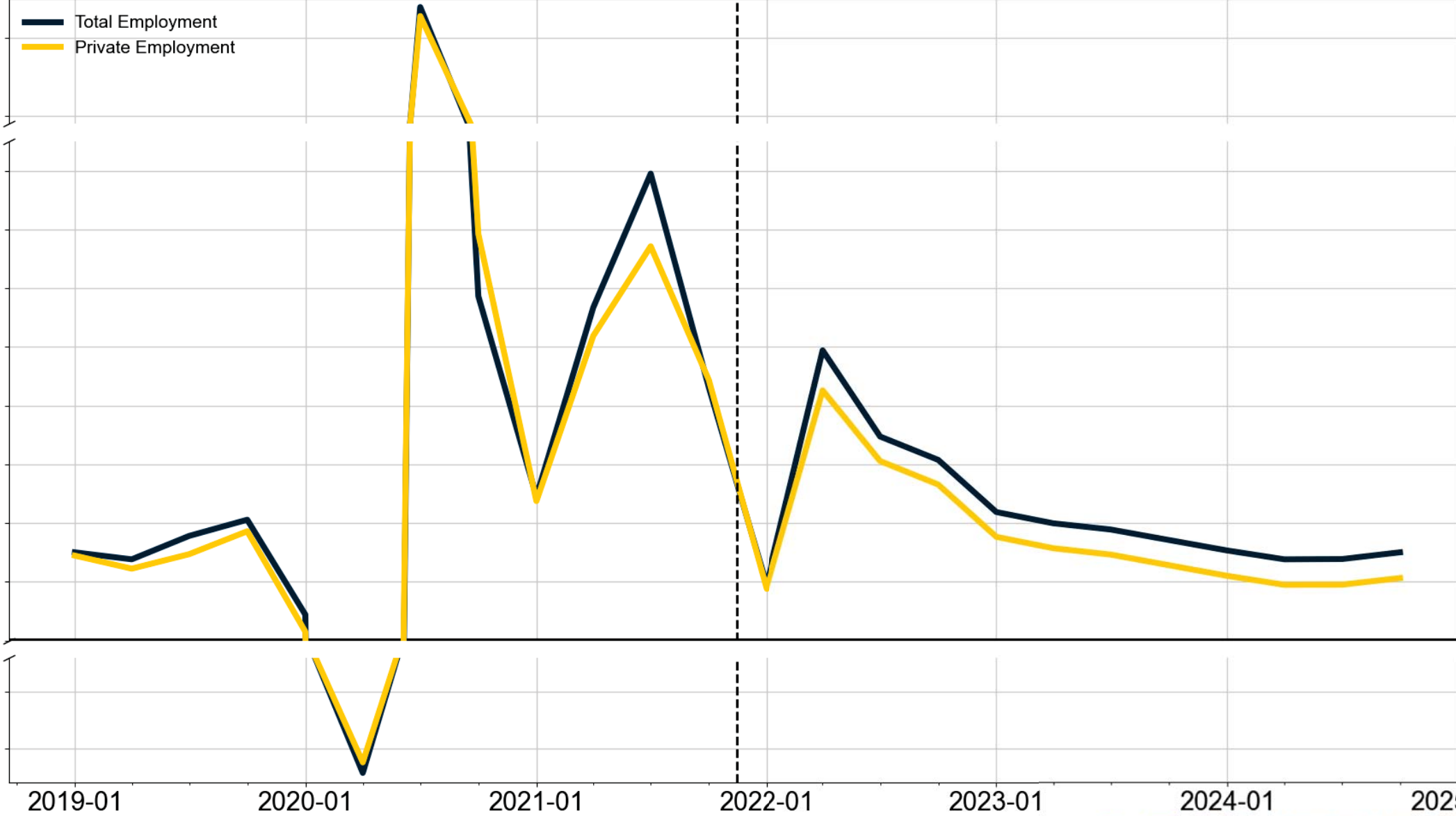


# Real GDP Growth



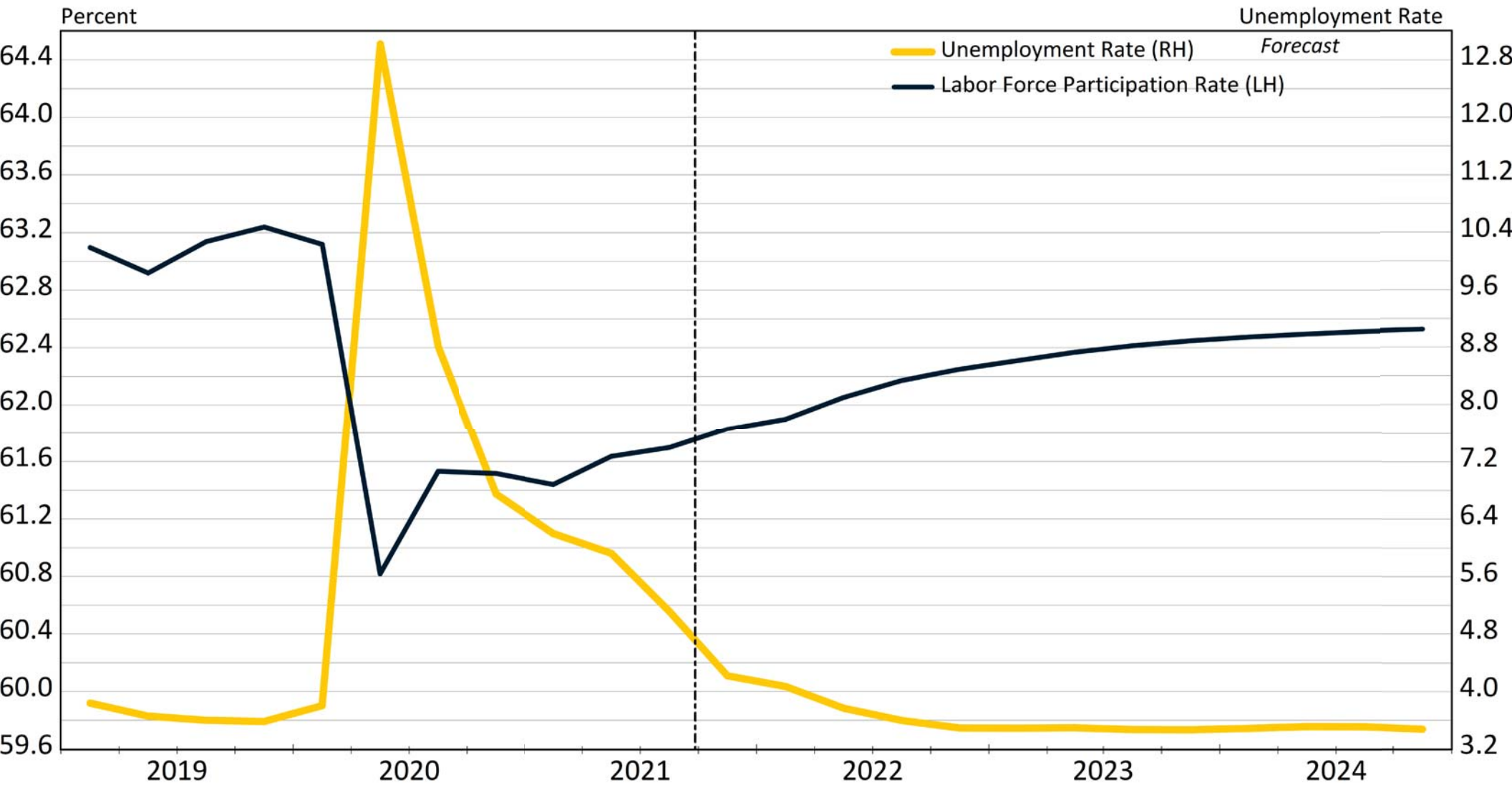
# Payroll Employment Growth

Thousands of jobs per month, quarterly average

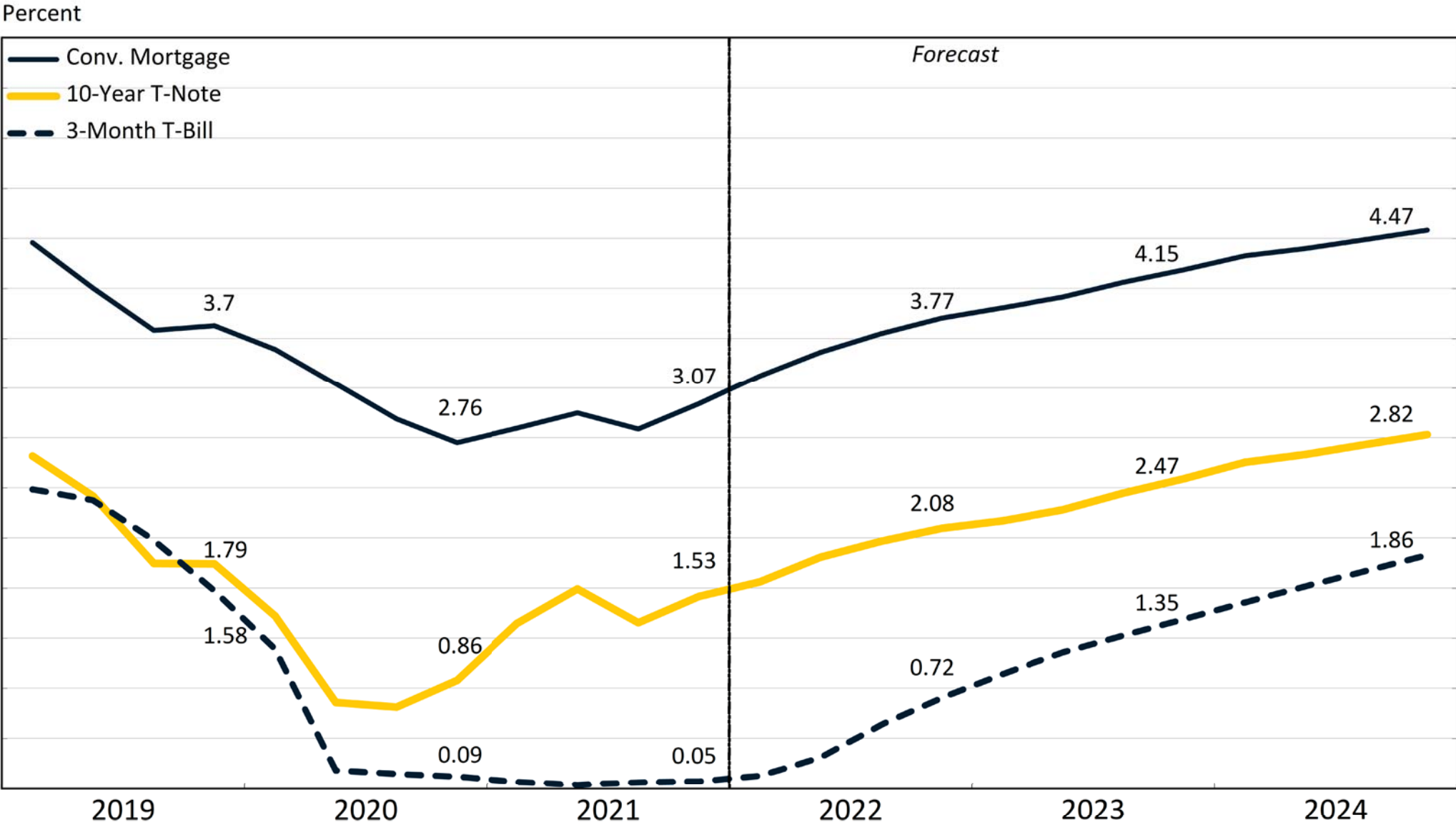


RSQE: January 2022

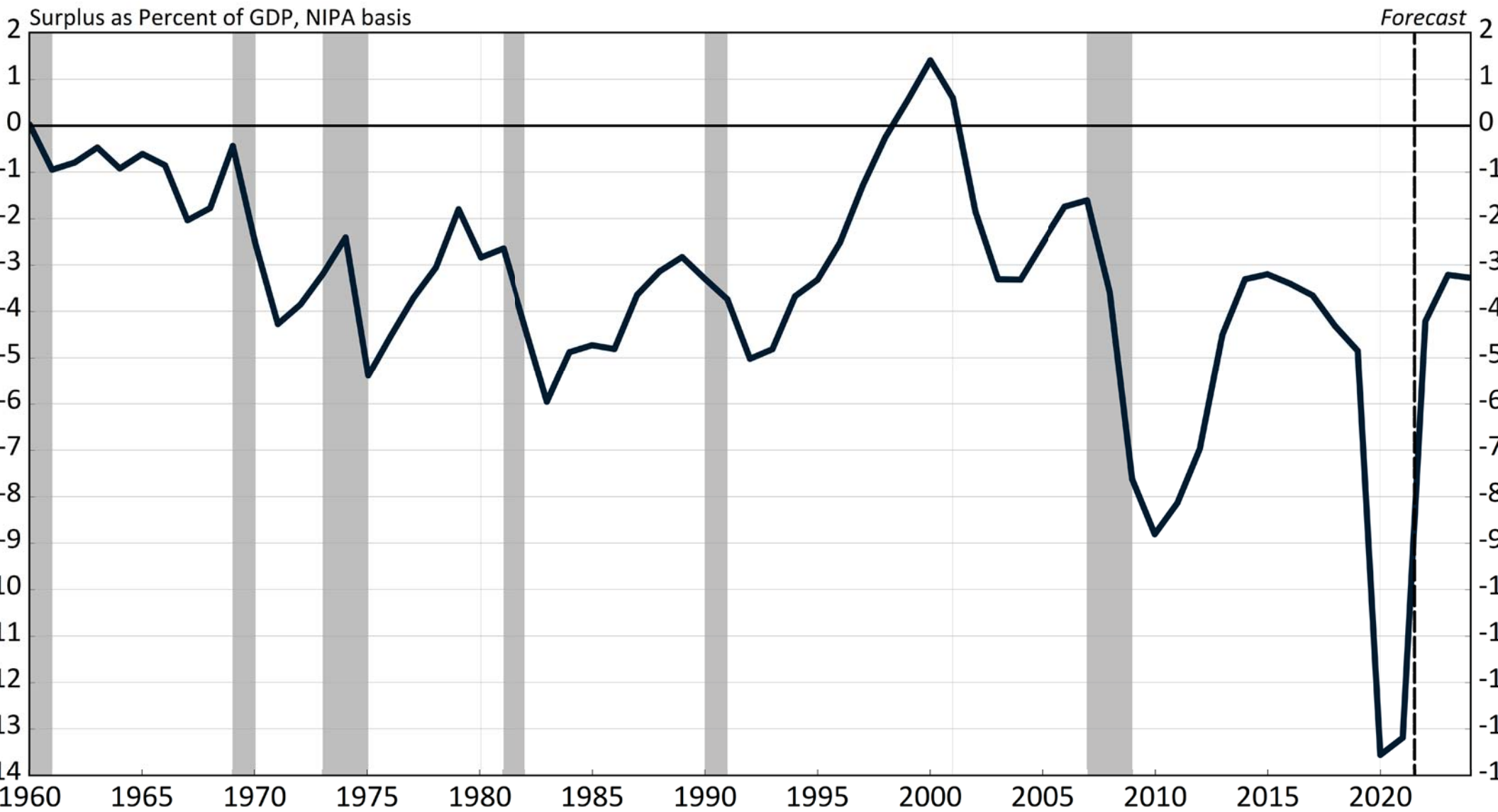
# Unemployment Rate and Participation Rate



