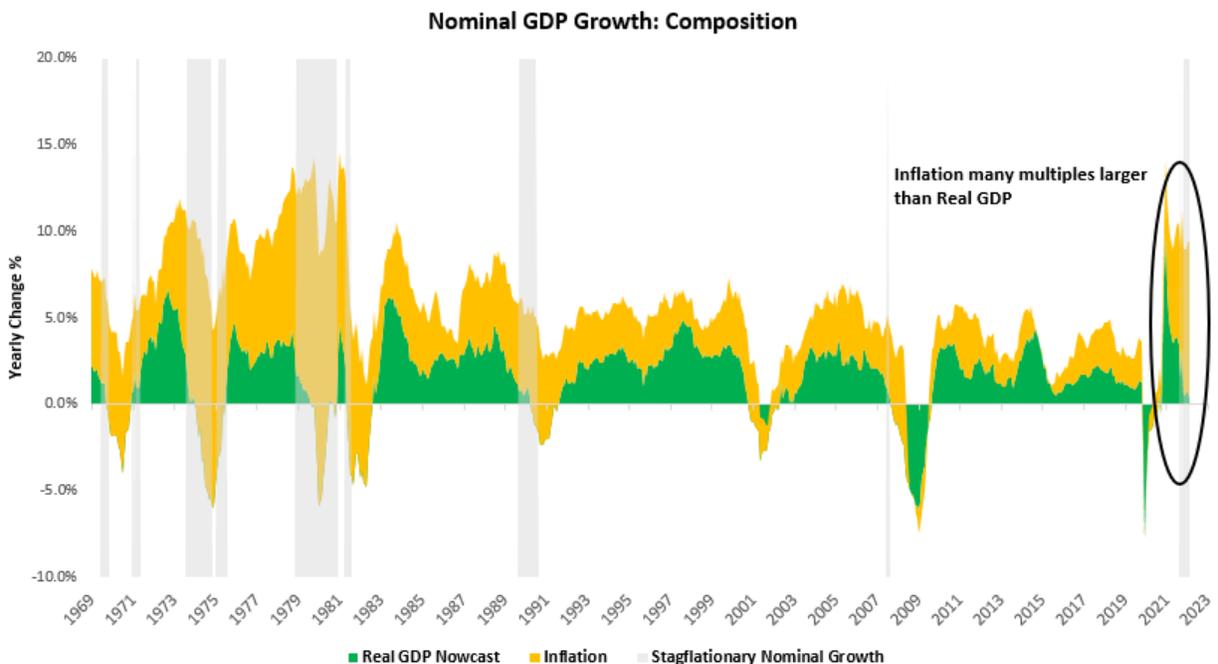


Month In Macro

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. This report will focus on the economy; future issues will include our market analysis. Our key takeaways are as follows:

- **We remain on a path towards contracting real economic growth amidst high inflation, i.e., stagflation.**
- **The next shoe to drop on the path toward stagflation is likely lower production; we continue to monitor these developments carefully.**
- **The Fed is tightening liquidity conditions and may likely have to go further than most expect to break inflation. Conditions remain bleak for asset markets.**

