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Gauging the Risks Going Forward 2023 - 2024

Presented by ITR Economics
CEO and Chief Economist
Brian Beaulieu

2022 Preliminary Forecast Results



	Duration	Accuracy *
US GDP	18	98.9%
US Ind. Production	18	98.9%
Europe Ind. Production (November)	23	99.5%
Canada Ind. Production (October)	24	99.9%
China Ind. Production	16	98.5%
Retail Sales	13	98.0%
Housing - Single Family	17	84.8%
Employment-Private Sector	13	98.7%

* Projected for year end

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

Expect Canada to Slow Along With The US

Sources: BEA,
Statistics Canada

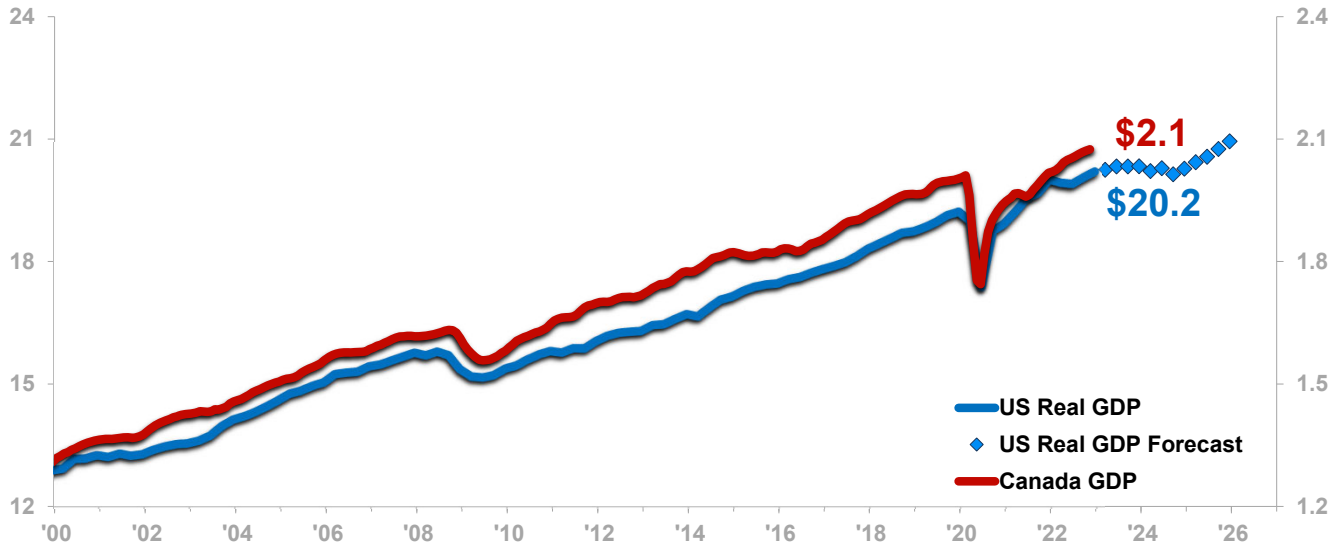
US Real Gross Domestic Product to Canada All Industries Gross Domestic Product

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Quarterly Data Trends

US Real (Tril. Chained 2012 USD)

Canada (Tril. Chained 2012 CAD)



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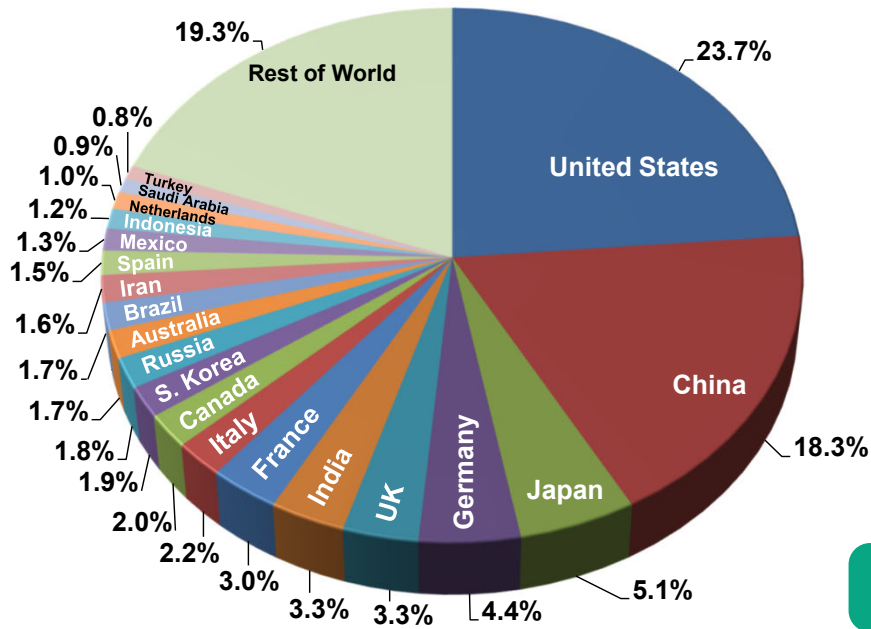


Global Issues

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First In Forecasts Worldwide

Percent of World GDP by Country

Source: IMF, *ROW: 36% are IMF Estimated Figures



*Total World GDP: \$97.1 Trillion US \$

Global Summary



- ☐ → China is becoming more of a problem going forward with mounting risks
- ☐ → Western Europe is slipping into recession; Eastern Europe will follow behind
- ☐ → Nationalism is the long-term play

Next Steps

- Nationalism brings opportunities for shorter supply chains and new business
- Lessen your reliance on China in the coming years

Inflation & Interest Rates

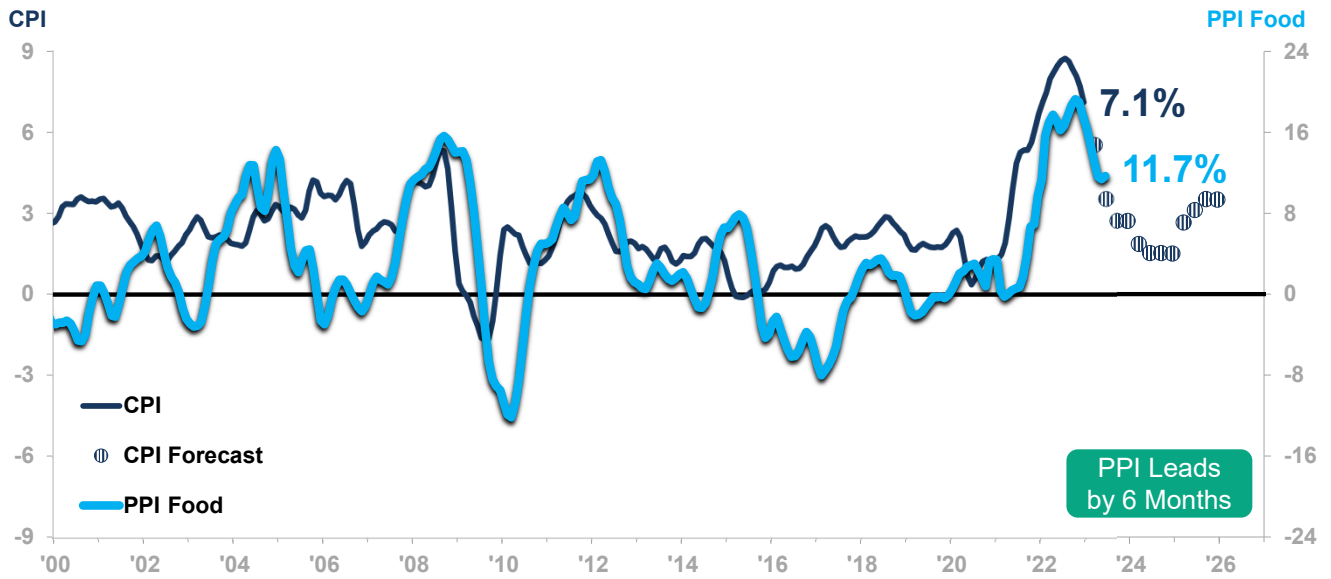


Disinflation in Food Prices Alleviating CPI Pressure

Source: BLS

US Consumer Price Index to US Intermediate Food Materials Producer Price Index
3/12 Rates-of-Change


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Another Inflation Hurdle is Coming Down

Source: BLS

US Consumer Price Index to US Housing Consumer Price Index Rates-of-Change

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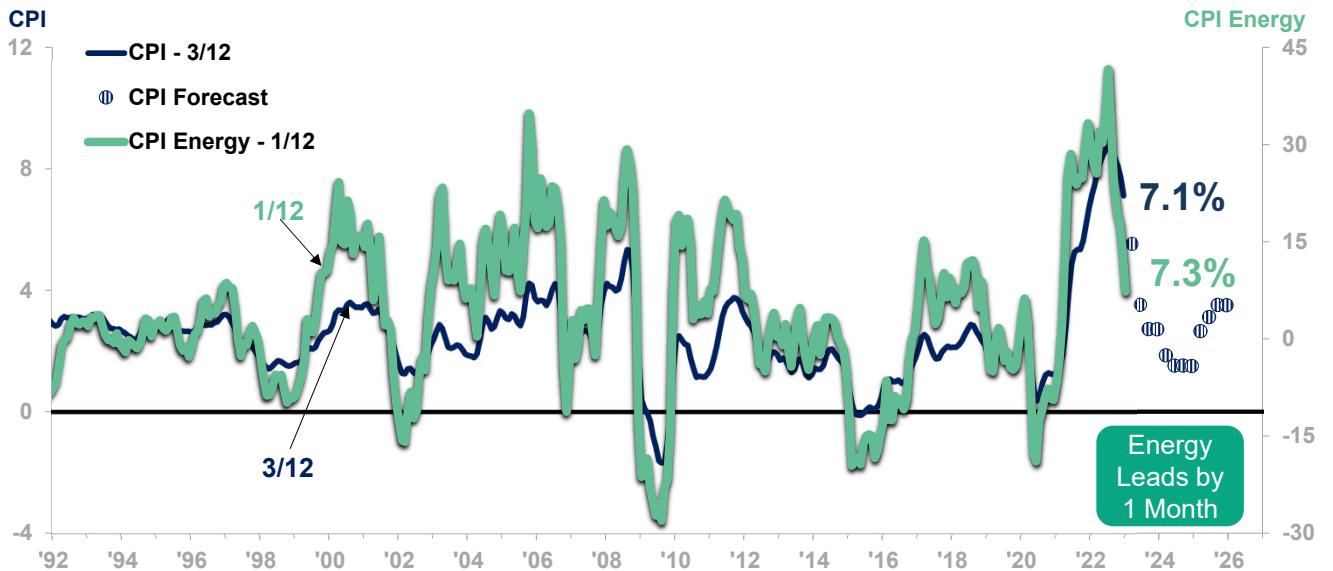


Energy Is Added to the Disinflation List

Source: BLS

US Consumer Price Index to US Energy Consumer Price Index Rates-of-Change

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Downward Pressure on Oil Prices During Recessions

Sources: EIA, FRB

US Crude Oil Spot Prices to US Industrial Production Index

Quarterly Data Trends

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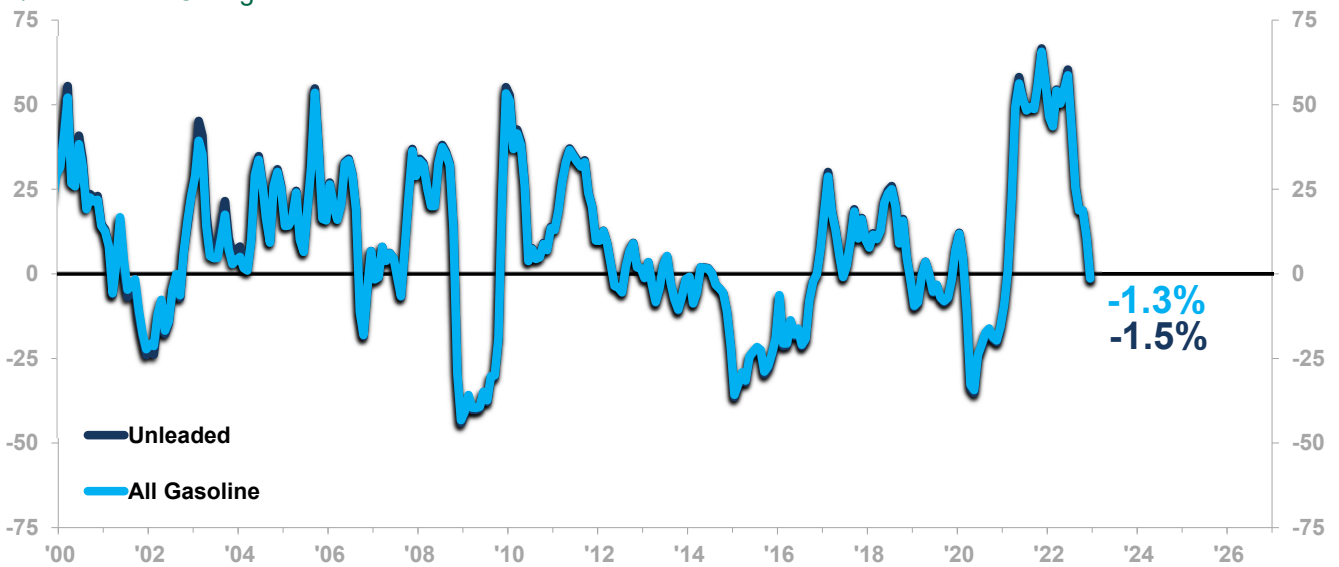
Lessening Inflation Pressure

