



ITR ECONOMICS

First In Forecasts Worldwide



Piercing Through the Noise

**Presented by ITR Economics
Economist and Speaker
Taylor St. Germain**

	Duration	Accuracy
US GDP	18	98.9%
US Ind. Production	18	98.9%
Europe Ind. Production	23	99.6%
Canada Ind. Production	24	99.5%
China Ind. Production	16	98.5%
Retail Sales	13	98.0%
Housing - Single Family	17	84.8%
Employment-Private Sector	13	98.7%

ITR Economics provides the best economic intelligence to reduce risk and drive practical and profitable business decisions.

A Powerful Management Tool • Rates-of-Change

	Raw	3MMT	3/12	12MMT	12/12
Oct-21	6.089				
Nov-21	6.164				
Dec-21	6.253	25.7%			
Jan-22	6.399	18.8%			
Feb-22	5.917	20.5%			
Mar-22	5.864	23.4%			
Apr-22	7.240	21.3%			
May-22	6.711	16.1%			
Jun-22	6.958	22.5%			
Jul-22	7.274	18.8%			
Aug-22	6.473	10.2%			
Sep-22	7.013	17.6%		78.4	
Oct-22	6.839	12.3%		79.1	
Nov-22	6.787	10.1%		79.7	
Dec-22	6.635	6.1%	9.5%	80.1	
Jan-23	6.601	3.2%	6.4%	80.3	
Feb-23	6.230	5.3%	4.8%	80.6	
Mar-23	5.958	1.6%	3.3%	80.7	12.0%
Apr-23	6.955	-3.9%	0.6%	80.4	9.7%
May-23	6.295	-6.2%	-3.1%	80.0	7.7%
Jun-23	6.844	-1.6%	-3.9%	79.9	5.8%
Jul-23	6.777	-6.8%	-4.9%	79.4	3.5%
Aug-23	6.221	-3.9%	-4.2%	79.2	2.4%
Sep-23	6.930	-1.2%	-1.8%	79.1	0.9%

3/12

Based on data from a consecutive 3-month period compared to one year earlier.

Anticipates shifts in business cycle trends.

12/12

Based on data from a consecutive 12-month period compared to one year earlier.

Defines the business cycle.



Global Forces

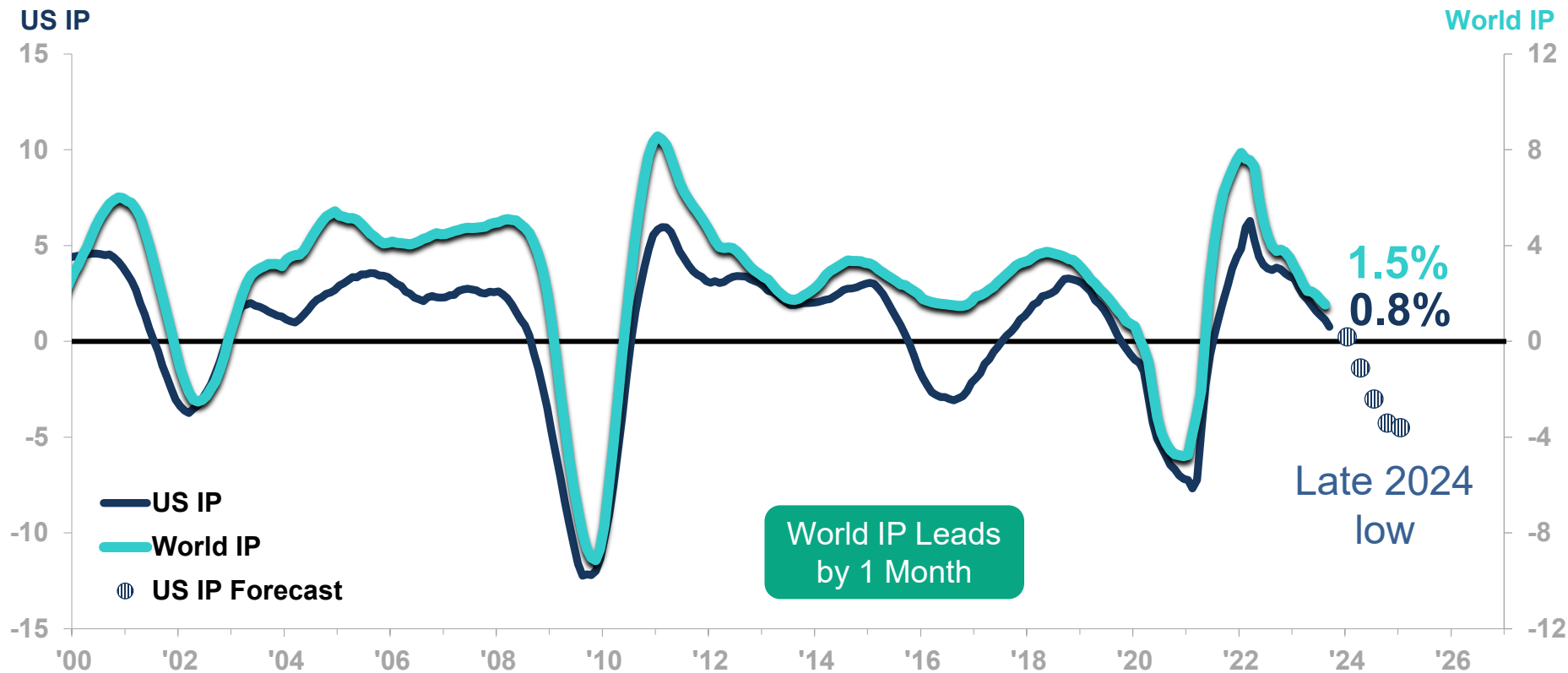
Strong Cyclical Relationship

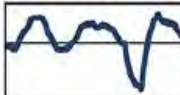
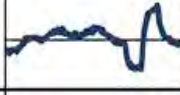
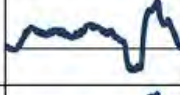
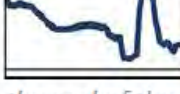
Sources: FRB, CPB Netherlands Bureau For
Economic Policy Analysis



US Industrial Production Index to World Industrial Production Index

12/12 Rates-of-Change



	12/12	12MMA	Current 12/12	2023	2024	2025
Canada Industrial Production			1.6	0.2	-1.7	2.8
Mexico Industrial Production Index			4.6	3.3	-2.6	1.5
Brazil Manufacturing and Mining Industrial Production Index			0.0	-1.1	-0.4	3.9
Western Europe Industrial Production Index			-0.8	-0.6	-1.5	1.6
Eastern Europe Industrial Production Index			0.1	-2.1	-1.5	4.7
India Industrial Production Index			3.7	2.2	0.7	3.4
China Industrial Production Index			3.7	3.8	2.4	3.5

Note: Forecast color represents what Phase the market will be in at the end of the year. Ukraine data has been removed from Eastern Europe Industrial Production as it is unavailable due to the war. We have added Hungary Industrial Production data to the series.