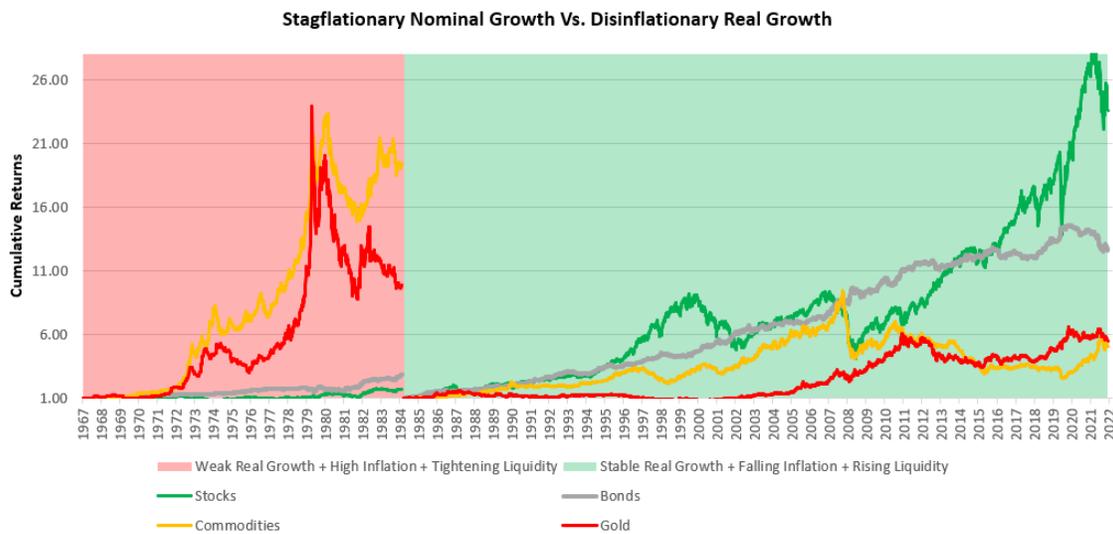
Stagflationary nominal growth persists. We define stagflationary nominal growth as a period where inflation accounts for the lion's share of total nominal growth. The latest estimates from our GDP Nowcast place real GDP at 1.0% vs. one year ago, with inflation running at many multiples of this number. As we have explained in previous editions of The Observatory, this environment is not what is uncommon but rather its extent. To illustrate this dynamic, we show real growth and inflation, and highlight periods that resemble today's growth and inflation dynamics:



Above, we highlight in grey periods of stagflationary nominal growth, i.e., periods that resemble today's growth and inflation dynamics. We do so to illustrate that while today's environment may be anomalous

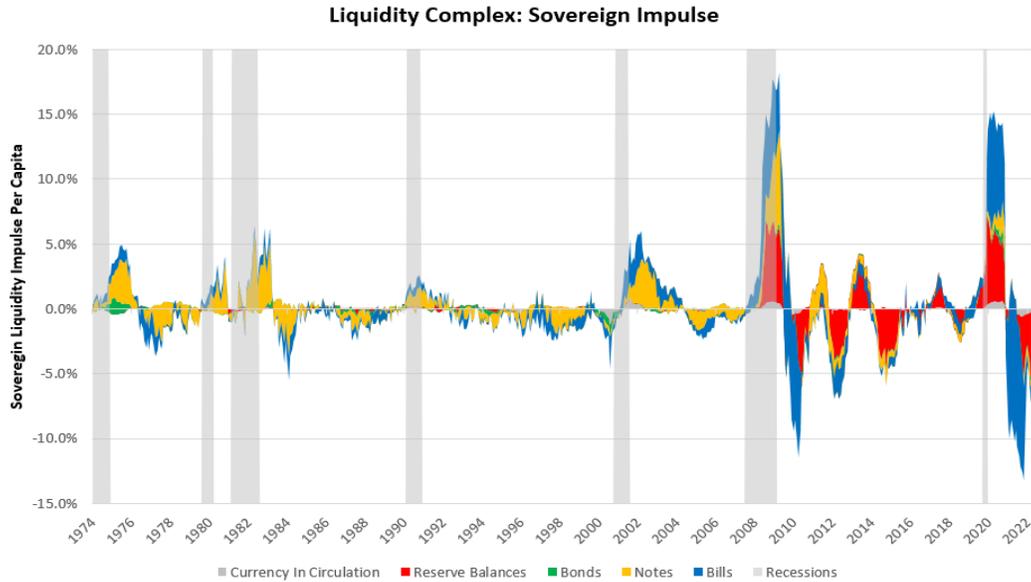
relative to recent history, we have seen periods like this in the past. In particular, the last period we have seen like today was in the 1970s. The 1970s presented a dramatically different set of circumstances to the 2010s and have resulted in many traditional investment strategies hurt by this year's 70s-like market pricing of high inflation, which dramatically contrasts with the last four decades for low inflation. It is pertinent to note that since 1984, markets have spent 65% of their time pricing in falling inflation— an environment beneficial to both stocks and bonds. Stocks and bonds have opposing growth biases, i.e., stocks prefer environments where growth rises because earnings stay healthy. In contrast, bonds outperform when their fixed cashflows look relatively attractive, i.e., when growth falters. Thus, stocks and bonds have been extremely good diversifiers. However, while stocks and bonds have opposing growth biases, they have the same inflation bias— they need stable inflation to perform well. Therefore, when inflation becomes a dominant force in the economy (such as in the current scenario), stocks and bonds perform poorly, both individually and together, in a portfolio.

