



BUILD ELECTRONICS BETTER

# Living in Uncertain Times: Current Supply Chain Dynamics and the Economic Outlook

February 2022

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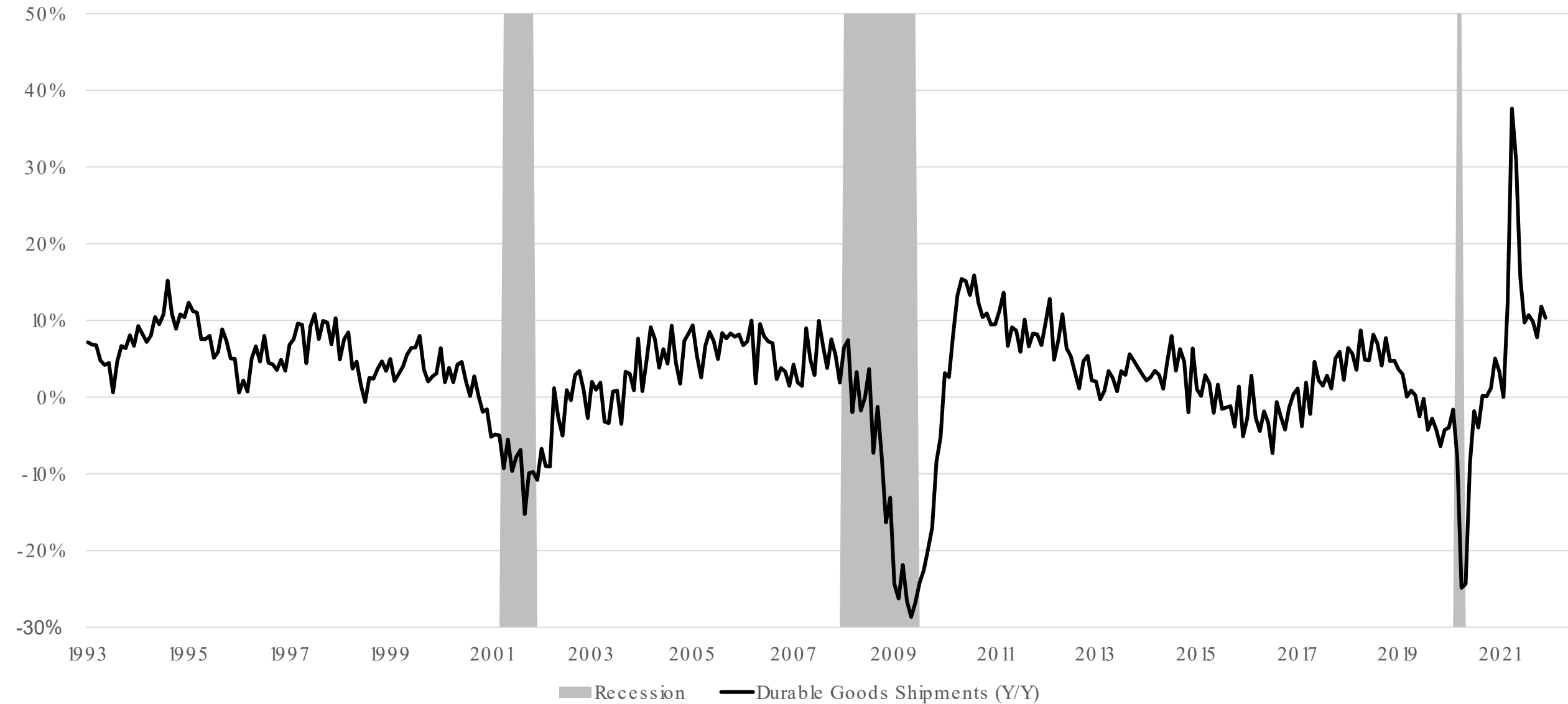
- > **Demand:** orders, shipments, and capacity utilization are all rising, suggesting strong demand continues in 2022, but risks are mounting to the downside
- > **Supply chains** woes have improved, with further improvement expected in 2022
- > **Labor:** the labor market is extremely tight. Finding qualified workers is difficult and wages are rising
- > **Inflation:** prices are rising. Yes, some (hopefully much) of these increases are 'transitory,' but the length of that transitory period is hotly debated. The Fed is behind which creates some risk of stalling the economy
- > **Vehicle Market:** production remains curtailed in 2022 with supply and demand moving into equilibrium in 2023. The broader transition to EVs is taking shape
- > **Corporate Sector** the corporate sector has been extremely profitable over the last year. Equity markets have benefited tremendously as a result. The uncertainty of 2022 creates significant volatility

# Economic Growth Outlook

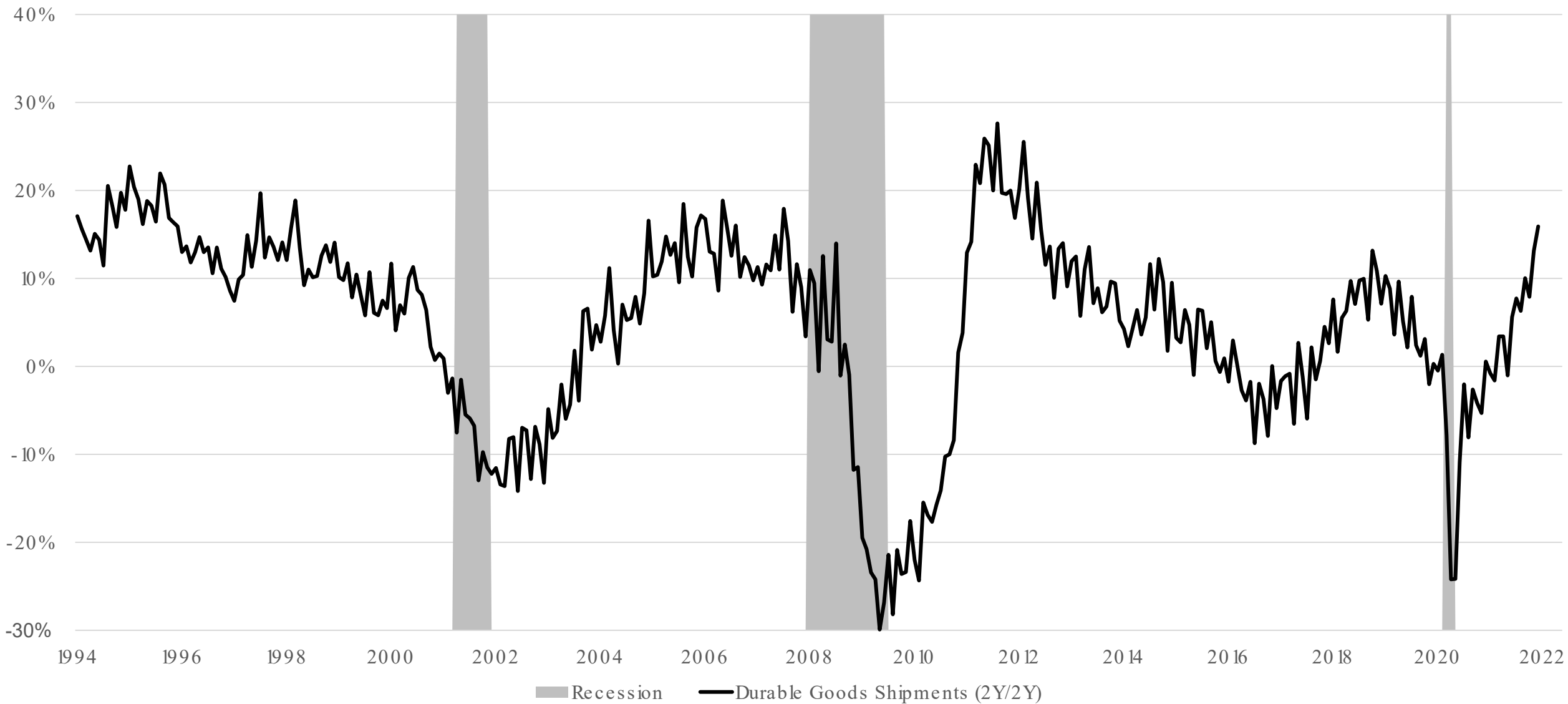


|               | 2021 | 2022 | 2023 |
|---------------|------|------|------|
| World         | 6.1% | 4%   | 4.1% |
| North America | 5.4% | 3.7% | 2.6% |
| Europe        | 5%   | 4%   | 2.4% |
| Asia          | 6.7% | 4.8% | 5%   |

# Big Bounce in Demand Created Bottlenecks



# Industry Growth on Solid Footing Headed into 2022



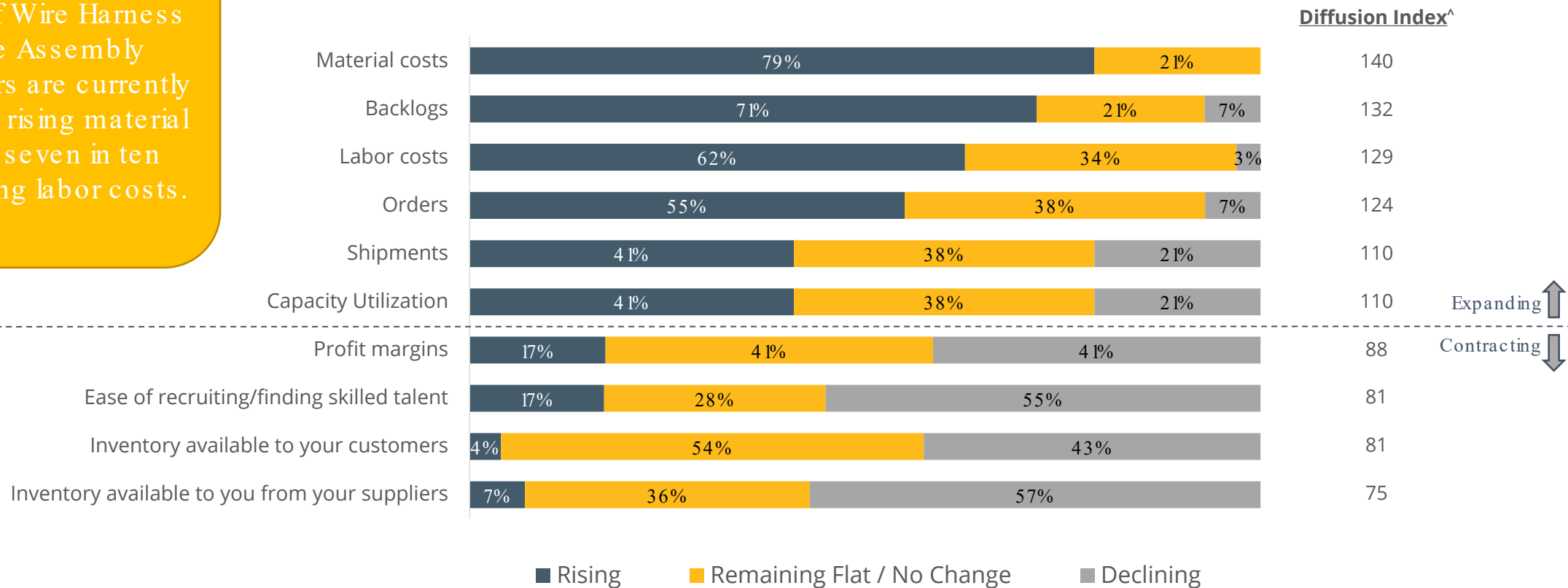
# WHMA Industry Sentiment is Mostly Positive

# Current Supply Chain Conditions for Wire Harness and Cable Assembly Manufacturers Remain Challenging



Four-fifths of Wire Harness and Cable Assembly Manufacturers are currently experiencing rising material costs, with seven in ten reporting rising labor costs.

## Current Direction of Key Business Indicators



<sup>^</sup>A diffusion index is a statistical measure used to detect economic turning points.

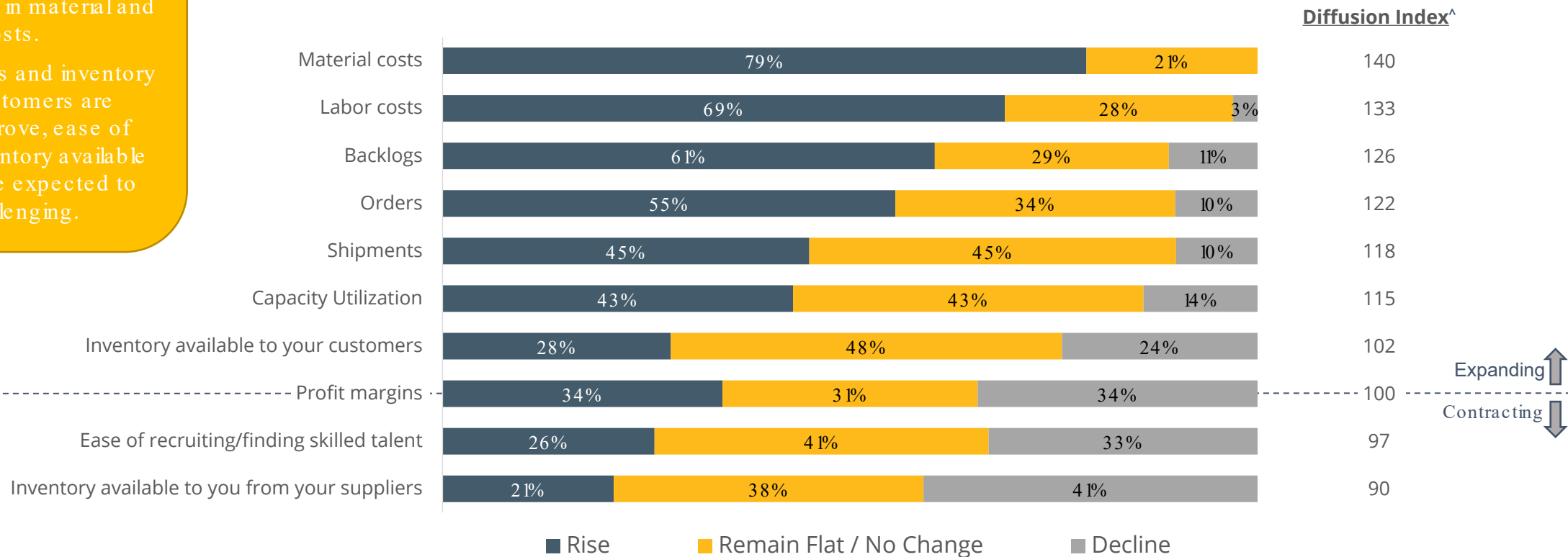
# The Outlook for the Next 6 Months is Little Changed



Over the next six months, Wire Harness and Cable Assembly Manufacturers expect to see continued increase in material and labor costs.

While profit margins and inventory available to customers are expected to improve, ease of recruiting and inventory available from suppliers are expected to remain challenging.

## Anticipated Direction of Key Business Indicators Next Six Months



<sup>^</sup>A diffusion index is a statistical measure used to detect economic turning points.

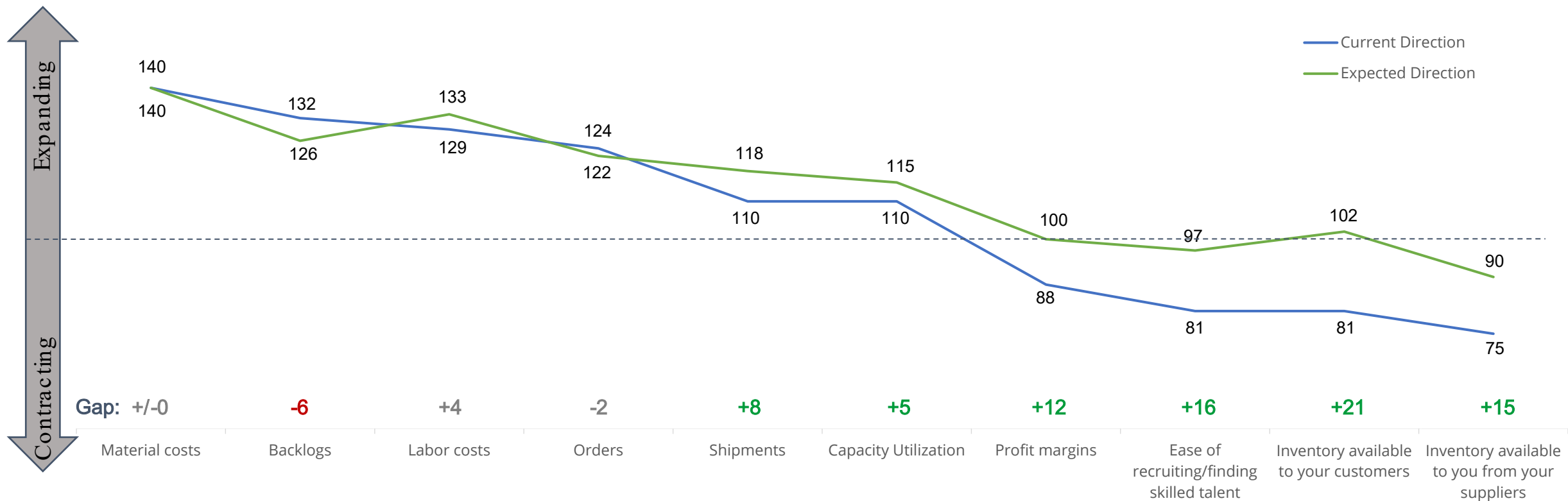


# Material Costs, Labor Costs, and Orders Expected to Remain Relatively Stable



Wire Harness and Cable Assembly Manufacturers expect to see declines in backlogs, while inventories, ease of recruitment, profit margins, shipments, and capacity utilization are expected to see notable levels of improvement.