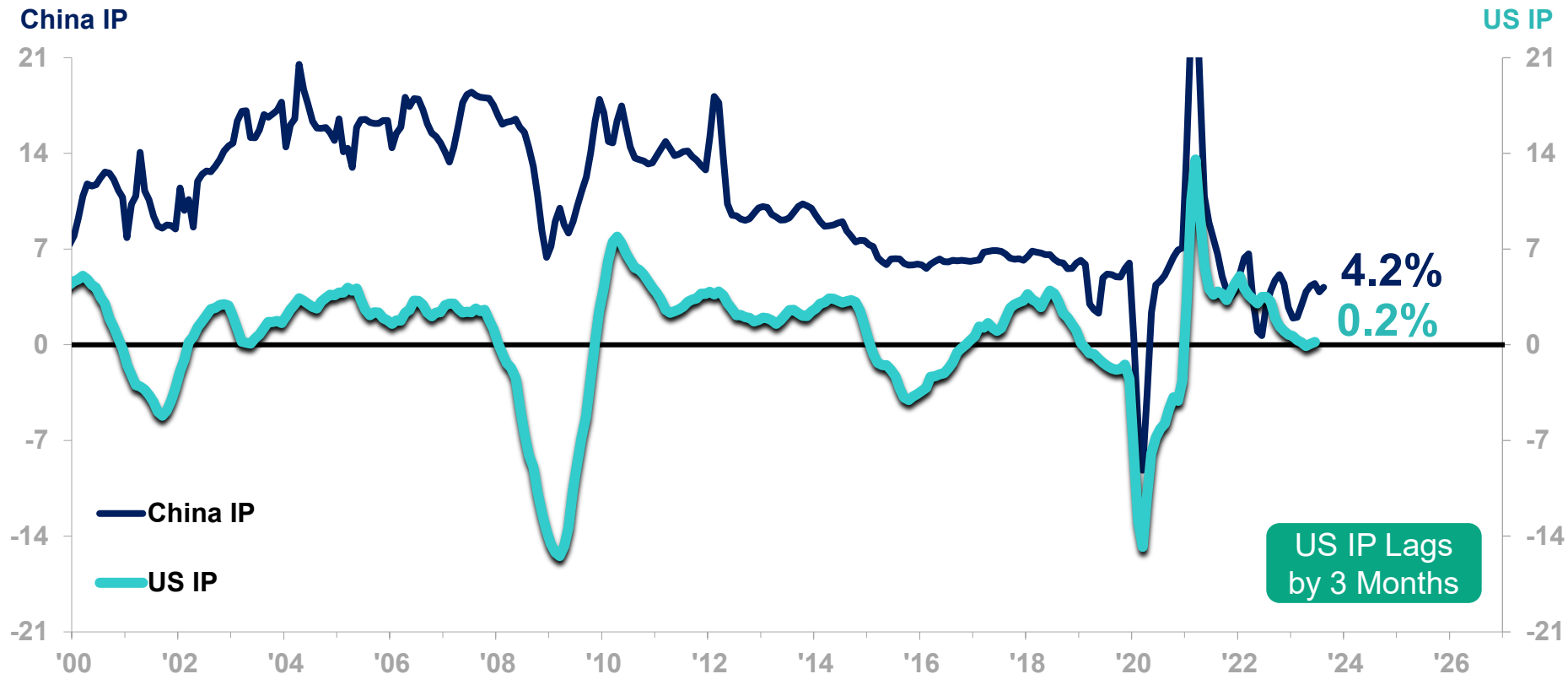
China is Weakening

Sources: China National
Bureau of Statistics, FRB



China Industrial Production Index to US Industrial Production Index

3/12 Rates-of-Change

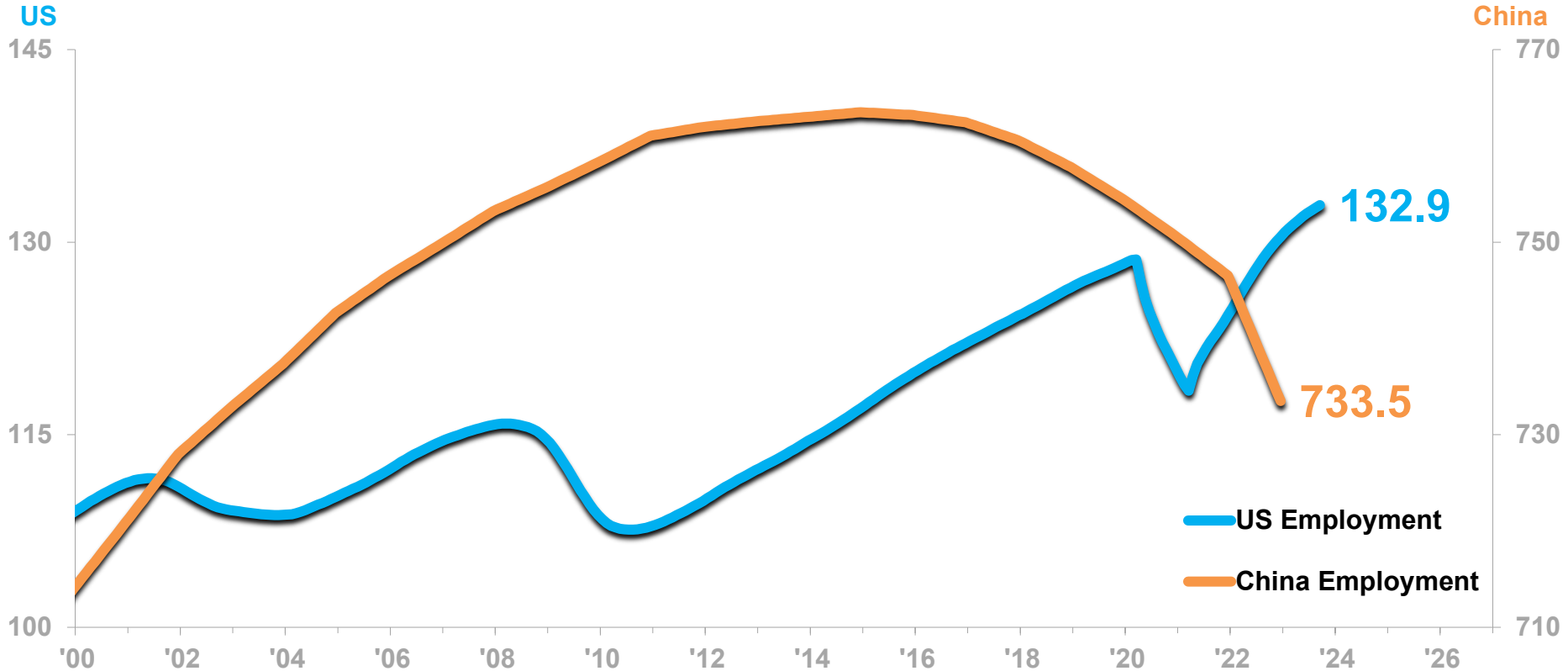


Lack of Labor in China

Sources: BLS, China National Statistics Bureau

US Private Sector Employment to China Employment

Annual Data Trends: Millions of People



Slowing Economic Growth Means Less Supply Chain Pressure

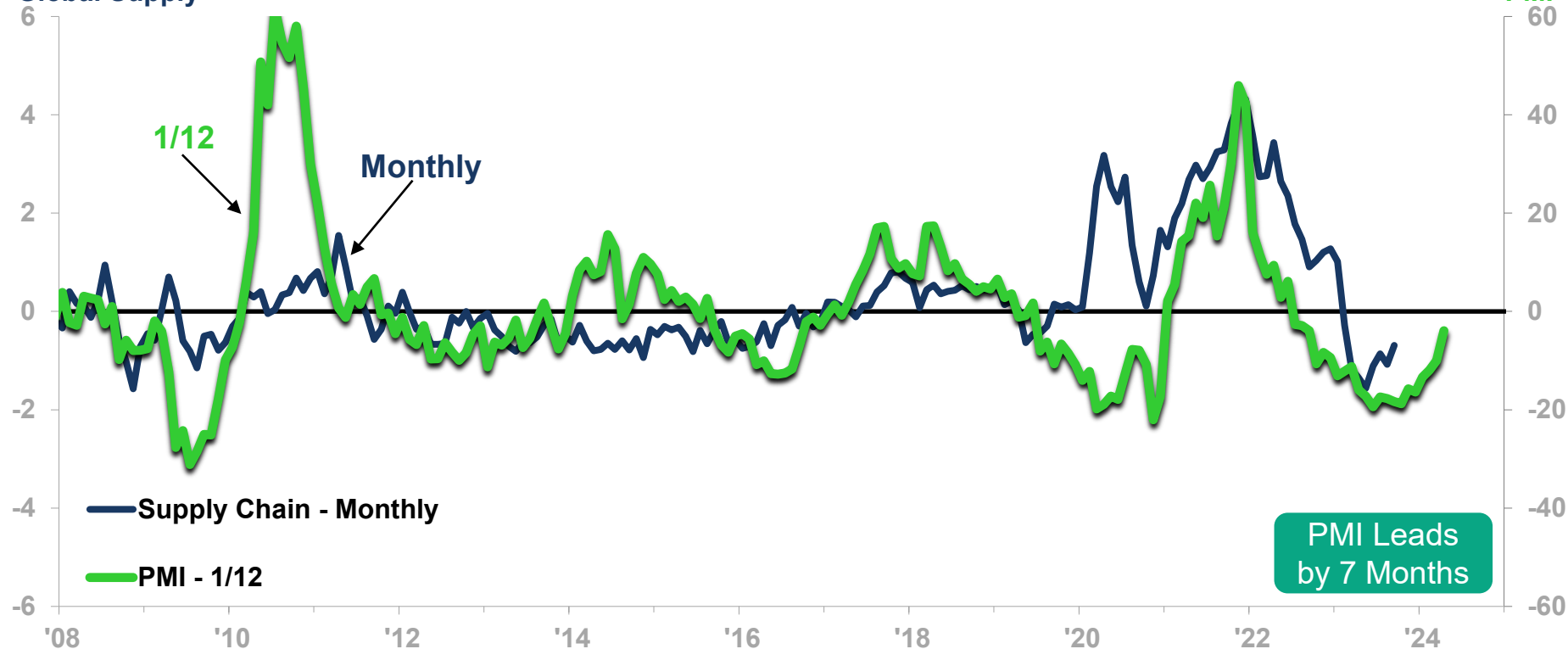
Sources:
FRBNY, ISM

Global Supply Chain Pressure Index to US Purchasing Managers Index

Pressure Index, Raw to PMI 1/12 Rate-of-Change

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Global Supply



-  China is becoming more of a problem going forward with mounting risks
-  Russia is a hollowed-out version of its former self
-  Supply chain pressures are easing

Next Steps

- US economy is the best long-term plan you could have
- Lessen your reliance on China in the coming years



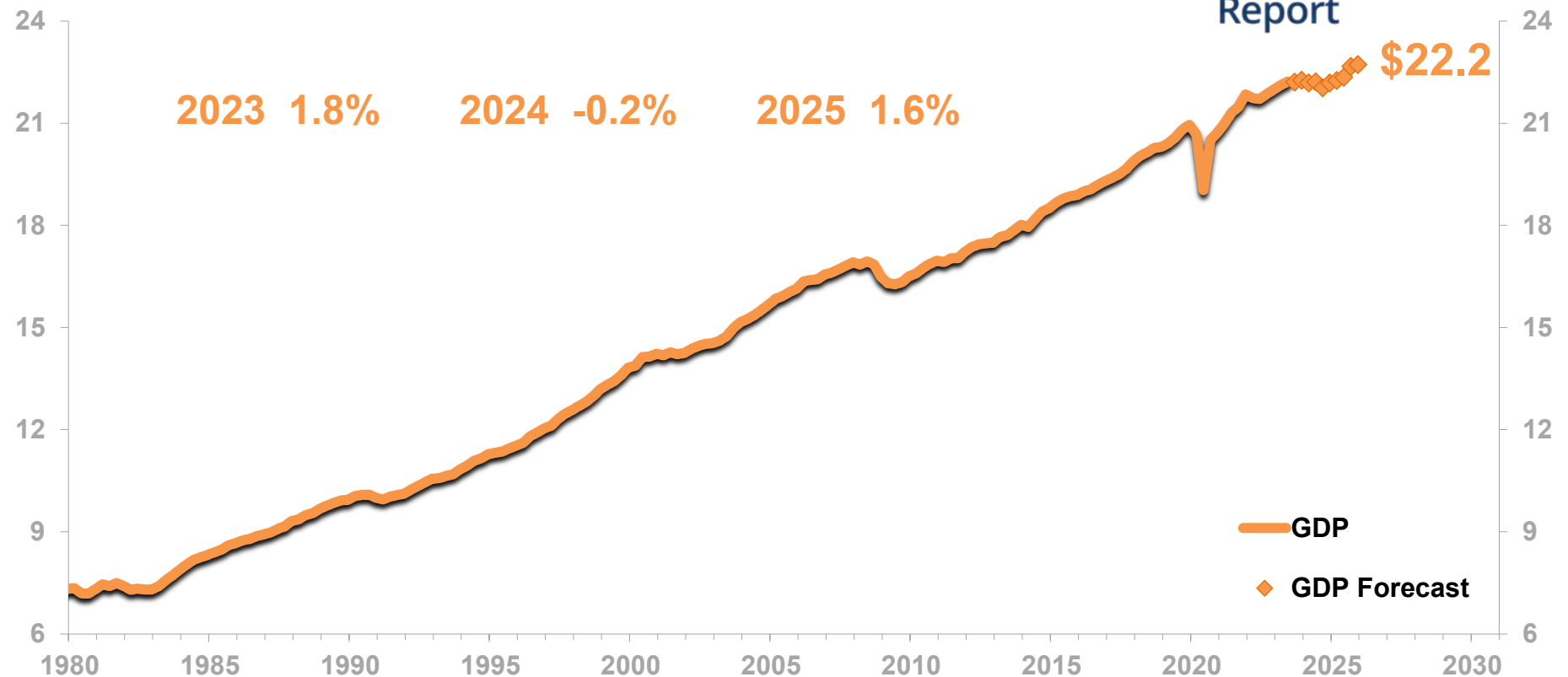
The US Economy

Expect an Essentially Flat 2024

Source: BEA

US Real Gross Domestic Product

Quarterly Data Trends: Trillions of Chained 2012 Dollars



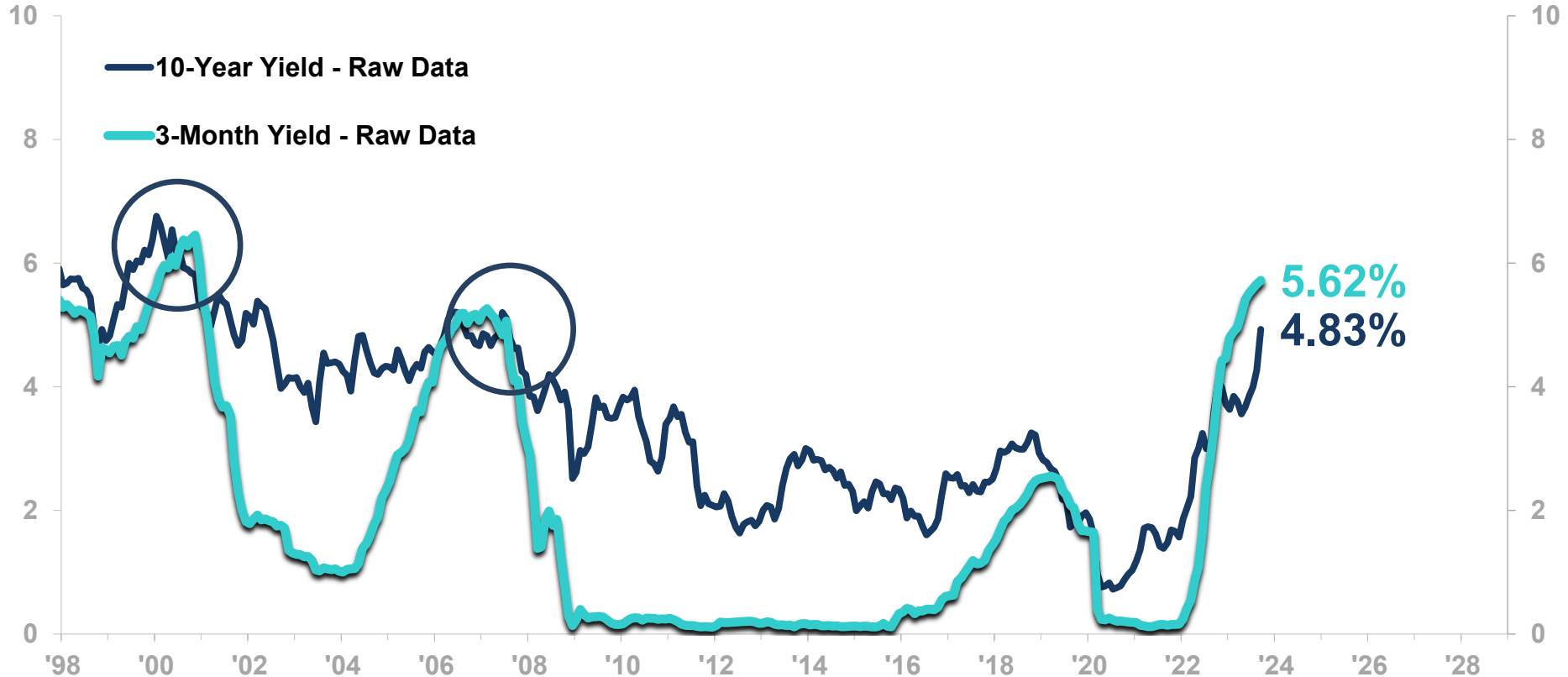
Inverse Yield Curve in Place: Business Cycle Decline Ahead

