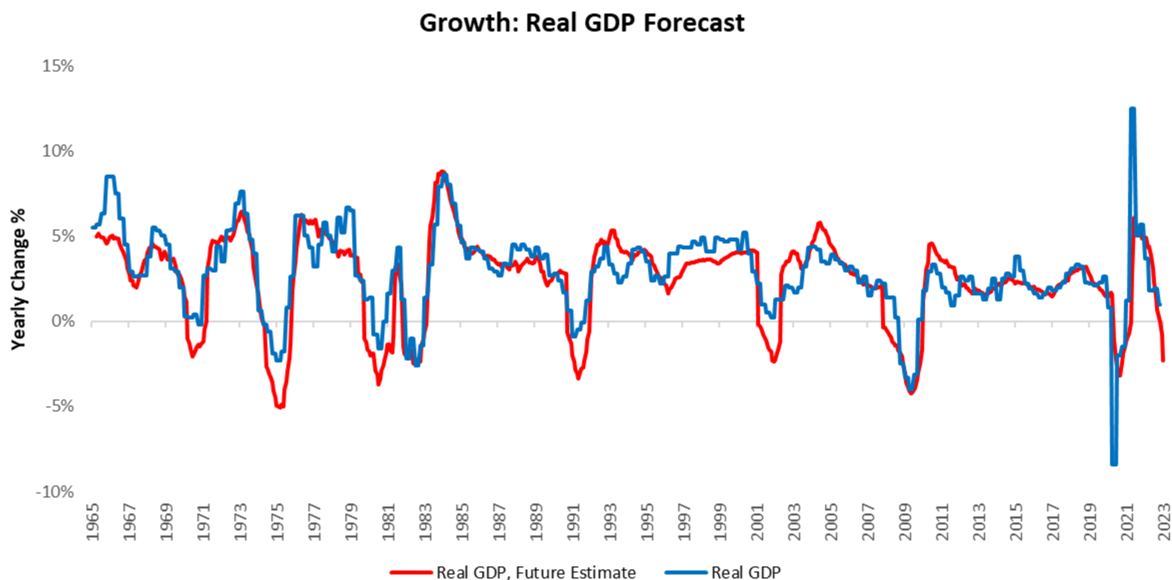
PROMETHEUS

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 economic activity has decelerated with slowdowns in both growth and inflation.***
- ***Monetary and fiscal policies continue to be contractionary; however, increased credit creation by the private sector has offset this somewhat. This offset is likely to be transient.***
- ***The economic machine is moving to put increased pressure on business profitability, which will pressure labor markets. Conditions are in place for a contraction in Real GDP beginning in Q1-Q2 of 2023.***

Our granular tracking of economic conditions suggests that we are now at a critical stage of the growth cycle, with the potential for the next few months to mark a significant deterioration in economic activity. We show our GDP forecasts below:



This path implies a decline in aggregate economic activity, i.e., weaker nominal growth with contractionary real GDP and moderating inflation, driven by lower borrowing and lending activity. Choices made by businesses will be instrumental in deciding the next steps in the economic cycle, and these choices are likely to be driven by aggregate profits. Since 2022, corporations have faced a shock to their cost of capital, alongside moderating demand for goods, which caused a reduction in reinvestment and production. This decline in output is a contractionary pressure on profits, but robust nominal spending by households offsets these pressures, creating an environment where profits could remain positive. However, with savings rates at extreme lows and household wealth declining, it remains

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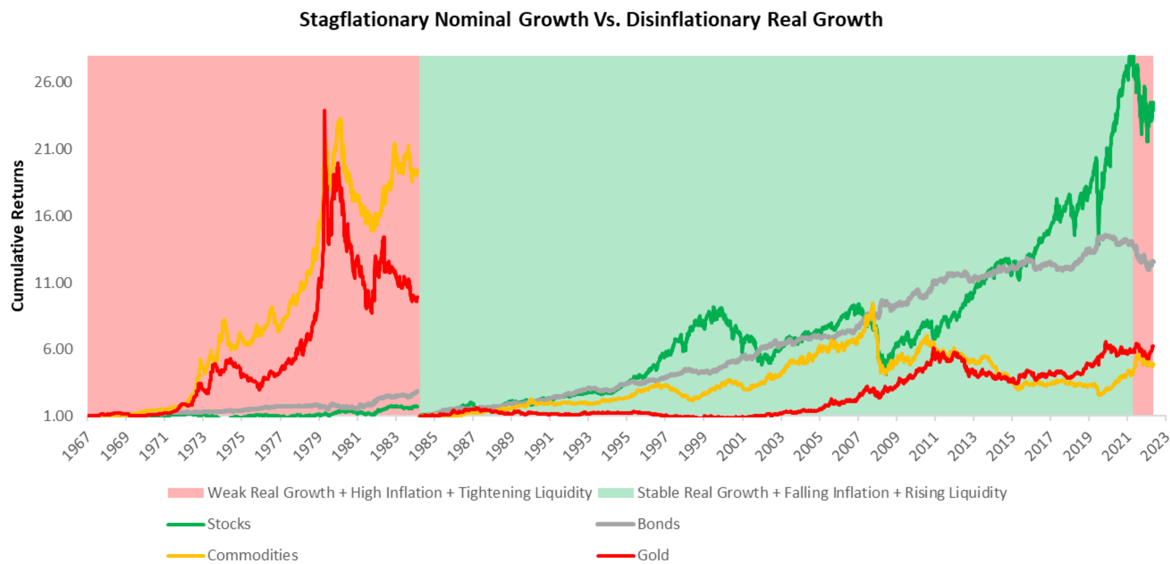
unlikely that household spending can be the marginal support for both GDP and profits, potentiating declines in both. Alongside a deteriorating nominal GDP and contractionary profit environment, output has started declining across many cyclically sensitive areas of the economy. These cyclically sensitive sectors are experiencing employment inconsistent with their production, primarily driven by nominal spending. These dynamics are likely to prove unsustainable, and a convergence of output and employment is probable. ***These factors suggest a significantly weaker nominal growth environment, i.e., contracting output and declining inflation. It is essential to recognize that this is the mirror image of last year's stagflationary nominal growth, which implies that markets are also likely to move in the mirror image of last year. This shift means that the primary driver of cross-asset returns will shift from inflation volatility to growth volatility.*** This shift would imply a transition back to a regime of disinflationary real growth. We visualize the impact of this transition to relative asset market performance below:



This picture implies a much easier period for a stocks and bond portfolio than 2022, even if it is only for a transitory period. Thus far this year, we have already seen the initial indications of this playing out in markets- a 60/40 stock and bond portfolio is up 5% year to date. Said differently, an implicit bet on disinflation or stabilizing inflation is up 5% in 2023. We see this as likely to continue as nominal activity continues to slow.

Finally, while we have a strong understanding of the pressures in place on future growth and an estimation of the trajectory of the economic path, there remains considerable uncertainty on the timing of the transition into recession. This uncertainty primarily comes from the dynamic sensitivity of labor markets to business conditions. Nonetheless, our tracking of macroeconomic conditions continues to tell us that we remain on our way to contraction. We discuss all this and more in the pages that follow.

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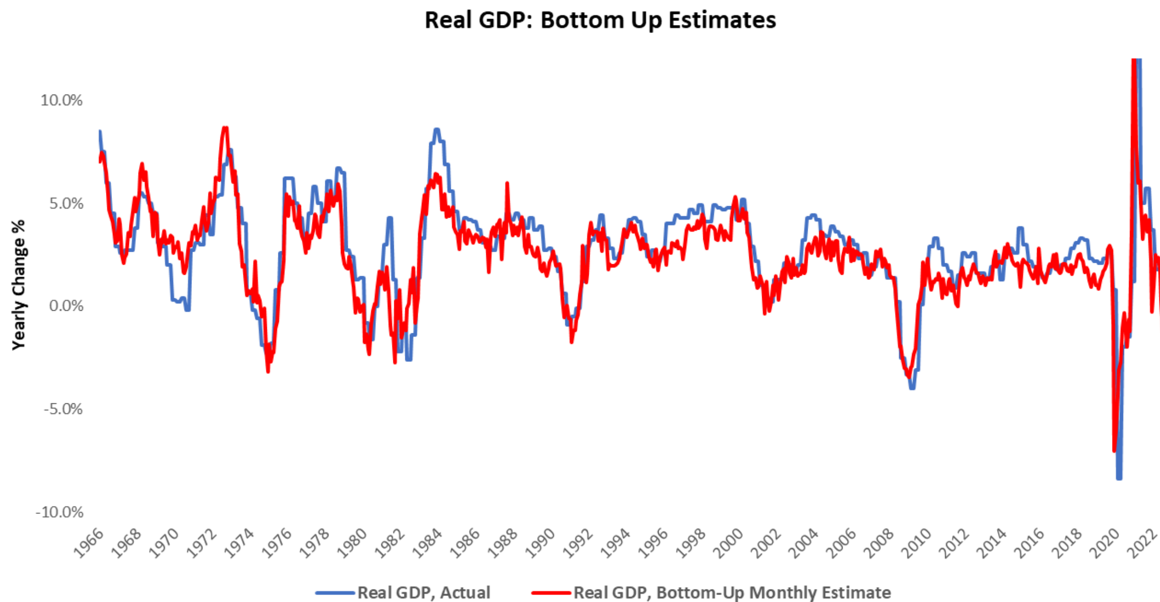
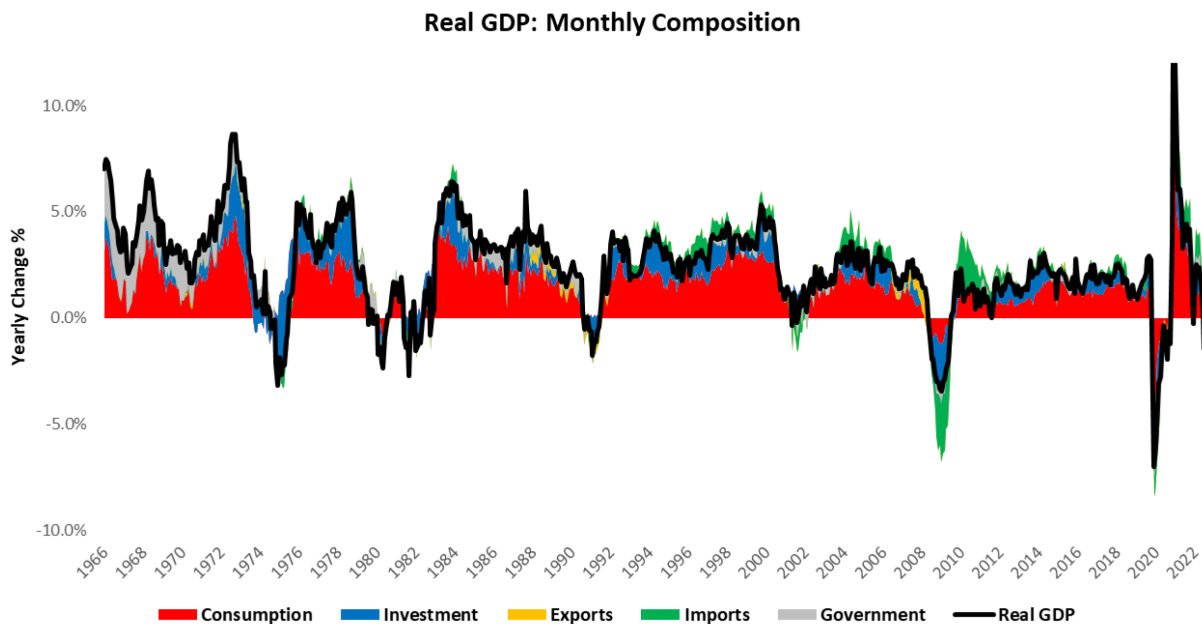
Below, we show our monthly estimates of GDP, obtained via the bottom estimation of GDP components. Our calculations show GDP in contraction, ranging from -0.20% -1.00% versus one year prior:



This data is more timely than official GDP data but includes a degree of estimation error. Therefore, when assessing this data, we place more weight on the impact of the relative pressures than the precise number. Using a bottom-up process allows us to nowcast each component of GDP monthly. We show the composition of our nowcasts below:



This approach allows us to understand the composition of incoming and spending as they evolve in the economy.

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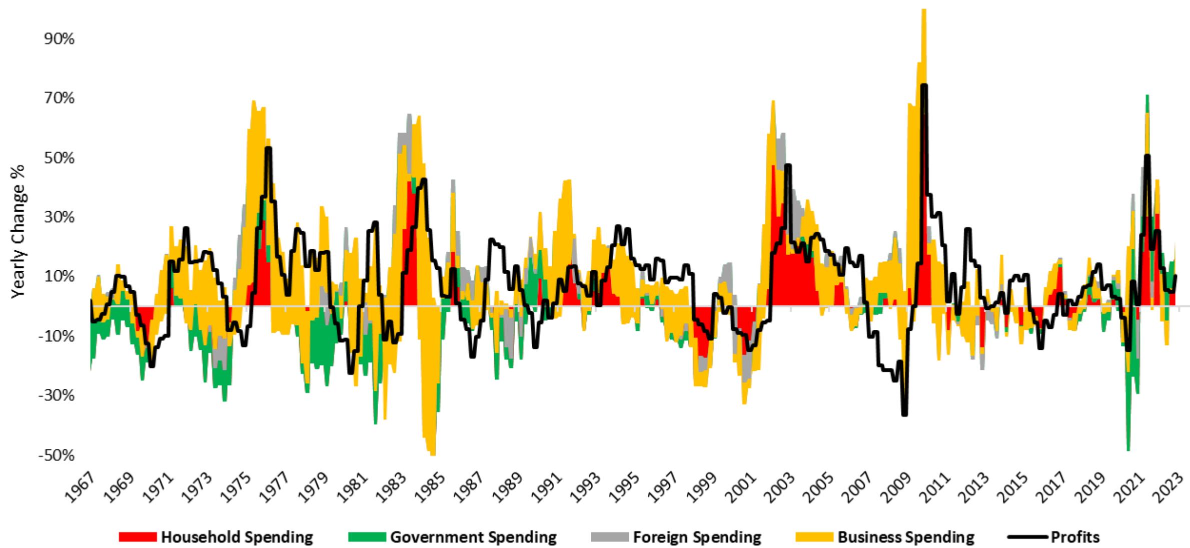
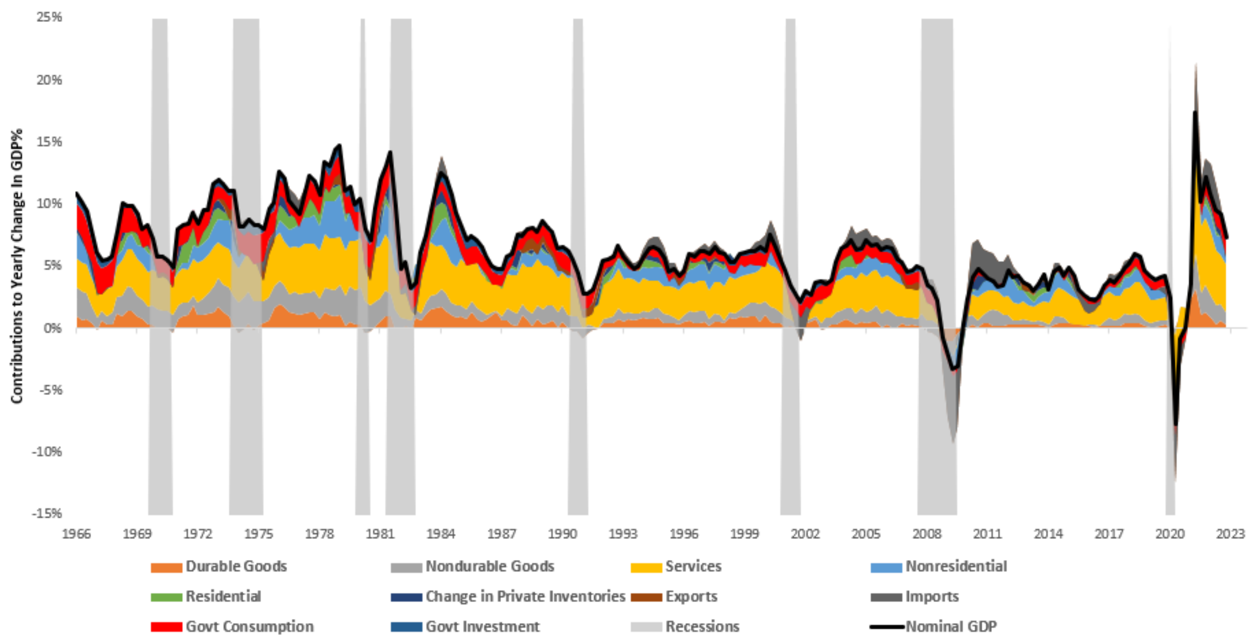
Furthermore, by dissecting the broadest measure of spending activity (GDP), we can understand the forces at play in determining business profitability. Below, we show our reconstruction of corporate profits from its macroeconomic drivers. Currently, we are seeing some improvement in profit conditions, though significant pressures remain in place:



Profits are a function of two forces: topline revenue and margins. Profits as a function of topline are relatively straightforward, i.e., for a given level of GDP, companies take a share of the pie as profits. As nominal GDP declines/increases, profits respond. Today's GDP shows nominal GDP is still positive but decelerating:



