

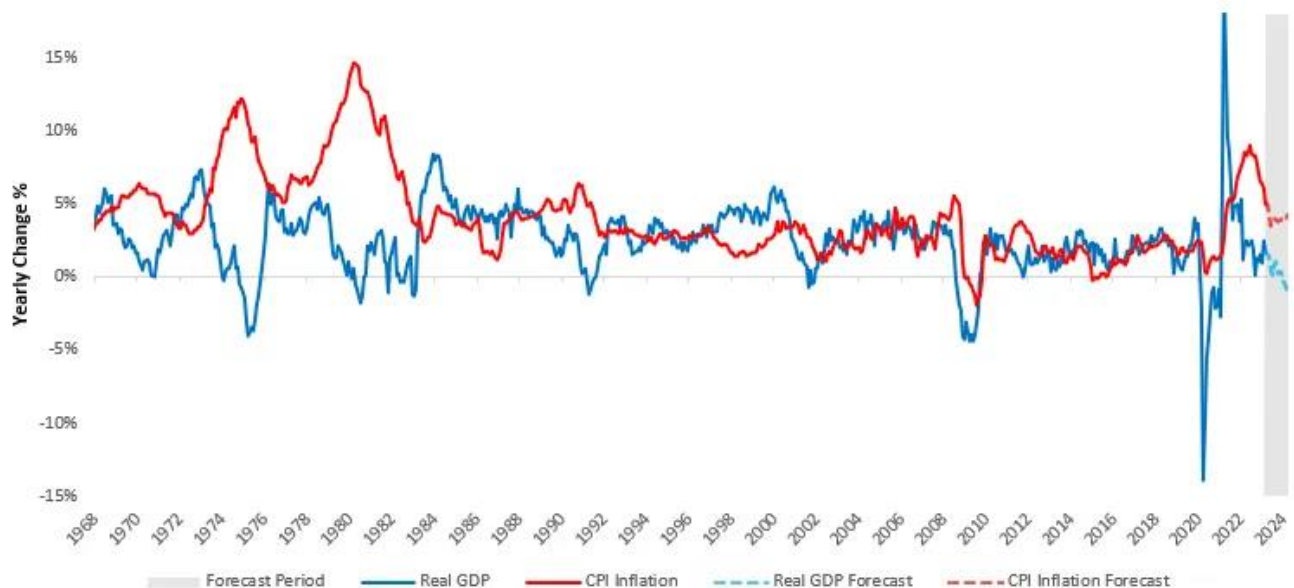
Month In Macro

This report is part of our ongoing effort to provide economic and market guidance to our subscribers during a period of historic levels of uncertainty. This note aims to share our research team's internal checkpoint process in evaluating the current state of the economy as it pertains to markets. The pages that follow will have familiar content for those who follow our work, but with the added benefit of our connecting the dots across all the economic and financial data our systems use to make portfolio decisions. Our primary takeaways are as follows:

- **Nominal GDP slowed through April, with real GDP contracting by -0.47% and inflation rising by 0.23%. Nominal GDP has grown approximately 4.7% from one year prior, continuing the downtrend beginning in February 2022.**
- **During this time, equity markets have posed significant strength (though lopsided), while treasury markets have weakened in unison.**
- **Looking forward, these sequential improvements have adjusted our real growth outlook, with a contraction in yearly real GDP growth more likely in H1 2024 than in Q4 2023. Our inflation outlook remains one of resilient inflation.**
- **Neither stocks nor bonds offer attractive return-on-risk here. Stocks remain highly exposed to weakness in the economic growth cycle, while bonds likely face headwinds from higher rates to combat resilient inflation. Cash remains an attractive hiding place for most investors.**

While recent tailwinds to 60/40 portfolios in the form of disinflation (which we were ahead of) and AI innovations (which we were offside) have helped traditional investors, our outlook suggests that those tailwinds will likely prove transitory. Below, we show the visualization of our expectations for growth and inflation over the next twelve months.

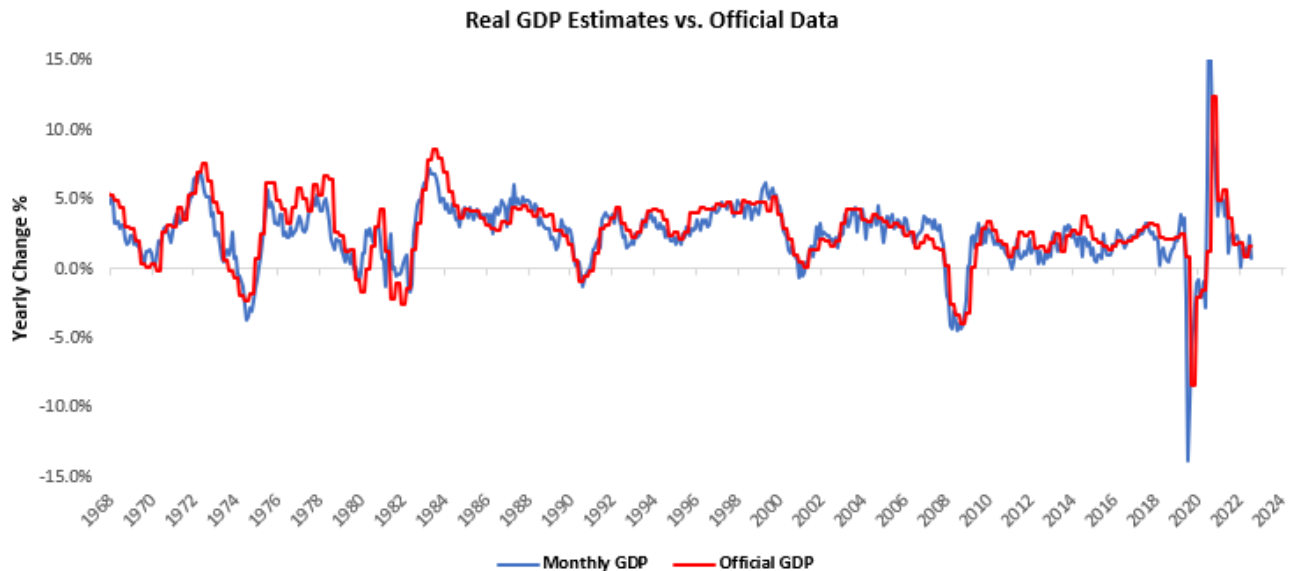
Cyclical Forecasts: Growth & Inflation



Let's dive in.

Real GDP: Strong Consumer, Weak Business Conditions

Before we dive deep, we think setting the stage for where we are is essential. This section briefly outlines the current status and drivers of real GDP. For the latest data through April, our systems place Real GDP growth at 0.77% versus one year prior. Below, we show our monthly estimates of Real GDP relative to the official data. We show this below:

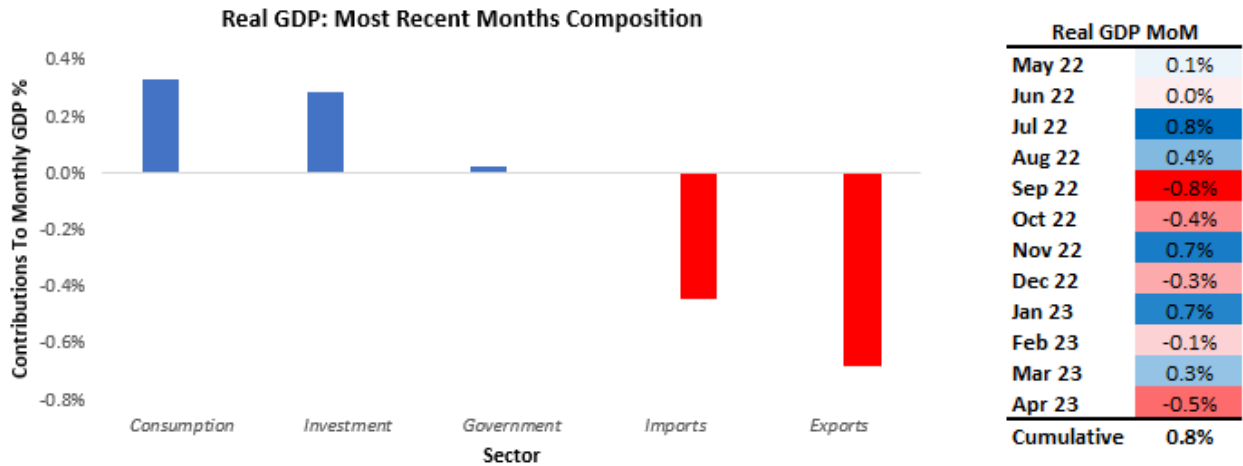


In April, GDP came in at -0.47% versus the prior month. We decompose the most recent months' data into its major divers to better understand this decline. Below, we offer the contribution by sector to monthly GDP in the table:

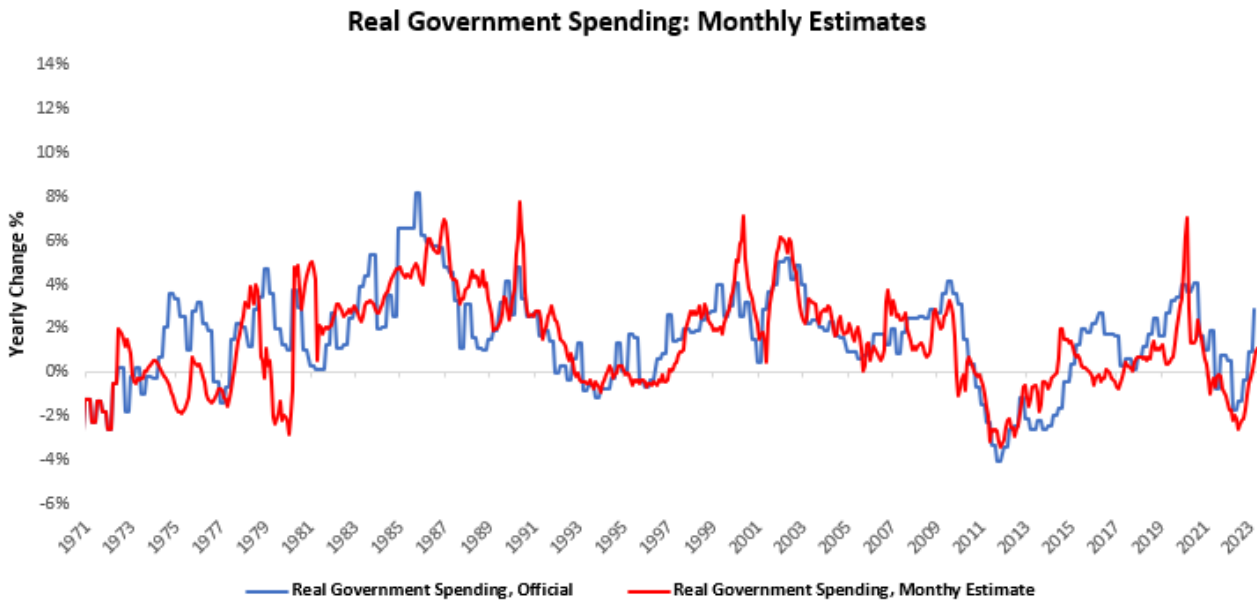
	GDP	C	I	G	X	M
May 22	0.1%	0.0%	0.0%	-0.1%	-0.1%	0.1%
Jun 22	0.0%	0.1%	-0.3%	-0.1%	0.1%	0.1%
Jul 22	0.8%	0.0%	-0.1%	0.1%	0.5%	0.3%
Aug 22	0.4%	0.3%	-0.2%	0.0%	0.2%	0.1%
Sep 22	-0.8%	0.2%	-0.5%	0.0%	-0.2%	-0.4%
Oct 22	-0.4%	0.2%	-0.1%	0.0%	-0.2%	-0.2%
Nov 22	0.7%	-0.3%	-0.1%	0.0%	-0.2%	1.2%
Dec 22	-0.3%	-0.1%	0.0%	0.0%	0.1%	-0.3%
Jan 23	0.7%	0.9%	-0.1%	0.0%	0.6%	-0.8%
Feb 23	-0.1%	-0.1%	0.1%	0.0%	-0.4%	0.3%
Mar 23	0.3%	0.0%	-0.3%	0.0%	0.3%	0.2%
Apr 23	-0.5%	0.3%	0.3%	0.0%	-0.7%	-0.4%
Cumulative	0.8%	1.6%	-1.2%	0.1%	0.1%	0.2%

As we can see above, over the last few months, consumption has contributed significantly to the strength of real GDP (highlighted in the green box), and investment continues to drag on real GDP (highlighted in the red box).

Zooming into the most recent month (April), we see that both investment and consumption have contributed to strength in GDP, but the weakness in trade activity has outweighed these contributions:

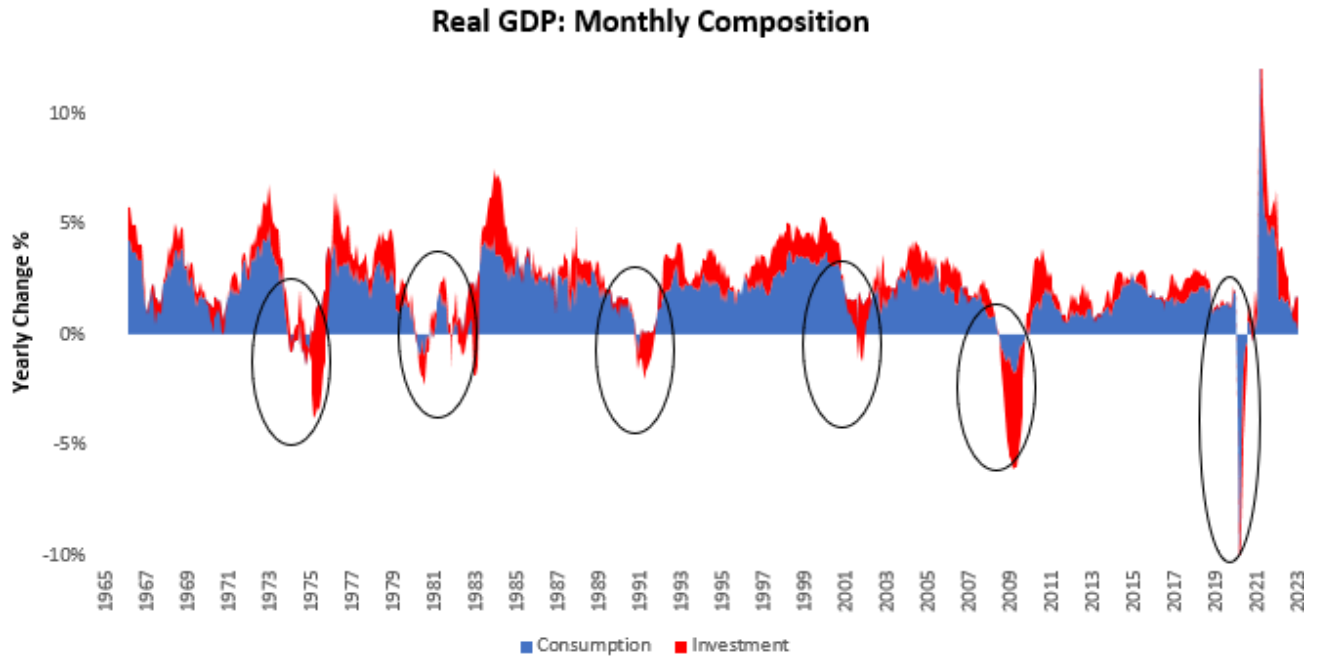


While the contribution of government spending looks modest above, it is essential to note that our tracking of government spending in GDP has now shown a persistent rise. Over the last twelve months, government spending has added 0.14% to GDP growth of 0.77%:

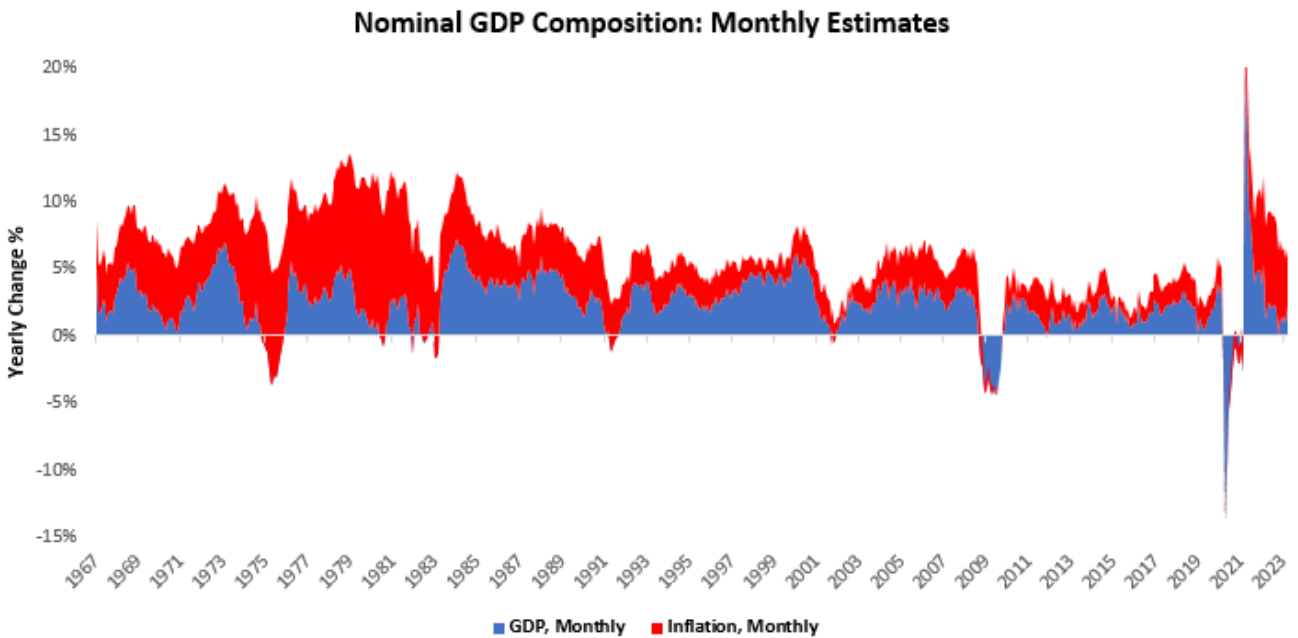


While this contribution may not seem large, these marginal changes become increasingly important as we approach inflection points and can significantly change the outlook at key junctures. Furthermore, this uptick in government spending is without an increase in the debt limit, which suggests there is likely to be even more spending from the government.

The growth cycle story will continue to be dominated by the interplay between investment and consumption. Whether or not the economy enters a recession largely depends on whether combined investment and consumption activity draws down from its peak, as it has done in previous cycles:



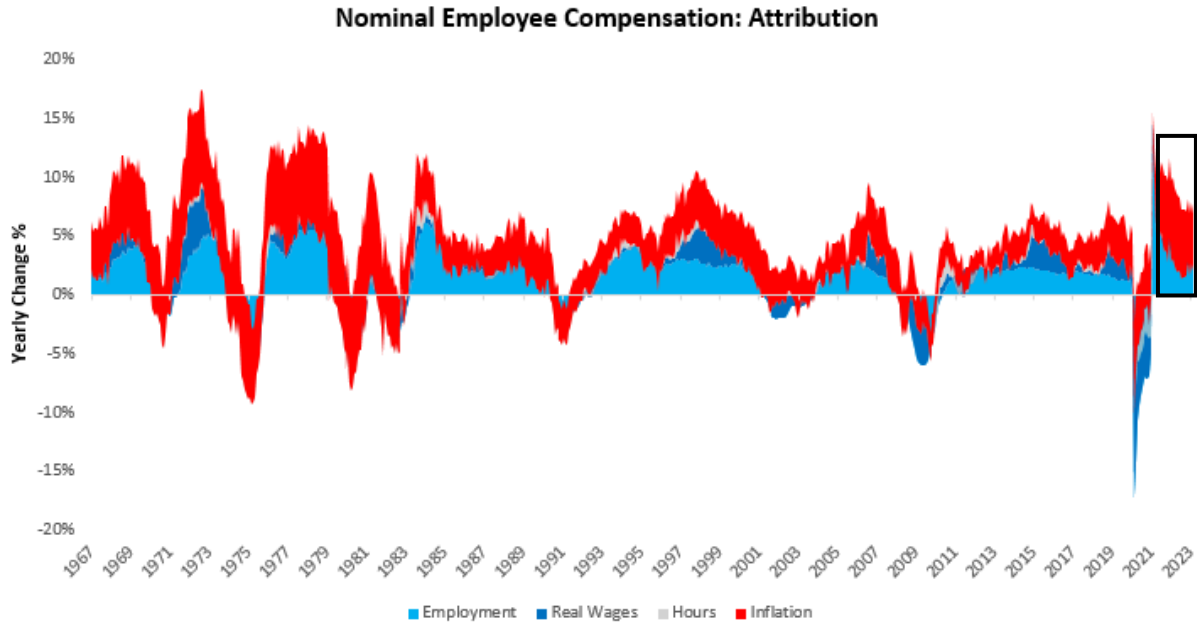
While this confluence of factors continues to create a situation where future GDP growth will flirt with a contraction, nominal GDP remains very high relative to recent history at 4.71% versus one year ago:



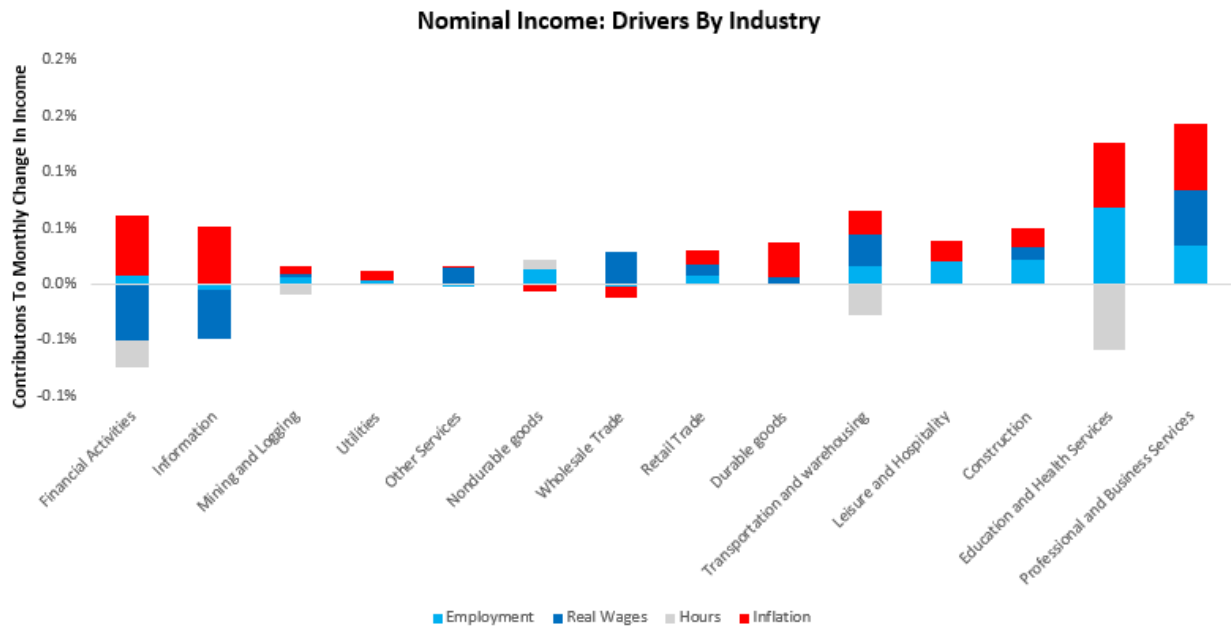
Now that we have established the primary levers in play, we discuss each individually.