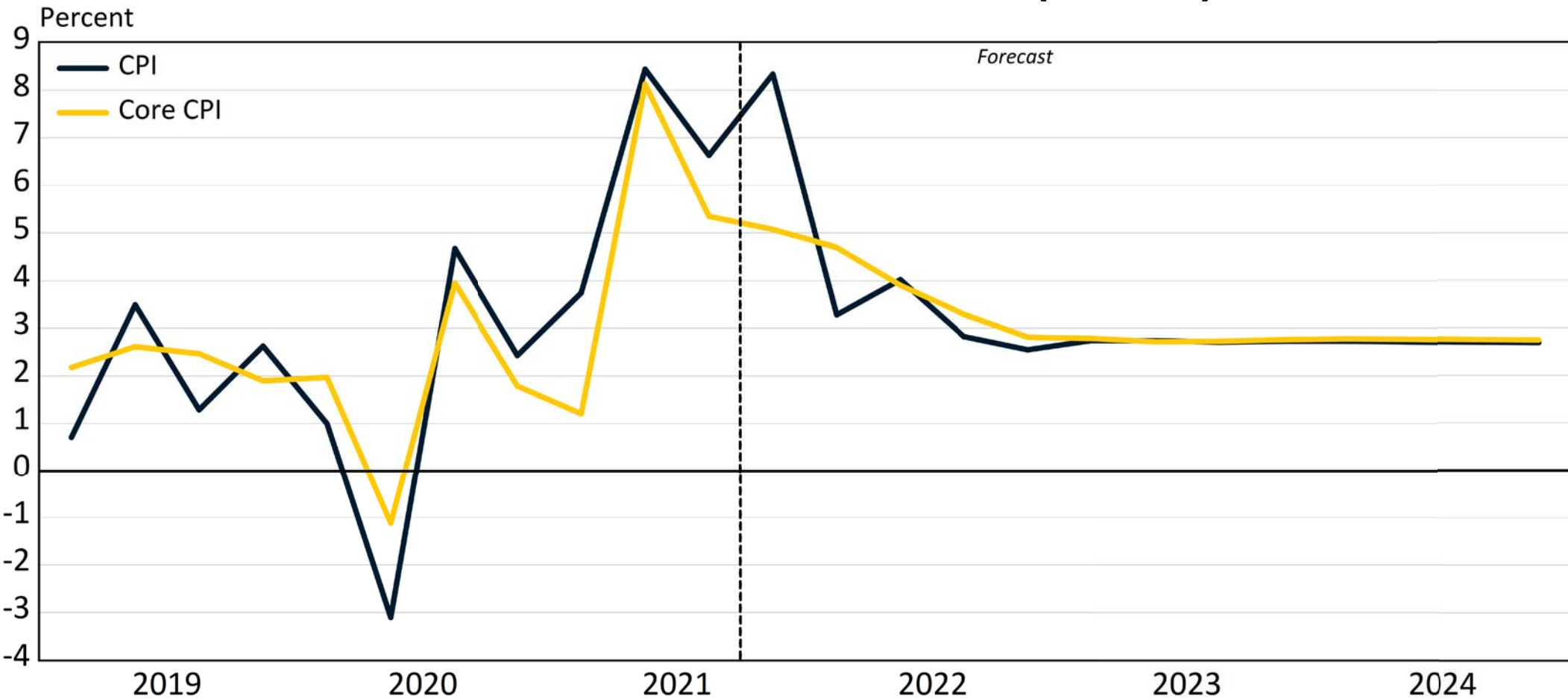
# Interest Rates



# Federal Budget Balance, Fiscal Year

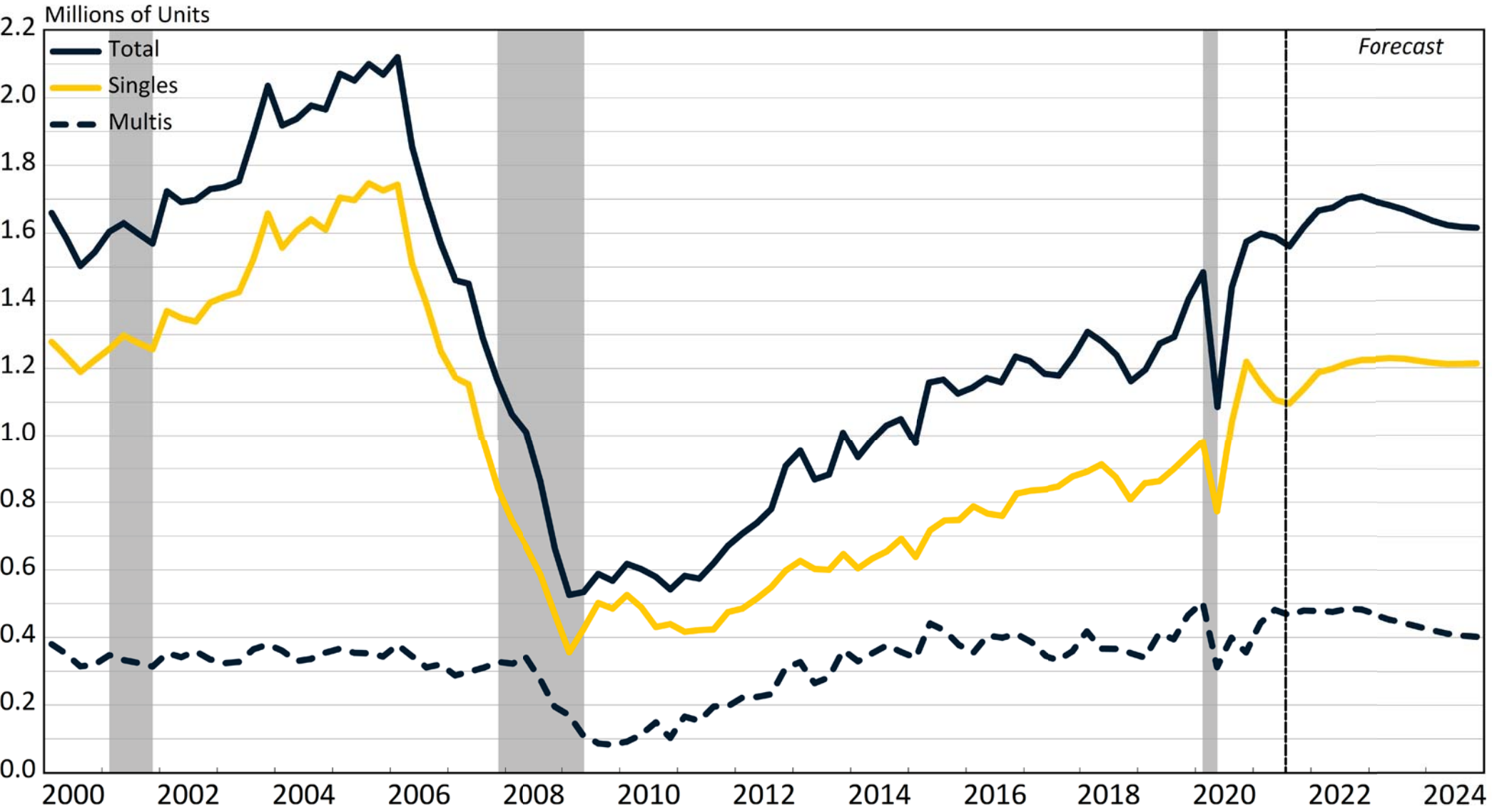


# Consumer Price Inflation (CPI-U)

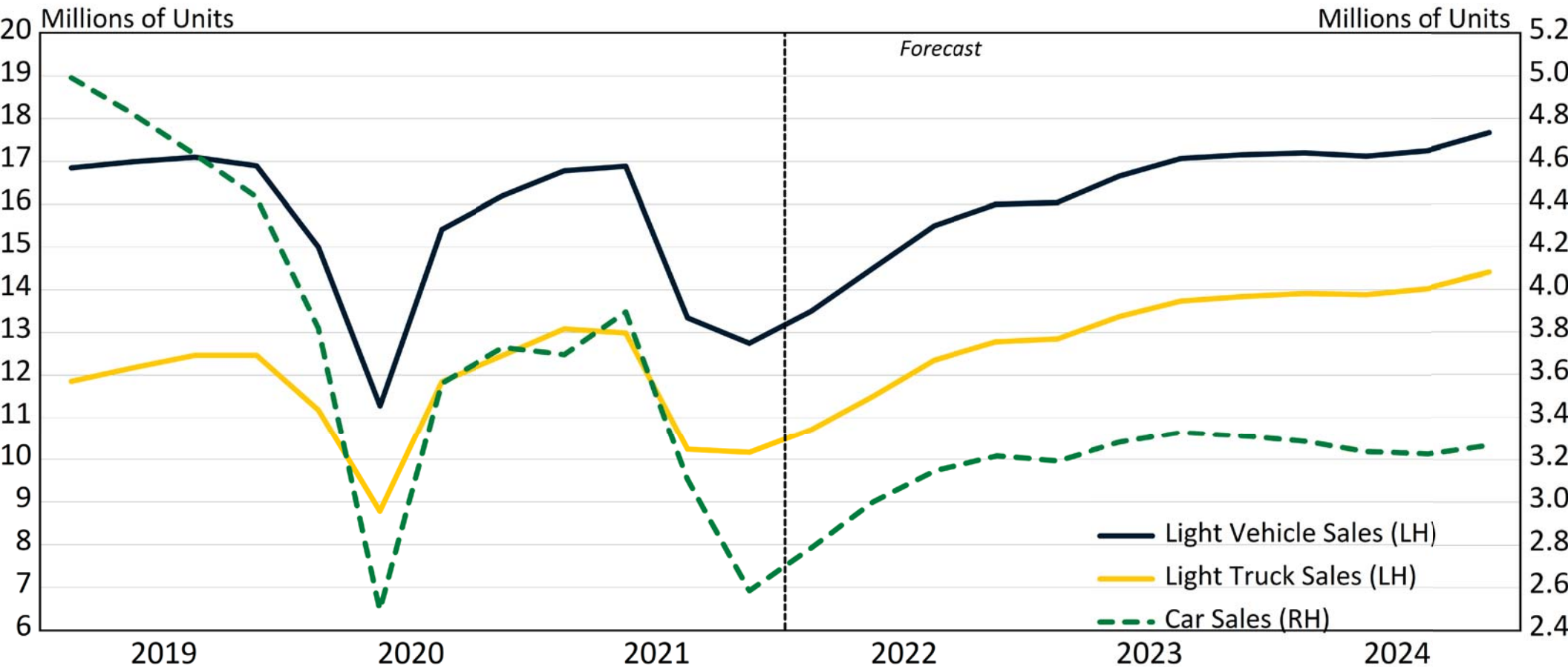


	4th Quarter to 4th Quarter % Change						
Core CPI	2.29	1.63	4.91	3.68	2.75	2.76	2.76
CPI	2.03	1.21	6.77	3.17	2.73	2.71	2.71

# Housing Starts



# Light Vehicle Sales



Annual Vehicle Sales					
17	14.5	14.9	14.9	16.7	17.3



# Risks

## ➤ The Pandemic

- Domestic
- International

## ➤ Supply Chain Stress

## ➤ Inflation

- Monetary policy
- Fiscal path
- Elections

## ➤ Housing Sector

# The Economic Outlook for Michigan for 2022–2024



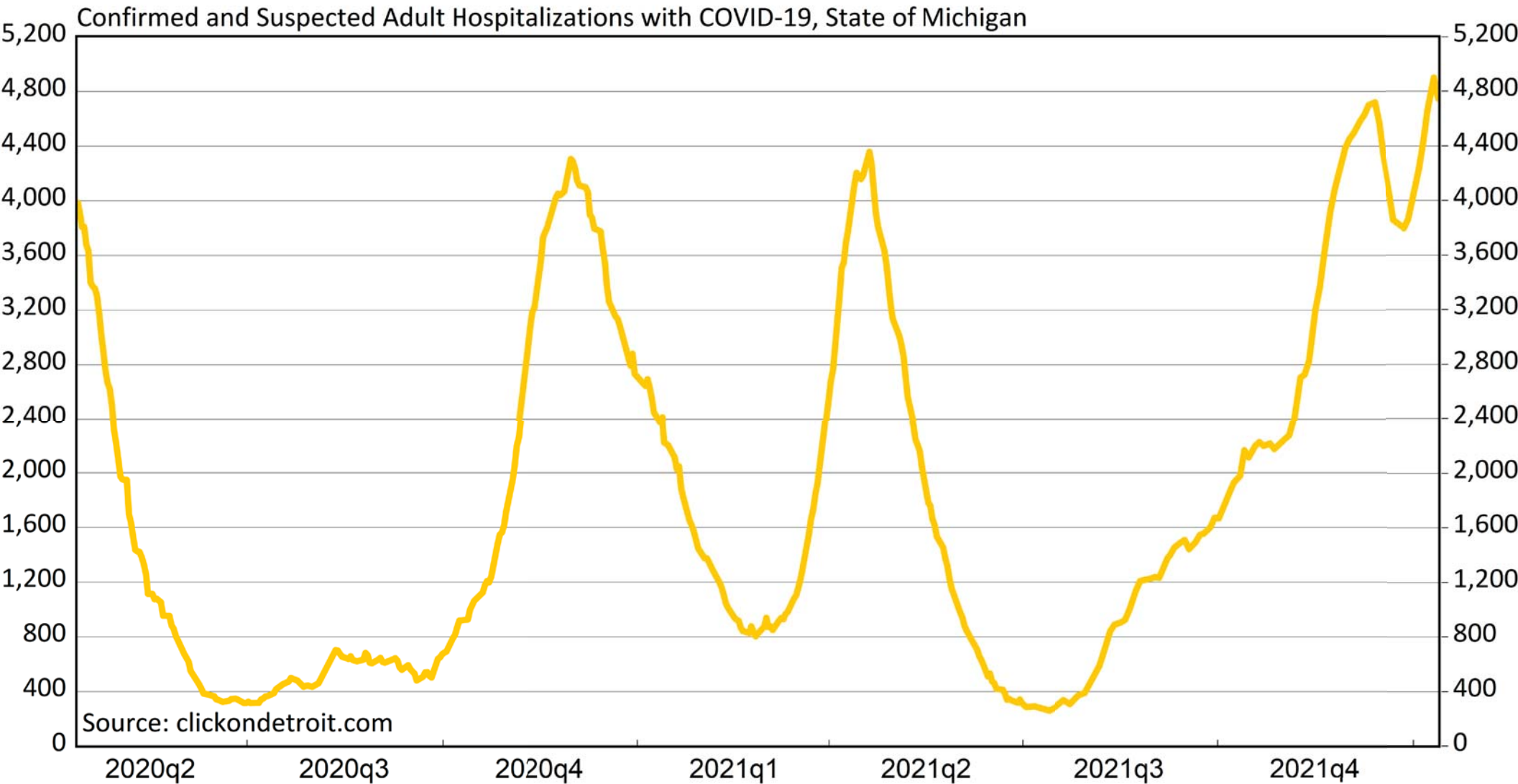
Consensus Revenue Estimating Conference  
January 14,