Source: BLS

US Consumer Price Index for Unleaded/Regular Gasoline to US All Gasoline Consumer Price Index

1/12 Rates-of-Change

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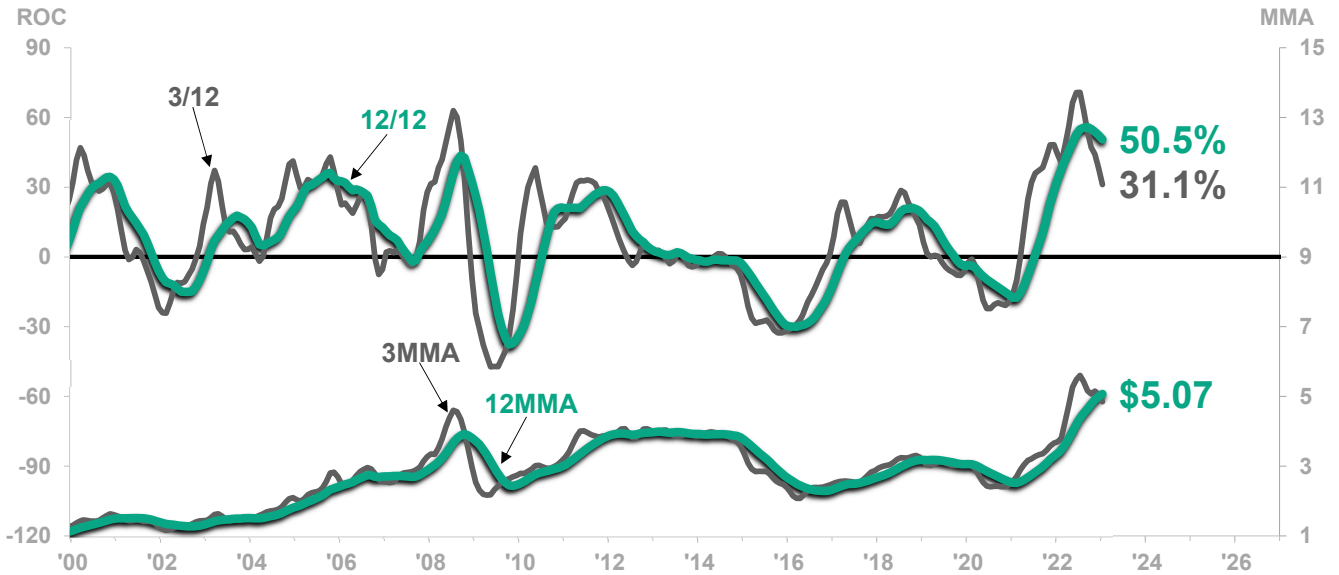
Different Scenario With Diesel

Source: EIA

US Retail On-Highway Diesel Price

Dollars per Gallon

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Should Be Seeing a Trend Reversal for Asphalt

Sources: EIA, BLS

US Crude Oil Spot Prices to US Asphalt Producer Price Index

12/12 Rates-of-Change

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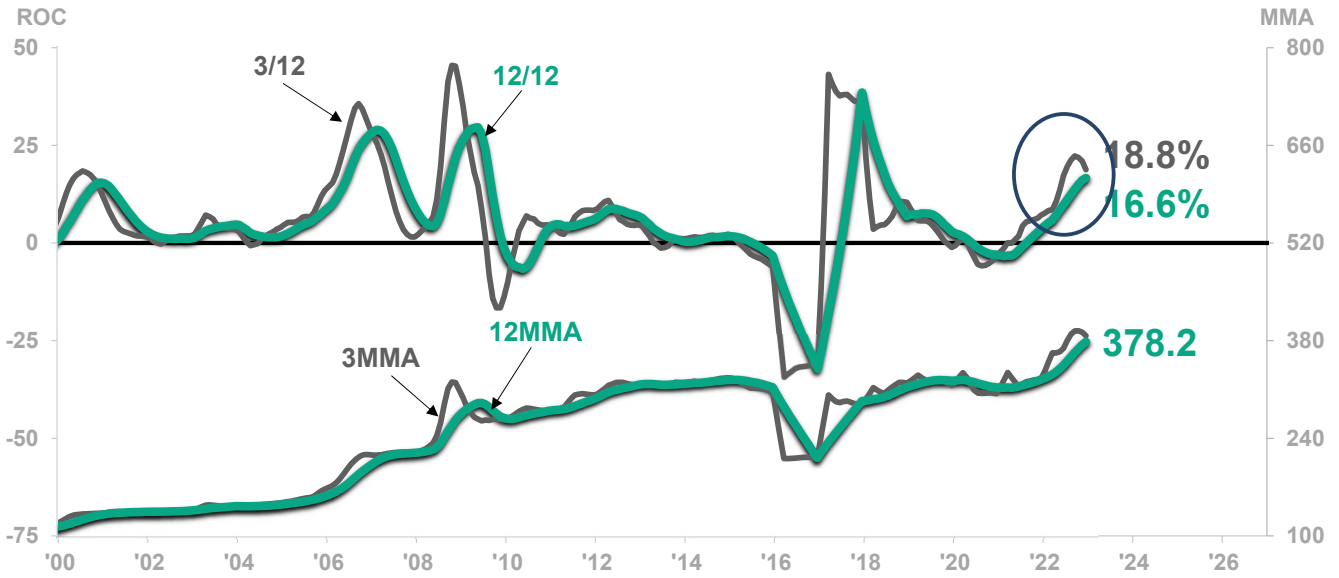
Early Indication of Inflation Ebbing

Source: BLS

US Producer Price Index For Asphalt

1982 = 100

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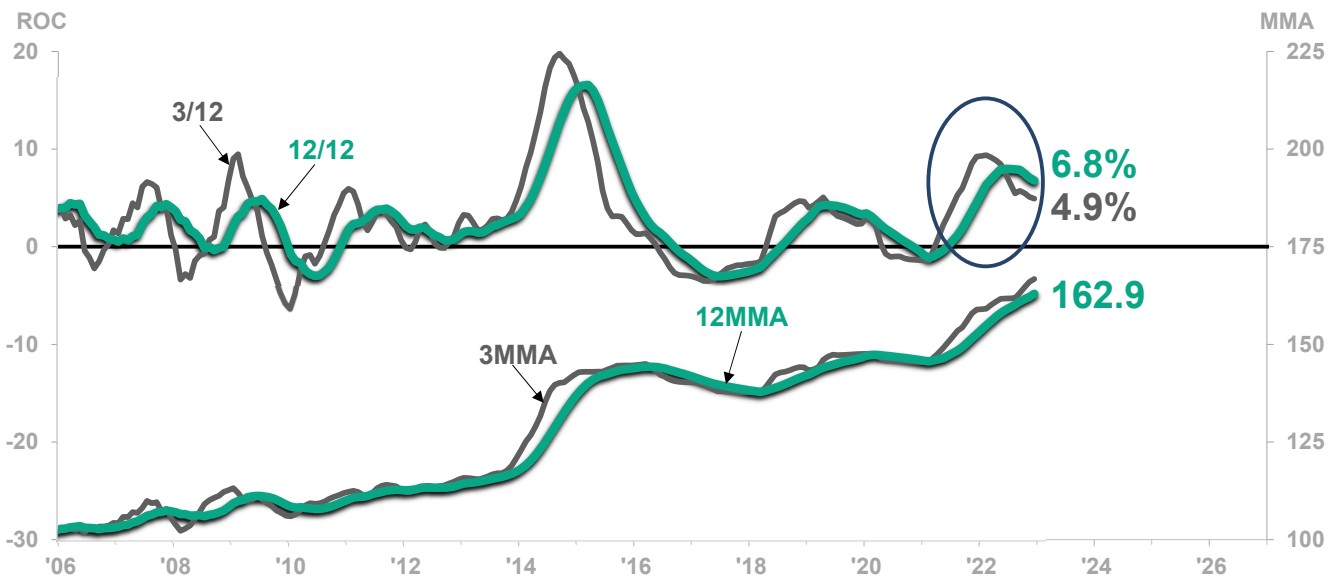
Inflation Pressures Are Abating

Source: BLS

US Wood Ties, Siding, Shingles and Shakes Producer Price Index

2003 = 100

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Lessening Inflation But Still an Issue

Source: BLS

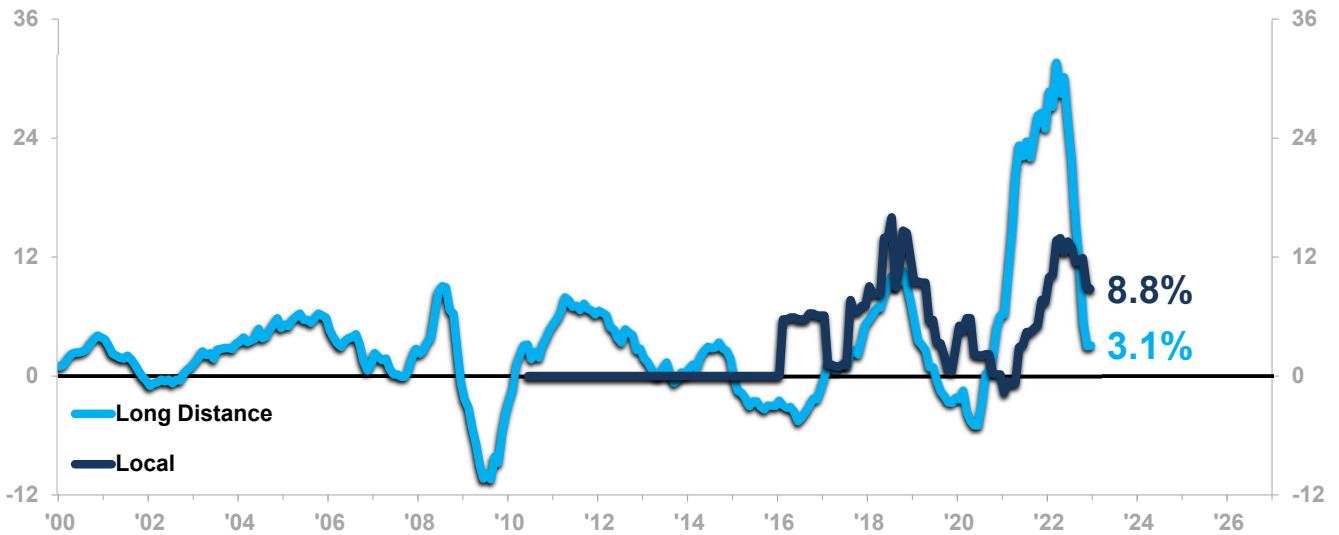
US Long Distance General Freight Truckload Producer Price Index to US Local Freight Trucking (less than truckload) Producer Price Index