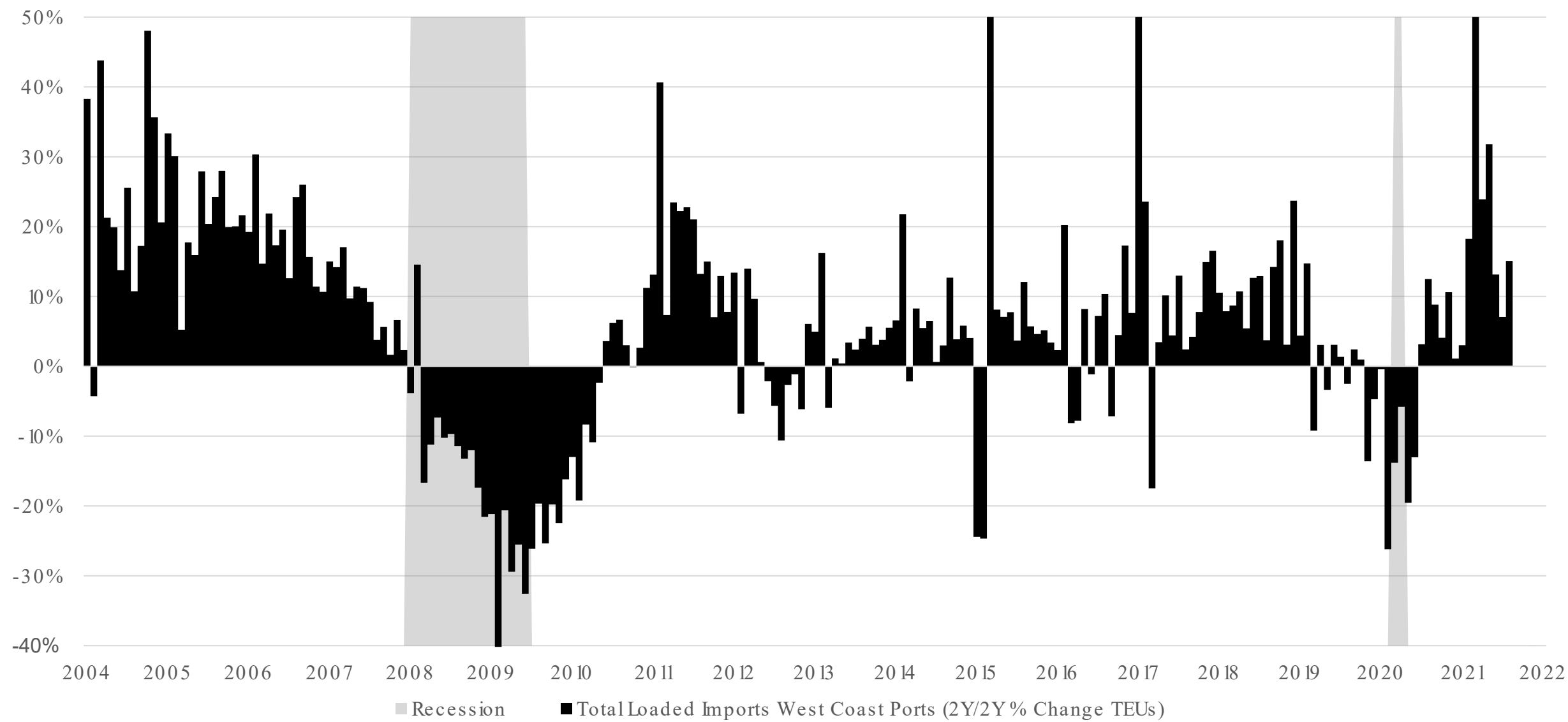
## Direction of Key Business Indicators Diffusion Index



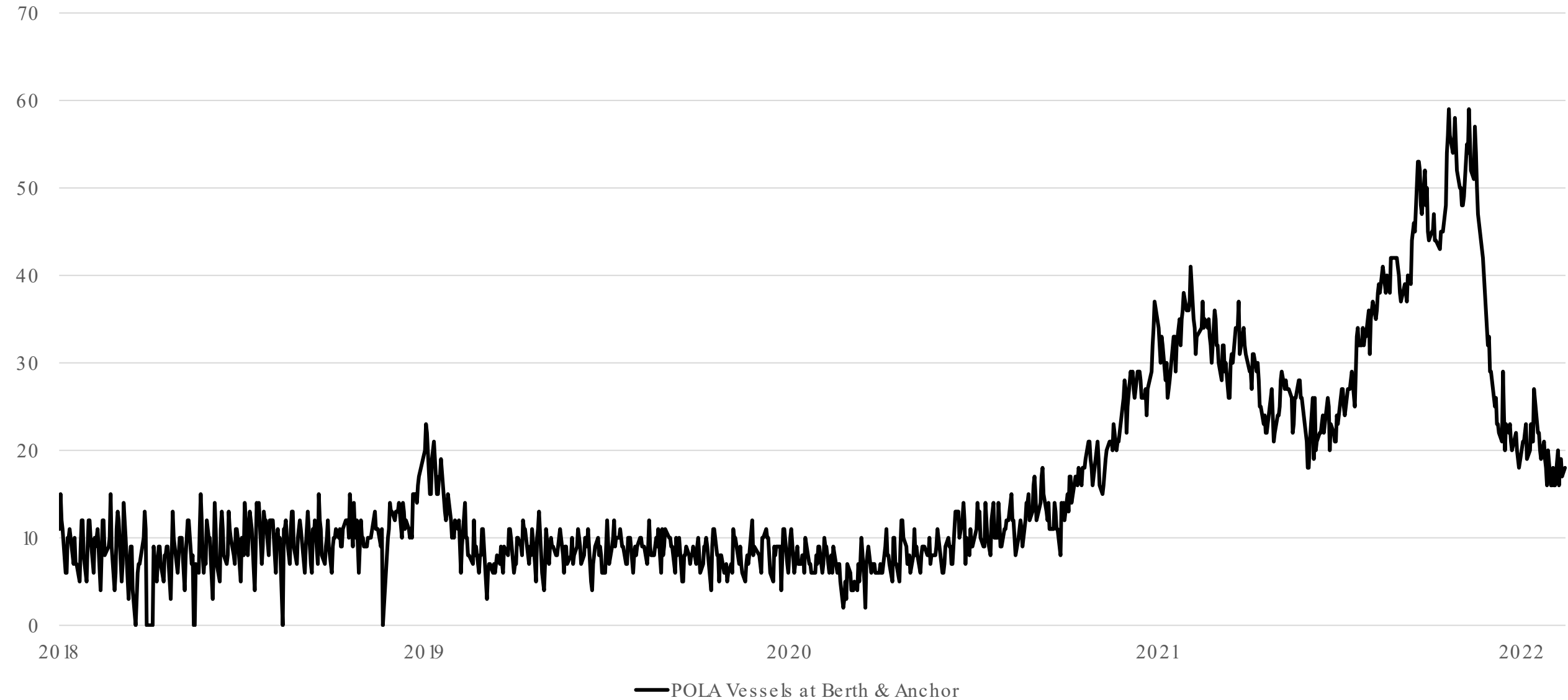
^A diffusion index is a statistical measure used to detect economic turning points.

# Supply Chain Dynamics are Improving

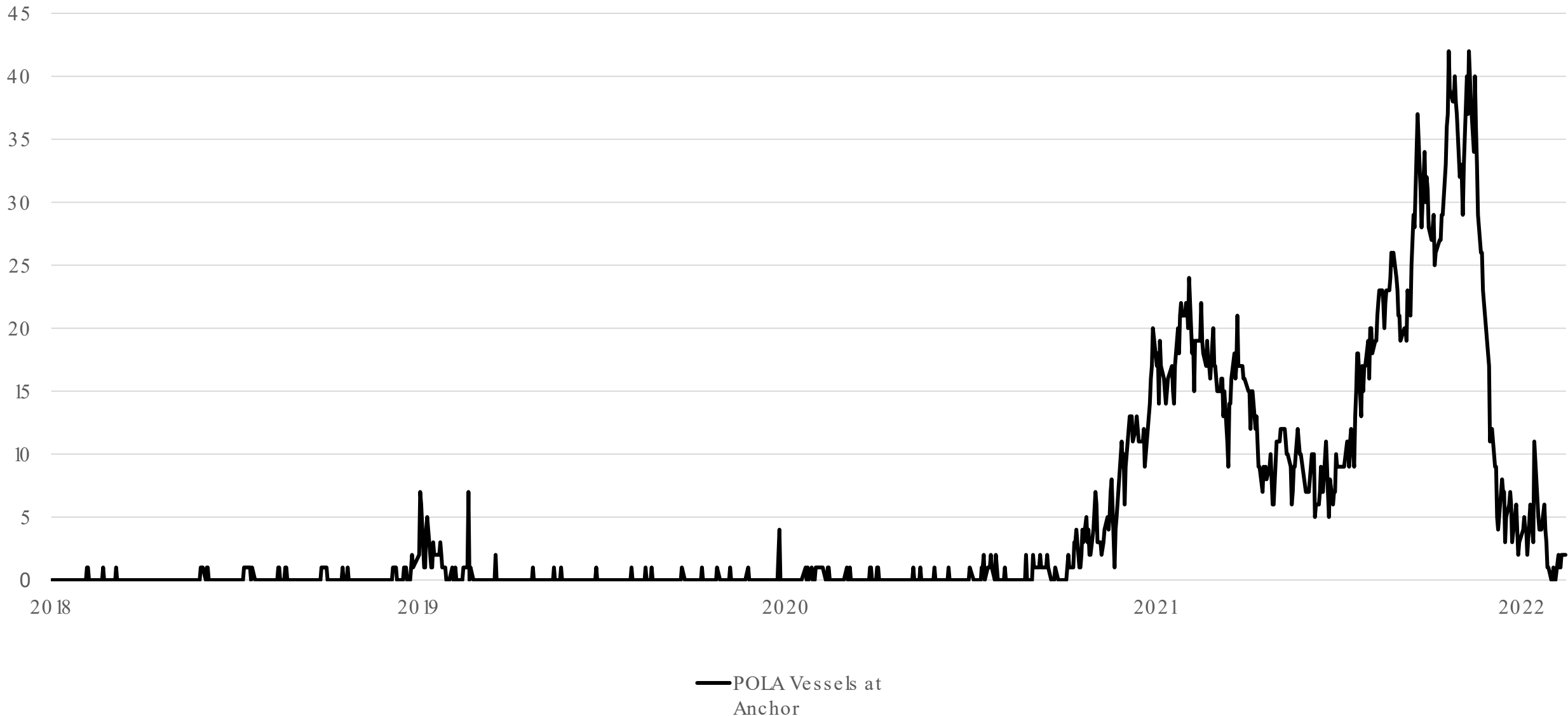
# Imports Accelerated in the Aftermath of the Pandemic..and then Exploded!

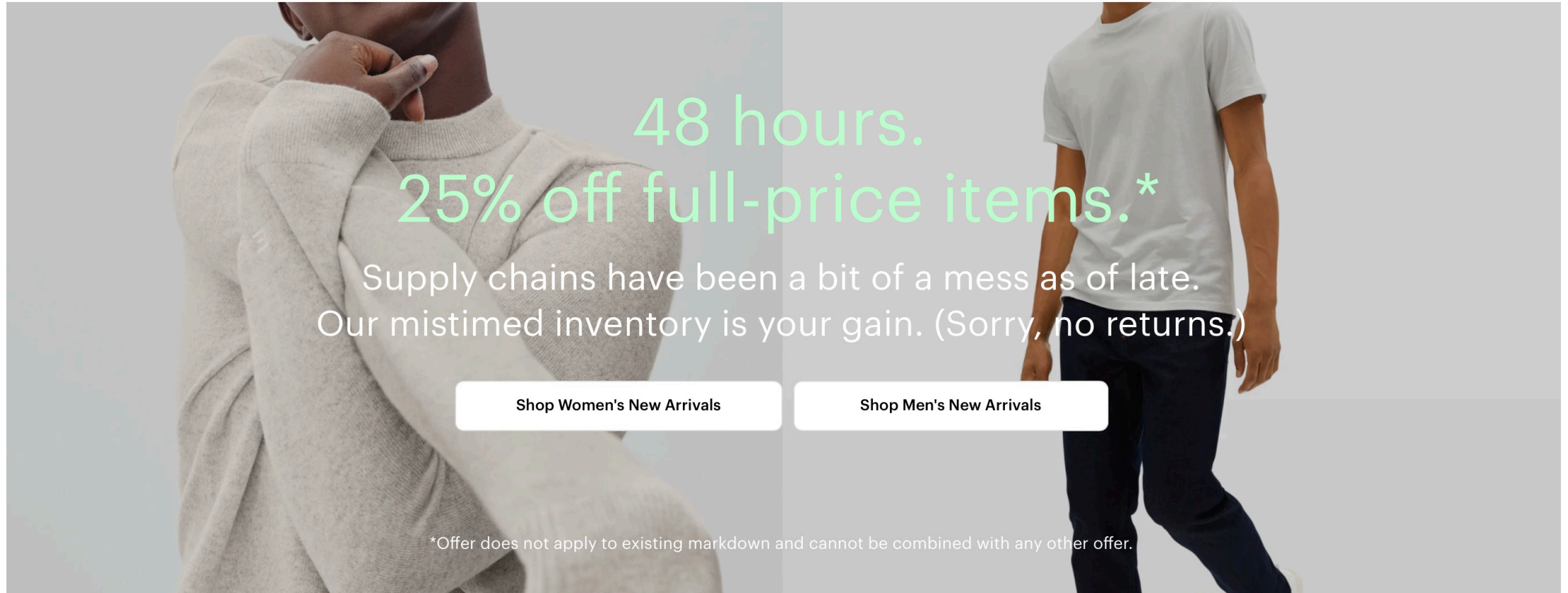


# Ports are Servicing More Ships than Normal



# Backlog at West Coast Ports Has Improved





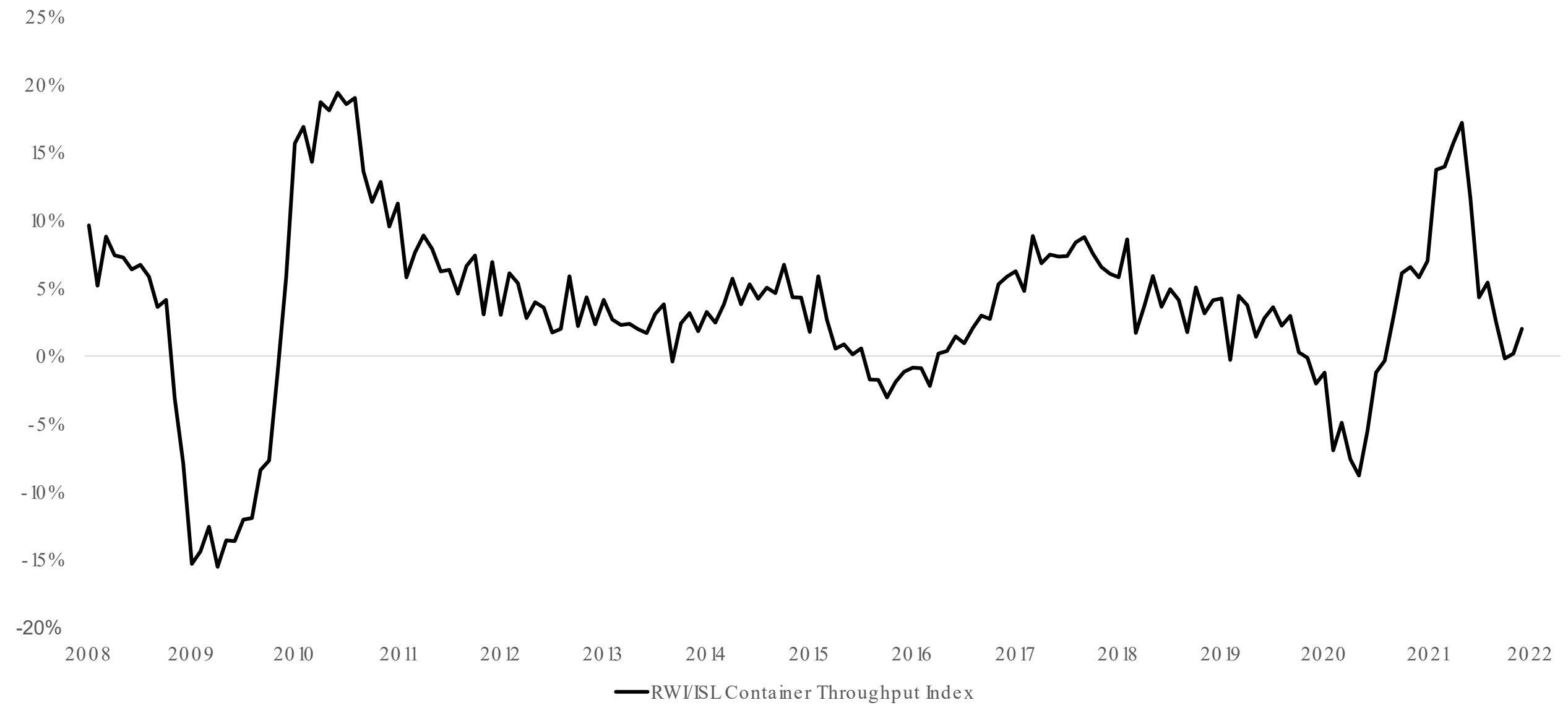
48 hours.  
25% off full-price items.\*

Supply chains have been a bit of a mess as of late.  
Our mistimed inventory is your gain. (Sorry, no returns.)