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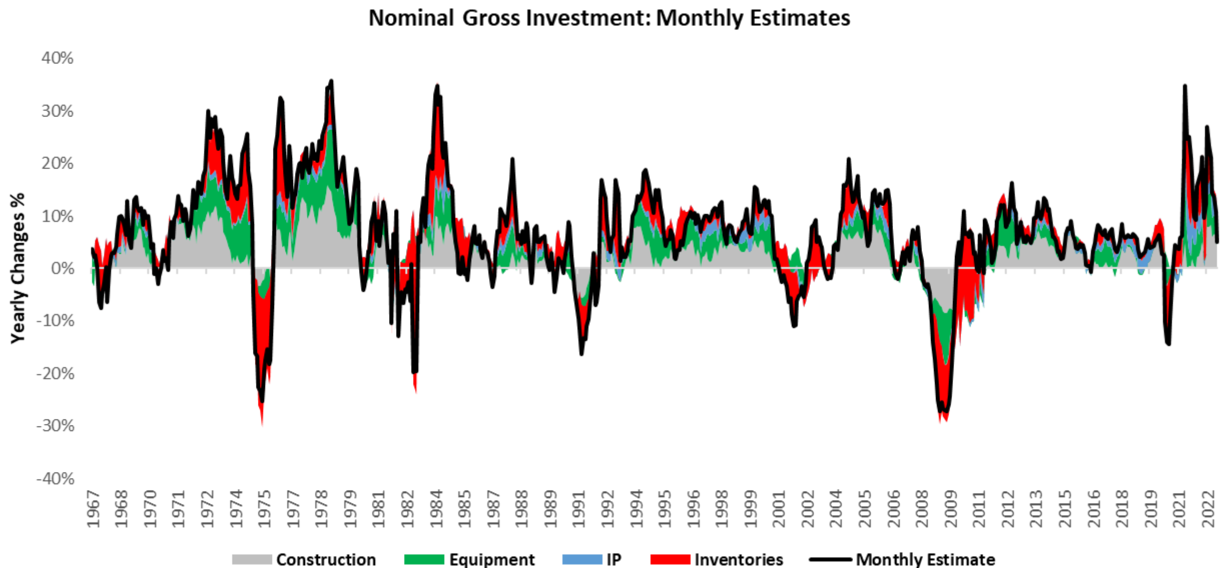
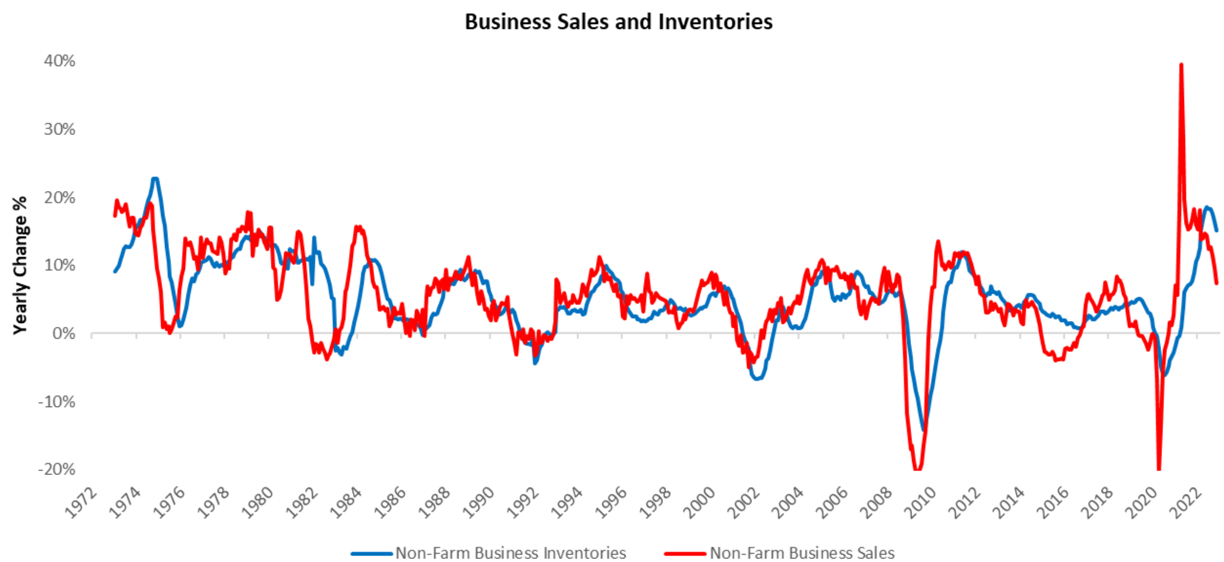
Therefore, while nominal spending still supports overall profitability, it is less so than previously, i.e., profits are decelerating. Within this nominal GDP pie, households, businesses, the foreign sector, and governments vie for surpluses at the expense of each other. The more non-business parties spend vs. their income, the more profitable businesses can be. In the current setting, we are seeing a significant drag on profitability from businesses' spending, i.e., their reinvestment. We show this below:



The deceleration in investment has seen significant weakness coming from equipment and inventory spending, reflecting weakening production and business activity dynamics. Given the slowdowns in the broad economy, it is unlikely that these areas of business investment are likely to pick up steam. Below, we show how inventories typically respond to changes in sales.



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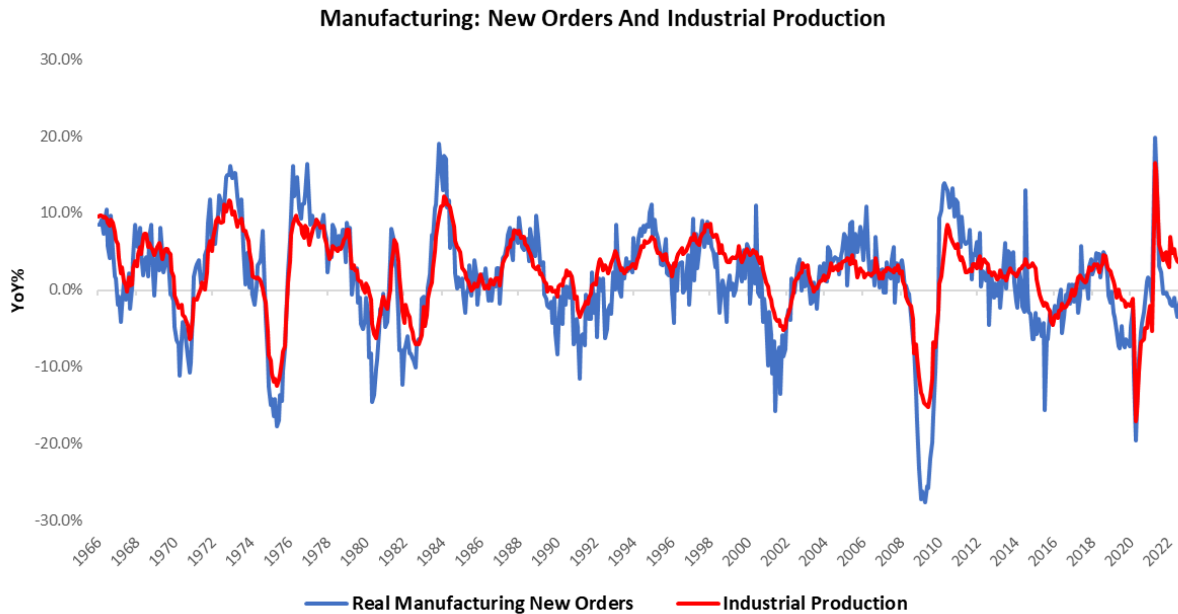
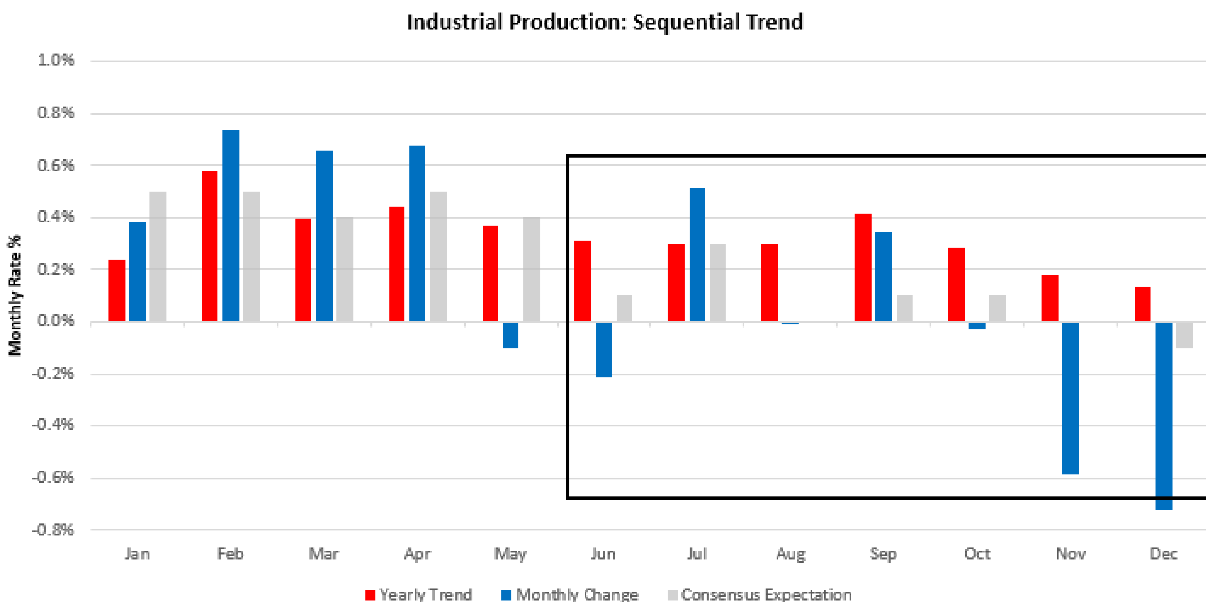
This weakening of business conditions has worked its way into manufacturing new orders and is now working through industrial production. We show real manufacturing new orders and industrial production below:



On a real basis, we estimate that total manufacturing new orders have decreased by 3.62% on a YoY basis., while industrial production increased by 1.6%. By our evaluation, industrial production remains positive today on a year-over-year basis due to two overlapping factors: outsized growth in the first half of 2022 and nominal impacts on index calculation. Below, we show the sequential trend in industrial production data. Industrial production decreased -0.72% in December, disappointing consensus expectations of -0.1%. This print contributed to a sequential deceleration in the quarterly trend relative to the yearly trend:



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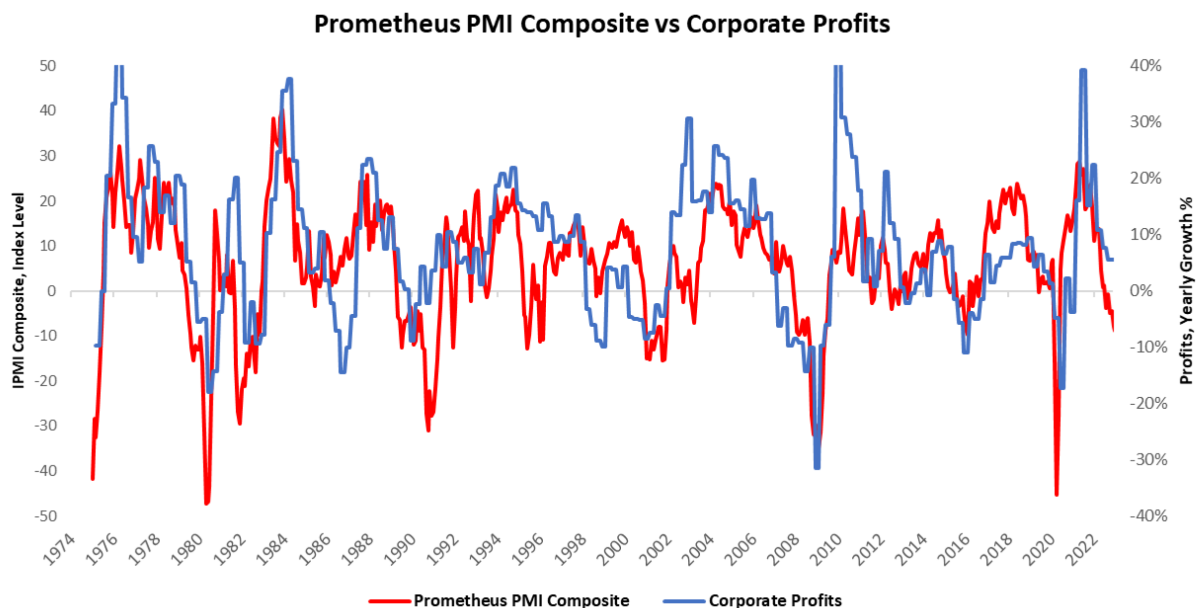
As we can see above, recent industrial production data shows significant weakness after extreme strength in the year's first half. As those values roll off from the cumulative yearly calculation, industrial production will likely show substantial weakness as we progress through 2023. This base effect coincides with the impact of nominal activity on the calculation of industrial production. While it is indeed intended for industrial production data to be "real," i.e., un-influenced by inflation- we live in a nominal world, and nominal activity seeps into everything. The methodology used to calculate industrial production considers"unit value added OR prices" to decide the weight of components of the index. In today's environment, energy prices are rapidly rising- and the relative importance of energy rises in production massively, resulting in the index reflecting some degree of nominal activity. Therefore, as nominal activity subsidies, there is likely to be a significant pass-through t industrial production, coinciding with a roll-off of base effects. These factors will likely drive industrial production to meet manufacturing new orders in contractionary territory.

These deteriorating business conditions find further credence in our tracking of PMIs. PMIs serve as a good barometer of where we are in the profit cycle, as purchasing managers sit at the intersection of business income and spending, based upon which they manage orders and inventories. Our broad PMI composite continues to point to weakness in business conditions:



Overall, the outlook for businesses to be a driver of profitability and contributor to GDP remains bleak, with the potential for more weakening in the cards. This business weakness, along with weakness in the residential investment space, suggests aggregate investment will continue to soften.

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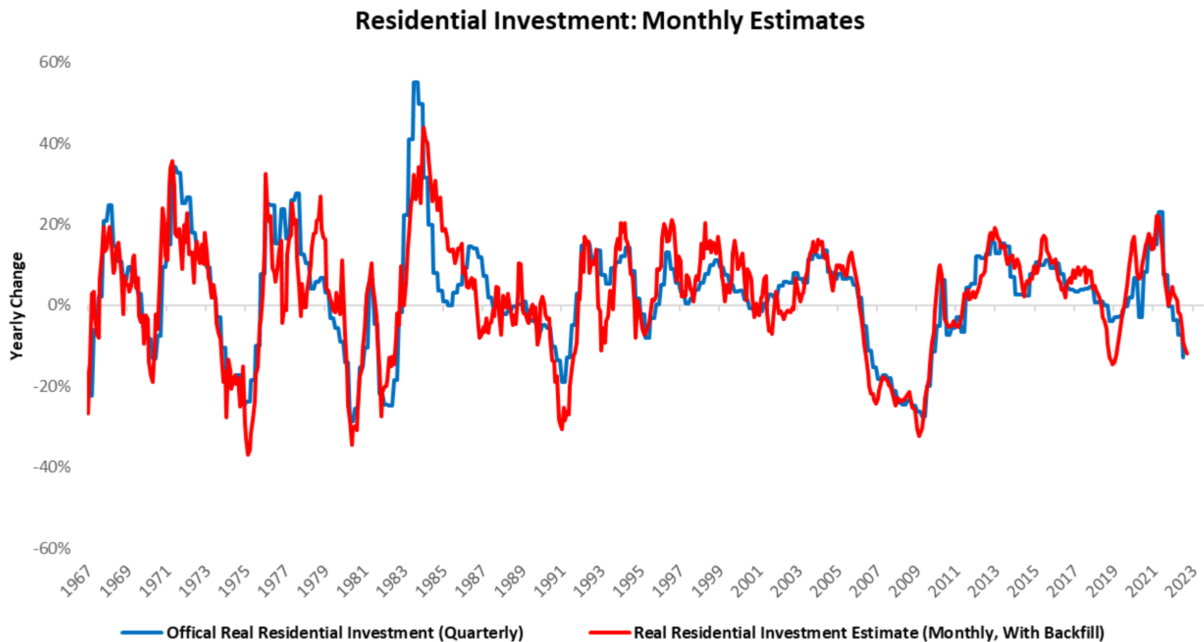
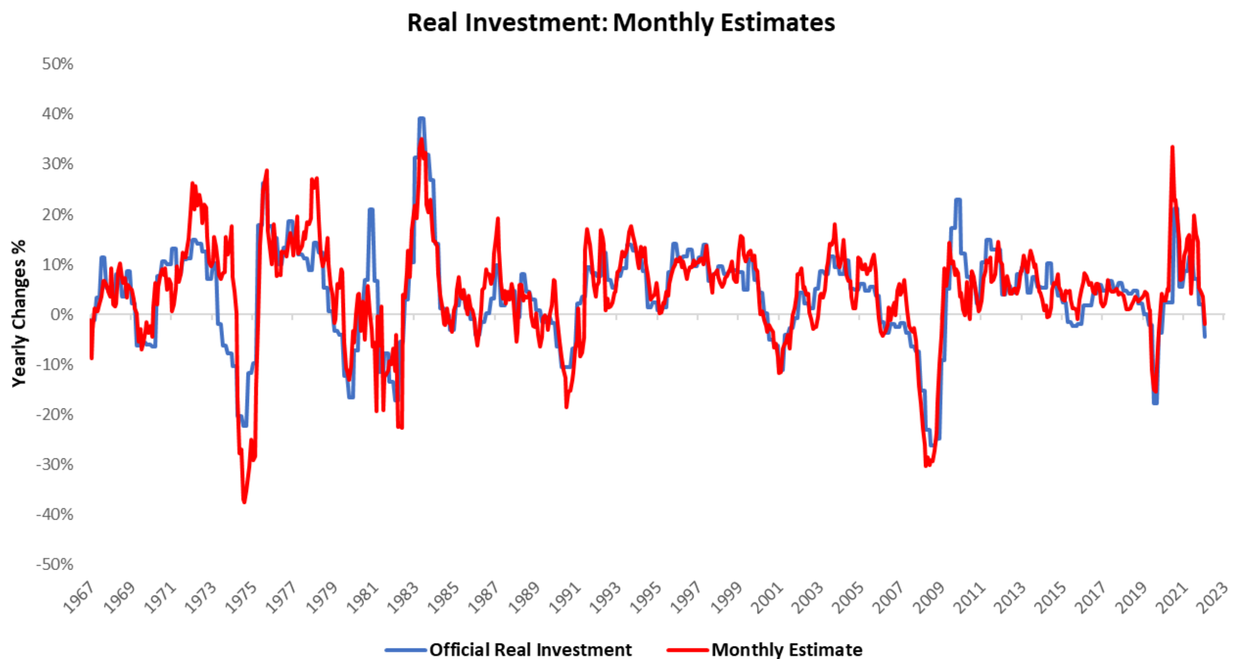
Below, we show our tracking of real residential investment, driven by both the sale of new houses and the remodeling of existing homes, remains weak:



By combining business activity with our residential investment data, our estimates for total real investment activity are showing considerable weakness:



This weakness in real investment activity is a drag on economic activity and profits and is likely to weaken further. Our expectation is driven by the fact that credit activity remains strong as nominal activity remains elevated, allowing companies to continue debt service payments. The rate of change is