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1/12 Rates-of-Change

Long Distance

Local



Expect a Mild Decline in 2023

Source: FRB

US Government Long-Term Bond Yields

Raw Data, Percent

as seen in
ITR Economics'
Trends
Report

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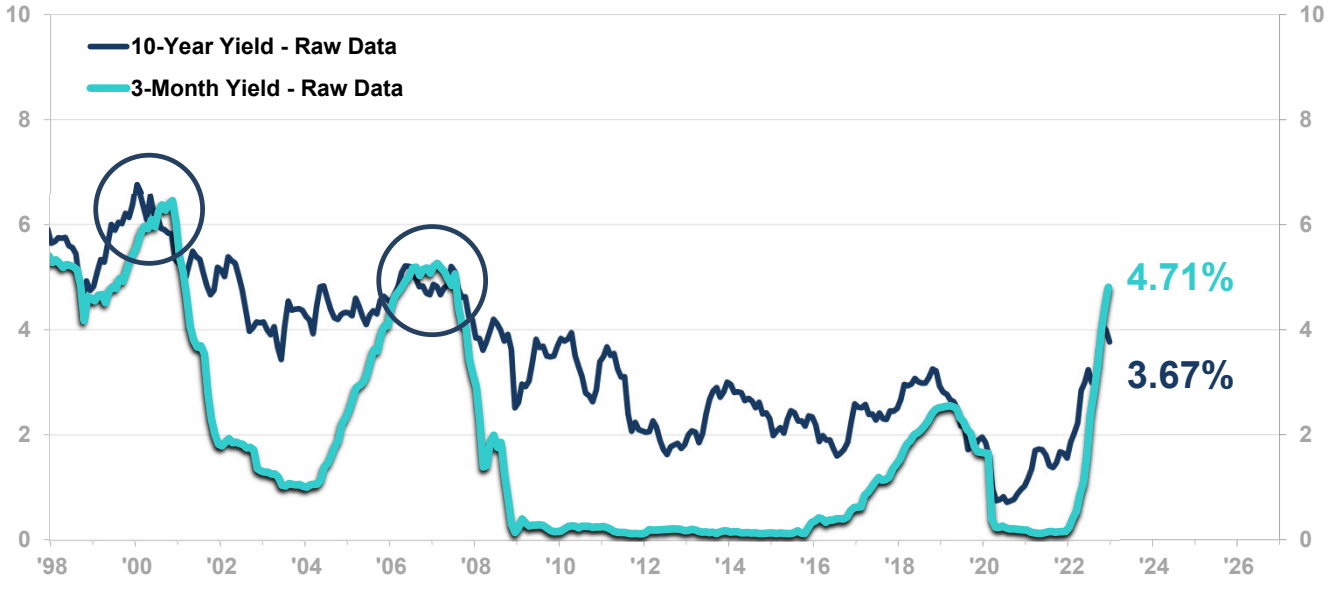


Inverse Yield Curve in Place: Business Cycle Decline Ahead Source: US Treasury Dept.

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



Raw Data: Percent



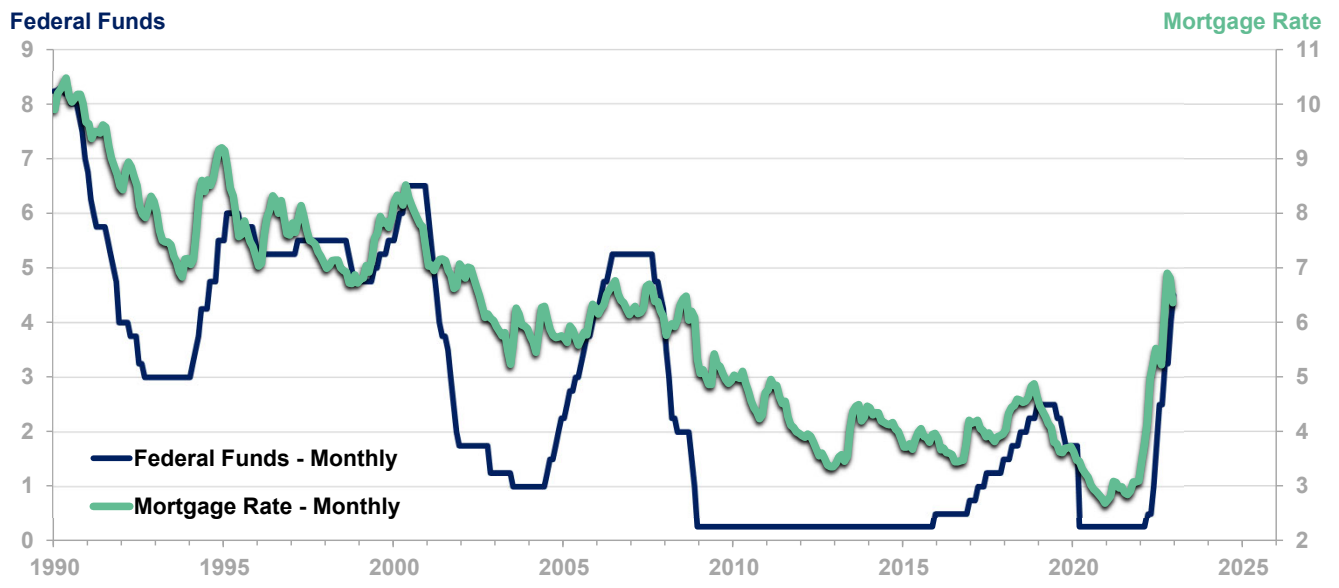
Faster-Than-Normal Ascent in Mortgage Rates Sources: WSJ, Freddie Mac

Sources: WSJ, Freddie Mac

US Federal Funds Target Rate to US 30-Year Conventional Mortgage Rate



Raw Data Trends, Percent



-  Inflation is decreasing
-  Fed should stop raising interest rates immediately; will likely stop 2Q23
-  Banks tightening credit

Next Steps

- Wage inflation is coming down; freight costs will continue to be an issue
- Tout your competitive advantages to protect margins



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US Economy & NEMEON Markets

Inflation Adjusted Wages Are Rising Heading Into 2023

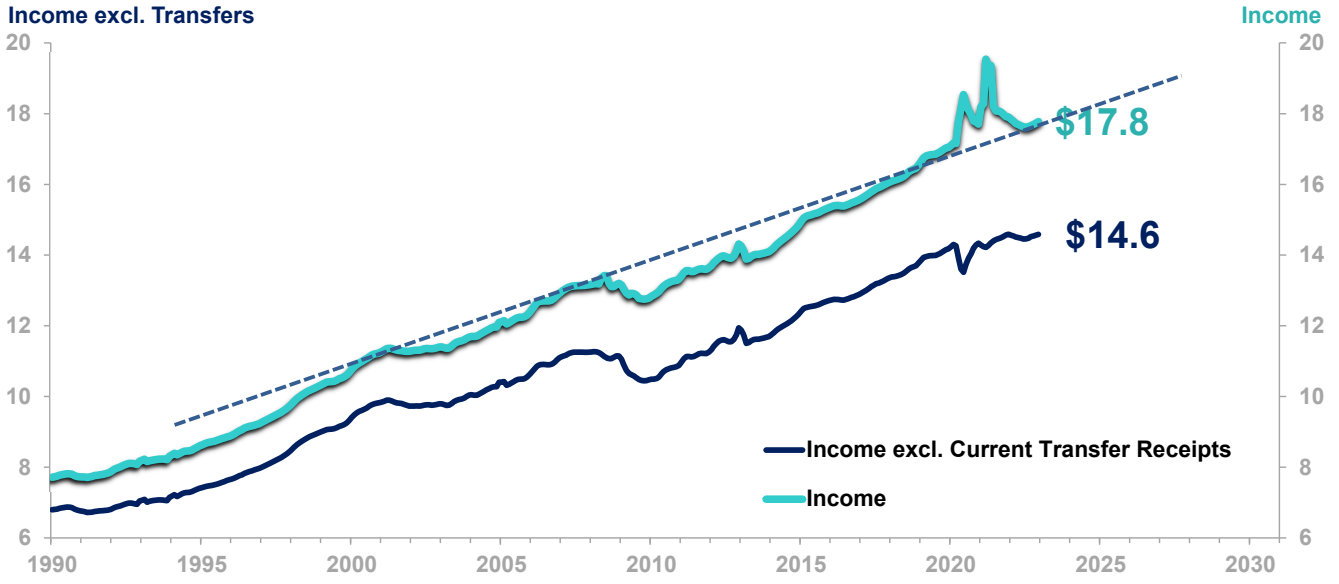
Source: BEA

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

Quarterly Data Trends in Trillions of Chained 2012 Dollars



Income excl. Transfers



Overall Debt Load is Manageable and Credit Card Debt is Minimal

Sources: FRB New York, US Census Bureau, BLS

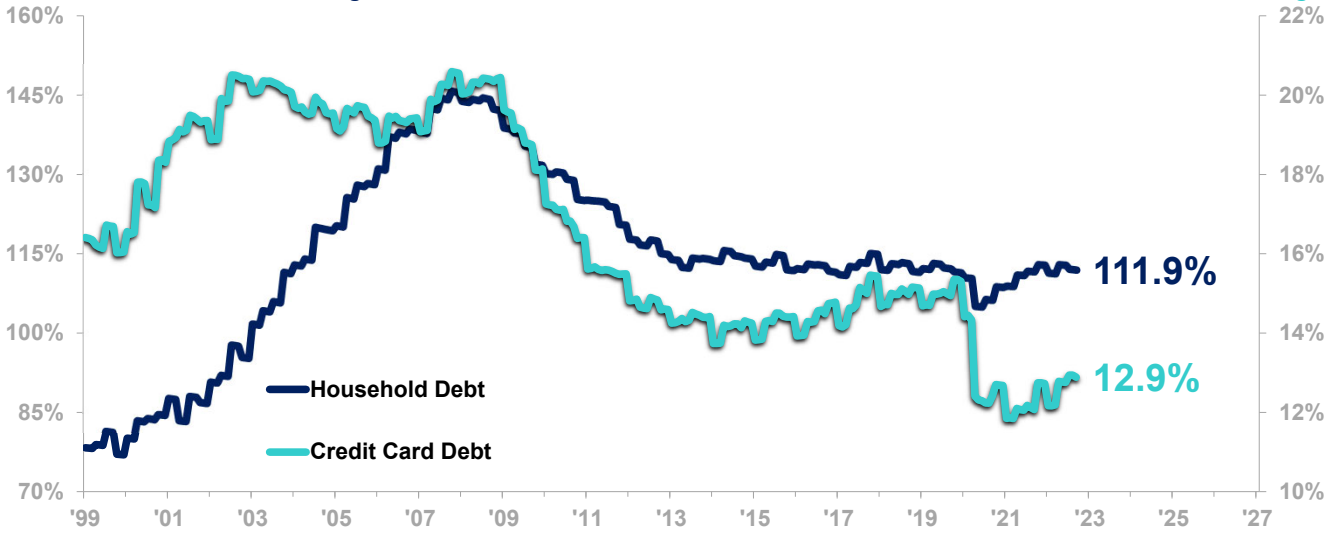
US Household Debt per Capita as a % of US Median Annual Earnings to US Credit Card Debt per Household as a % of US Median Annual Earnings

Raw Data, Percent



Household Debt as % of Earnings

Credit Card Debt as % of Earnings



Able to Service the Debt Loads Going Into 2023

Source: FRBNY, FRB, BEA

US Profits and Delinquency Rates

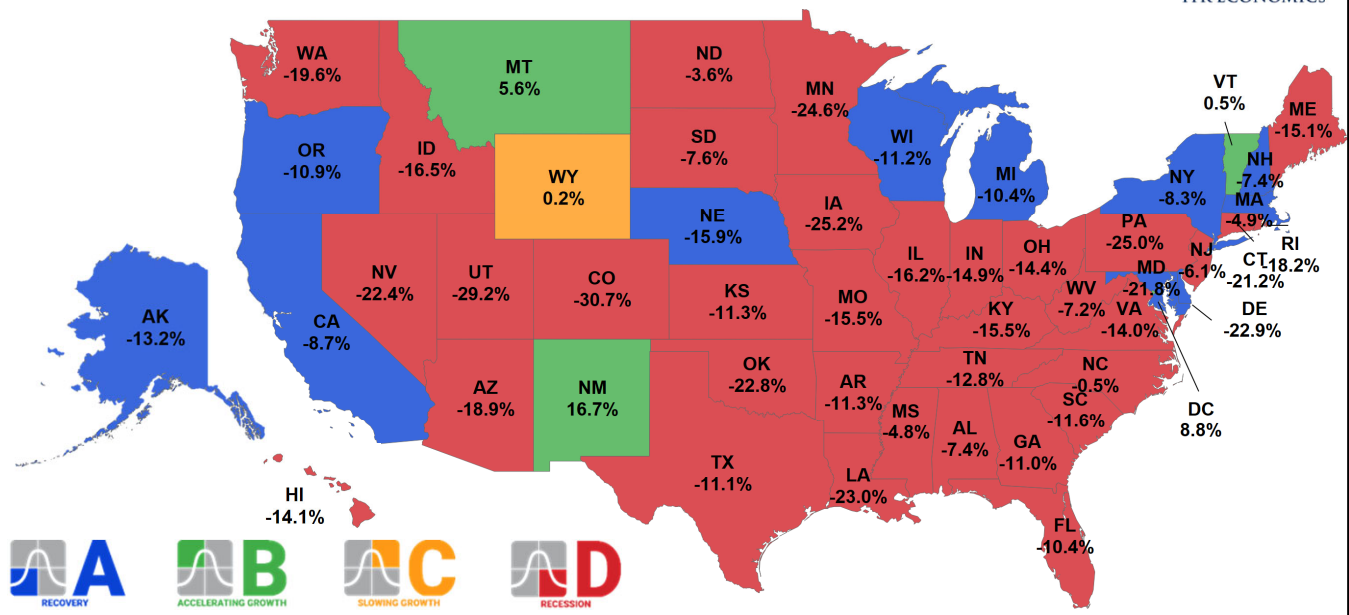


	Monthly	Notes
Auto Loan Delinquency	3.89%	Five year low
Credit Card Delinquency	2.07%	Pre-Covid 10yr avg 2.76%
Residential Delinquency (>90 days)	1.80%	Lowest in 15.5 years
Domestic Nonfinancial Profits	\$2.09T	Record high