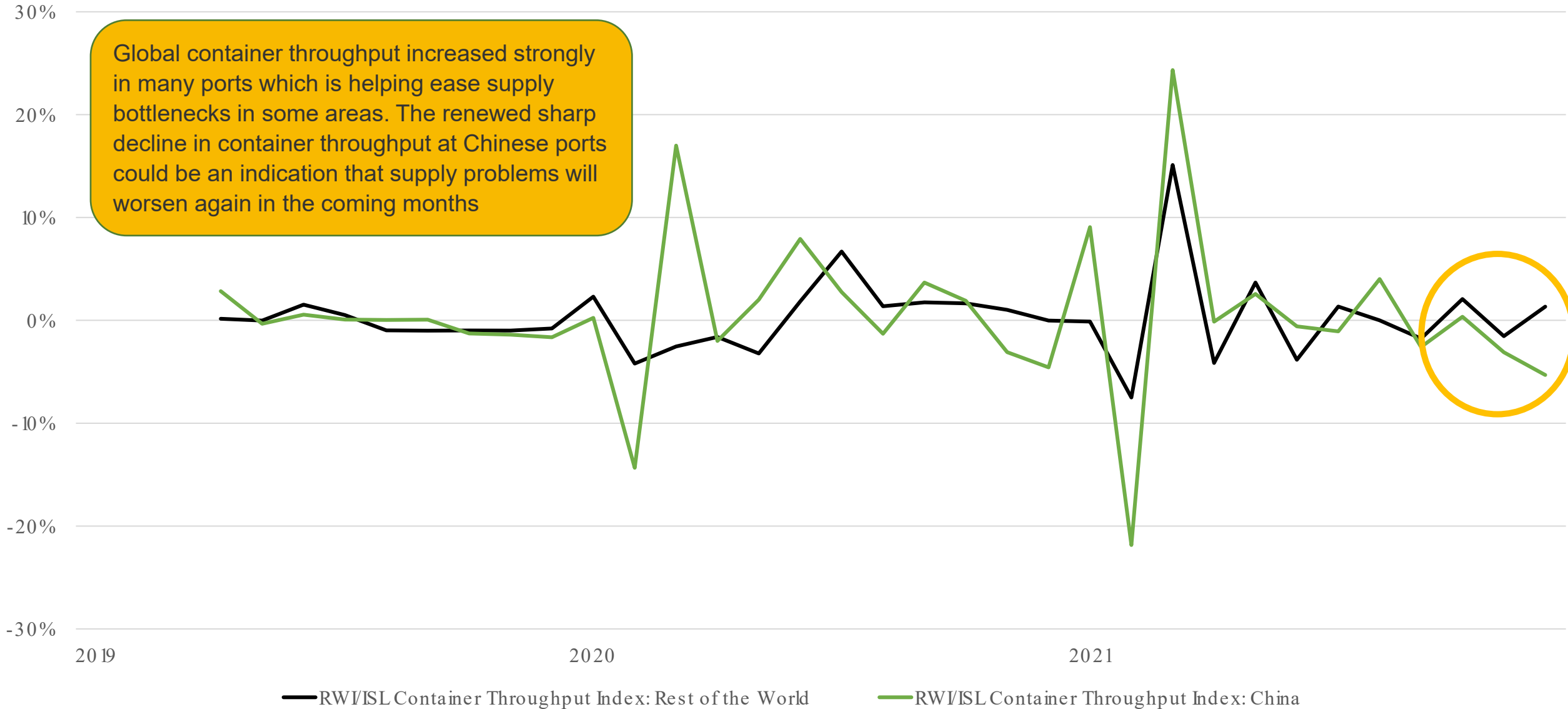
[Shop Women's New Arrivals](#) [Shop Men's New Arrivals](#)

\*Offer does not apply to existing markdown and cannot be combined with any other offer.

# Global Port throughput remains high, though off the May 2021 peak



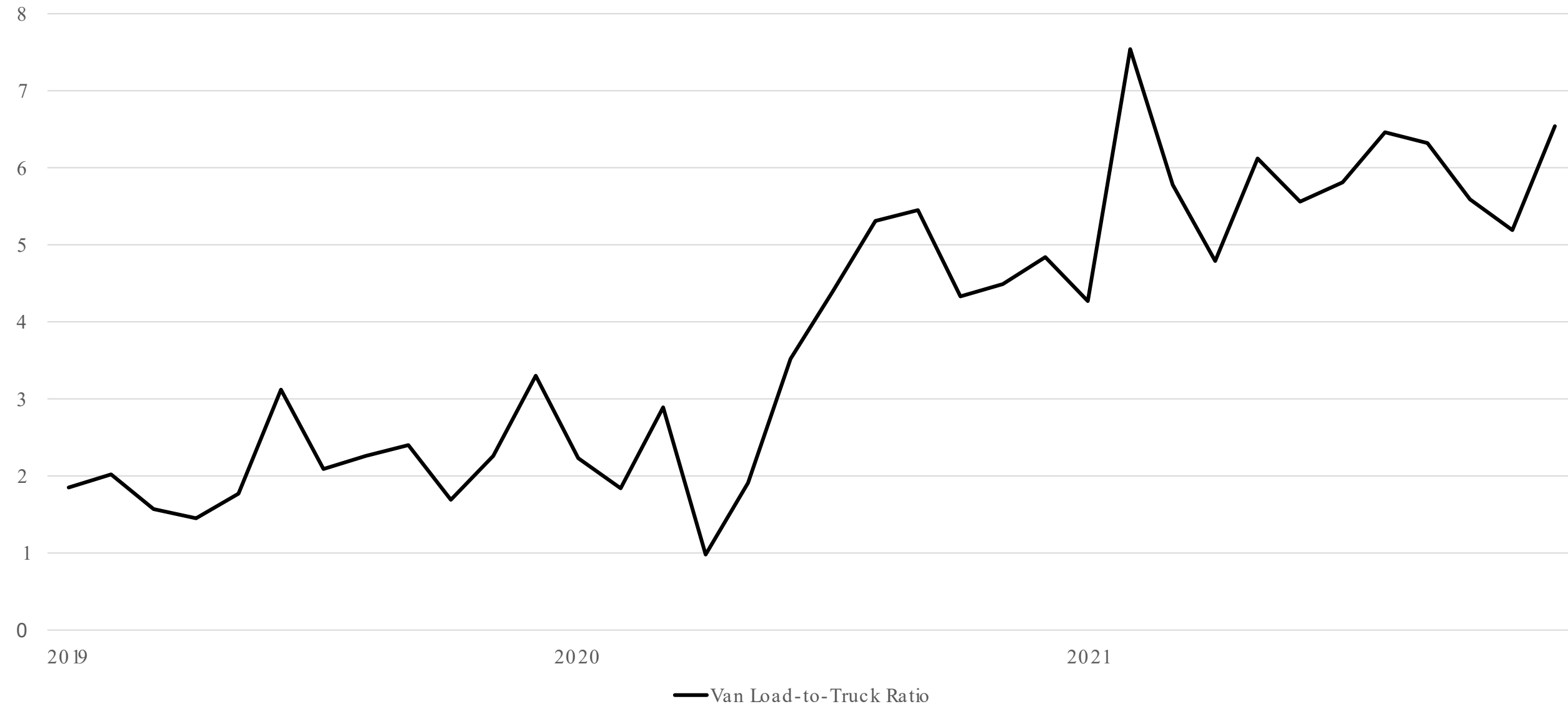
# Recent Declines in Chinese Port Throughput are Concerning



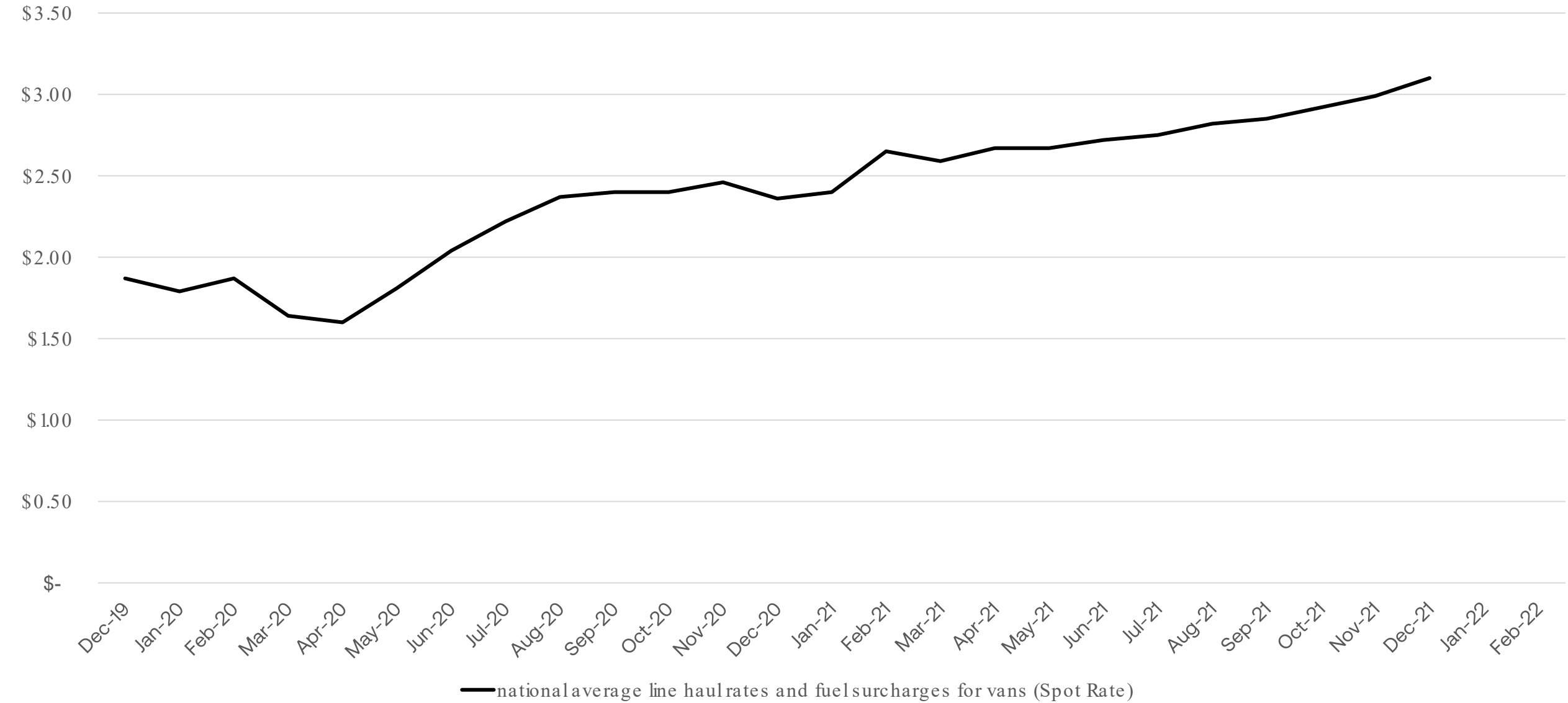


# Transportation Costs Remain Elevated

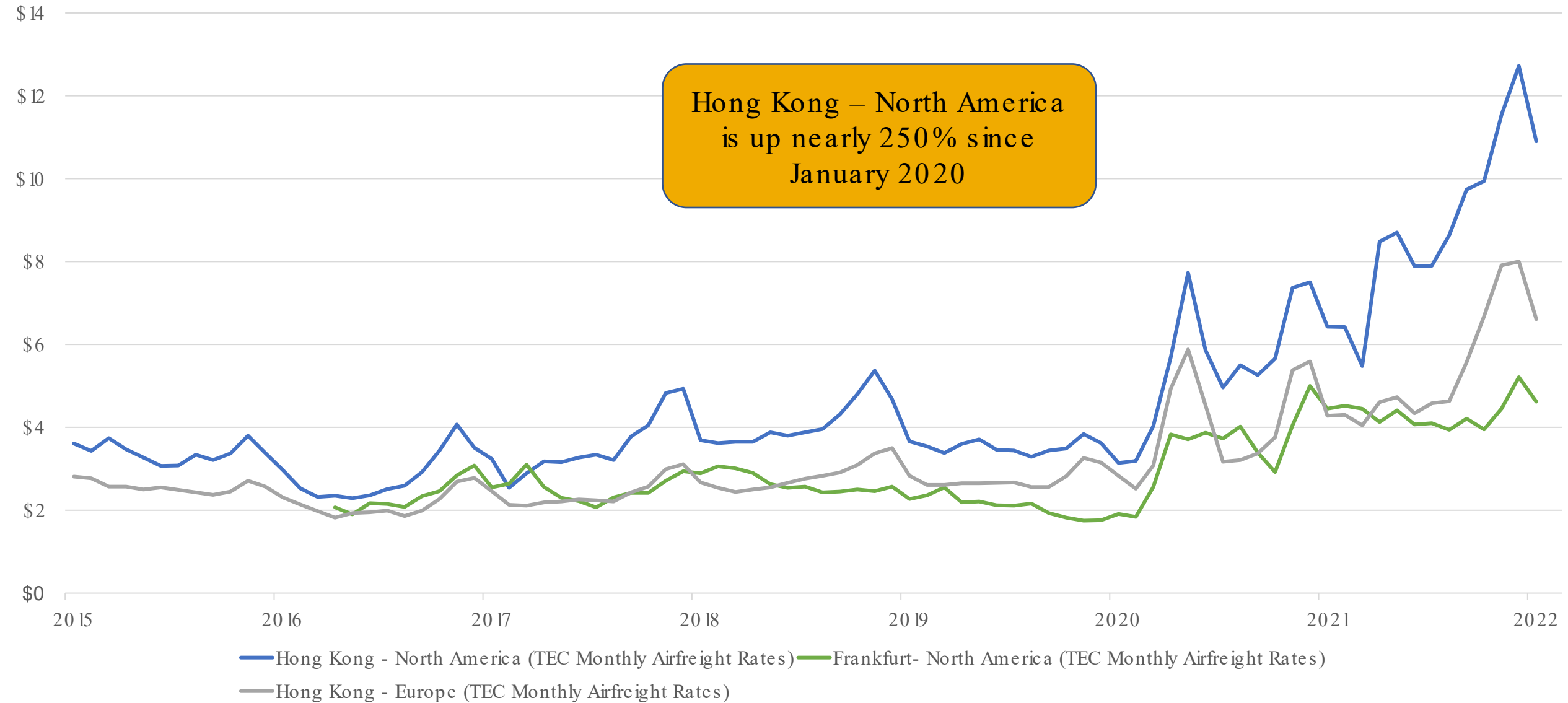
# Demand for Trucking is 3 X Normal Levels



