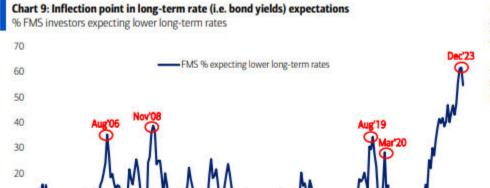
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 $\textit{Independent} \cdot \textit{Objective} \cdot \textit{Original}$



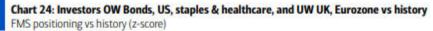


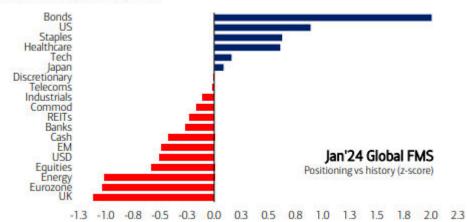
Investors turned slightly less bullish on bond yields post the 100bps rally in long-term rates over the past 2 months.

55% expect lower bond yields in the next 12 months, down slightly from a record 62% in Dec'23.

Source: BofA Global Fund Manager Survey, Bloomberg

'07





This chart shows FMS investor positioning relative to the average positioning of the past 20 years.

Relative to history, investors are long bonds, US, staples & healthcare...

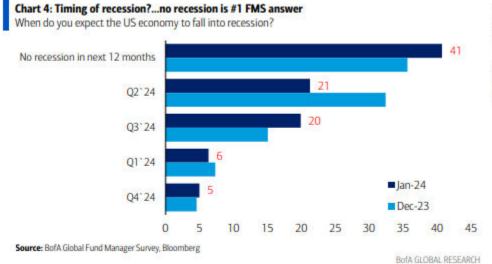
...and are underweight UK, Eurozone, energy & equities.

Source: BofA Global Fund Manager Survey

19

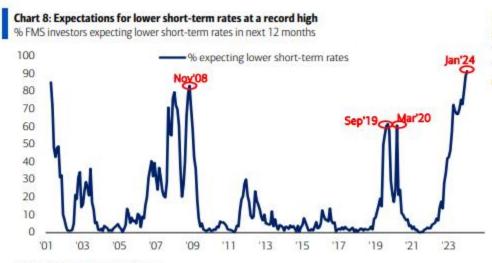
'23

17



41% of FMS investors see no recession at all in 2024, a higher percentage than any other answer.

Amongst FMS investors expecting a recession in 2024...21% say Q2, 20% Q3, 6% Q1, and 5% Q4.

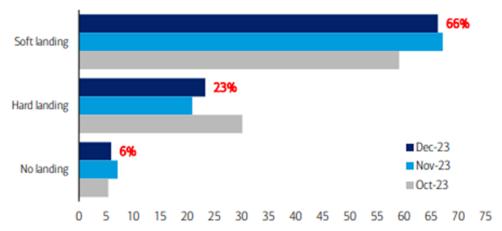


FMS investors have never been as bullish on short-term rates as in Jan'24 (data going back to Apr'01) ...a record of 91% expect short-term rates to be lower in the next 12 months, up from 87% in Dec'23.

Source: BofA Global Fund Manager Survey

Chart 6: "Soft landing" the consensus for 2024

What is the most likely outcome for the global economy in the next 12 months?



Source: BofA Global Fund Manager Survey

BofA GLOBAL RESEARCH

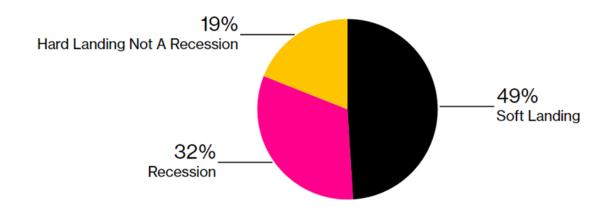
66% of FMS investors expect a "soft landing" for the global economy in the next 12 months.

Expectations for "hard landing" 23%.

When asked about the timing of recession for the US economy, 36% said they expect no recession at all in the next 12 months while 32% expect the US to fall into recession in Q2'24.

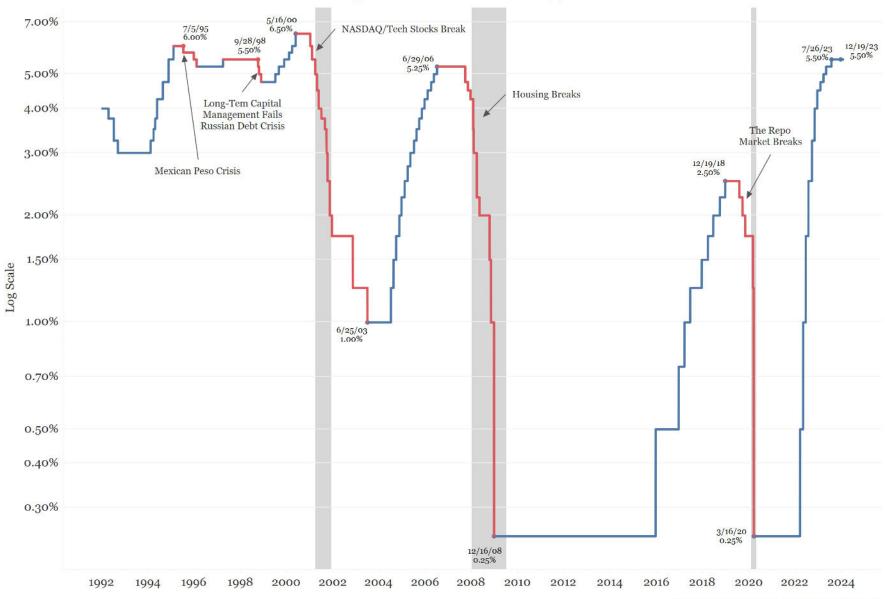
Most Economists Don't Expect Recession Within 12 Months

Fewer than one third of economists forecast a recession



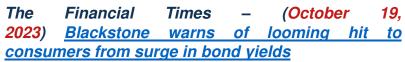
Source: Bloomberg News survey of economists Dec. 1-6 Economists were asked if US would have a recession in the next 12 months.

The Fed Hikes Too Much and Something BreaksThe Target Federal Funds Rate Since 1992



Source: Bloomberg

Bankrate.com US Home Mortgage 30 Year Fixed National Avg



'When 30-year mortgages and car loans cost you 8% it will impact consumer behaviour,' says president

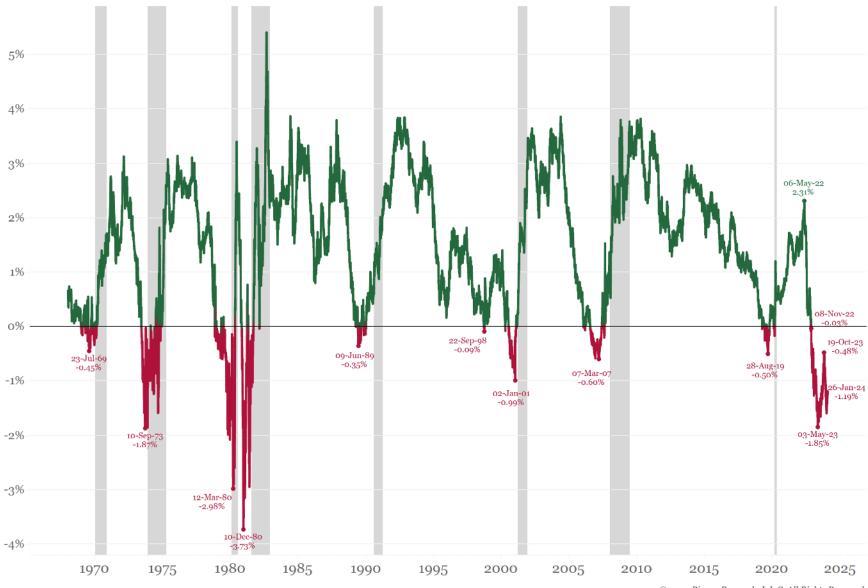
Jonathan Gray, president of Blackstone, said in an interview with the Financial Times that the jump in 10-year Treasury yields would force consumers to tighten their belts. "When 30-year mortgages and car loans cost you 8 percent it will impact consumer behaviour,"



Data Source: Bloomberg, BankRate.com

Yield Curve Inversions Lead Recessions

10-Year less 3-Month Yield Curve



Data Source: Federal Reserve and Bloomberg

How Long Until the Recession?

When the 3-month to 10-year yield curve uninverts for 10 consecutive days

| Date of | Date of | Days | Date of | Calendar Days to Recession From | |
|------------|-------------|-------------|-----------------------|---------------------------------|------------------------|
| Inversion | Uninversion | Inverted | Next Recession | Inversion Date | Universion Date |
| 1/10/1969 | 2/21/1969 | 42 | Dec-69 | 325 | 283 |
| 6/14/1973 | 9/30/1974 | 473 | Nov-73 | 140 | -333 |
| 12/8/1978 | 5/13/1980 | 522 | Jan-80 | 389 | -133 |
| 11/7/1980 | 3/31/1981 | 144 | Jul-81 | 236 | 92 |
| 6/6/1989 | 9/7/1989 | 93 | Jul-90 | 390 | 297 |
| 7/31/2000 | 2/8/2001 | 192 | Mar-01 | 213 | 21 |
| 8/1/2006 | 6/11/2007 | 314 | Dec-07 | 487 | 173 |
| 6/6/2019 | 10/23/2019 | 139 | Feb-20 | 268 | 129 |
| 11/22/2022 | ???? | <i>43</i> 6 | ???? | 436 | ???? |
| Average | | 262 | | 320 | 66 |

^{1/10/1969 =} Inverted for 24 calendar days, went positive for 33 days, then inverted again for 53 days

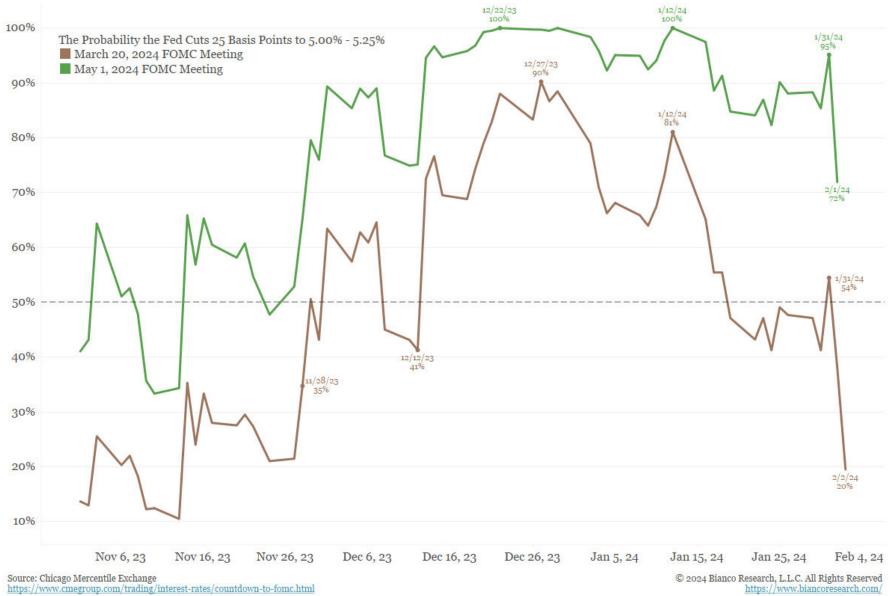
^{6/6/1989} = Inverted for 30 calendar days, went postive for 9 days, inverted again for 26 days