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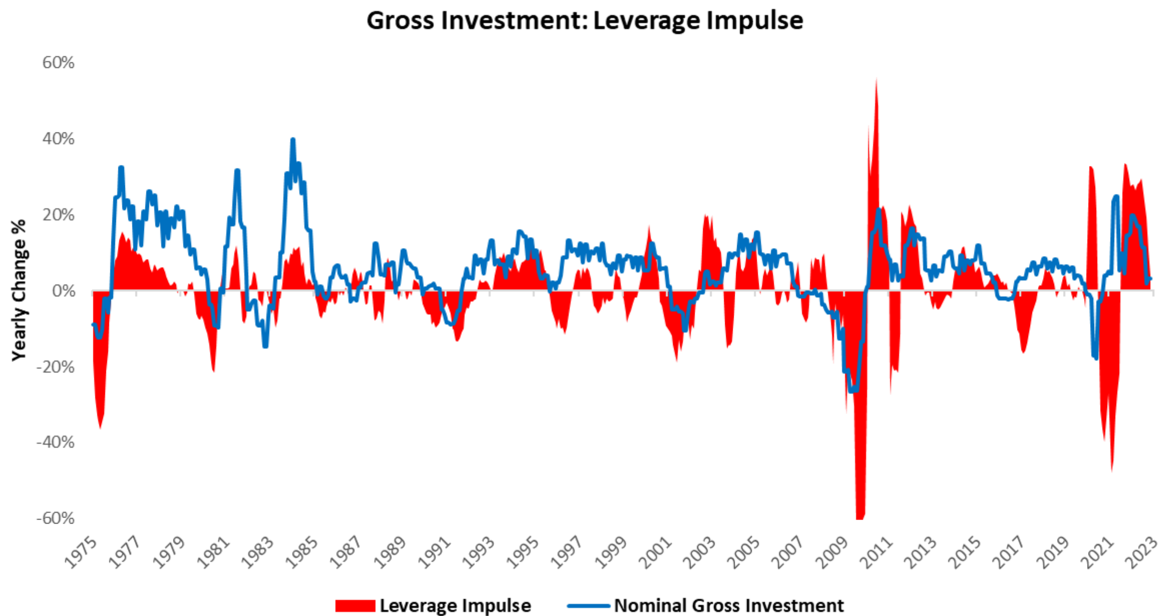
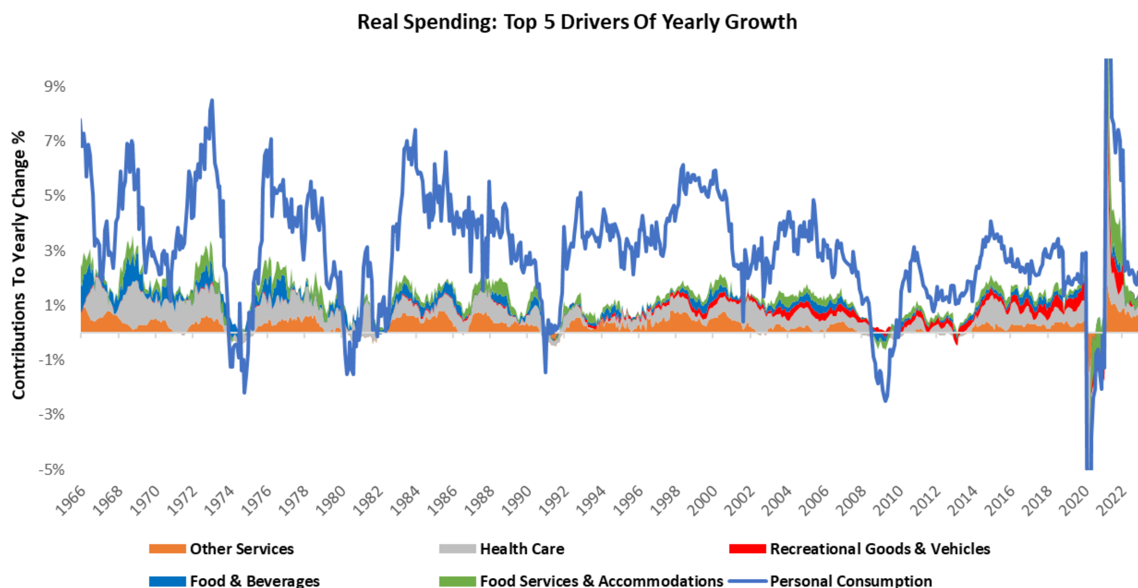
nonetheless negative, and we expect this to continue. Below, we show our estimates of the impact of the leverage impulse coming from borrowing into gross investment:



Above is our estimate of the impact of new-nonfinancial borrowing on gross investment. By our measures, this estimate is still additive to aggregate investment. As nominal spending continues to slow, new borrowing becomes more expensive, and debt services costs remain elevated, we expect investment to worsen.

In contrast to business activity, household spending remains a stronghold for the economy. Below, we show personal consumption expenditures, along with its top five drivers:



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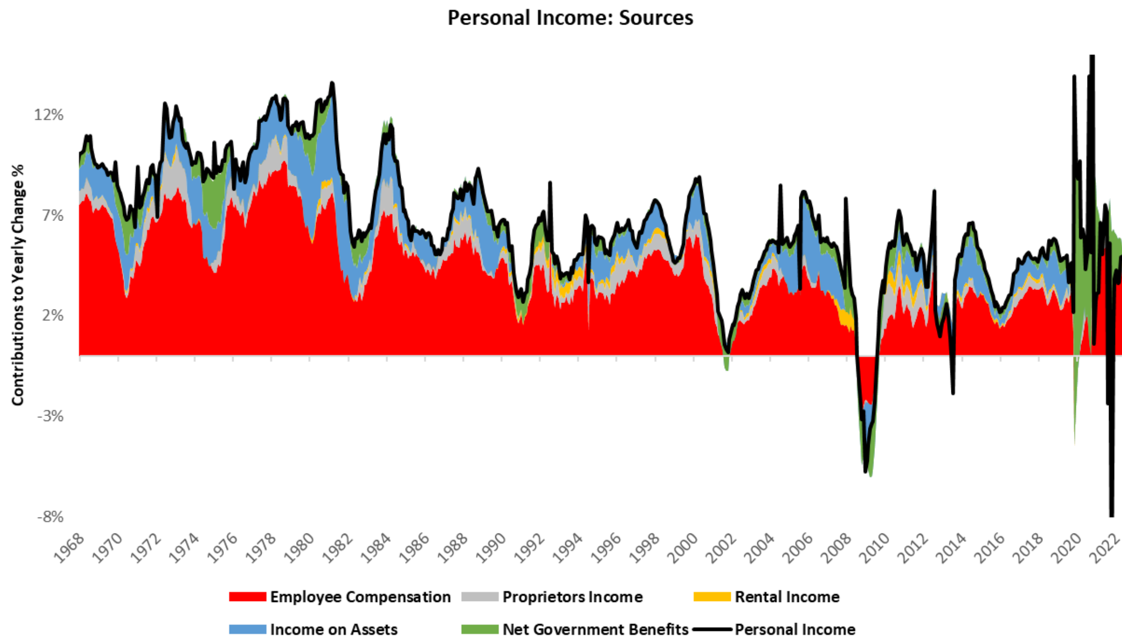
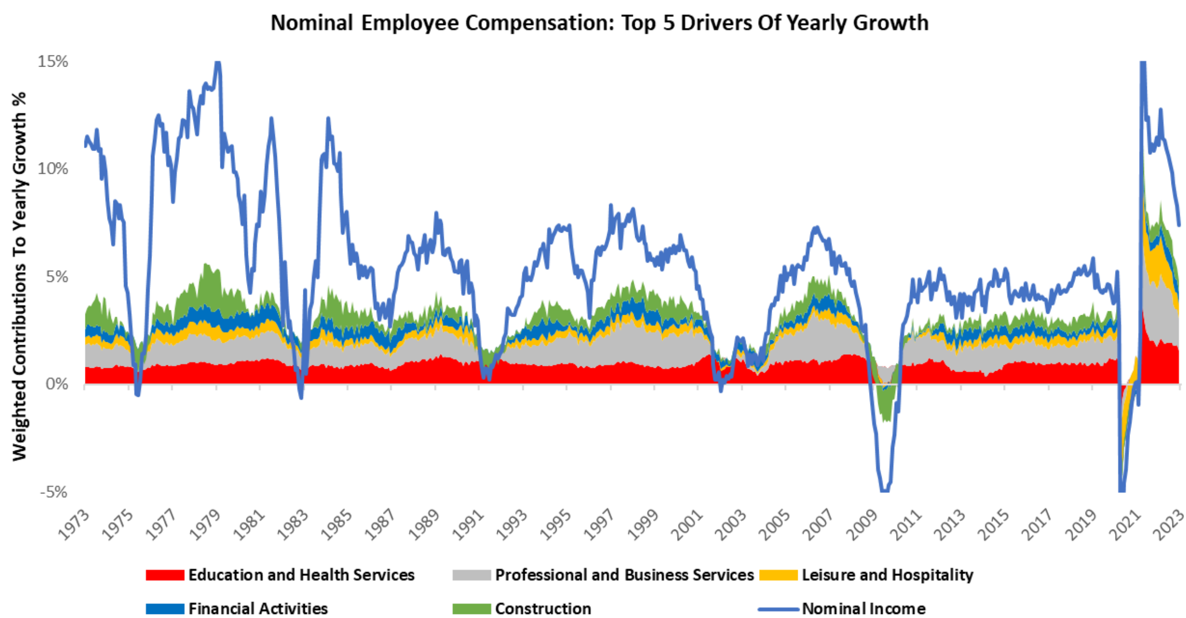
Over the last year, Recreational Goods & Vehicles (0.35%), Food & Beverages (-0.35%), Health Care (0.37%), Food Services & Accommodations (0.32%), & Other Services (0.66%). have been the primary drivers of the 2.22% growth in consumer spending. Consumption spending has remained strong relative to investment spending, as consumption spending primarily comes from income rather than borrowing. Below, we show our tracking of personal income:



As we can see above, employee compensation is the driving force of personal income, i.e., ***compensation paid by businesses for goods and services produced***. We will revisit this later as it is crucial to understanding the likely employment trajectory. Below, we show the composition of nominal employee compensation:



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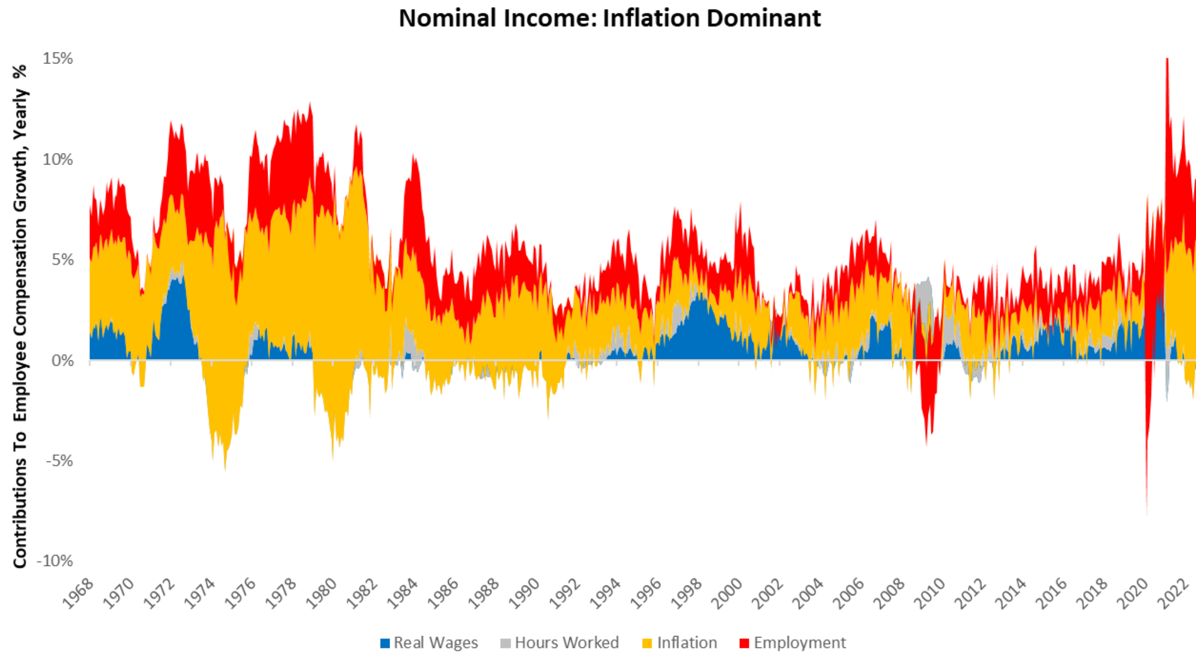
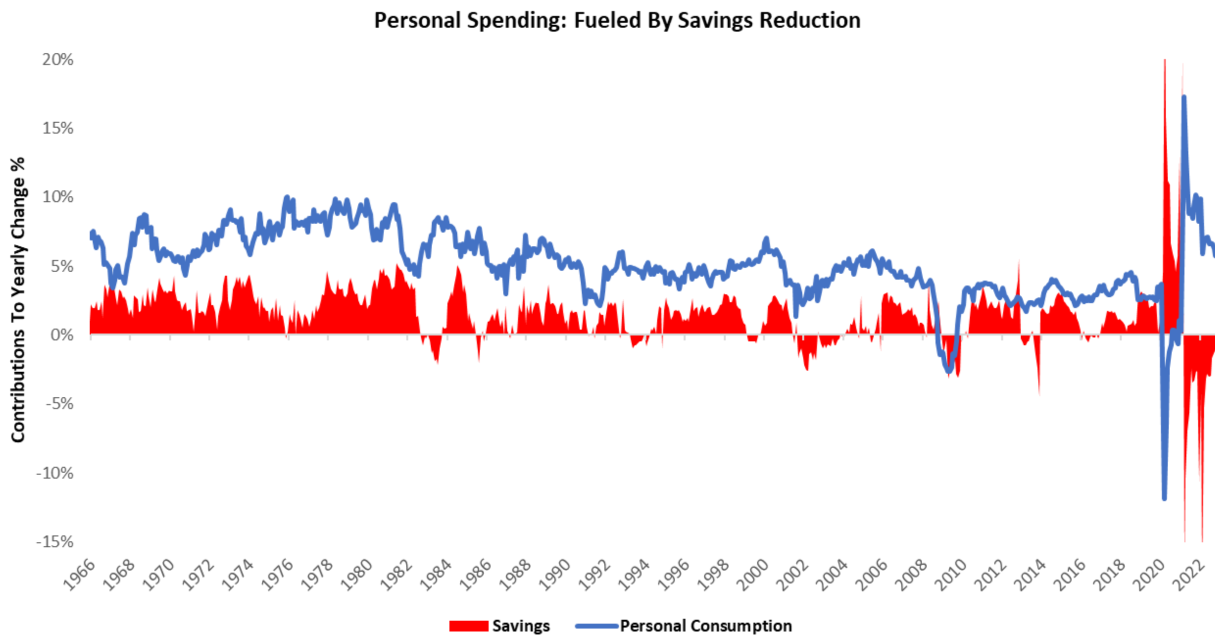
It is essential to recognize that these nominal gains are driven mainly by inflation. Below, we show aggregate employee income, decomposed into its conceptual drivers: real wages, hours worked, employment, and inflation. As we can see, the lion's share of wage gains are coming from rising prices:



Therefore, today the primary driver of nominal compensation is the price level rather than output. Furthermore, employee compensation and aggregate income growth have not been adequate to facilitate personal consumption growth; instead, spending has come from a decrease in savings. We visualize this impact below:



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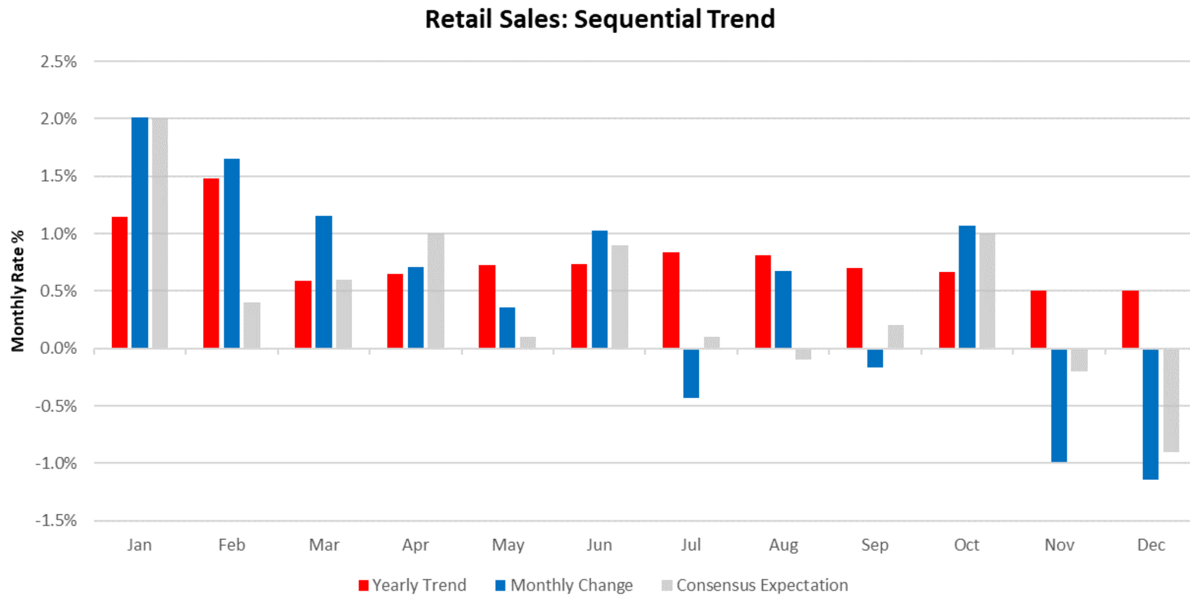
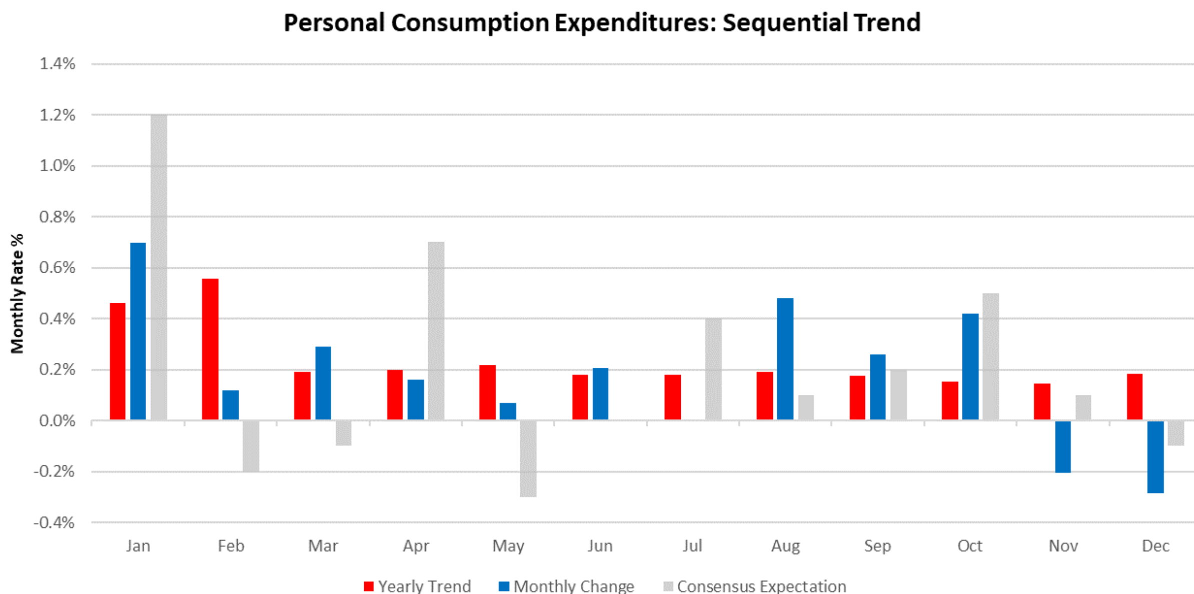
When we look to the horizon, we think it unlikely that households will continue to spend into the economy as they had in 2022. We have begun to see the initial stages of these moves in the sequential economic data. Below, we show the sequential change in retail sales:



This recent decline in nominal retail sales translated into contractions in real spending. Resultantly, real spending decreased -0.29% in December, disappointing consensus expectations of -0.1%. Below, we show the monthly evolution of the data relative to its 12-monthly trend and consensus expectations.