Consumer Spending: Strong Employment & Income On Assets

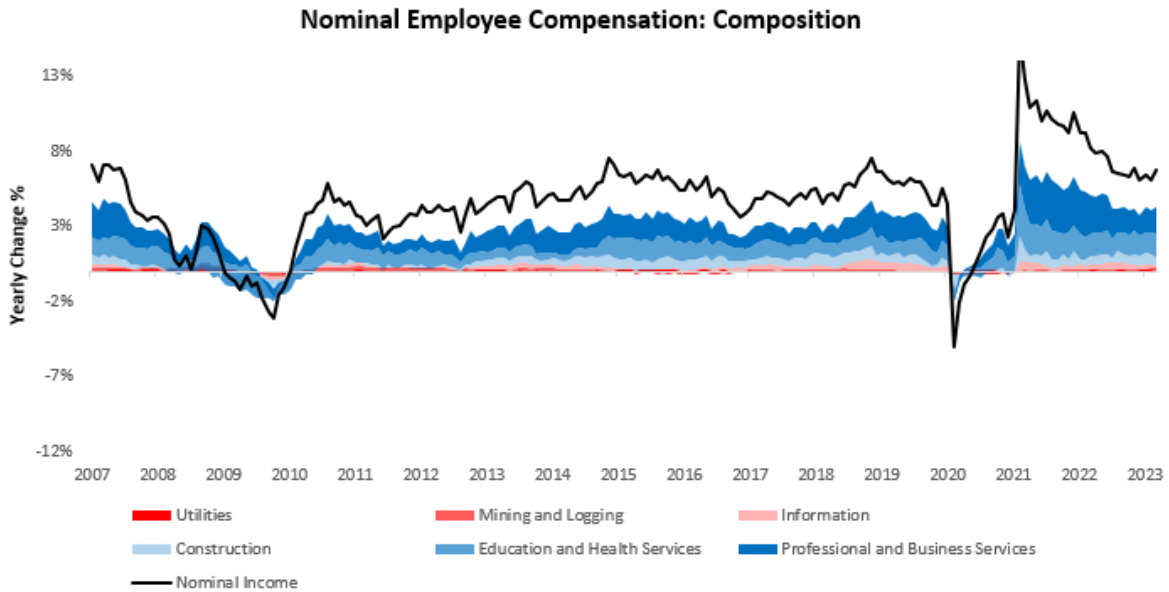
In nominal and real terms, consumer spending is the largest part of the economy. This consumer spending is driven by the financial conditions of households, who spend and invest based on current income, interest burdens, and balance sheet capacity. We discuss each piece-wise. A large part of income comprises income from employee compensation. Below, we show the big-picture drivers of employee compensation-i.e., employment, real wages, hours, and inflation:



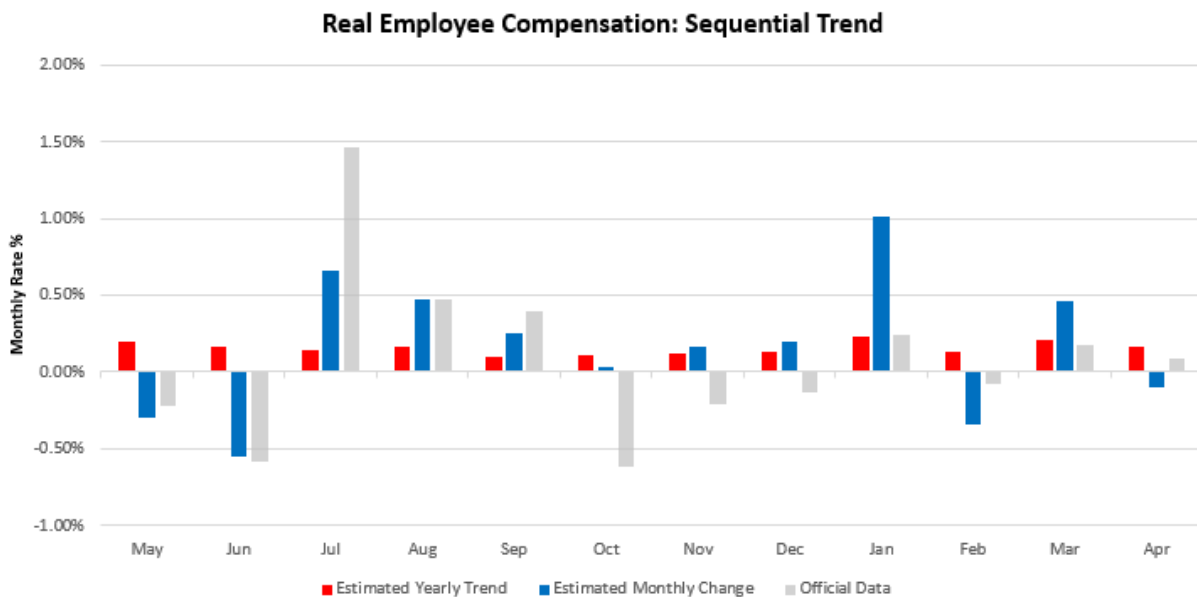
As highlighted above, the primary driver of employee income over the last year has been inflation and employment gains, with very little coming from hours or real wages. We break this down by industry below for the most recent month (April):



As we can see above, professional and business services continue to be the bastion of the current resilience of the consumer economy. Conversely, financial activities showed weakness, especially ex-inflation. Zooming out, professional services, education & health services, and leisure and hospitality have driven nominal employment income, while information, mining & logging, and utilities have dragged on incomes:



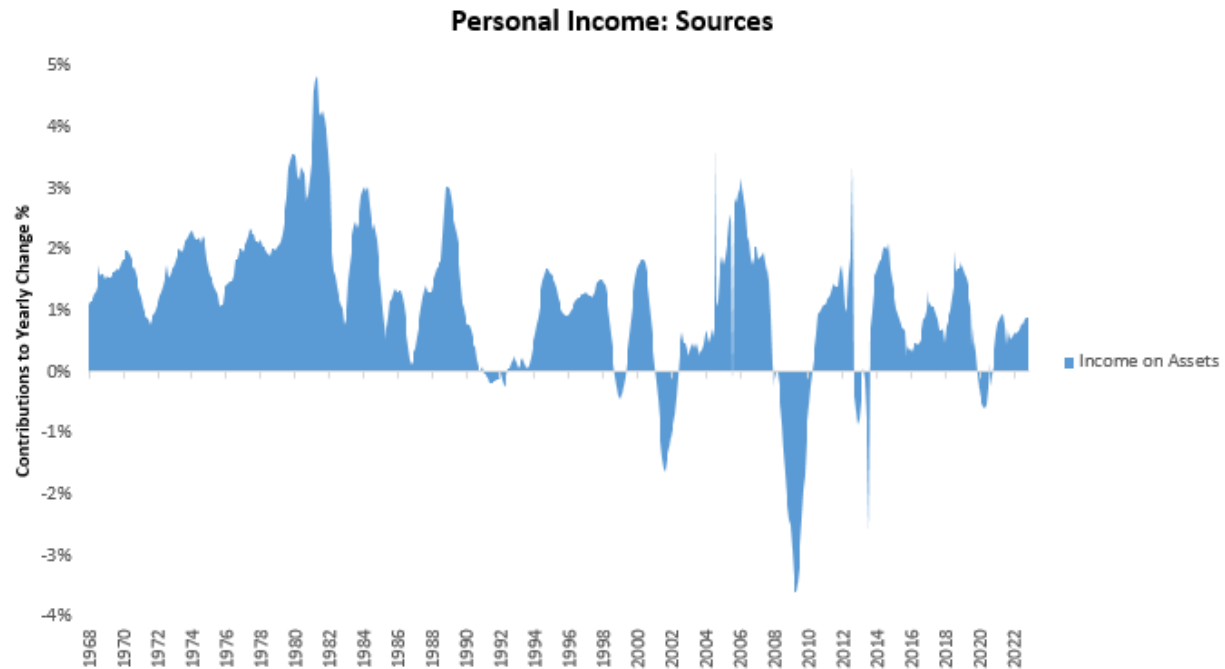
While nominal spending has generally remained strong, real spending has been significantly weaker. Our estimates indicated a -0.10% contraction; official data was 0.10% for April. We show the sequential evolution of the data below:



We zoom out to offer more context:

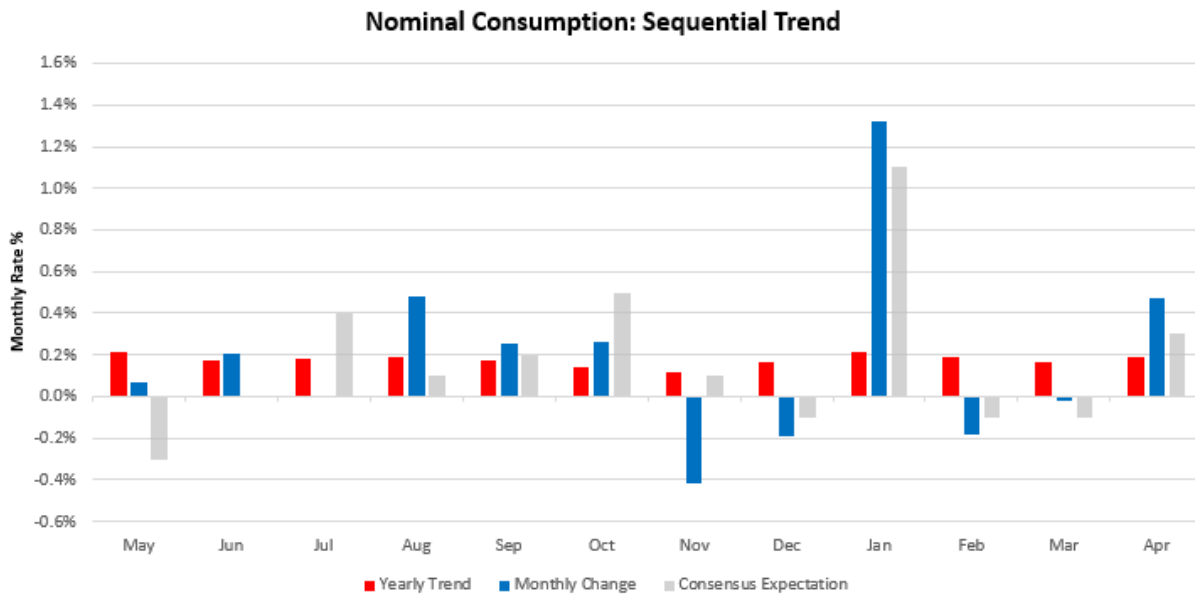


Alongside this decelerating nominal and real income, income on assets continues to contribute to income growth, now contributing 1% of the total 5% growth in personal income:

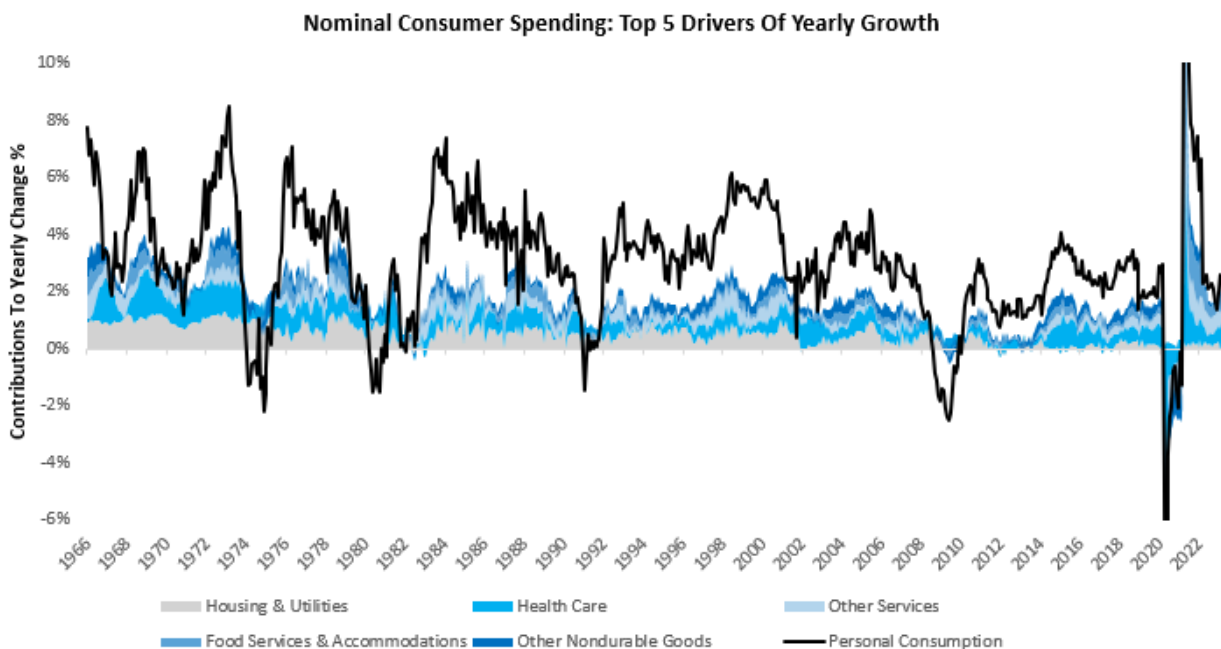


These income gains translate into spending gains. Nominal consumer spending increased 0.84% in April, surprising consensus expectations of 0.3%. This print contributed to a sequential deceleration in the quarterly trend relative to the yearly trend.

Below, we show the monthly evolution of the data relative to its 12-monthly trend and consensus expectations:

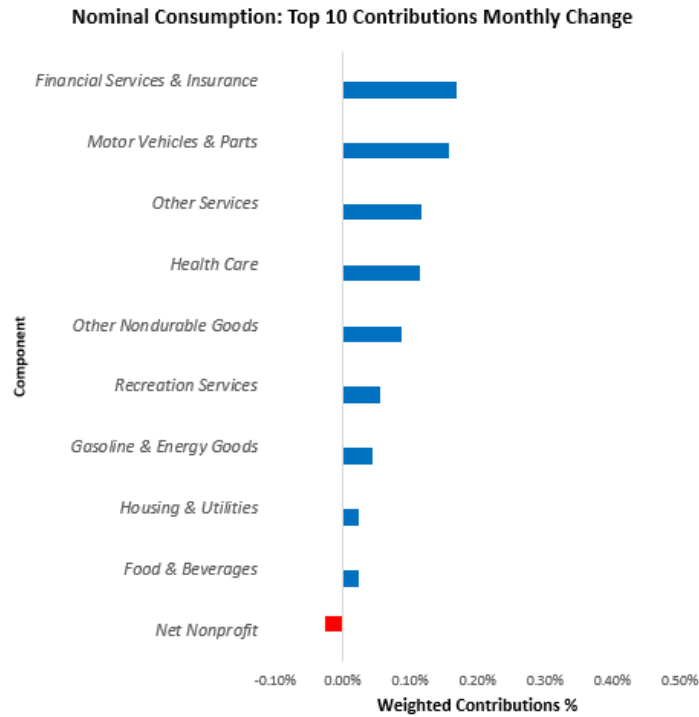


We zoom out to show the drivers of current trends in spending. Over the last year, Other Nondurable Goods (0.63%), Housing & Utilities (1.49%), Health Care (1.39%), Food Services & Accommodations (0.65%), & Other Services (0.88%). have been the primary drivers of the 6.73% growth in nominal spending. We show the contributions of these items to yearly changes in total spending below:

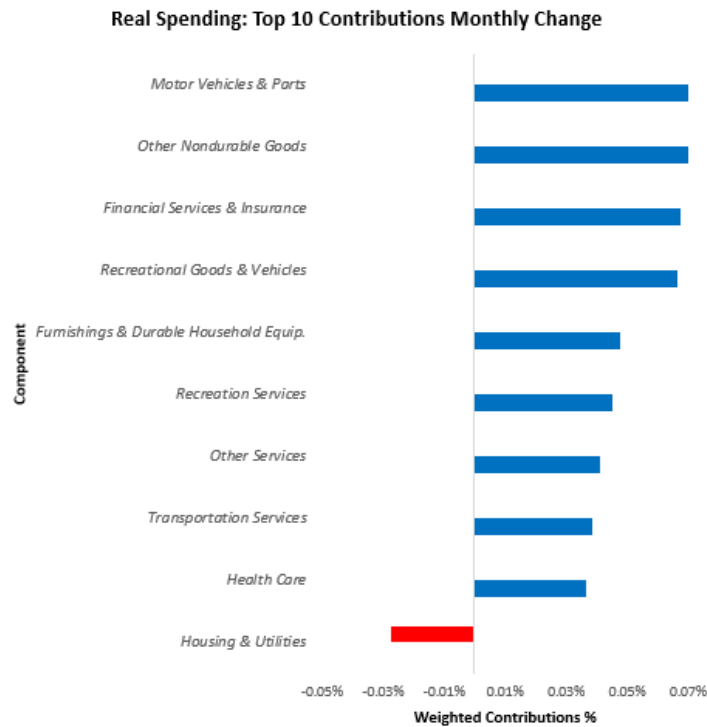


As we can see above, energy and commodity-related expenditures (nondurable goods, housing & utilities, & food) have accounted for the bulk of nominal spending for the consumer.

We zoom into the most recent print to provide more granular context:

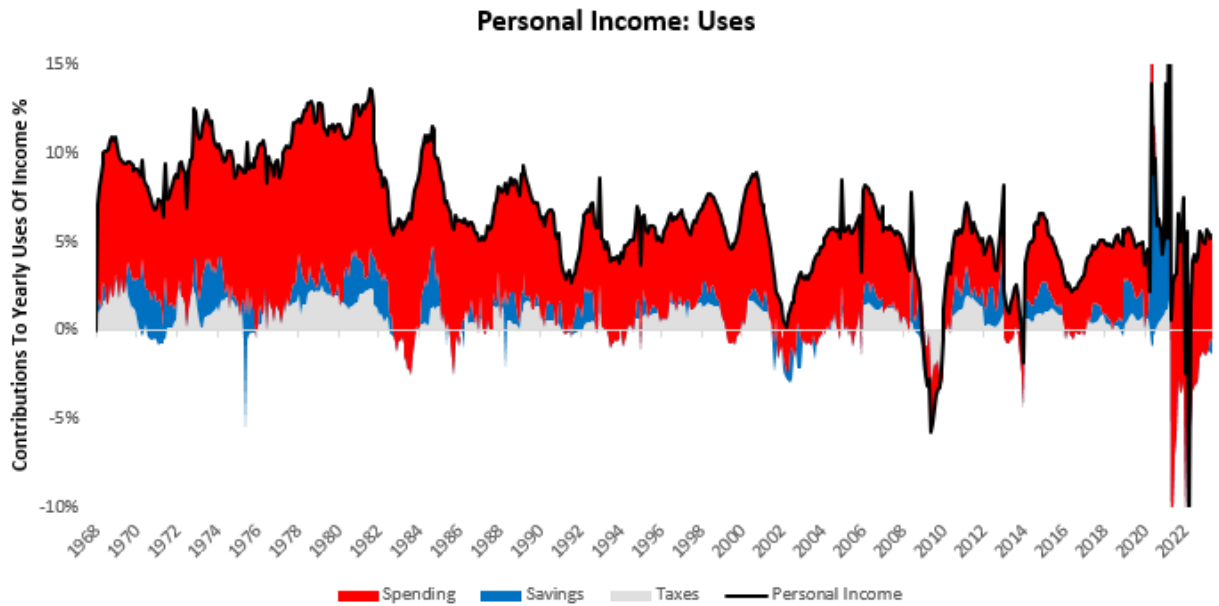


Additionally, we strip out inflation from these numbers to assess volume growth in consumption:

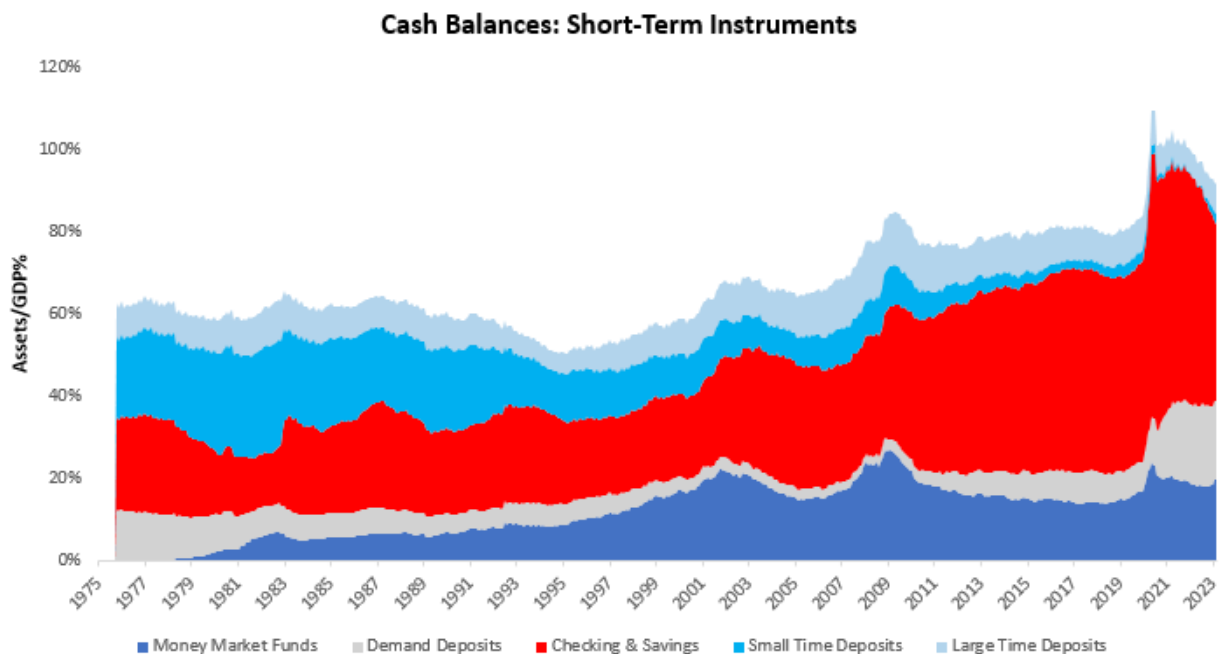


We note that there has been strong spending on durable goods & vehicles, which add to household assets and net worth, especially when not financed by significant liabilities.