^{6/6/2019} = Inverted 41 consecutive trading days, went

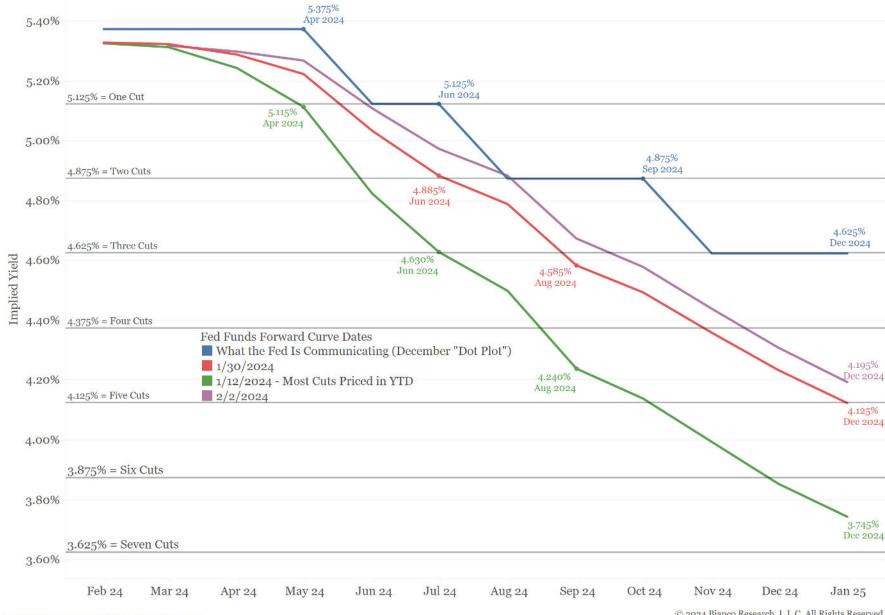
positive for 1 day, then inverted again for 67 days (through

When Will the Fed Cut Rates?

Odds the Fed Cuts the Target Rate to 5.00% to 5.25% As Calculated by the Chicago Mercantile Exchange's Fed Watch Tool



What Is the Fed Funds Market Pricing In?



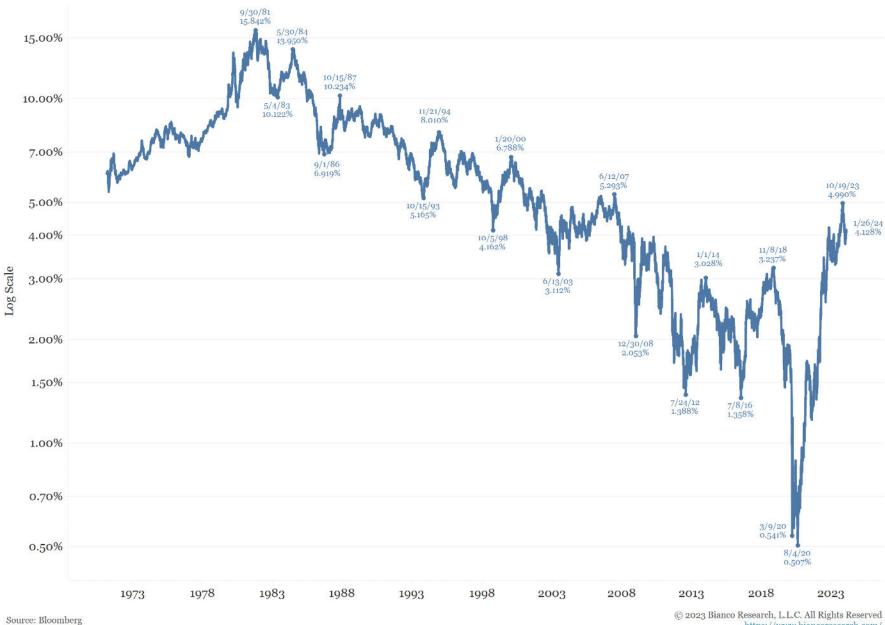
Source: Chicago Mercantile Exchange, Bloomberg

10-Year Treasury Yield

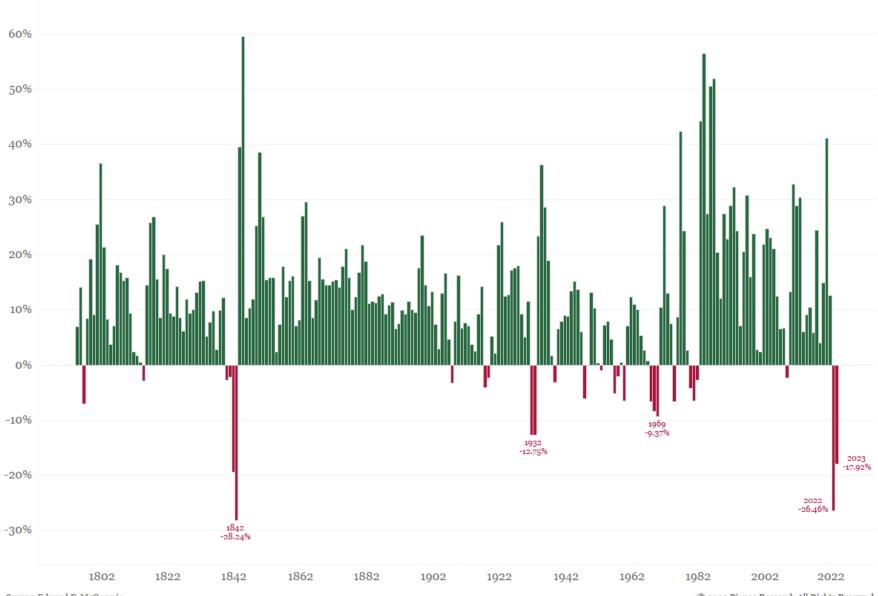


Source: U.S. Treasury & The Federal Reserve

US 10-Year Yield



Rolling Three-Year US Long-Term Nominal (Before Inflation) Bond Total Returns



 $Source: Edward F. McQuarrie \\ \underline{http://www.edwardfmcquarrie.com/wp-content/uploads/2021/07/Real-returns-on-stocks-and-bonds-1793-to-2019-version-2-o.xlsx}$

Bloomberg – (November 29, 2023) <u>Bill Ackman Bets</u> <u>Fed Will Cut Interest Rates as Soon as First Quarter</u>

What's happening is the real rate of interest, which is what impacts the economy, keeps increasing as inflation declines," Ackman said in an upcoming episode of The David Rubenstein Show: Peer-to-Peer Conversations. Ackman said that if the Fed keeps rates in the roughly 5.5% range when inflation trends below 3%, "that's a very high real rate of interest."

The Wall Street Journal – (December 19, 2023) <u>Nick</u> <u>Timiraos: Fed Official Says Rate Cuts Could Be</u> <u>Needed Next Year to Prevent Overtightening</u>

San Francisco Fed President Mary Daly said her outlook for interest rates and inflation was "very close" to the median of projections from 19 Fed officials last week. Most of them penciled in at least three rate cuts next year amid a faster decline in inflation than they anticipated...Daly said that if inflation continues its steady decline of recent months, the Fed's benchmark interest rate "will still be quite restrictive even if we [cut rates] three times next year."

Bloomberg – (January 22, 2024) Fed Should Stop Quantitative Tightening, Reduce Interest Rates Soon, Bill Gross Says

"Real interest rates are simply too high," Gross added. Yields on 10-year inflation-linked bonds, which are viewed as a measure of the true cost of borrowing, surged to a 15-year high of 2.6% in October, before sliding down to about 1.8%, currently. Gross said he'd like to see the yields fall to about 1% to 1.5%, so that "the economy will not go into a significant recession."

US 10-Year TIPS Yield



Source: Bloomberg

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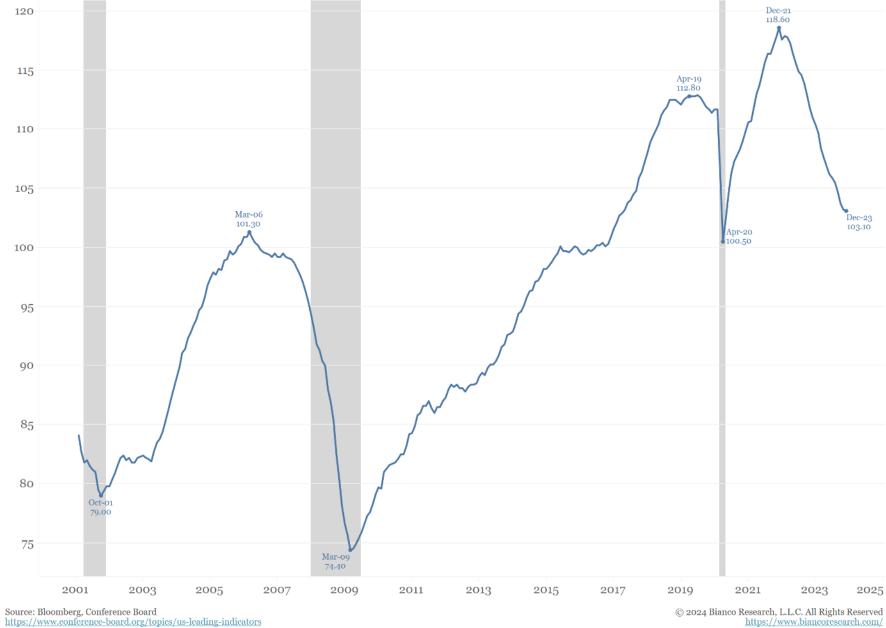
The Real Fed Funds Rate

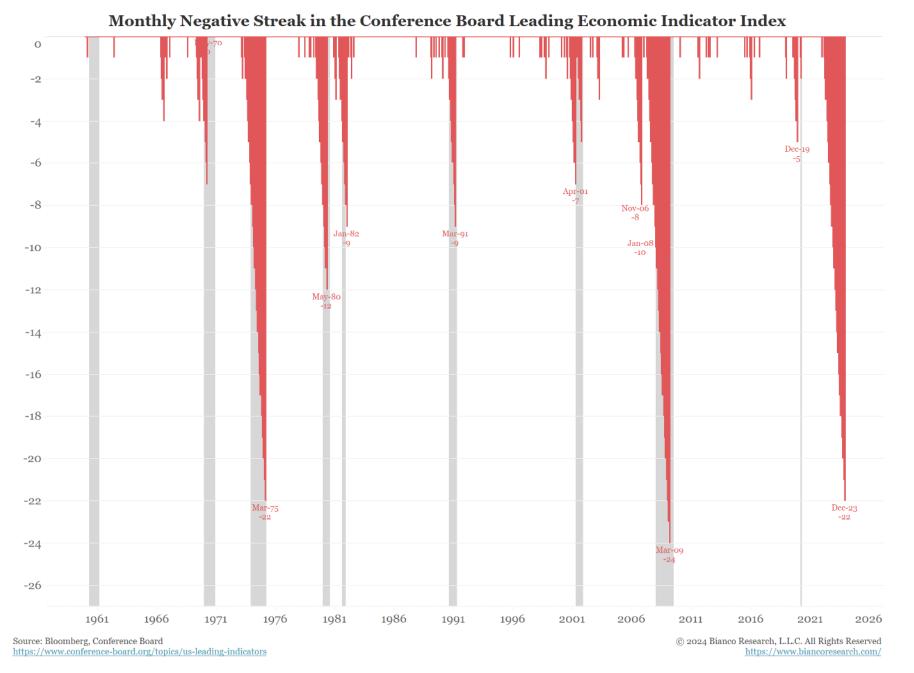
Upper End of Fed's Target Range Minus Core PCE