We expect this weakening of the sequential personal consumption trend to continue as households borrow less and save more, reducing nominal income. Additionally, we estimate corporations will likely move towards laying off employees as economic activity weakens.

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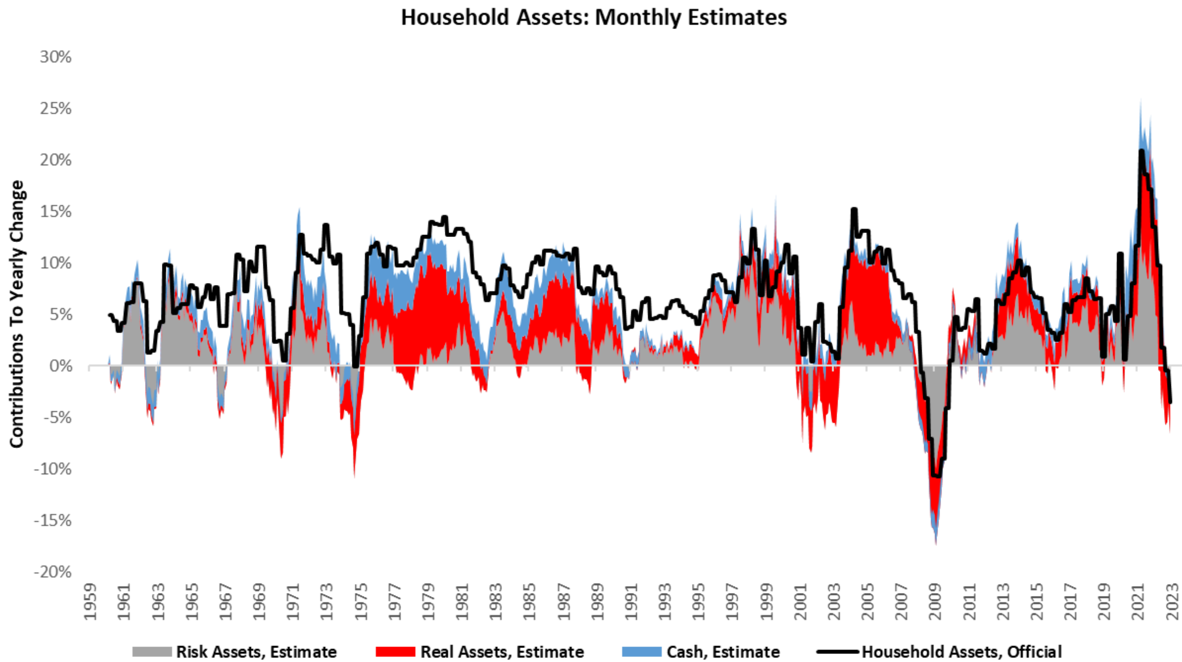
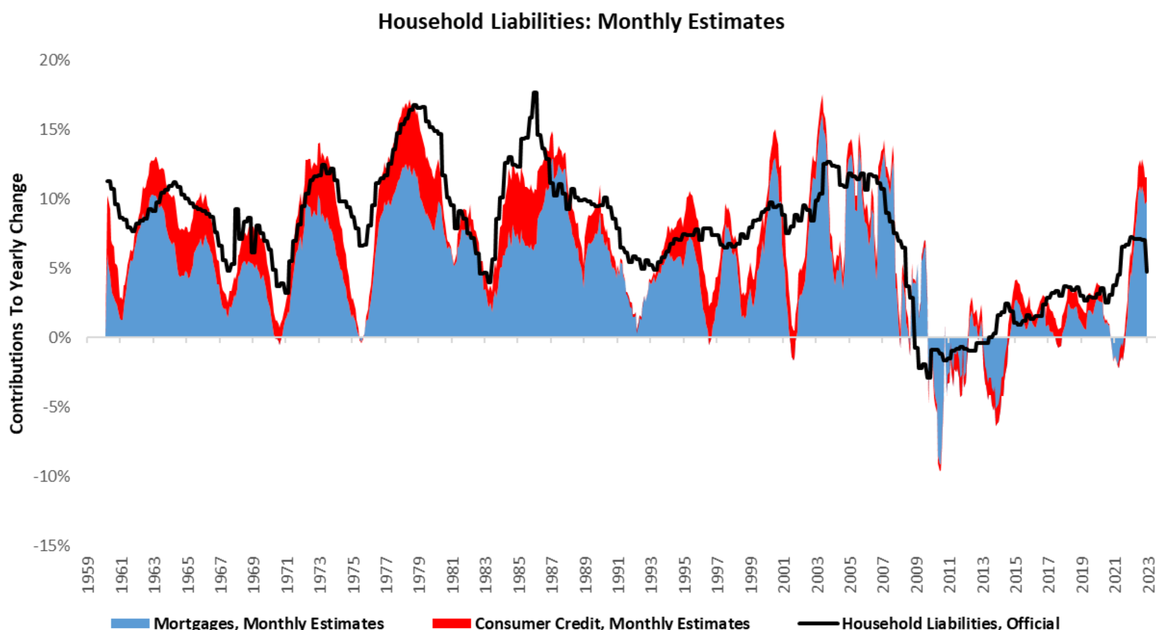
Households have chosen to reduce their savings rates to generational lows, and increase their borrowing, as aggregate nominal income stayed strong in 2022. However, our tracking of household balance sheets suggests that household assets have weakened while they have increased their liabilities, i.e., their net worths have declined. Below, we show household assets grouped into three main categories: financial risk assets, real assets, and cash assets. All these areas are experiencing contractions, leading to a deterioration in assets:



While asset purchases and values have declined, the incurrence of liabilities has also increased. Both mortgage debt and consumer credit have risen significantly, fueling additional nominal activity in the economy.



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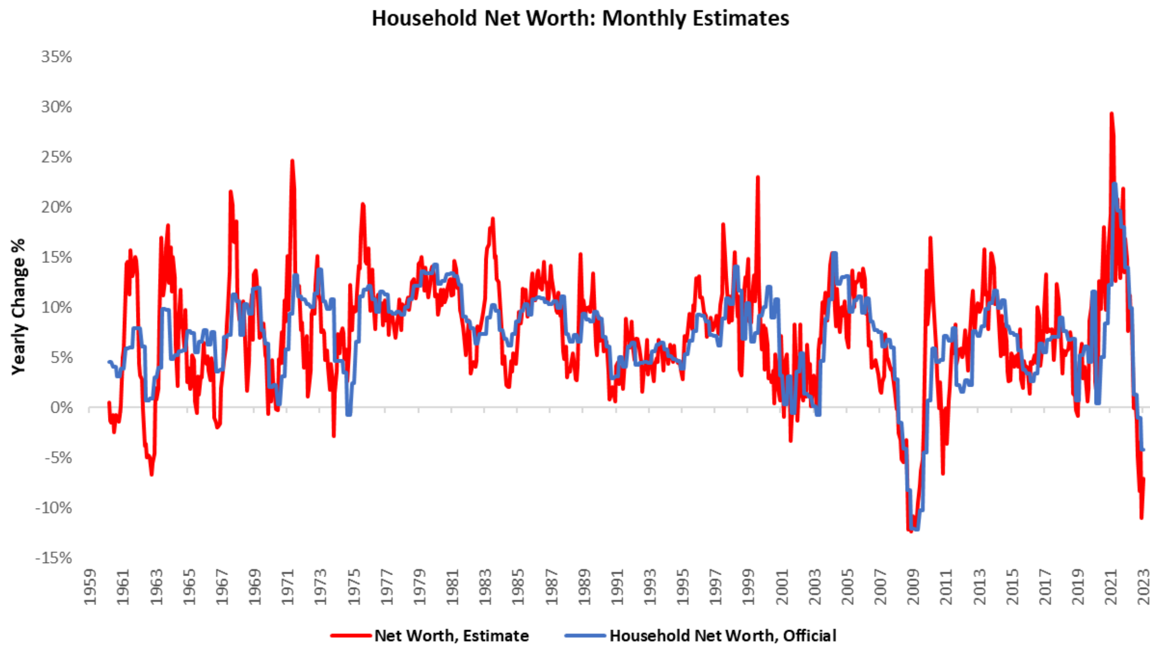
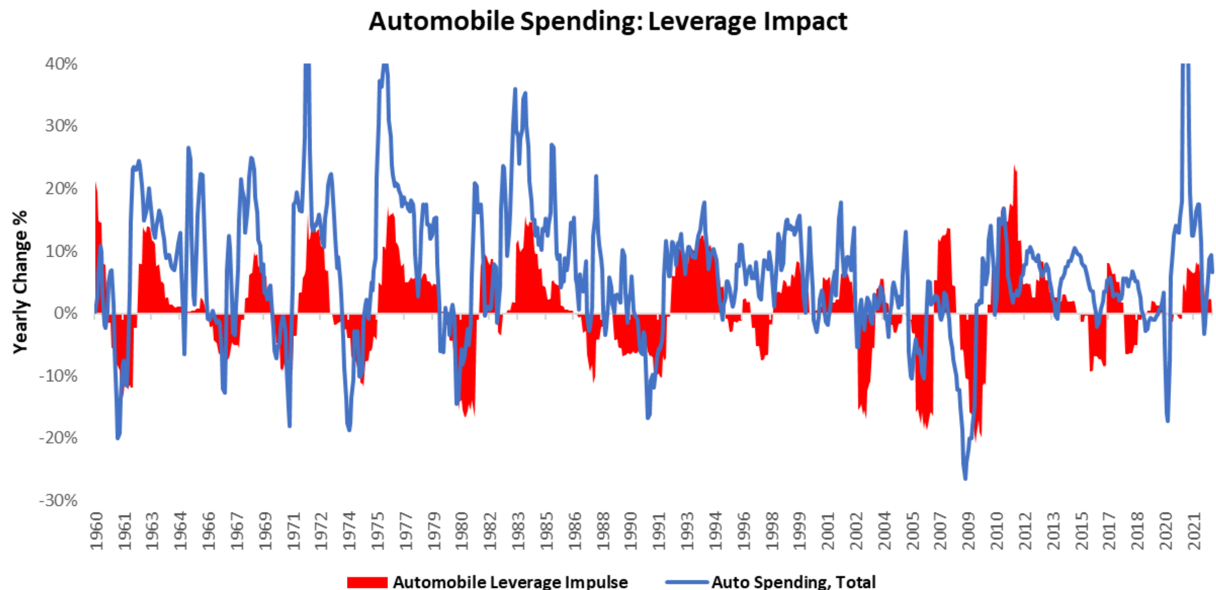
Netting out these asset and liability items, we estimate that household net worths are contracting versus one year prior. We show this below:

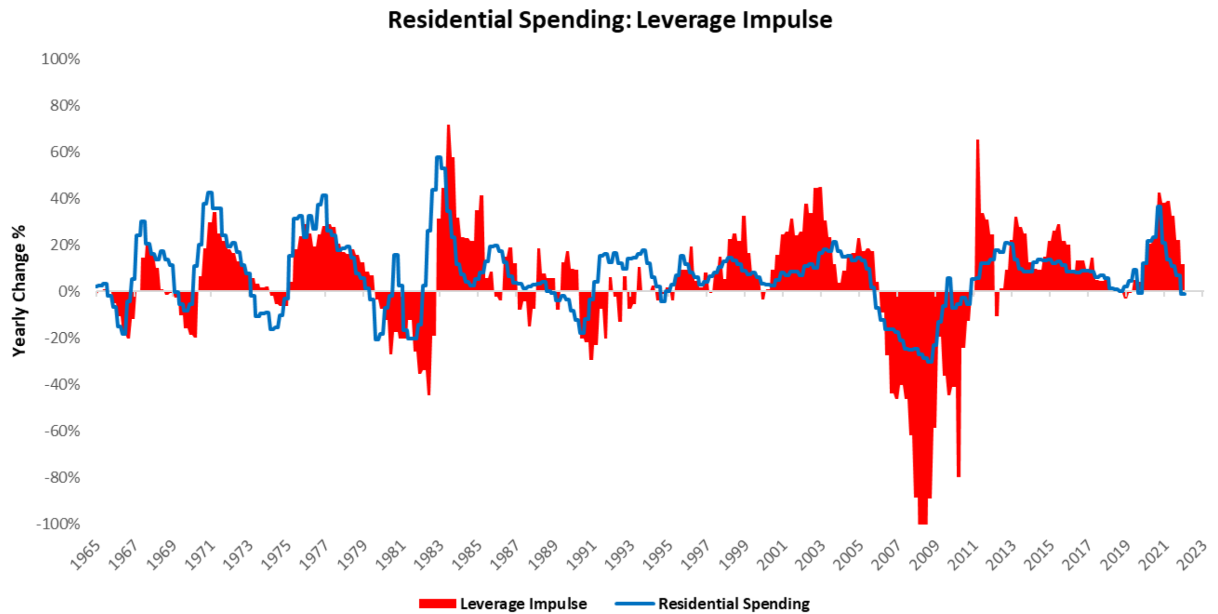


This decline in net worth, alongside an elevation in the cost of capital still working through the system, will likely detract from future borrowing. In industries where the leverage cycle is relatively short, i.e., automobiles, we are already seeing the impact of this reduced borrowing impulse:

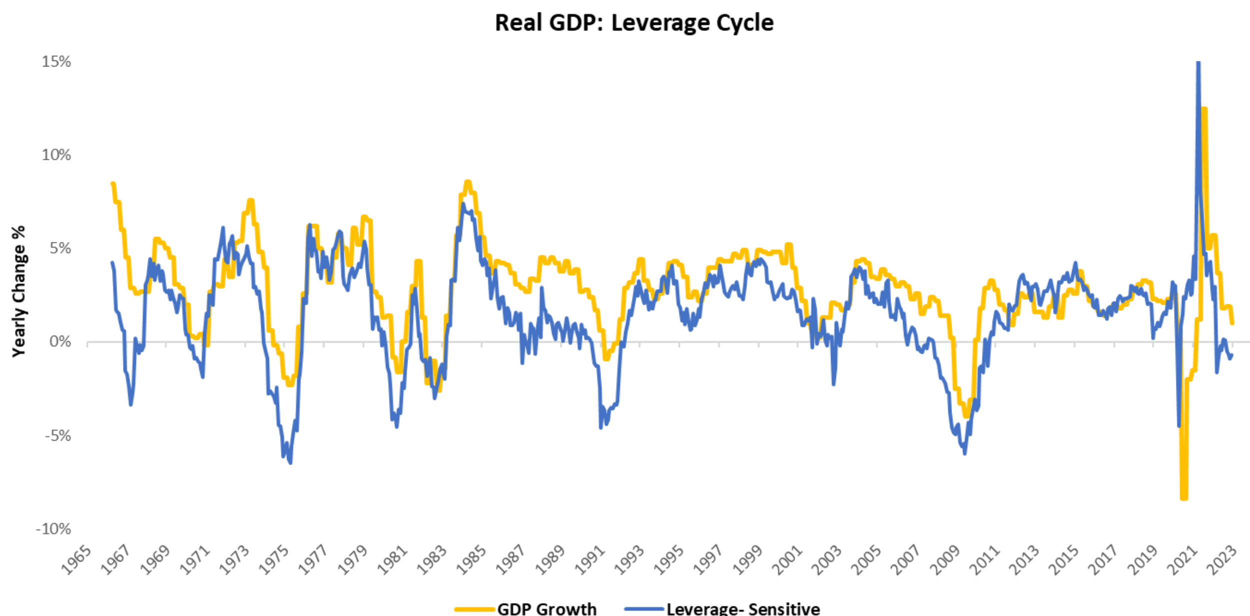


Therefore, while we have seen some impacts of the tightening of financial conditions impact the asset side of private balance sheets, we are yet to see the effect of reducing liabilities in many areas.

Below, we show how the leverage impulse from mortgage borrowing continues to support nominal residential spending:



Thus, while the initial stages of the tightening cycle have begun, we expect a further contraction in leveraged areas of the economy to facilitate weaker spending in the broader economy. Below, we show our tracking of leverage-sensitive sectors of the economy relative to the broader economy:



Therefore, we expect that balance sheet dynamics will likely facilitate lower nominal and real consumer spending and income in the coming quarters.