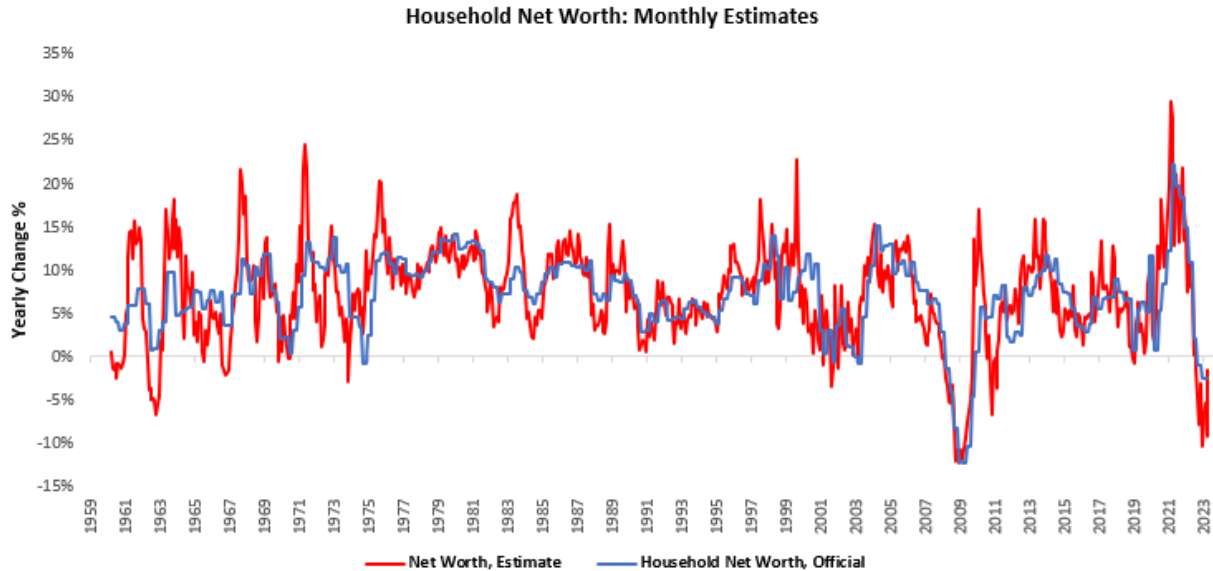
This spending of nominal income continues a trend that has been in place since last year, i.e., one of sustained savings reductions. Below, we show the uses of personal income over the last twelve months, broken into major categories of spending, saving, and taxes:



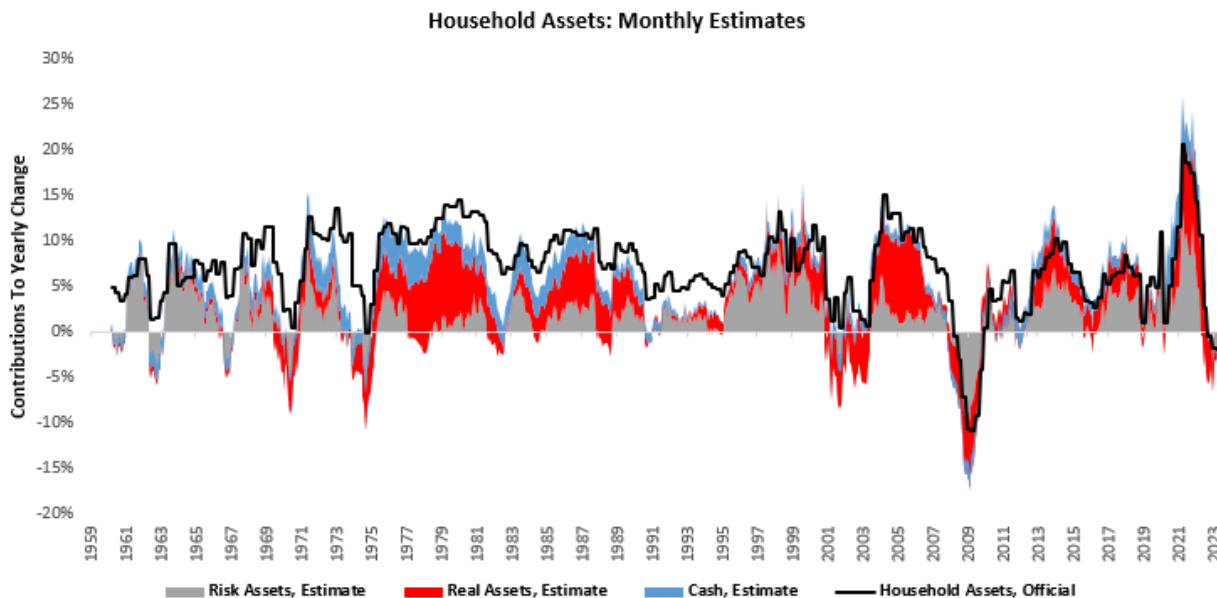
Over the last year, savings rates have fallen historically low as cash balances as a share of household assets remained elevated. However, this cannot continue forever, as nominal activity has risen significantly relative to cash assets. Money cannot be destroyed, but it can create more or less nominal spending for a given velocity. Below, we show how the surge in short-term cash instruments relative to GDP is largely behind us, though we remain at elevated levels:



While savings decreased in April, household net worth increased. According to our latest estimates for April, household net worth increased by 2.9%, driven by a 2.81% and -0.08% change in assets & liabilities, respectively. We show the evolution of our household net worth estimates below, which show that net worth has contracted -0.97% over the last year:

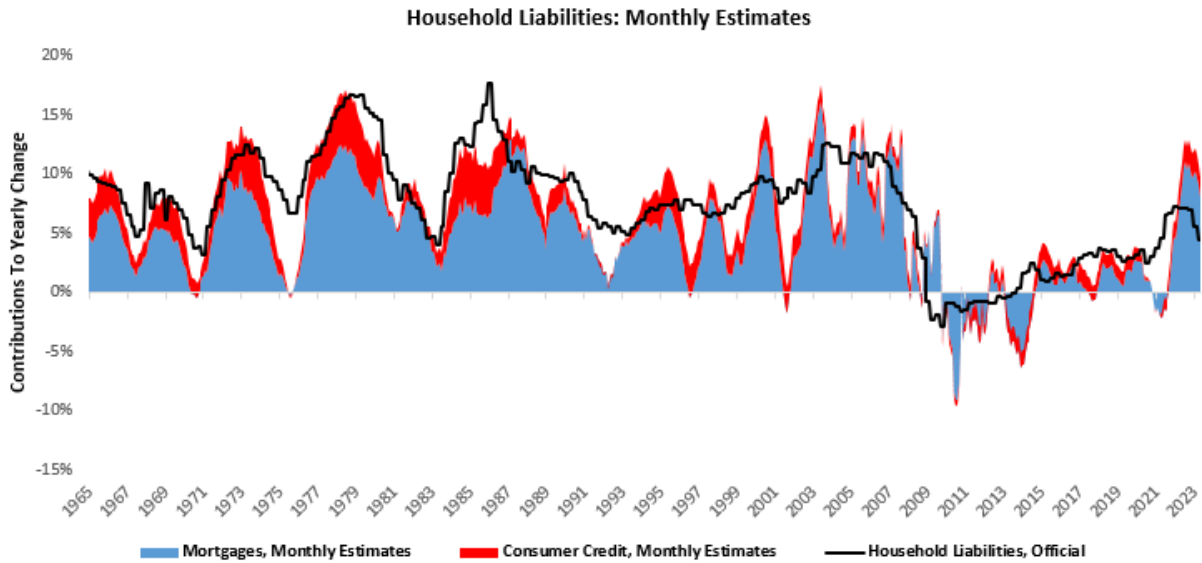


Over the last year, household assets have fallen by -0.97%. Below, we decompose these changes in assets into risk assets (equities, corporate credit, etc.), real assets (real estate, consumer durables, etc.), and cash assets (checking, savings, money markets funds, etc.).



Risk, real, and cash assets have contributed 0.29%, -0.36%, and -0.9%, respectively, to the total change in household assets over the last year.

Contemporaneously, household liabilities have grown by 9.73%, driven by a 7.99% rise in mortgages and a 1.73% increase in consumer credit. We show our estimates for both below, along with the official data:

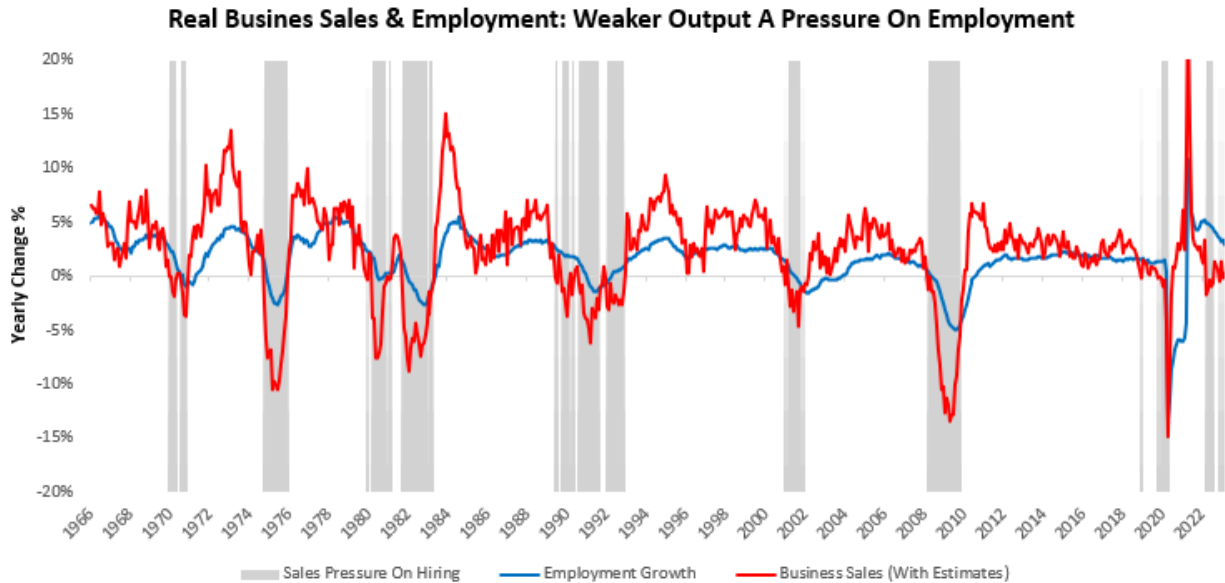


Household incomes increased in April as employment and inflation contributed to nominal incomes. Alongside this increase in employment income, we also saw continued support from income on assets total incomes. This increased income was spent into the economy, with motor vehicles seeing strong nominal and real spending. This increase in spending was a drag on savings, which came alongside a decrease in mortgage borrowing, dragging on total borrowing. However, durable goods spending, home prices, and equity market prices increased assets, increasing household net worth.

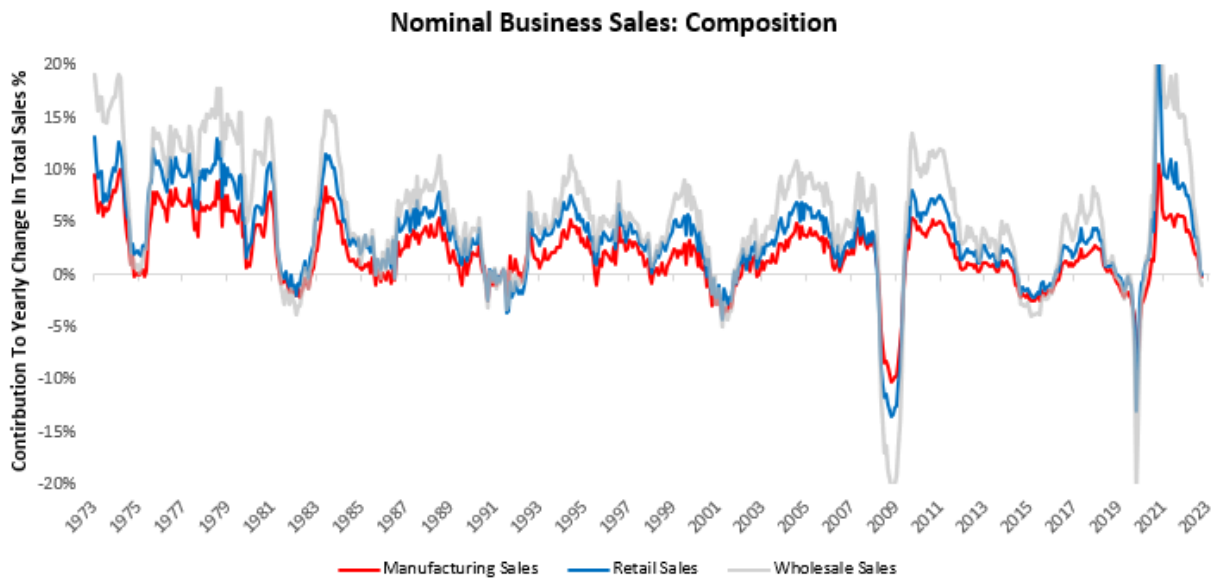
What is imperative to understand is that the continued spending of households is contingent upon the continued income of households. The largest source of income is employment income, which depends on businesses continuing to keep workers employed. This decision depends on businesses' evaluation of their economic conditions. We perform our own macroeconomic assessment in the next section.

Business Conditions: Persistent & Pervasive Weakness

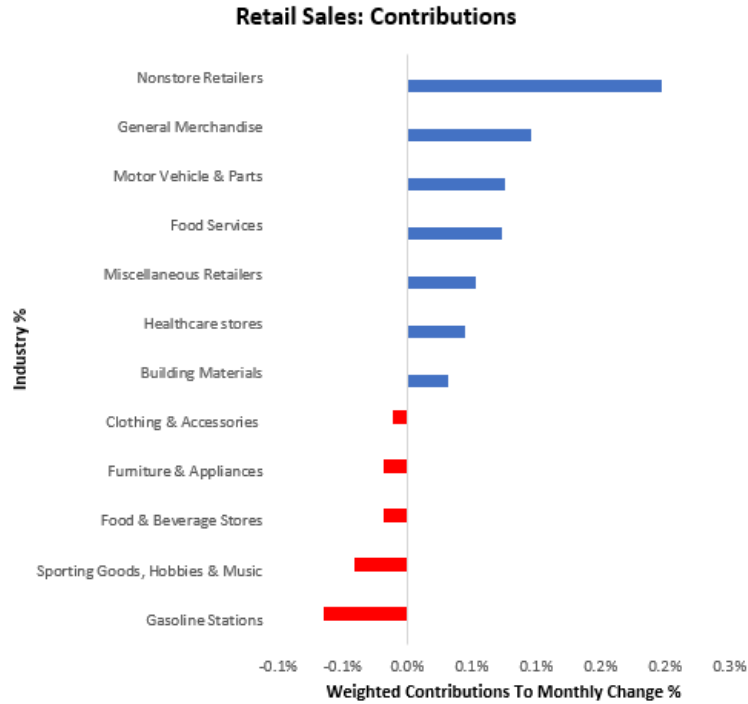
While households create most of the spending in the economy, businesses engage in investment and employment to generate profits. Therefore, sustained consumption is contingent upon companies using labor to create output. Typically, when output has declined, employment has followed suit. We show a visualization of this process:



Above, we show how periods of decline in real business sales (i.e., business output) create pressure on employment growth. Every period of protracted contraction in real sales has resulted in an eventual contraction in unemployment. Last year, we saw the initial flirtation with a meaningful contraction in real business sales; however, this decline was driven primarily by price shocks rather than meaningful declines in nominal spending. Fast forward to today, and the picture looks quite different, with nominal business sales looking weak across the board:



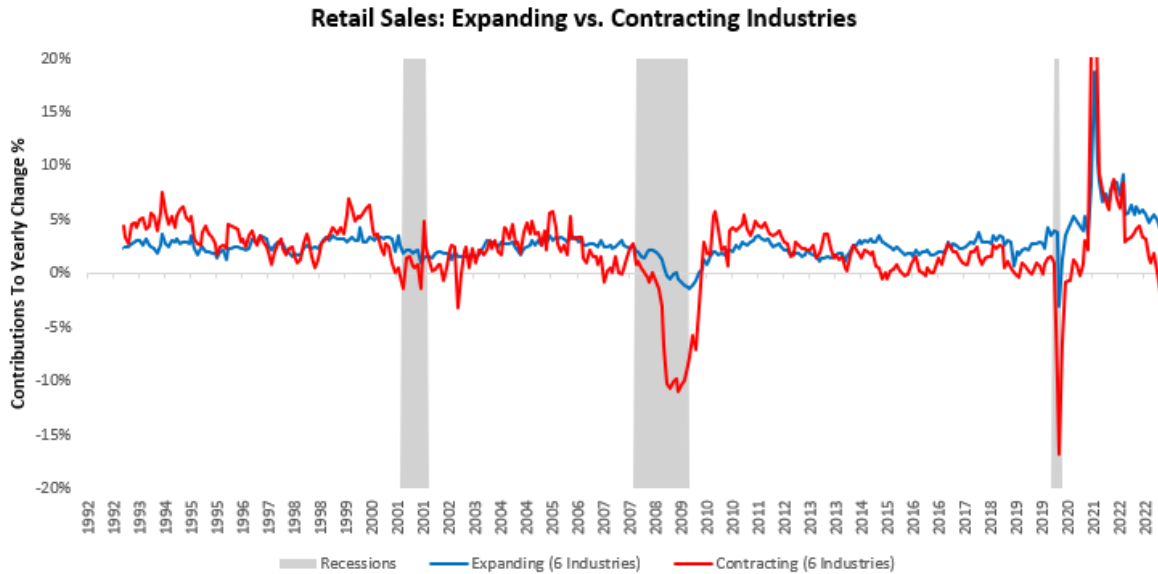
Above, we show nominal business sales split into manufacturing, retail, and wholesale sales. We can see that conditions across these segments are weak, even in nominal terms. We zoom into each sector to offer some additional detail. We begin with retail sales. The latest data showed that retail sales increased by 0.42% in April. Below, we show the composition of these sales over the most recent month:



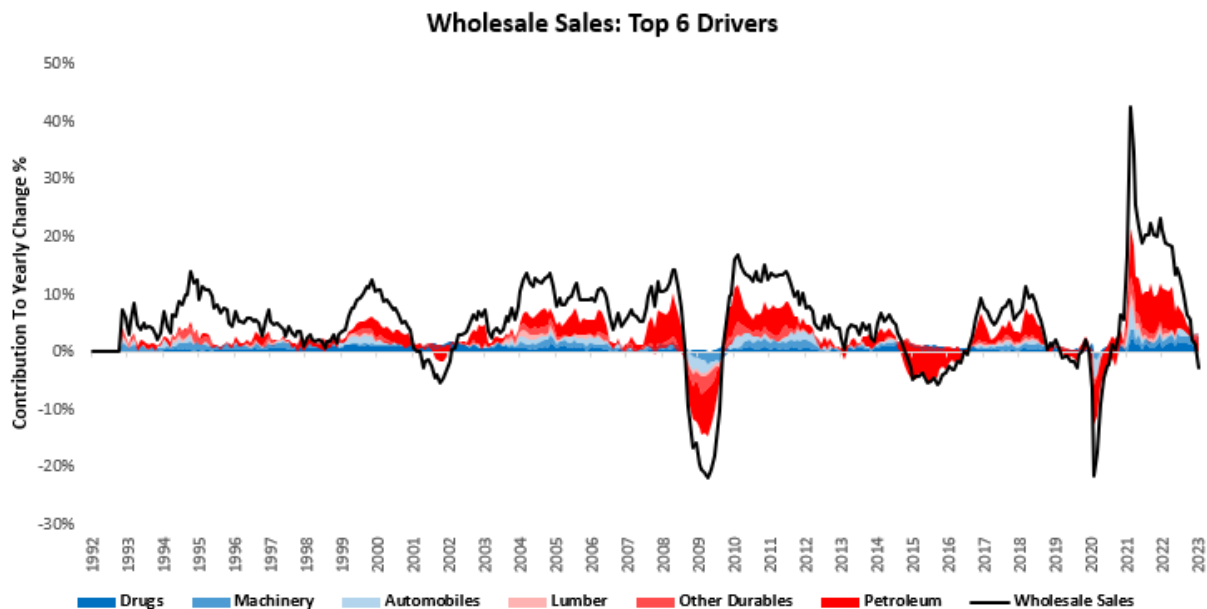
Zooming out, we see a significant source of strength in nominal spending has been food services, an area acutely impacted by price shocks in the commodity complex.



We think it is important to note that retail sales are directly tied to the health of the consumer, and even despite a healthy consumer sector, many areas of retail sales are seeing nominal sales contracting. We show below how half of the retail sales basket is in contraction while the other half is in expansion:

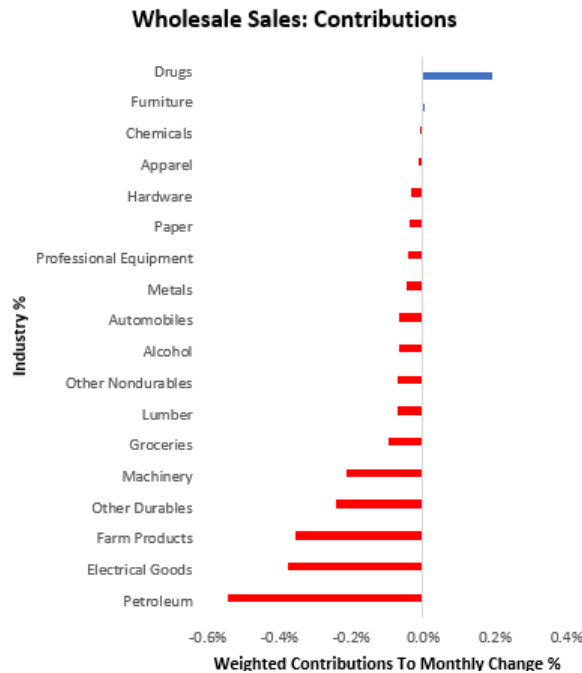


This picture gets worse when we look at sales conditions for wholesalers. Over the last year, wholesale sales have contracted by -2.93%. Below, we zoom out to show the six major drivers of strength in shades of blue (Drugs, Machinery & Automobiles) and weakness in shades of red (Lumber, Other Durables & Petroleum):

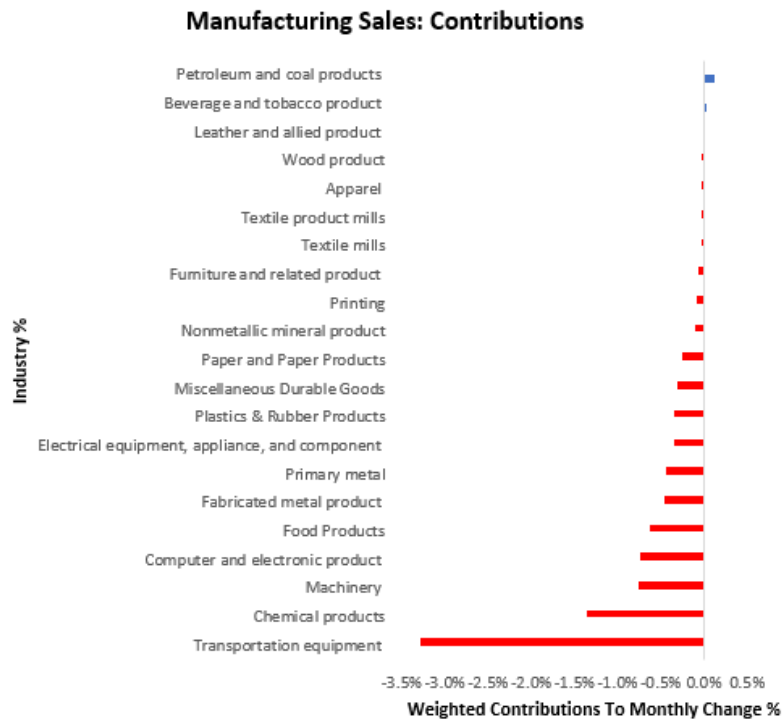


We note that automobile demand remains strong, which speaks to the sustained shortages of automobile inventories for businesses.