Source:
US Treasury Dept., FRB

US Government Long-Term Bond Yields to US 3-Month Treasury Bond Yield

Raw Data: Percent

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Mild Recession Expected to Characterize 2024

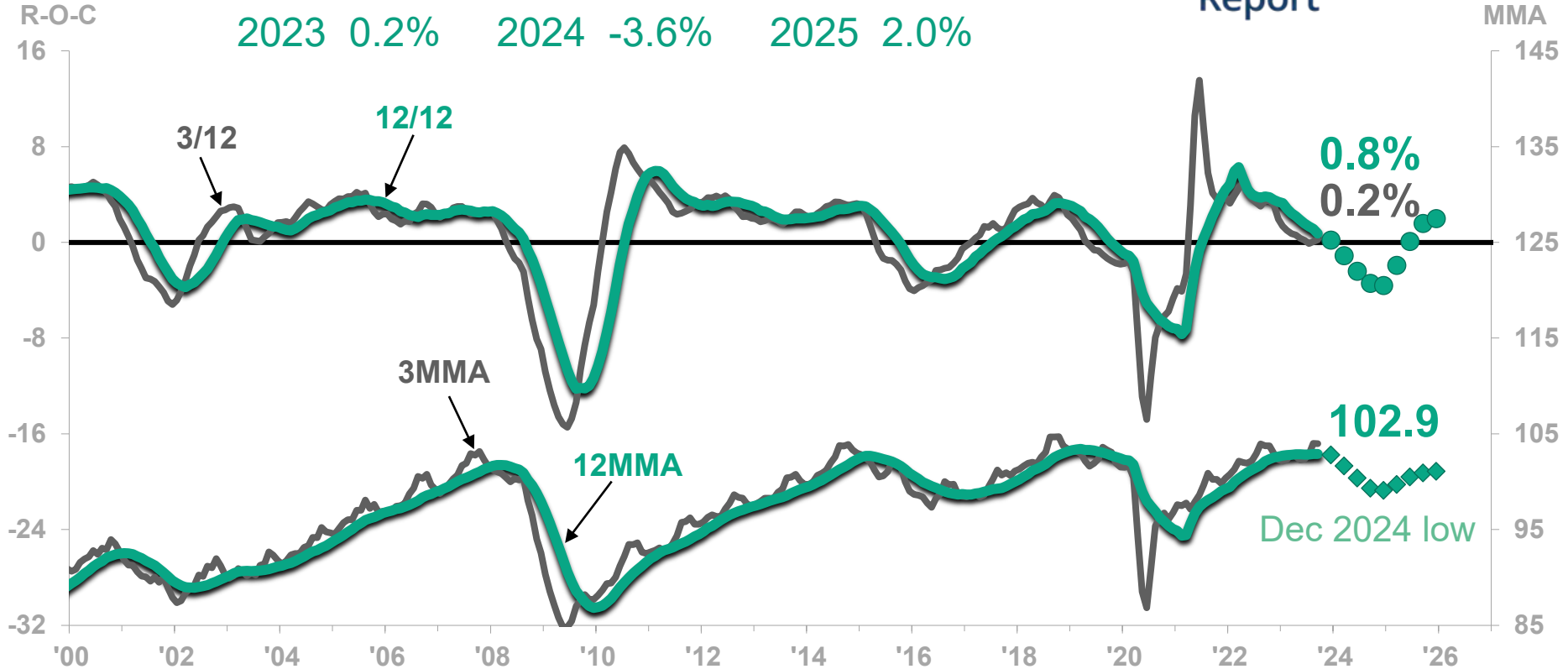
Source: FRB

US Industrial Production Index

2017 = 100

as seen in
ITR Economics'
Trends
Report

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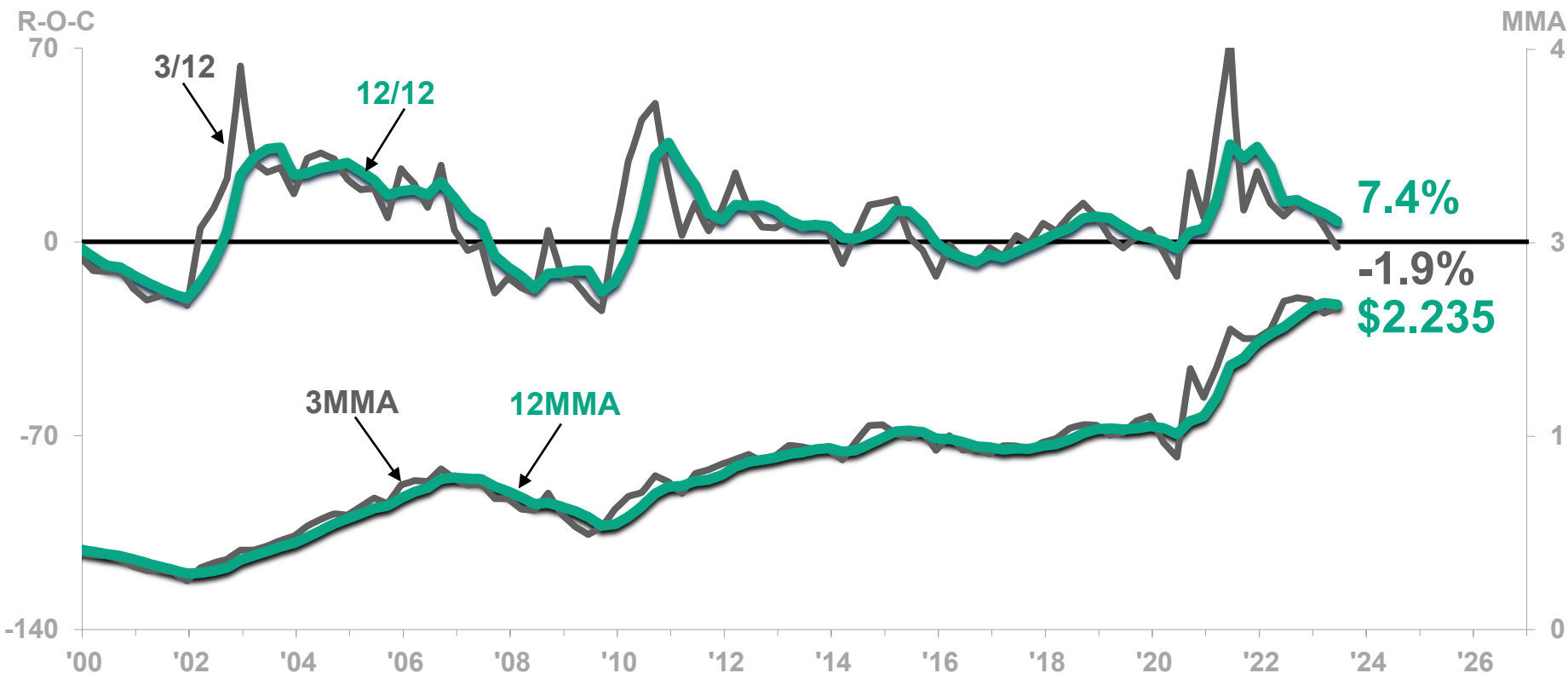


COVID Surge is Over; Real Test is Ahead

Source: BEA

US Domestic Nonfinancial Industries Corporate Profits (with capital consumption adjustments)

Billions of Dollars



Inflation Adjusted Income Rising Trend is Slowing

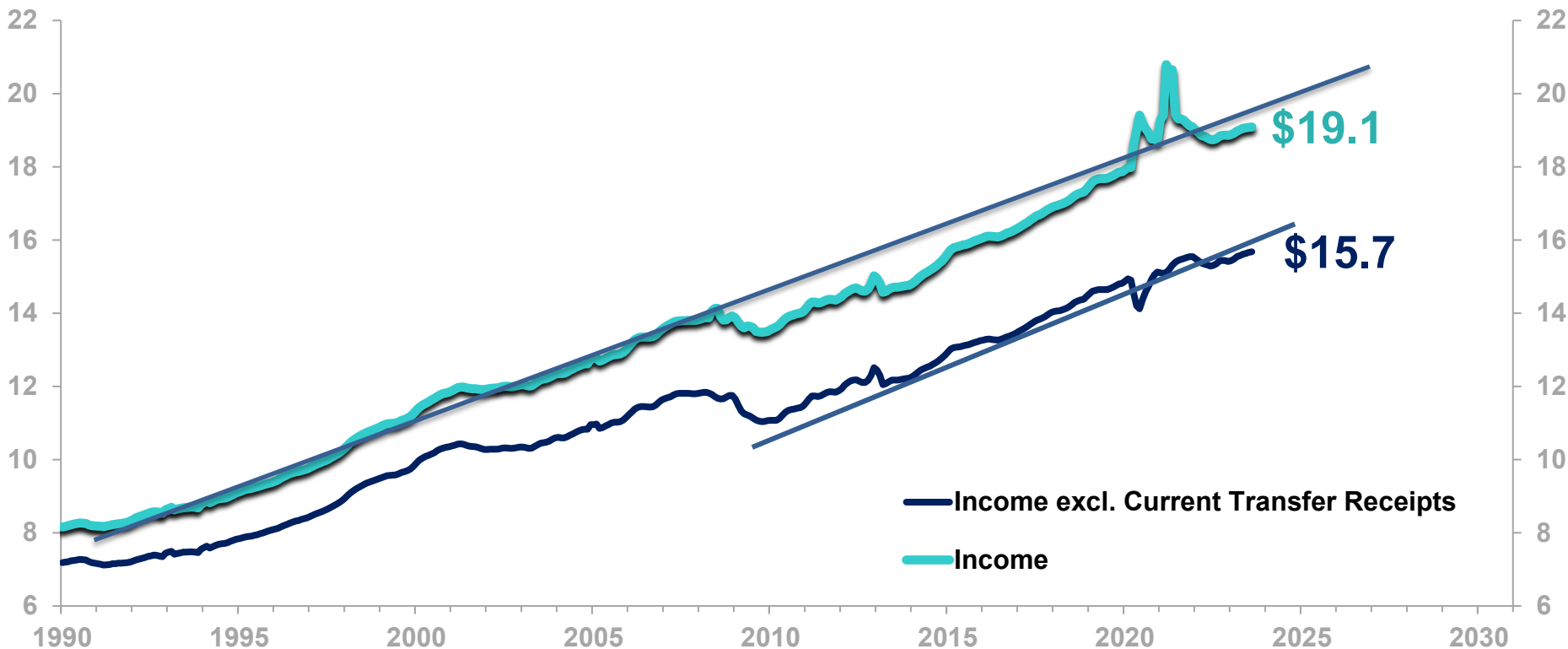
Source: BEA

US Real Personal Income (excluding current transfer receipts) to US Real Personal Income