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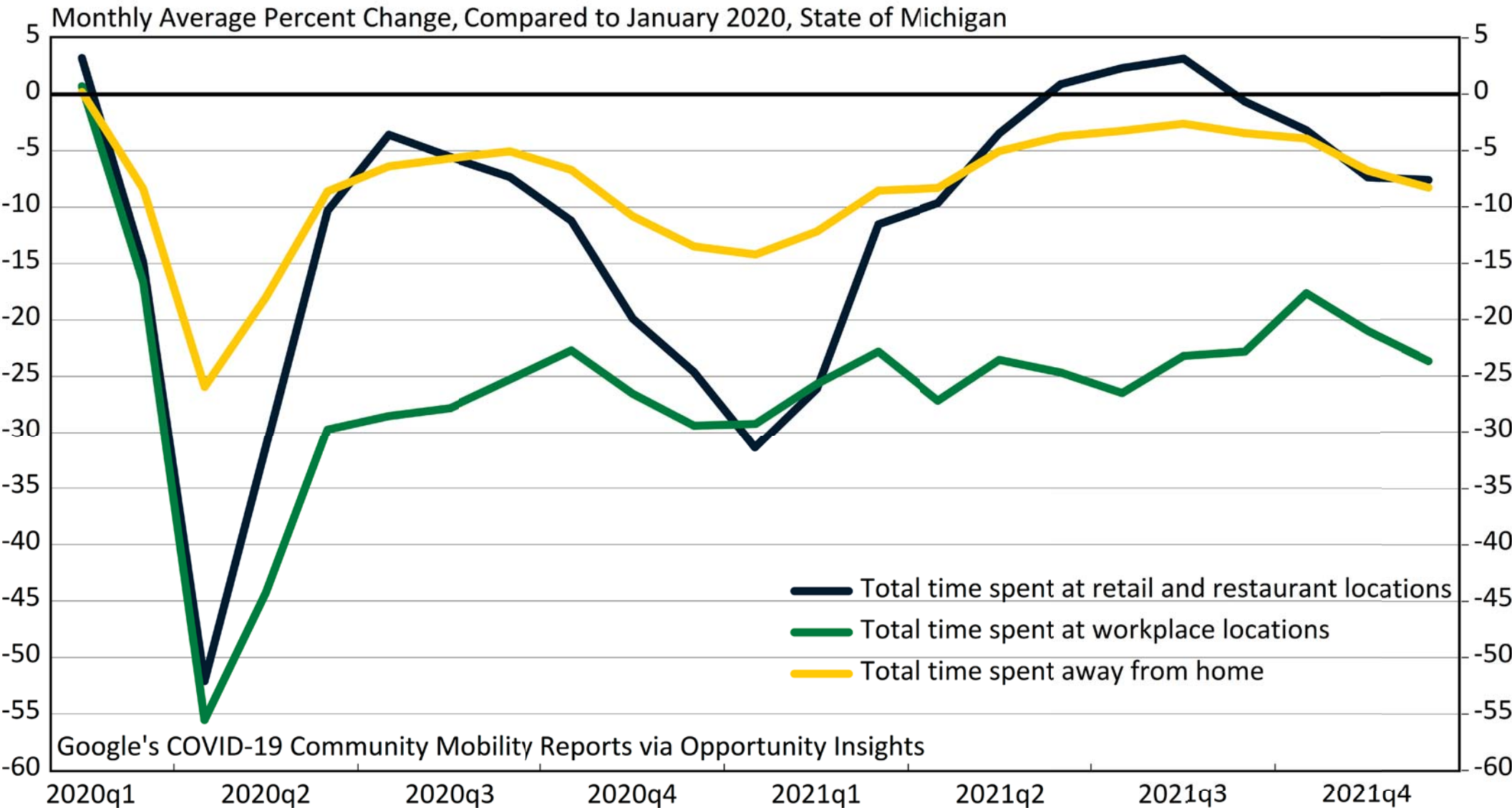
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# High-Frequency Indicators: Michigan

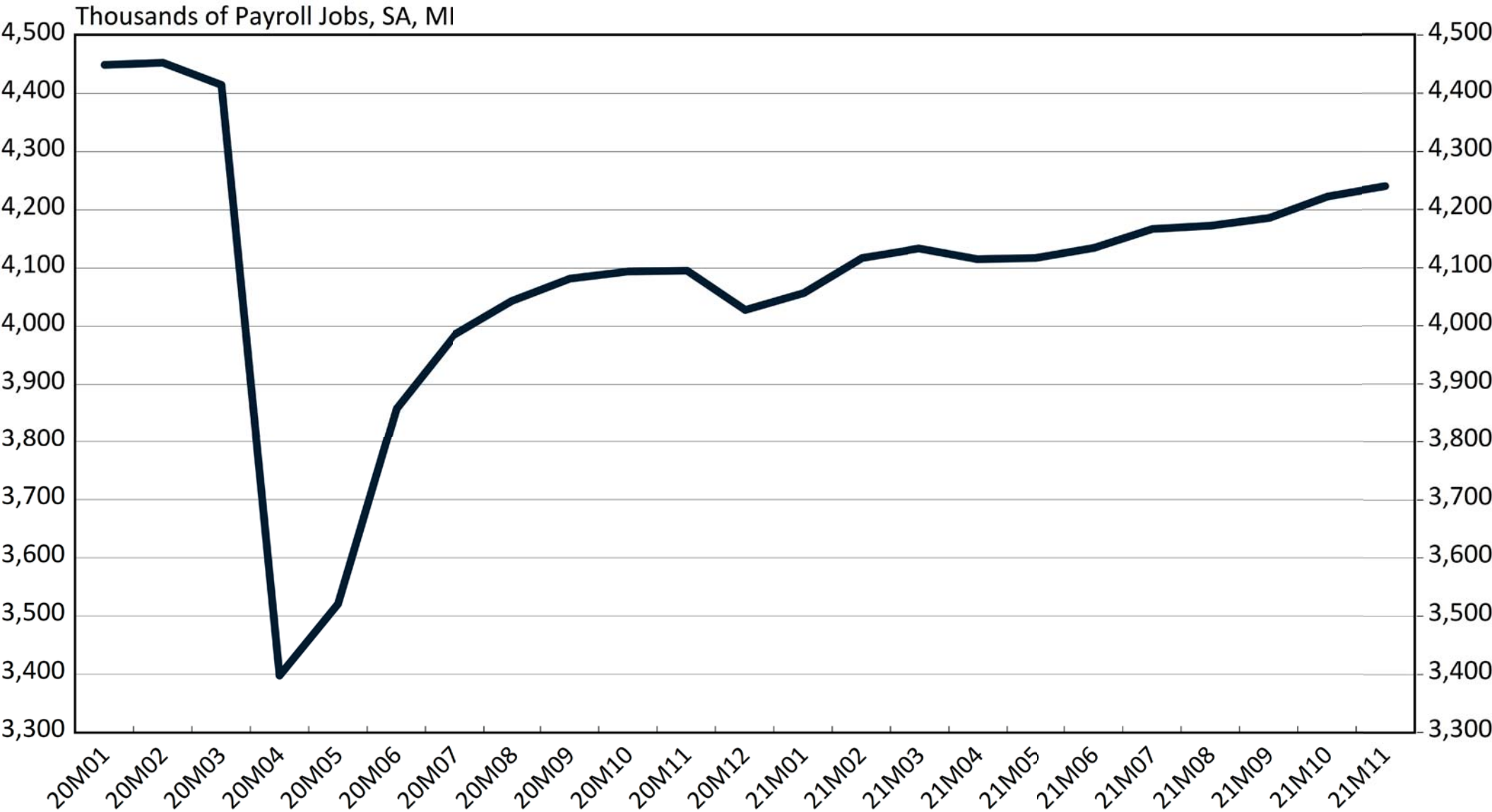
# COVID-19 Hospitalizations at Record Highs