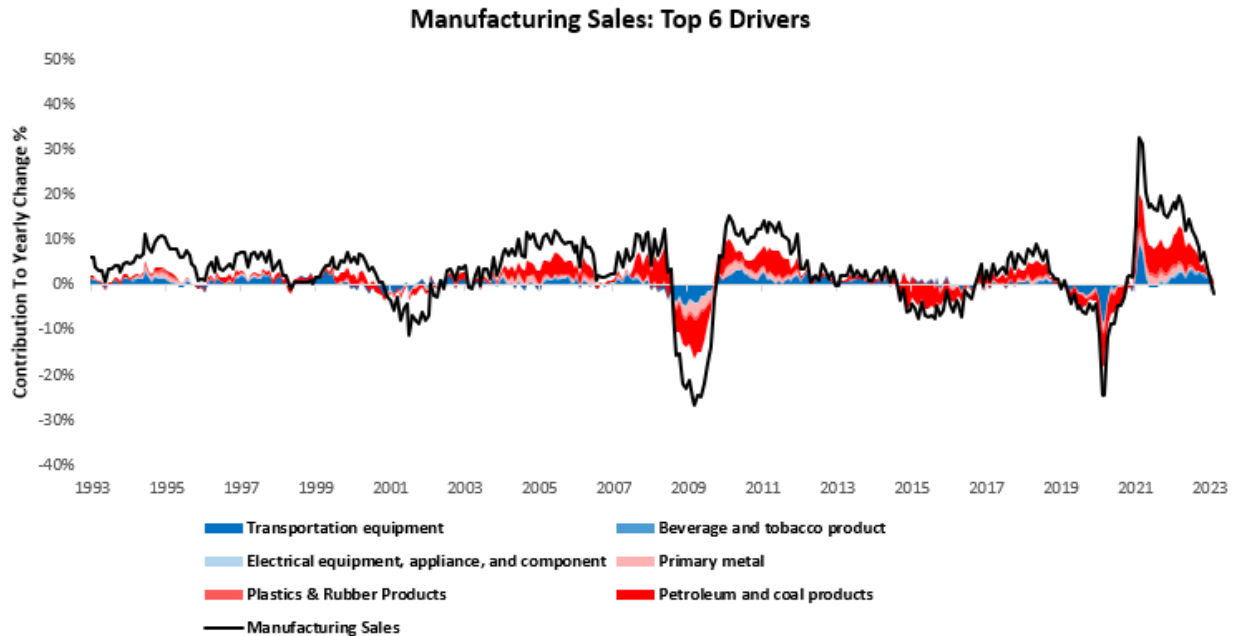
Our most recent data for wholesalers is significantly lagged, with the latest reading for March. The latest data showed that wholesale sales decreased by -2.09%. Below, we show the composition of these sales over the most recent month:



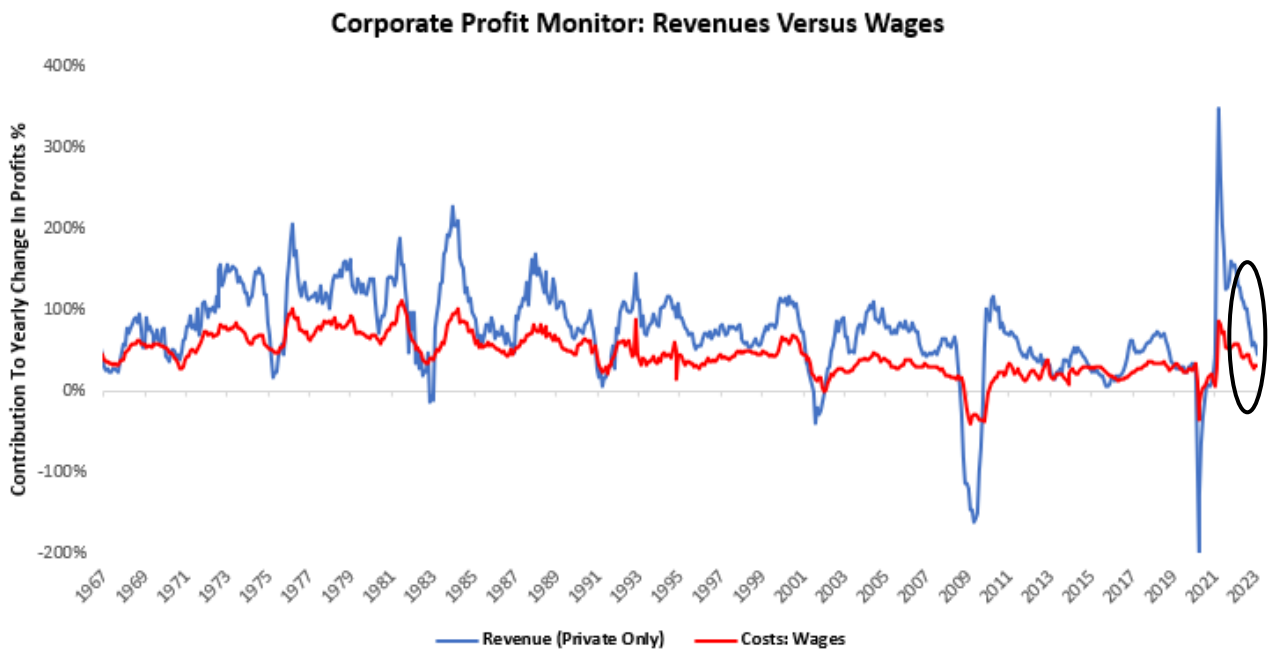
Corroborating further weakness in business sales were the significant declines in manufacturing sales, which again reflect weak business activity. The latest data for April showed that manufacturing sales decreased by -9.02%. Below, we show the composition of these sales over the most recent month:



As we can see above, manufacturing sales losses were broad-based in April, consistent with broad-based declines over the last year. Over the last year, manufacturers' sales have contracted by -2.13%. Below, we zoom out to show the six major drivers of strength in shades of blue (Transportation equipment, Beverage and tobacco products, and Electrical equipment & appliances) and weakness in shades of red (Primary metal, Plastics & Rubber, and Petroleum & Coal):



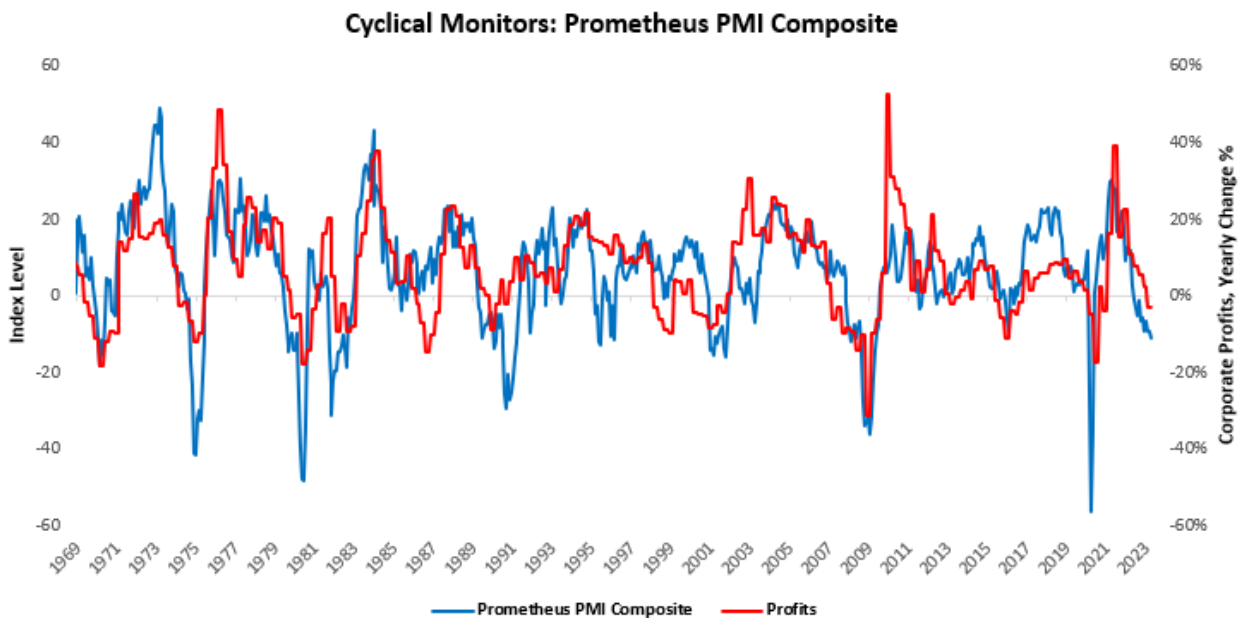
These dynamics of broadly weak nominal business sales are particularly important in the context of the strong employee income dynamics we highlighted in previous sections. Businesses earn from their sales and pay various costs to generate profits, the largest of which is employee compensation.



Above, we show business revenue and wage expense as a percentage of corporate profits. This visualization is a subset of our corporate profits tracking, which will soon be available to subscribers like our GDP tracking. As highlighted, corporate revenue has decelerated far faster than wages paid; this has created pressure on corporate profits and is likely to continue. Furthermore, this deterioration in sales will likely weigh on inventory investment, detracting from GDP. Below, show how inventory growth typically follows sale growth:



These sales pressures on business conditions come alongside significant weakness in business outlooks on economic conditions. Below, we show a reflection of these conditions:

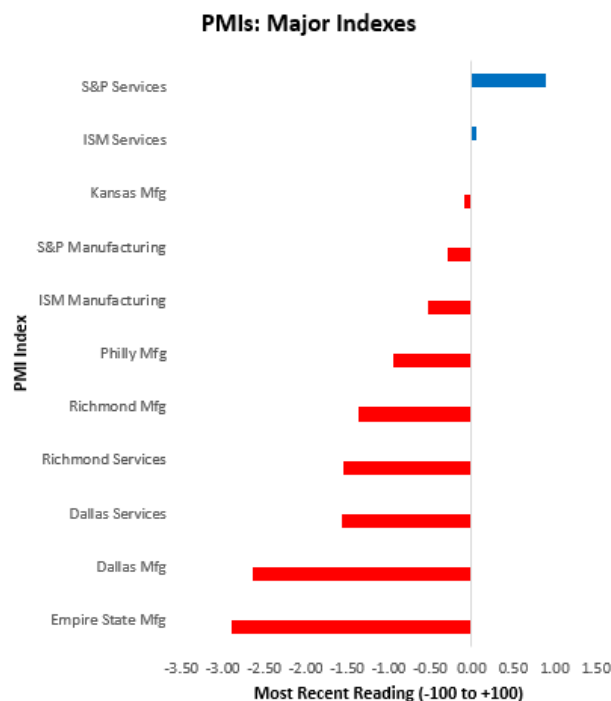


PMIs are generally strong directional indicators of where we are in the profit cycle, as PMI respondents manage inventories and orders in response to their outlook on revenue and profitability. Our PMI

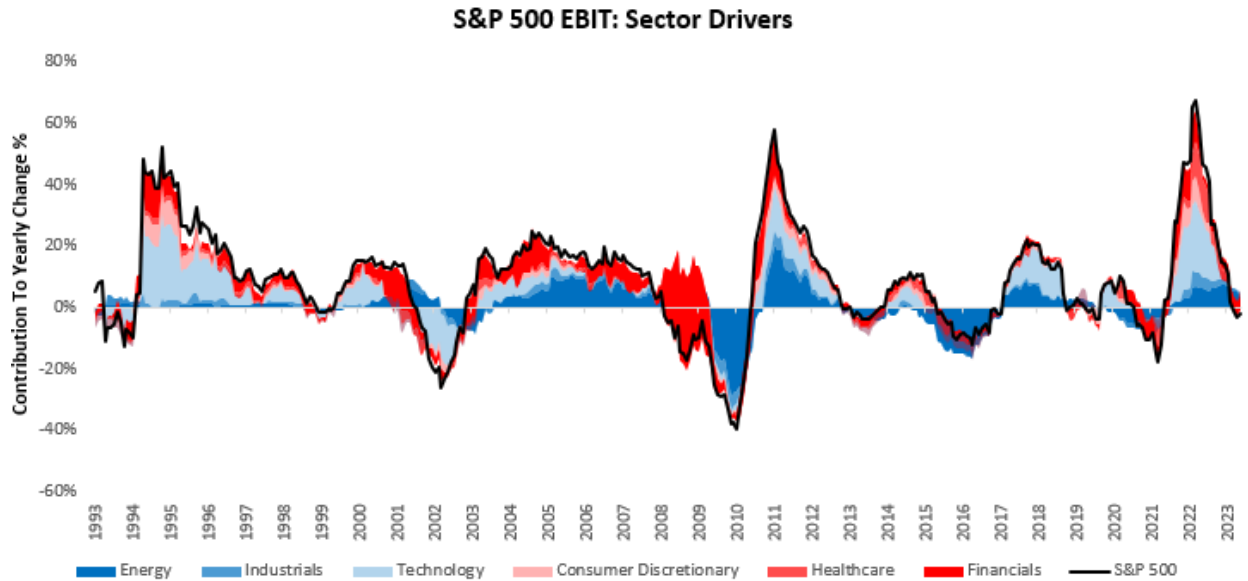
composite now shows a reading of -10.93 as of the latest available data. This reading was a sequential deceleration from one month prior and a decline in the three-month trend. PMI indicators are typically biased toward the manufacturing sector. While this makes sense since the manufacturing sector largely drives production, we think it is essential to separate these sub-indexes to understand the pervasiveness of the current trend in PMIs. Currently, our Manufacturing and Services composites show readings of -13.7 & -5.9, respectively, signaling consistency within the current trend:



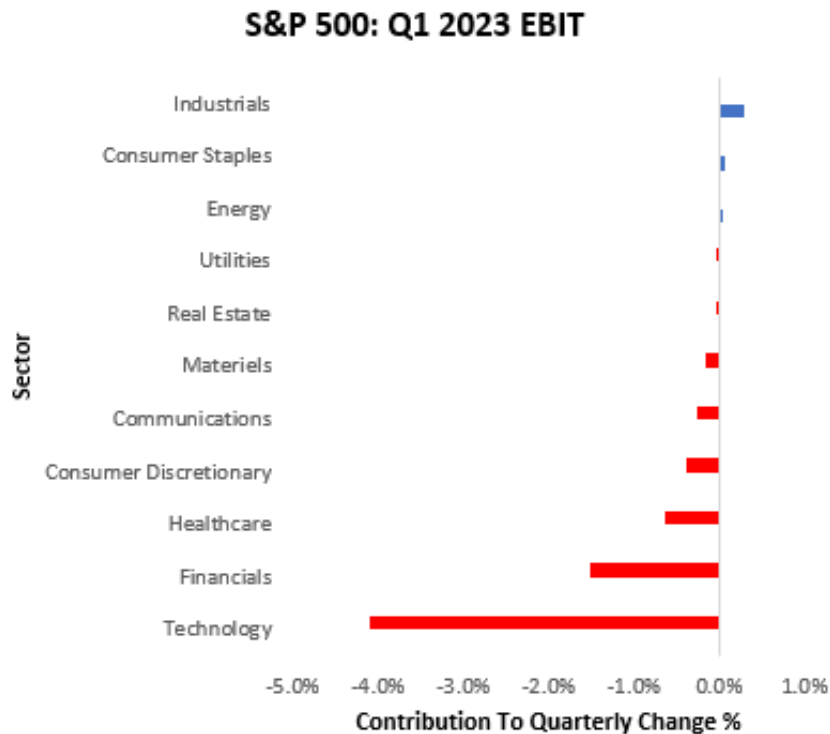
For a more near-term perspective, we show the composition of the most recent prints in major PMI indices, standardized to allow for comparison. S&P Services has been the strongest of the PMIs, while Empire State Mfg has been the weakest.



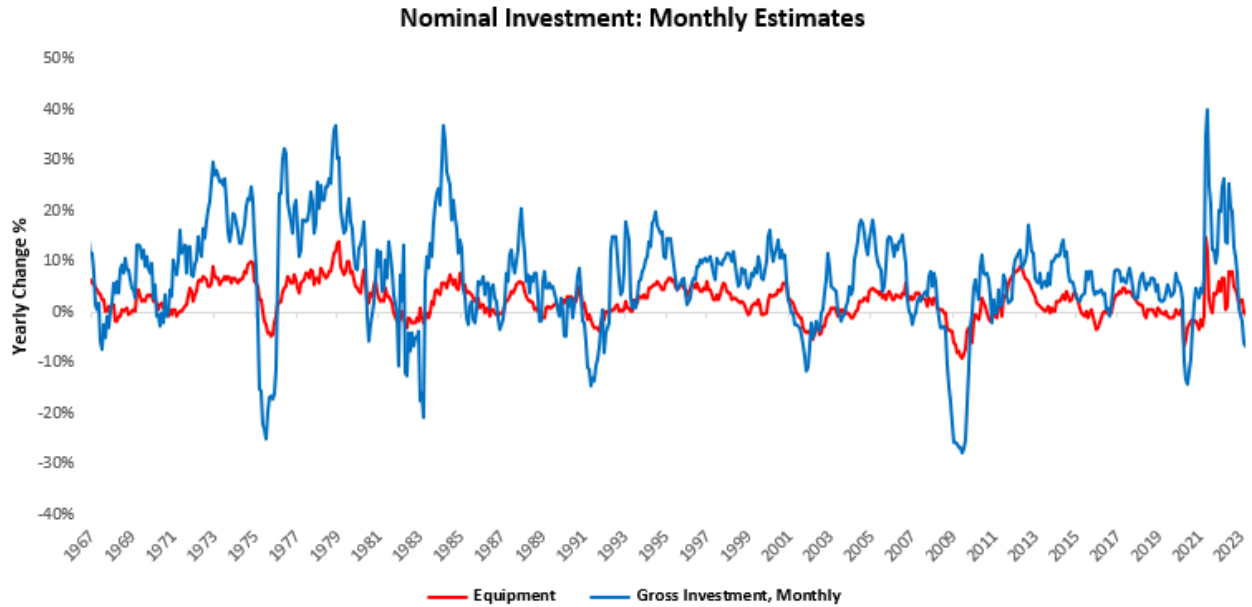
This weakness in PMI survey data also reflects the current profits environment. Below, we highlight the yearly change earnings for publicly reported companies in the S&P 500, with the top six drivers highlighted. As we can see, the earnings picture shows a significant deterioration from last year's earnings:



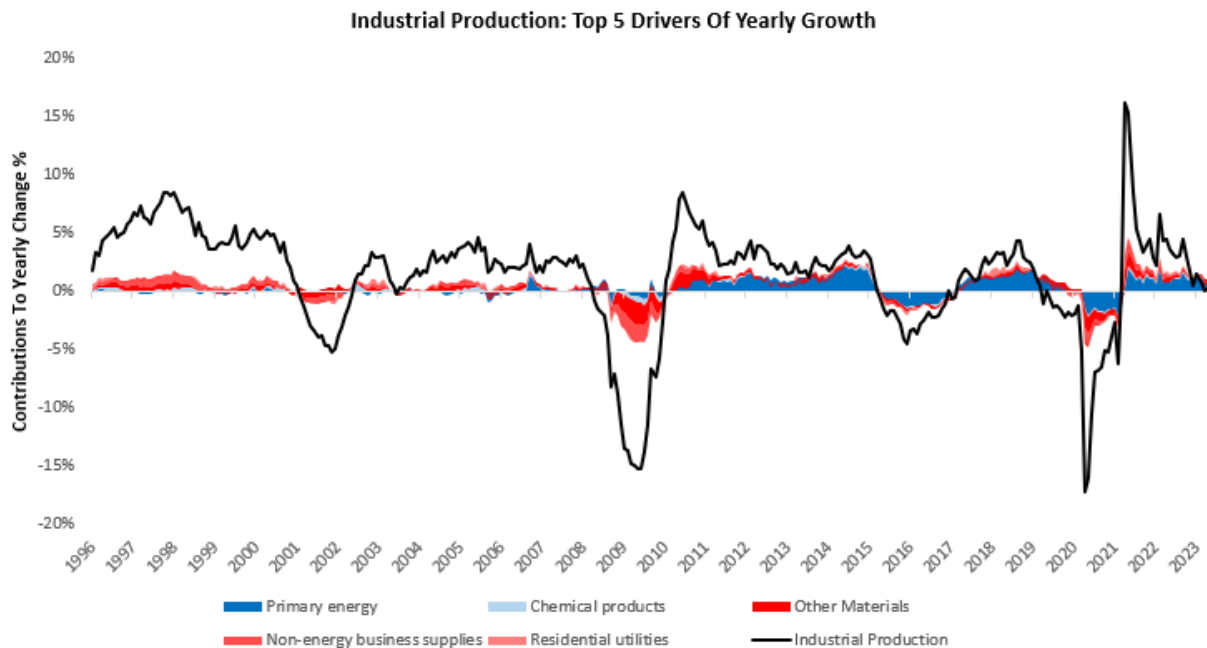
Earnings were led lower by consumer discretionary, healthcare, and financial stocks over the last year. If we zoom into the first quarter of 2023, the picture remained weak, with EBIT across the board weak:



After examining dynamics in sales, survey data, and earnings- it looks unlikely that corporates are likely to engage in significant ongoing investment to expand output. Consistent with these macroeconomic dynamics, our monthly estimates of equipment spending in GDP remain weak, contributing to lower investment:

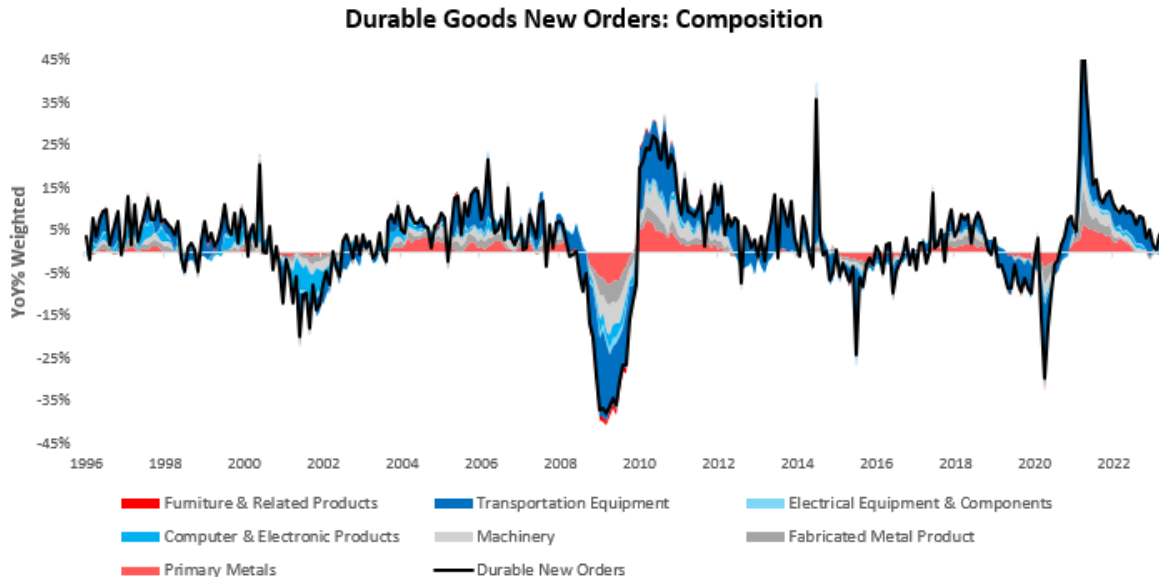


We see further indications of this in industrial production data, which remains weak across the board:

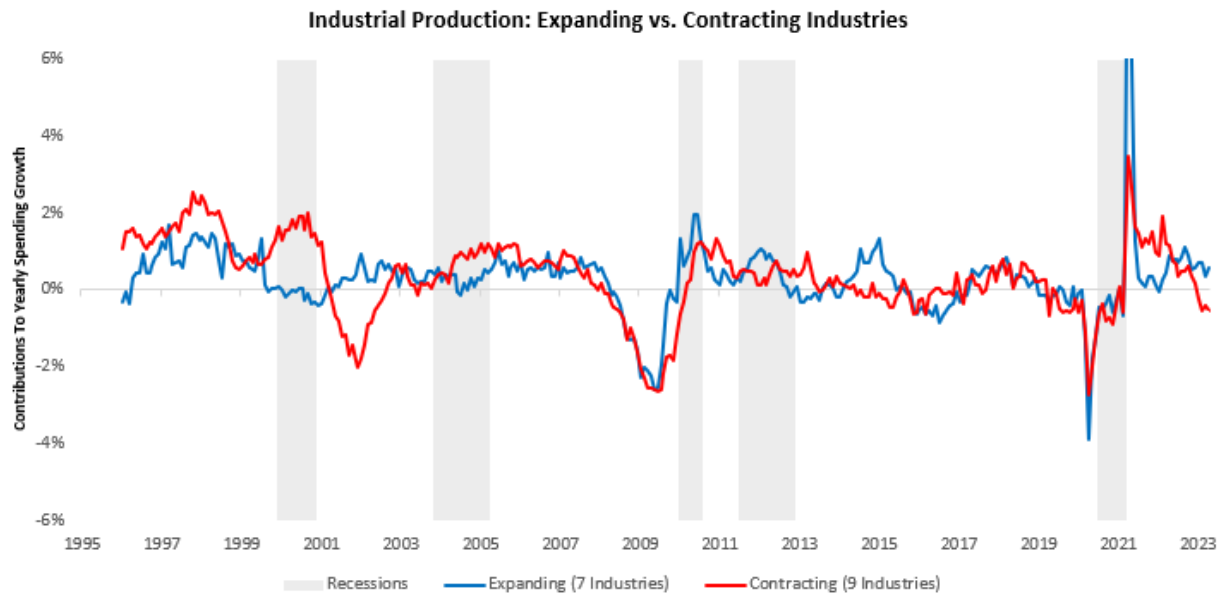


Furthermore, we see weakness in durable goods new orders, which are also in decline.

Below, we show industrial new orders for durable goods remain weak, which will likely weigh on manufacturing sales and production in the future.



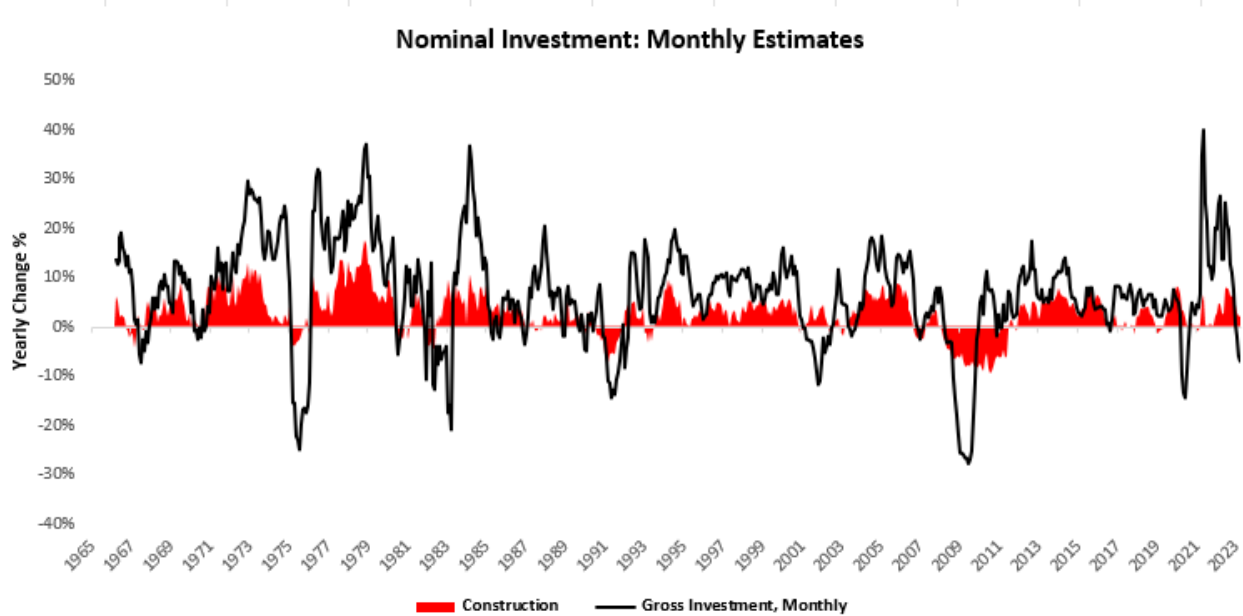
While the macroeconomic picture is one of weakness, we think it is important to note that there are indeed areas of strength for business output. Below, we show how industrial production, while skewed towards contracting industries, also shows areas of persistent strength.