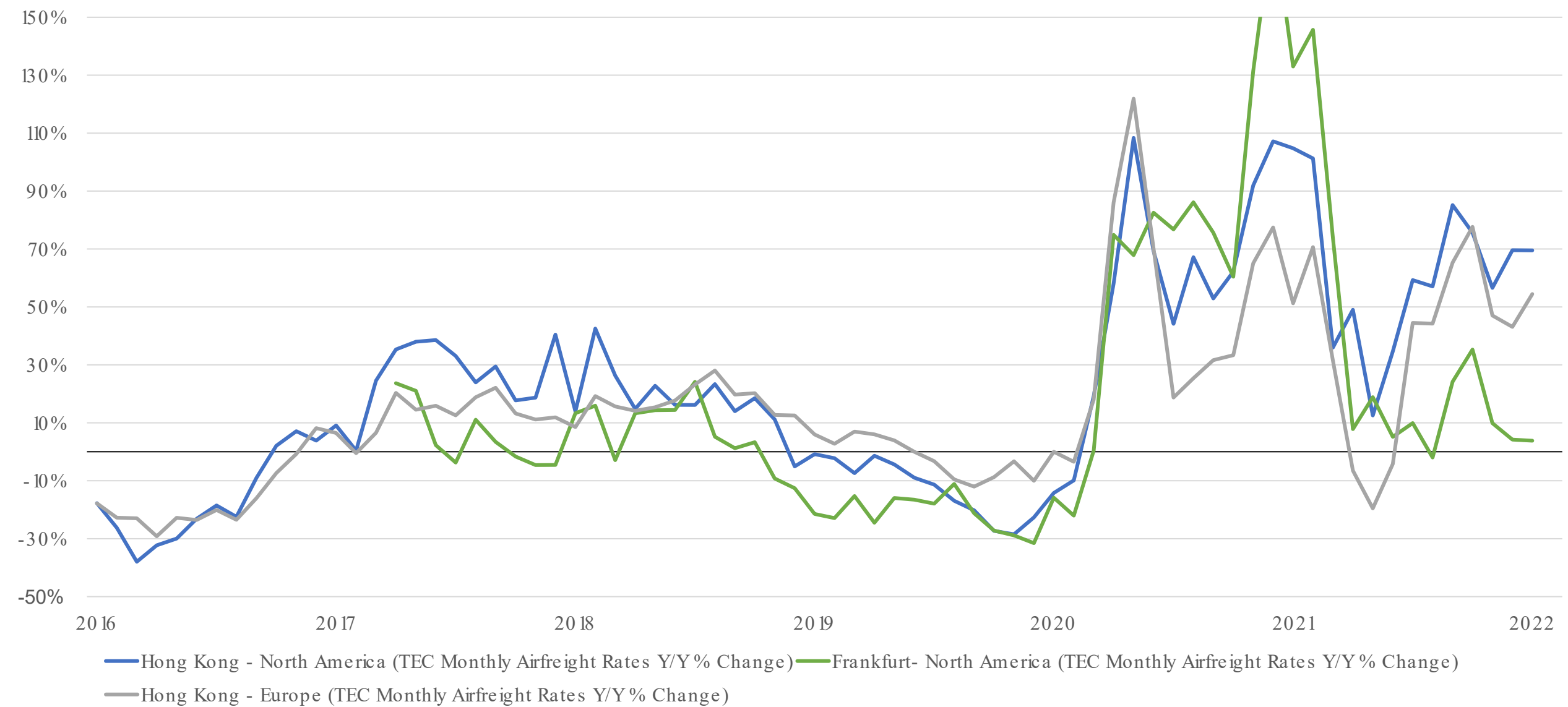
# Freight Rates are 65% higher than pre-pandemic levels



# Airfreight Rates up Significantly



# Airfreight rates up 130-240% from pre-pandemic levels



# Driven in Part by Lower Seat Capacity

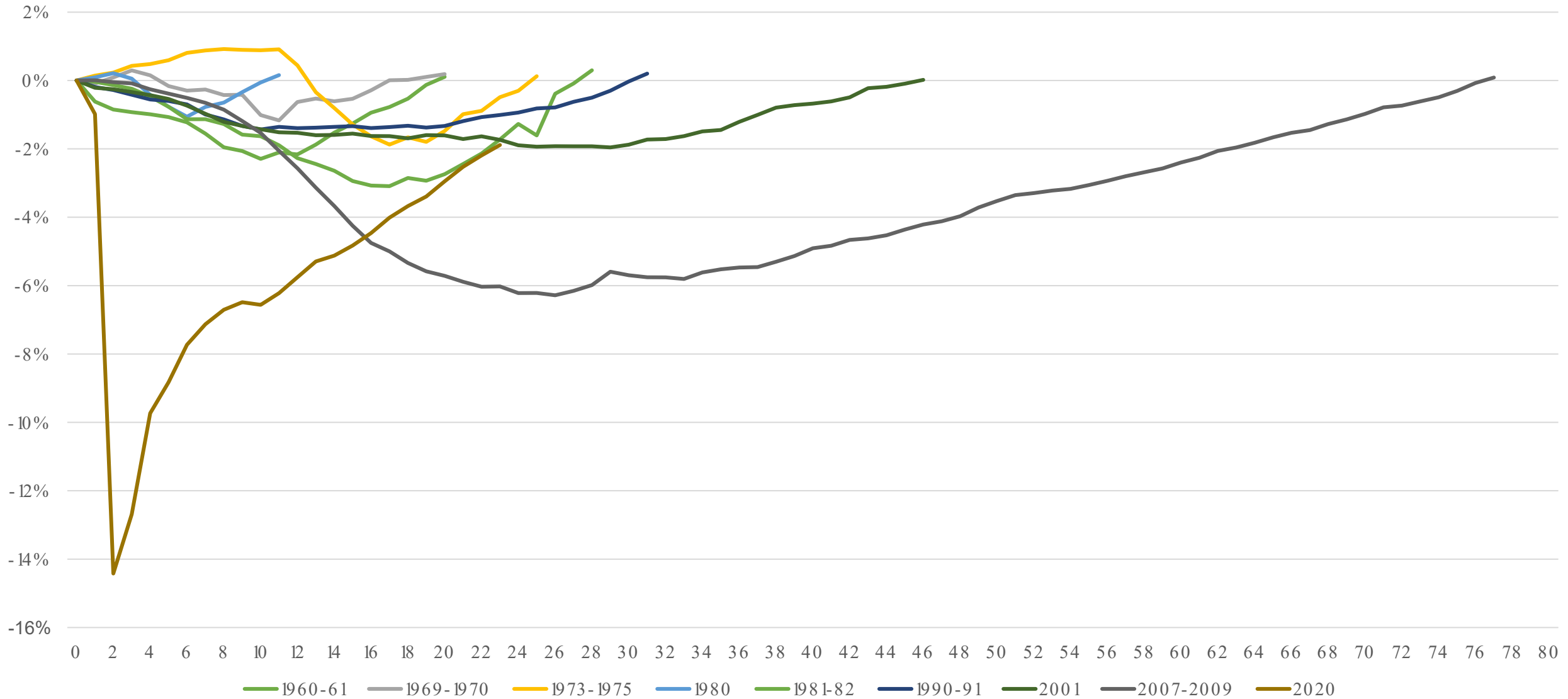


| <b>Region</b>     | <b>Available Seats<br/>(Feb22 v. Feb19)</b> |
|-------------------|---|
| Africa            | -20.9%                                      |
| Asia              | -26.9%                                      |
| Europe            | -32.6%                                      |
| Latin America     | -15.6%                                      |
| Middle East       | -25.5%                                      |
| North America     | -11.3%                                      |
| Southwest Pacific | -48.6%                                      |
| Global            | -24.2%                                      |