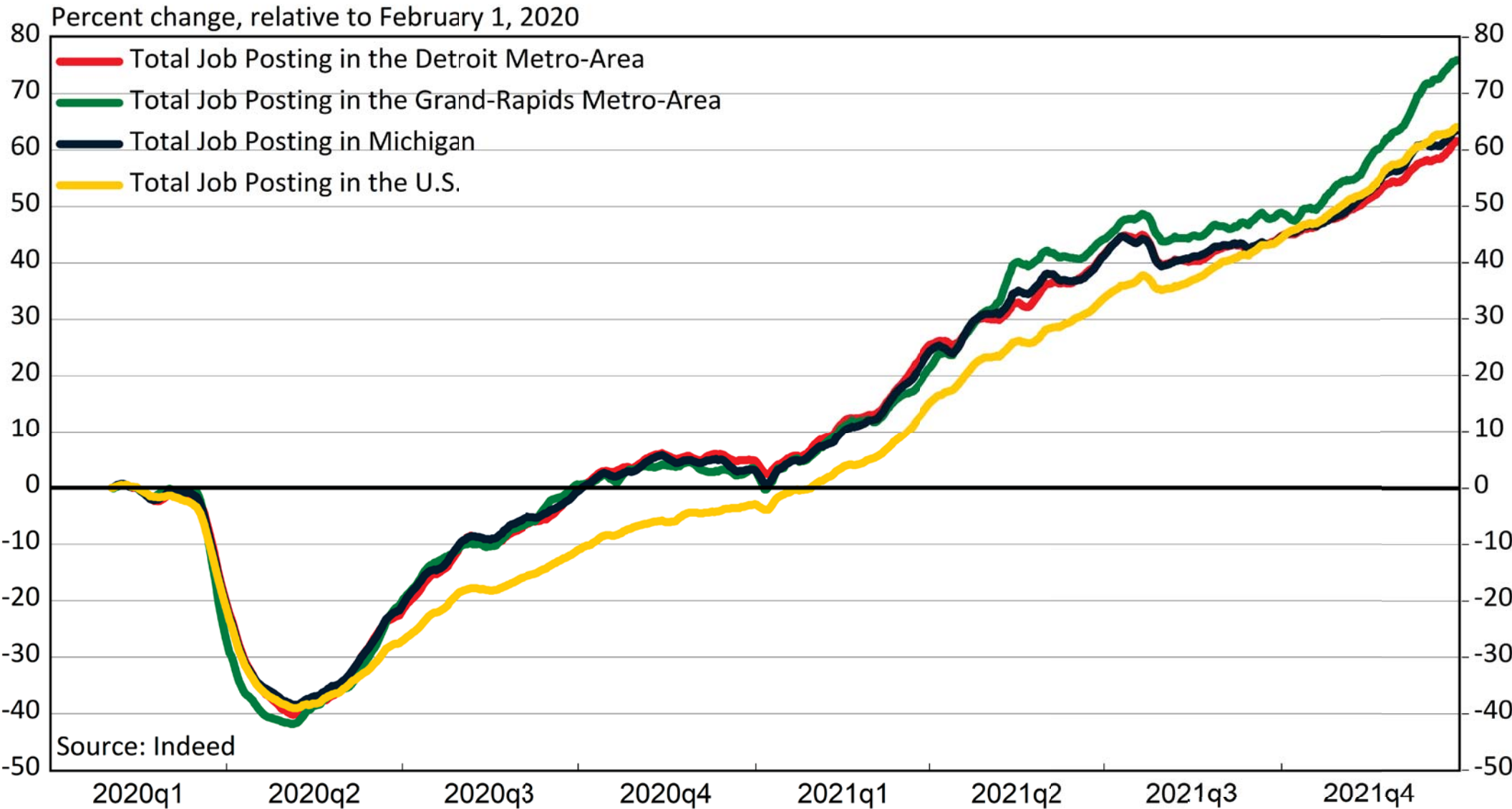
# Pandemic Starting to Weigh on Activity Again