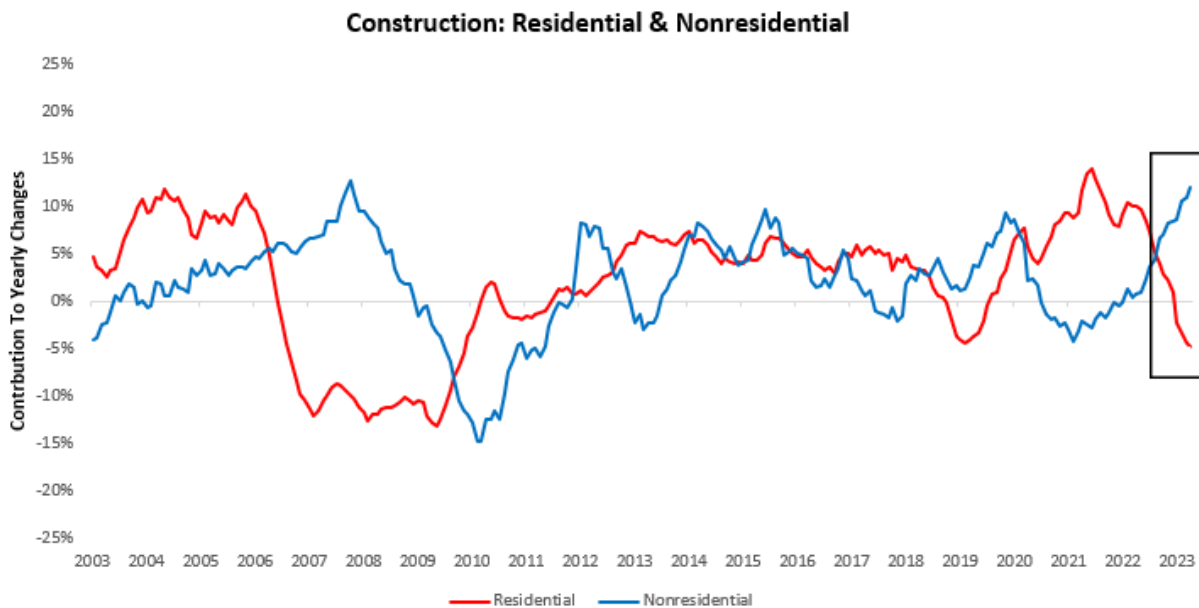
These conflicting dynamics are often present during turning points in the economic cycle, adding to our conviction that we are indeed navigating a turn in the business cycle. In the next section, we touch on one of the areas with the most significant intra-sector divergences, i.e., construction.

Construction: Weak Household Investment, But Strong Commercial Investment

Construction activity is a large part of GDP and investment and a prominent player in the ebbs and flows of the business cycle. Below, we contextualize the current state of construction as a contribution to total nominal investment in GDP:

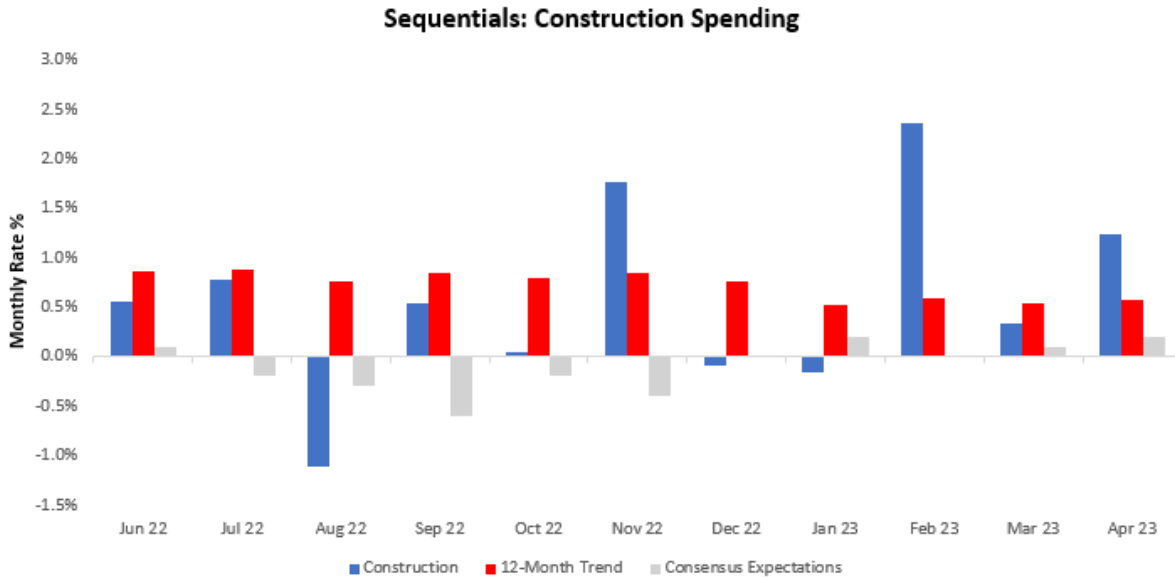


Under the surface of aggregate nominal construction spending, we see significant divergences between residential and nonresidential construction spending. We show this below:

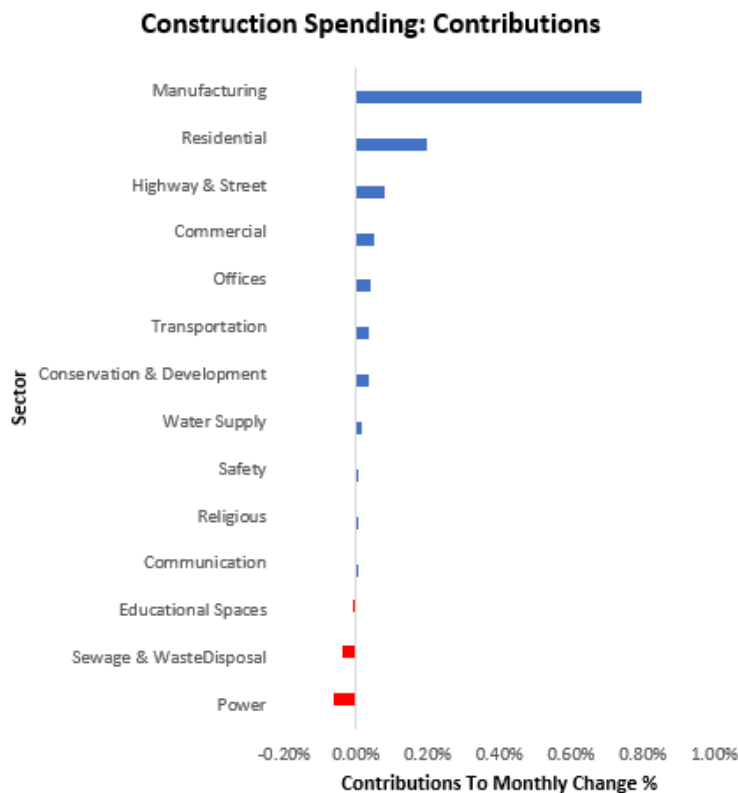


We zoom into recent data to offer further context.

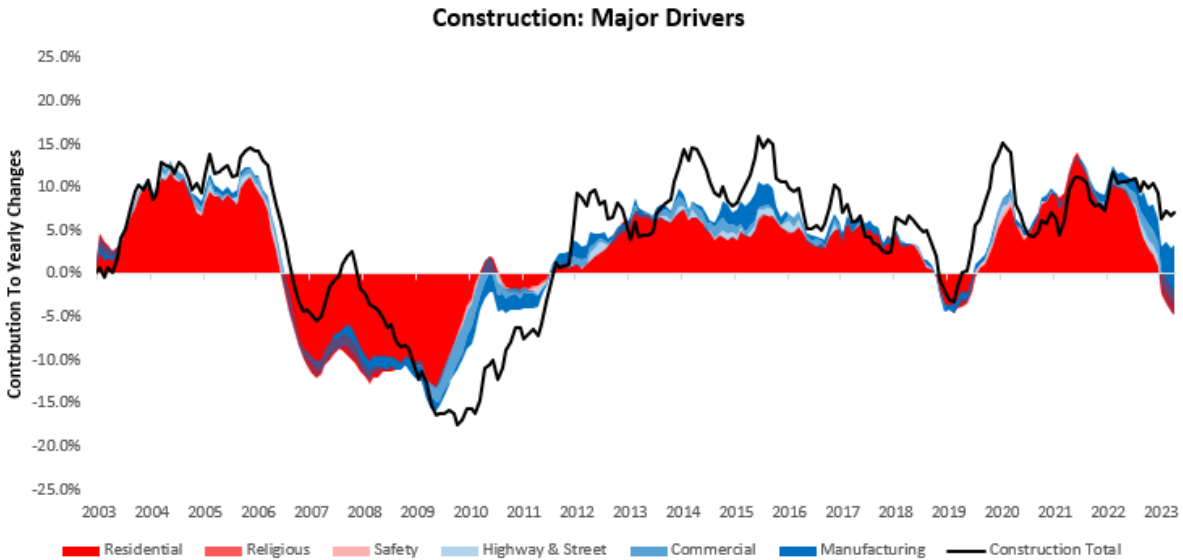
The most recent data for April show construction spending increased by 1.24%, with 0.2% and 1.04% coming from residential and nonresidential spending, respectively. This data surprised consensus expectations of 0.2% and contributed to an acceleration in the twelve-month trend.



For further context, we show the composition of the most change in monthly construction spending. The strongest contributor to construction spending in April was Manufacturing, while the weakest was Religious construction spending:



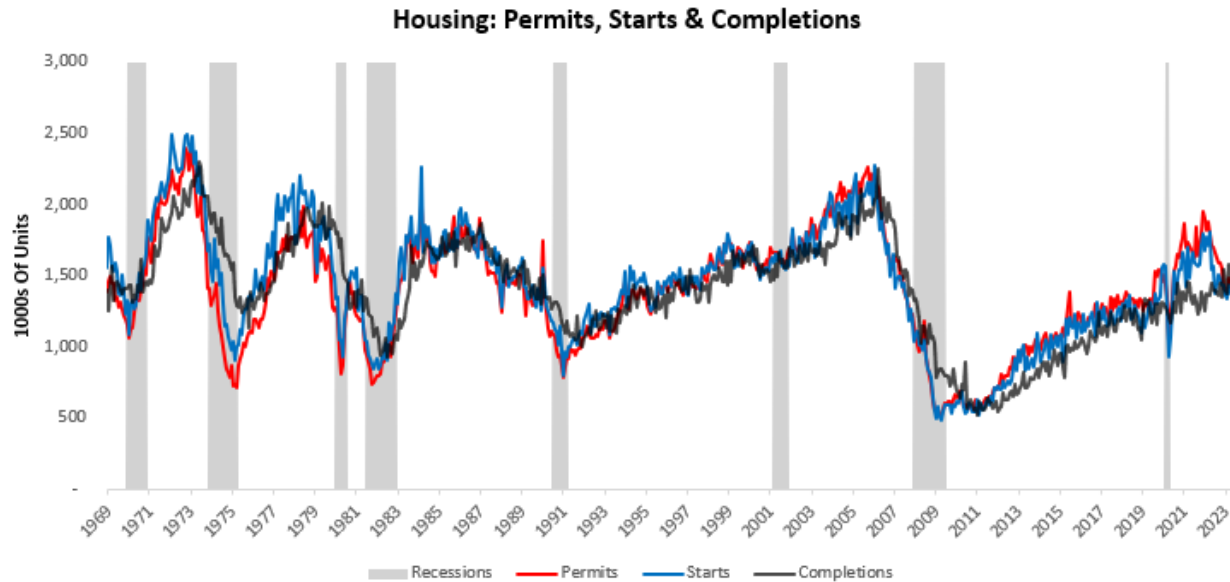
Zooming out, we show the evolution of construction spending over the last year, which rose by 7.16%. This rise was driven by an -4.79% decrease in residential spending and an 11.95% rise in nonresidential spending. Below, we drill down further to show the top 3 drivers of strength in blue (Manufacturing, Commercial, and Highway & Street) and the top 3 drivers of weakness in red (Residential, Religious, and Safety):



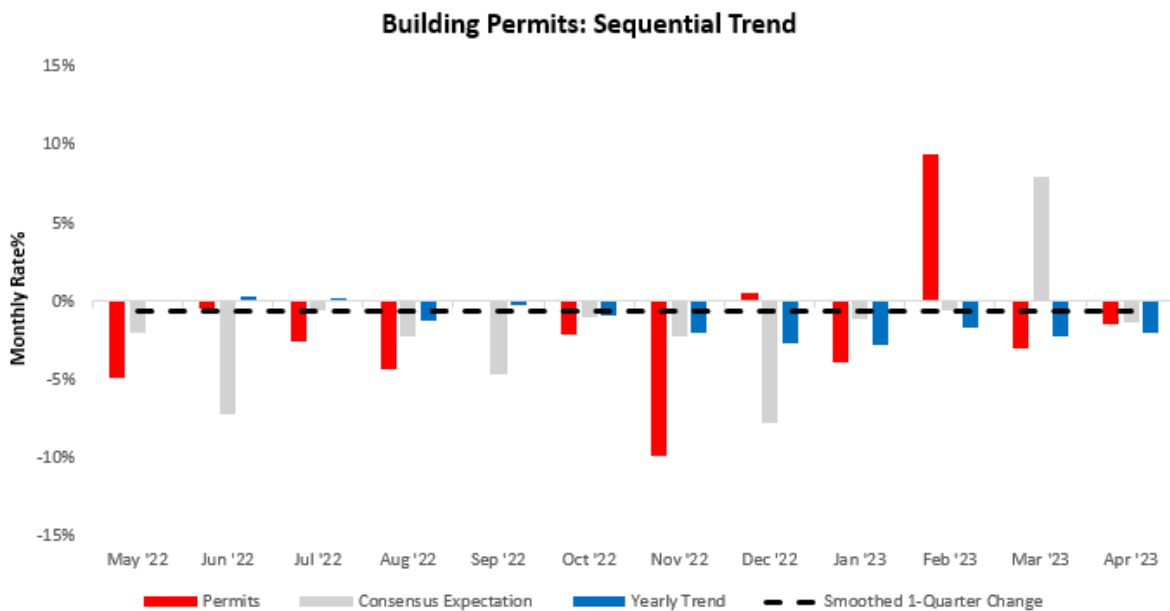
Through our triangulation, this significant divergence between residential and nonresidential spending on construction has primarily been driven by manufacturing construction geared toward increasing electronic products such as semiconductors. This investment in capacity expansion would be consistent with supply chain disruptions and automobile shortages. Below, we show how automobile inventories remain at all-time lows relative to sales:



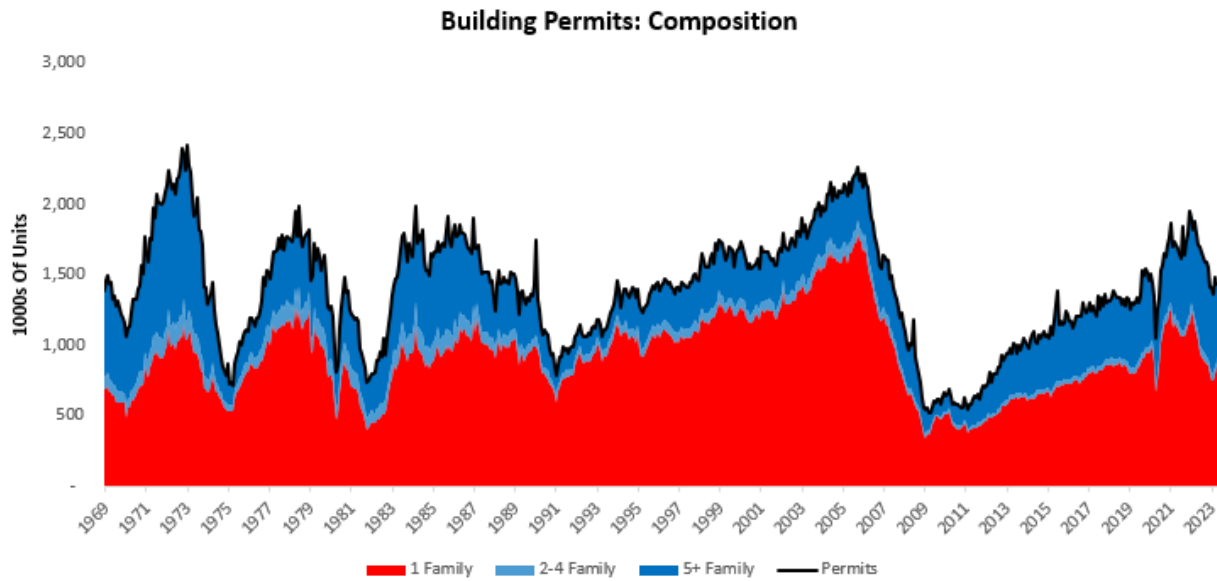
Given the shortage of automobile inventories and capacity constraints on US production, we think these divergences within the construction market can continue. **While the nonresidential market has shown resilience, the residential market continues to soften.** The latest data for April showed housing permits decreased by -1.39%, housing starts increased by 2.19%, and housing completions decreased by -10.37%. Below, we show the current levels for the same:



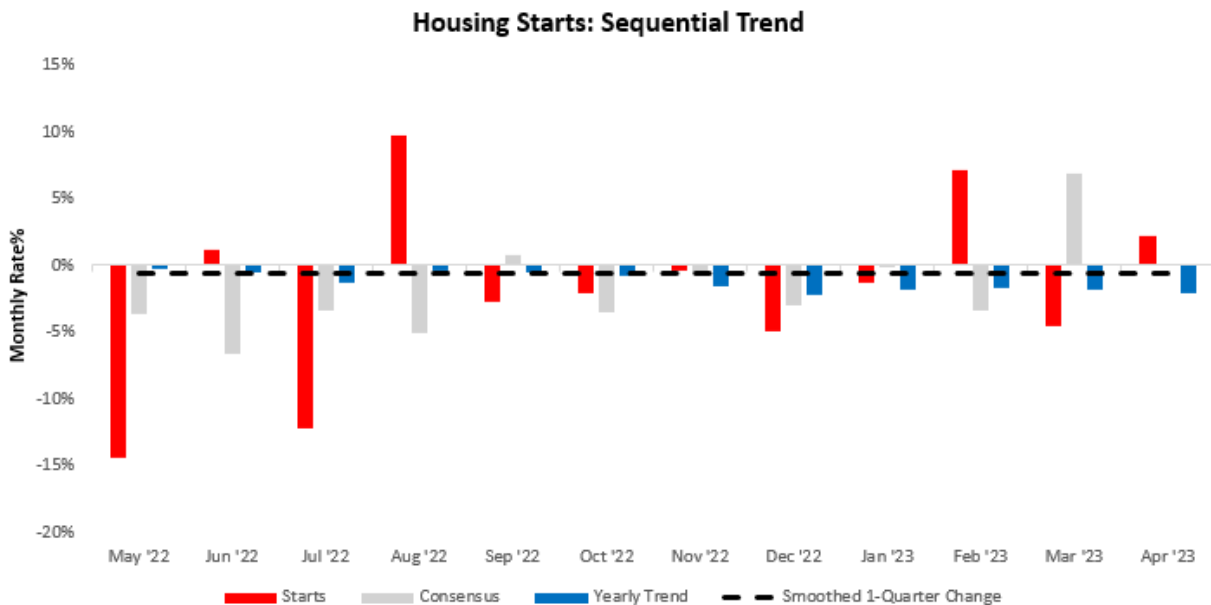
Zooming into the data, housing permits decreased by -1.39%, disappointing consensus expectations of -1.38%. Below, we show the sequential evolution of the data, along with the smoothed one-quarter change in the most recent data. We provide the smoothed version as monthly housing data contain significant noise.



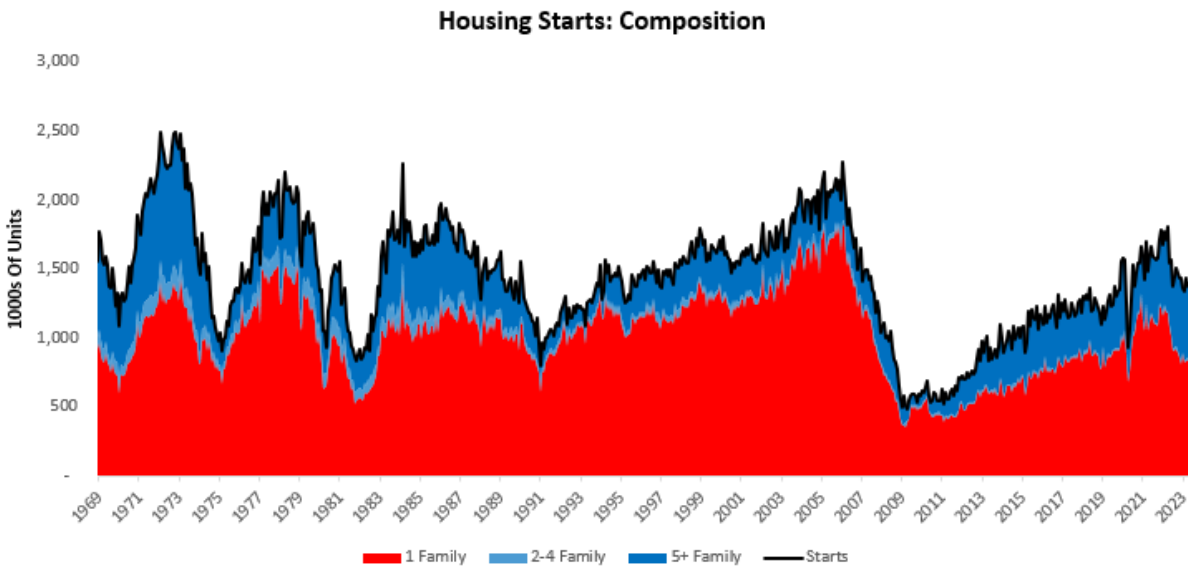
For further context, we zoom out to show the contributions from single-family homes (-229), two-family homes (0), and multi-family homes (-149) to the fall (-378) in total permits over the last year:



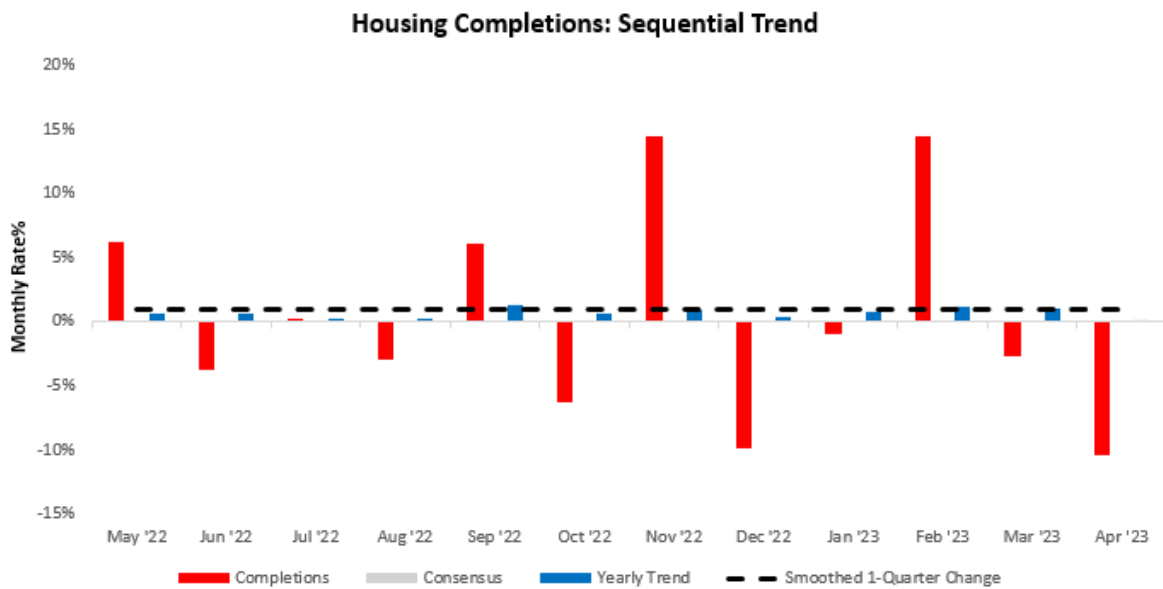
In contrast to the permits data, housing starts data showed starts increased by 2.19%, surprising consensus expectations of 0%. Below, we show the sequential evolution of the data, along with the smoothed one-quarter change in the most recent data. We provide the smoothed version as monthly housing data contain significant noise.