Quarterly Data Trends in Trillions of Chained 2017 Dollars



Income excl. Transfers



Overall Debt Load is Manageable, and Credit Card Debt is Minimal

Sources: FRB New York,
US Census Bureau, BLS

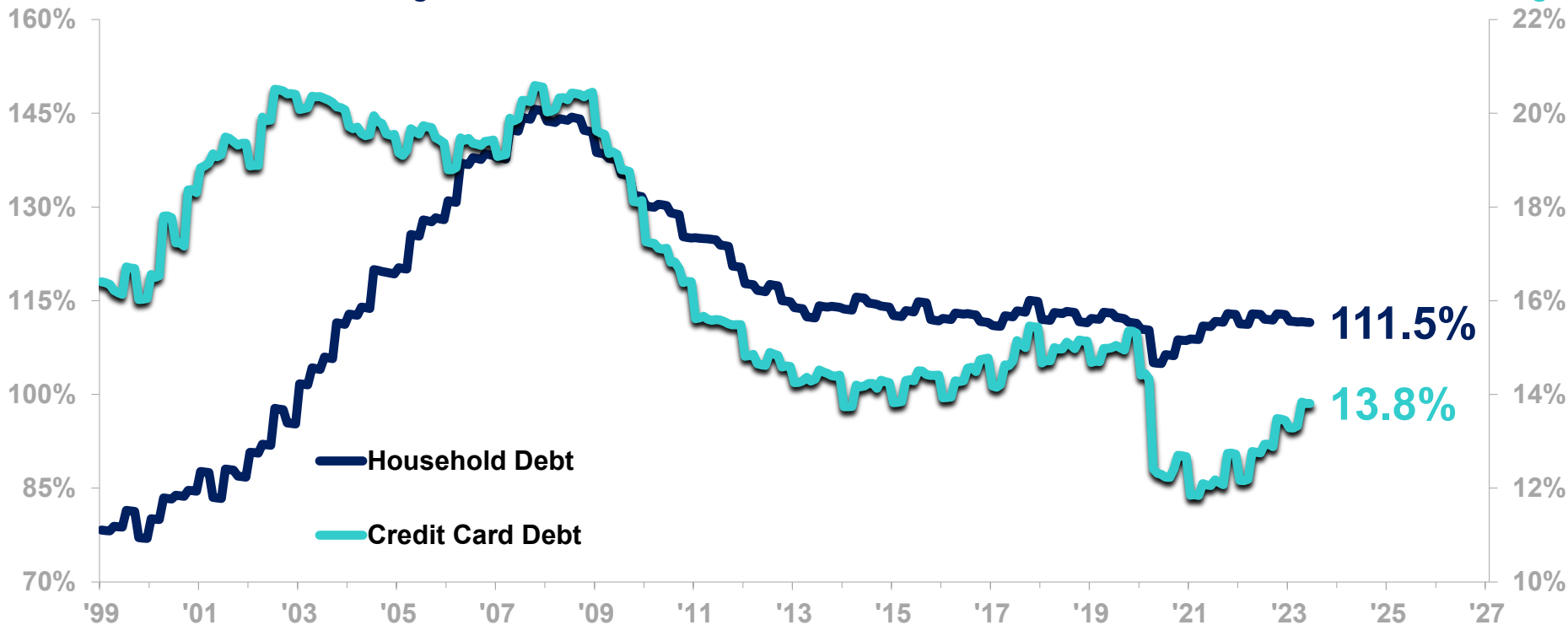
US Household Debt per Capita as a % of US Median Annual Earnings to
US Credit Card Debt per Household as a % of US Median Annual Earnings

Raw Data, Percent



Household Debt as % of Earnings

Credit Card Debt as % of Earnings



-  Ignore the political noise
-  Businesses are less profitable, and cash is below year ago level
-  Slower growth in consumer spending

Next Steps

- Watch the inverse yield curve
- Invest in your business
- Good opportunity for organic growth in 2025

Financial Markets

US Stock Prices Index to US Domestic Corporate Profits with Capital Consumption Adjustments

Data Trends

SP5

10000

1000

100

'92 '94 '96 '98 '00 '02 '04 '06 '08 '10 '12 '14 '16 '18 '20 '22 '24

— S&P 500 - Raw

— Domestic Profits - 3MMA

Profits

10

1

0

Downside Pressure Stemming from Monetary Policy

Sources: WSJ, FRB

US S&P 500 Stock Prices Index to M2 Money Supply (deflated)

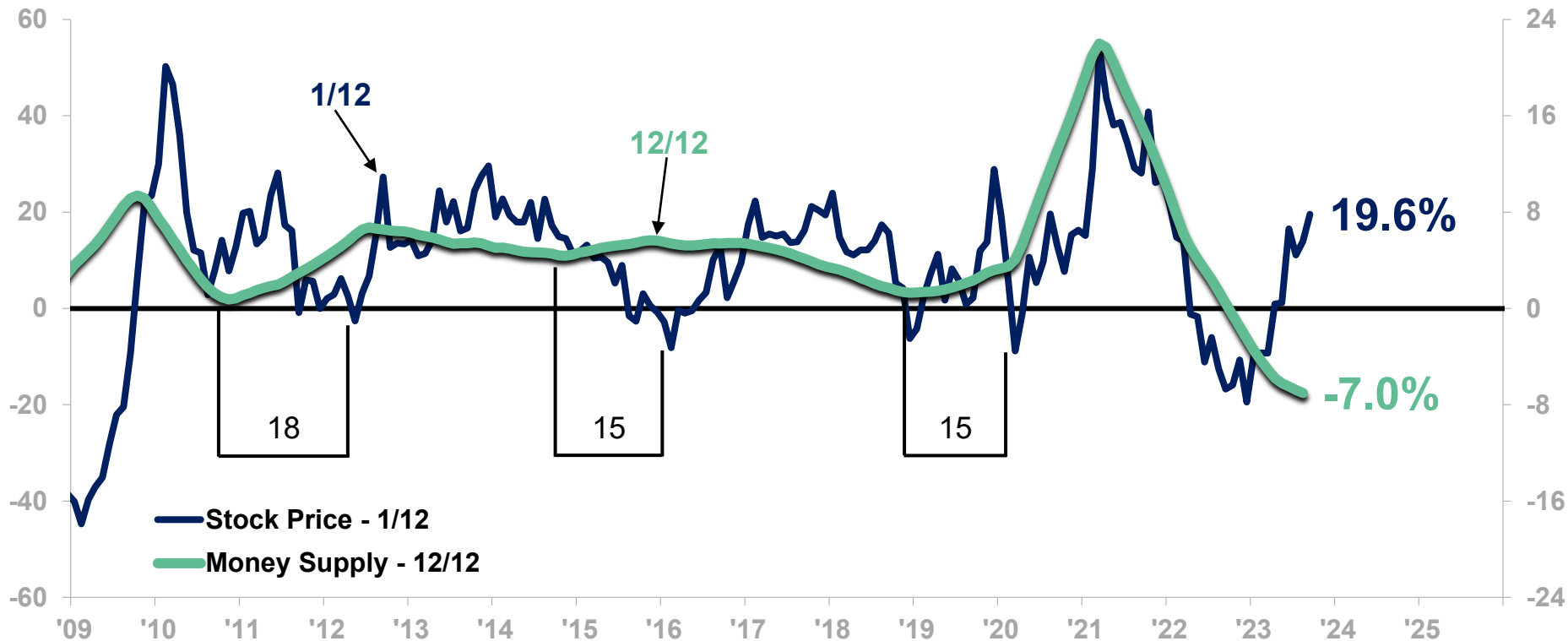
Rates-of-Change



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Stock Price

Money Supply





Labor

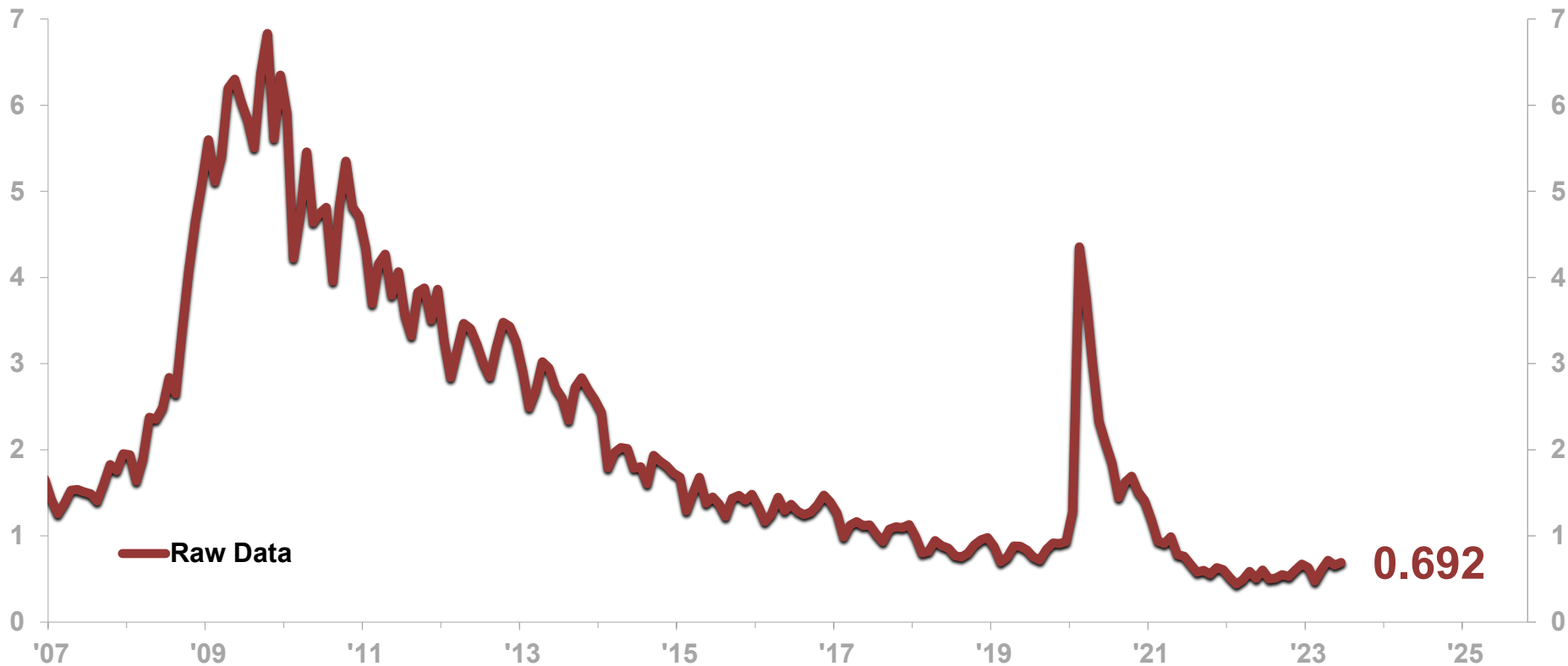


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US Number of Unemployed Persons per Job Opening

Raw Data, Number of Persons



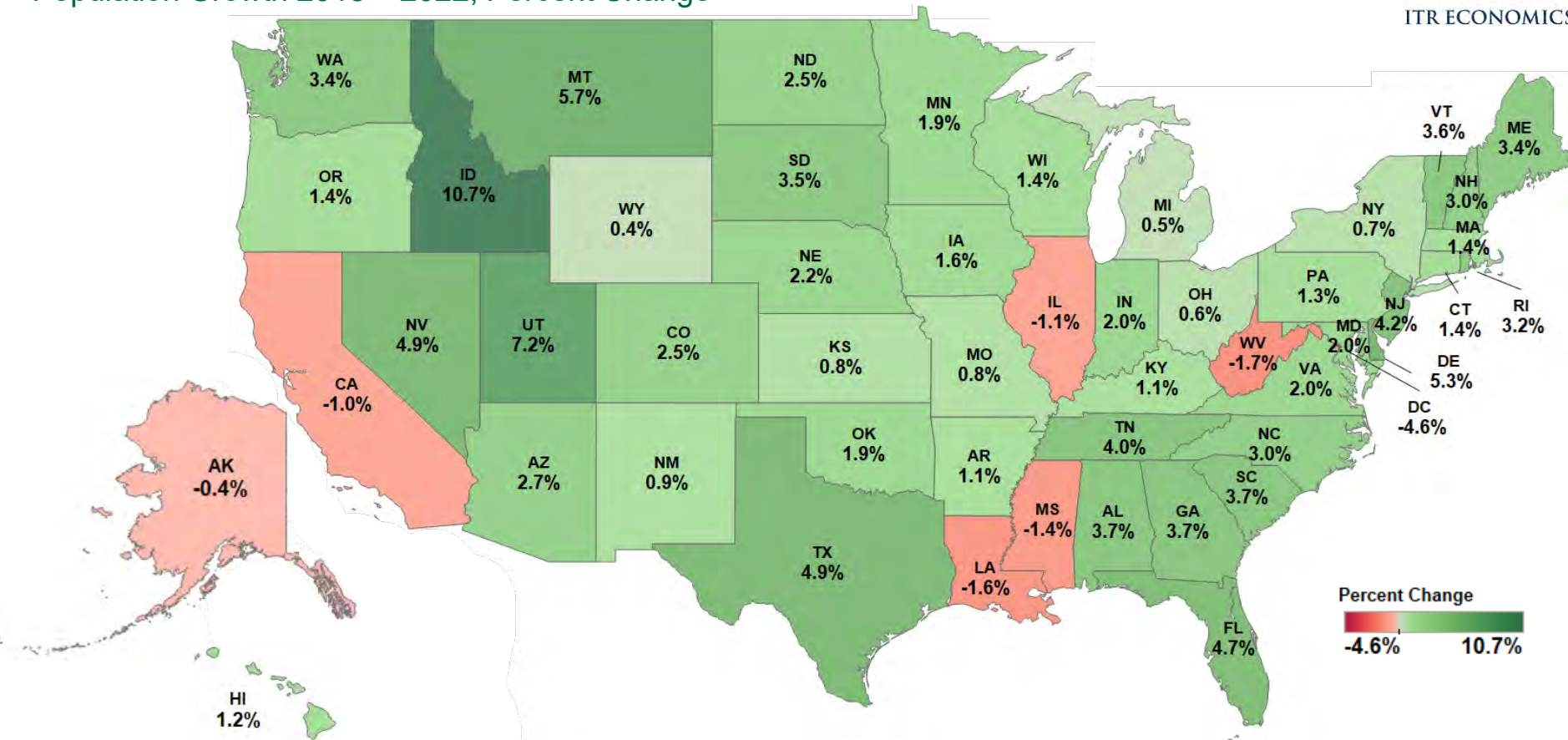
The chart displays the percentage of the population aged 65 and over from 1970 to 2030, broken down by age group. The Y-axis represents the percentage (50-90), and the X-axis represents the year (1970-2030). The legend indicates the following age groups: 16-24 (dark blue), 25-34 (pink), 35-44 (green), 45-54 (red), and 55-64 (orange). The chart shows a general upward trend for all age groups, with the 16-24 group showing a significant decline after 2010. The final percentages for 2030 are: 16-24 (56.1%), 25-34 (83.6%), 35-44 (83.6%), 45-54 (81.9%), and 55-64 (65.6%). The percentage for the 65+ group is 19.3%.