# Still Climbing Out of a Deep Jobs Hole

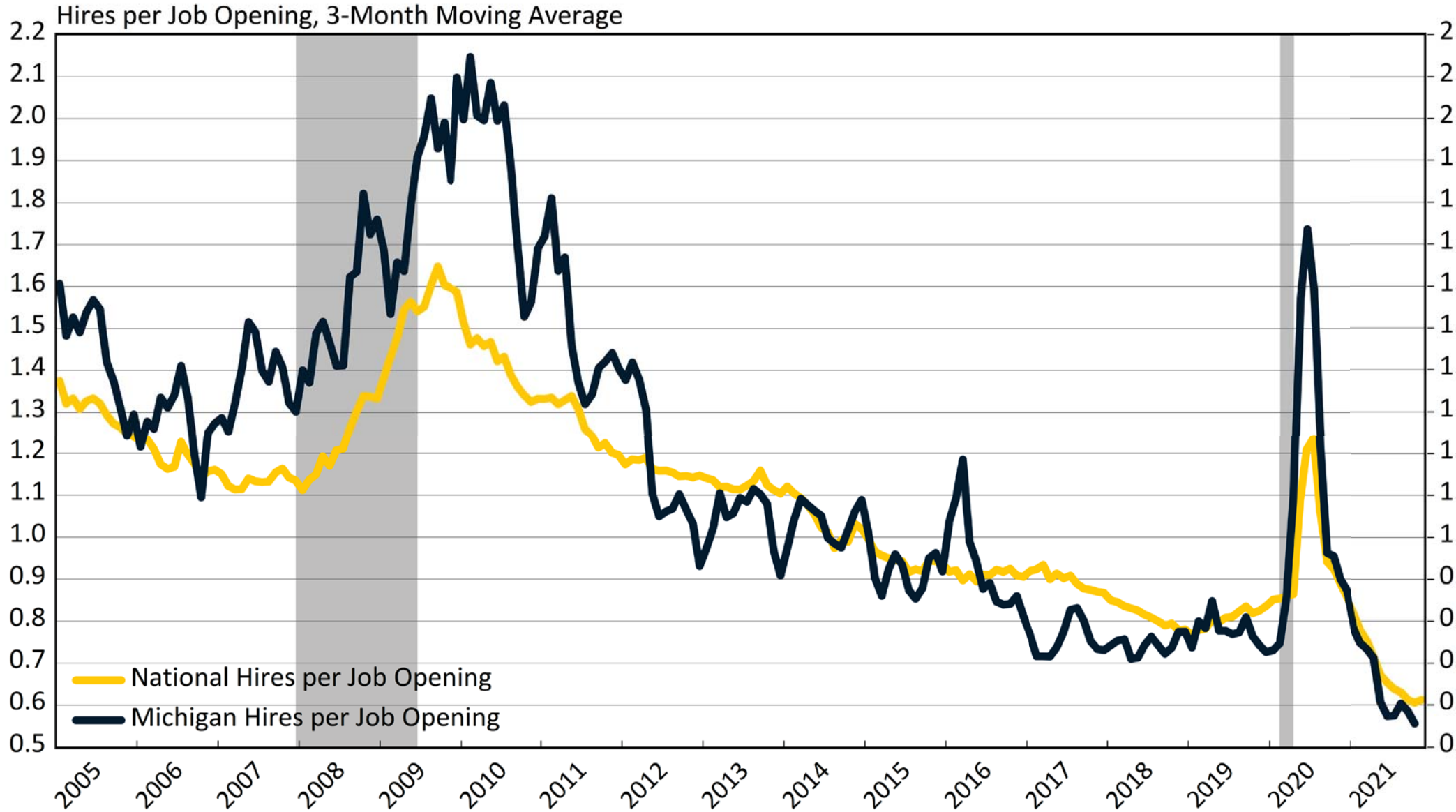


# Job Openings Still Sky High



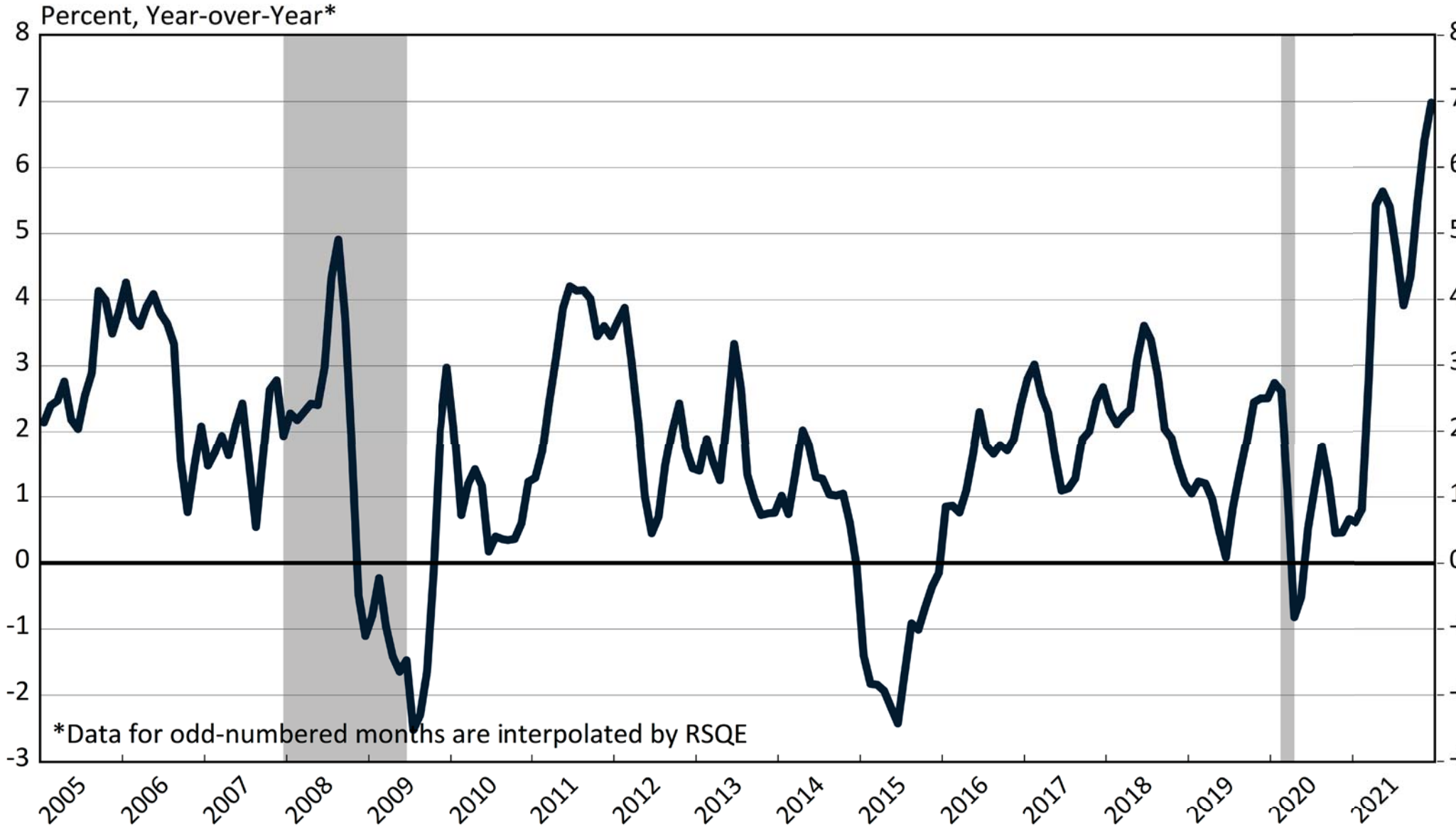
Source: Indeed

# Filling Jobs Is Getting Harder



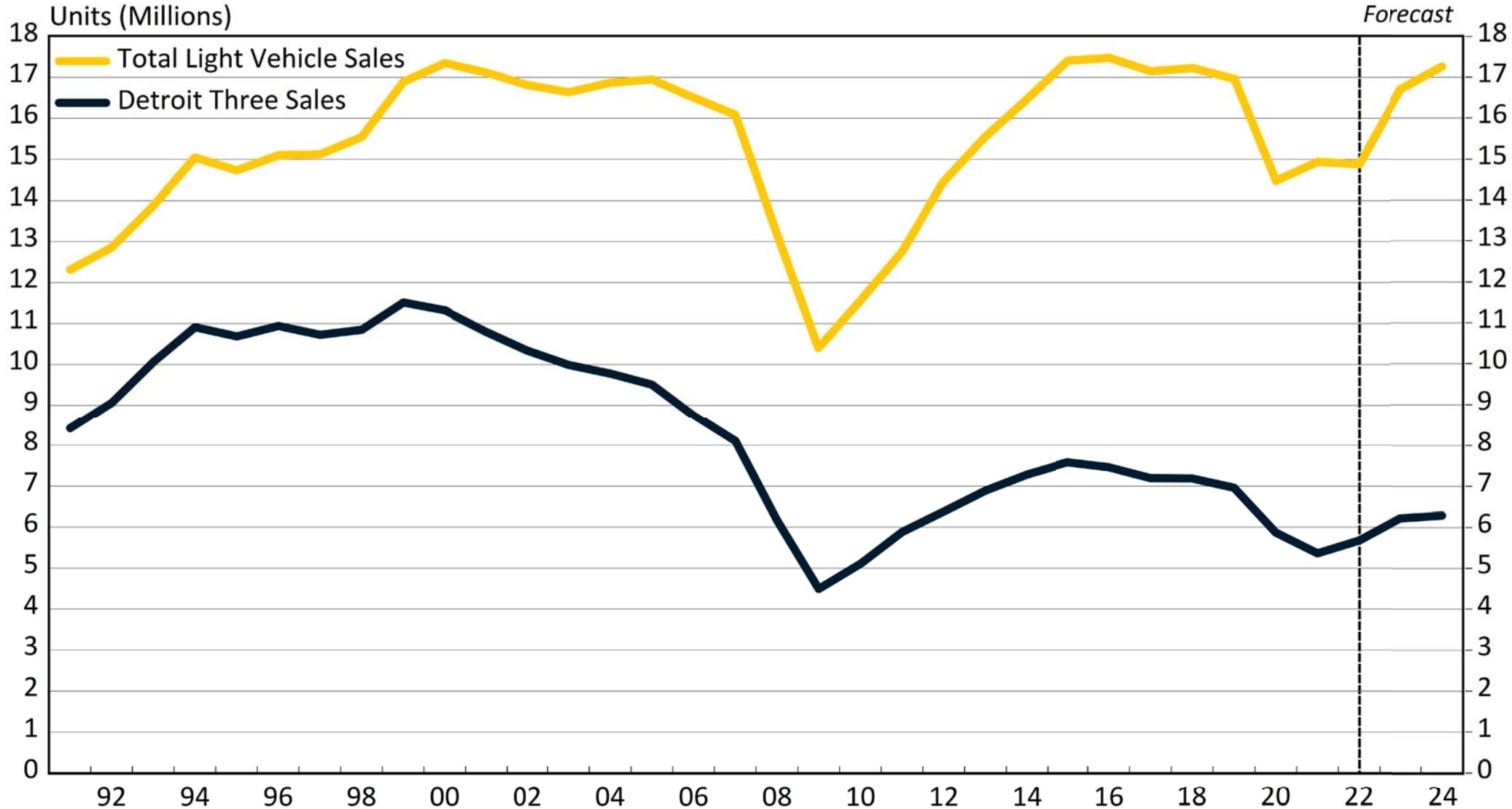


# Local Inflation: Fastest Since 1981



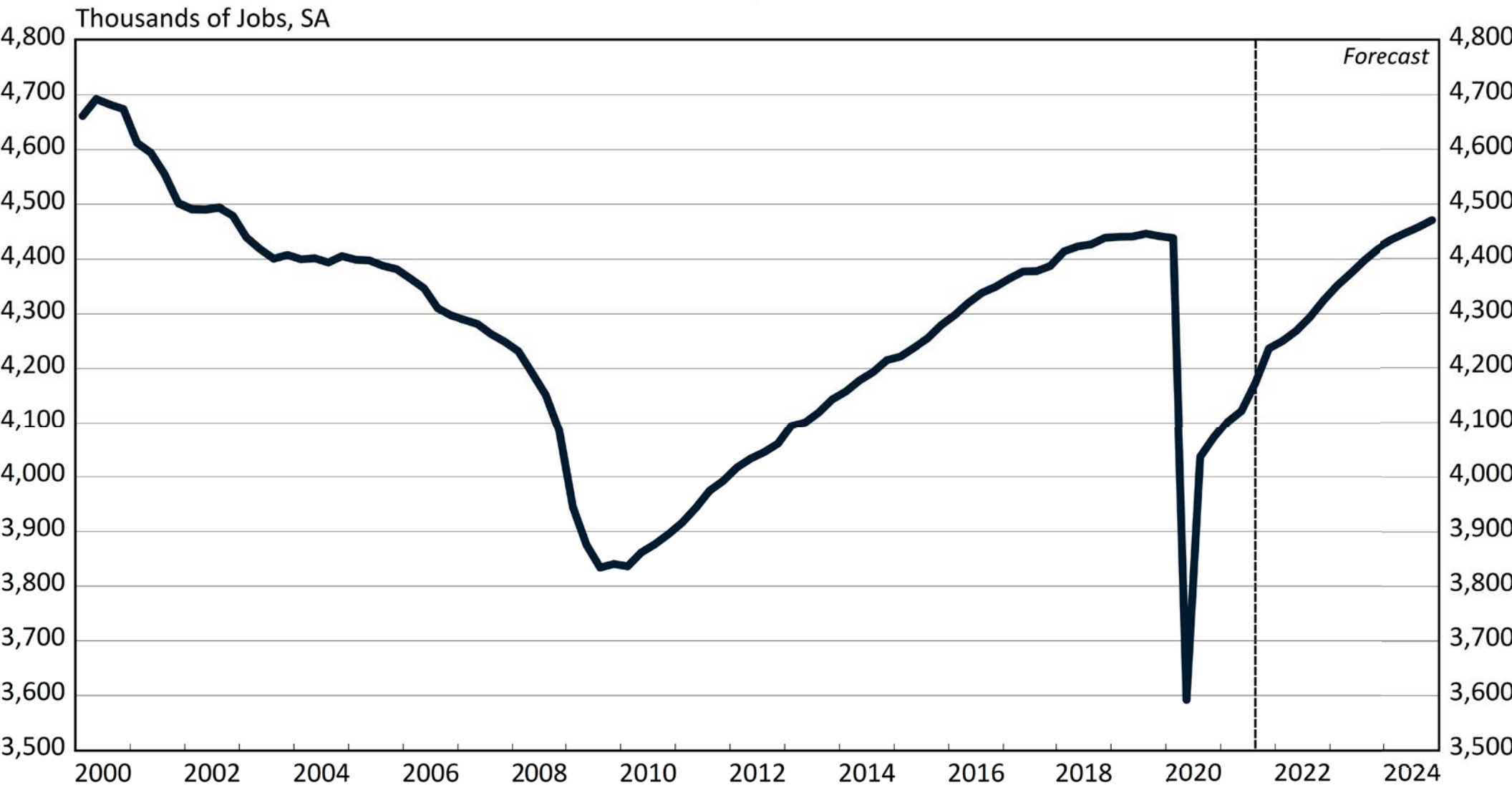