To illustrate the bigger picture, we show the contributions from single-family homes (13), two-family homes (0), and multi-family homes (-72) to the fall (-402) in total starts over the last year:

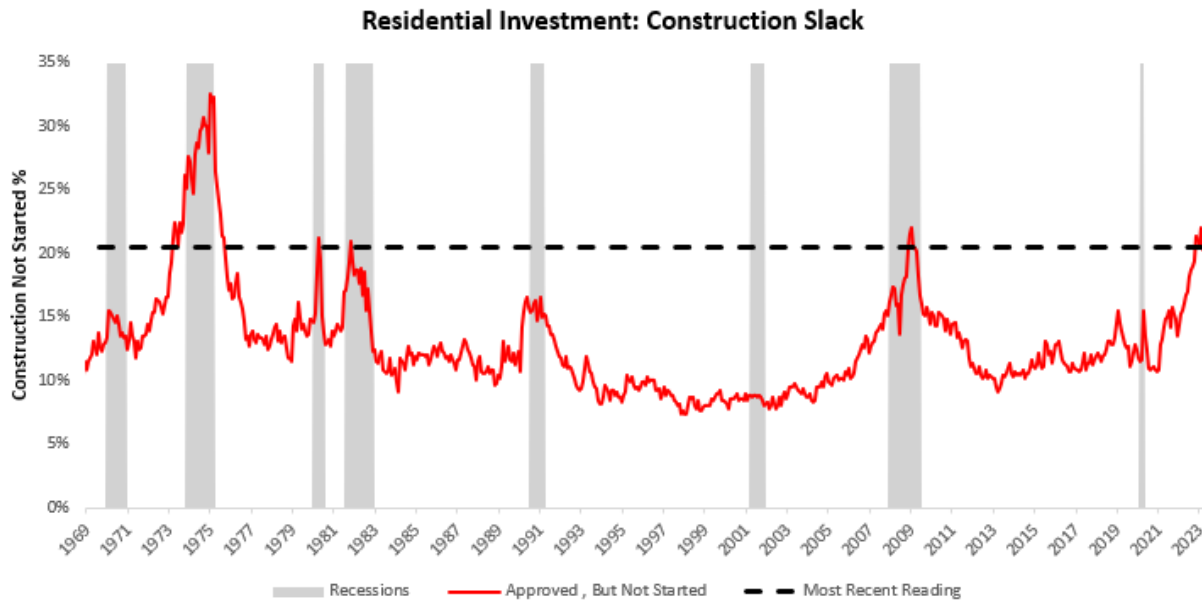


Last, in our sequential analysis, we turn to housing completions data, which showed completions decrease by -10.37%. Below, we show the sequential evolution of the data, along with the smoothed one-quarter change in the most recent data. We provide the smoothed version as monthly housing data contain significant noise.

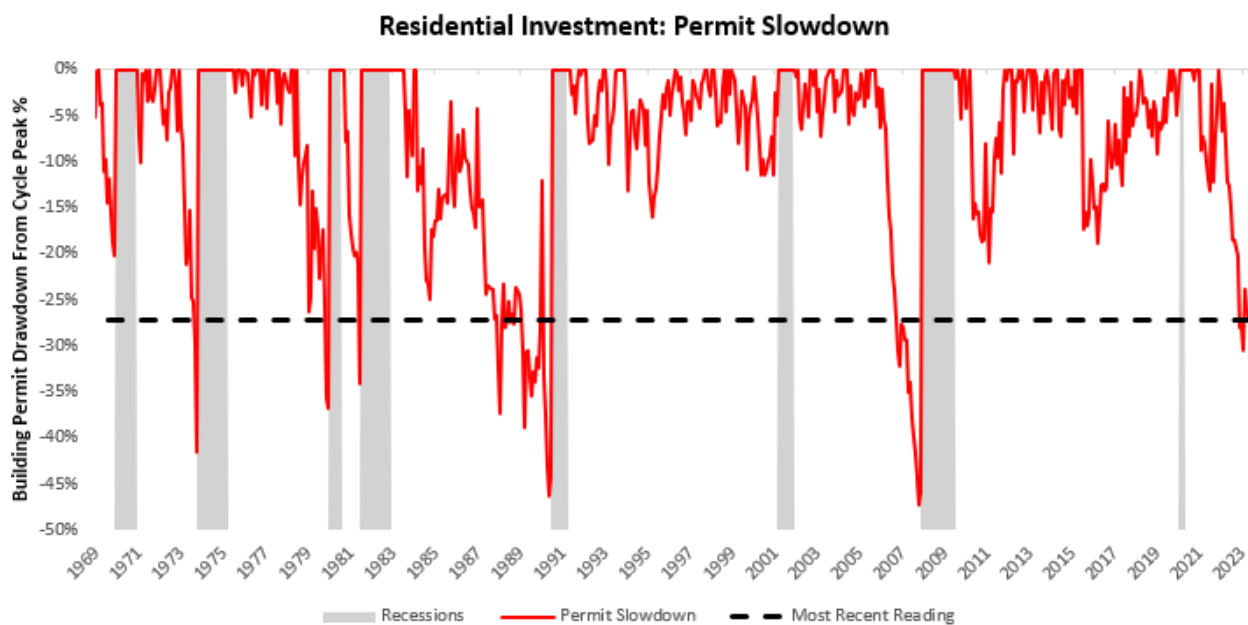


We show the contributions from single-family homes (-68), two-family homes (-11), and multi-family homes (78) to the rise (14) in total completions over the last year. Having assessed the individual data points, we examine how many construction projects have been approved but have not yet started to understand better where we are in the housing cycle.

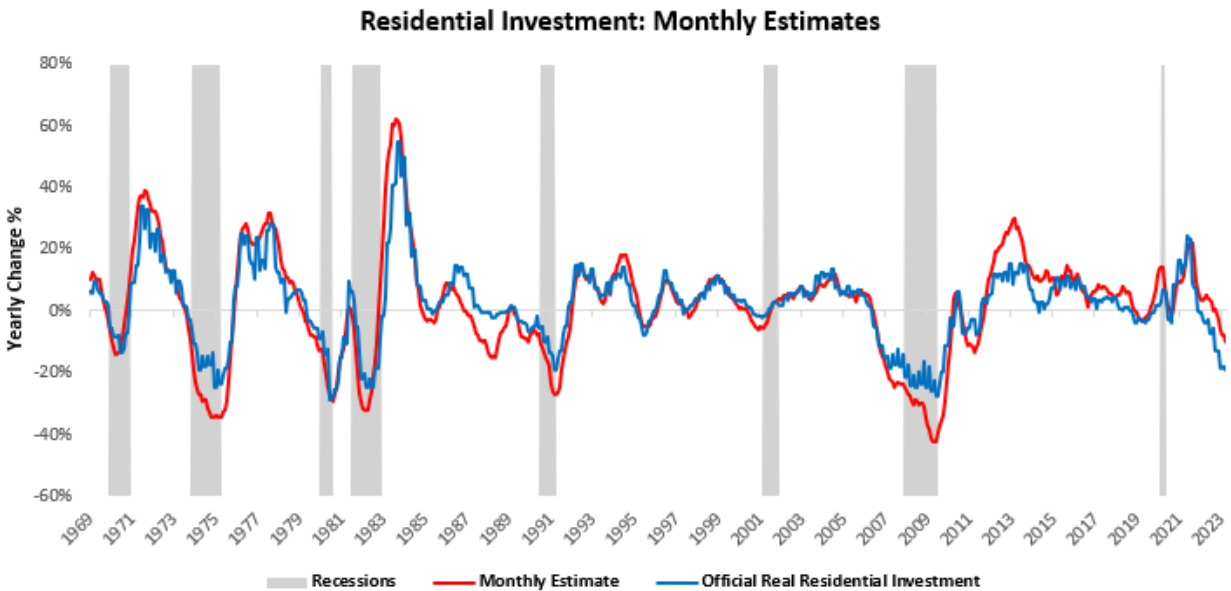
According to the latest data, 20% of projects are yet to begin construction. Looking through history, housing-led recessions usually begin when this measure of construction slack is around 15% suggesting that we are within the ballpark of a recession.



We conclude by examining another measure of housing weakness, i.e., permit slowdowns- which measures how much building permits have fallen from their cycle highs. Large drops in permits bode ill for the broader residential investment complex & GDP. The latest data shows that building permits are off their cycle highs by -35%. Housing-led recessions usually begin when this measure of cyclical weakness is around -35%, suggesting that we are within the ballpark of a recession.



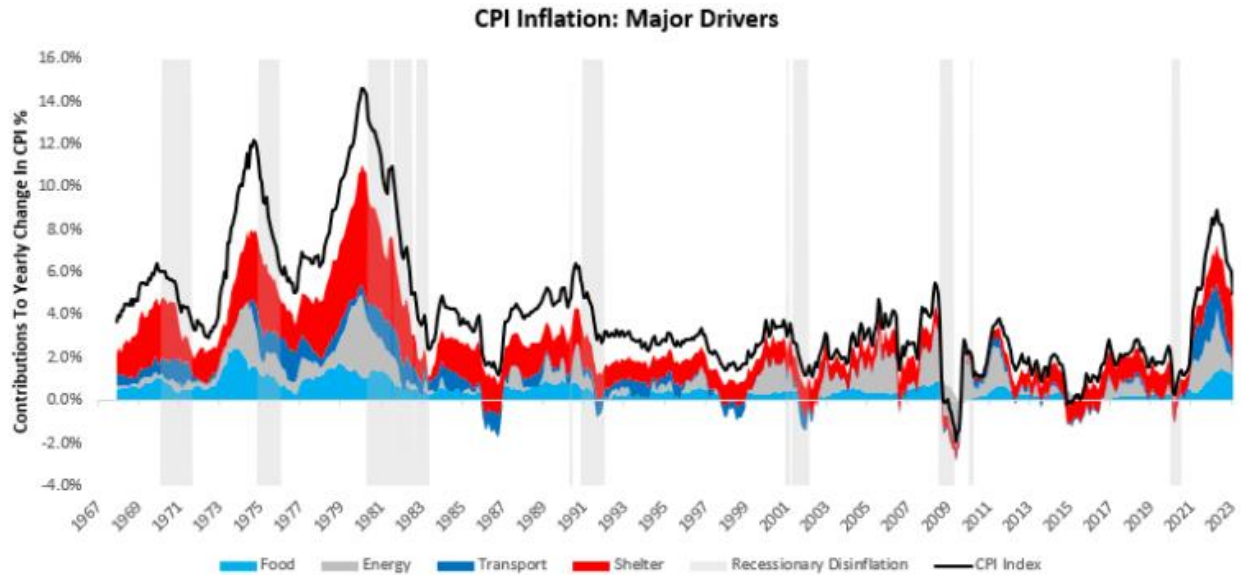
To conclude our assessment of residential investment, we continue to see pressure remain in place for residential investment to remain in recessionary territory. Our latest monthly estimate place real residential investment at -11.6% versus one year ago.



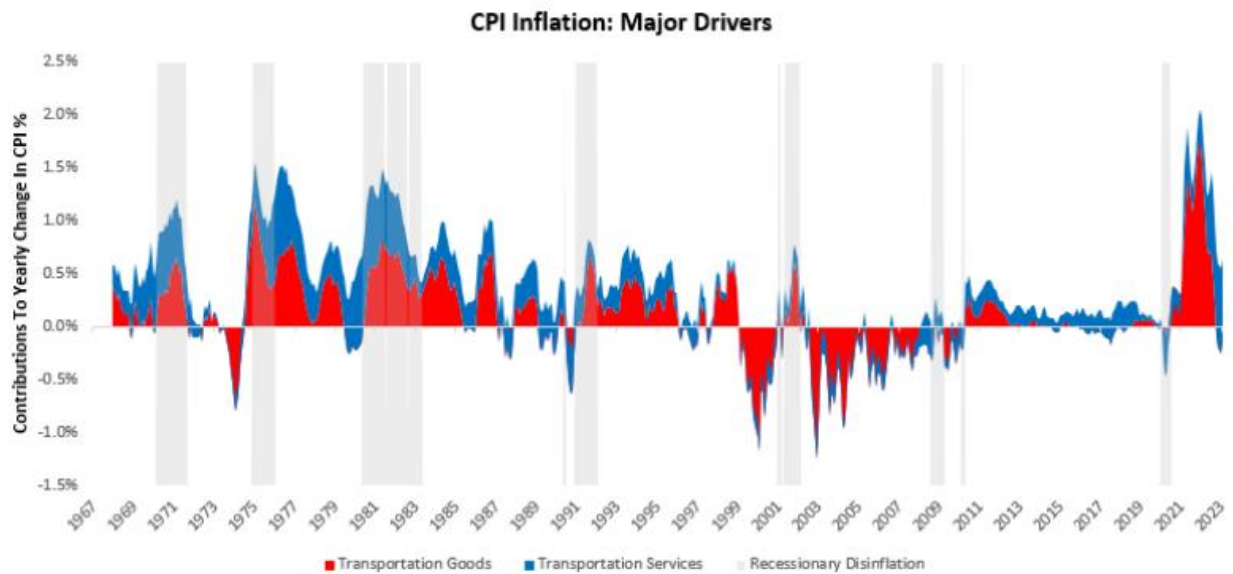
To conclude our assessment of construction spending, we continue to expect cross currents in the sector as manufacturing construction sees idiosyncratic and potentially secular tailwinds. In contrast, residential spending will likely face another leg lower in activity. Combining these factors creates an environment where construction spending remains stronger than if both segments were to decline in unison. Nonetheless, we expect the softening of the residential sector to carry more weight for overall activity. These idiosyncratic, cyclical, and secular cross currents in nominal and real GDP also impact inflation, which we discuss in our next section.

Inflation: Whether We Get To 2% Will Be Determined By Transportation

While over 300 line items drive CPI that we have visibility into, we can condense these measures into four broad categories that account for the bulk of the variations: food, energy, transportation, and shelter. We show this composition below:

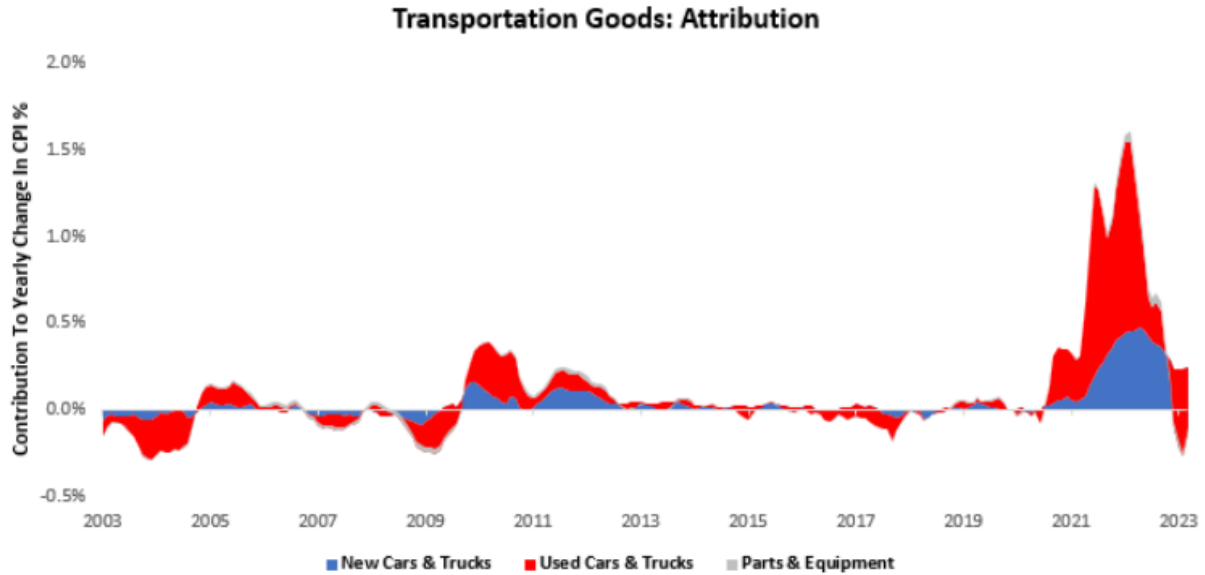


Both economically and statistically, these categories explain about 85% of the monthly variation in CPI. Therefore, we think it makes sense to approach our dissection of CPI by evaluating these areas. We expect food & energy prices can continue to contribute to a softening in CPI, but the swing factor will likely be transportation inflation. So far this cycle, transportation has been a net support to the disinflation we expected over the year.

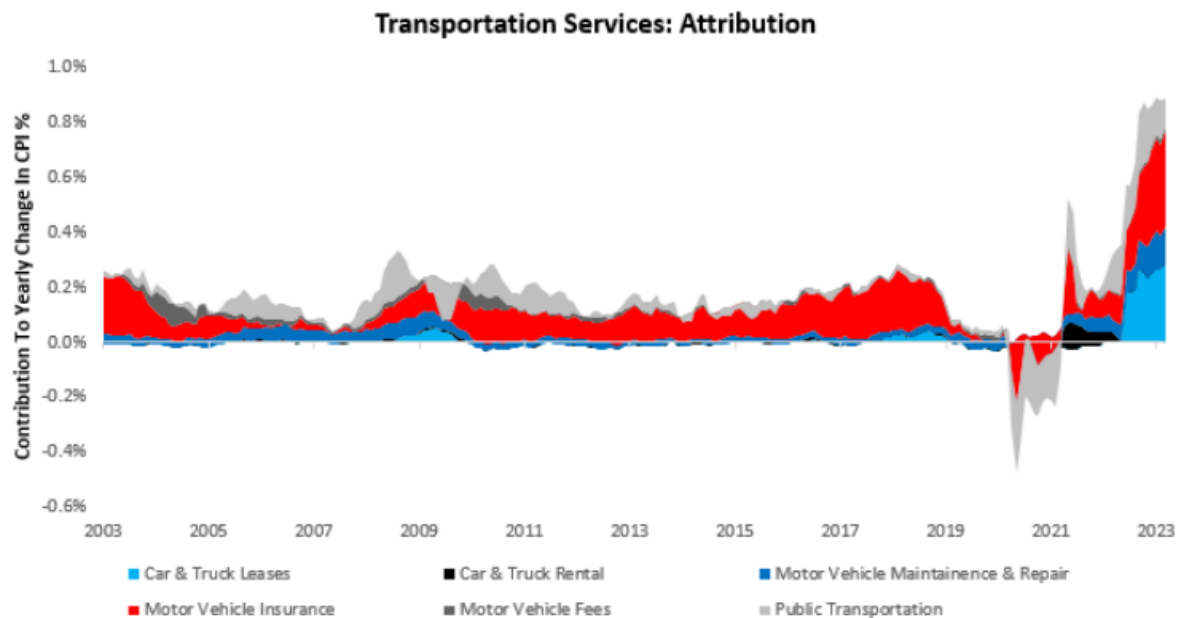


As we can see in the previous visual, transportation has accounted for approximately 1.5% of headline

disinflation in CPI from the peak. Most of these declines have come from transportation goods, i.e., primarily car & truck prices:

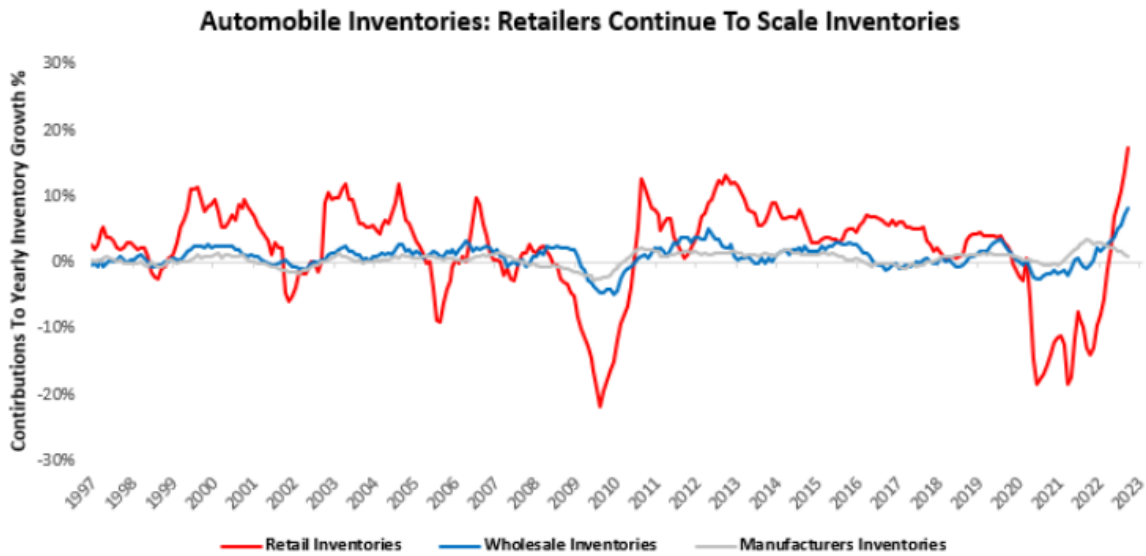


As shown above, transportation goods have been a deflationary force in CPI over the last year. This disinflation was driven primarily by a decline in used car prices, while new car prices continue to be modestly additive. This decline in used car prices is likely behind us, as used car demand was primarily a function of auto shortages and stimulus demand. Before we look ahead, we drill down into the other side of transportation inflation, i.e., services.

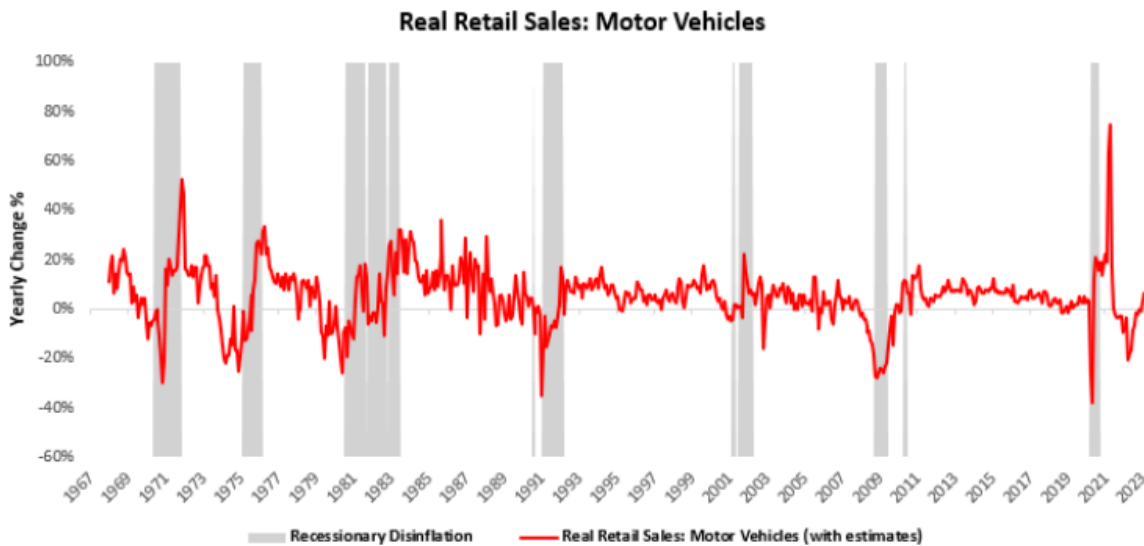


As we can see above, transportation services are seeing broad-based inflationary pressures. These inflationary pressures are driven primarily by motor vehicle leases and insurance, linked to higher new car prices and interest rates.