US Single-Family Housing Unit Permits by State

Source: US Census Bureau

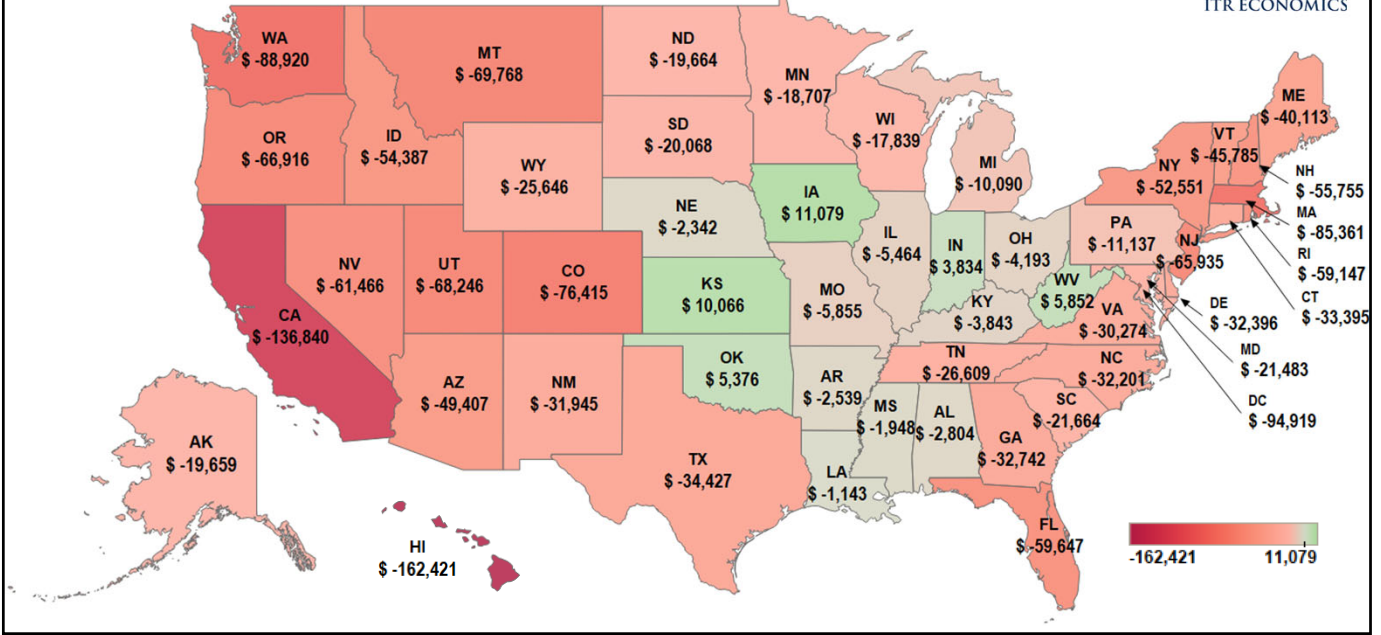
12/12 Rates-of-Change



Gaining Market Share is How you Beat This Trend

Sources: Zillow, Tax-Rates.org, Wall Street Journal, Federal Housing Agency, US Census Bureau

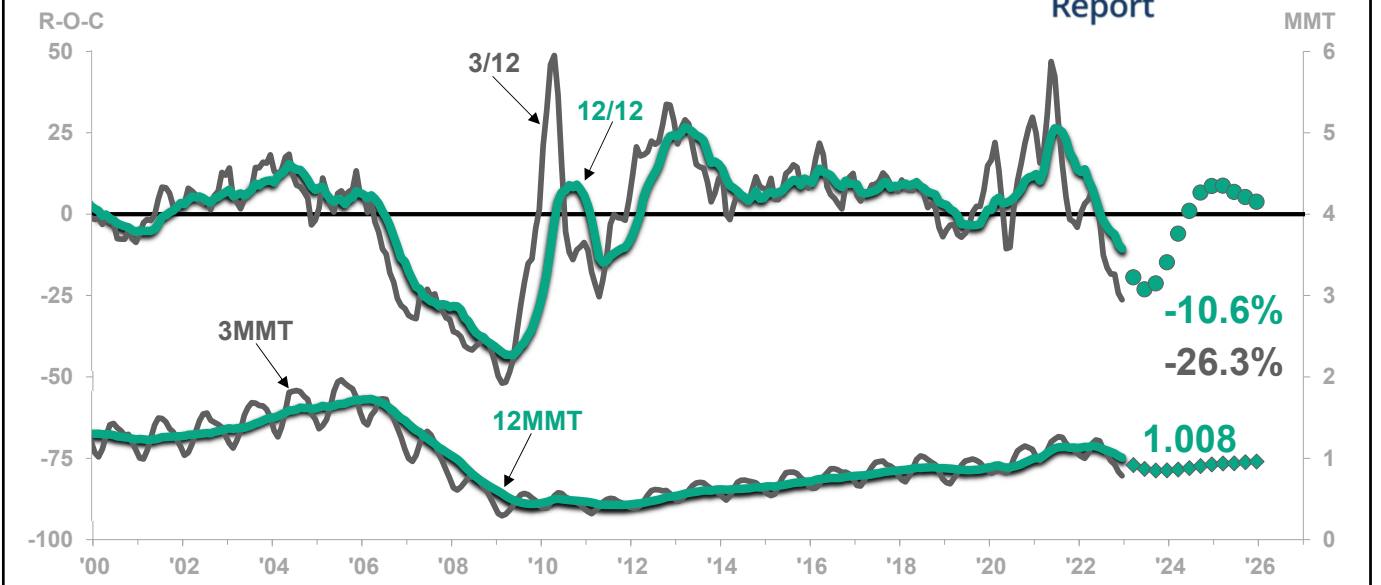
Average Household Income Surplus or Deficit to Income Needed to Afford an Average Priced Home



Our View: Not Great But Not the Great Recession Either

Source: US Census Bureau

US Single Unit Housing Starts
Millions of Units

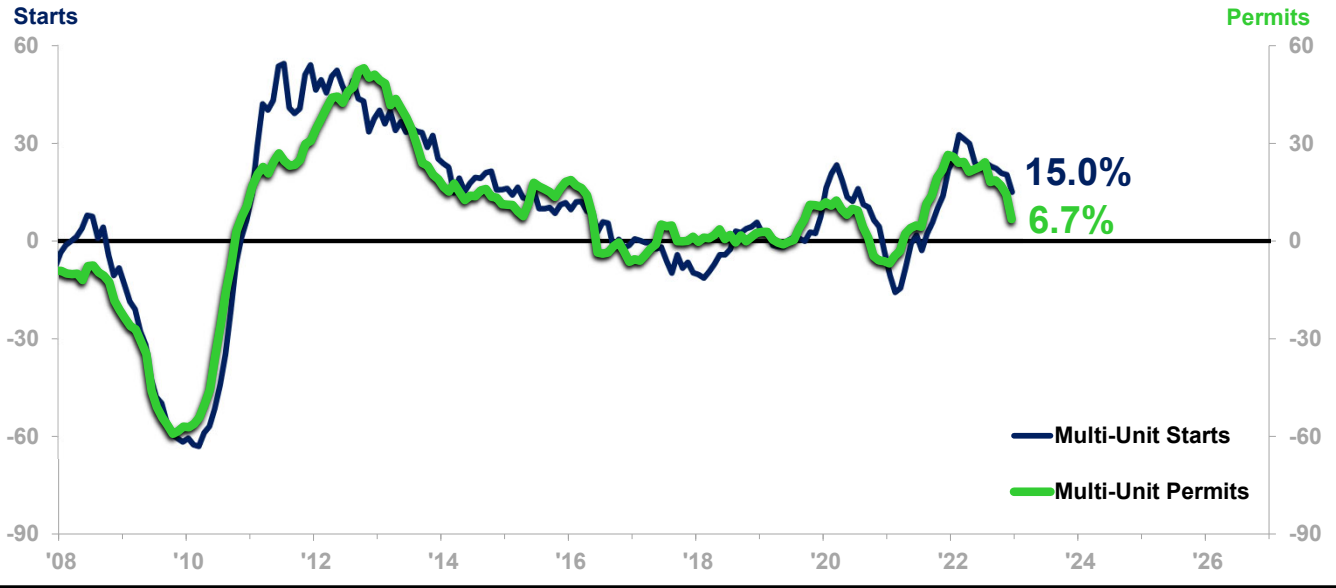


The Stronger Part of the Housing Market in 2023

Source: US Census Bureau

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

12/12 Rates-of-Change

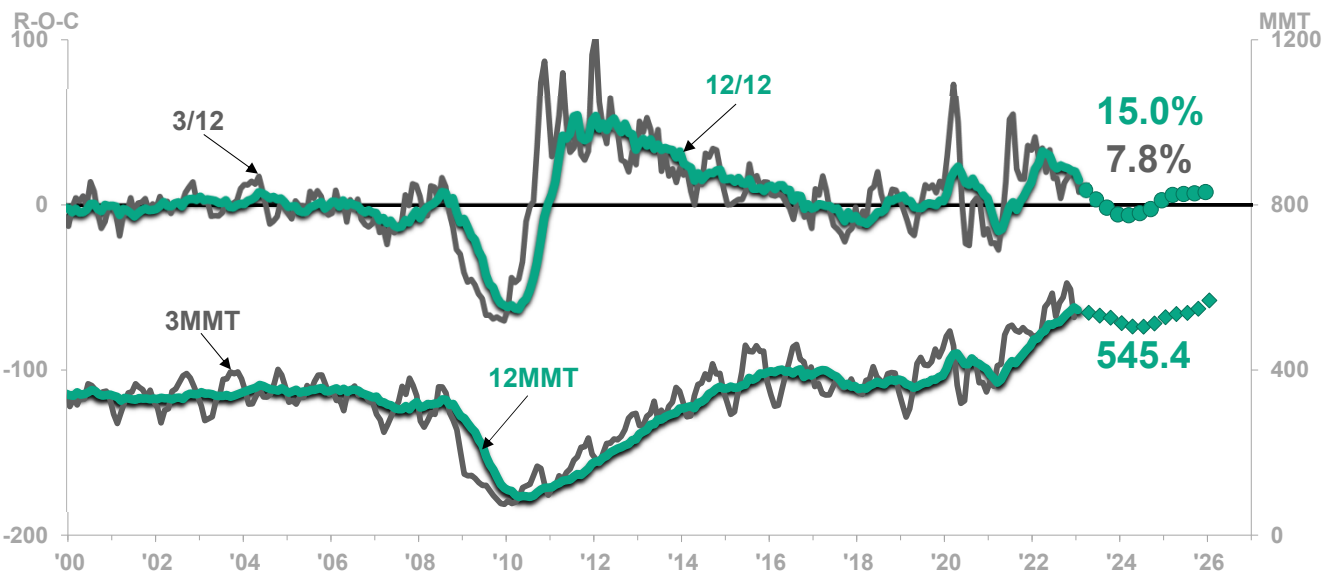


Dynamics Are Better Than Single Family

Source: US Census Bureau

US Multi-Unit Housing Starts

Thousands of Units



Wide Variations From State to State

Source: US Census Bureau

Multi-Family Housing Unit Building Permits

Annual Trend in Units



	12/12	Phase	3/12	Phase	Trend	12MMT Notes
Arizona	24.1%	B	7.3%	C	23.3	Record high
Florida	18.2%	C	18.6%	B	76.4	Record high
Georgia	112.6%	C	87.6%	C	27.5	Record high
North Carolina	-5.2%	D	-9.0%	A	25.8	Dwn 10.1% ^
South Carolina	24.0%	C	-9.7%	A	8.0	Dwn 6.0% ^
Tennessee	-54.6%	D	-77.4%	D	9.2	Dwn 56.9% ^
Texas	35.2%	C	43.4%	C	107.3	Record high