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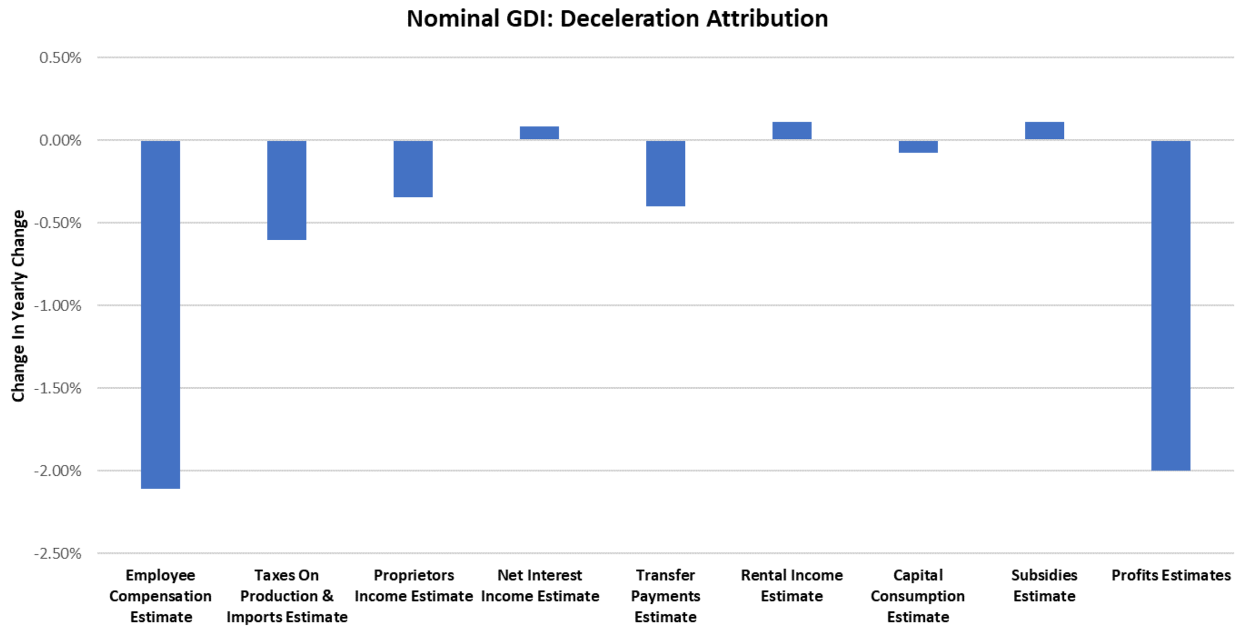
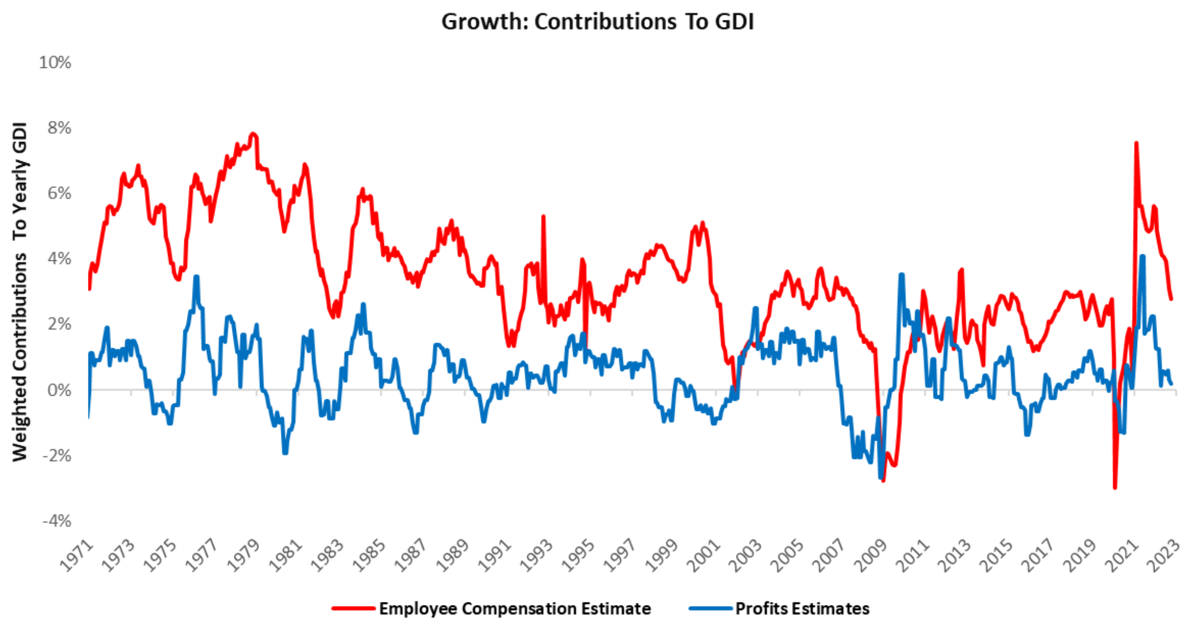
Additionally, we expect a weakening of labor market conditions to precipitate weaker economic activity. We expect this weakening will likely come from corporations trying to claw back their share of total spending from labor. To illustrate this, we show the attribution of GDI deceleration to its constituents:



What is extremely important to note here is that while these decelerations were roughly commensurate with each component's share of GDI, profits took on an outsized declaration relative to its typical GDI contribution. Profits typically account for about 7% of income growth, but in 2022 they took on approximately 40% of the total income decline.



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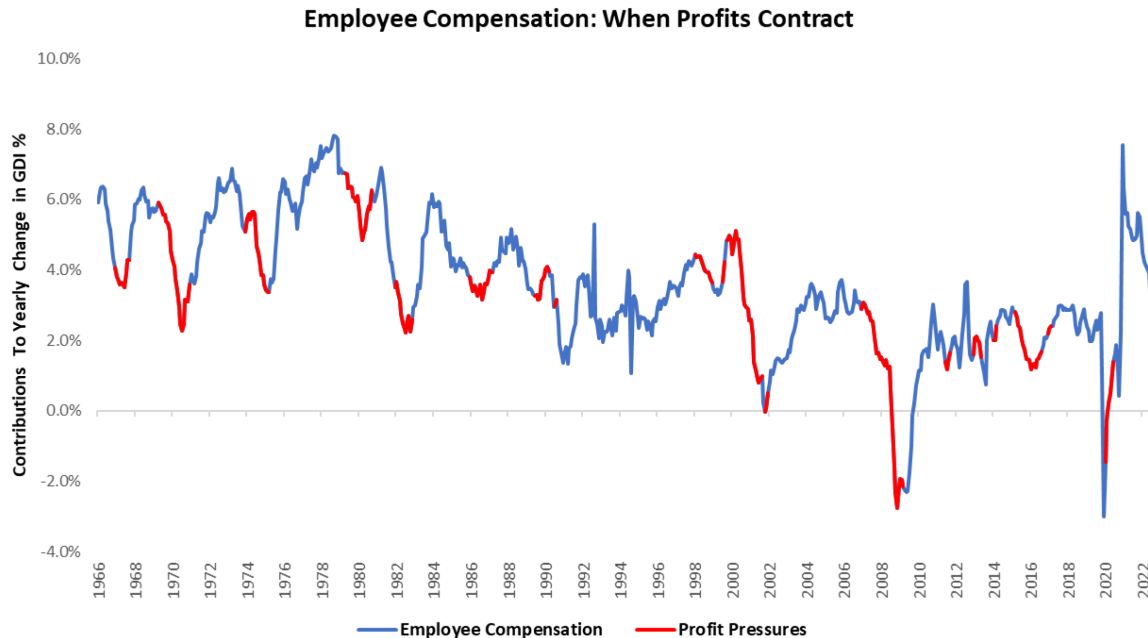
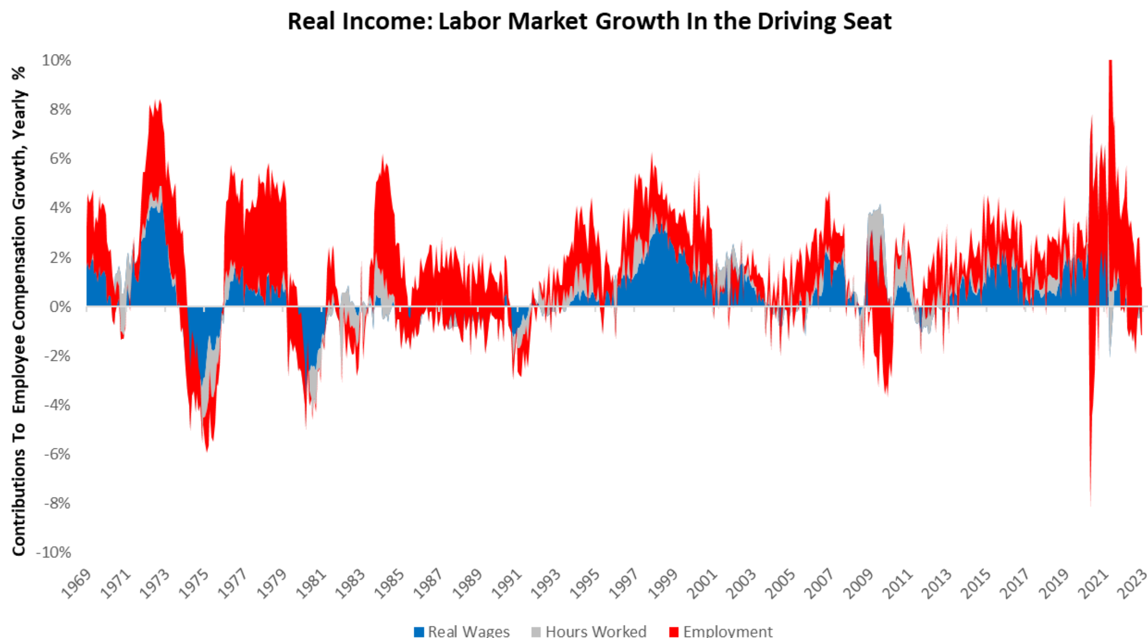
As corporate profitability moves into contractionary territory, businesses attempt to pull back costs while maintaining topline. They begin by cutting investment, for which we have already seen the early indications. Next, they try to control wages by reducing the number of hours employees work for a given wage. Finally, if the business environment is adequately challenging, they resort to layoffs. Therefore, profit contractions tend to bring about decelerations in nominal employee compensation. We show this below:



Furthermore, when we strip out inflation, we see real compensation extremely close to contractionary territory:



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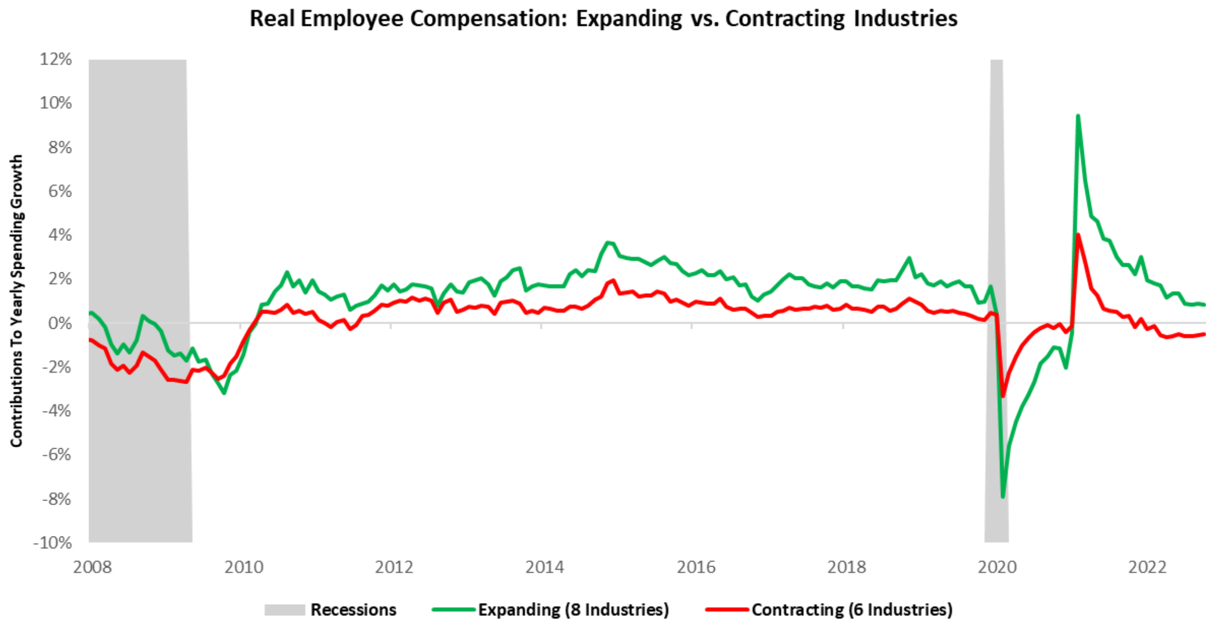
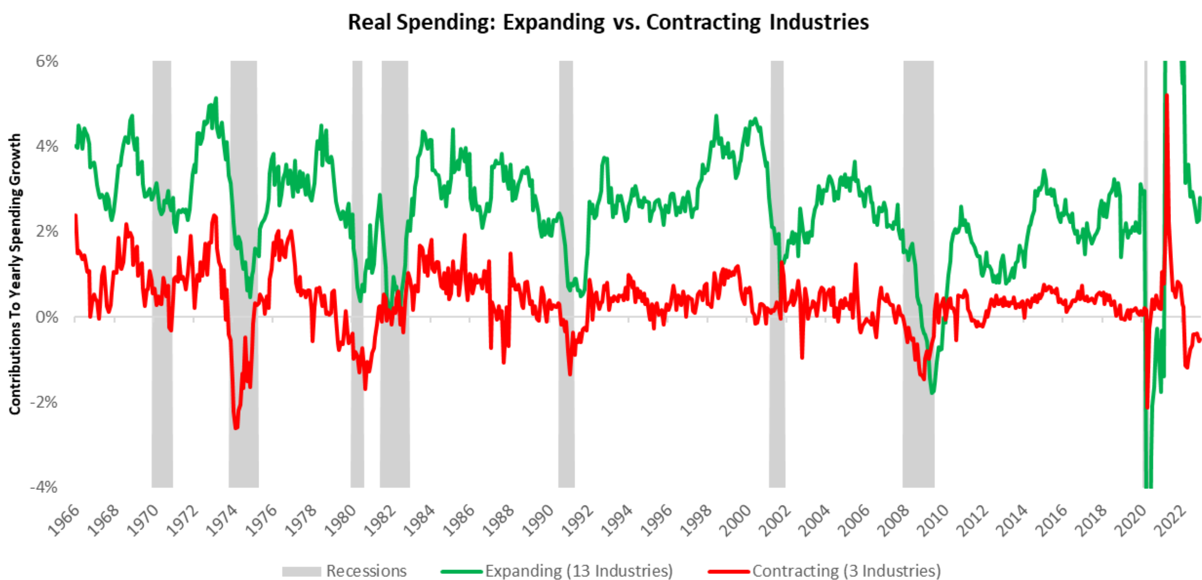
Companies have cut back on the number of hours employees work, and their real wages are negative. The only factor keeping up real wages is simply the ongoing strength of the labor market. We could see real incomes turn negative within the next quarter at the current deceleration rate. Furthermore, when we look under the hood, we see an even weaker picture than the aggregate data presents:



Above, we show how real incomes are contracting in many industries, including manufacturing, trade, and financial services. This declining real income is translating into declining real spending in many sectors, though the reduction of savings rates has somewhat blunted this:



Our assessment of conditions leads us to think that the next leg of weakness in household spending will likely come from a softening of the labor market.

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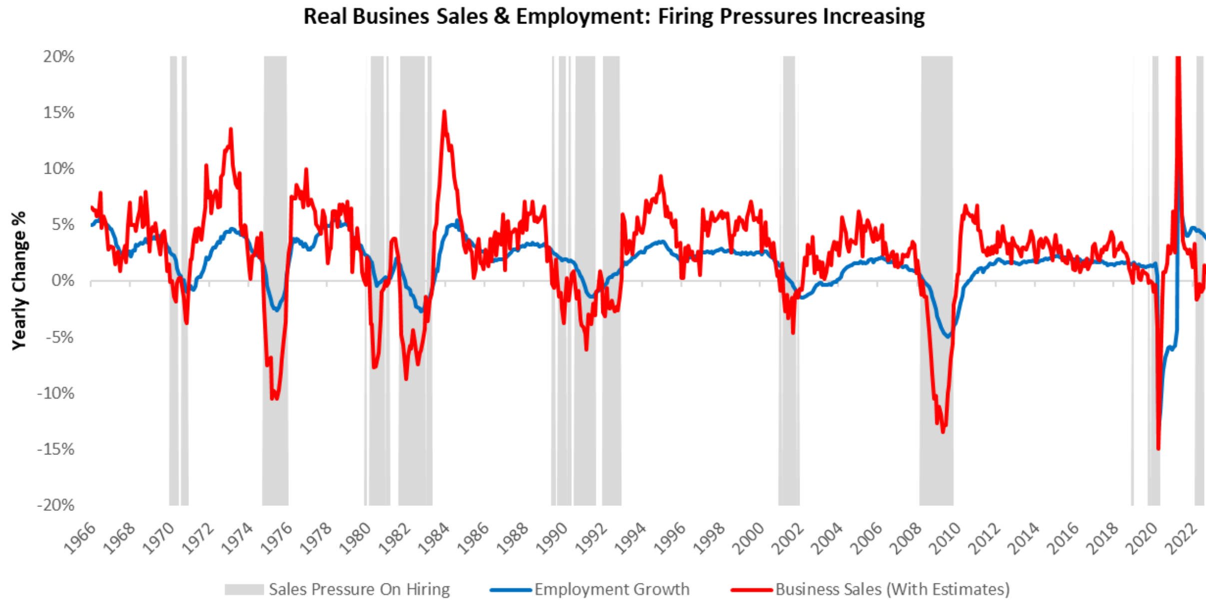
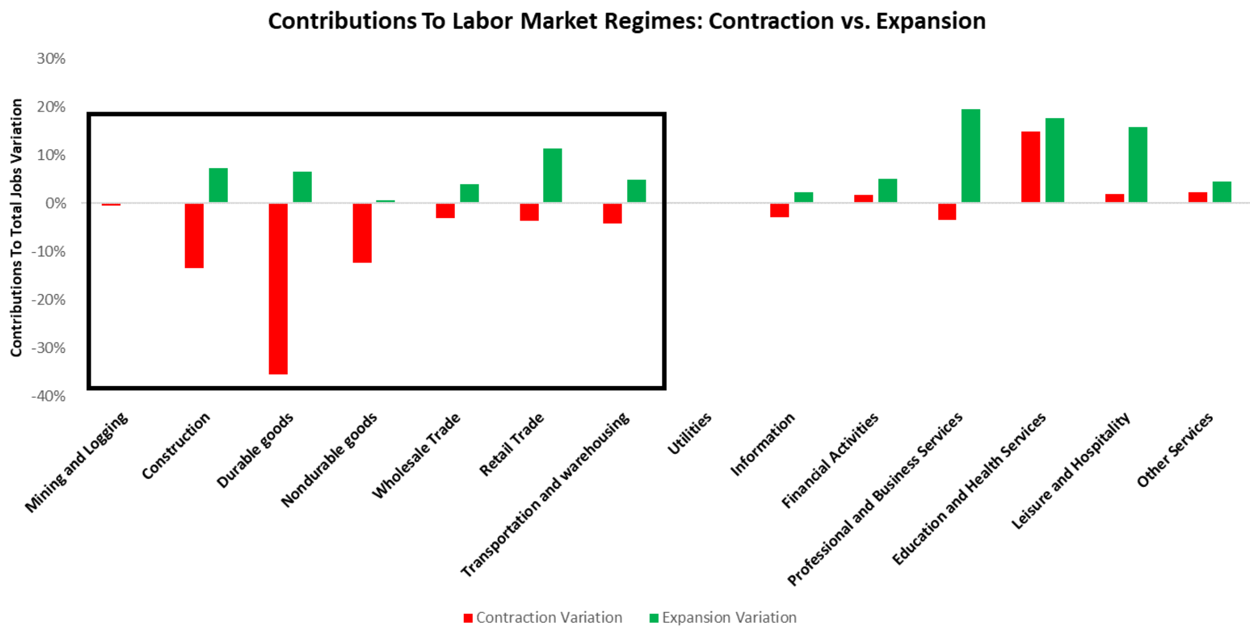
As we alluded to in earlier sections, there is an intrinsic link between output and employment. As businesses create more output, they create more income, which allows for more spending, which requires more employment. ***Therefore, while employment is paid for with nominal dollars, its purpose is to produce output.*** Below, we show how the relationship has held over time:



Since 1966, every contraction in real sales has led to a contraction in employment. If business sales remain in contractionary territory as they are today, employment is likely to follow; the question is what will drive this contraction. Our analysis leads us to think that the economy's cyclically soft and leverage-sensitive areas will first show signs of weakness. Below, we help contextualize this expectation by looking at the contributions of various sectors to expanding and contracting labor markets:



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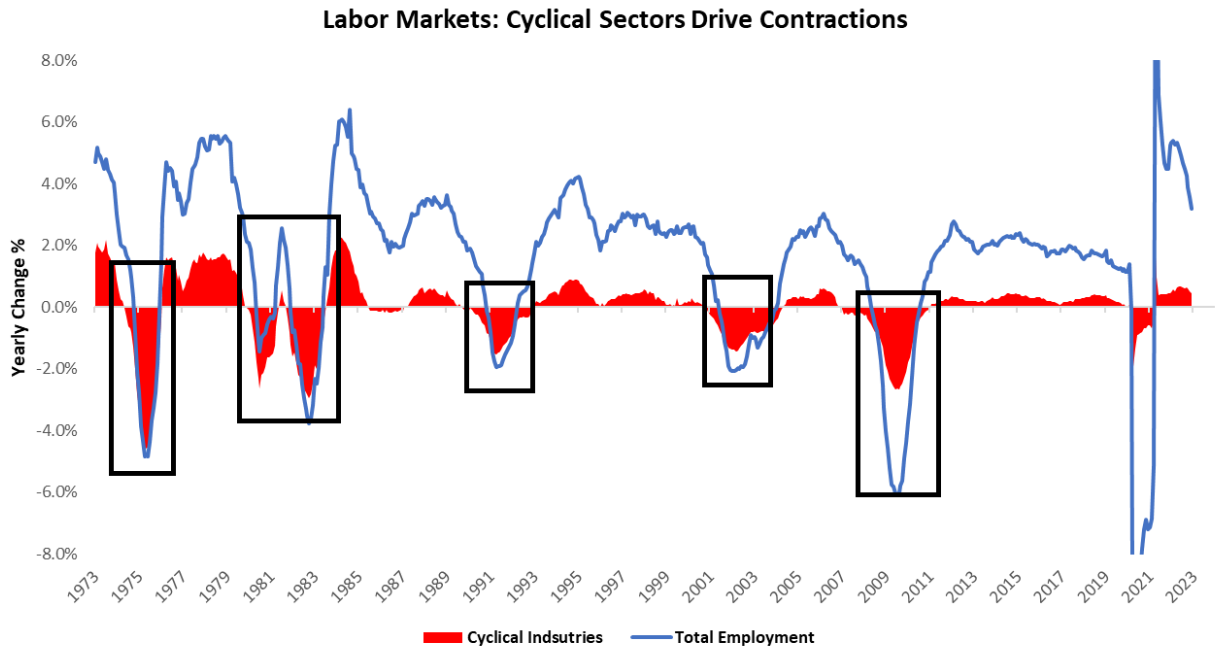
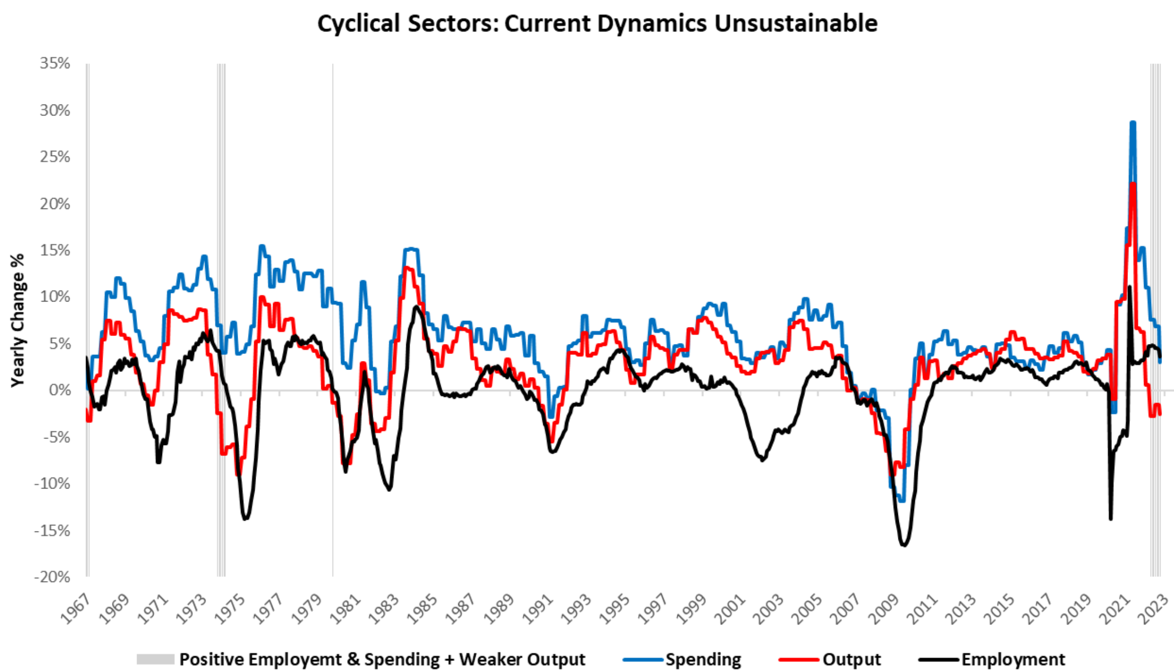
The illustration above shows the contributions of various sectors to total labor market variation when labor markets are expanding (green) or contracting (red). As we can highlight above, a small segment of cyclical industries drives almost all downside variation in labor markets. We show this over time below:



As we can see above, barring the most recent COVID-19 contraction, cyclically sensitive areas of the economy drove the lion's share of employment downturns. This context is particularly important in today's setting, as when we examine the output in these areas, they are in contraction, while nominal income and employment remain positive. We judge these dynamics to be unsustainable:



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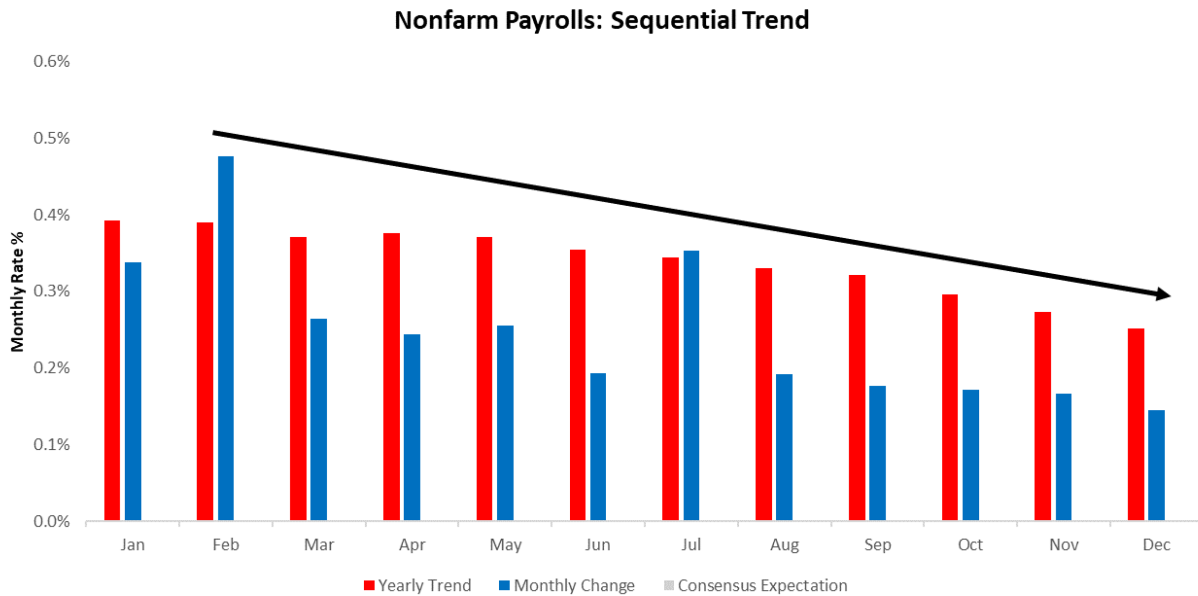
The visualization above shows the evolution of nominal spending, output, and employment in cyclically sensitive sectors. Additionally, we highlight periods that resemble today, i.e., where spending and employment are positive, but output is negative. These episodes have been a rarity in recent history, with the most recent analogs only in the 1970s inflation. All these episodes resolved themselves through lower employment and decelerating spending, and we judge today to be consistent with this history. Nonetheless, while our employment outlook is weak, current employment remains positive. Below, we show the recent sequential data for nonfarm payrolls:



The payroll data above comes alongside a positive trend in initial claims. Below, we show the recent evolution of jobless claims data over the last twelve weeks. Our tracking of this data shows us that we are a ways off from recessionary territory:

Jobless Claims: Recent History Relative To Recessionary Averages

	Initial Claims	Continuing Claims	Continuing Claims %
11/11/2022	223	1551	1.10%
11/18/2022	241	1609	1.10%
11/25/2022	226	1670	1.20%
12/2/2022	231	1669	1.20%
12/9/2022	212	1669	1.20%
12/16/2022	216	1718	1.20%
12/23/2022	223	1697	1.20%
12/30/2022	206	1630	1.10%
1/6/2023	206	1655	1.10%
1/13/2023	192	1666	1.10%
1/20/2023	186	1655	1.10%
1/27/2023	183	-	-
Recessionary Avg. (Ex-COVID)	473	3395	3.51%
Recessionary Avg	573	3658	3.64%

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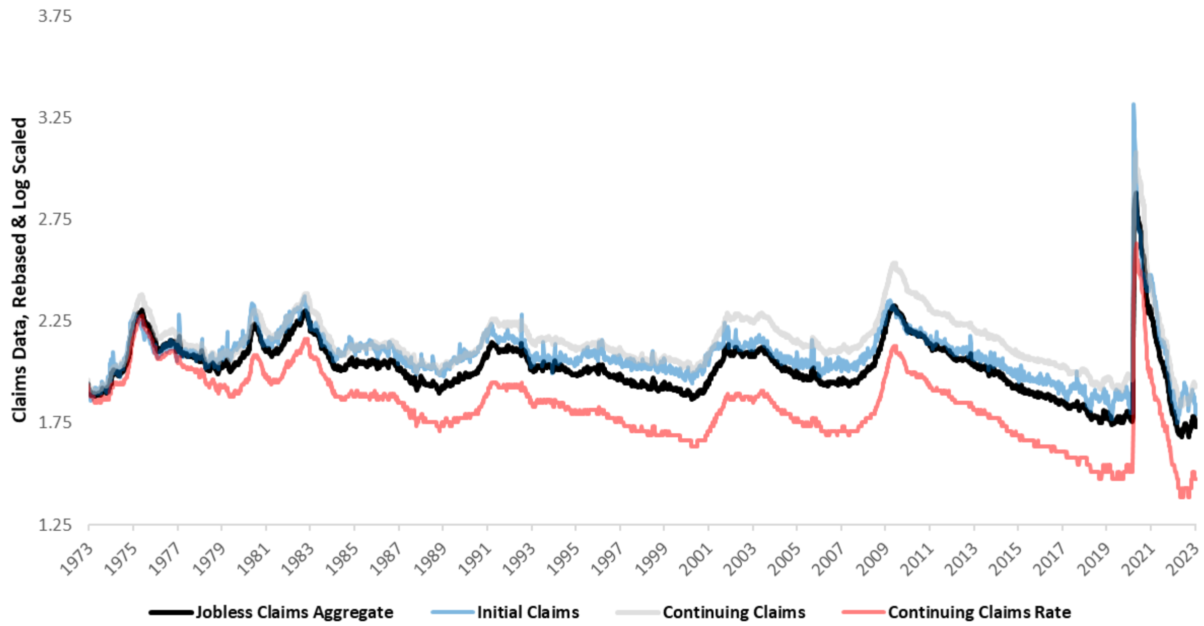
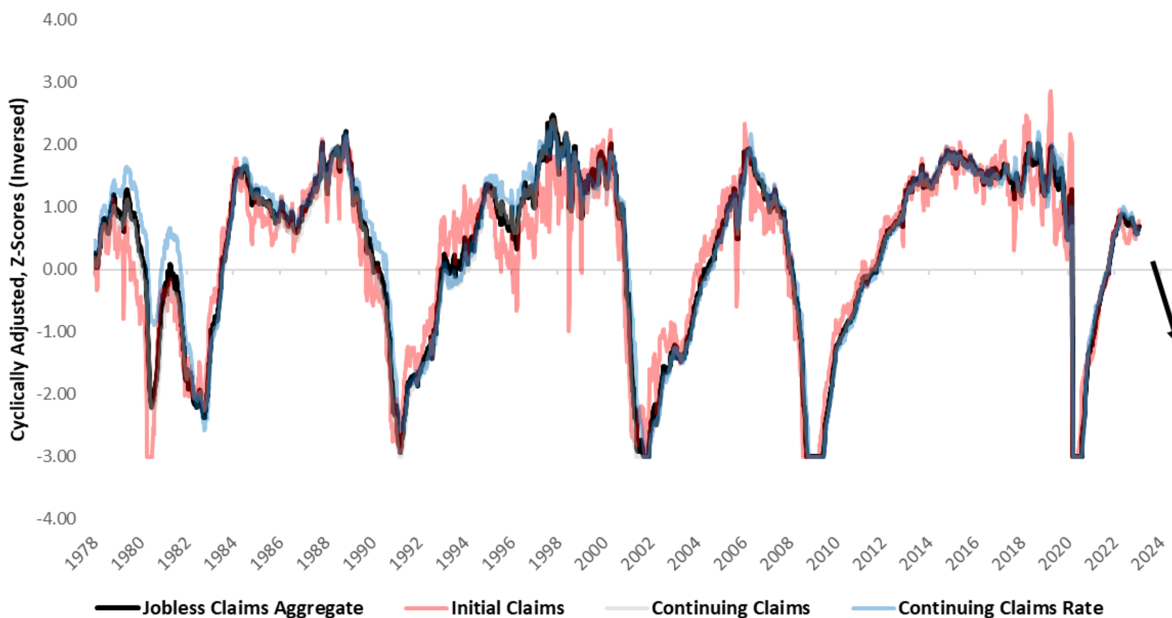
Most recent initial & continuing jobless claims both disappointed expectations at 183 & 1655 versus the expected 195 & 1684, respectively. Below, we show the history of these measures and the continuing claims rate after adjusting these measures to provide an apples-to-apples comparison. Additionally, we combine these measures into a Jobless Claims Aggregate to capture the broad trend in the data:



Finally, on the labor market front, we show these jobless claims measures adjusted to show our position in the labor market cycle:



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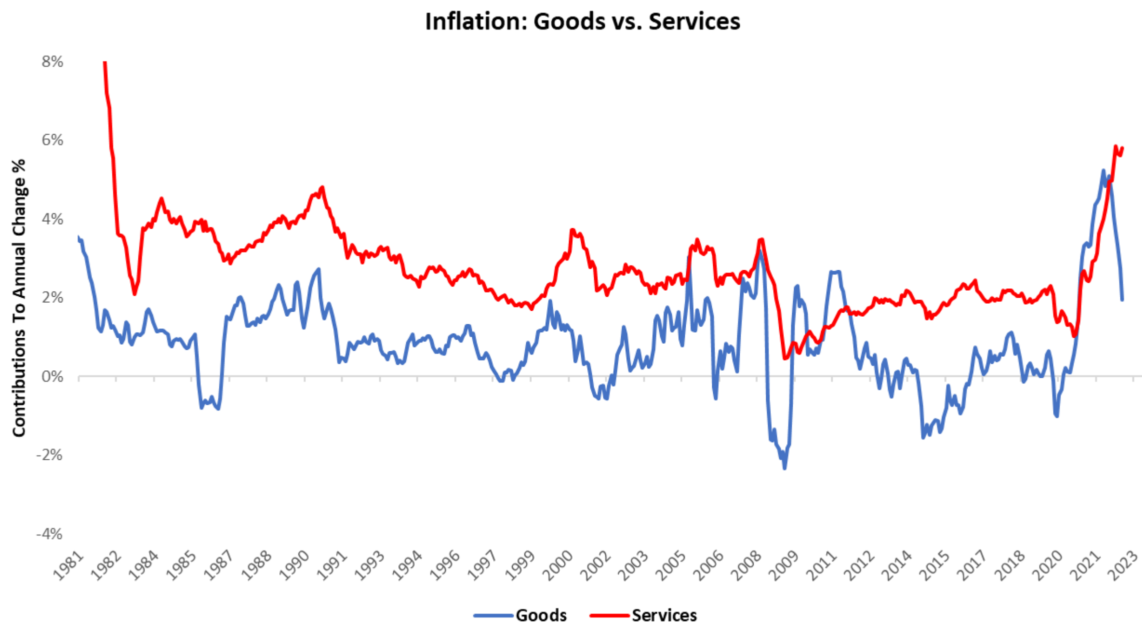
Therefore, while we expect weaker labor market data in the future, current labor market data remains strong. We will continue to monitor these dynamics to understand how conditions are evolving relative to our expectations.

Given our outlook for nominal spending and employment, our inflation outlook is now one of inflation stabilization. Reduced investment and decelerating leverage have been felt most significantly in the manufacturing sector and have impacted goods prices far more than service prices. Spending on services largely comes from income rather than borrowing and thus tends to remain far more resilient even during downturns in economic activity. Below, we show the divergence between inflationary pressures in the economy:



Inflation begins with shocks to the balance between money and real resources. Mechanically, once the initial shock has passed, the continuation of inflation depends on whether inflation makes its way up the supply chain to labor in a manner where nominal spending continues to push nominal demand, creating a self-reinforcing loop, i.e., entrenchment. Even if inflation becomes entrenched, it cannot sustain itself indefinitely, as it requires increasing output, credit, or money. Given the growth dynamics detailed in this note, we think it is unlikely that the private sector will expand credit activity. As we will touch on later, it is also unlikely that the US government will grow liquidity. As we have shown, there are also considerable pressures on output. The combination of these factors leads us to estimate that inflation will continue to experience the cross-currents from a weakening goods sector but a resilient services sector.