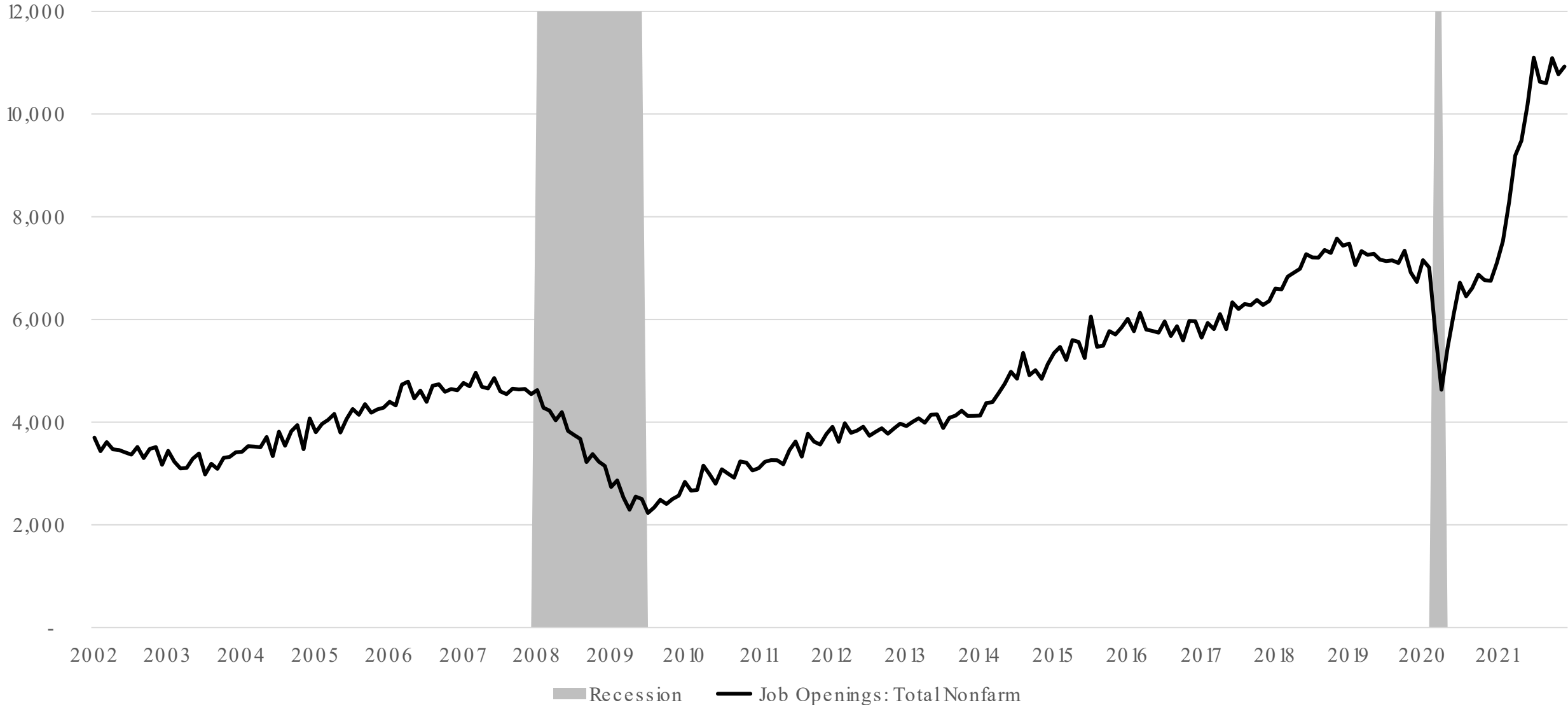
# Labor Pressures Continue to Mount

# Peak-to-Trough Employment: The Labor Market is on Path for a Quick Recovery

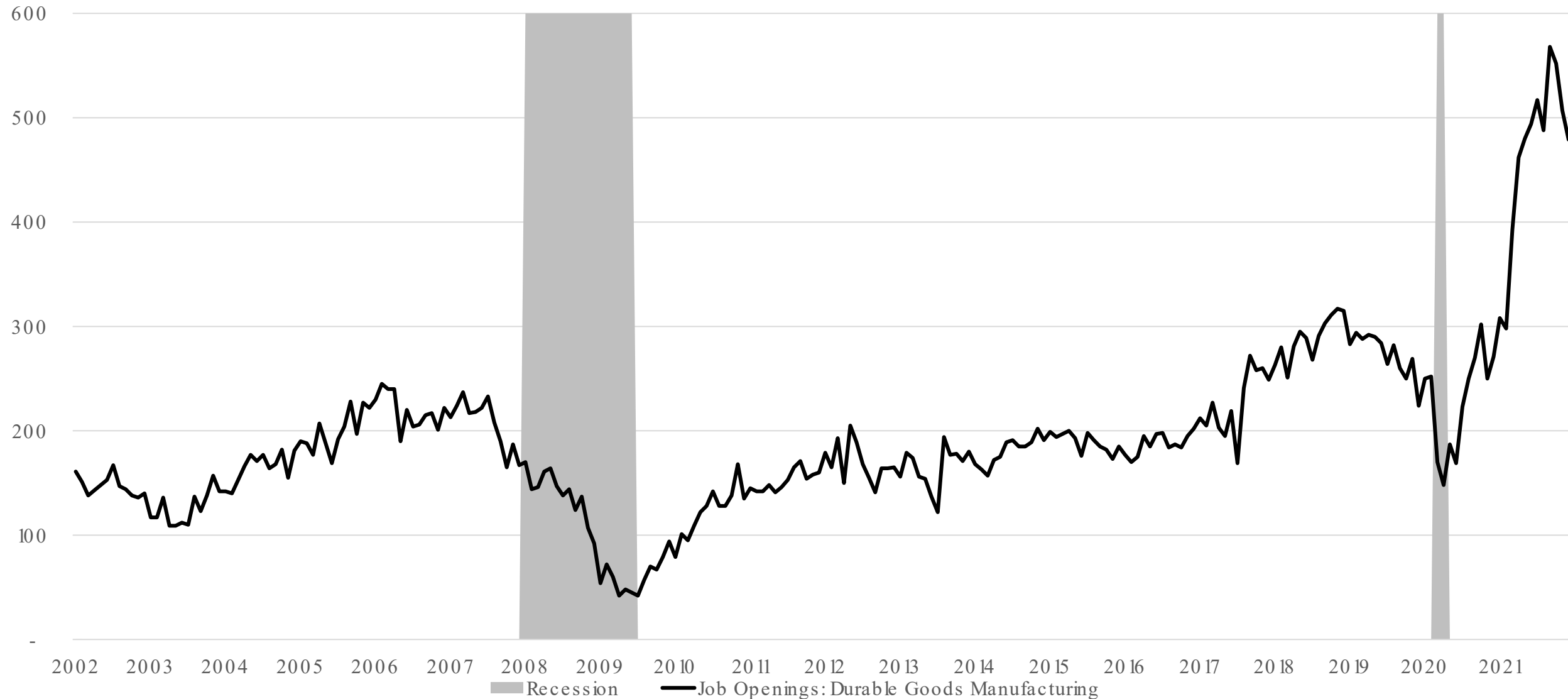




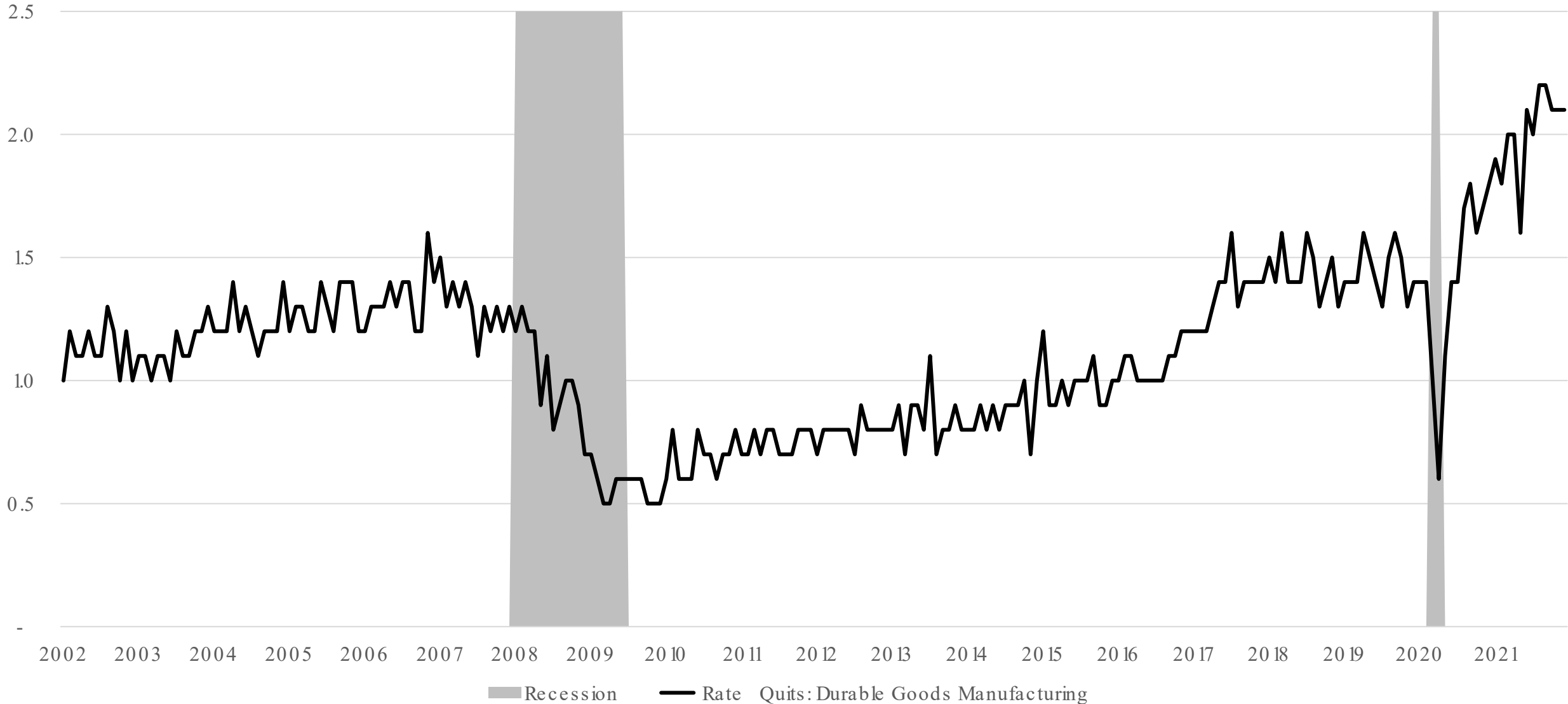
# Historically High Jobs Openings



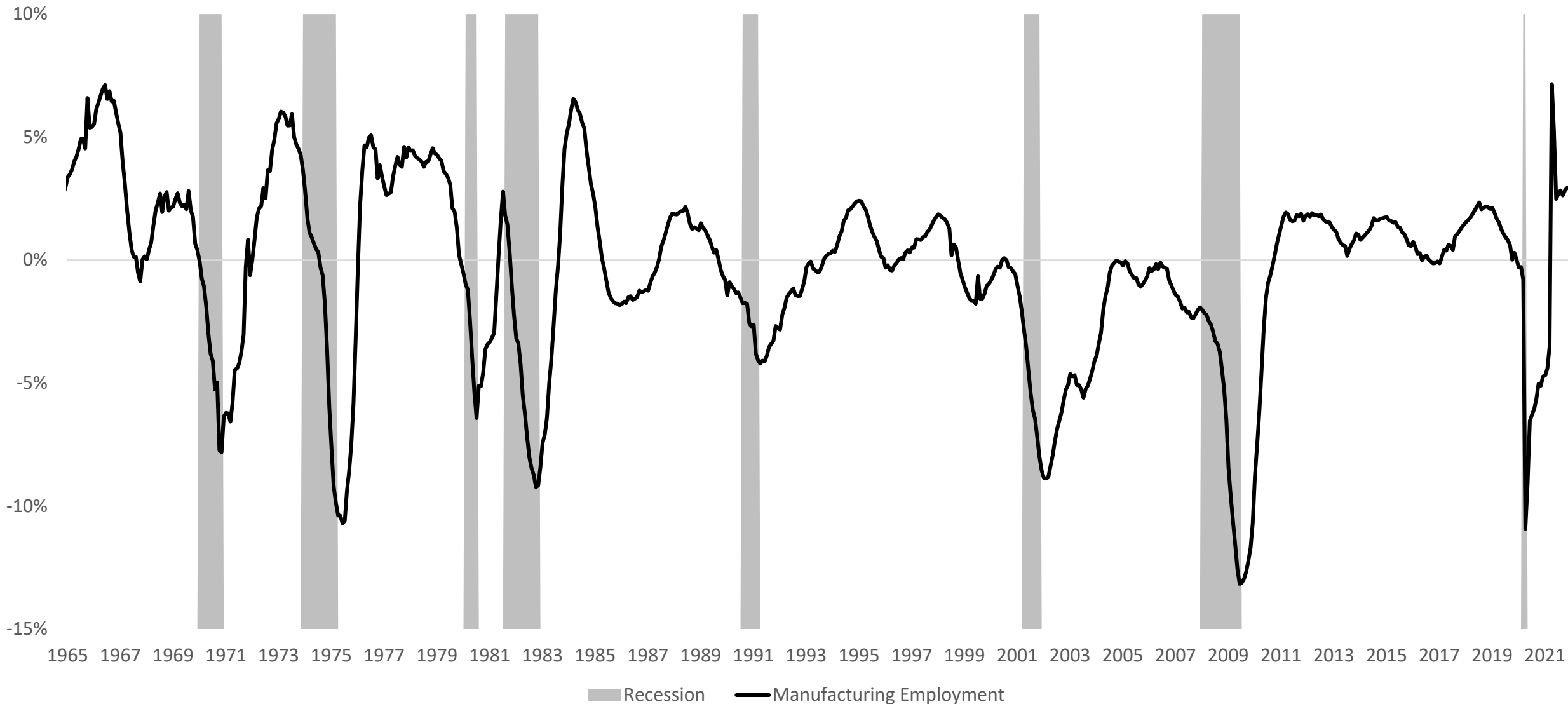
# Historically High Jobs Openings in Durable Manufacturing



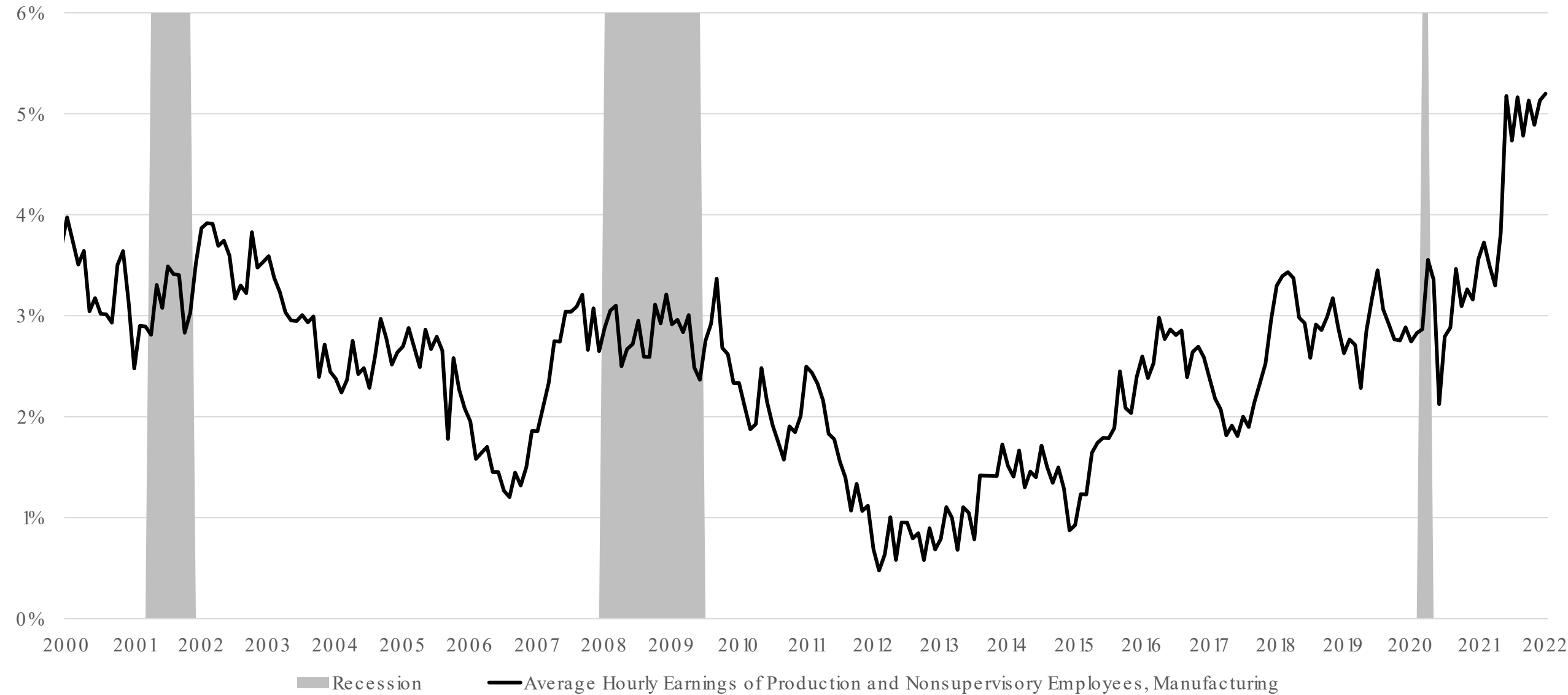
# Historically High Quit Rate Among Workers



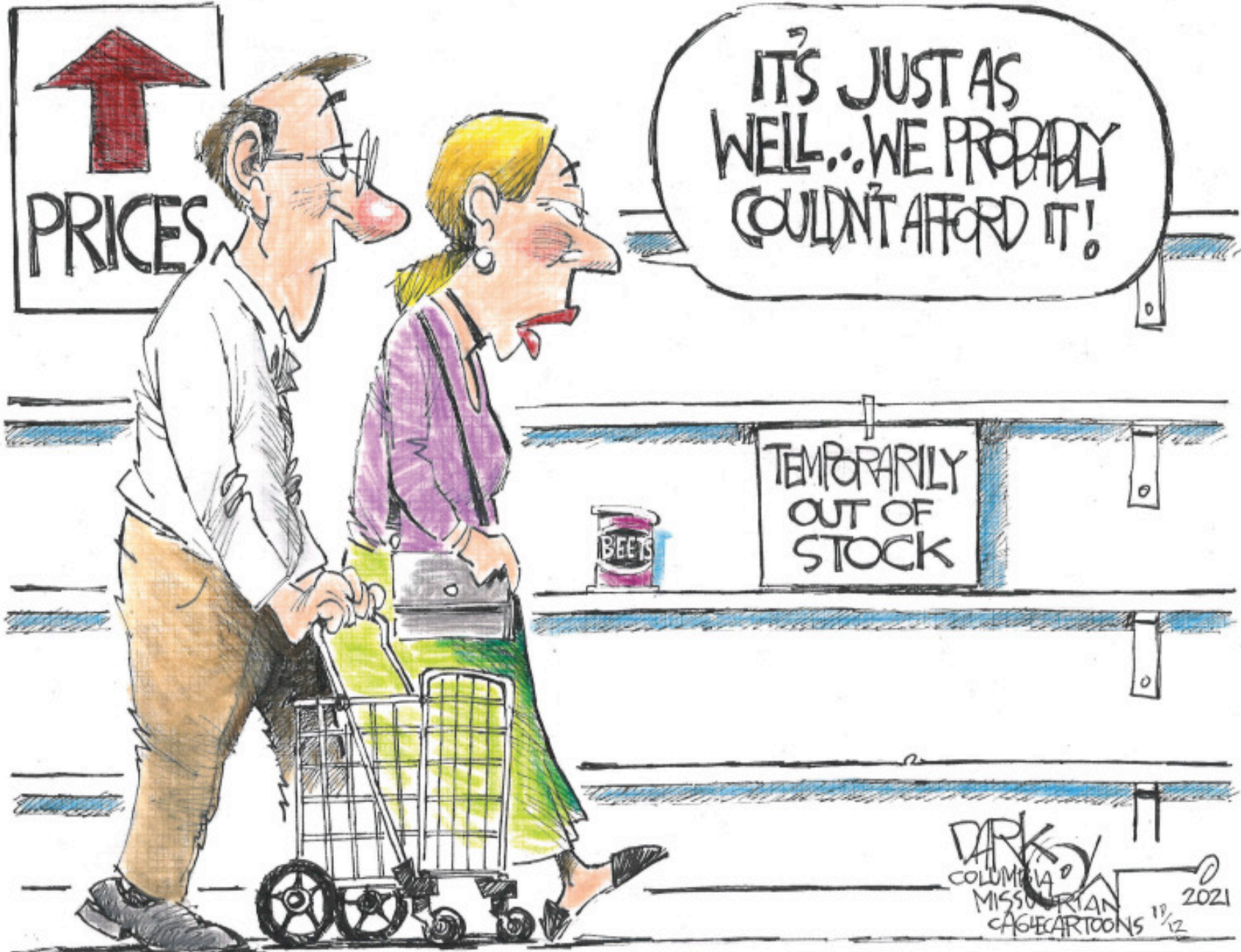
# Manufacturing Enjoying Abnormal Employment Recovery



# “Historically” Strong Wage Gains



# Inflation Expectations and Implications



↑  
PRICES

IT'S JUST AS WELL... WE PROBABLY COULDN'T AFFORD IT!

TEMPORARILY  
OUT OF  
STOCK

BEE'S

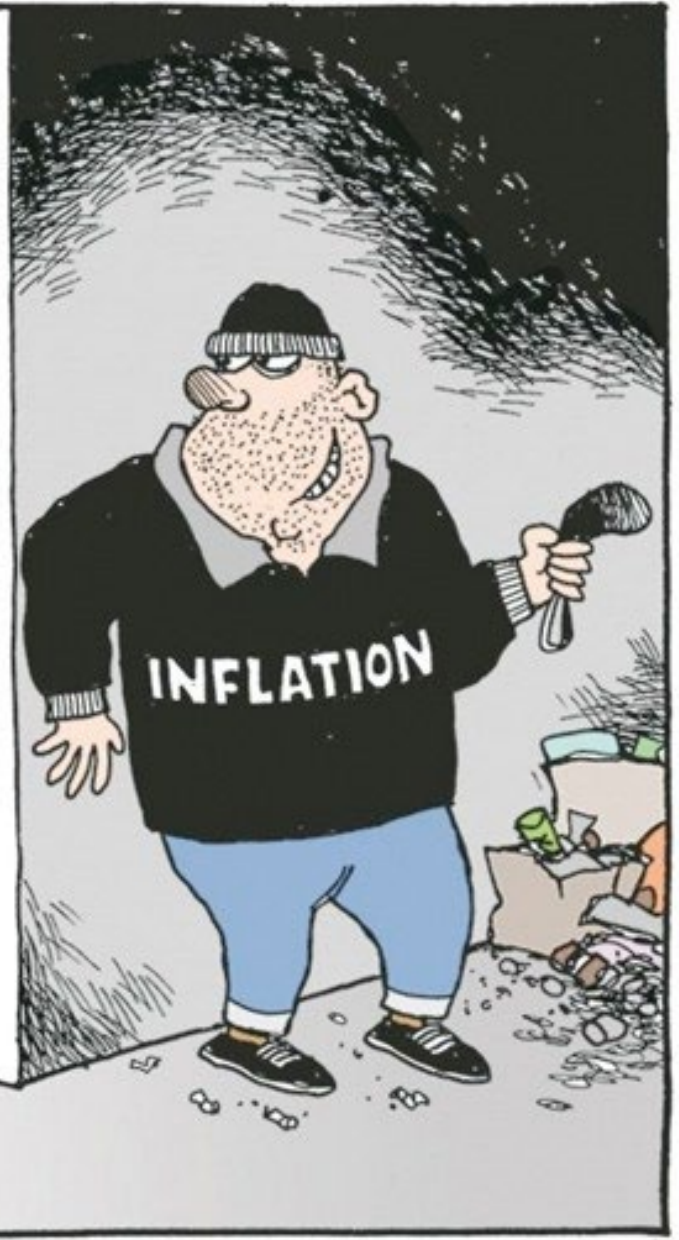
DARK  
COLUMBIA  
MISSOURIAN  
CAGECARTOONS 11/2021



IT'S AMAZING HOW MUCH MONEY WE WERE ABLE TO SAVE DURING THE PANDEMIC...