# Michigan Economic Outlook

# Annual Light Vehicle Sales: Recovery with a Lag



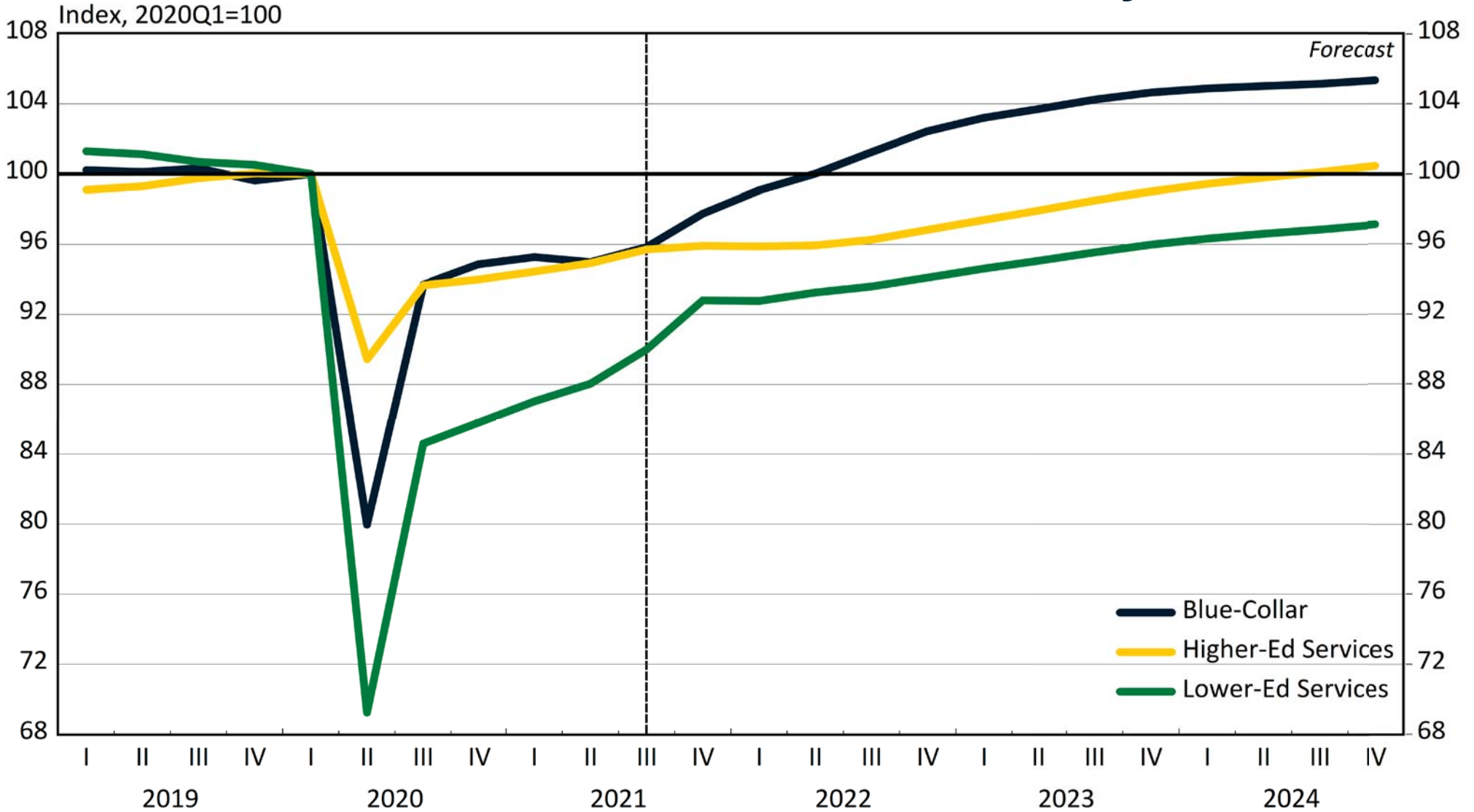
SQE: January 2022

# Quarterly Michigan Payroll Employment: Full Recovery in Early 2024

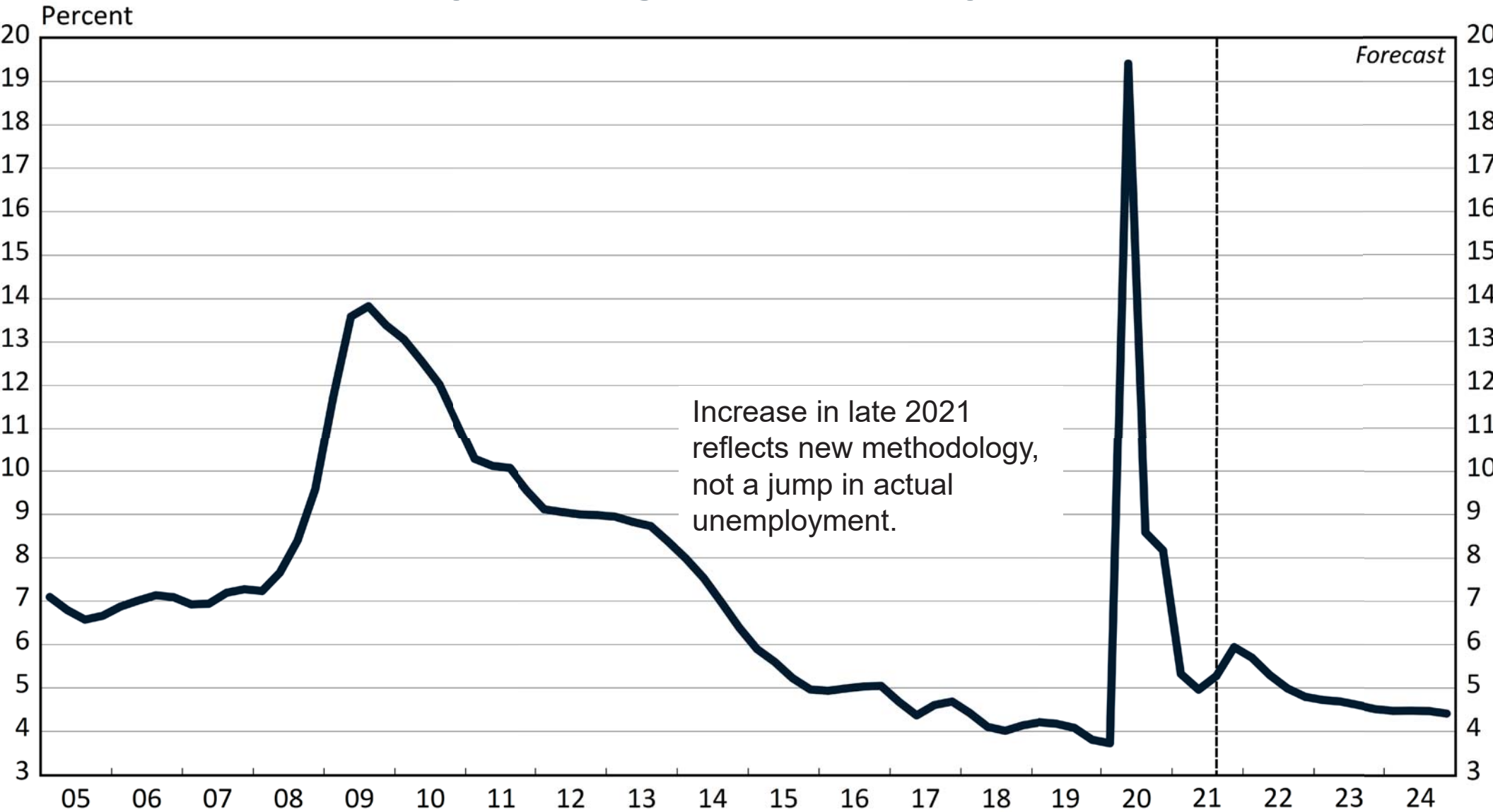