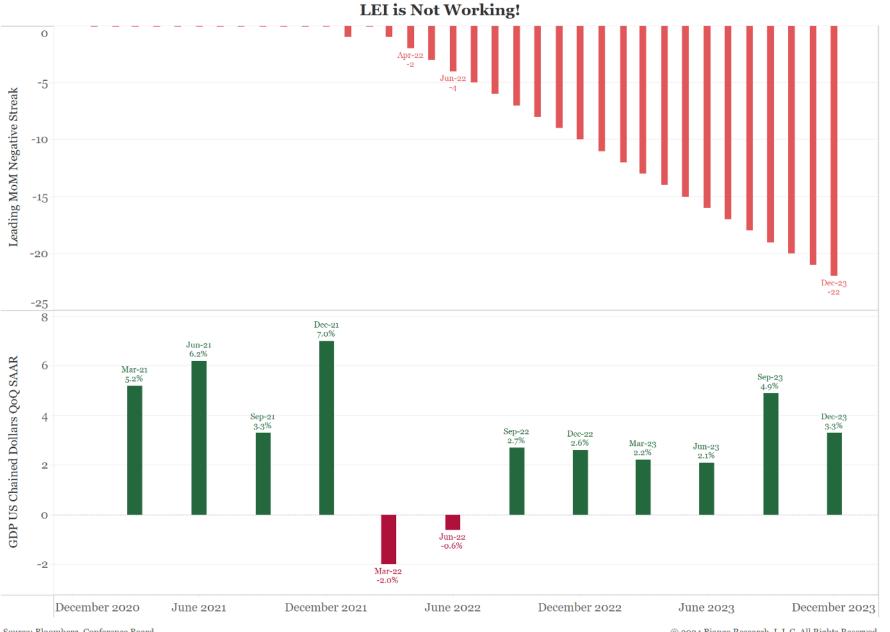
All models are wrong. Some models are useful - George Box

Conference Board US Leading Index Ten Economic Indicators

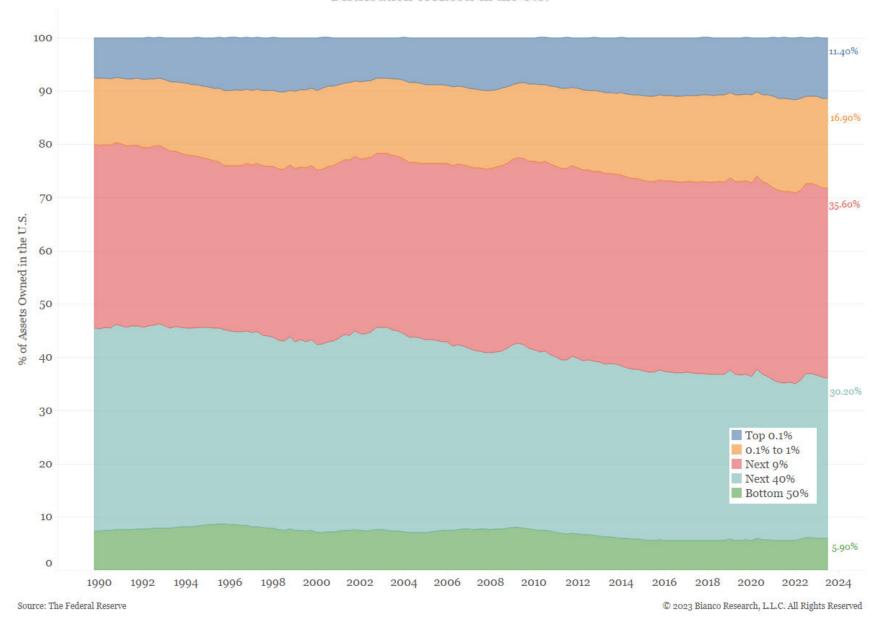




January 27, 2024 Bianco Research L.L.C 17



Source: Bloomberg, Conference Board https://www.conference-board.org/topics/us-leading-indicators

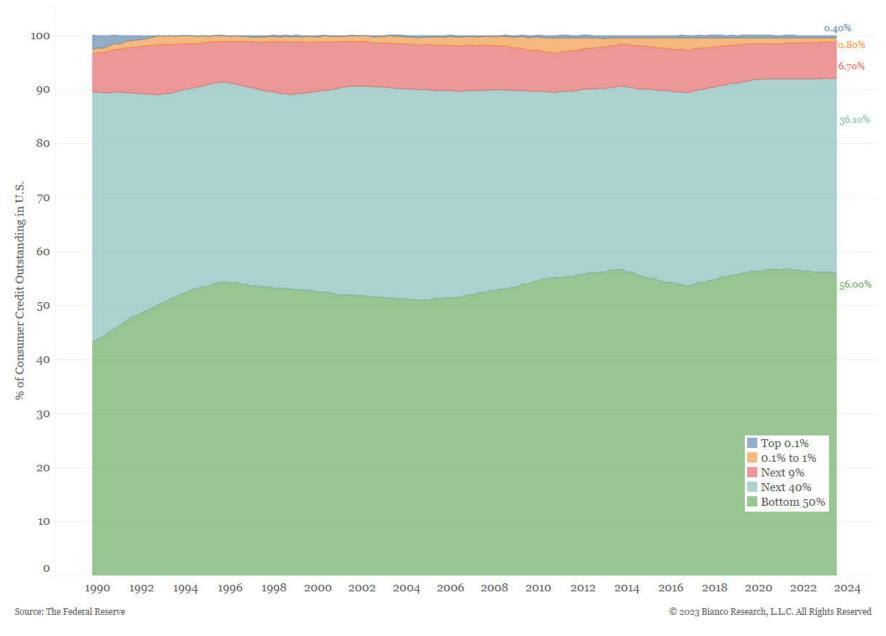


19

Distribution of Consumer Debt in the U.S.

•CNBC - (December 20, 2023) 62% of Americans are living paycheck to paycheck, as holiday spending, credit card debt rise

Half of consumers plan to take on more debt to cover those holiday expenses, according to another report by Ally Bank. Only 23% have a plan to pay it off within one to two months. "Not only is sticking to a budget harder today," said Sarah Foster, a Bankrate analyst, "but it's all the more imperative, too." "Credit card financing rates have hovered at the highest levels ever recorded since last fall, meaning carrying a balance could cost a heavy price," she said.



Personal Interest Expense and Income

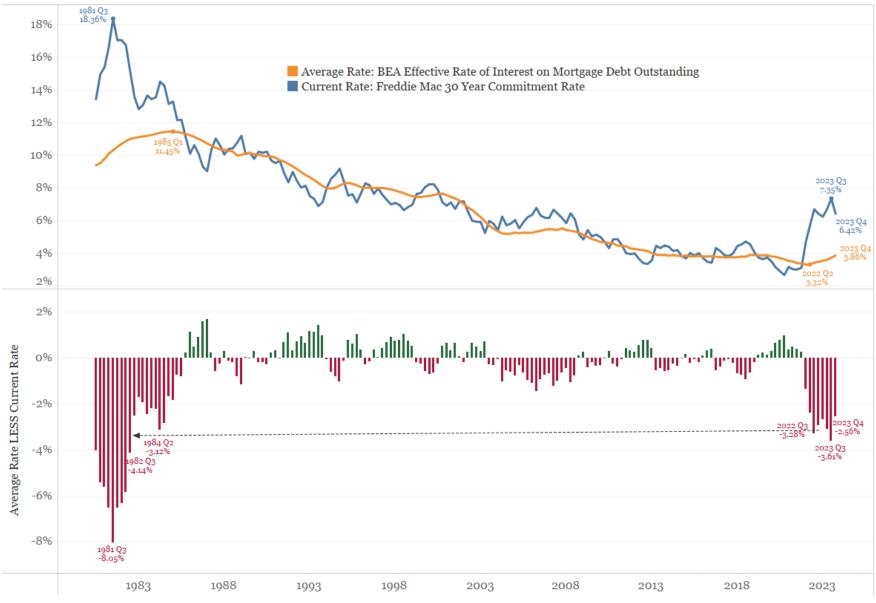


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Non-Financial Corporation Net Interest Payments