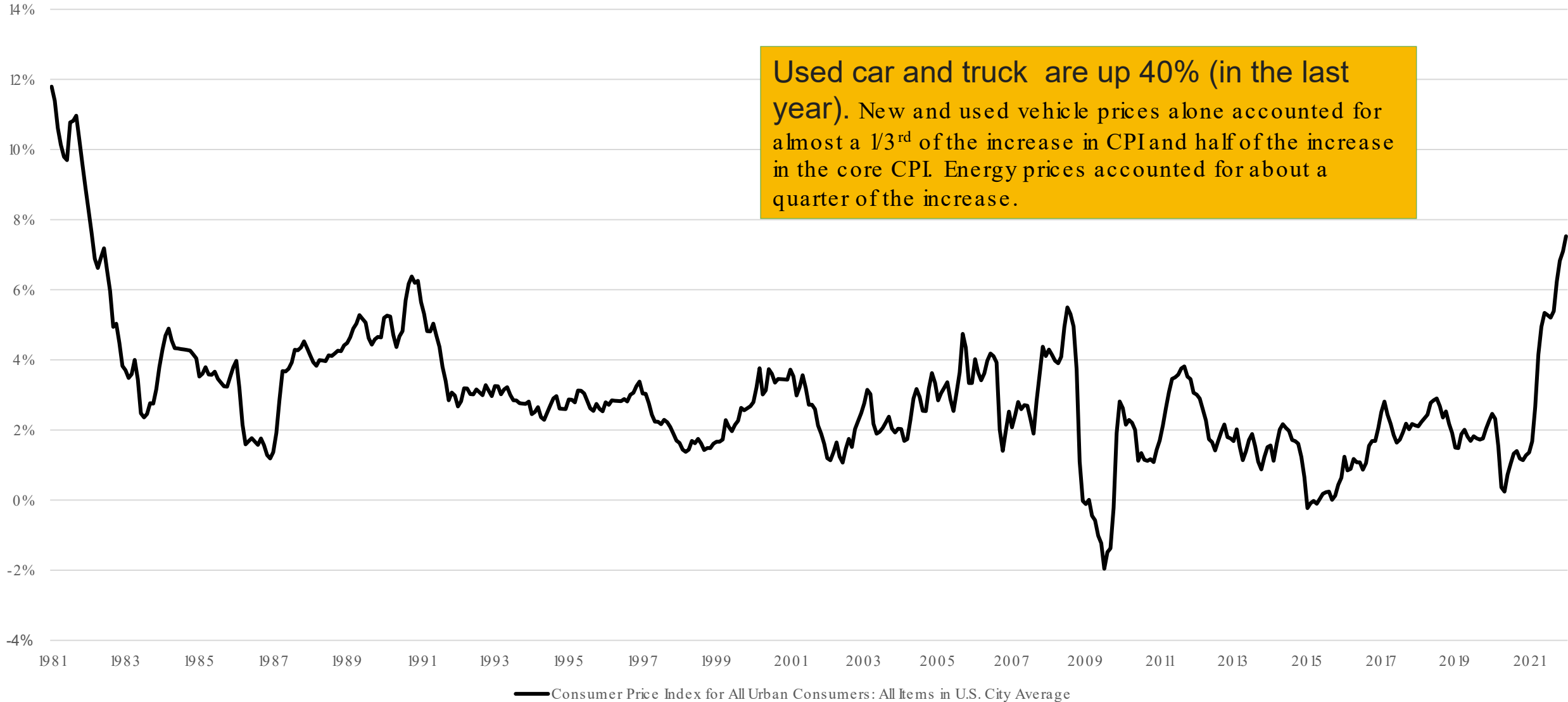


RAESIDE  
88





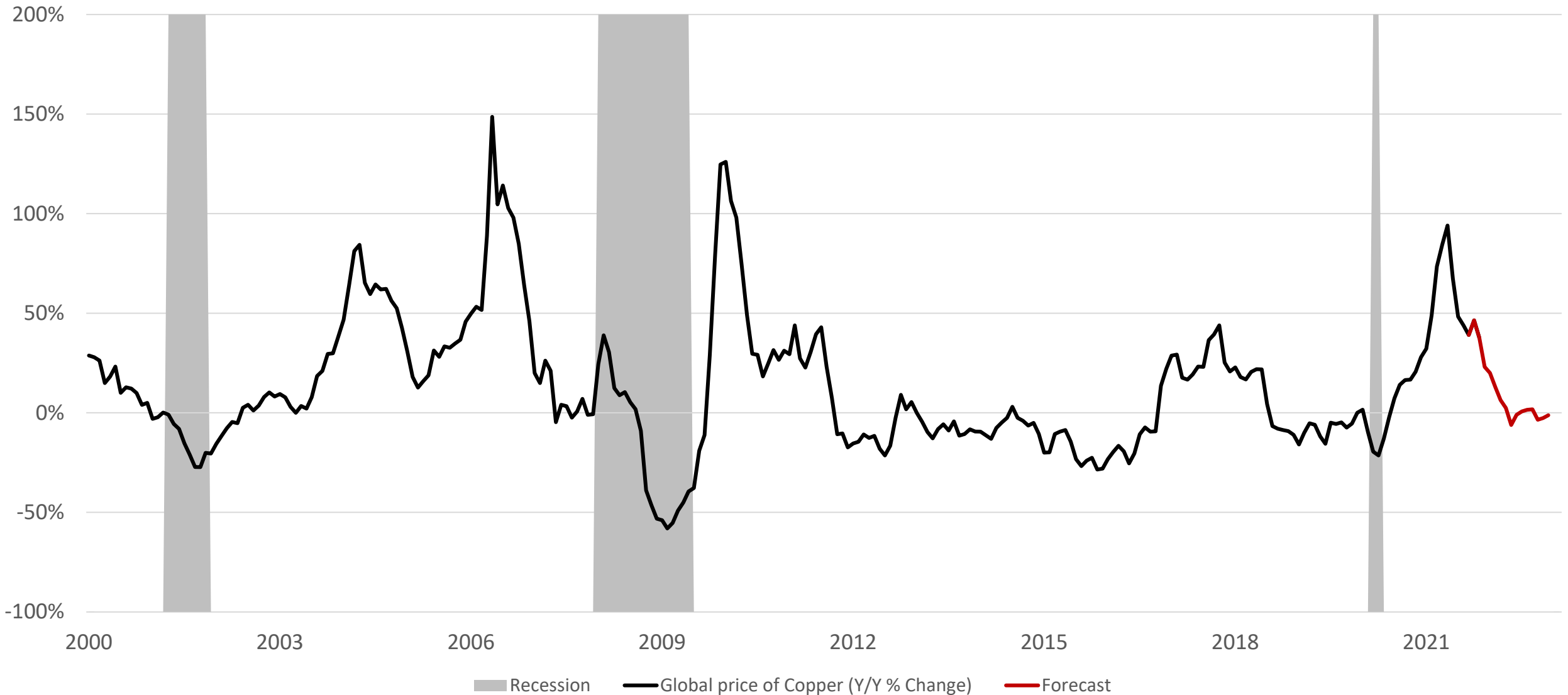
# Inflation has Accelerated



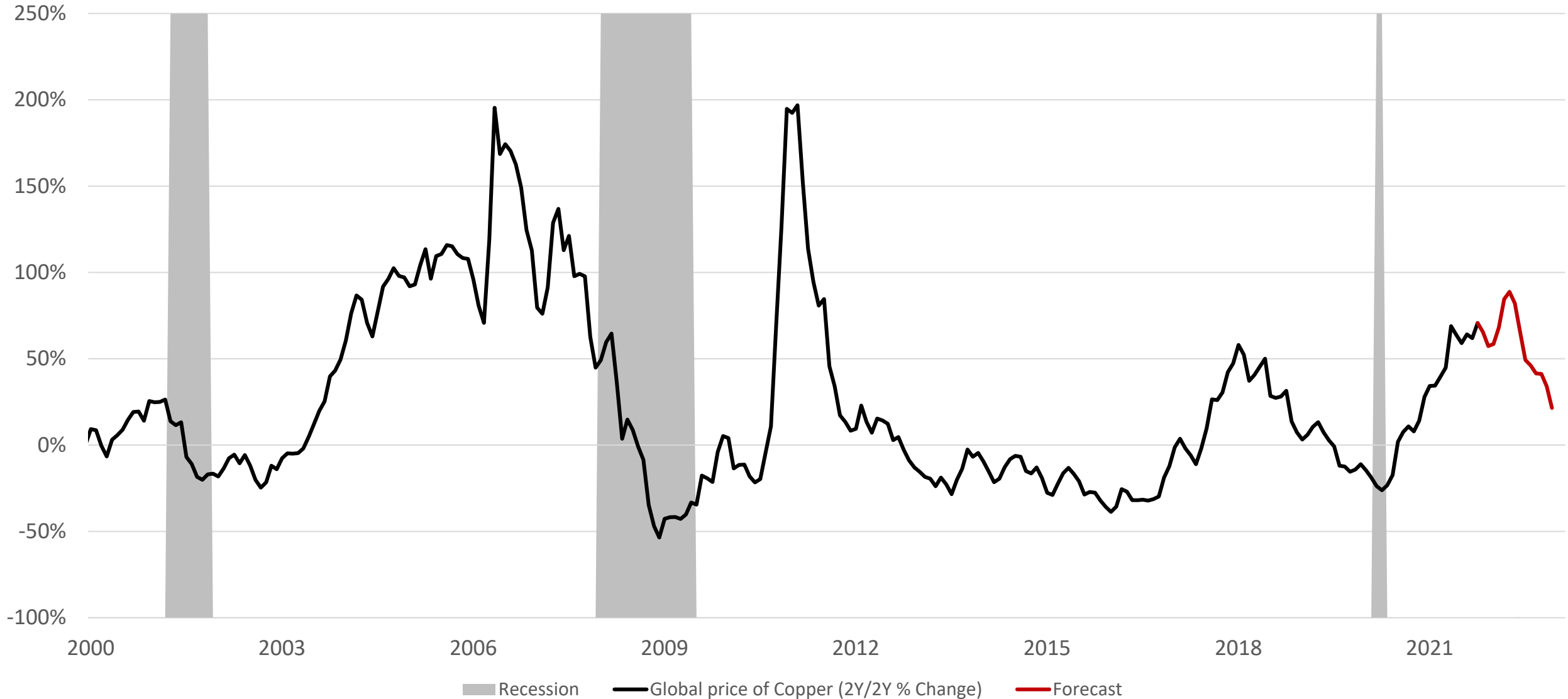
# Long-term Inflation Expectations Relatively Steady