To illustrate the differences in asset class performance, we divide the history of the data into two periods to display the diametrically opposing market impacts of two secular environments— Stagflationary Nominal growth (1967 to 1984) and Disinflationary Real Growth from (1984 to 2022):



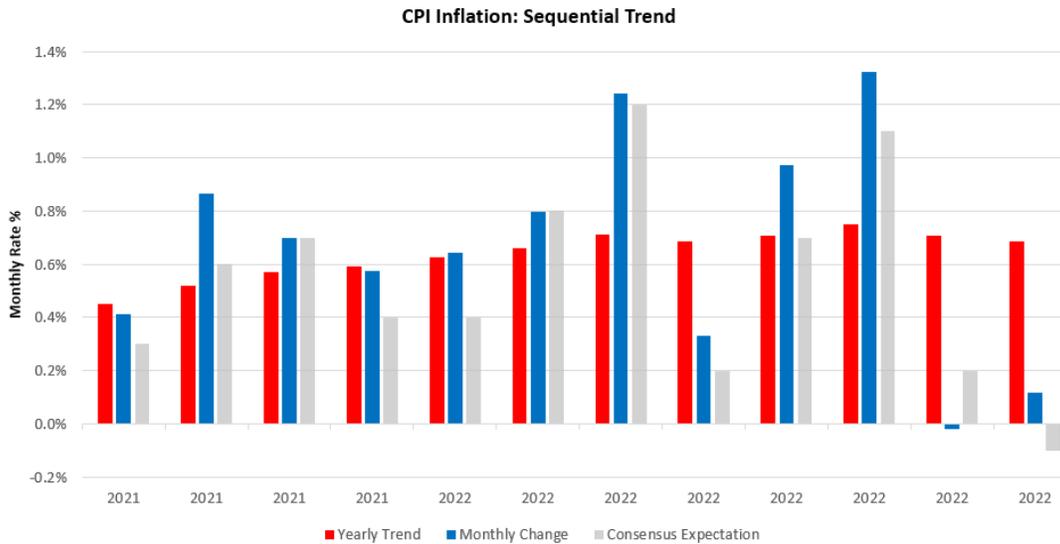
We can see that relative asset class performance during these periods differed dramatically. During stagflationary nominal growth, commodities and gold performed exceptionally well. From 1967 to 1980 (the first peak in interest rates), equities & bonds returned 2% and 5%, respectively, whereas commodities and gold returned 25% each. In contrast, during disinflationary real growth, stocks & bonds returned 10% and 7%, while commodities and gold returned 5% and 6%, respectively.

Furthermore, the situation has been exacerbated by tightening liquidity. We define liquidity as the stock of cash and cashlike asset that facilitate economic activity. Tightening liquidity reflects the drying up of funding liquidity in the economy, i.e. when the dry powder for future economic and financial activity contracts. Tightening Liquidity conditions manifest themselves in flattening yield curves, widening credit spreads, cheapening valuations, and poor risk asset performance.