SQE: January 2022

# Employment Outlook by Industry Group: Blue-Collar Industries Lead the Way

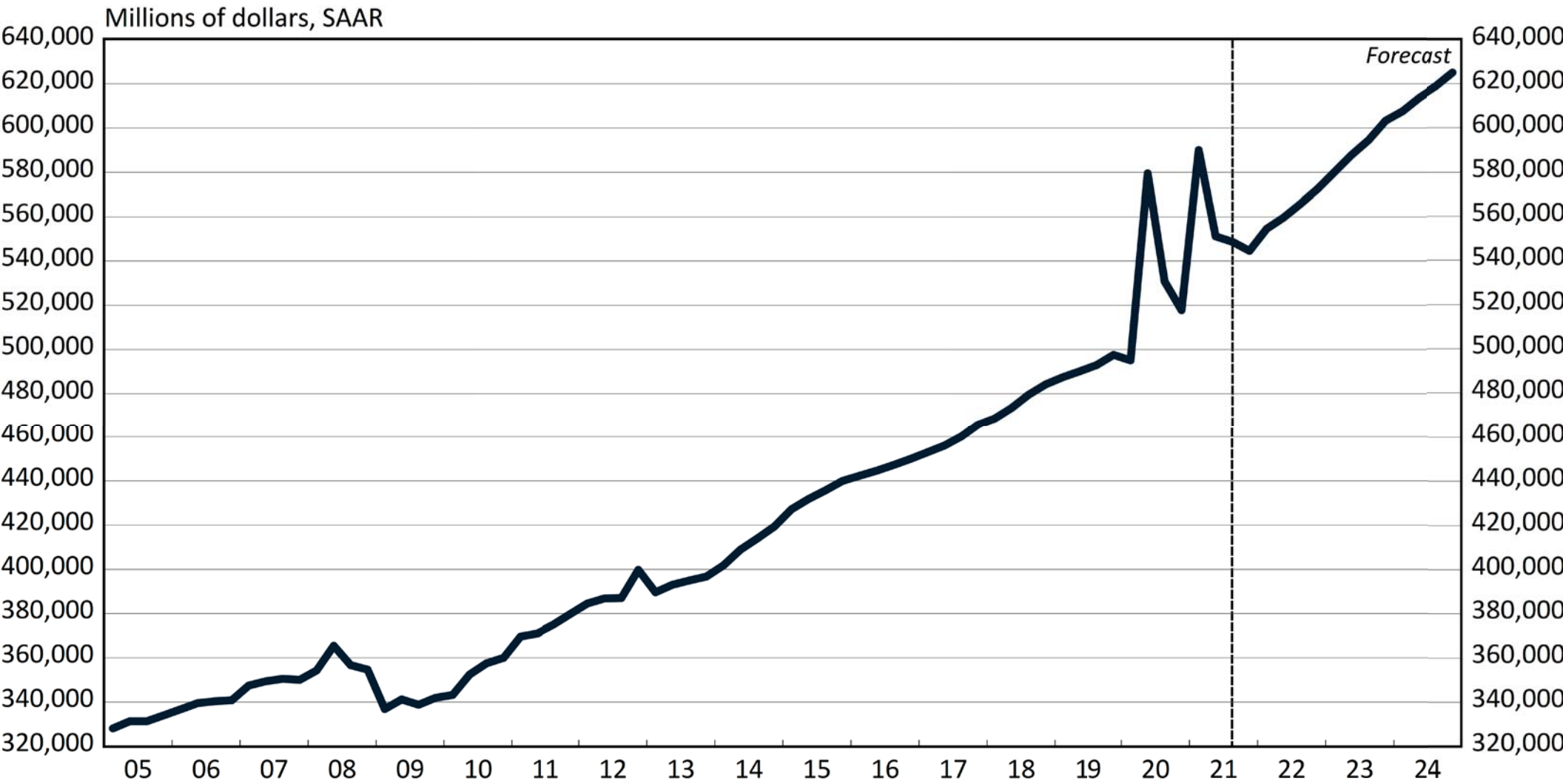


# Quarterly Michigan Unemployment Rate



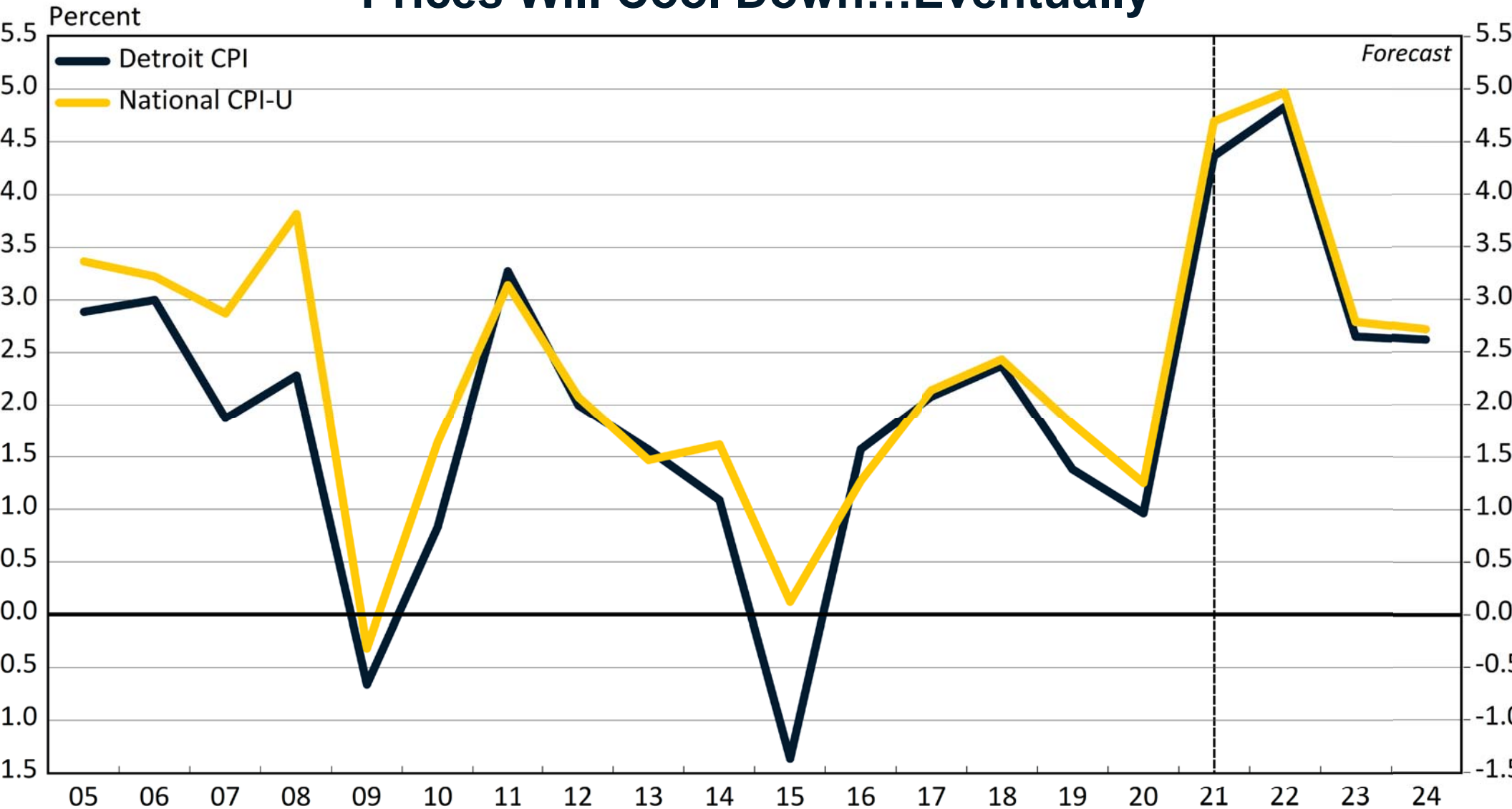
SQE: January 2022

# Quarterly Michigan Personal Income: Stimulus Offset Income Losses



SQE: January 2022