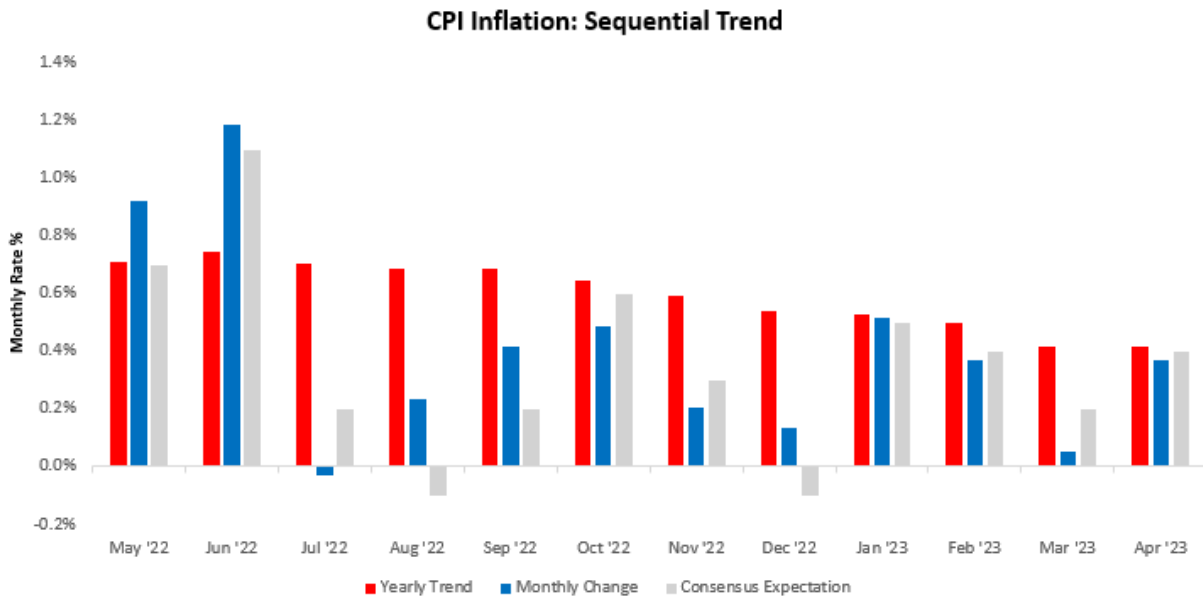
Due to their contractual nature, transportation services tend to show more trend persistence in their monthly changes than transportation goods. Furthermore, deflationary prints are far more uncommon in transportation services, with 75% of months over the last ten years showing positive prints. Weighing these factors, if we see further disinflationary pressure on CPI from transportation, it will likely need to come from further declines in new and used vehicle prices, eventually bringing down lease, rental, and insurance prices. Whether this can be achieved remains in question, as COVID-19 distortion to automobile supply chains remain in place. These dynamics have created a dearth of automobile inventories for businesses, which has resulted in businesses, particularly retailers, significantly bidding up automobiles to increase their inventories. We show this below:



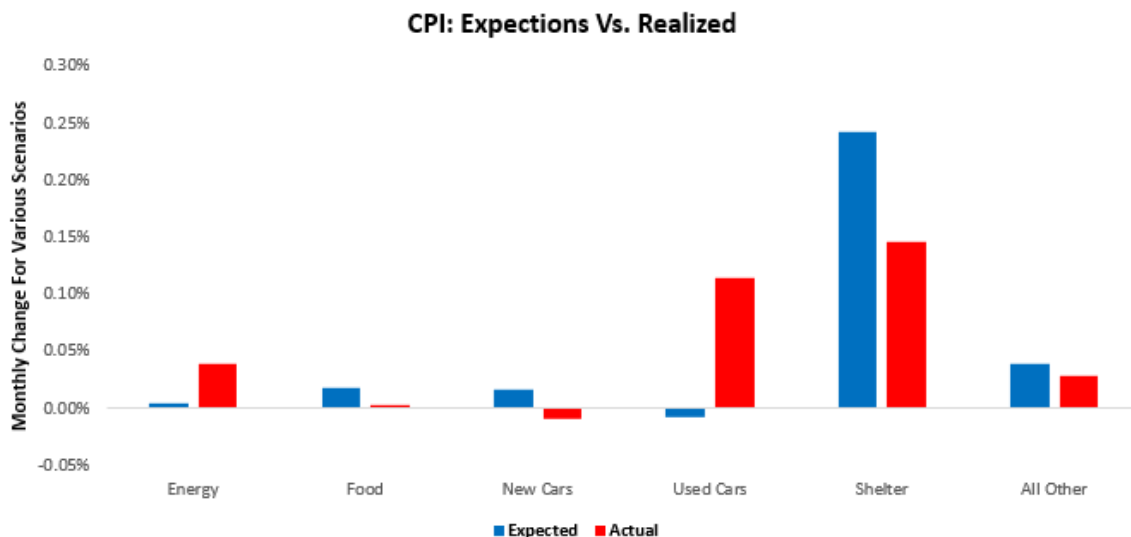
This persistent inventory demand comes alongside moderating consumer demand for automobiles, albeit from contractionary levels.



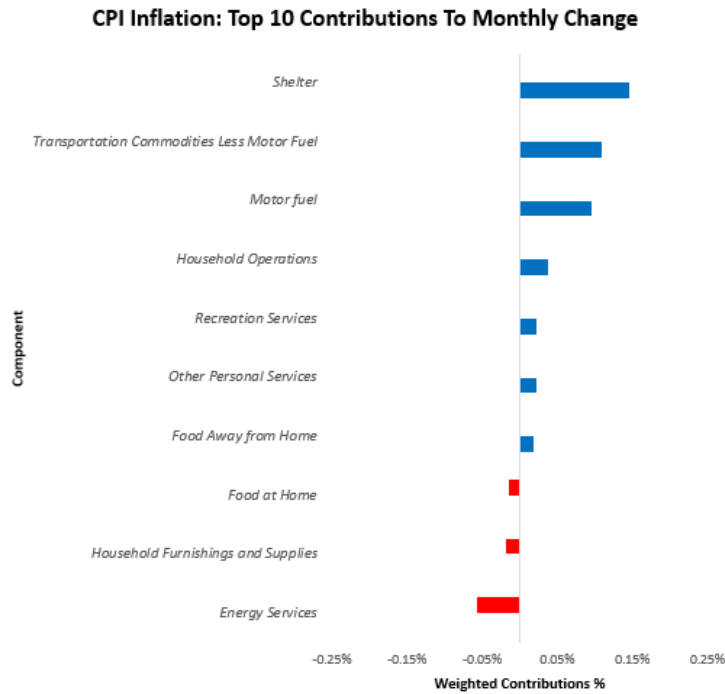
As we can see above, periods of contracting automobile sales have coincided with and, to some degree, facilitated recessionary disinflation. Looking ahead, it will likely be the balance between a weakening of automobile credit to consumers as rates increase flow through to automobile loans and how much retail dealers continue to demand automobiles, even at increased supply. We now zoom into the most recent print. CPI data for April came in roughly in line with our expectations, along the high end of our range of expected outcomes. CPI inflation increased by 0.37% in April, disappointing consensus expectations of 0.4%. This print contributed to a sequential deceleration in the quarterly trend relative to the yearly trend. Below, we show the monthly evolution of the data relative to its 12-monthly trend and consensus expectations:



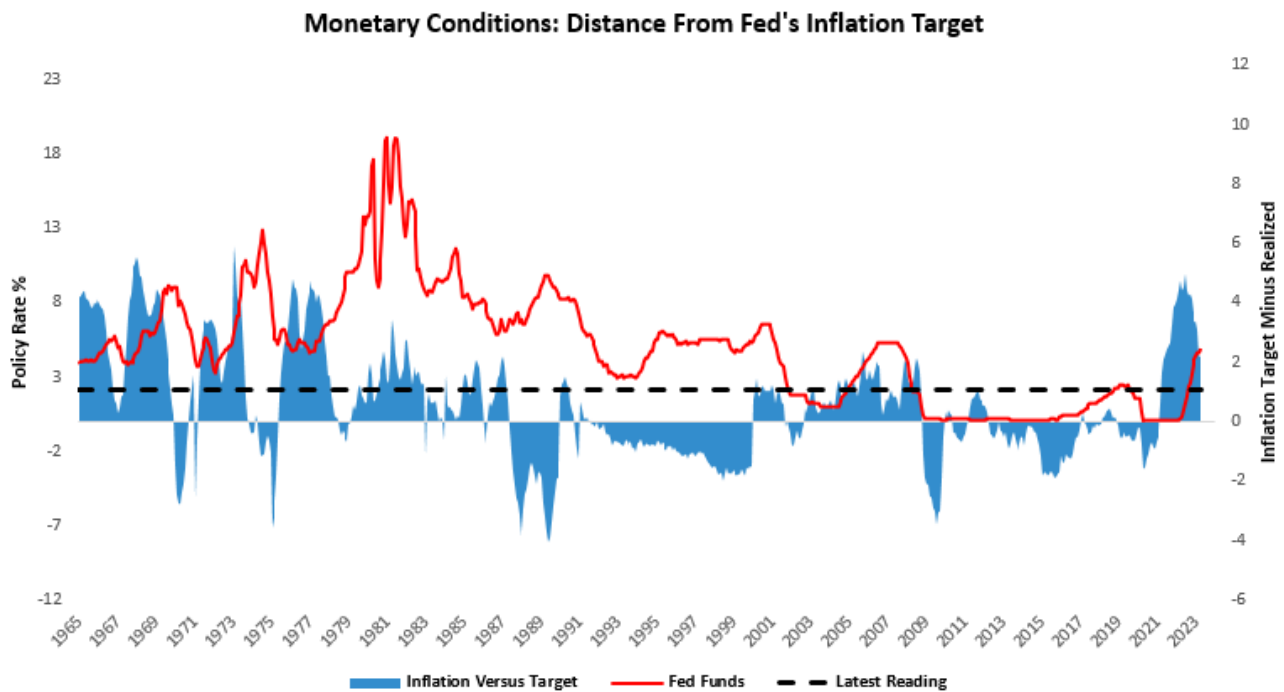
The dynamics of this print largely conformed to our expectations, with no category surprising meaningfully. We show our expectations by component versus the realized outcomes of the print below:



The primary drivers of this print were motor fuel (0.1%), energy services (-0.06%), transportation goods(0.11%), shelter (0.15%), & household operations (0.04%). Below, we show the top 10 drivers of the monthly change:



Housing has slowed recently, and is likely to slow further. However, we think it is important to recognize that even with significant housing disinflation, we remain extremely far from the Fed's objectives. We show the distance from the Fed's target in historical context below:

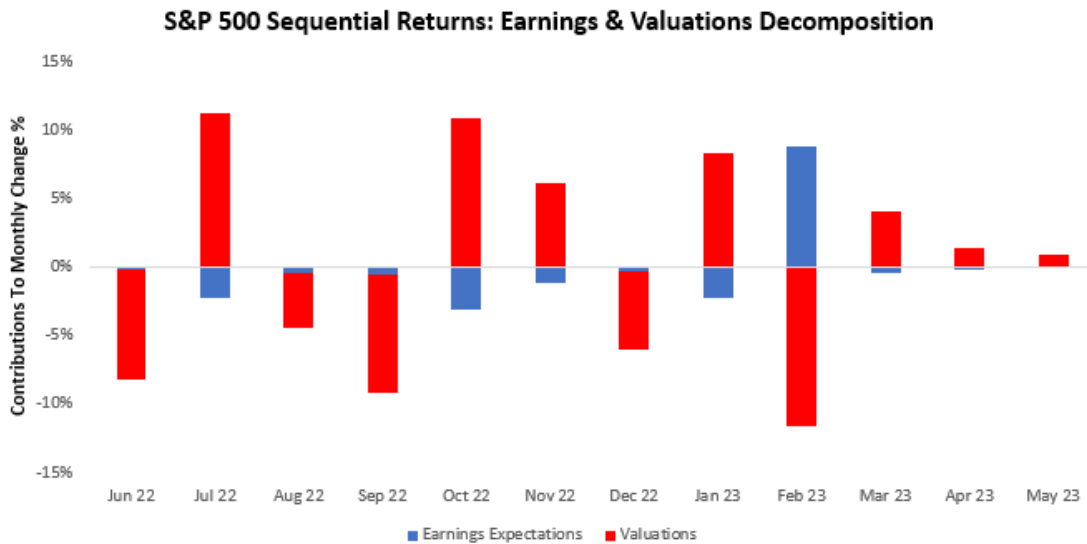


To construct this estimate, we examined decades of Fed transcripts back to the 1960s to understand the Fed's contemporaneous inflation objectives. We then look at the difference between the Fed's inflation target and realized inflation, which tells us how loose or tight monetary policy is at a given time. As we can see, we remain quite far from the Fed's inflation objectives, though much less so relative to a few months ago. We continue to think that inflation remains well above the Fed's objectives, and it looks unlikely to achieve those objectives without recessionary conditions.

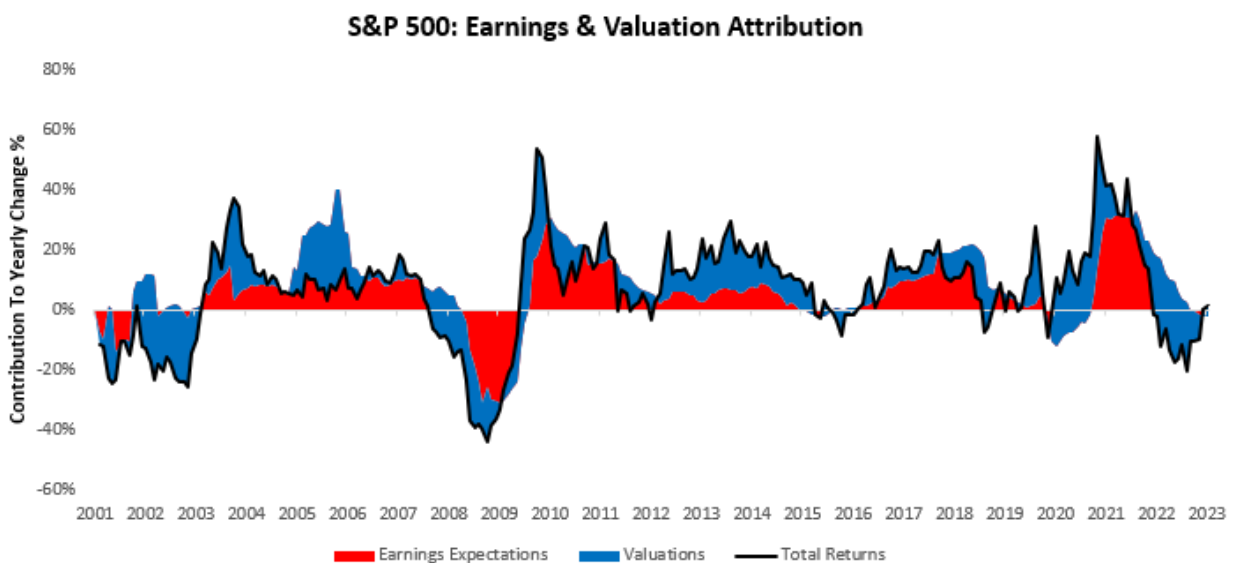
Overall, we think that despite slowing housing, food, and energy costs, we are unlikely to see enough softening in transportation demand, given inventory issues. The combination of these factors likely creates a backdrop where inflation will remain at odds with the Fed's 2% goal. ***This expectation suggests interest rates will need to be higher for longer than comfortable for bond markets and the real economy.*** This brings us to our sections on markets.

The Bond Market Sell-Off Looks More Sustainable Than Stock Market Rally

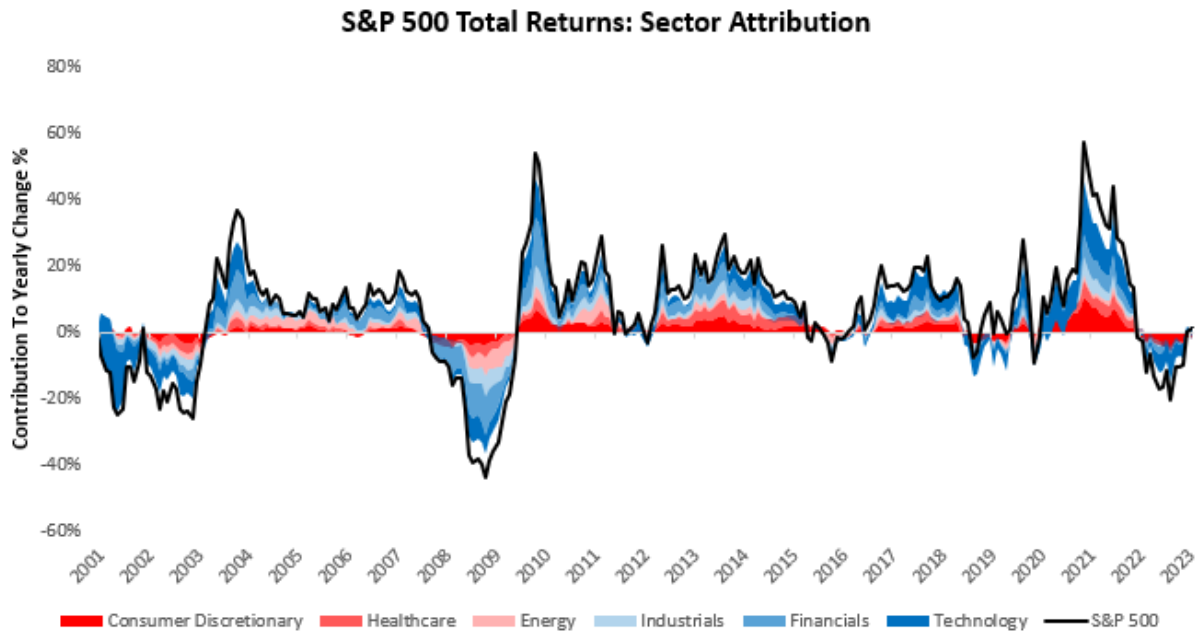
Over the last month, stocks rallied while bonds sold off. At a macroeconomic level, this pricing is consistent with higher nominal growth expectations. However, looking under the hood, the equity market rally does not look sustainable simply from economic growth factors. When we examine equity markets, we can decompose their total returns into those coming from earnings expectations and valuations changes. Over May, the S&P 500 rose 0.87%, primarily driven by valuations. Below, we show the sequential evolution of market prices, along with our decomposition of returns:



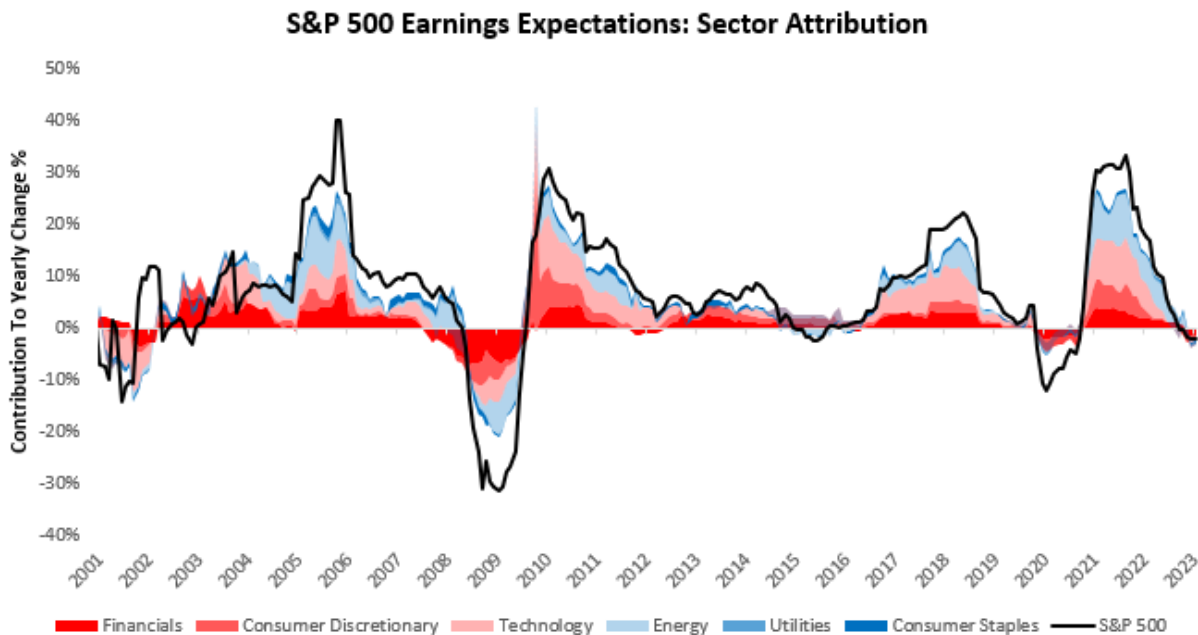
Over the last year, the S&P 500 has been dominantly driven by valuations, with total returns rising by 1.03%. We show cumulative returns on the S&P 500 over the last year, decomposed into earnings expectations and valuations:



We further decompose these yearly returns into their sector contributions. We begin by showing the primary drivers of the S&P 500. We show the top three drivers in blue (Technology, Financials, Industrials) and the bottom three in red (Consumer Discretionary, Healthcare, Energy):

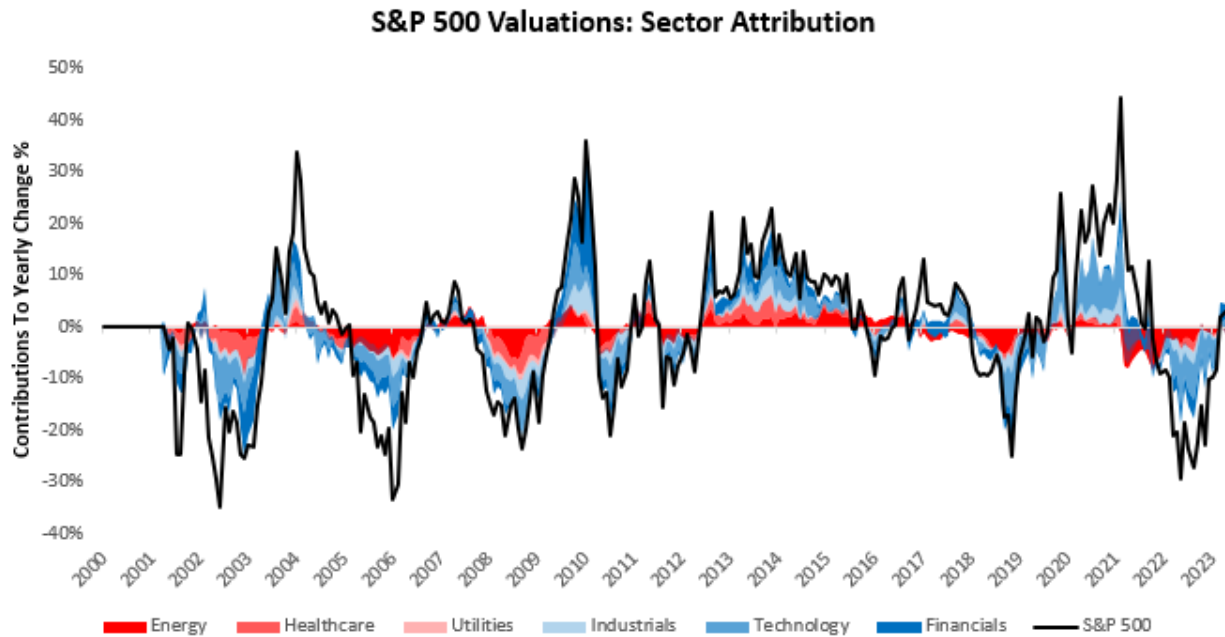


We drill down into these total returns by isolating the changes in earnings expectations. We show the top three drivers in blue (Consumer Staples, Utilities, Energy) and the bottom three in red (Financials, Consumer Discretionary, Technology):

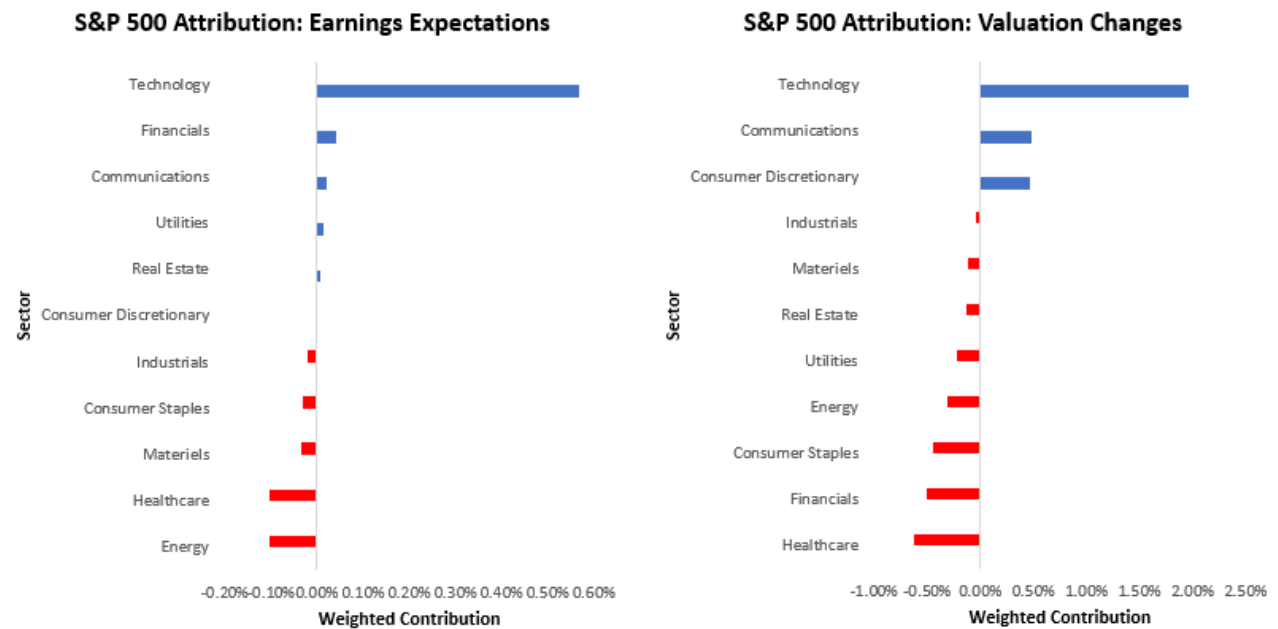


Finally, we examine the contributions of sectors to valuations changes.