Year	16-24	25-34	35-44	45-54	55-64
1970	59.0	69.0	72.0	73.0	62.0
1975	64.0	74.0	75.0	72.0	58.0
1980	68.0	78.0	79.0	74.0	56.0
1985	67.0	81.0	82.0	76.0	54.0
1990	68.0	83.0	84.0	80.0	55.0
1995	66.0	83.0	84.0	81.0	56.0
2000	65.0	84.0	84.0	82.0	59.0
2005	61.0	82.0	83.0	81.0	62.0
2010	55.0	82.0	83.0	81.0	64.0
2015	55.0	81.0	82.0	79.0	64.0
2020	55.0	82.0	83.0	81.0	65.0
2025	56.0	83.0	84.0	82.0	65.0
2030	56.1	83.6	83.6	81.9	65.6

State Population Growth 2018 to 2022

Source: US Census Bureau

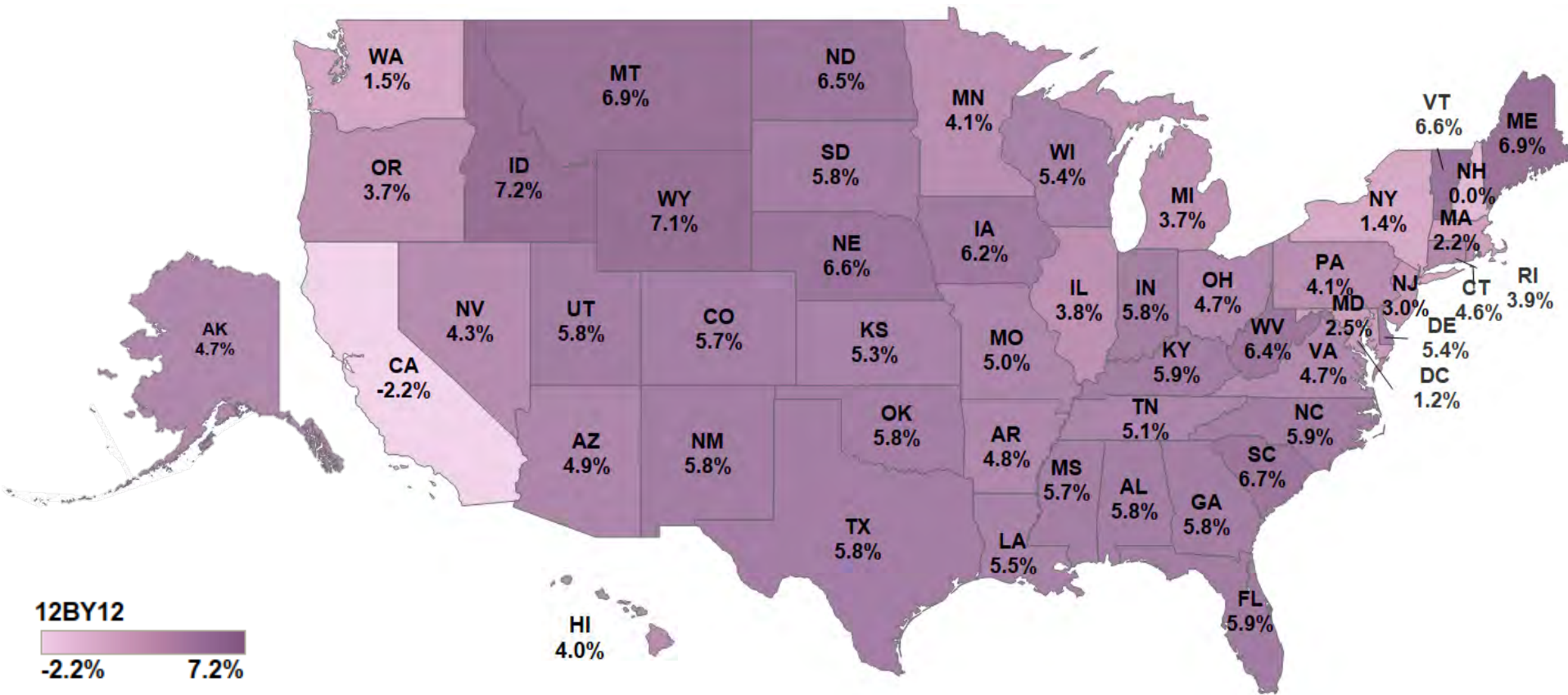
Population Growth 2018 – 2022, Percent Change



US Wage Inflation by State

Source: BLS

12/12 Rates-of-Change



12BY12

-2.2%

7.2%

 **Disinflation on wages late in 2023 and in 2024**

 **Tight labor market for years**

 **It is all about the culture**

Next Steps

- **Baby Boomers are leaving**
- **Preparing the next generation**



Inflation Trends

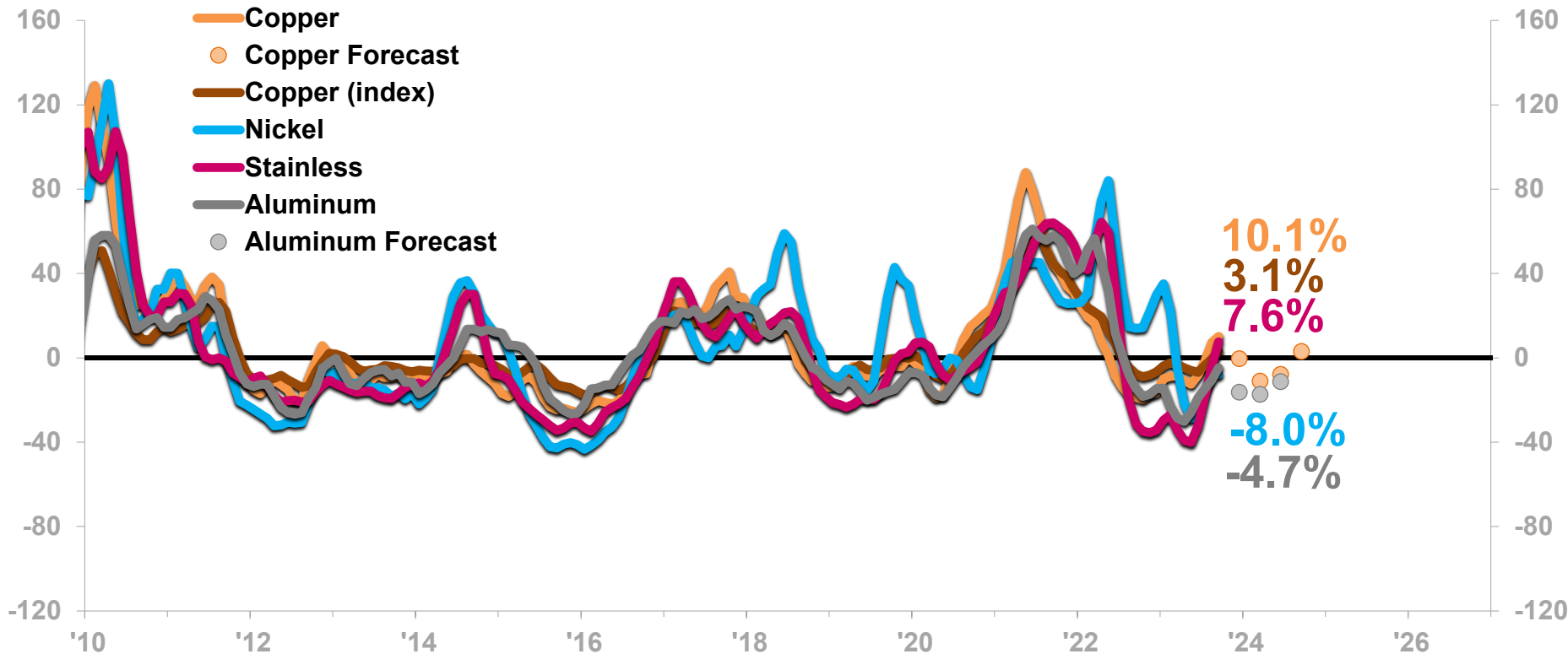
Deflationary Trends

Sources: WSJ, LME, BLS



Commodity Prices for Copper, Nickel, and Aluminum to US Producer Price Indexes for Copper, and Stainless Steel

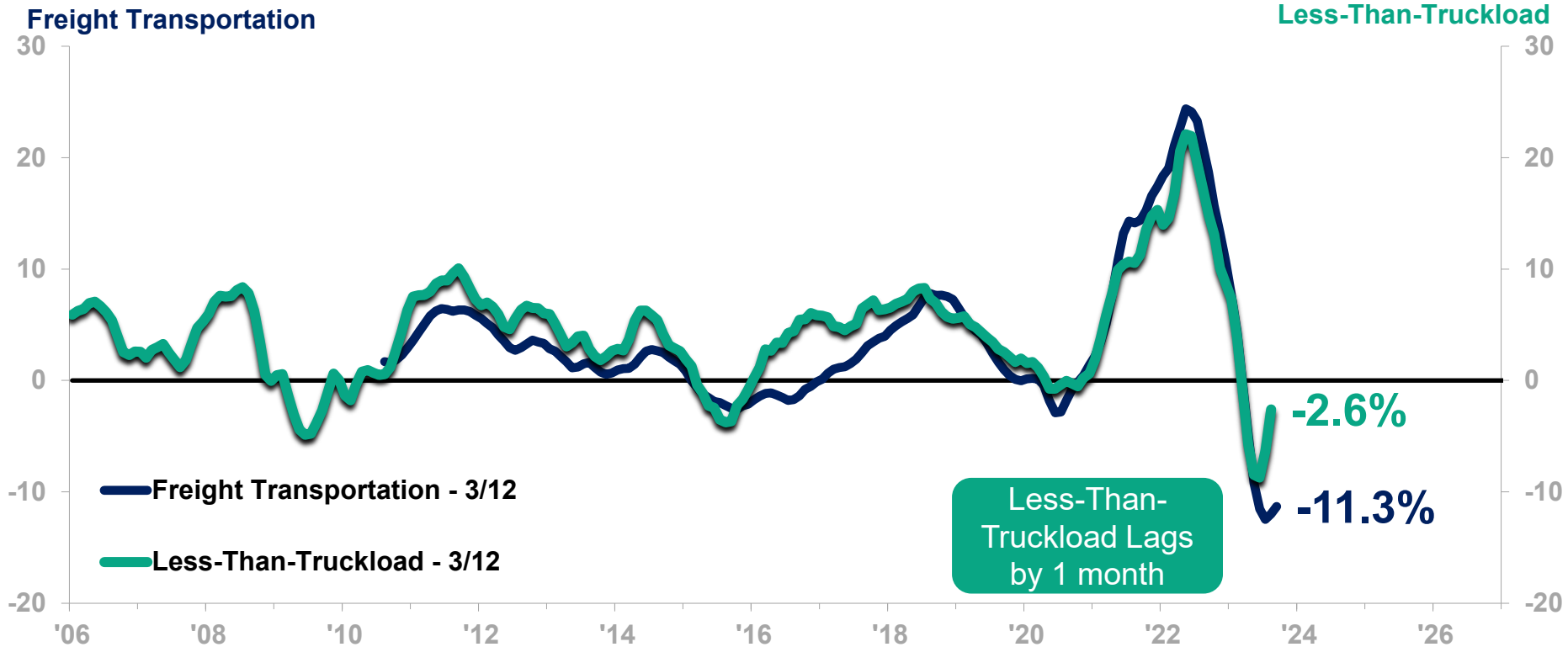
3/12 Rates-of-Change



Despite Recent Uptick PPIs Remain Lower Than a Year Ago

Source: BLS

US Truck Transportation of Freight Producer Price Index to
US Long Distance General Freight Trucking Less-Than-Truckload Producer Price Index
3/12 Rates-of-Change