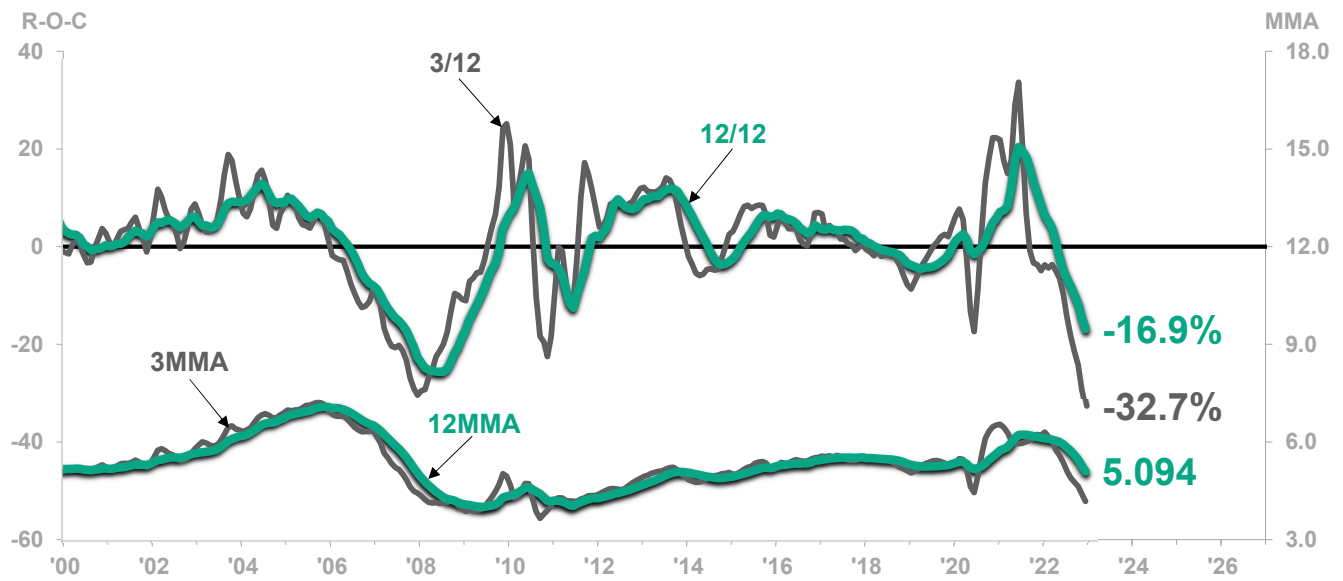


Affordability and Inventory Issues

Source: National Association of Realtors

US Existing Home Sales

Millions of Units



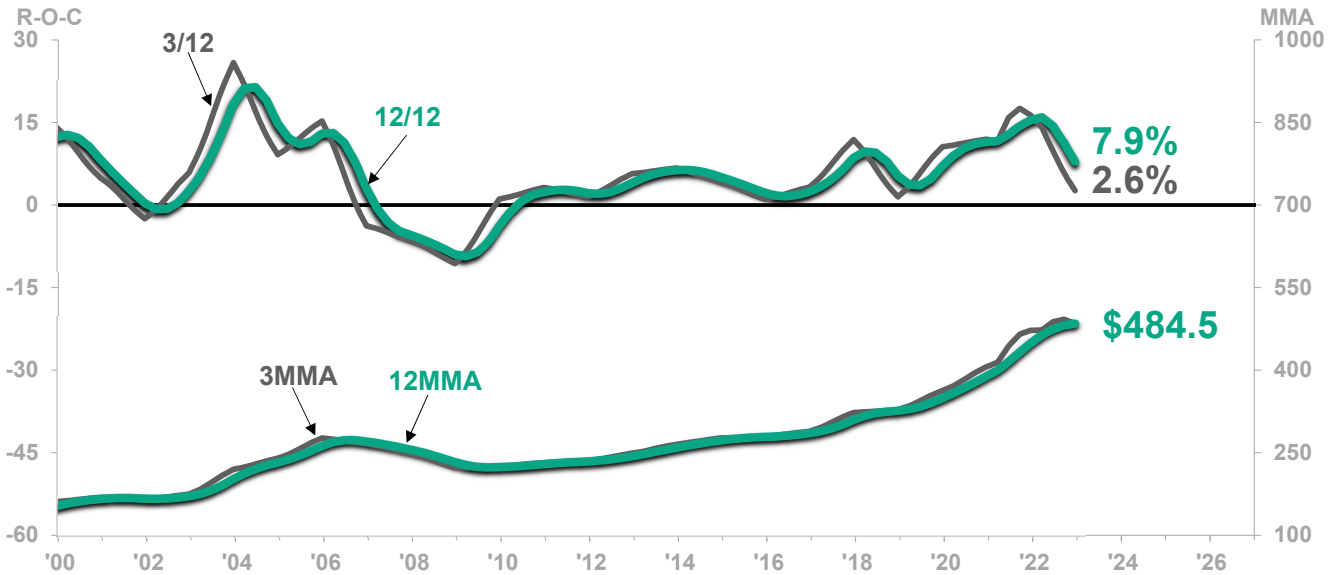
Slowing Ascent Probable

Source: Joint Study for Housing at Harvard University

Harvard US Leading Indicator of Remodeling Activity

Billions of Dollars

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Encouraging Input for Residential Remodeling

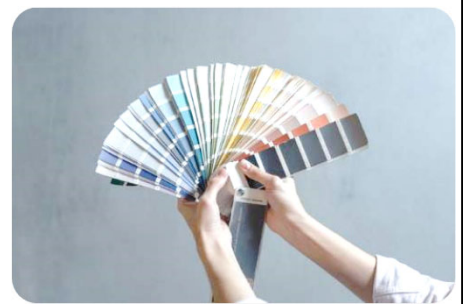
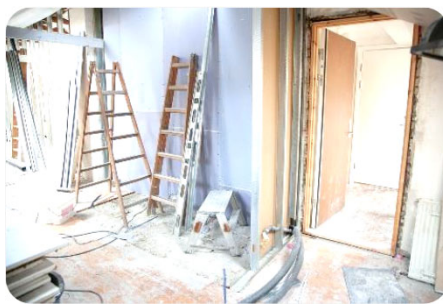
Source: National Association of Home Builders

Remodeling Market Index

Diffusion Index, Over 50=Better Conditions

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	2021				2022			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
NAHB/Westlake Royal RMI	86	87	87	83	86	77	77	66



Housing Leads – Nonresidential Lags

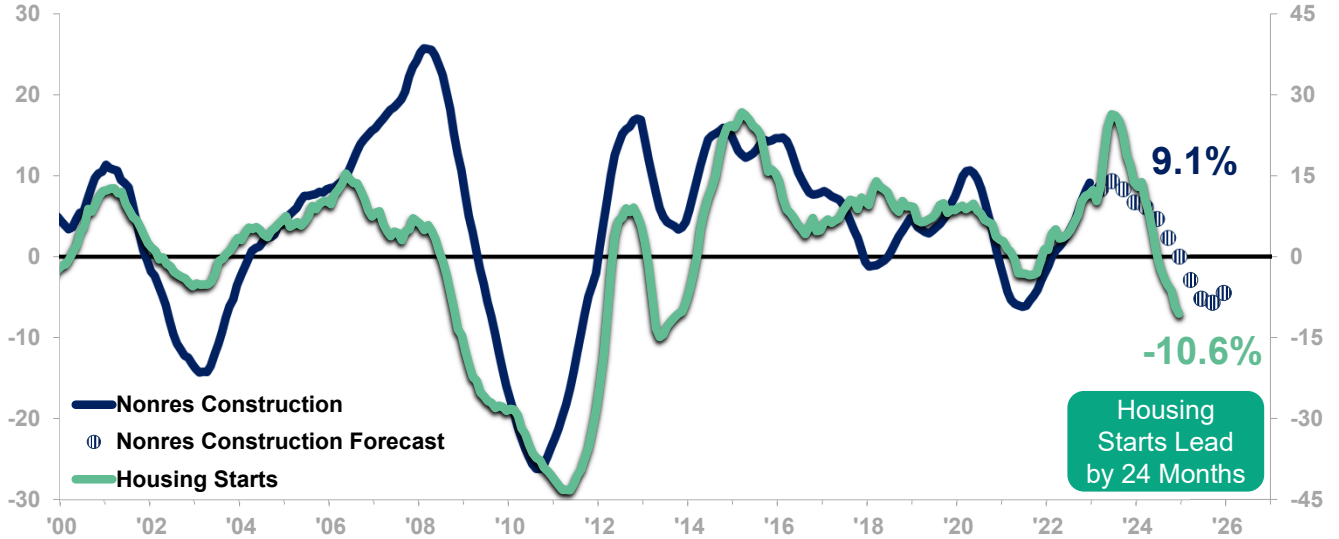
Source: US Census Bureau

US Private Nonresidential Construction to US Single-Unit Housing Starts

12/12 Rates-of-Change



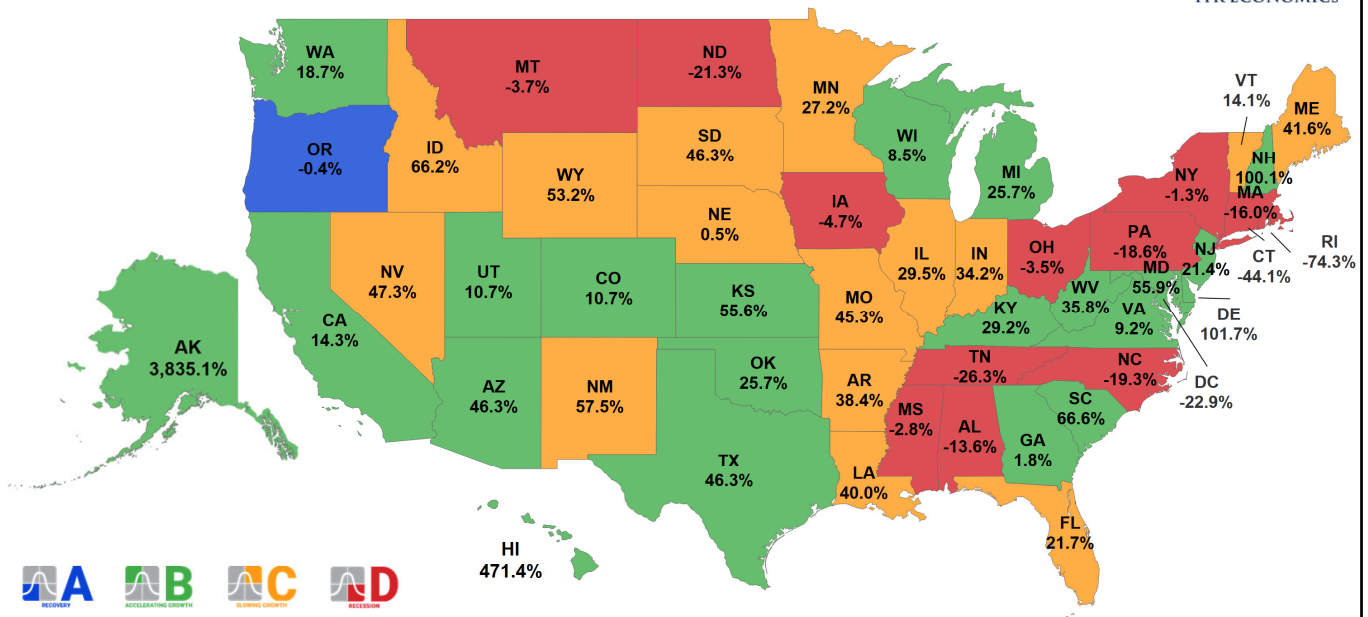
Nonres Construction



US Commercial Remodeling Construction by State

Source: ConstructConnect

12/12 Rates-of-Change



Seek the Opportunities: Medical * Education

Source: ITR Economics
Trends Report

The US Construction Economy At-a-Glance



	12/12	12MMT	12/12	2023	2024	2025
US Single-Unit Housing Starts			-9.2	-14.8	8.6	6.9
US Multi-Unit Housing Starts			20.6	-3.1	4.5	4.7
US Private Office Construction			-2.5	6.2	-4.2	0.8
US Total Education Construction			-2.7	4.8	4.9	0.6
US Total Hospital Construction			6.1	0.7	6.2	-1.1
US Private Manufacturing Construction			28.1	8.2	-4.1	-3.4
US Private Multi-Tenant Retail Construction			32.4	6.1	-7.8	6.5
US Private Warehouse Construction			22.7	8.8	-1.5	-0.4
US Public Water & Sewer Facilities Construction			12.0	4.9	1.9	4.6