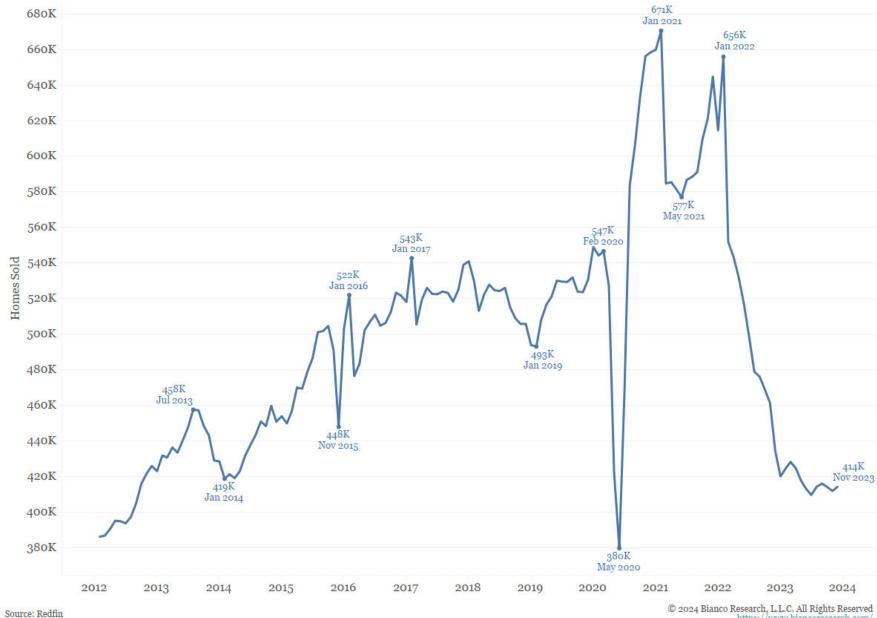


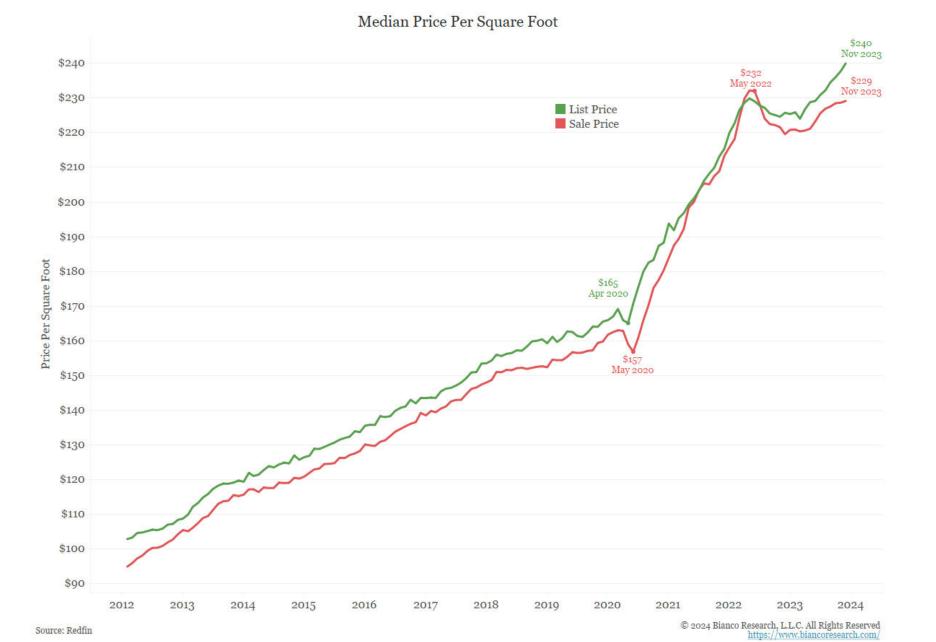
The Average and Current Mortgage Rate



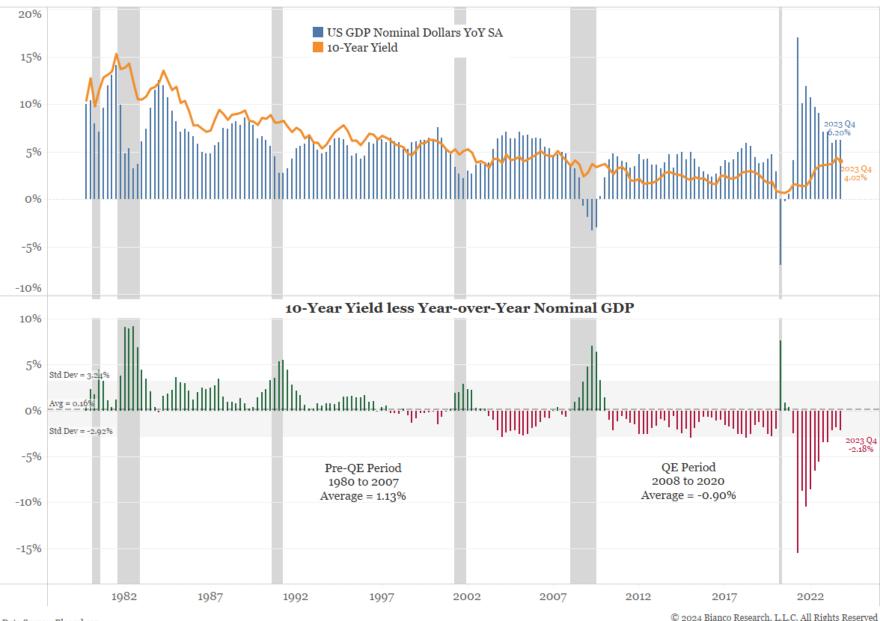
Data Source: Bloomberg, Freddie Mac, Bureau of Economic Analysis (BEA)