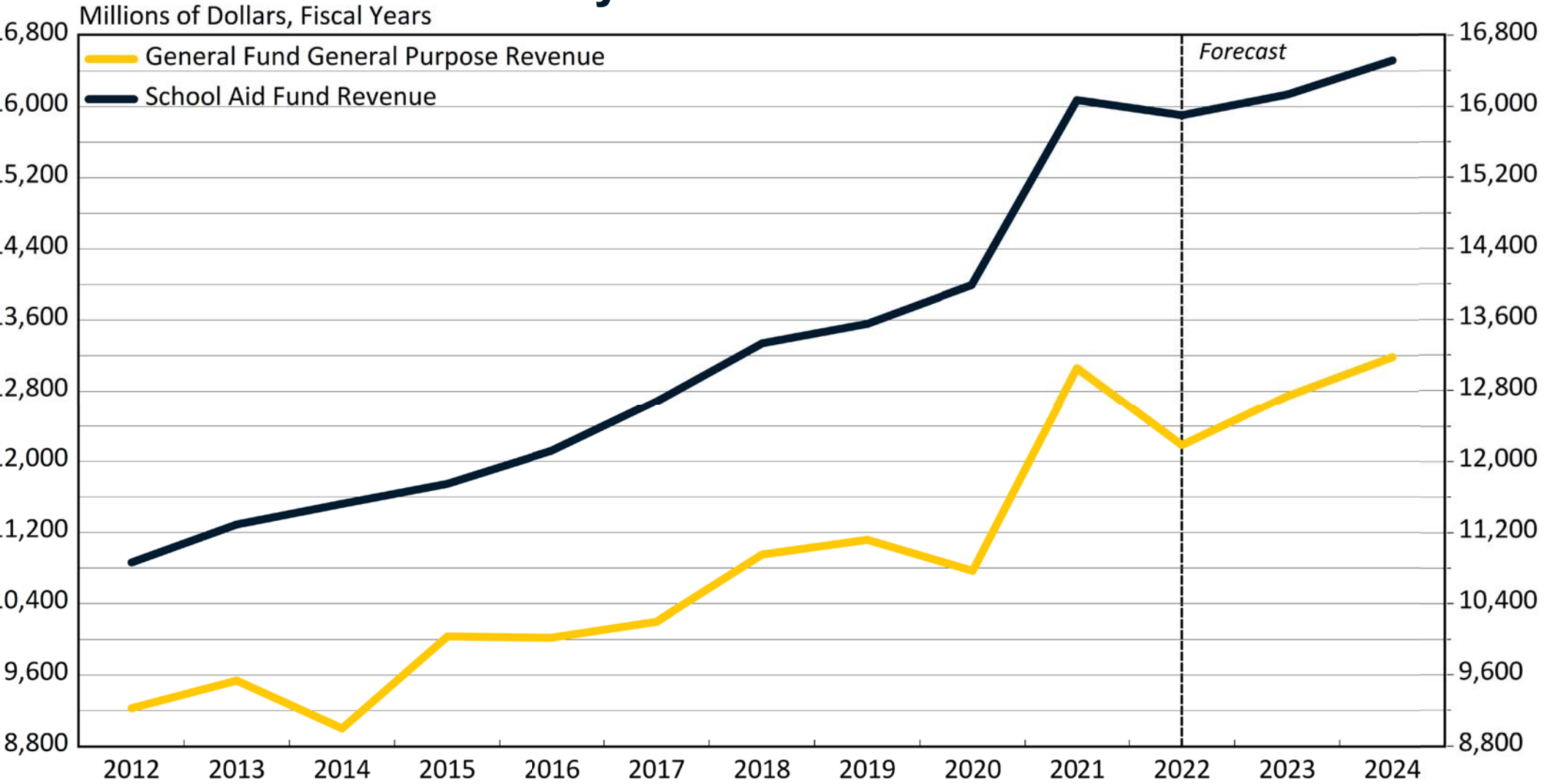
# National and Local Inflation: Prices Will Cool Down...Eventually



SQE: January 2022



# State Tax Revenues: Will They Come Back to Trend?



SQE: January 2022



[lsa.umich.edu/econ/rsqe](https://lsa.umich.edu/econ/rsqe)