We show the top three drivers in blue (Financials, Technology, Industrials) and the bottom three in red (Energy, Healthcare, Utilities):

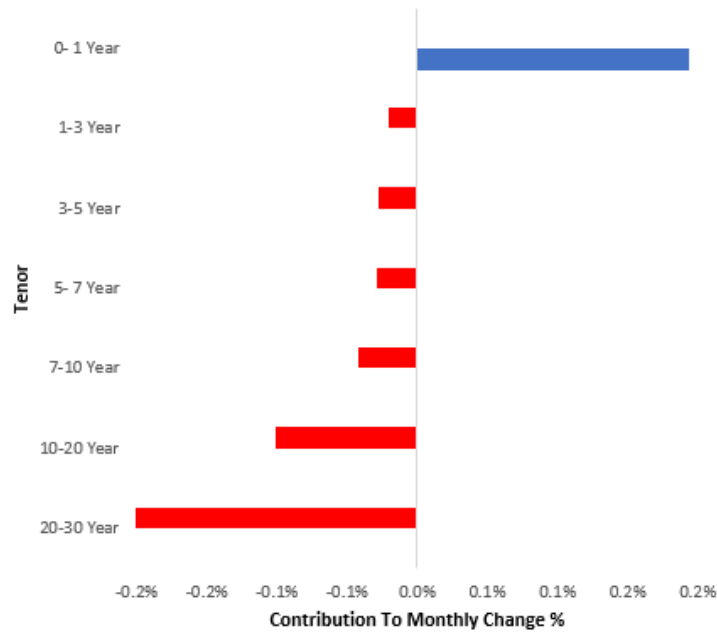


Zooming back into the most recent month, we show the composition of the most recent strength in equity markets. We show the sector-wise composition of the most recent changes in earnings expectations and changes in valuations below:



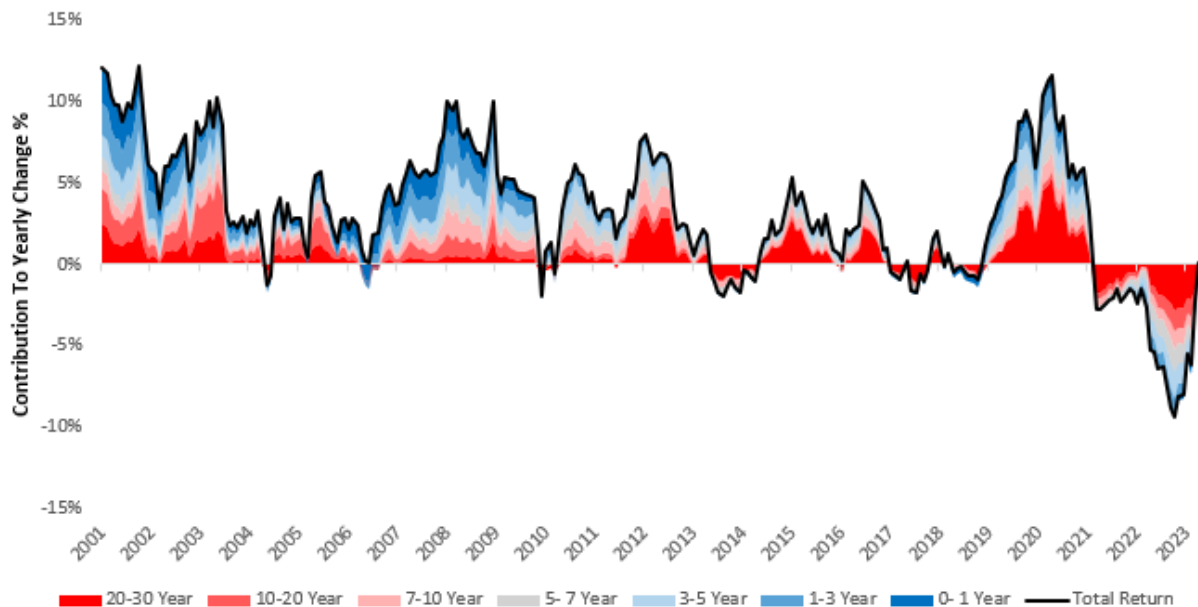
Overall, current equity market gains remain lopsided. When assessing the future of equity markets, we think it is important to recognize that sustained gains at the current pace would require either increased valuations or improved growth expectations from sectors more connected to the real economy to sustain the current pace of gains coming from technology, communications, and consumer discretionary stocks. ***These lopsided market moves contrast significantly with movement in the Treasury market, which has largely moved in unison over the last month:***

US Treasury Markets: Return Attribution

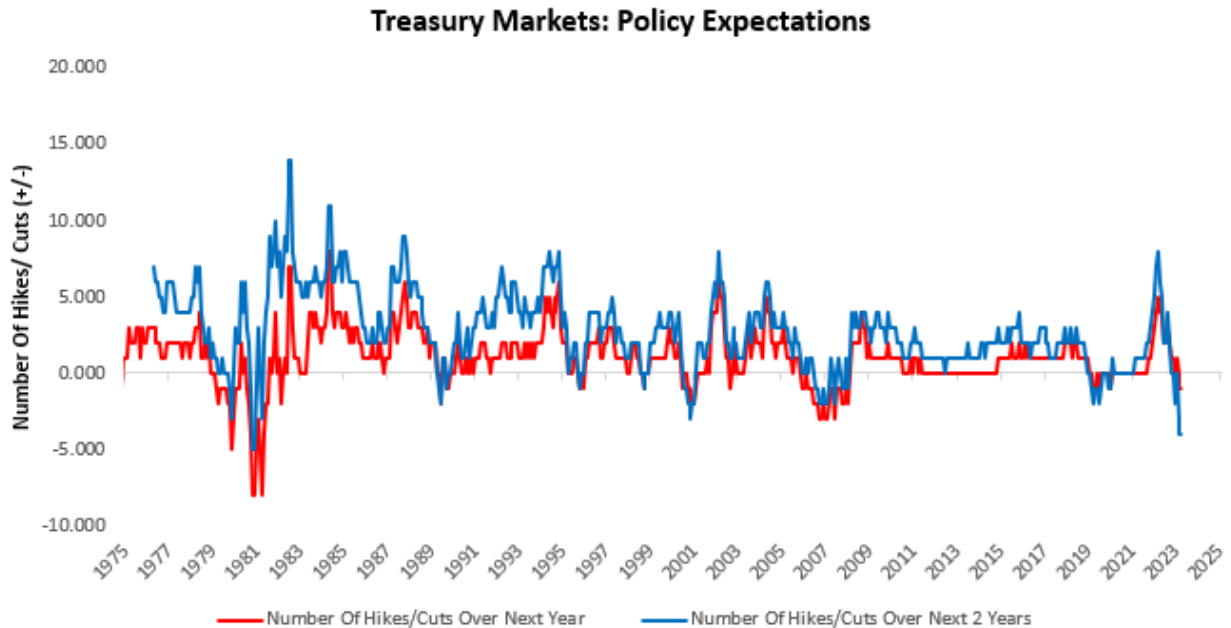


These moves have been persistent over the last year as well:

Treasury Market Total Return: Composition



When we look at equity market growth expectations, given where we are in the economic cycle and our comprehensive tracking of conditions, it is unlikely that spending will continually accelerate as currently discounted by technology stocks. However, it seems likely that bond markets will need to reprice the reality of higher interest rates over the next year if inflation is not controlled. Currently, markets continue to price a path to interest rate cuts over the next two years:



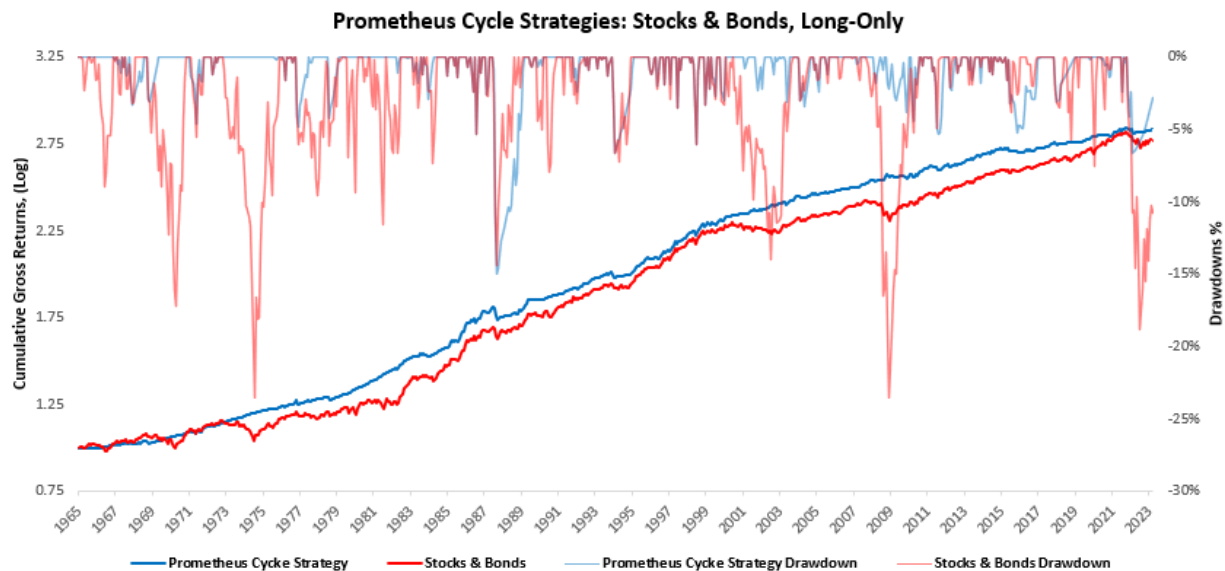
The Treasury market currently expects four 0.25% interest rate cuts to policy rates over the next two years, with at least one of those cuts coming within the next year. This expectation is for the January 2024 FOMC meeting based on futures market pricing. However, if inflation continues on its current trajectory, this expectation of interest rate cuts will likely be priced away. This change would be a drag on both stocks and bonds. This implication brings us to our next section, where we systematically apply the concepts discussed here to create a portfolio to help investors navigate these dynamics.

Beating Stocks & Bonds: Cash Is King

Typically, in macro, we focus on alpha generation via going long and short a variety of assets, often relative to one another. While fruitful, some of these approaches are often complex and require significant monitoring and management, making them out of reach for the everyday investor. We're trying to help the broadest possible population at Prometheus using our systematic tools. Therefore, today we will share a simple strategy aimed at helping a somewhat passive investor navigate today's challenging macroeconomic landscape. We offer a simple approach that leverages the insights provided in this month in macro to risk-manage an equal-weighted portfolio of stocks and bonds.

The performance of stocks and bonds is tied to the future outcomes for growth and inflation, and as active investors, we try to use our expectations for these variables to time our exposure to these markets. For a long-only, largely passive investor, we think our process's biggest benefit is allowing you to side-step the worst drawdowns in these asset classes.

Recessions are the primary risk to stocks as nominal spending collapses. At the same time, inflationary episodes are the primary risk to bonds as their fixed interest rate becomes less attractive relative to other nominal assets. Inflation also impacts stocks, through eventually higher costs and interest rates. Therefore, for a long-only investor, it makes sense to seek to exit stocks before an impending recession and exit both stocks and bonds during inflationary periods. With these objectives in mind, our systems use a wide range of economic and market data to protect long-only, largely passive investors from material drawdowns driven by macroeconomic factors. We use a simple strategy that rotates between stocks, bonds, and cash. Below, we show how this modestly active strategy has performed relative to a passive stock & bond portfolio:

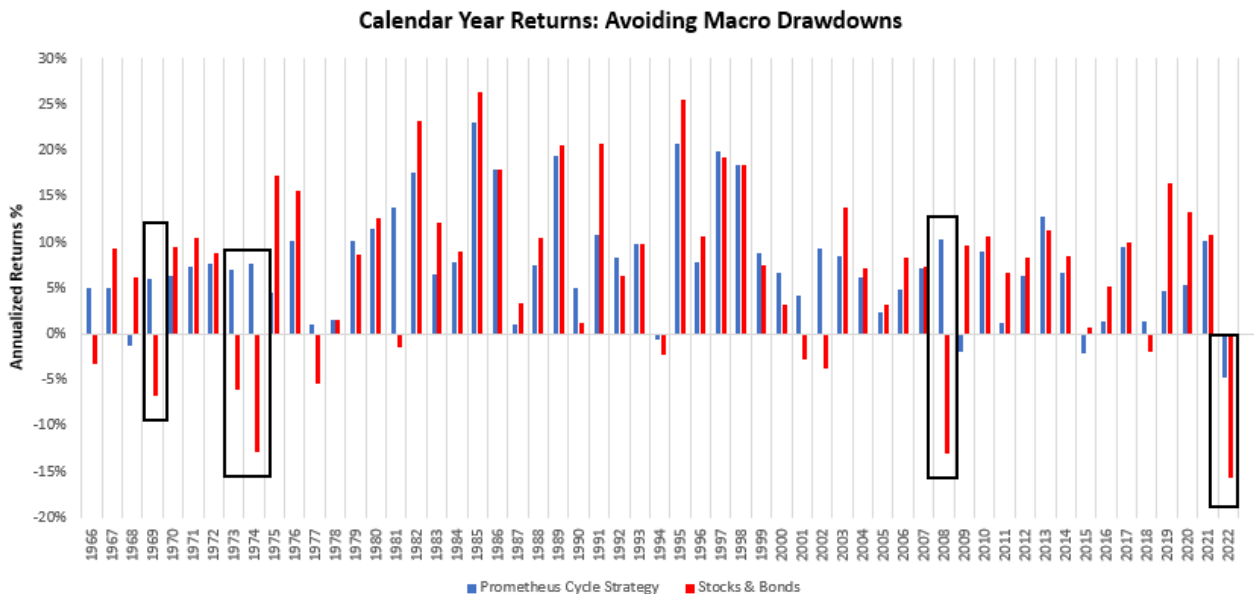


As shown above, our Prometheus Cycle Strategy outperforms static passive exposure to stocks and bonds while delivering significantly reduced drawdowns. Importantly, it does with relatively few trades (excluding the monthly rebalance for both strategies). The system has traded less than twice a year on average versus the benchmark.

For further context, we show some summary statistics for the strategy:

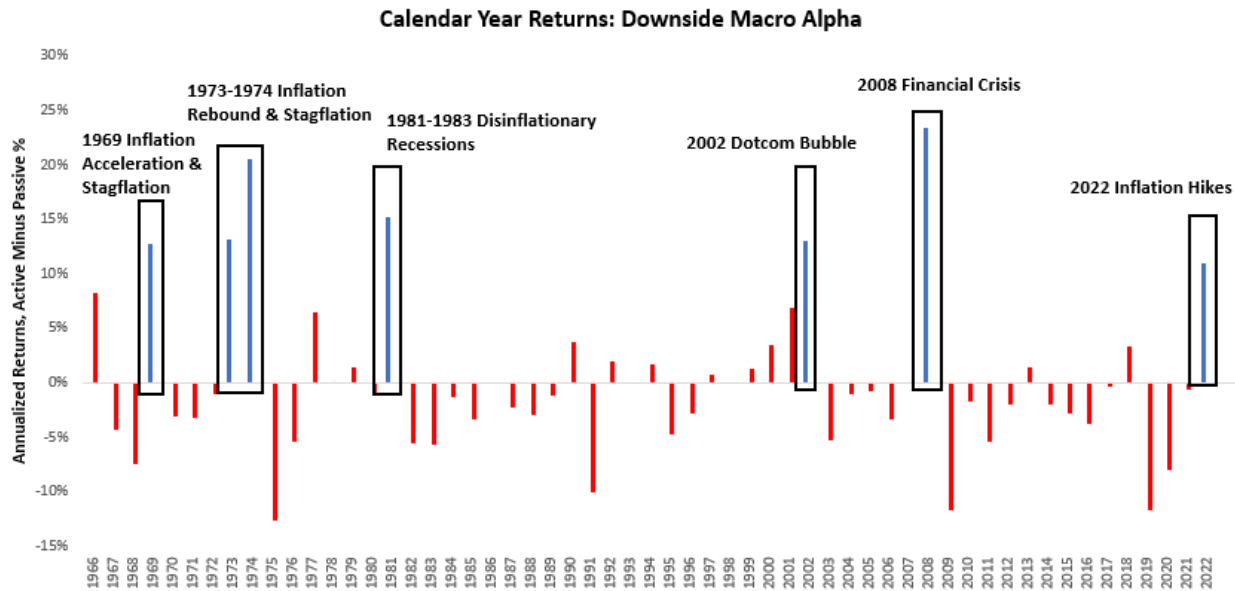
Prometheus Cycle Strategy: Summary Stats		
	Prometheus Strategy	Passive Stocks & Bonds
Gross Returns	7.5%	7.2%
Volatility	5.4%	8.8%
Semi-Variance	4.5%	5.6%
Max Drawdown	-15.0%	-23.6%
Sharpe Ratio	0.57	0.31
Sortino Ratio	0.67	0.49
Calmar Ratio	0.50	0.31

As shown above, our Prometheus Cycle strategy outperforms the passive portfolio on all measures. To display the consistency of this strategy, we also offer the calendar year returns of the strategy relative to the passive portfolio:

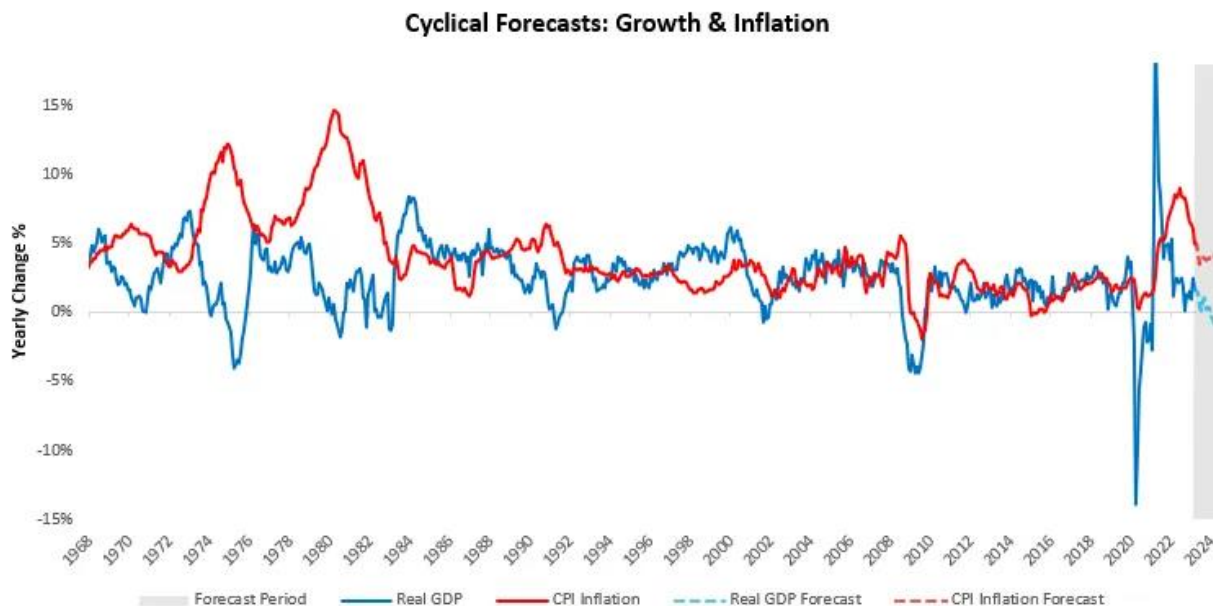


Additionally, we show the relative performance of our strategy versus the passive portfolio to showcase that the portfolio generates its outperformance for protecting against macroeconomic tail events. While calendar year returns are not the best way to gauge a return stream's variability, they help us contextualize changes over time.

To enhance this contextualization, we highlight how the strategy's alpha primarily comes from protecting against macroeconomic shocks from growth & inflation. We do so by annotating several important macroeconomic events and the corresponding returns during these periods:



Our systems have generally proven reliable in flagging significant potential drawdowns in a portfolio of stocks and bonds, allowing us to attempt to side-step these drawdowns. To protect our edge in markets, we don't share how our strategies are constructed. However, the intuitions driving our systematic process have been provided over the last 44 pages. To reiterate our outlook: Our systems expect growth to worsen and inflation to stay resilient. This combination of events will likely hurt both stocks and bonds. We think 90% of investors are best served by being paid 5% to remain in cash, with no chance of drawdowns. For active investors, our strategies are flat stocks and short bonds this month. We reiterate our forecast below:



Conclusions

We reiterate our expectations and our views on risk.

- ***Nominal GDP slowed through April, with real GDP contracting by -0.47% and inflation rising by 0.23%. Nominal GDP has grown approximately 4.7% from one year prior, continuing the downtrend beginning in February 2022.***
- ***During this time, equity markets have posed significant strength (though lopsided), while treasury markets have weakened in unison.***
- ***Looking forward, these sequential improvements have adjusted our real growth outlook, with a contraction in yearly real GDP growth more likely in H1 2024 than in Q4 2023. Our inflation outlook remains one of resilient inflation.***
- ***Neither stocks nor bonds offer attractive return-on-risk here. Stocks remain highly exposed to weakness in the economic growth cycle, while bonds likely face headwinds from higher rates to combat resilient inflation. Cash remains an attractive hiding place for most investors. Active investors can short bonds.***

We continue to navigate a turning point in the economic cycle. We think patience in cash and active short exposure to traditional assets will, in hindsight, prove to have been the wise decision. For most of the investing public, being paid 5% on cash remains an extremely attractive proposition until macroeconomic cross-currents resolve themselves. Until next month.

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