Homes Sold Each Month



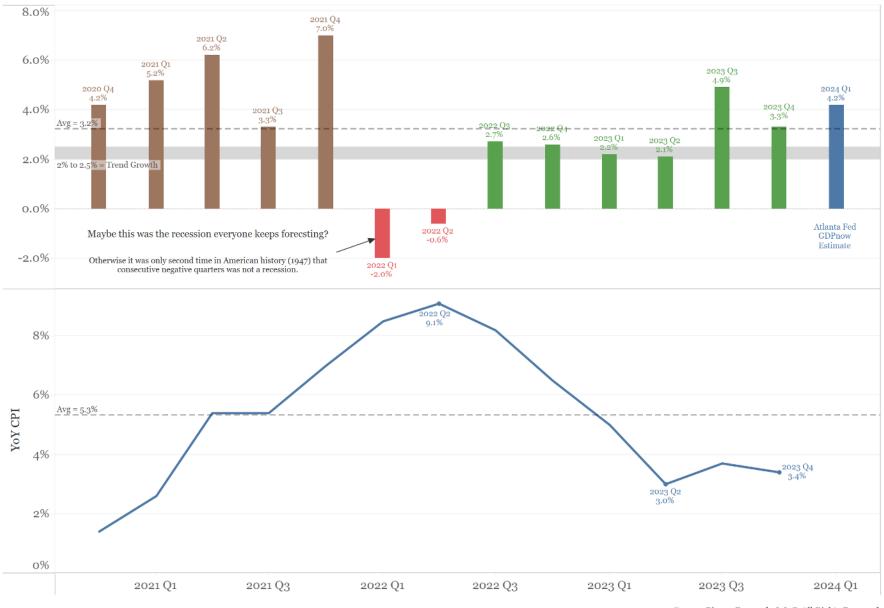


Year-Over-Year Nominal GDP and 10-Year Yield



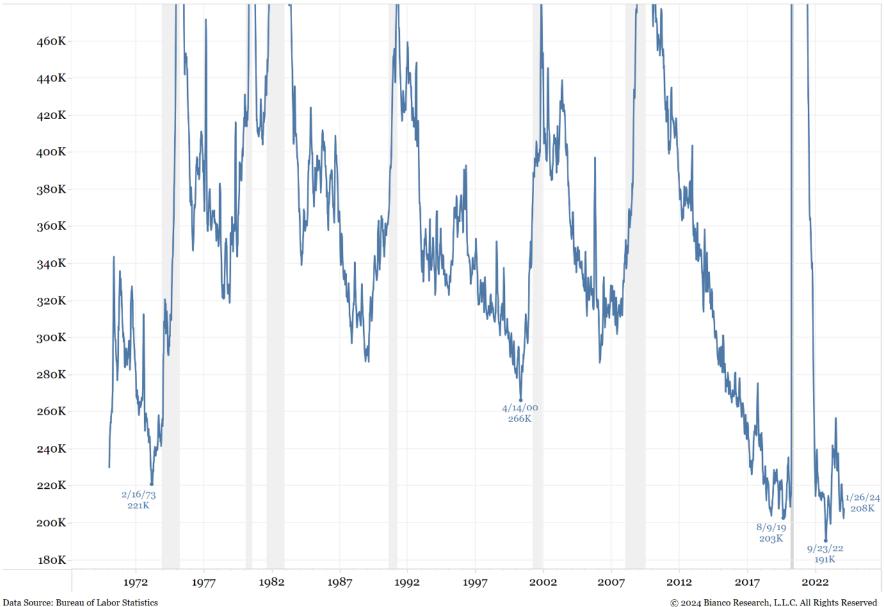
Data Source: Bloomberg

GDP and Inflation Since The Lockdowns Ended

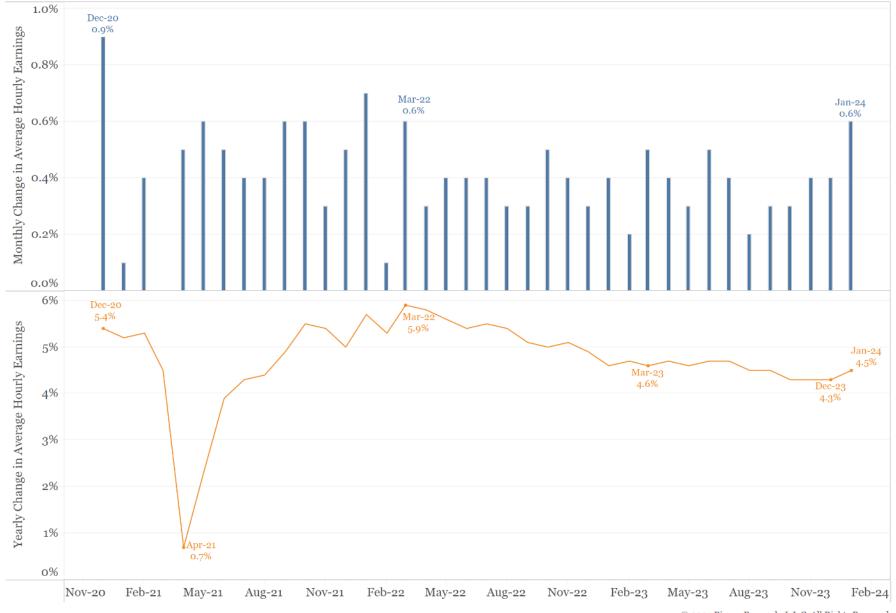


Data Source: Bloomberg

Weekly Initial Claims - Focus on Cycle Lows Rolling 4-Week Average

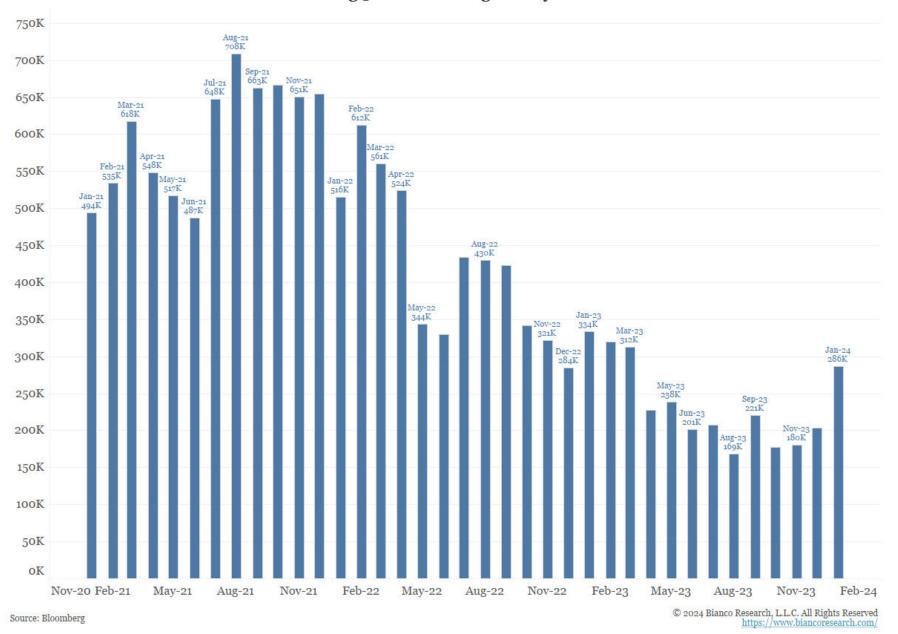


Average Hourly Earnings Growth



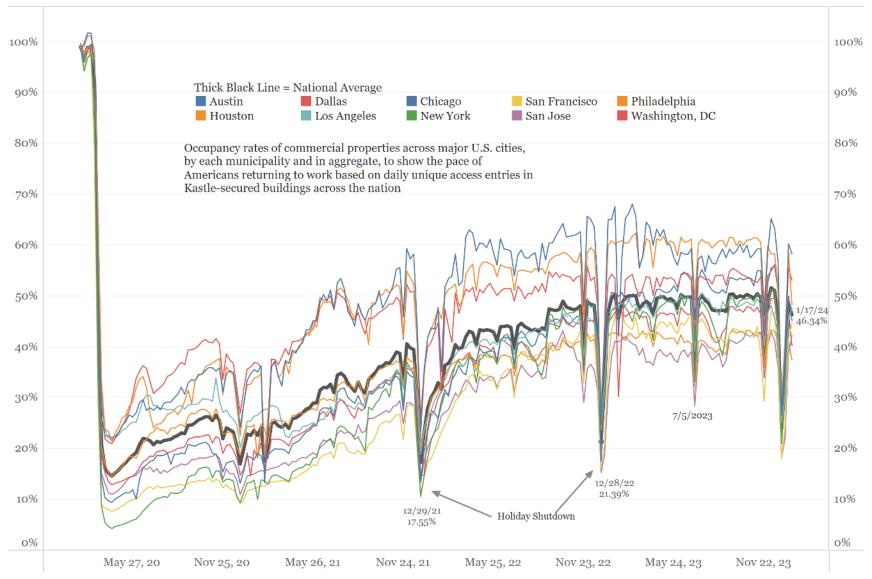
Source: Bureau of Labor Statistics

Rolling 3-Month Average of Payrolls

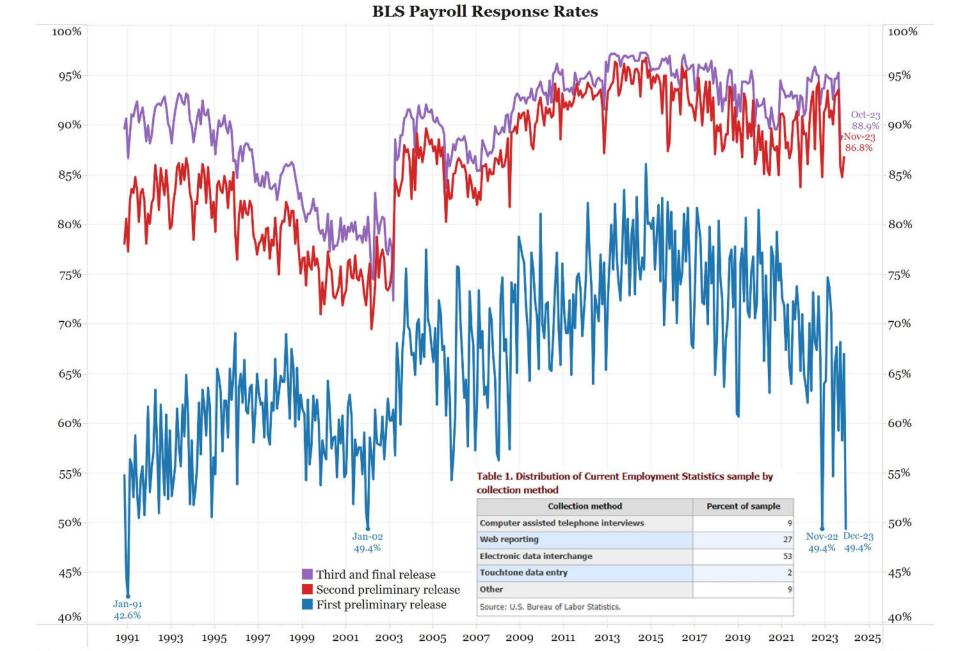


Kastle Back to Work Indices

Percentage of City Office Space Currently in Use

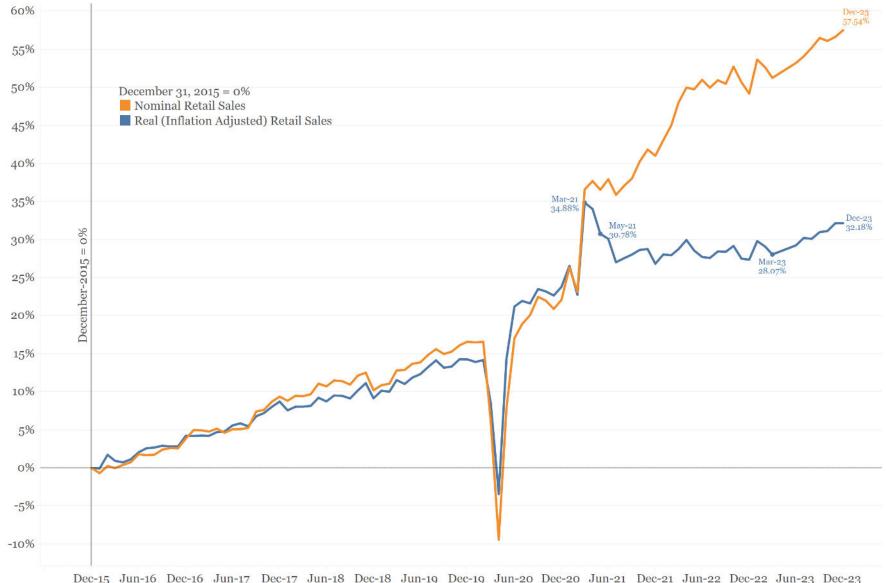


Source: Kastle https://www.kastle.com/getting-america-back-to-work/



Data Source: Bureau of Labor Statistics

The Growth in Nominal and Retail Sales Do Not Confuse Sales with Inflation!



Dec-15 Jun-16 Dec-16 Jun-17 Dec-17 Jun-18 Dec-18 Jun-19 Dec-19 Jun-20 Dec-20 Jun-21 Dec-21 Jun-22 Dec-22 Jun-23 Dec-23

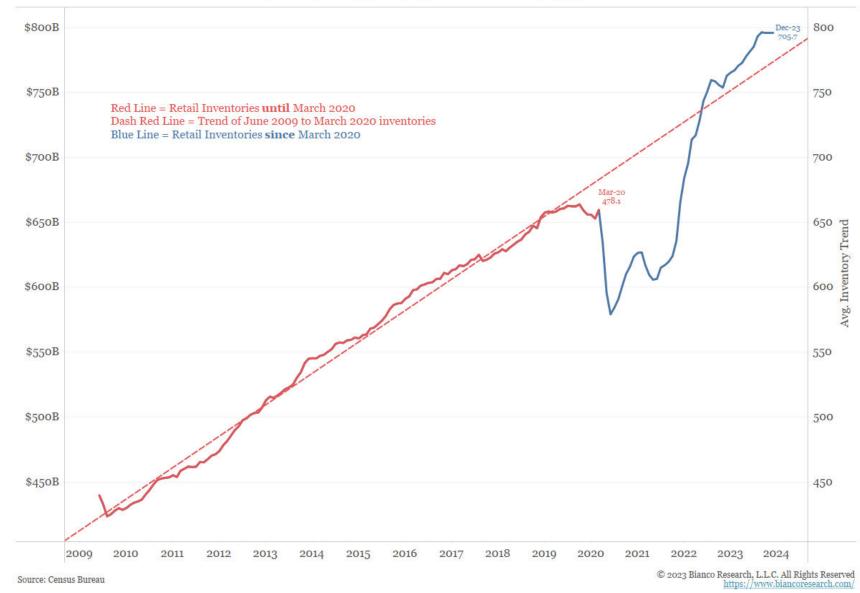
What Does The Consumer Want?

The Retail Industry Struggles With Inventory Management

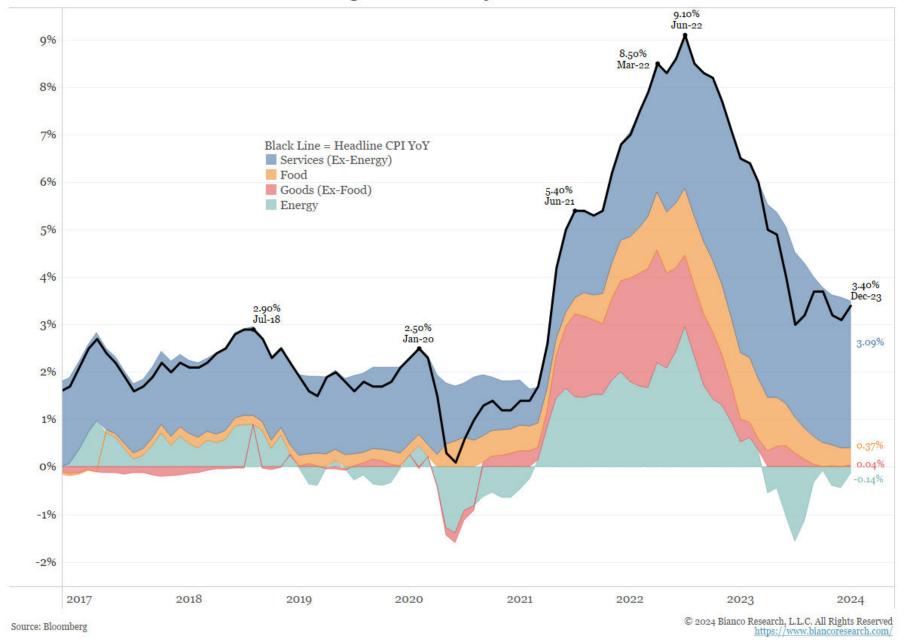
McKinsey & Company – (May 8, 2023) Thinking beyond markdowns to tackle retail's inventory glut

In the United States alone, retailers are sitting on \$740 billion in unsold goods. Clearing inventory and building more resilient and agile supply chains require action across five dimensions.

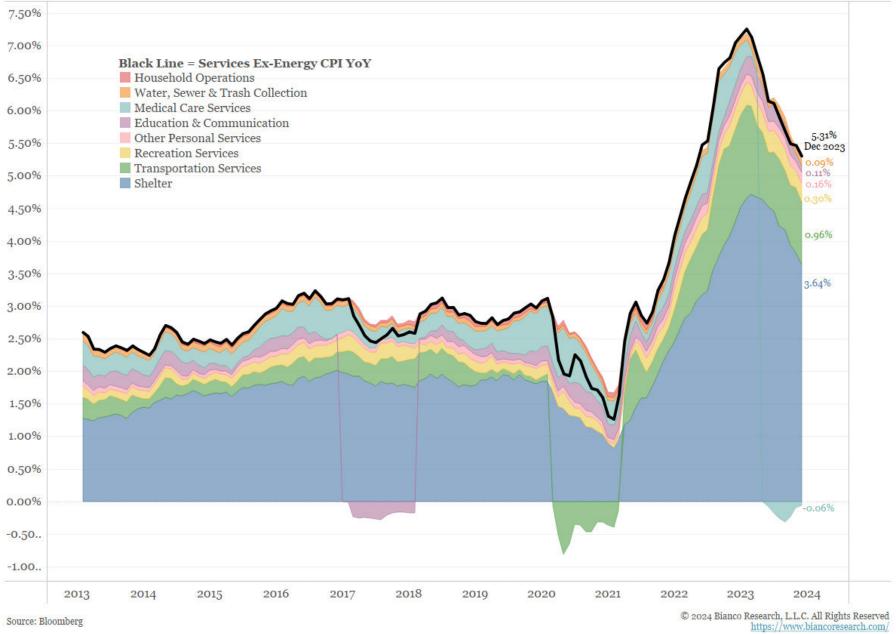
Over the past 18 months, retail supply chains have experienced unprecedented demand and supply shifts. Pandemic-related disruptions from the end of 2021 to the start of 2022 led to goods arriving late—or, in some cases, after the season. As retailers sought to overbuy inventory to mitigate potential shortages, softening demand and a sudden shift in consumer spending in the middle of last year left them with an inventory glut needing to be marked down or warehoused.