Future US Bond Yields

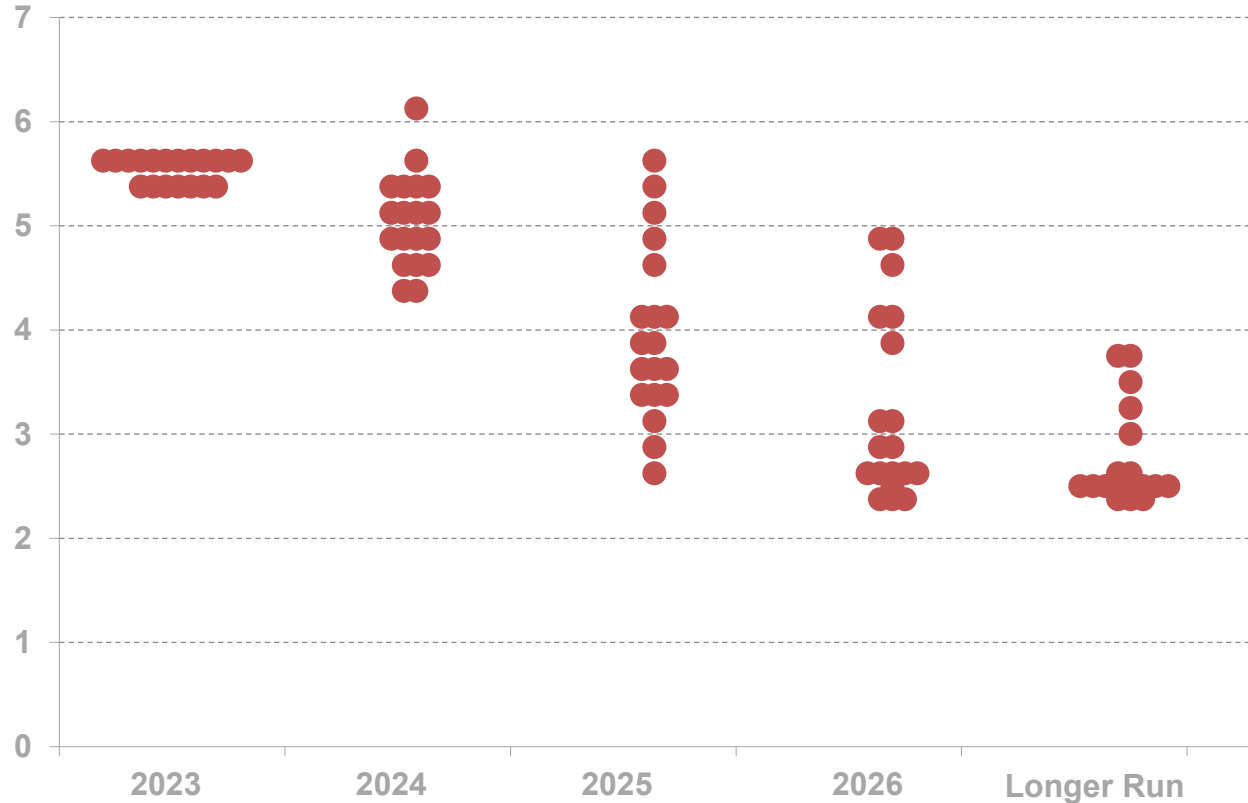
Source: FRB



FOMC Member Interest Rate Projections

Source: FRB

Fed Open Market Committee | September 2023



**Take advantage of
lower interest rates**

Make acquisitions

**Invest in your
products – innovate**

**Invest in your
processes**



Construction

Expect a Mid-2023 Low

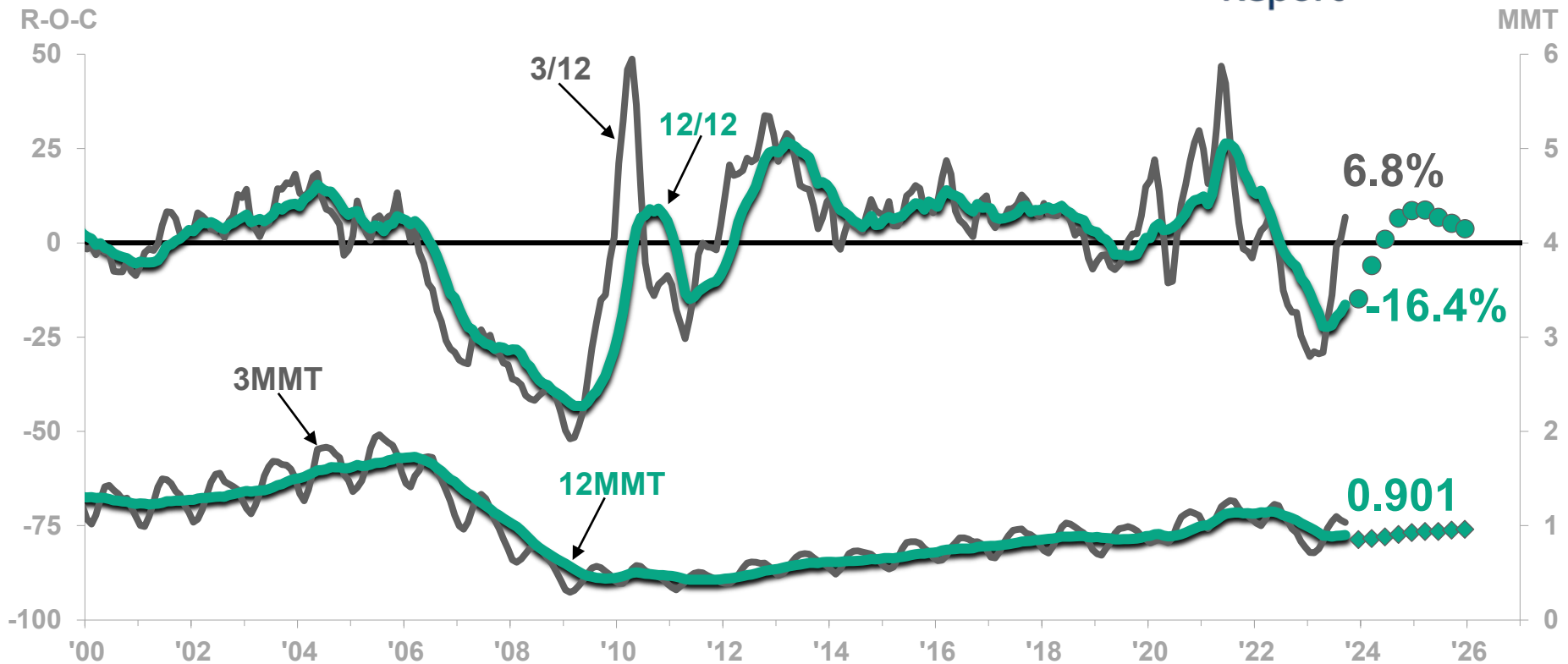
Source: US Census Bureau

US Single Unit Housing Starts

Millions of Units

as seen in
ITR Economics'
**Trends
Report**

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Permits Lead Housing Starts

Source: US Census Bureau



US Housing Starts to US Housing Unit Building Permits

Rates-of-Change

Housing Starts

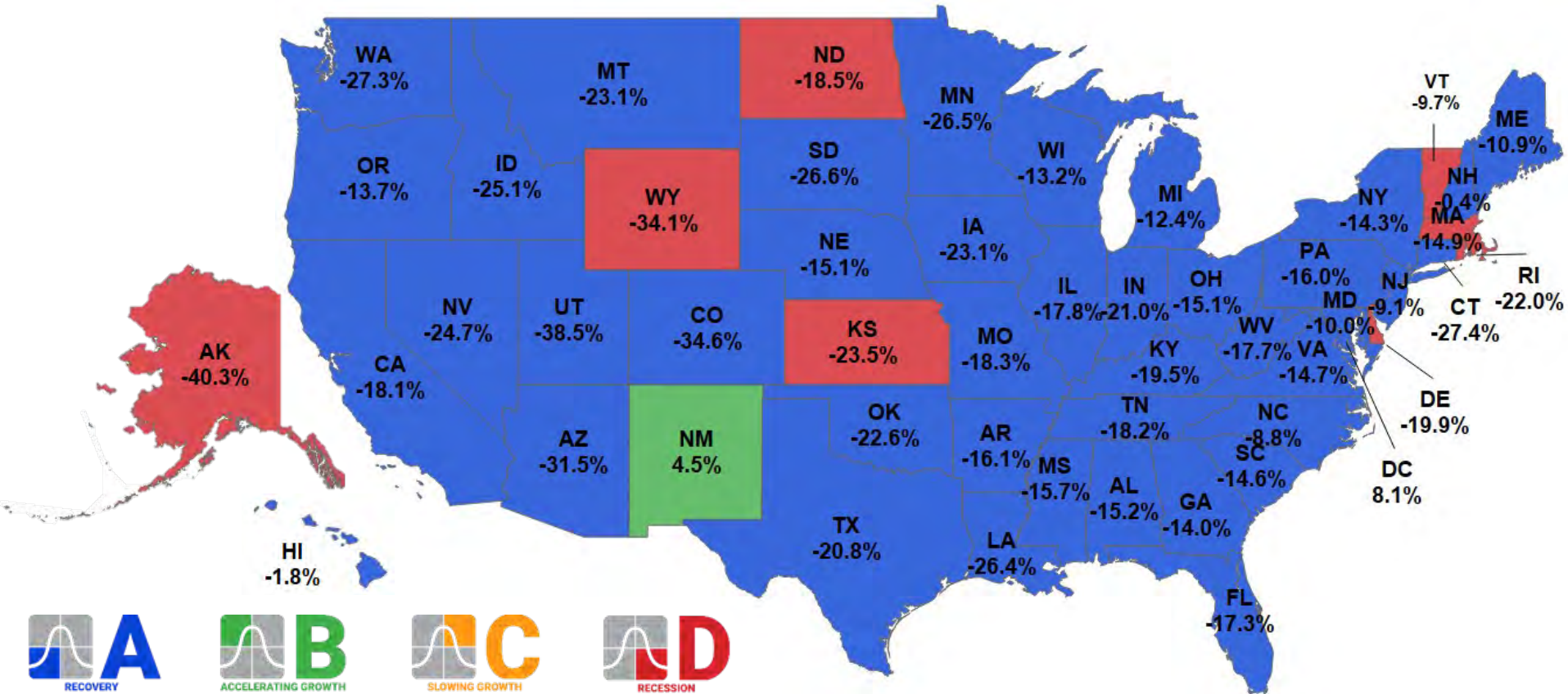
Permits



US Single-Family Housing Unit Permits by State

Source: US Census Bureau

12/12 Rates-of-Change

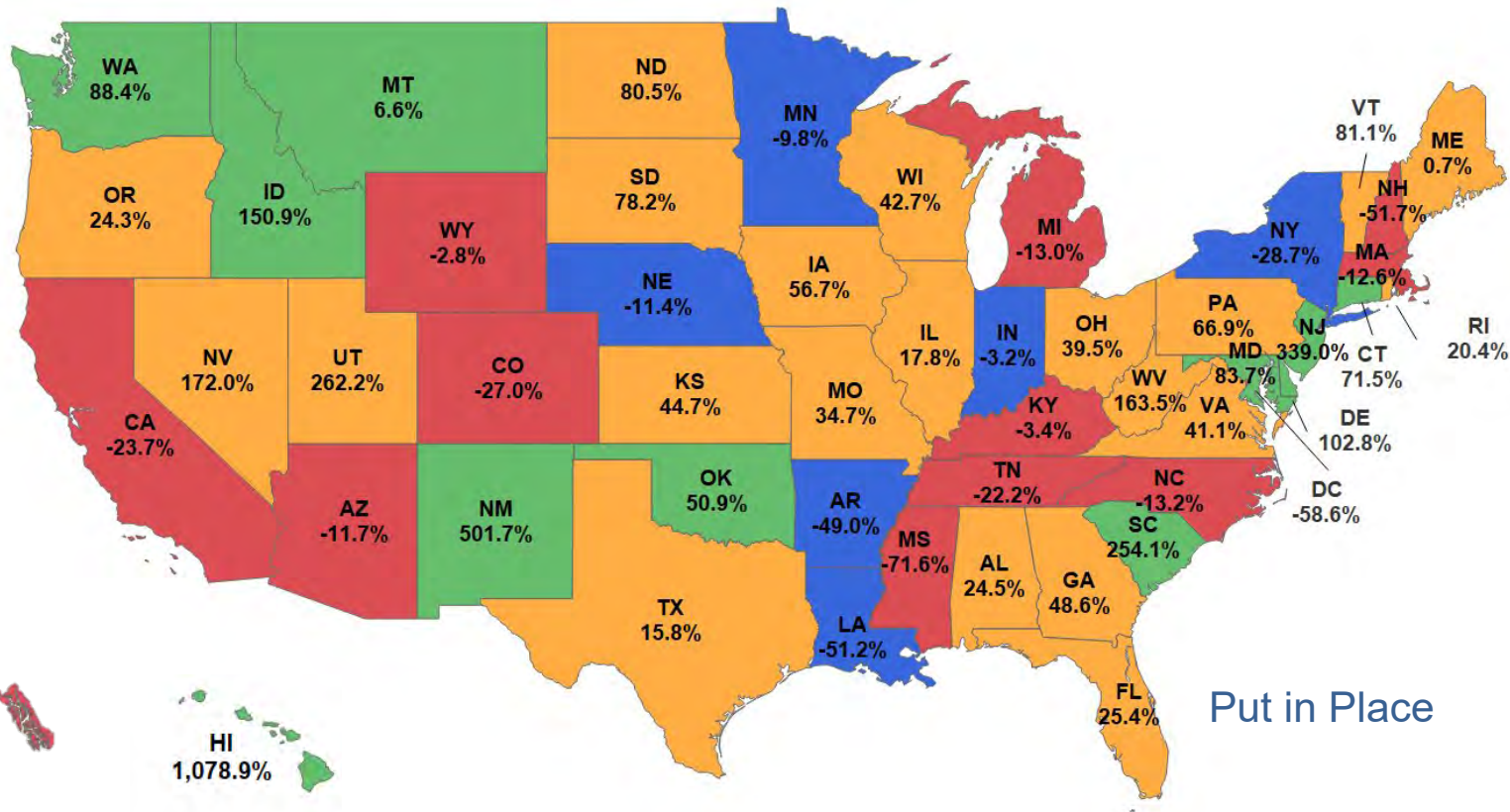


US Residential Remodeling Construction by State

Source: ConstructConnect

12/12 Rates-of-Change

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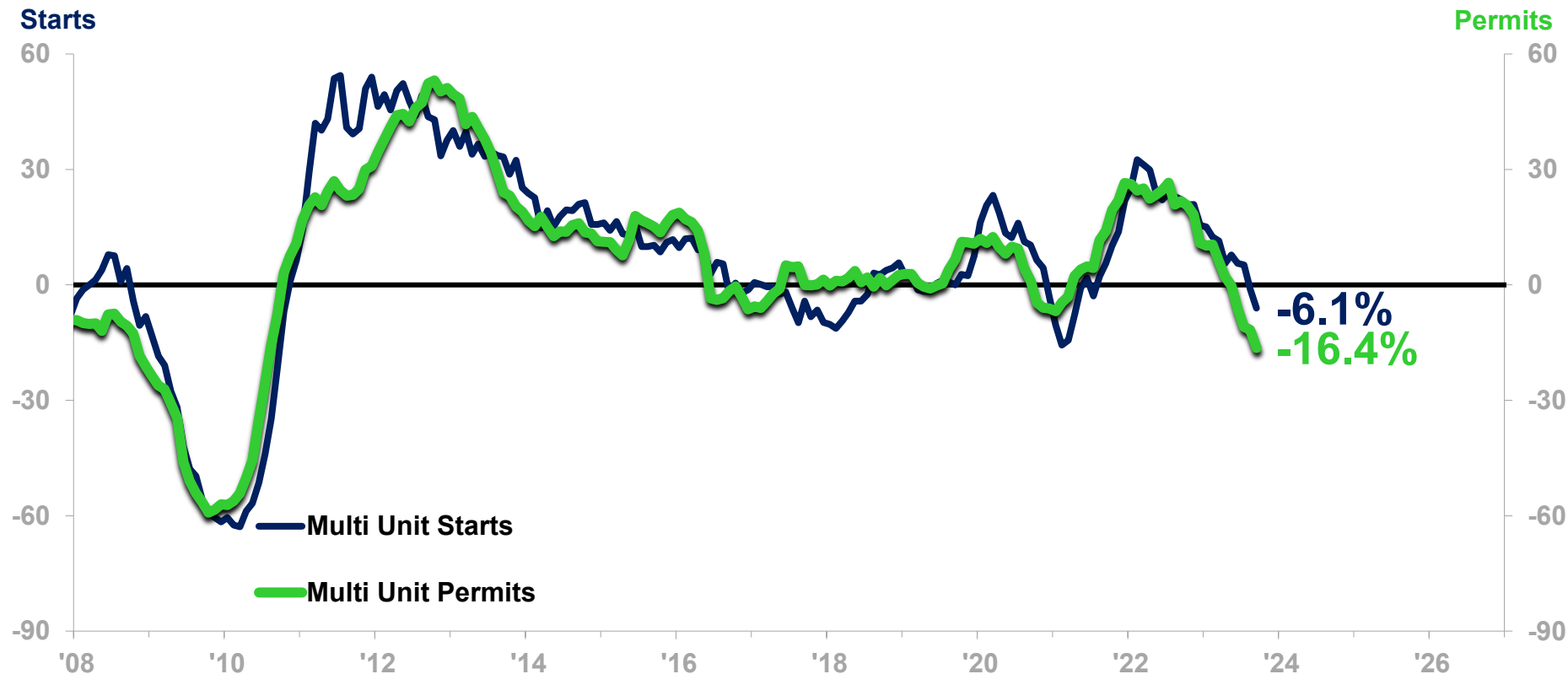
Put in Place