Phase A:
Recovery



Phase B:
Accelerating Growth



Phase C:
Slowing Growth



Phase D:
Recession

Expect Deceleration Later This Year

Sources: BEA, US Census Bureau

US Household Spending

Annual Trend in Billions of Dollars



	12/12	Phase	3/12	Phase	Annual Trend	Direction
Cosmetics, Perfumes, & Bath Products	6.8%	C	6.2%	C	\$70.9	Up ^
Hair, Dental, & Shaving Products	4.7%	C	4.3%	C	\$92.3	Up ^
Retail Sales Groceries	8.3%	C	8.0%	B	\$848.5	Up ^
Retail Sales Health & Personal Care	3.9%	C	3.4%	C	\$400.4	Up ^



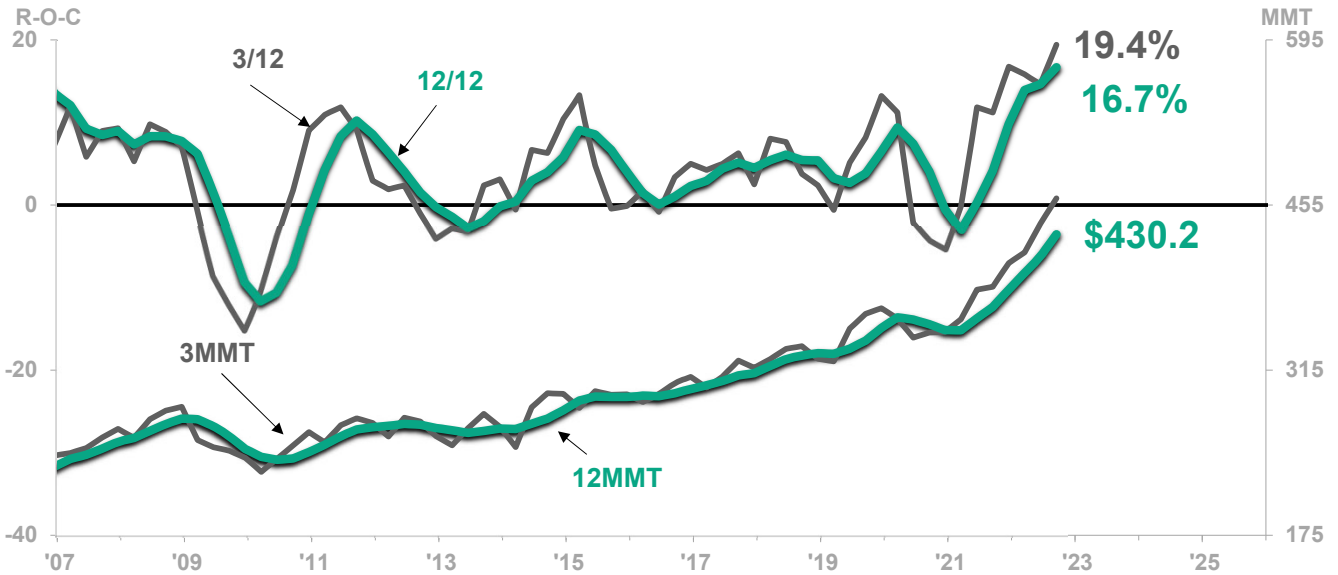
^ record high

Strong Cyclical Ascent ~ Expect Some Deceleration

Source: US Census Bureau

US Architectural, Engineering and Related Services Revenue

Billions of Dollars

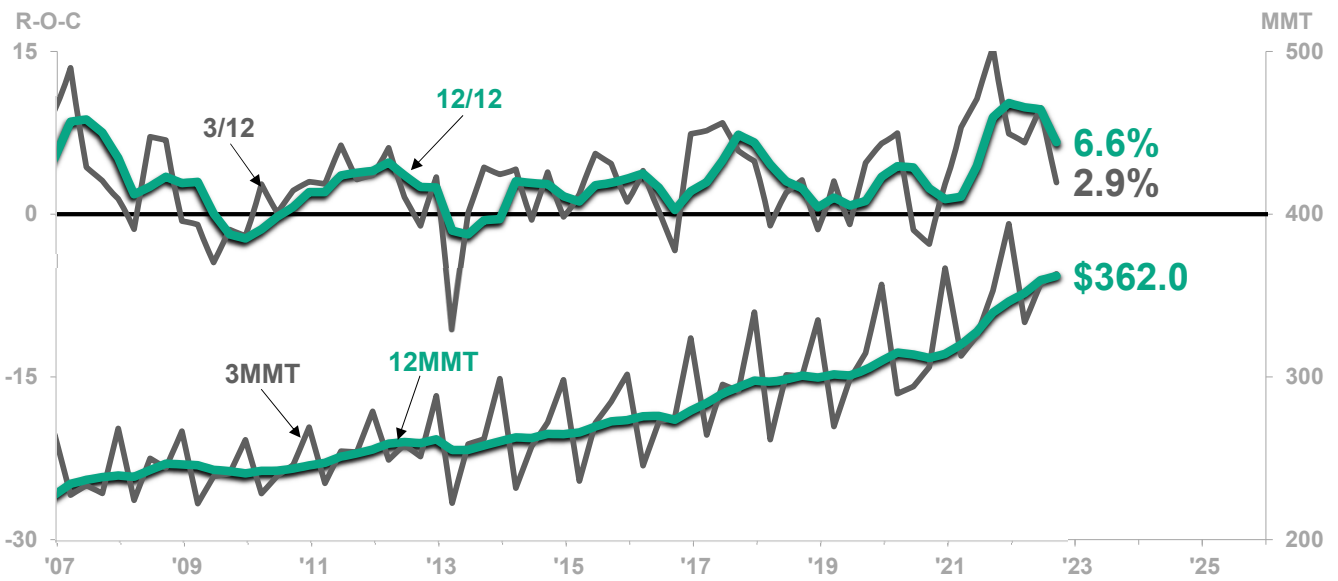


Slowing Ascent in Progress

Source: US Census Bureau

US Legal Services Revenue

Billions of Dollars

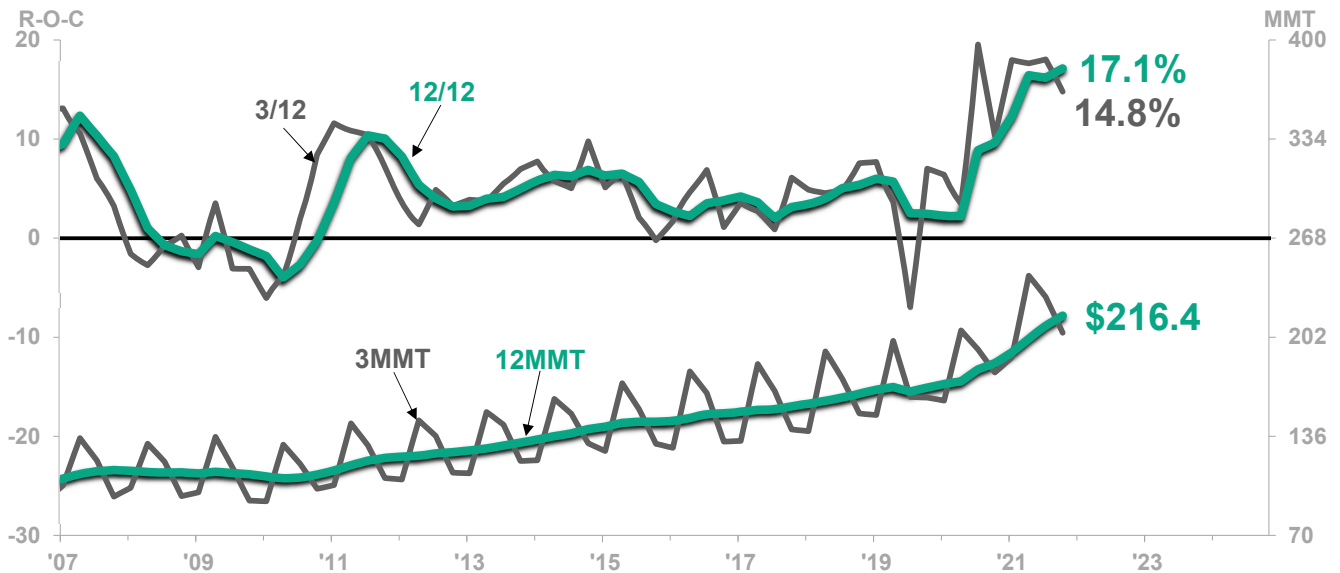


There Is No Quit In This Trend

Source: US Census Bureau

US Accounting, Tax Preparation, Bookkeeping, Payroll Services Revenue

Billions of Dollars



US Macroeconomic Trends Summary



- The consumer balance sheet is strong.
- Savings are back to normal. Will the trend stop there?
- Pricing may mask volume decline.

Next Steps

- Headwinds in new single-family homes
- Expect a bifurcated market
- Hold on to your talent