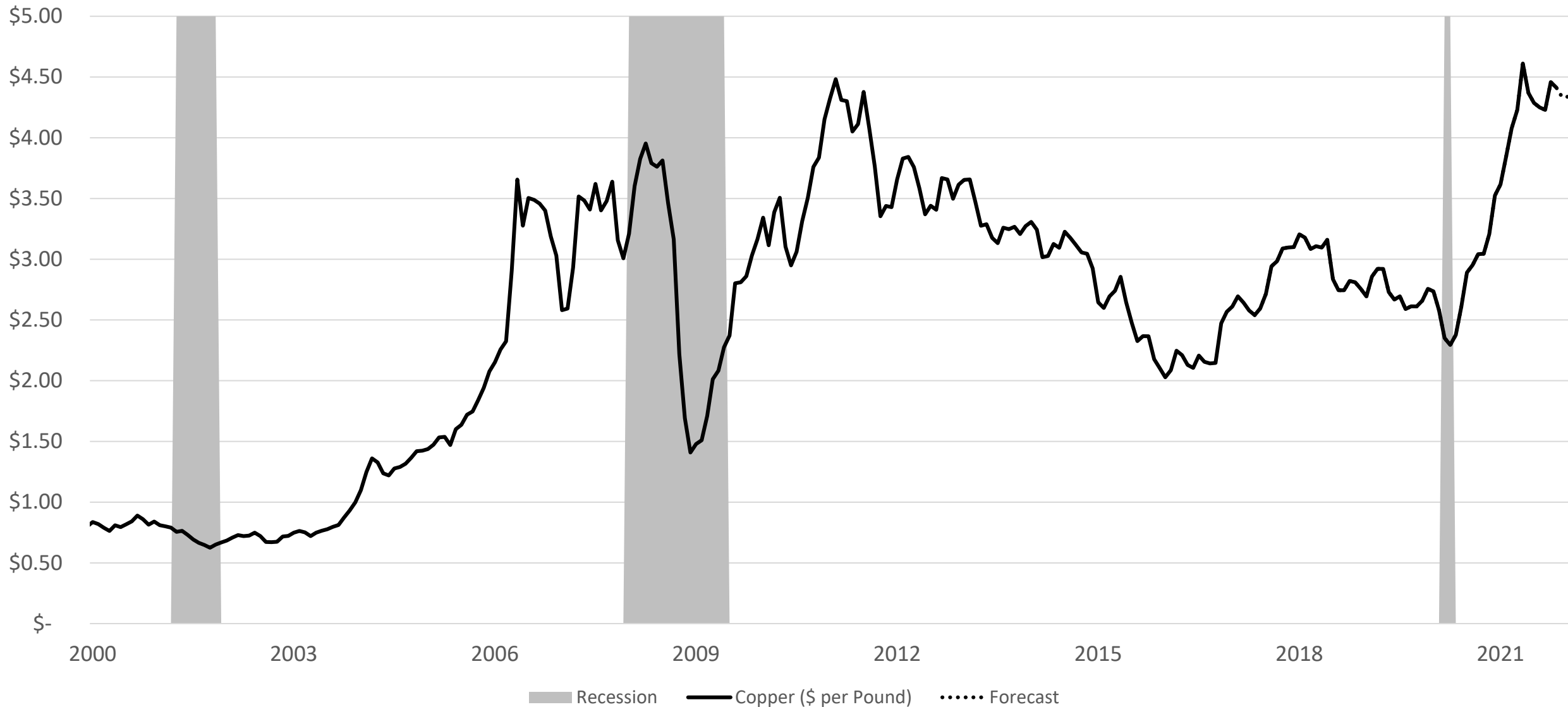
# Copper Prices Up 46% Y/Y



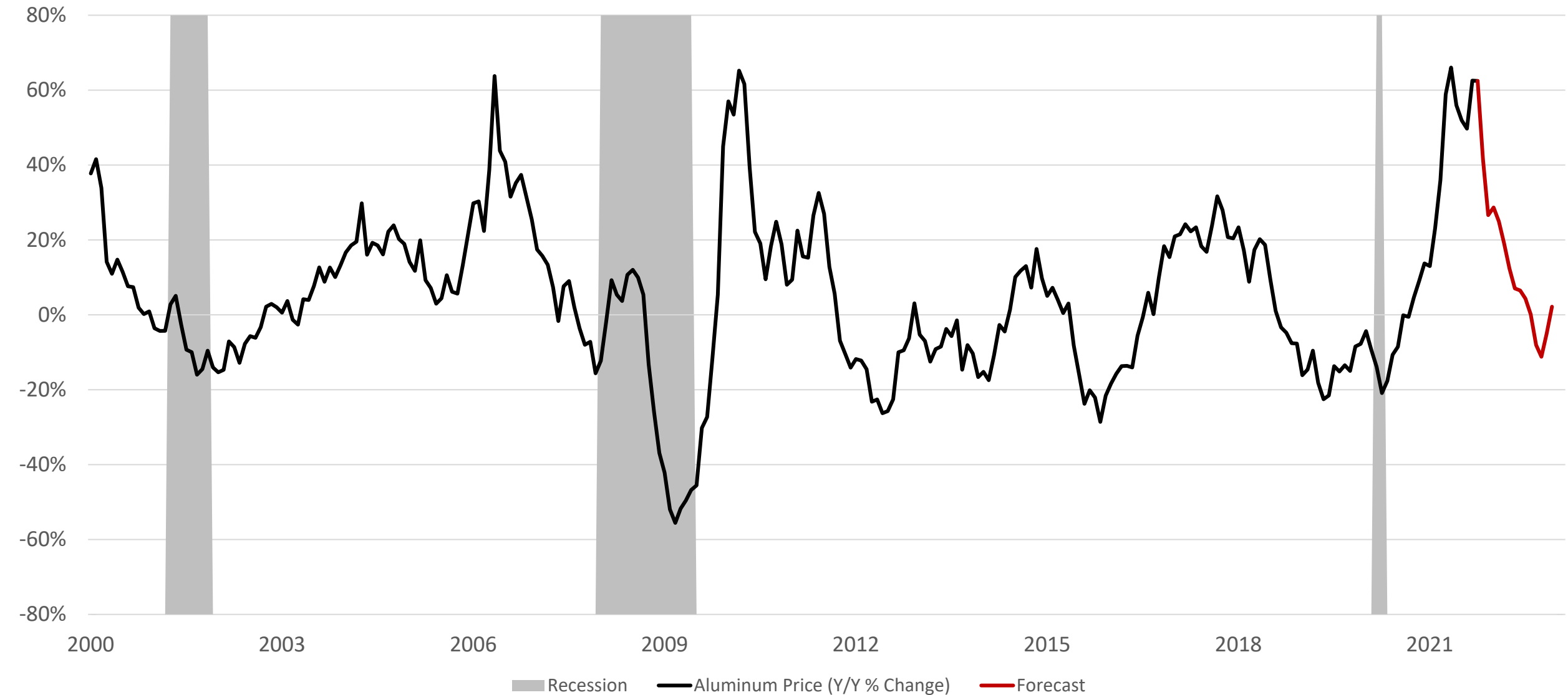
# Copper Prices Up 71% 2Y/2Y



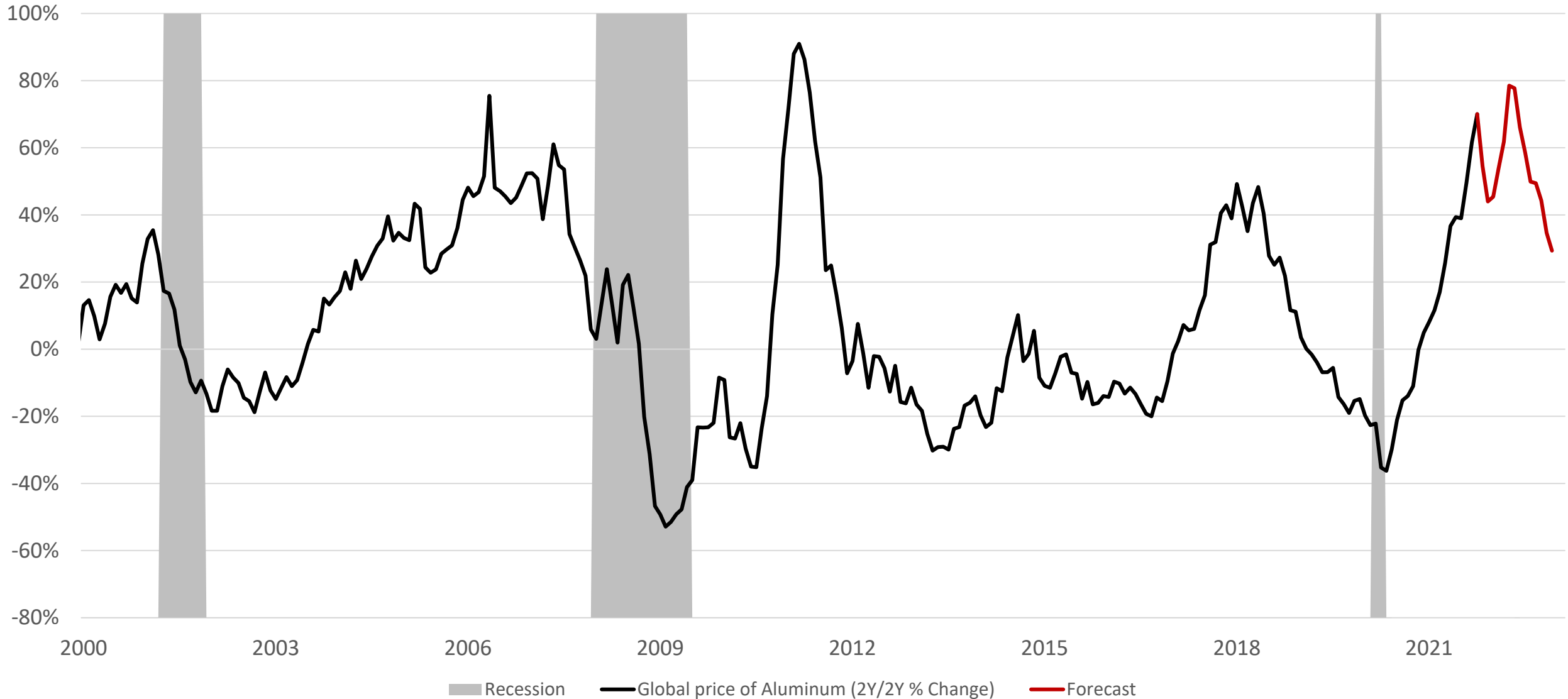
# Copper Prices Remain Elevated



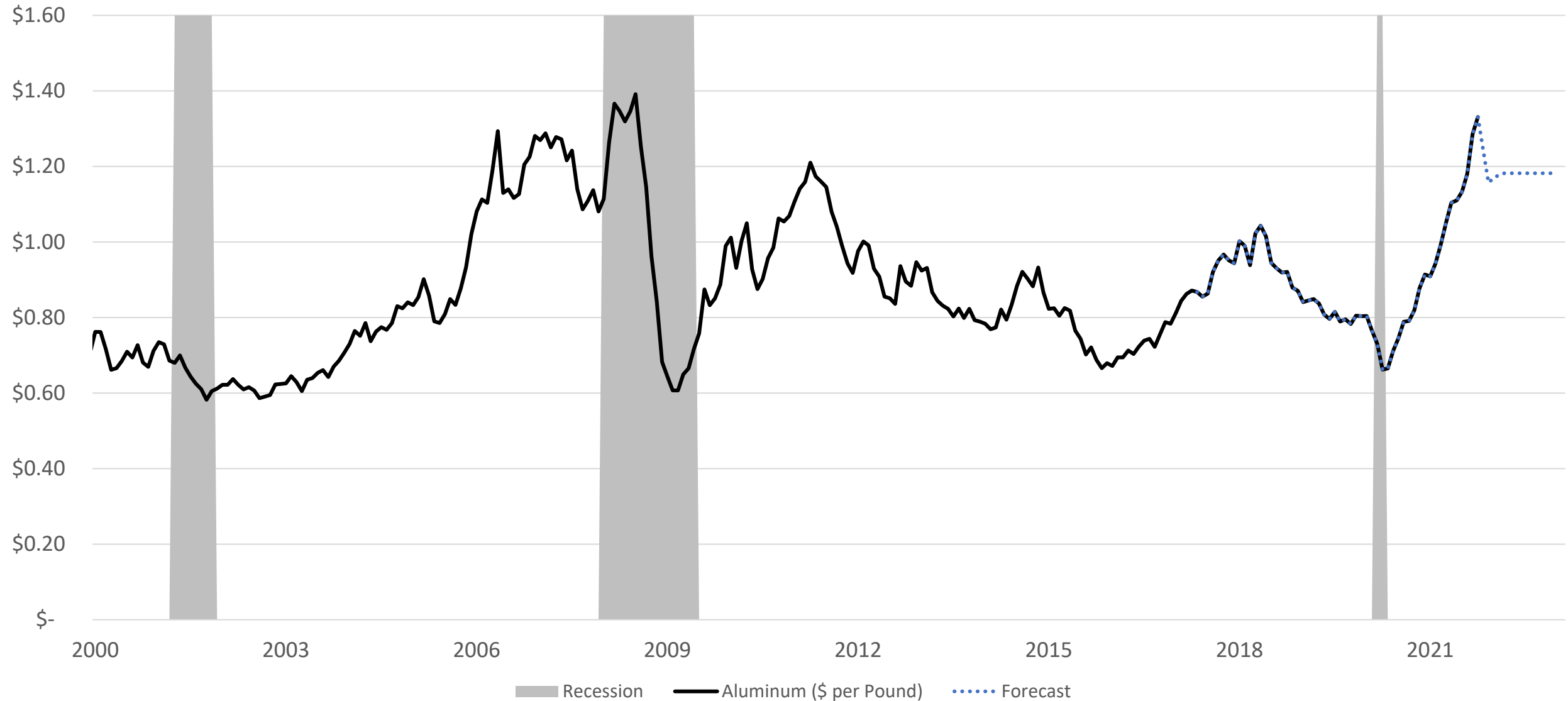
# Aluminum Prices are up 62% Y/Y



# Aluminum Prices are up 70% 2Y/2Y



# Aluminum Prices Remain Elevated in 2022

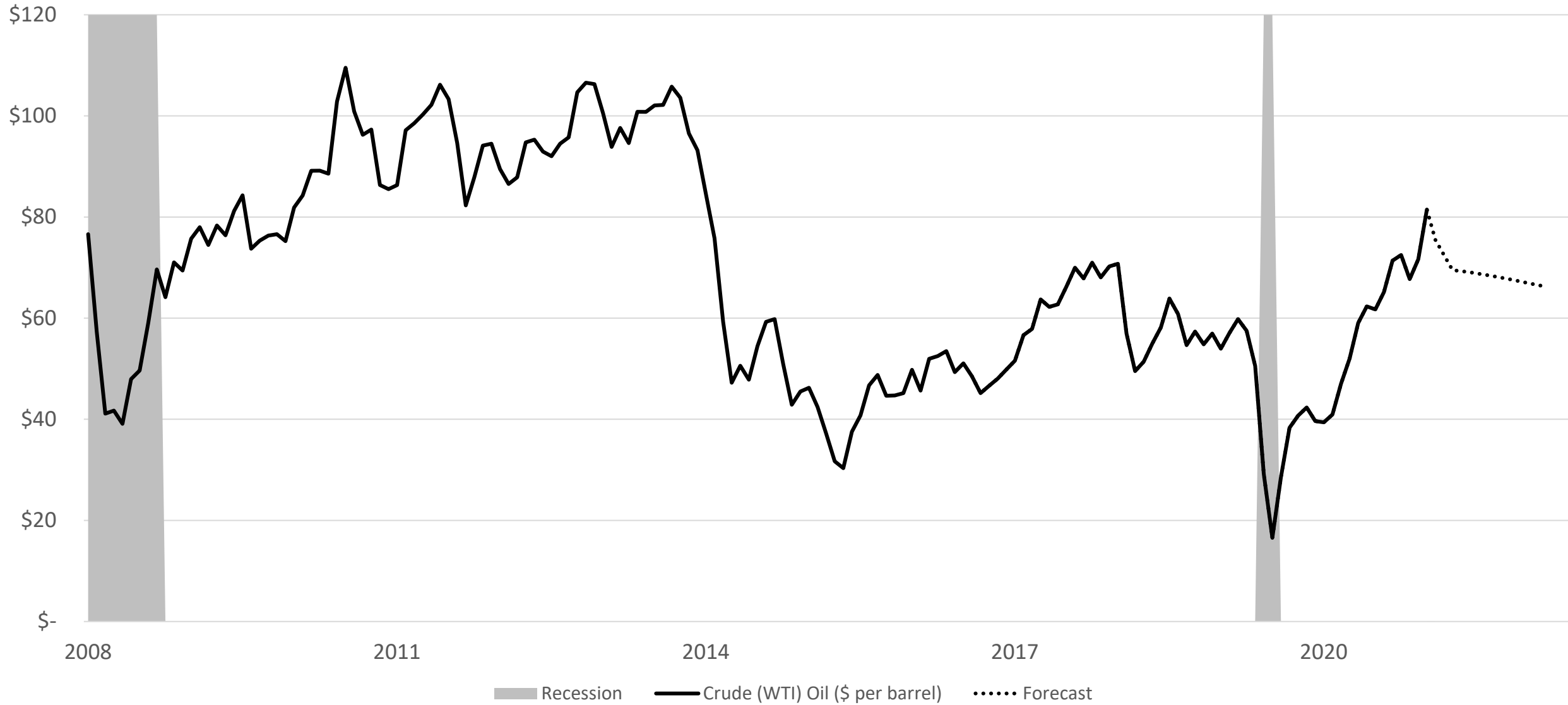




# Crude oil prices have doubled in the last year



# Oil prices should decline somewhat but will remain above pre-pandemic levels through 2020

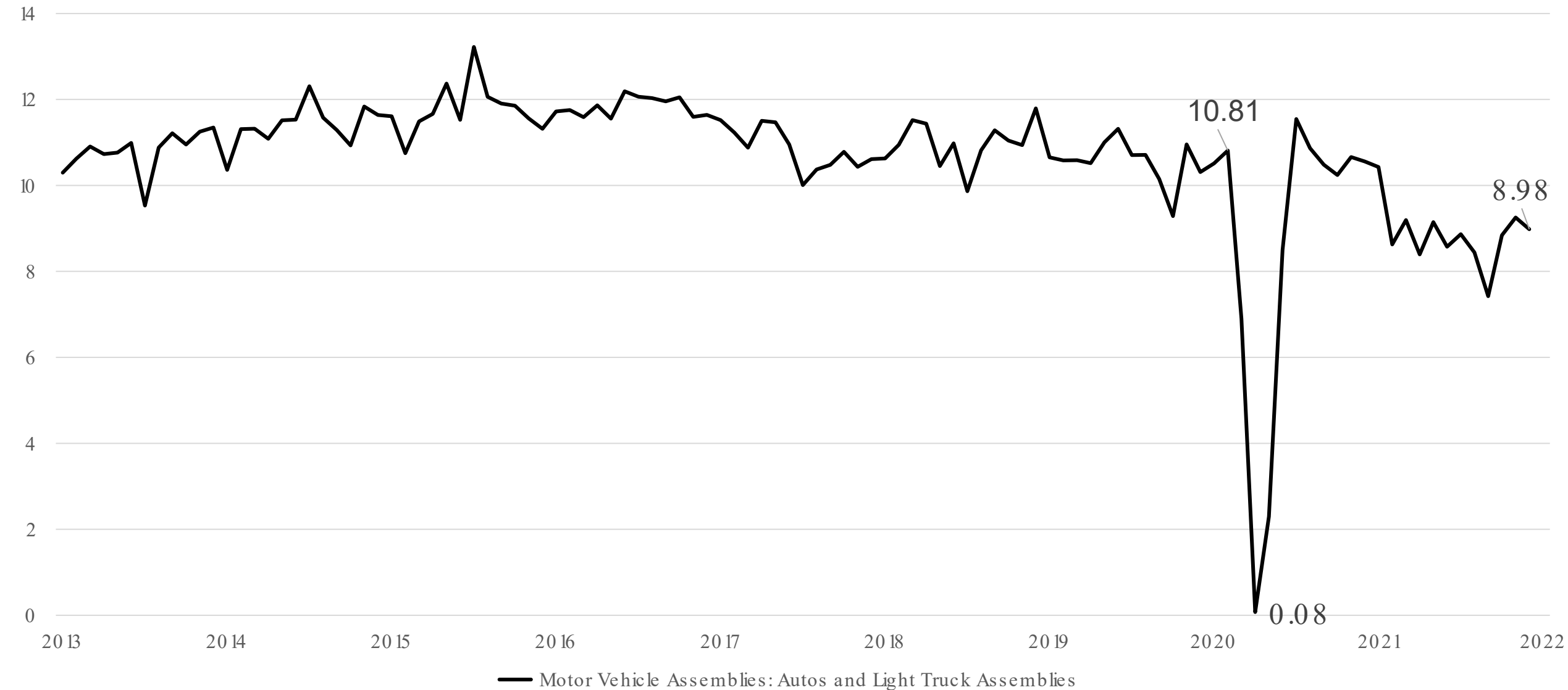


■ Recession    — Crude (WTI) Oil (\$ per barrel)    ..... Forecast

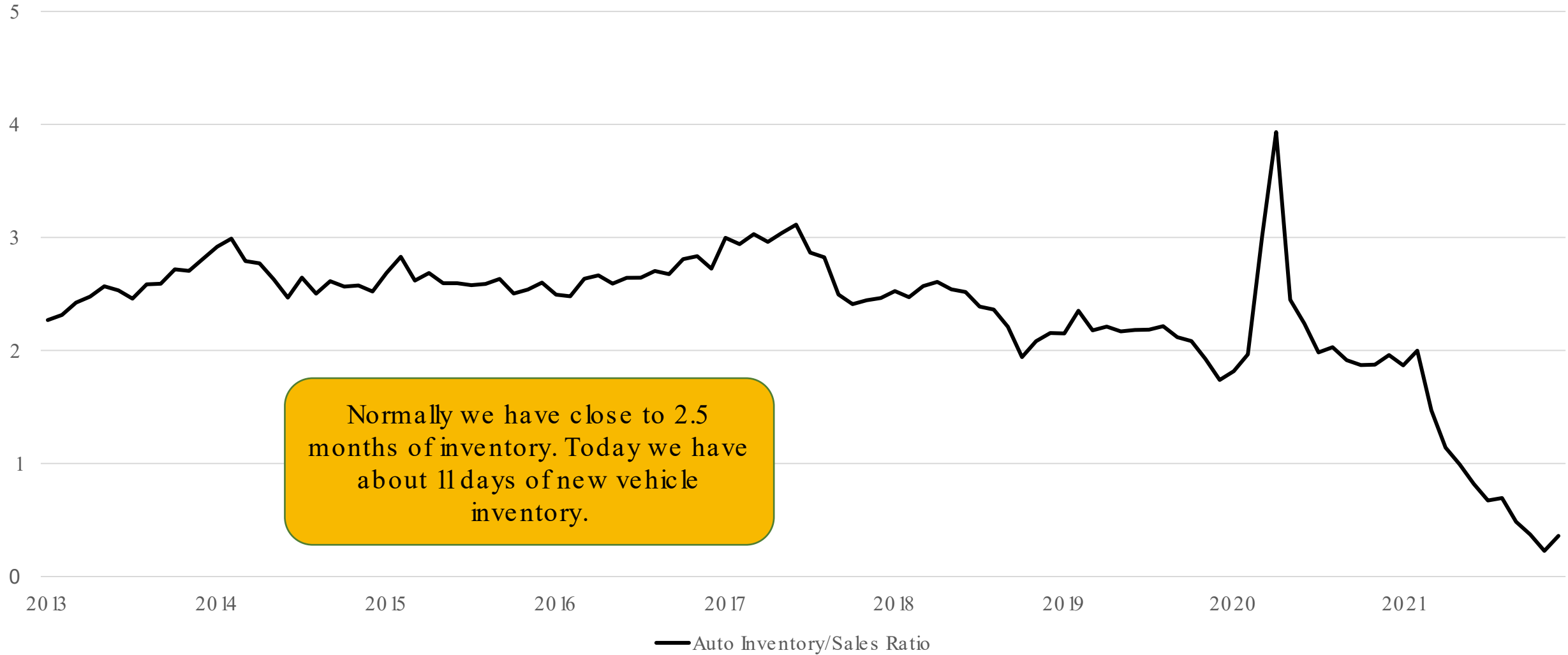


# The Vehicle Market

# Domestic Production Remains Below Pre-pandemic Levels



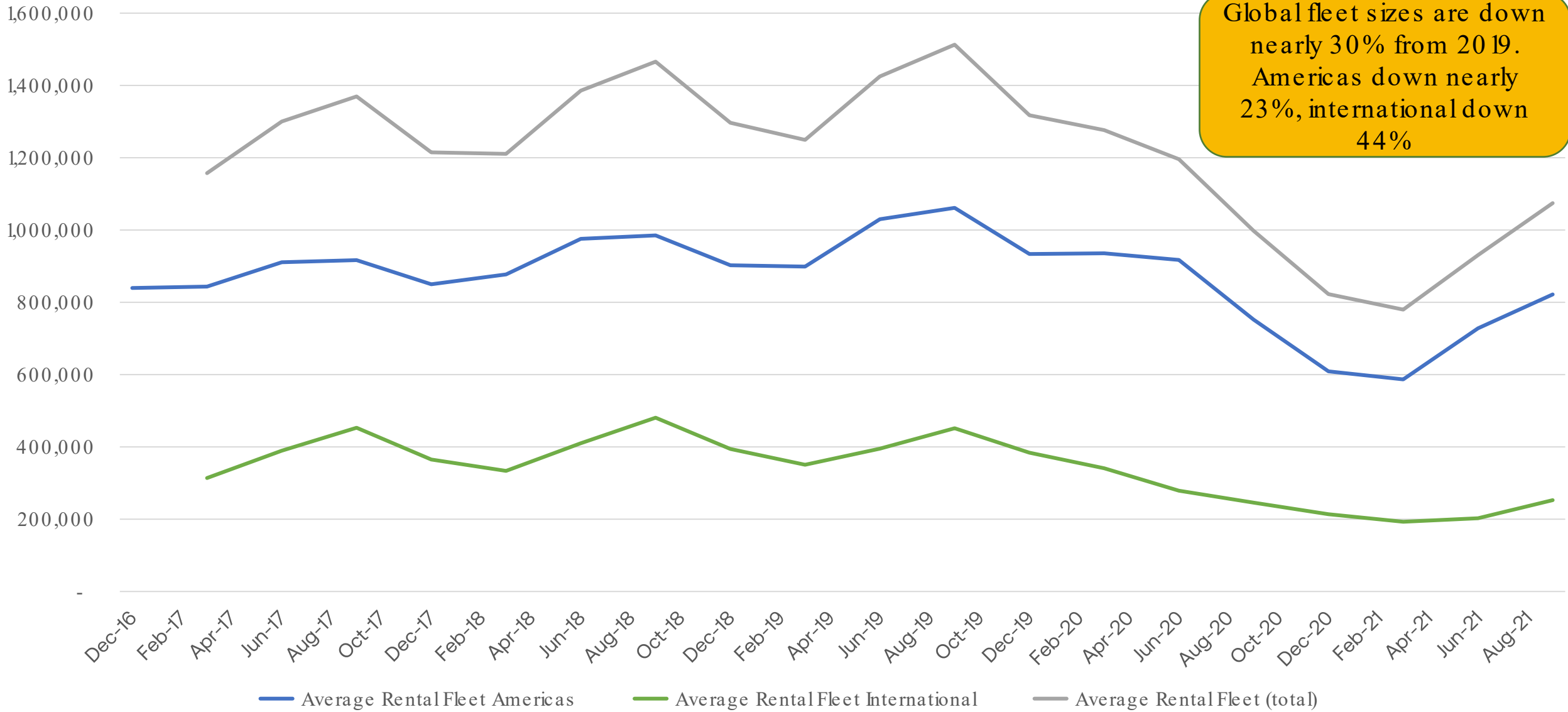