Downside Cyclical Pressure in 2023

Source: US Census Bureau

US Multi-Unit Housing Starts to US Multi-Unit Housing Permits

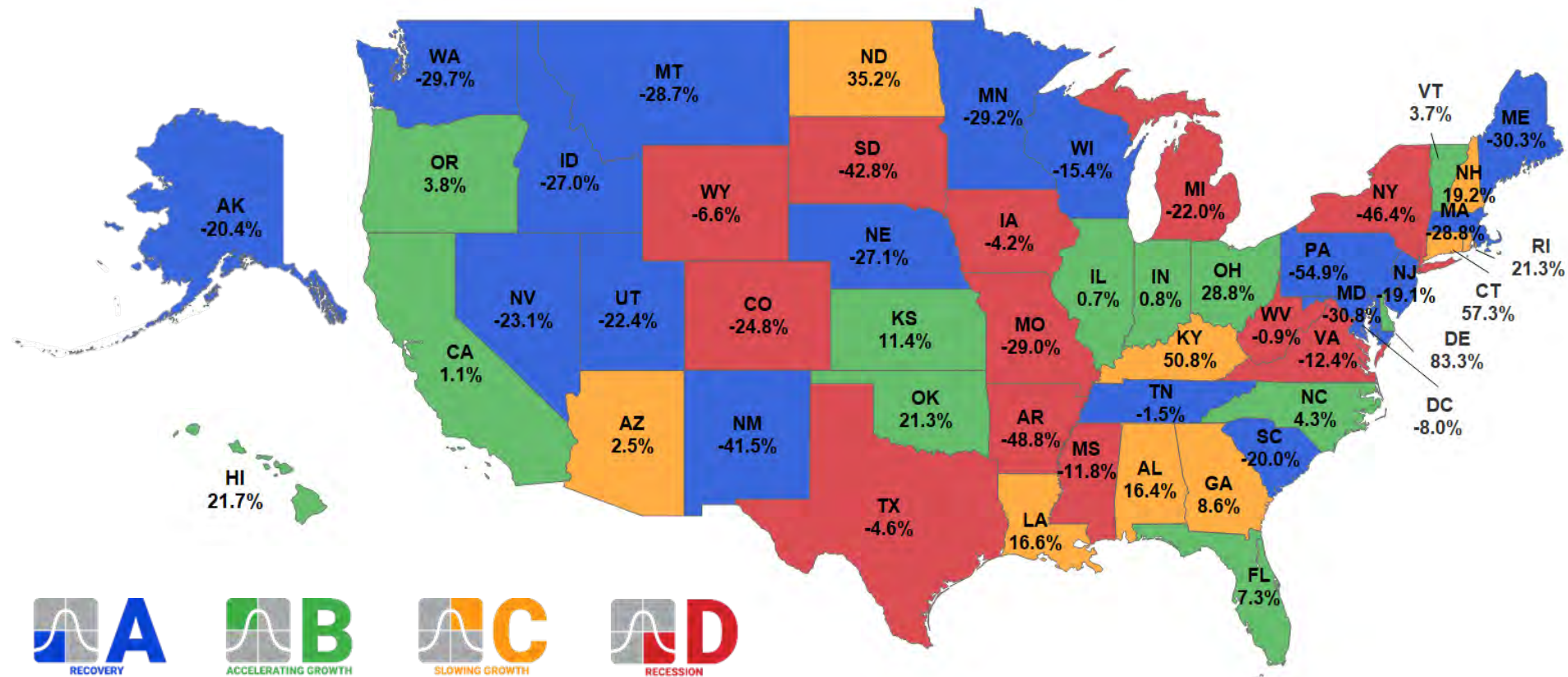
12/12 Rates-of-Change



US Multi-Family Housing Permits by State

Source: US Census Bureau

12/12 Rates-of-Change



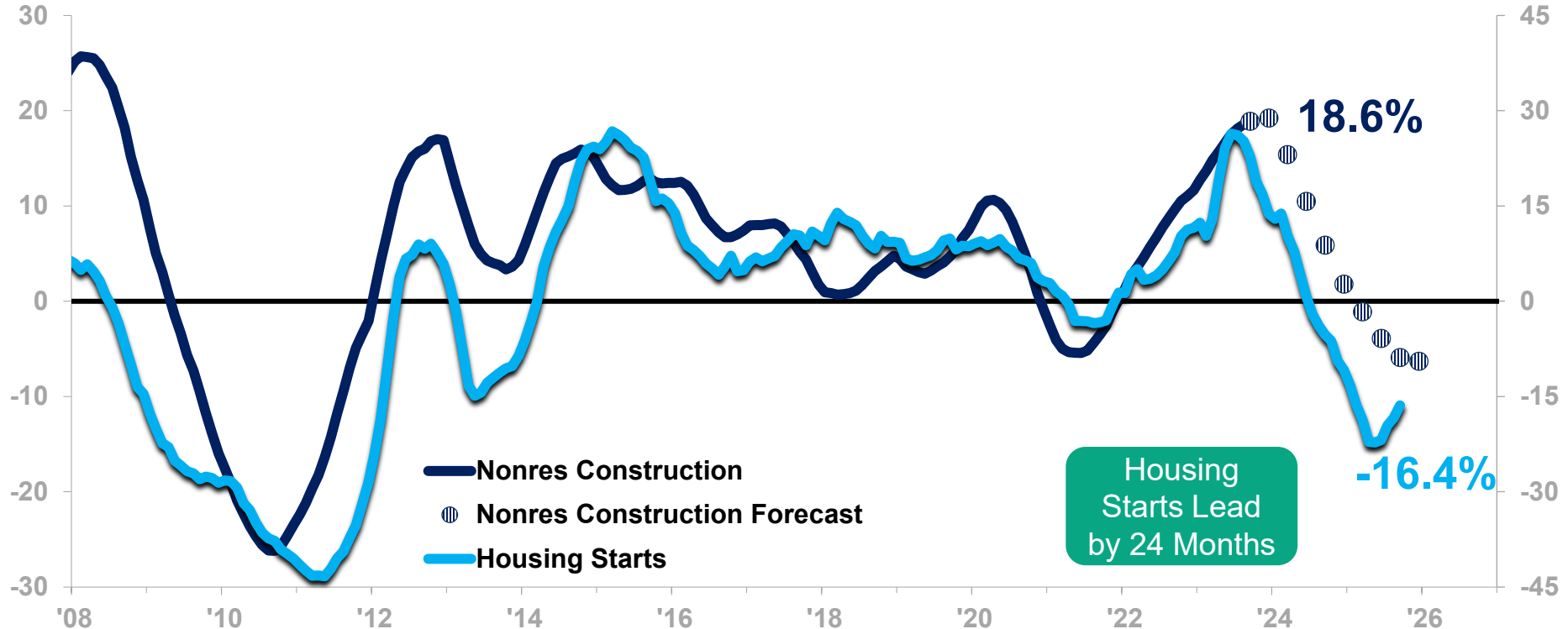
Housing Leads – Nonresidential Lags

Source: US Census Bureau

US Private Nonresidential Construction to US Single-Unit Housing Starts

12/12 Rates-of-Change

Nonres Construction



Tight Correlation Between Renovation and New Construction

Sources: ConstructConnect,
US Census Bureau

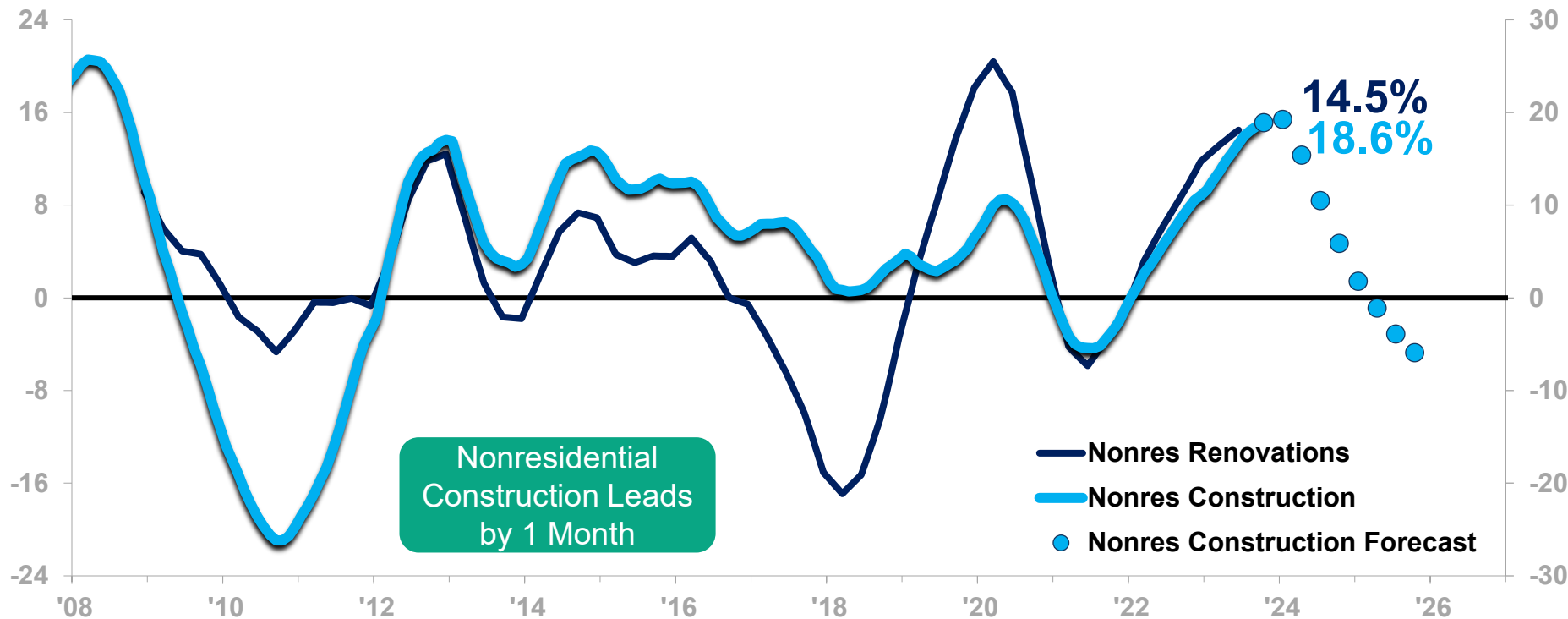


US Total Value of Nonresidential Construction Renovations to US Private Nonresidential Construction

12/12 Rates-of-Change

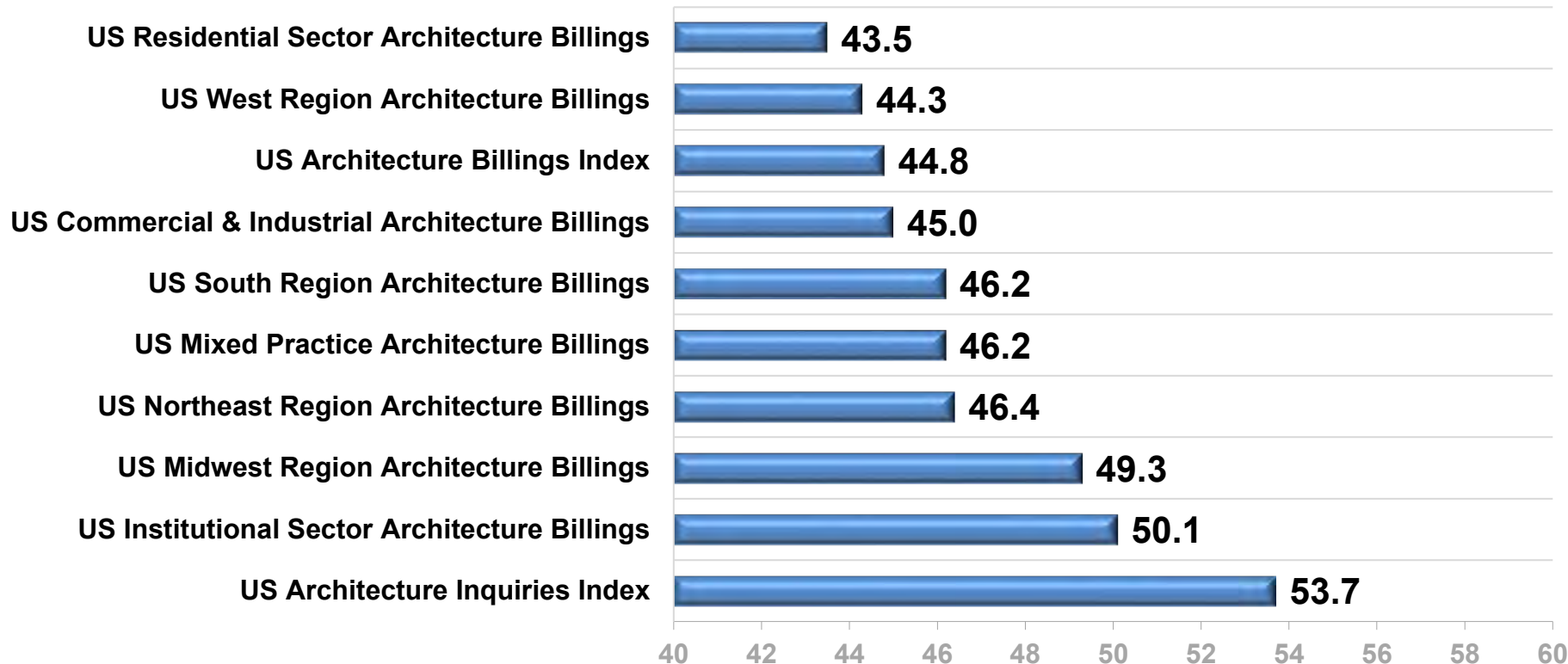
Nonresidential Renovations

Nonresidential Construction



Architecture Billings Index