Breaking Down CPI's Major Contributors



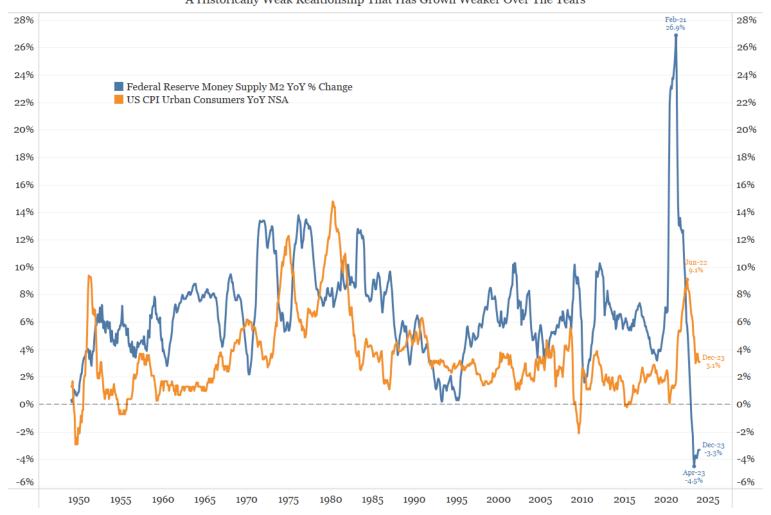
Breaking Down Services Ex-Energy's Major Contributors



•Financial Times – (October 2017) <u>Fed has no</u> reliable theory of inflation, says Tarullo

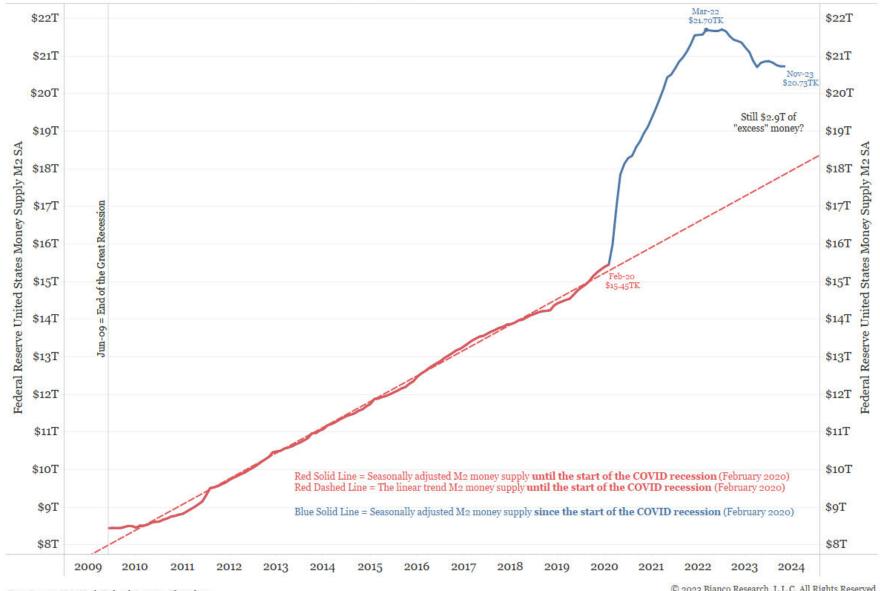
He was particularly doubtful about the weight inflation expectations play in rate-setting policy, given the "range and depth of unanswered questions" about how they are formed and measured. "The substantive point is that we do not, at present, have a theory of inflation dynamics that works sufficiently well to be of use for the business of real-time monetary policymaking," said Mr Tarullo in a speech at the Brookings think-tank in Washington.

Money Supply and Inflation A Historically Weak Realtionship That Has Grown Weaker Over The Years



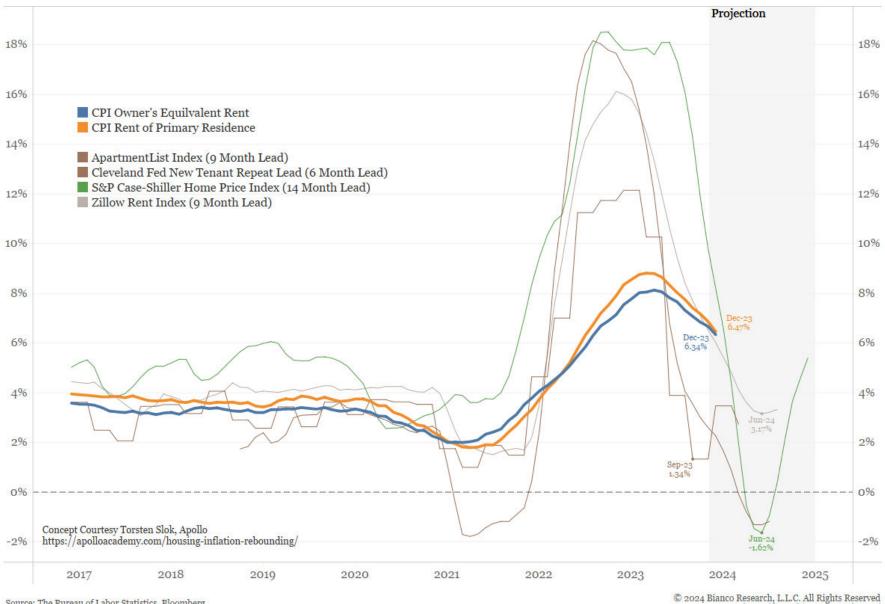
Data Source: New York Federal Reserve, Bloomberg

Still Too Much Money Chasing Too Few Goods? M2 Money Supply and its Pre-COVID Trend



Data Source: New York Federal Reserve, Bloomberg

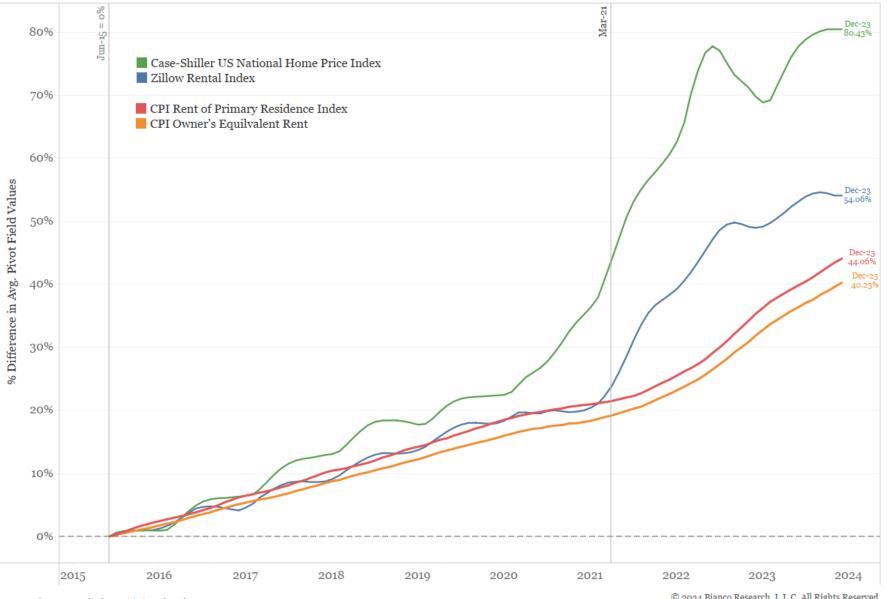
Leading Shelter Inflation Year-over-Year Percentage Change



Source: The Bureau of Labor Statistics, Bloomberg

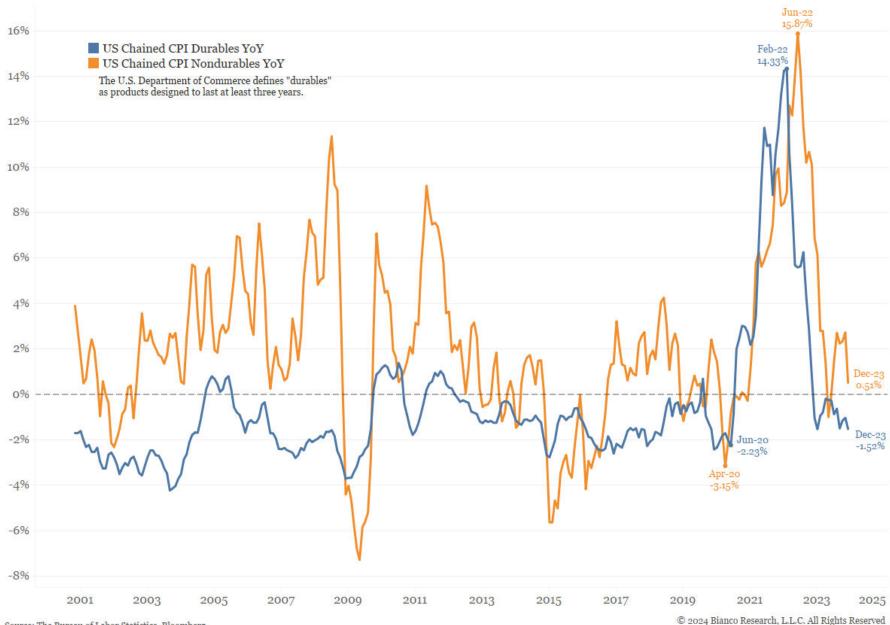
CPI Measures of Inflation Are Behind

Cumulative Change

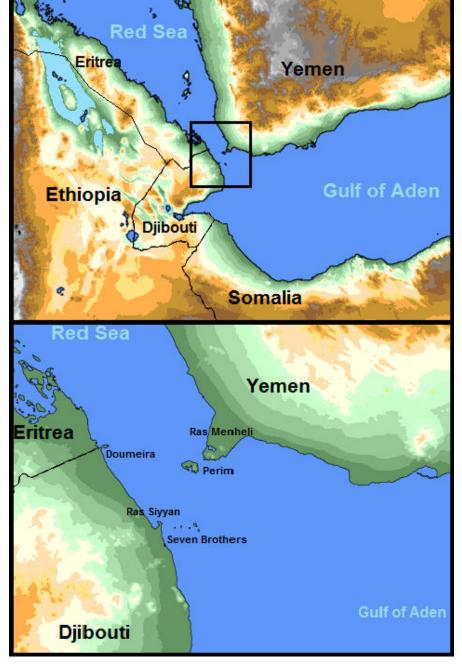


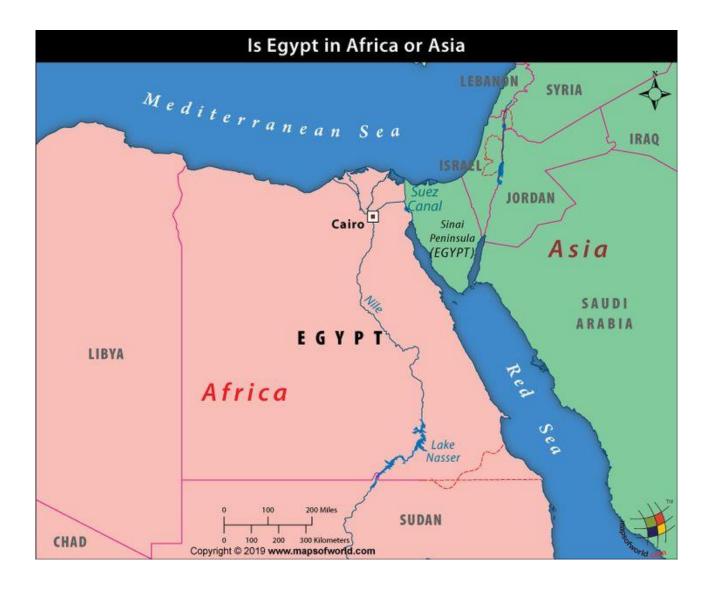
Source: The Bureau of Labor Statistics, Bloomberg