People

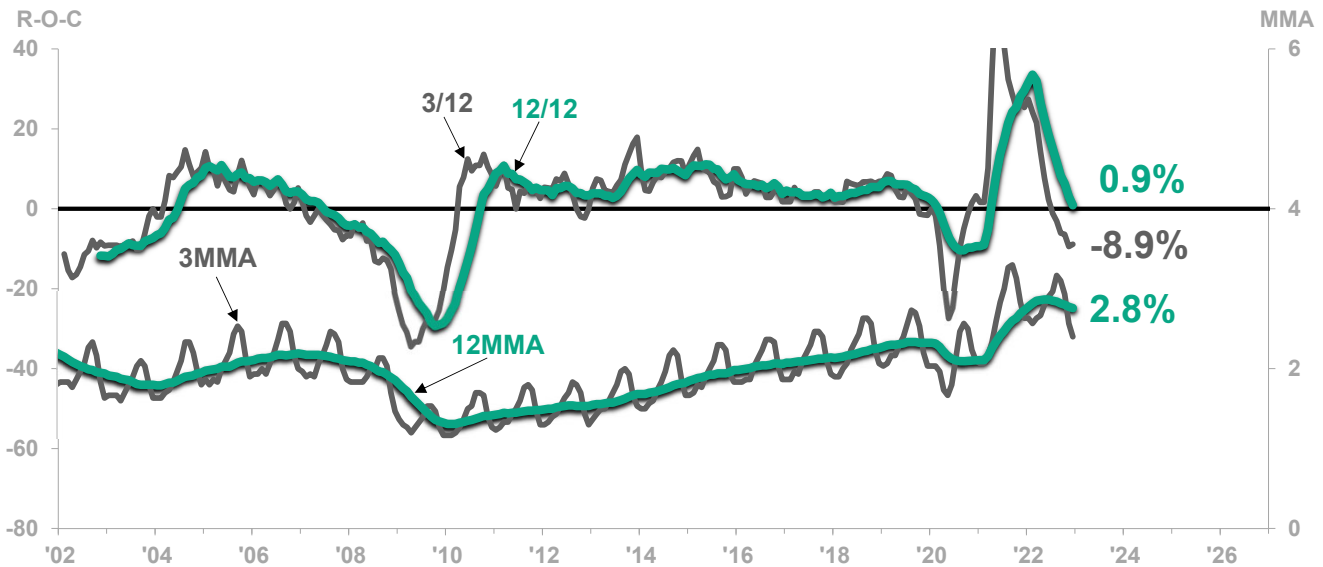


Quit Rate is Coming Down: Expect That Trend to Continue

Source: BLS

US Nonfarm Quit Rate
Percent

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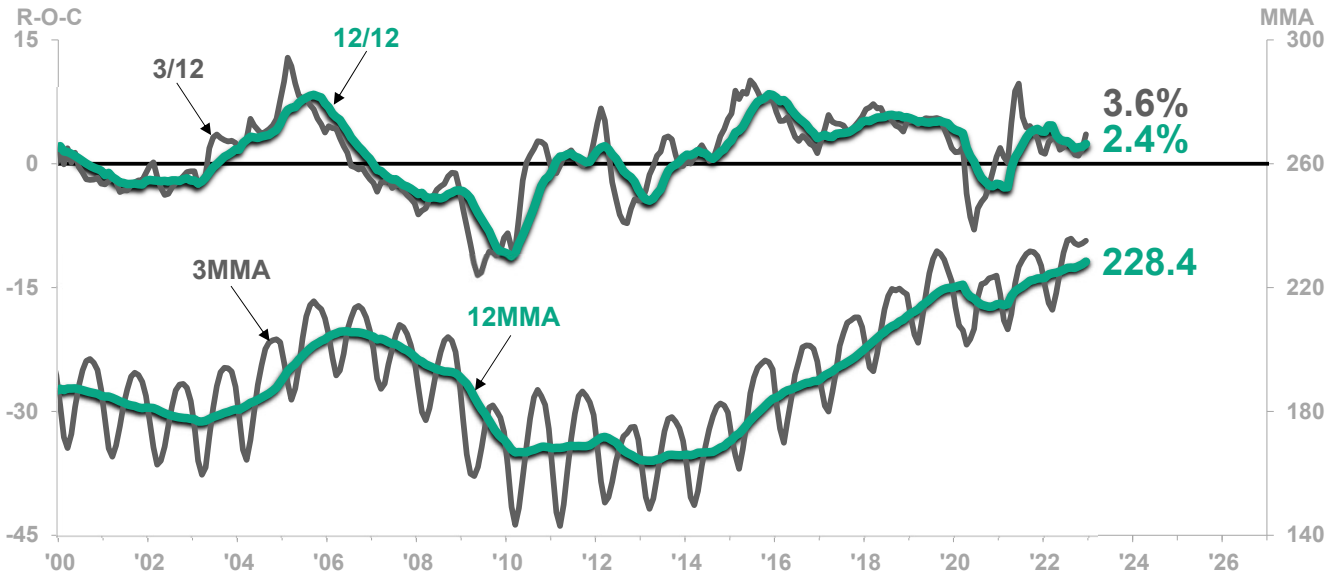
Employment at a Record High

Source: BLS

US Roofing Contractor Employment

Thousands of Workers

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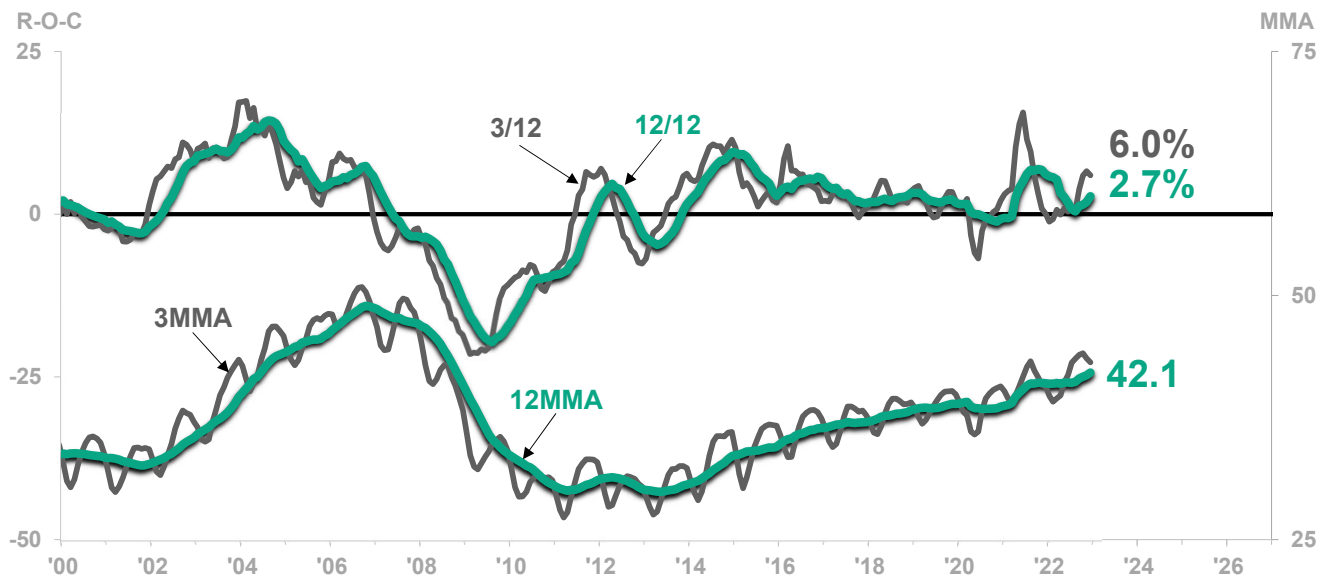
Solid Recovery Trend in Place

Source: Bureau of Labor Statistics

US Employment of Siding Contractors

Thousands of Workers

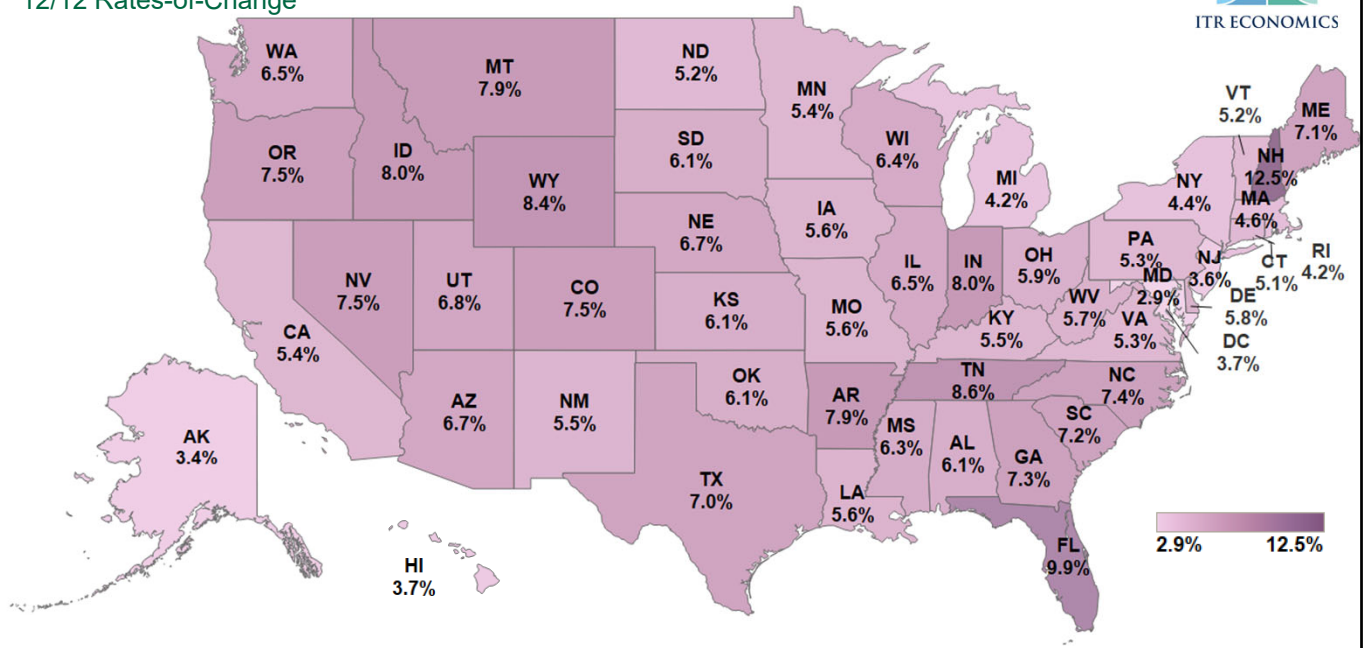
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US Wage Inflation by State

Source: BLS

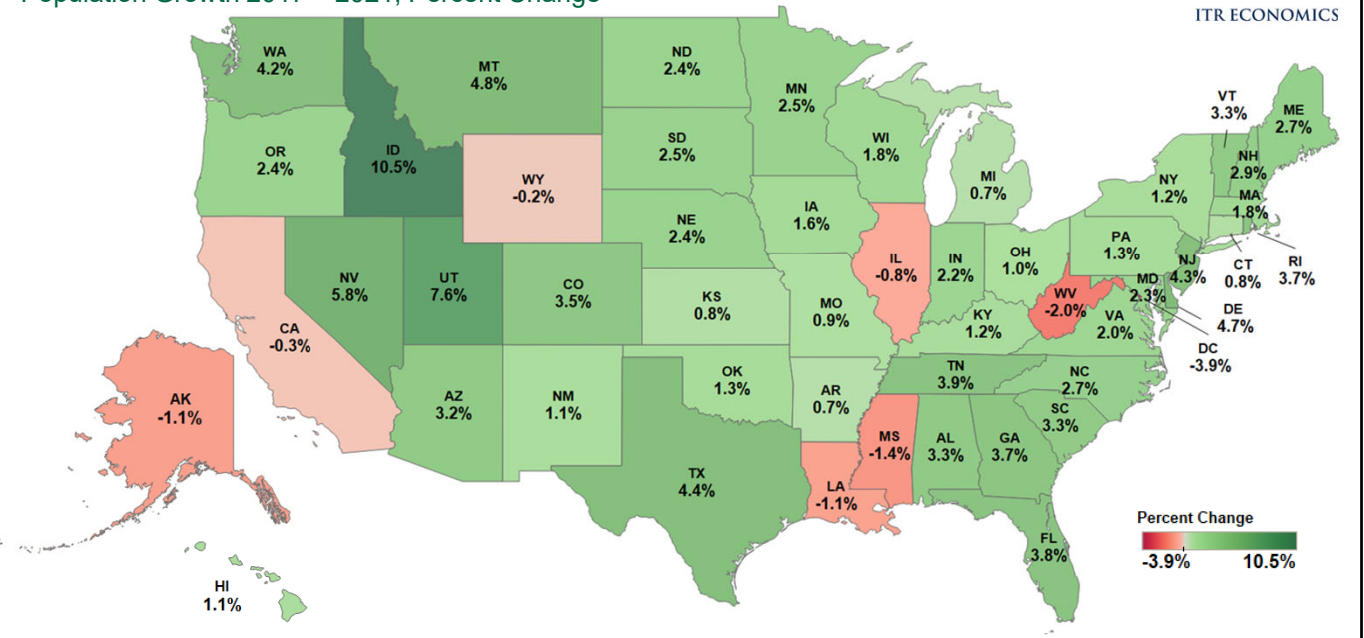
12/12 Rates-of-Change



State Population Growth 2017 to 2021

Source: US Census Bureau

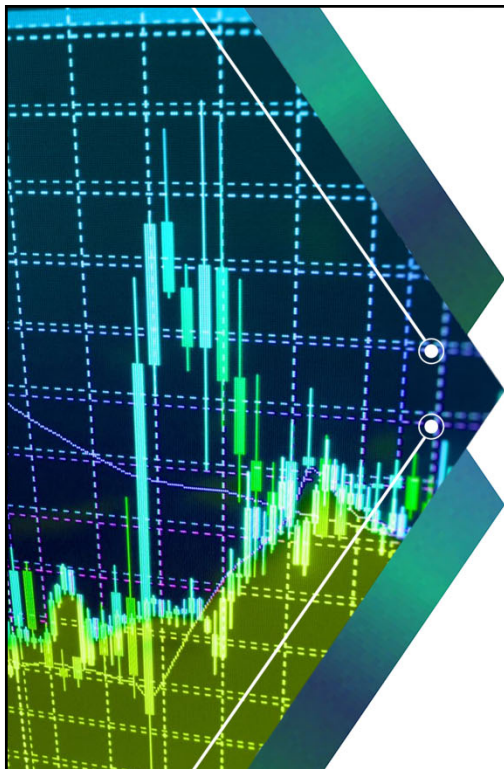
Population Growth 2017 – 2021, Percent Change



-  Weakening economic conditions means employees become more likely to stay.
-  Tightness in the labor market is a longer-term trend so don't overreact in 2023-2024.
-  Major differences by geographic market.