# Inventories Remain Extremely Tight



# Rental Fleet Rebuilding Provides Some Additional Demand for New Vehicles

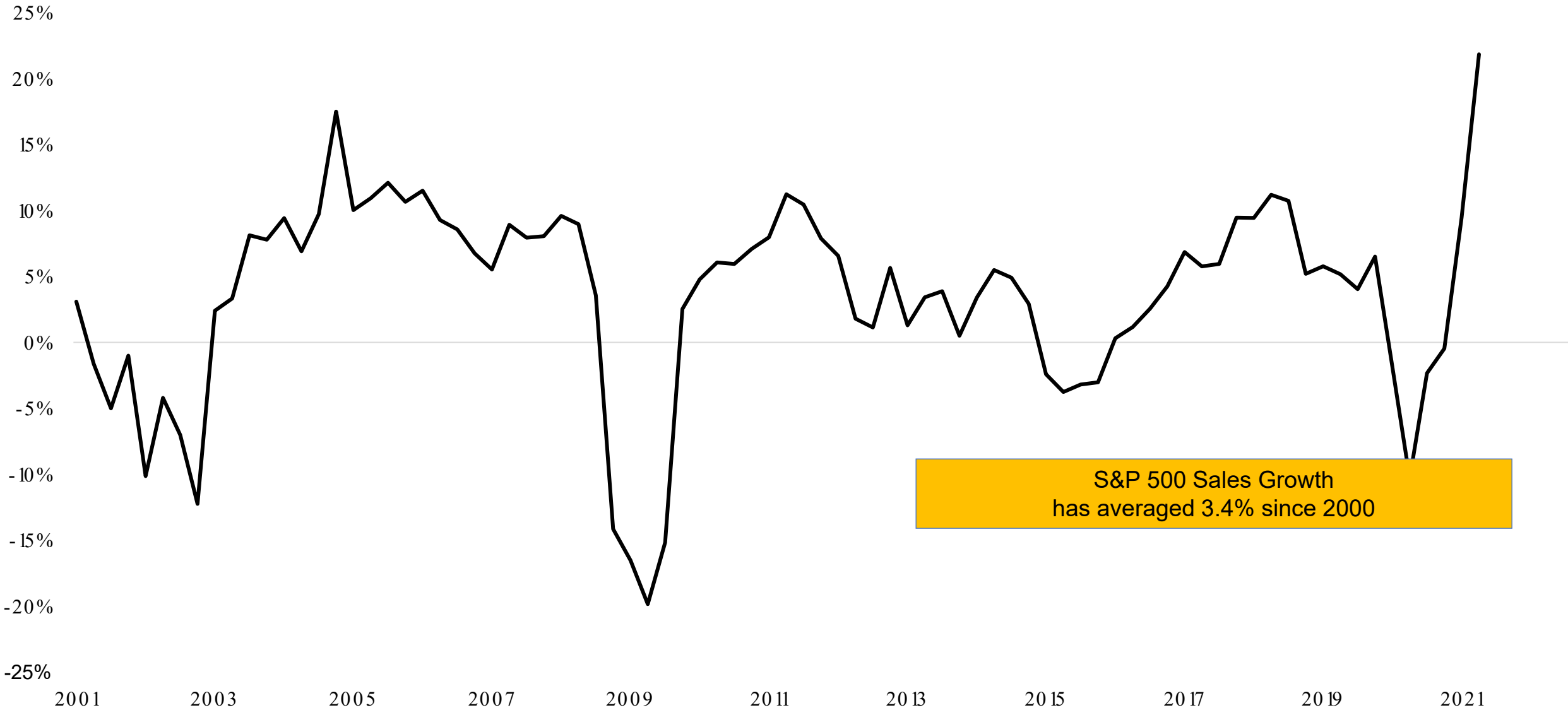


Global fleet sizes are down nearly 30% from 2019. Americas down nearly 23%, international down 44%



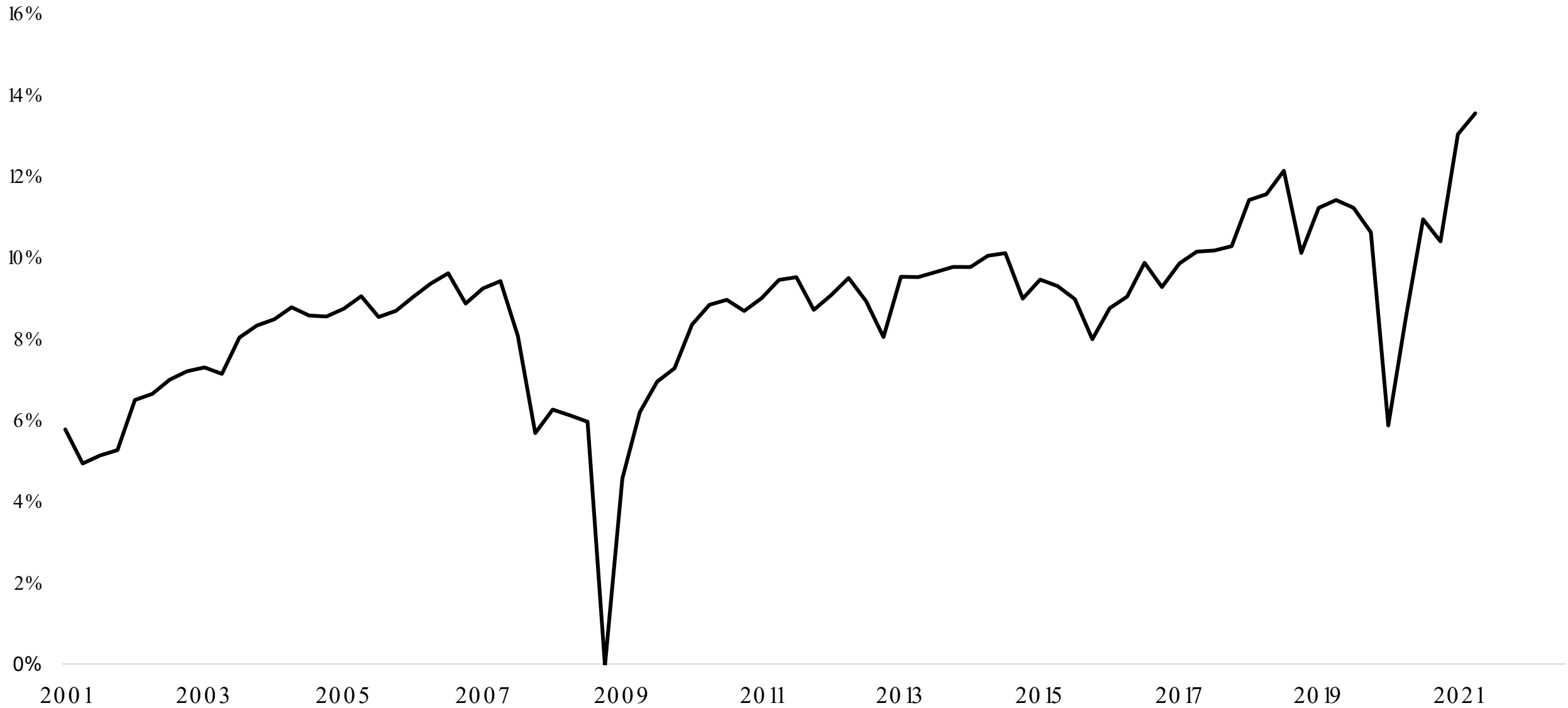
# The Corporate View

# S&P 500 Sales Growth is Strong (for now)

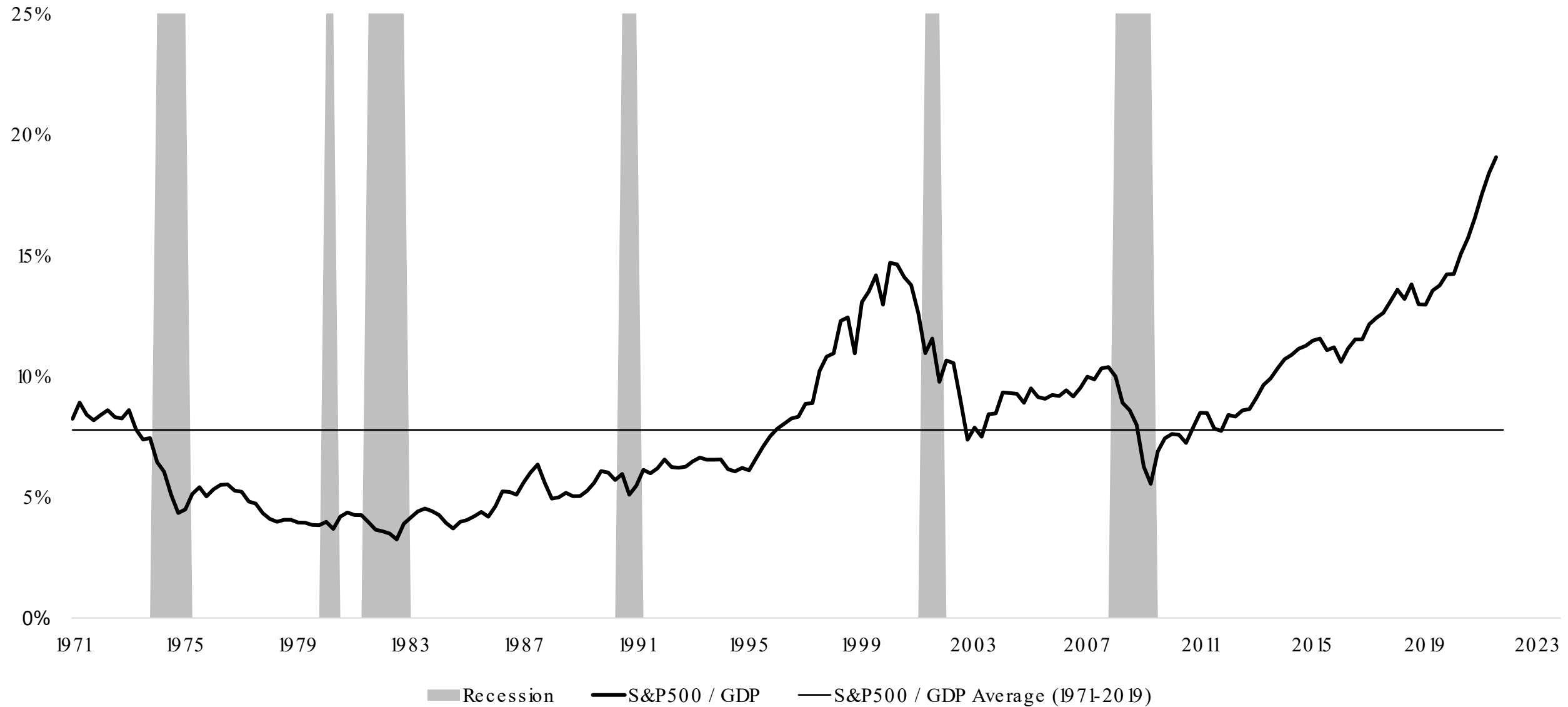




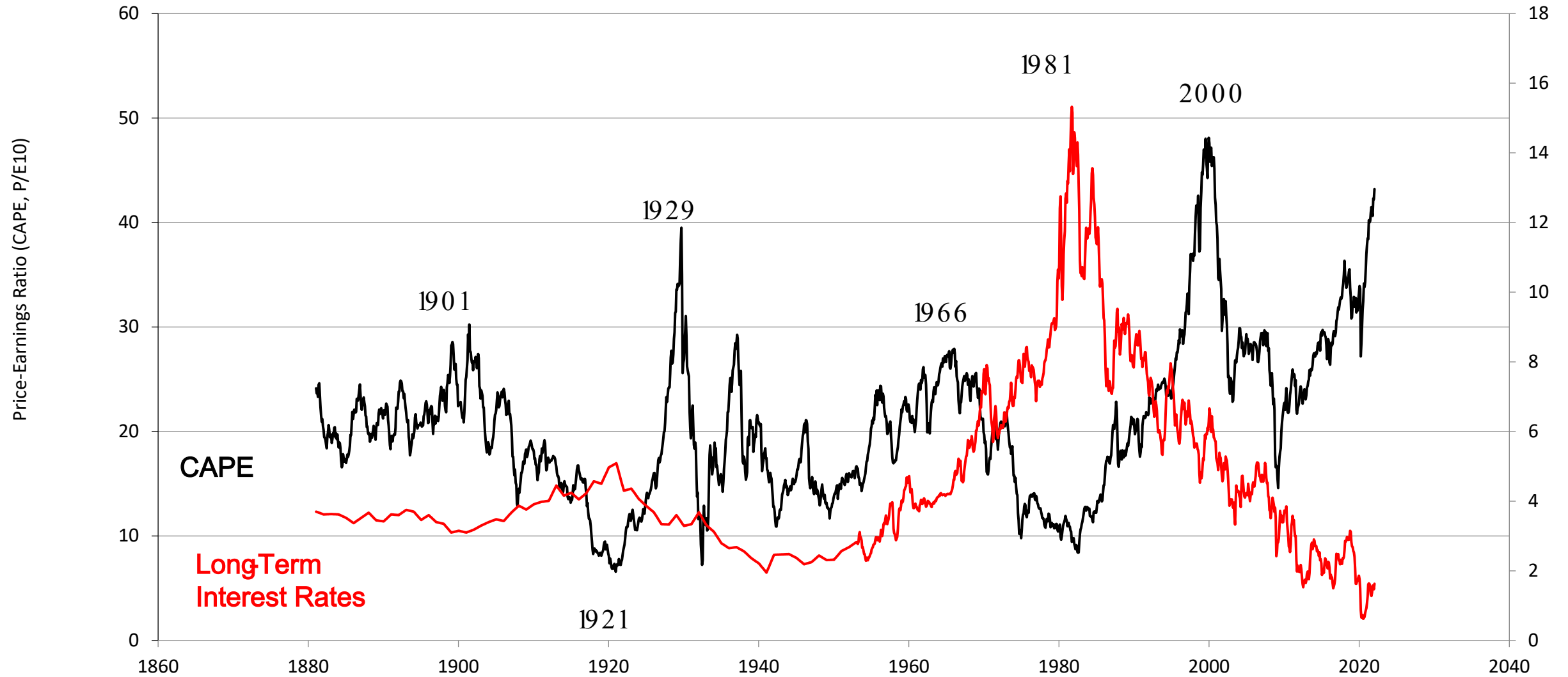
# Operating Margins at Record Highs



# Equity Markets are Running Rich



# Prices Look Expensive



- U.S. equity markets hit their low on March 23, 2020.
- Bull markets are typically up 164 percent and last 57 months.
- The current bull market is still young...
  - 21 months
  - up 96 percent

Questions? Please contact:

Shawn DuBravac,  
IPC Chief Economist

[ShawnDuBravac@ipc.org](mailto:ShawnDuBravac@ipc.org)