US Chained CPI Durables YoY & US Chained CPI Nondurables YoY



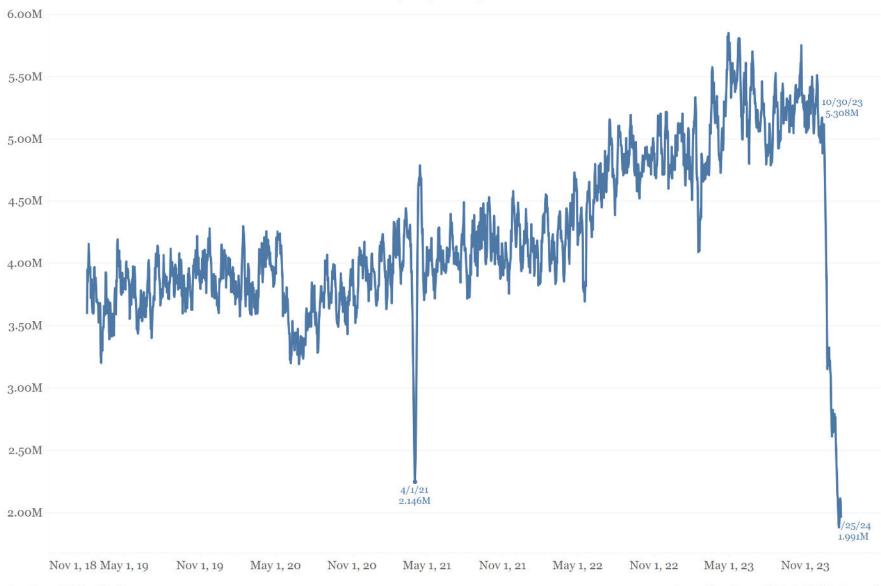
Source: The Bureau of Labor Statistics, Bloomberg





Metric Tons of Trade Volume Transiting the Bab el-Mandeb Strait Choke Point

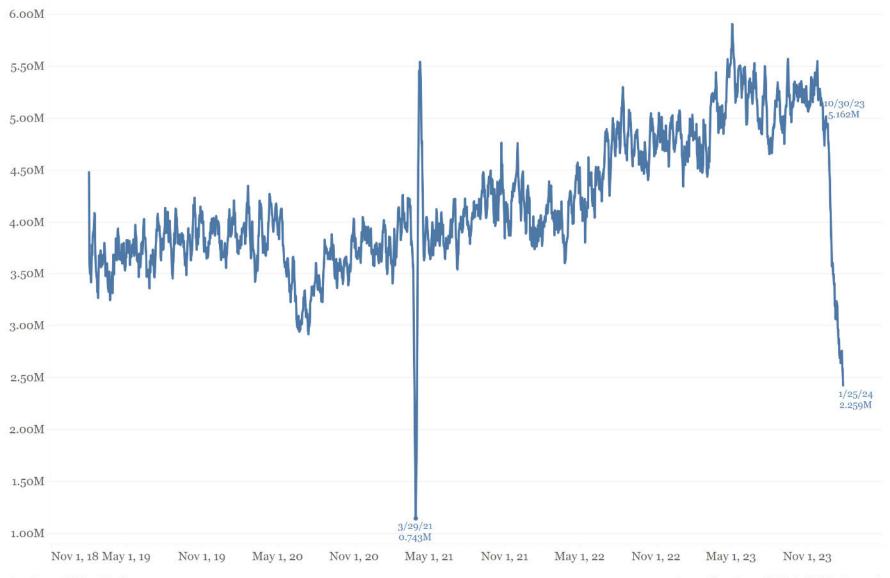
7-Day Average



Data Source: IMF Port Watch https://portwatch.imf.org/pages/port-monitor

Metric Tons of Trade Volume Transiting the Suez Canal Choke Point

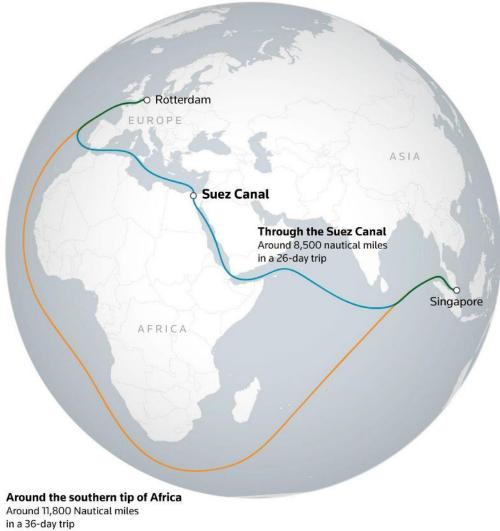
7-Day Average



Data Source: IMF Port Watch https://portwatch.imf.org/pages/port-monitor

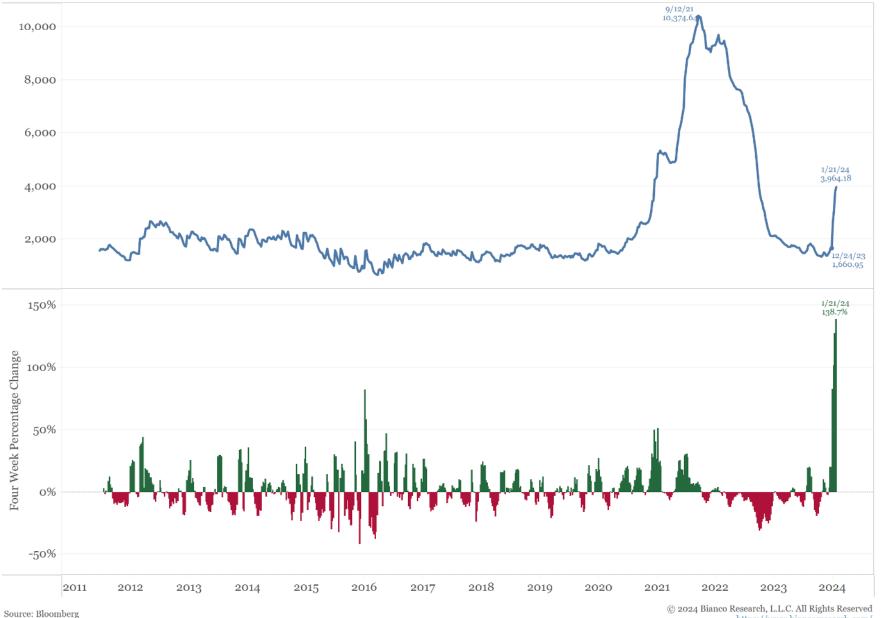
Vessels re-routing

Attacks by Yemen's Houthi militants on ships in the Red Sea are disrupting maritime trade through the Suez Canal, with some vessels re-routing to a much longer East-West route via the southern tip of Africa.

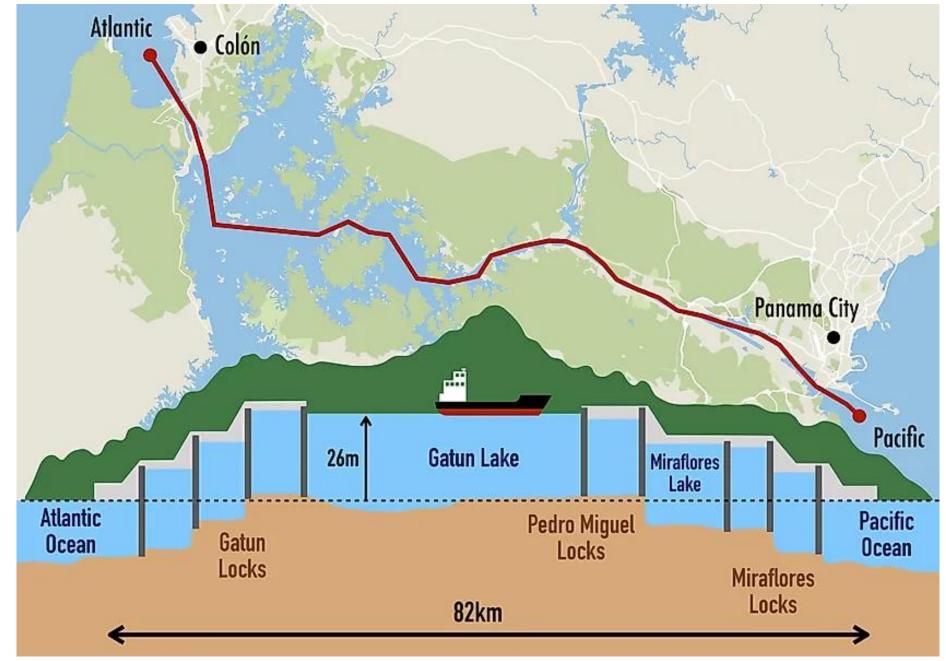


Sources: LSEG; Planet Labs; Maps4News; Shoei Kisen Kaisha Reuters Staff • Dec. 19, 2023 | REUTERS