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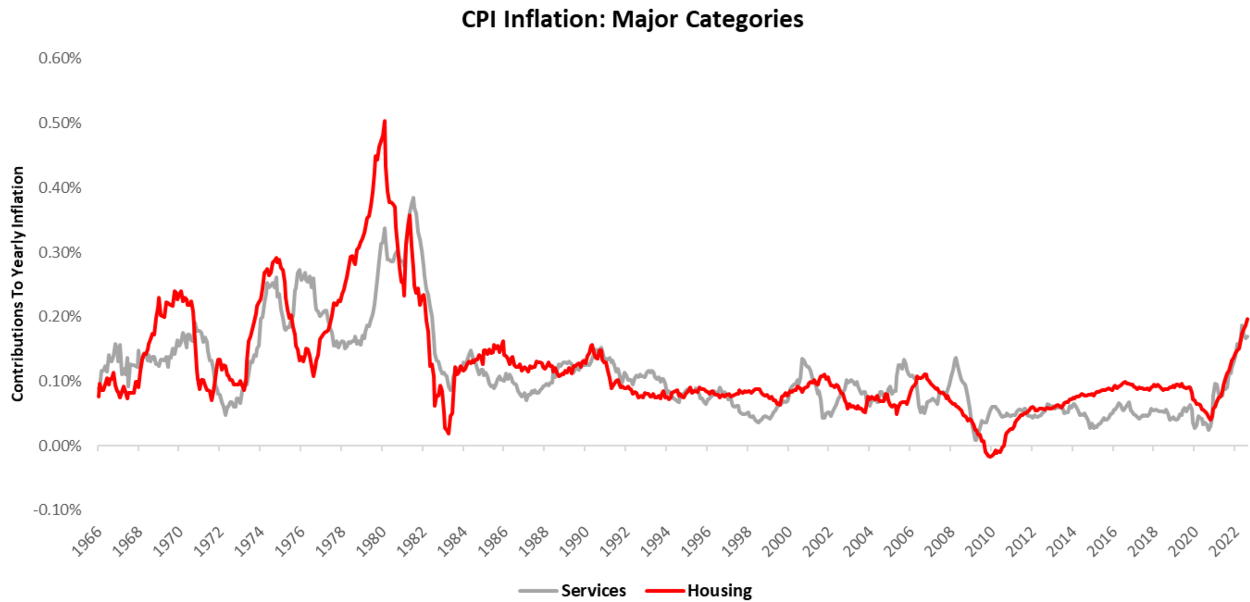
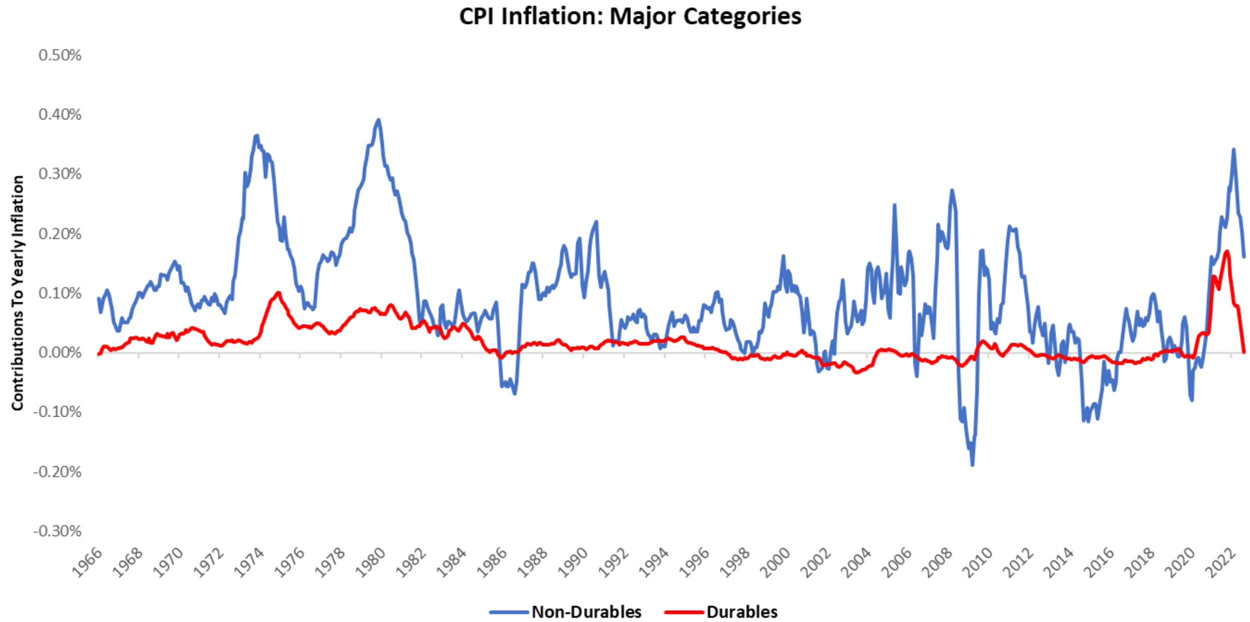
Below we illustrate the big-picture cross currents for inflation. Below we show the yearly change in services and housing, which remain elevated:



Conversely, we showcase the broad components of inflation contributing to deflationary pressures:



As we can see, these two segments of the economy paint very different pictures. These opposing sectors are muting each other's impacts, resulting in more moderate inflation prints.

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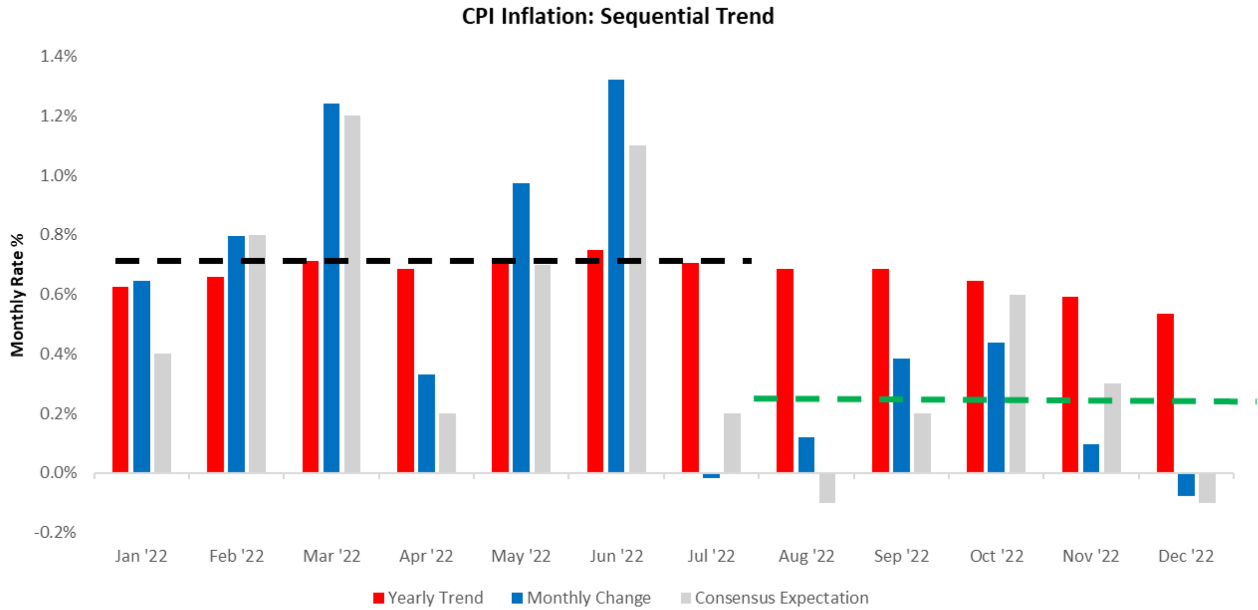
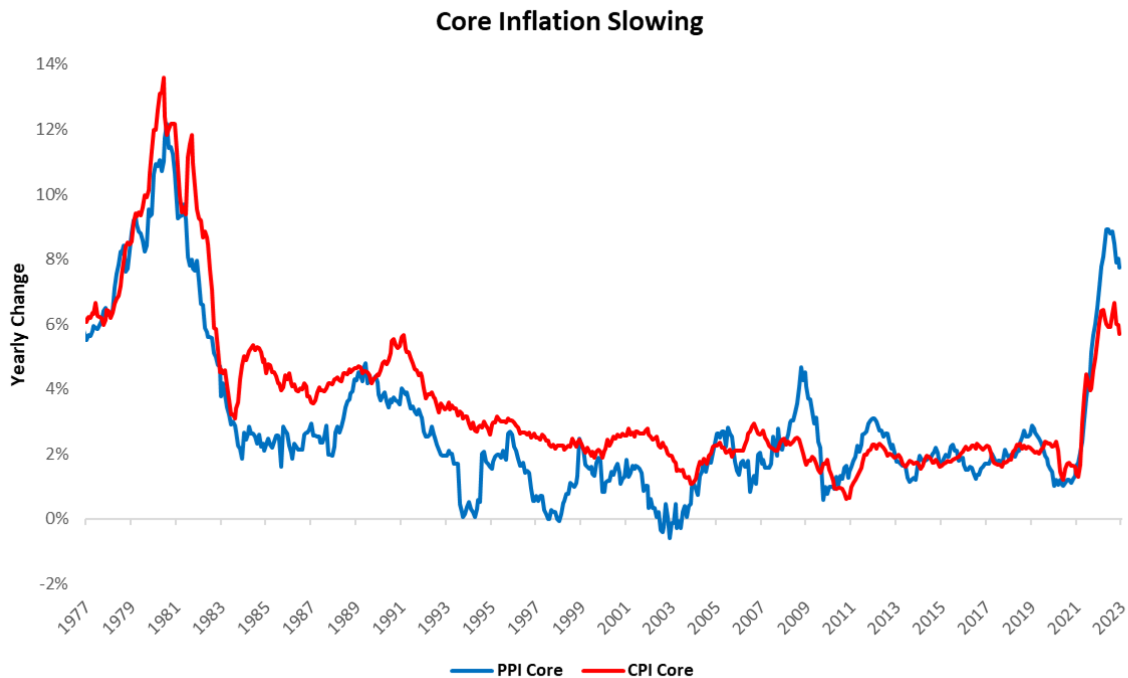
Below, we show these inflation cross-currents have resulted in a significantly lower inflation trend than earlier in 2022:



We see this amelioration not only in sequential headline data but also in trend data for core CPI, which we offer below:



Furthermore, when we look to the horizon, both core and non-core components of various inflation series are likely to see improvement as housing inflation and commodity prices inflation both wane.

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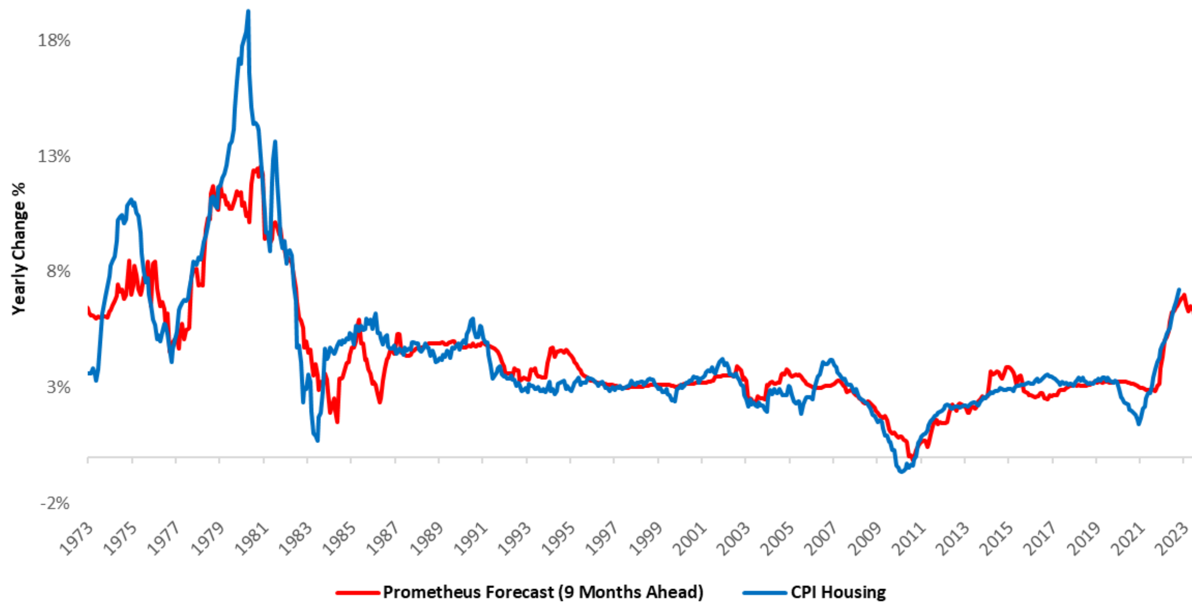
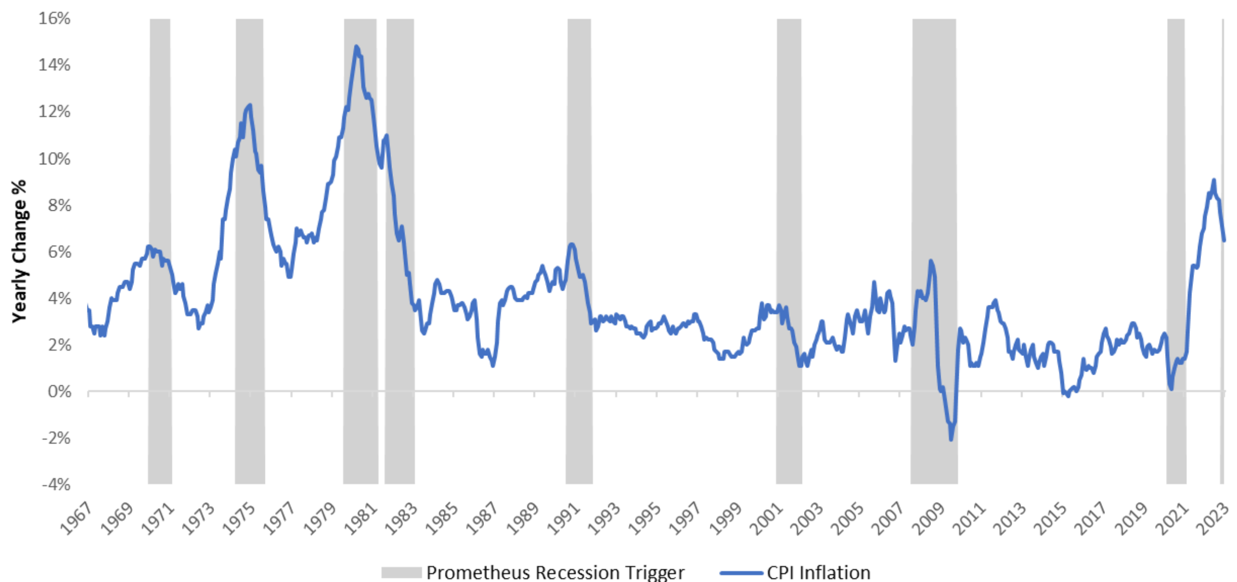
Our estimates show that the worst of housing inflation is likely behind us, with amelioration likely in the cards in 2023:



This slowing housing inflation will stabilize a huge undercurrent supporting core inflation. Finally, the most meaningful contributor to a weakening of CPI will be a potential contraction in real GDP. Our systems have now been triggered to expect recessionary conditions beginning in the next one to two quarters. Even if a material recession is not realized, it is a significantly negative development for nominal demand that initial conditions have been met. Below, we show the historical record of when our futures estimates flagged the buildup of recessionary conditions :



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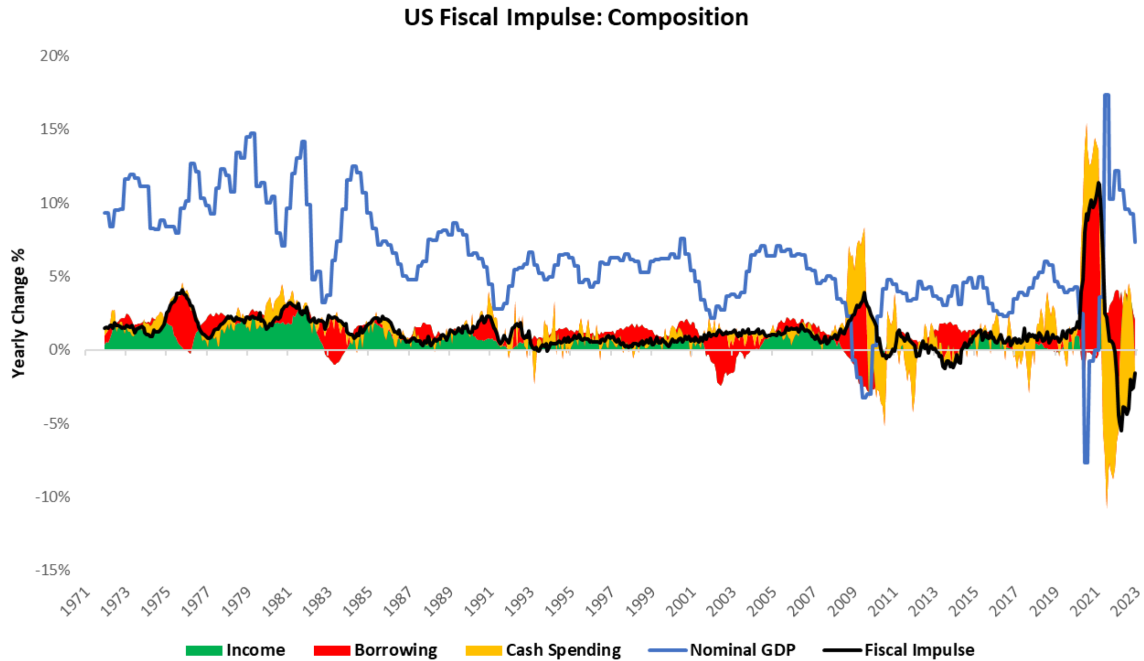
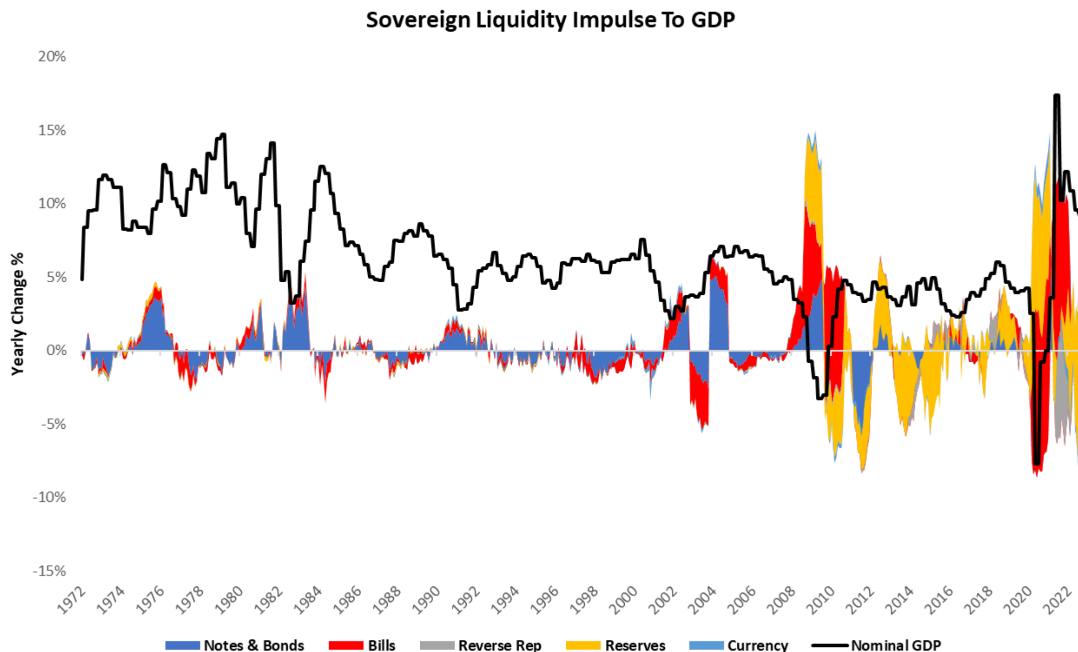
Any further inflation acceleration will either come from a commodity shock or from strengthening nominal demand. As shown through this note, the likelihood of increased private sector activity is relative, meaning the spending impulse would have to originate from the government (or abroad). Below, we show the fiscal impulse with its attribution relative to nominal GDP. As we can see below, the fiscal impulse has been a drag on nominal growth in 2022:



While fiscal spending has been a drag on GDP, it has been increasingly less so as fiscal authorities spent their existing cash reserves into the economy. Augmenting this fiscal impulse was an improving sovereign impulse, i.e., the aggregate impulse coming from the Treasury and Federal Reserve together:



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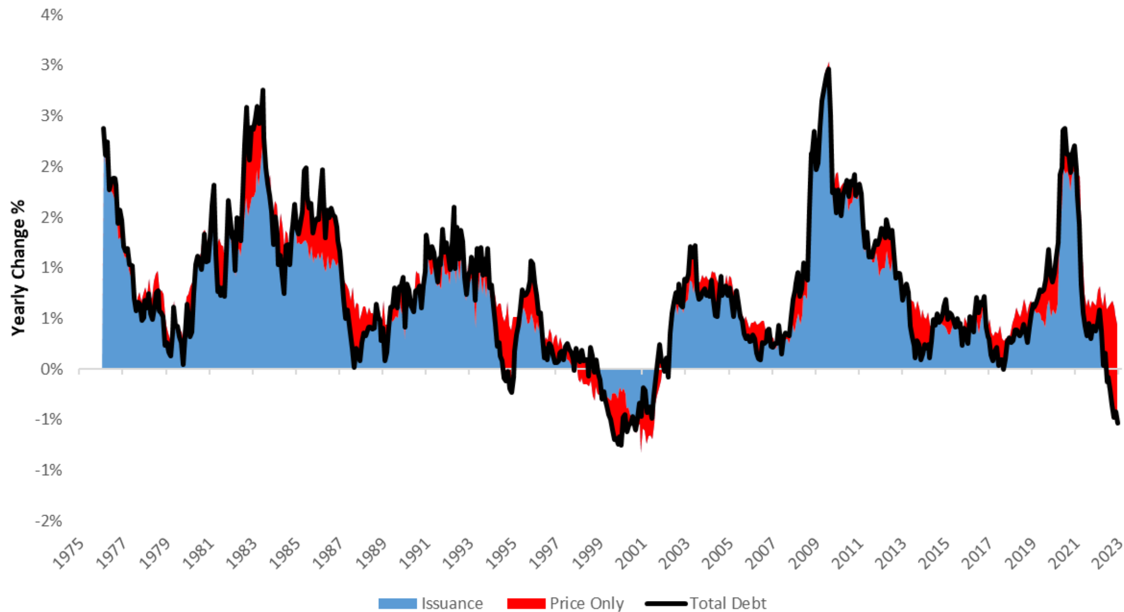
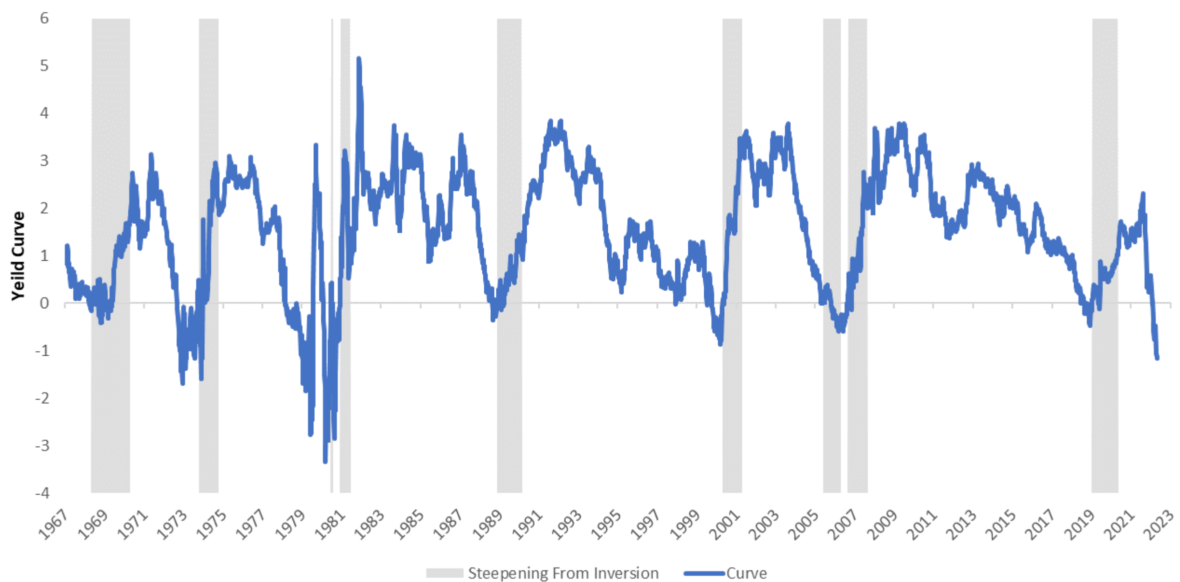
In our view, the improvement in economic and market conditions that we have seen in recent quarters can largely be attributed to this marginal improvement in the sovereign impulse after an exceedingly negative period in early 2022. In previous instances of fiscal expansion, the economy benefitted from the spending effect of the fiscal stimulus but also received a high-quality asset that generated income. In 2022, this dynamic reversed itself, as the price impact of weakening treasuries hurt the entire private sector. We show this below:



What remains to be seen in 2023 is whether the issuance of government liabilities will support private-sector wealth. This outcome will largely be driven by the shape of the yield curve, which is now inverted.



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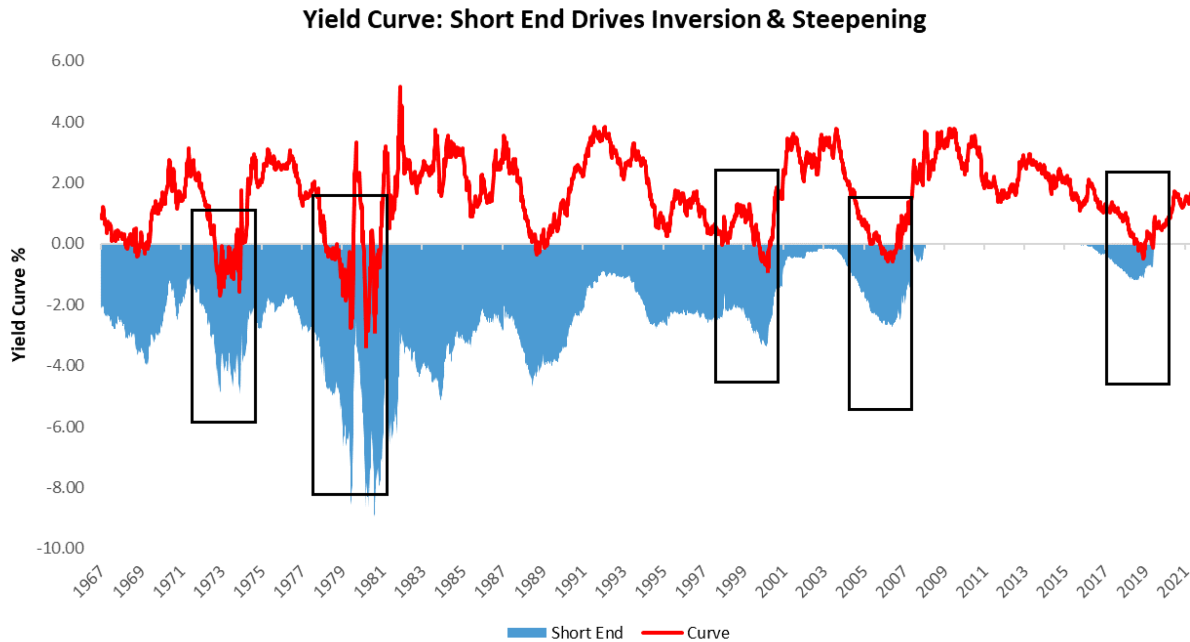
The primary risk that bondholders face today is the potential for a re-steeping of the yield curve after this inversion, driven by a sell-off in long bonds, i.e., the periods labeled above as "steeping from inversion." To better understand this risk, we decompose the yield curve into their two drivers, i.e., the long end and the short end, to understand what history has shown during these periods. We show this attribution below:



As we can see above, the primary impetus for both inversion and the subsequent steepening of yield curves is the short end, i.e., policy rates. Therefore, as we approach terminal Federal Funds policy rates, the curve will indeed steepen, but it is more likely to do so as policy rates ease rather than long-end yields rise. This move would benefit the economy; however, the economic activity that would catalyze such a move is unlikely to remain positive. Overall, we expect the government impulse to be neutral for the economy and asset markets. In our last section, we briefly touch on trade before concluding.

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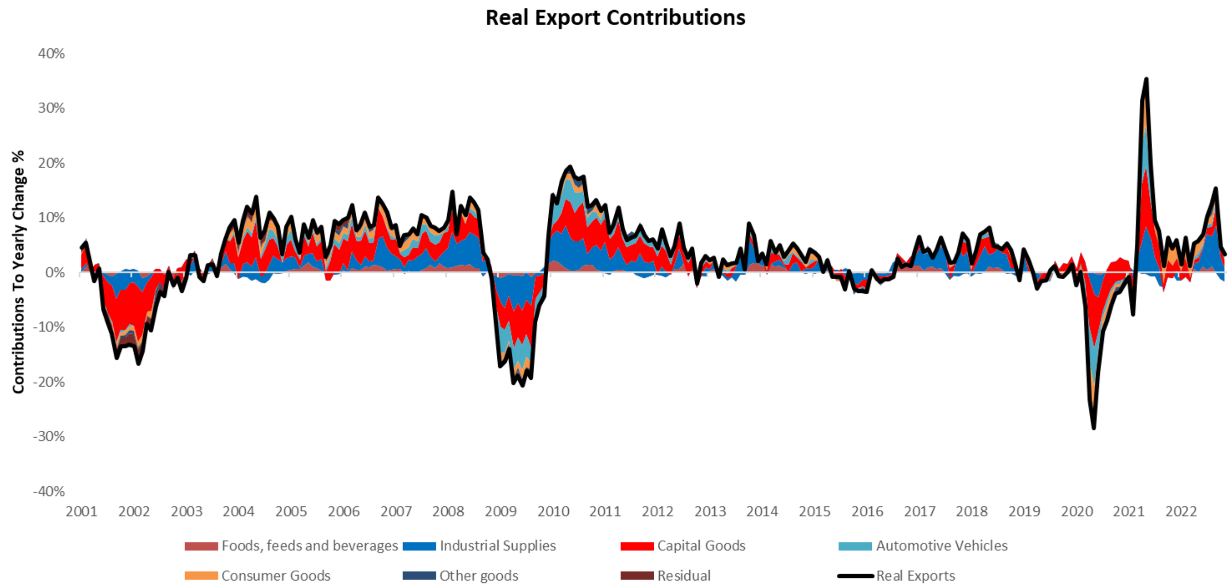
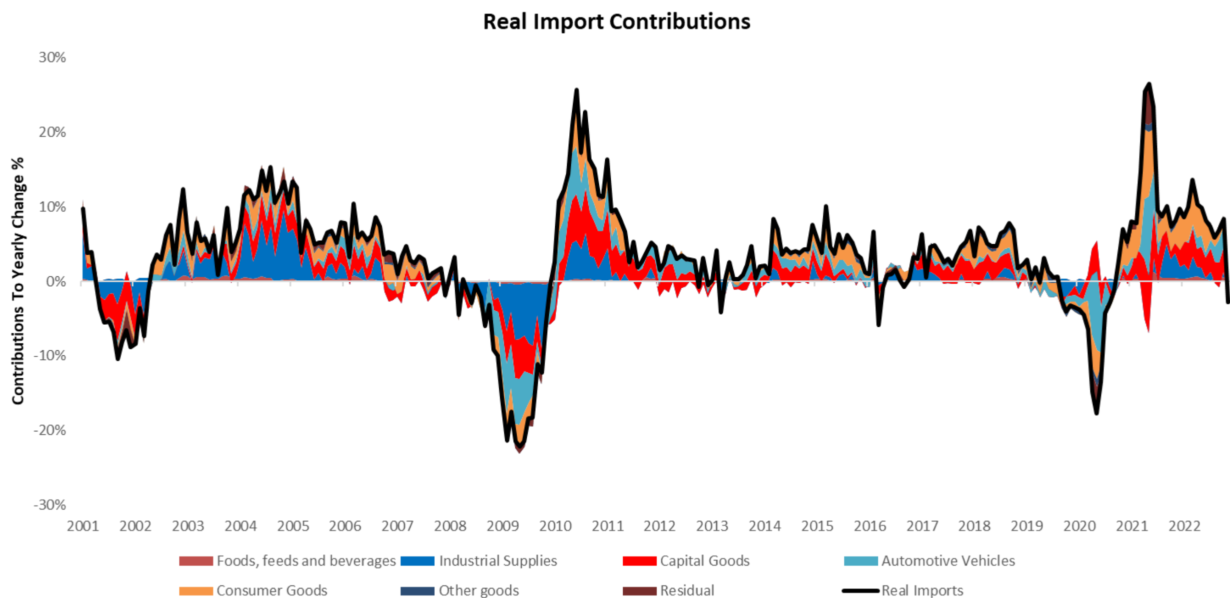
Trade balance data has contributed significantly to real GDP growth over the last two quarters. However, a large portion of the strength came from weakness in imports rather than the strength of exports. The latest data for November showed that real goods exports decreased by -3%. We show this below, along with its composition:



Simultaneously, the data showed that real goods imports decreased by -7%, driven largely by reduced consumer goods, automobile, and capital goods imports.



Overall, goods exports continue to move in line with output and production, whereas good imports reflect a weakening demand from manufacturers and wholesalers. The combination of these factors, while resulting in a positive trade balance, does not speak to a strong underlying economy.

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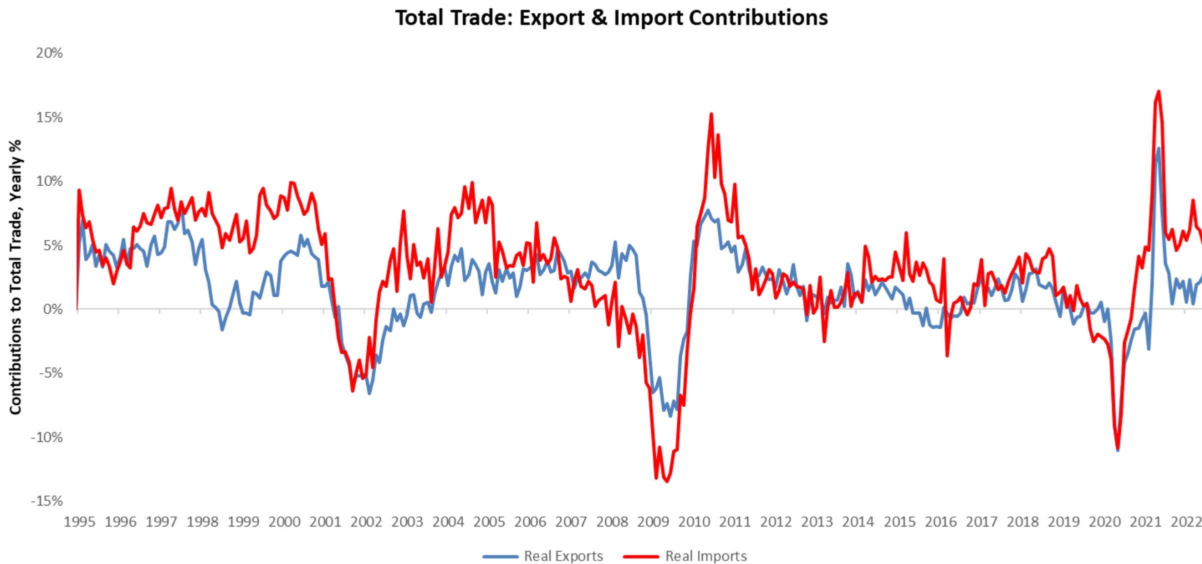
We visualize the impact of these trade dynamics below as a share of total trade.



As we can see, total trade volume looks to be decelerating significantly, mirroring the broader economy. This dynamic is consistent with the broader weakening of the economy, and we expect ongoing weakness.

Conclusions:

To reiterate the views laid out at the onset of this note:

- ***Nominal economic activity has decelerated with slowdowns in both growth and inflation.***
- ***Monetary and fiscal policies continue to be contractionary; however, increased credit creation by the private sector has offset this somewhat. This offset is likely to be transient.***
- ***The economic machine is moving to put increased pressure on business profitability, which will pressure labor markets. Conditions are in place for a contraction in Real GDP beginning in Q1-Q2 of 2023.***

We remain at the most challenging part of the business cycle, i.e., the turning point. The future is dynamic, and we will carefully observe how conditions may change relative to our expectations. The primary driver of a change in the outlook would be outsized action taken by monetary or fiscal authorities. For the time being, that does not look forthcoming. Until next month.

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