Next Steps

- There are going to be some layoffs in 2024; grab some freed-up talent
- Tougher times increases employee “stickiness”



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Financial Markets

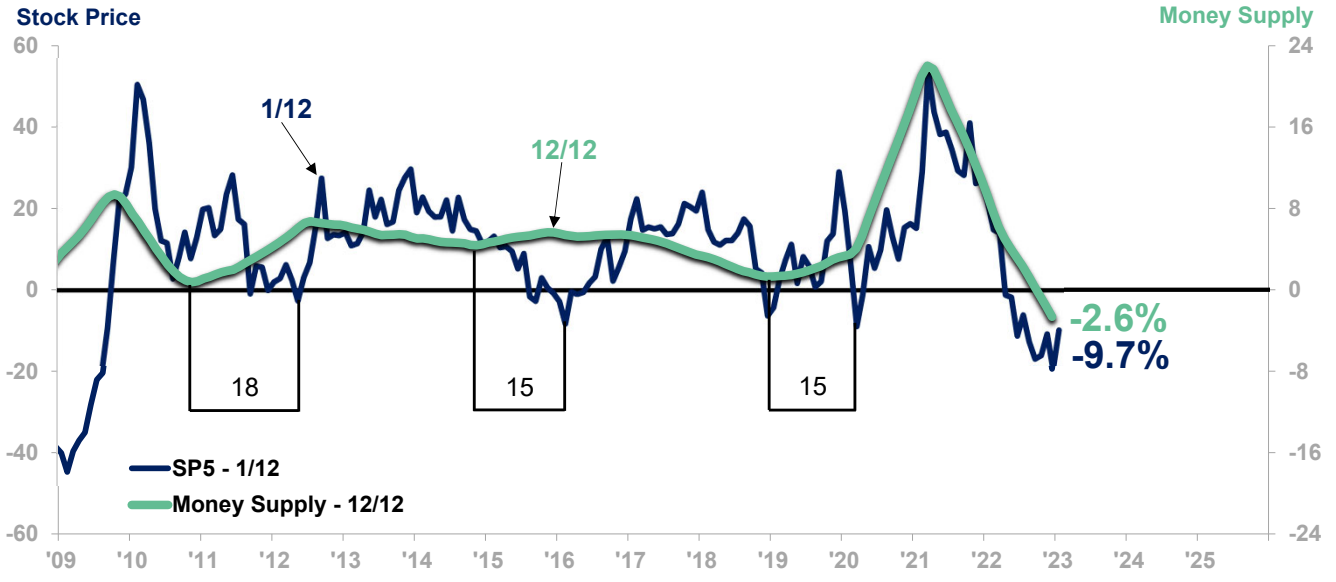
Anatomy of An Asset Price Bubble

Sources: Wall Street Journal, FRB

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



Rates-of-Change



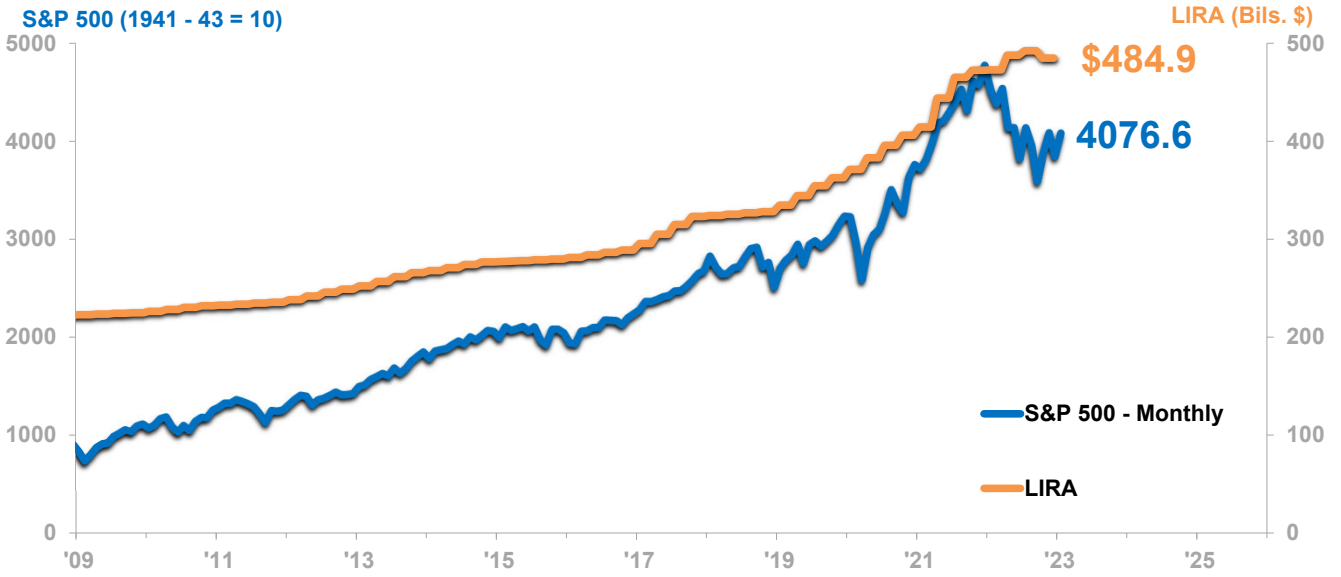
Stock Market Adversity is an Economic Risk

Sources: WSJ, Harvard US Leading Indicator of Remodeling Activity

US S&P 500 Stock Prices Index to Harvard US Leading Indicator of Remodeling Activity

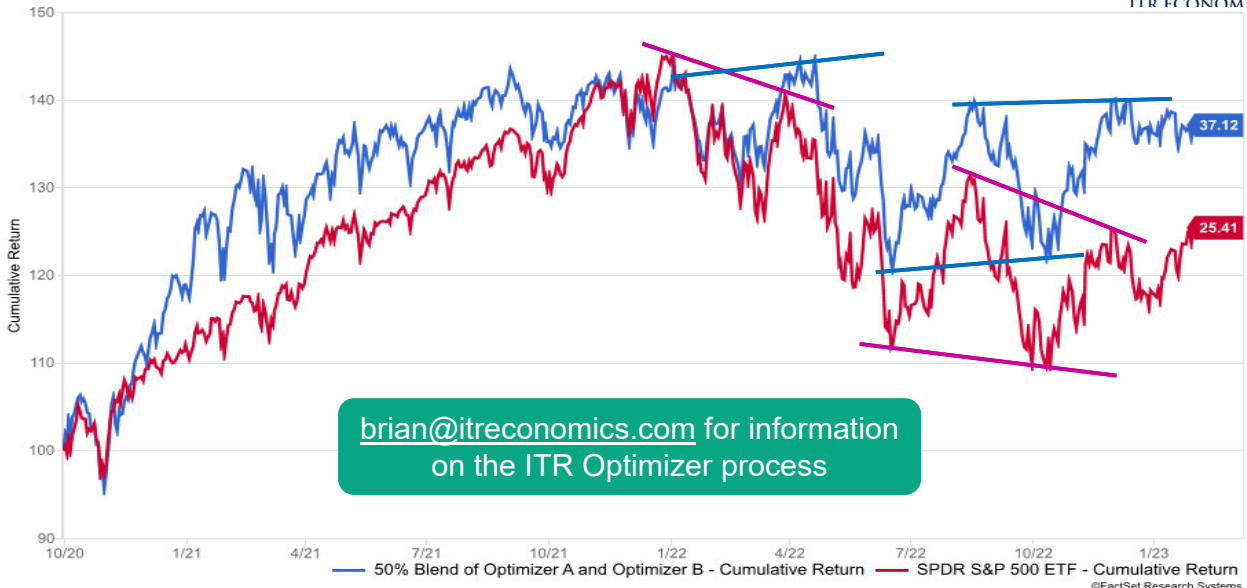


Raw Data



50/50 Blend Optimizer (50% A, 50% B) Oct 1, 2020 through January 31, 2023

50/50 Blend Optimizer is made up of 50% Optimizer A, and 50% Optimizer B



Financial Markets Summary



- ☐ → Stock market as a whole is going to experience greater-than-normal volatility.
- ☐ → Think about investing in sectors within the overall stock market.
- ☐ → Diversification into additional asset classes may be worth considering.

Next Steps

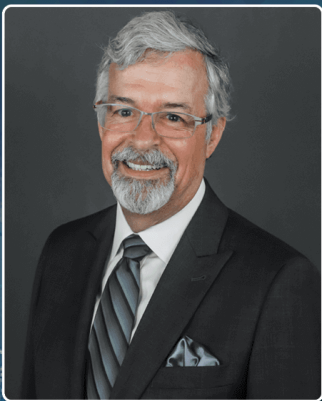
- Building wealth in the decade ahead will require a different strategy than how you got here

Looking Ahead

- Disinflation and deflation will characterize 2023 with an attendant easing of wage inflation.
- The Fed's actions gave rise to an inverse yield curve.

- Expect a recession to begin in 2023 and encompass most of 2024. US Industrial Production and GDP (deflated for inflation) will reflect the stress.
- We expect the recession to be mild.

- Assess cash needs
- Maximize competitive advantages
- Think about expanding the asset classes you are invested in.



Any questions?

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ABOUT BRIAN

Brian Beaulieu has served as CEO and Chief Economist of ITR Economics™ since 1987, where he researches the use of business cycle analysis and economic forecasting as tools for improving profitability. Brian has shared his highly valued research results via presentations, workshops, and seminars in numerous countries to hundreds of thousands of business owners and executives for the last 40 years.

He is coauthor of *Prosperity in the Age of Decline*, a powerful look at how to make the most of the US and global trends over the next 20 years, as well as *Make Your Move*, a practical and insightful guide to increasing profits through inevitable business cycle changes. Brian also coauthored *But I Want It!*, ITR Economics' first children's book.

Brian serves on the board of directors for the Ariens Company, a leading global manufacturer of outdoor power equipment, as an advisor to Ackerberg Investors Fund III, as well as the board for Bellwether Wealth, an investment management and strategic wealth planning firm based in Lincoln, NE.

Brian has shared his expertise through various media outlets, including: *USA Today*, *Knight Ridder*, *The Atlanta Journal-Constitution*, *The Wall Street Journal*, *Barron's*, *The Washington Post*, *Kudlow and Friends*, *First on Fox*, and numerous other outlets.

ABOUT ITR ECONOMICS

Founded in 1948, ITR Economics is the oldest privately held, continuously operating economic research and consulting firm in the United States. With a long-term accuracy rating of 94.7%, ITR Economics has forecasted major economic events such as the Great Recession of 2008 years in advance. ITR provides reliable industry and company forecasts tailored to clients' needs. ITR Economics also offers economic webinars, subscription periodicals, consultative reports, and data-collection services.

TESTIMONIALS

"Brian, just a short note of personal thanks for participating in our ASI Conference last week. I'd have to say the response to your presentation was overwhelmingly positive; everyone appreciated the content and your delivery, even your candid comments about the looming crisis late in the next decade." - [Dick Motley, Director, FANUC America Corporate](#)

"Wow, what a fantastic talk Brian. Your perspective, advice, data, analysis, and presentation were world-class. That was one of the best talks that I've ever attended. My CFO and I will be looking more and more at 3MMA/12MMA metrics within our industry as we get our hands on more data. By the way, you've got a great sense of humor, which you mixed in hilariously with an extremely professional discussion about US economics." - [Dave Handman, President, Sustineo](#)

"Thanks Brian. Your materials help us plan for the future and give us insight into key indicators so we can be successful running our businesses. Very valuable session." - [David Borish, VP of Operations, Bracalente Manufacturing](#)



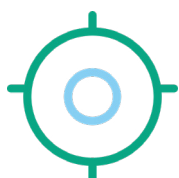
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- Resource allocation
- Marketing initiatives
- Sales forecasting
- Benchmark internal success
- Budget setting
- Improve internal forecasting accuracy and ability



What is your advice to others who might be considering our services?

"Get it started sooner rather than later. [I was] a general manager, president, then group president for almost 20 years before hearing about ITR and starting to use ITR, and it would have made my life a lot easier had I started using ITR sooner." - *Kenneth Brown*



How do you measure the value our product provides?

"...people constantly ask me 'what's ITR saying about so-and-so?' Whenever we do a forecast, people want to know how it compares to the data ITR is providing as a reference point. It has taken a few years, but the ITR methodology is now fully integrated into our annual budgeting and our mid-term planning." - *Bill Van Horn, FP&A Manager*

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