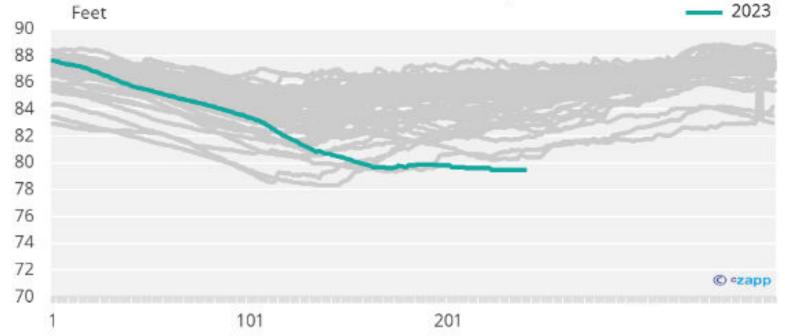
WCI Composite Container Freight Benchmark Rate per 40 Foot Box Drewry



https://www.biancoresearch.com/



Water Levels in 2023 Predicted to Be Lowest Yet in Q3



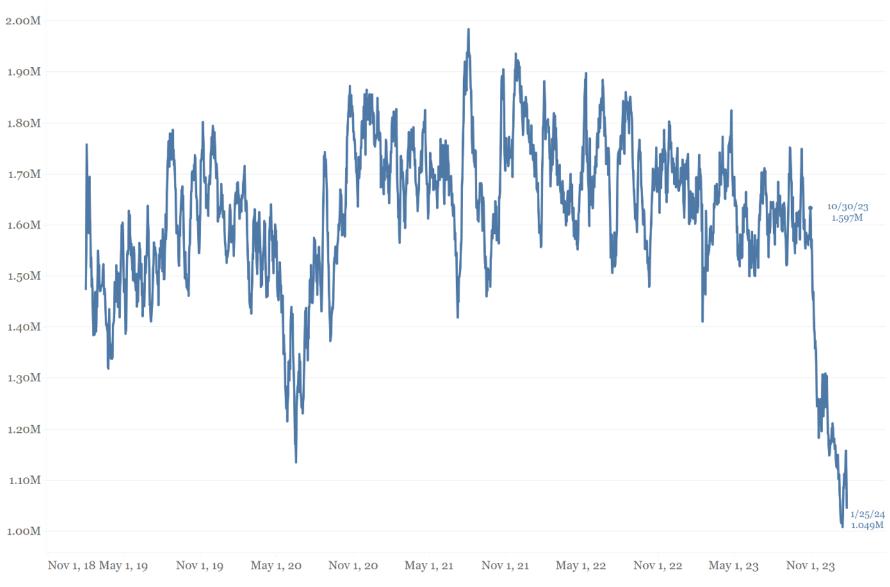


December 2023



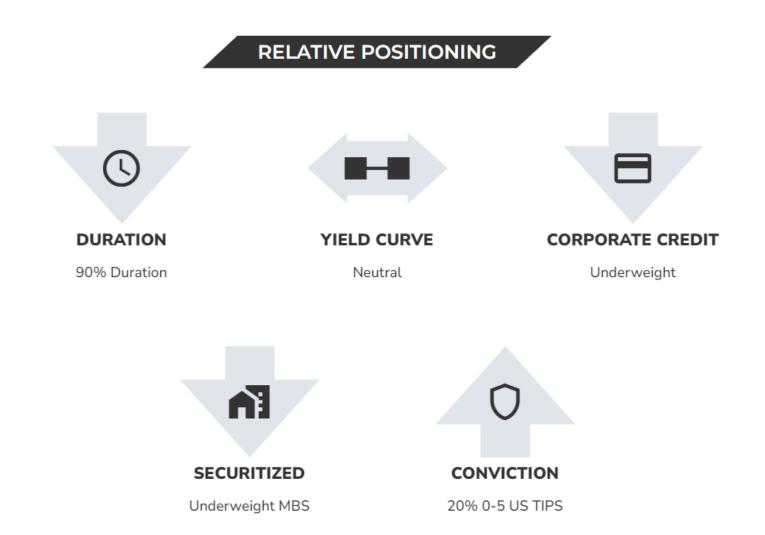
Metric Tons of Trade Volume Transiting the Panama Canal Choke Point

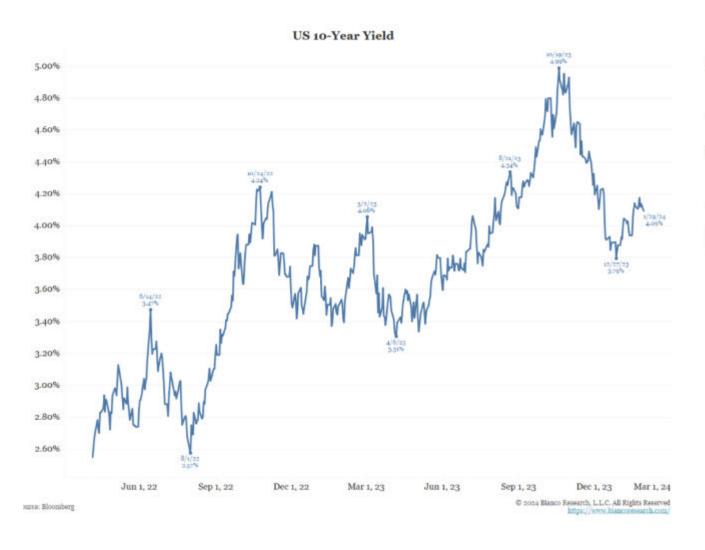
7-Day Average



Data Source: IMF Port Watch https://portwatch.imf.org/pages/port-monitor

The Bianco Research Total Return Index (BTRINDX). The ETF "WTBN" Tracks It www.biancoadvisors.com

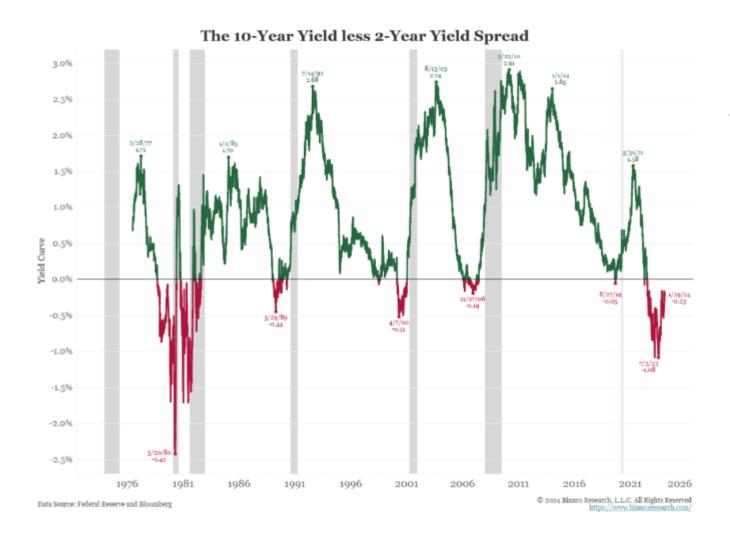




90% Duration

The index is underweight duration, based on the belief rates could head higher.

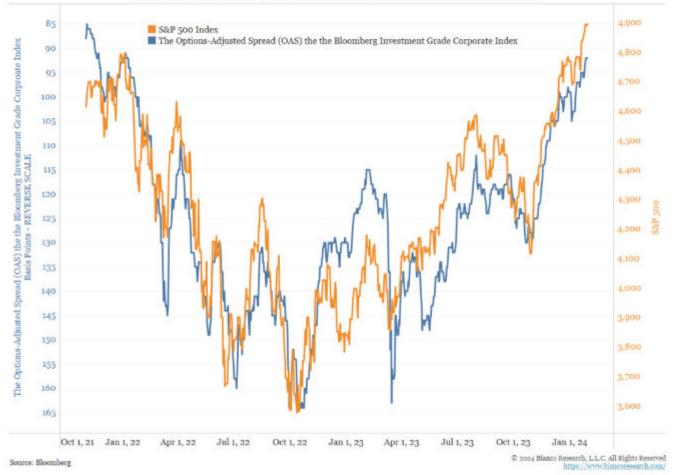
The 10-year yield was recently at a 16-year high. While yields have fallen since October, we do not believe this trend is over.



Neutral Curve Position

The Index holds no curve position relative to the benchmark.





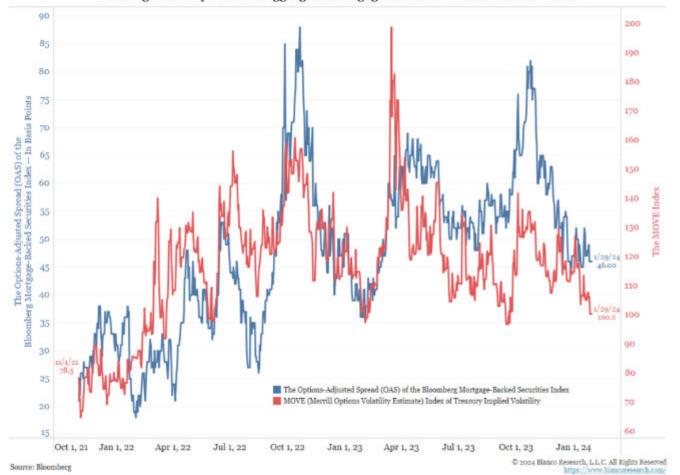
90% Underweight Credit

The index has a 90% allocation to corporates relative to the benchmark. In other words, the index holds an underweight allocation to corporate credit.

The chart shows investment-grade corporate spreads (blue) and the S&P 500 (orange) move in tandem. Relative credit performance moves with equity prices.

With stocks at all-time highs, and record corporate bond issuance in January, we are reducing our credit exposure from 100% to 90% as we see increased risks.



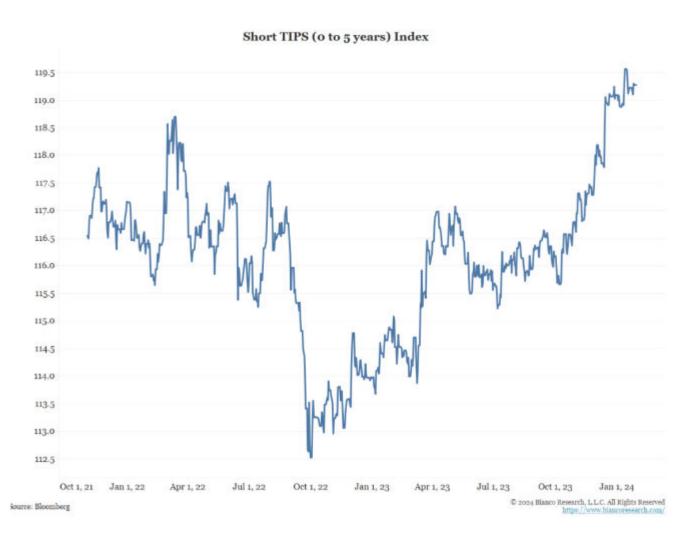


80% Underweight Securitized

All mortgages have an embedded option because holders can pre-pay their mortgage anytime. Because of this structure, the option-adjusted spread (OAS) of mortgages (blue line) and the MOVE Index (red line), which measures the implied volatility of 30-day interest rate options, have a tight relationship.

Given the uncertainty surrounding inflation, Fed policy, and the belief that rates will move higher, look for the yield curve to bear steepen. This can "un-invert" the yield curve in the coming months, and provide a tailwind to mortgage relative performance.

We remain underweight at 80% relative, up from 72% last month.



20% TIPS Conviction Allocation

The index holds a 20% allocation to 0-5 year TIPS as inflation protection.

The index owns short-maturity inflation securities (TIPS). The 2-year inflation break-even rate has held between 200 and 230bps. The committee anticipates inflation to exceed this level over the next two years. Short-maturity inflation protection is attractive, especially if inflation remains sticky and persistent.

| Name | February 2024 | January 2024 |
|---|---------------|--------------|
| iShares MBS ETF | 23.30 | 21.00 |
| iShares 0-5 Year TIPS Bond ETF | 20.00 | 20.00 |
| Vanguard Long-Term Corporate Bond ETF | 8.14 | 9.00 |
| WisdomTree Floating Rate Treasury ETF | 8.00 | 8.00 |
| Vanguard Short-Term Corporate Bond ETF | 7.24 | 8.00 |
| Schwab Long-Term U.S. Treasury ETF | 7.00 | 7.00 |
| Vanguard Intermediate-Term Corporate Bond ETF | 6.41 | 7.09 |
| Schwab Short-Term U.S. Treasury ETF | 5.91 | 5.91 |
| iShares 7-10 Year Treasury Bond ETF | 5.50 | 5.50 |
| iShares BBB Rated Corporate Bond ETF | 5.00 | 5.00 |
| iShares 3-7 Year Treasury Bond ETF | 3.50 | 3.50 |

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