Above 50 indicates an increase in demand



Decline Is Not Symmetrical Across Sectors

Source: ITR Economics
Trends Report™



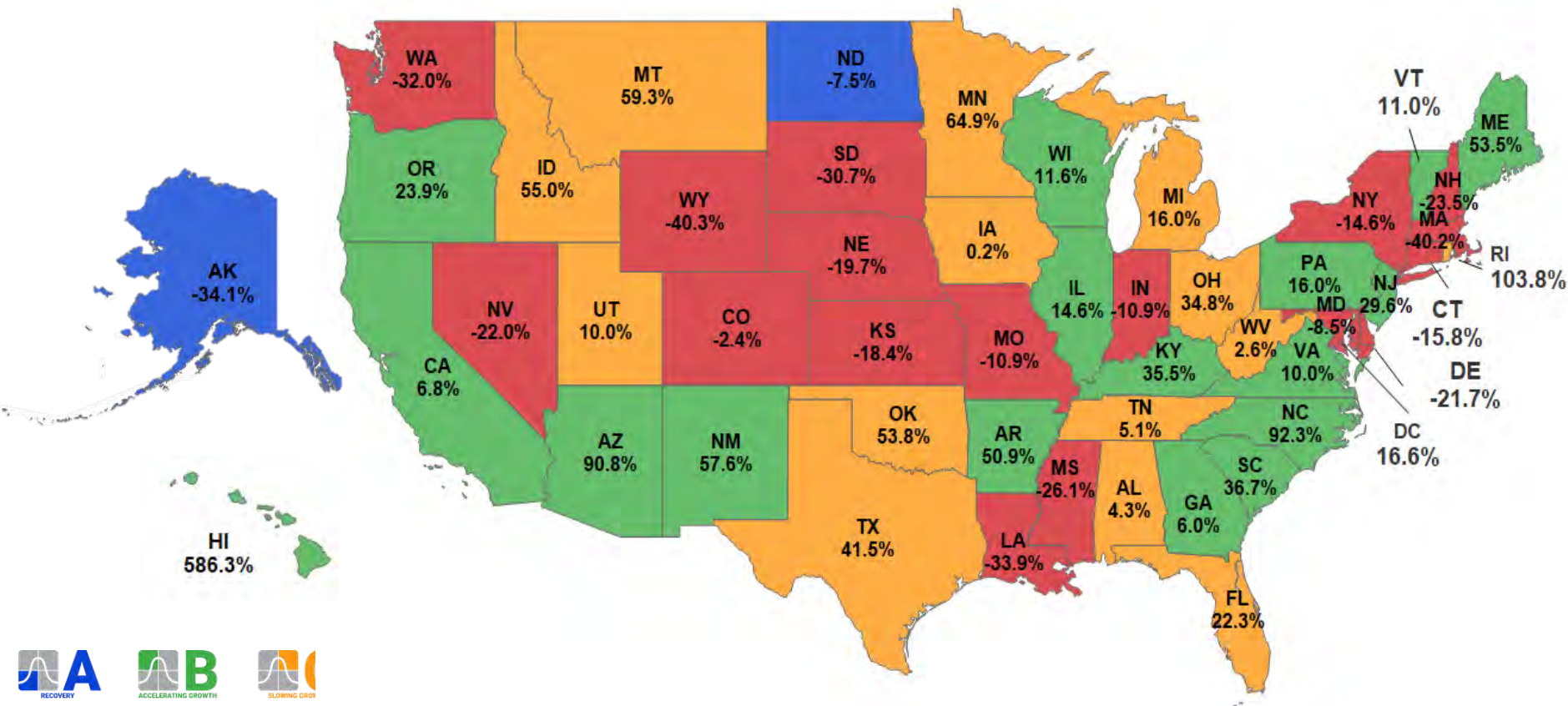
	12/12	12MMT	Current 12/12	2023	2024	2025
US Single-Unit Housing Starts			-18.4	-14.8	8.6	3.8
US Multi-Unit Housing Starts			-1.0	-13.4	1.9	8.0
US Private Office Construction			6.1	4.4	-5.1	-3.2
US Total Education Construction			6.0	6.7	0.5	-4.4
US Total Hospital Construction			9.6	11.0	-3.4	1.9
US Private Manufacturing Construction			63.1	64.0	2.4	-2.3
US Private Multi-Tenant Retail Construction			16.2	-1.5	-11.2	1.6
US Private Warehouse Construction			12.7	7.3	-4.7	2.4
US Public Water & Sewer Facilities Construction			17.9	13.4	-0.4	-7.5

Note: Forecast color represents what Phase the market will be in at the end of the year.

US Commercial Construction by State

Source: ConstructConnect

12/12 Rates-of-Change





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