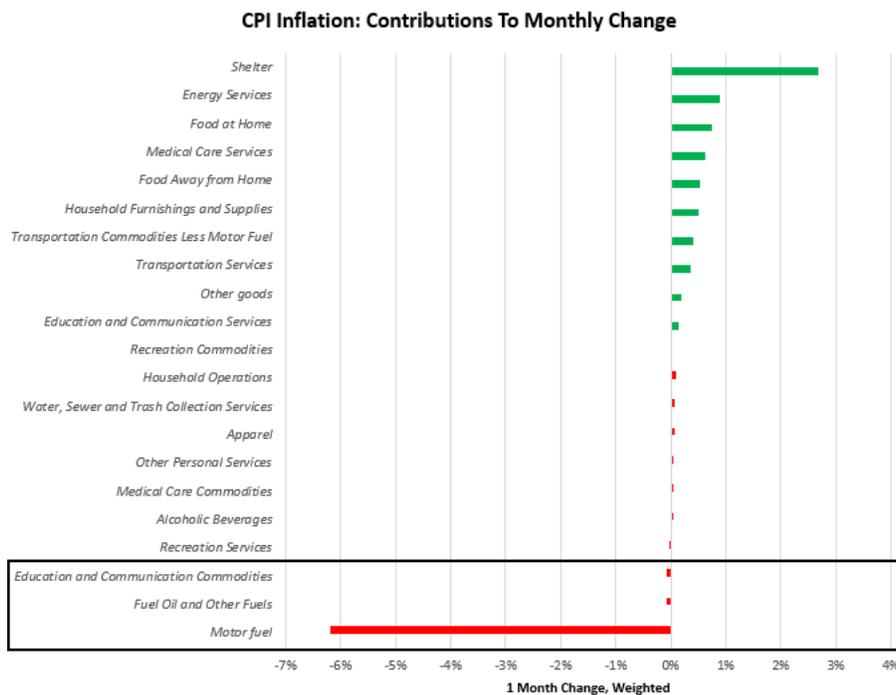


The current climate has been a function of the large amounts of liquidity in both financial markets and in the real economy created by the government authorities and expansionary monetary policy, resulting in both economic and financial inflation. The Fed is moving to curb these excesses but can only act through the financial channel- i.e., impact asset prices and future lending (credit). Meanwhile, cash created in the real economy remains abundant relative to output, resulting in sustained inflationary pressures. The only way to drain this cash would be through tighter fiscal policy, which does not look forthcoming. Therefore, money and credit need to find a new equilibrium relative to existing output, the process of which is inflation. Given that inflation is problematic, authorities can either move to curb inflation either through taxation (less cash) or tighter monetary policy (less financial assets). Authorities have chosen the latter and are moving to generate a significant contraction in asset prices through the reduction of financial liquidity.

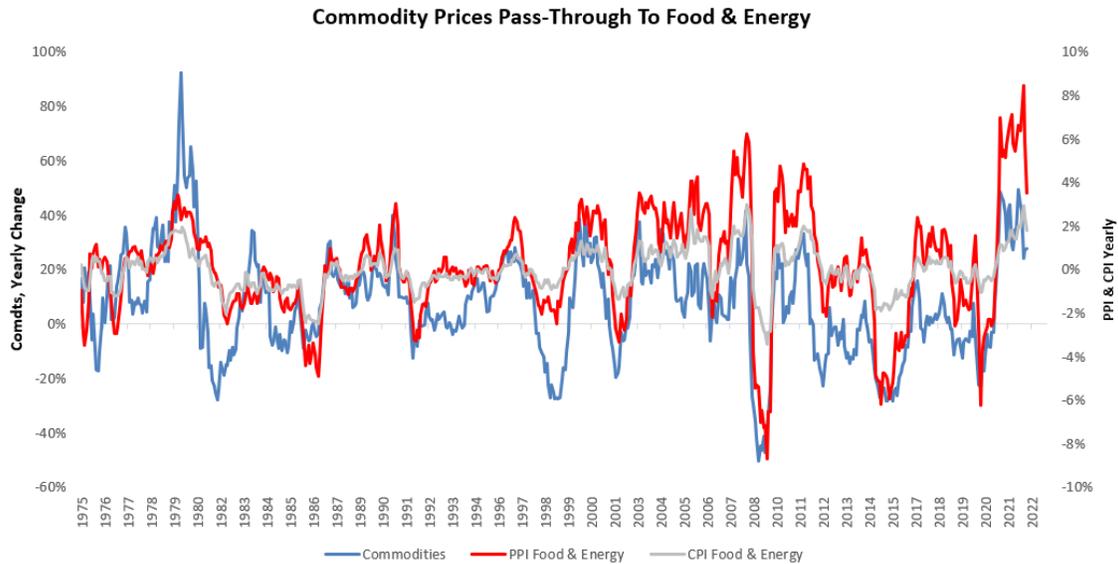
We remain a ways off from an adequate contraction in liquidity to drag on inflation. CPI inflation increased 0.12% in August, surprising consensus expectations of -0.1%. This print contributed to a sequential deceleration in the quarterly trend relative to the yearly trend.



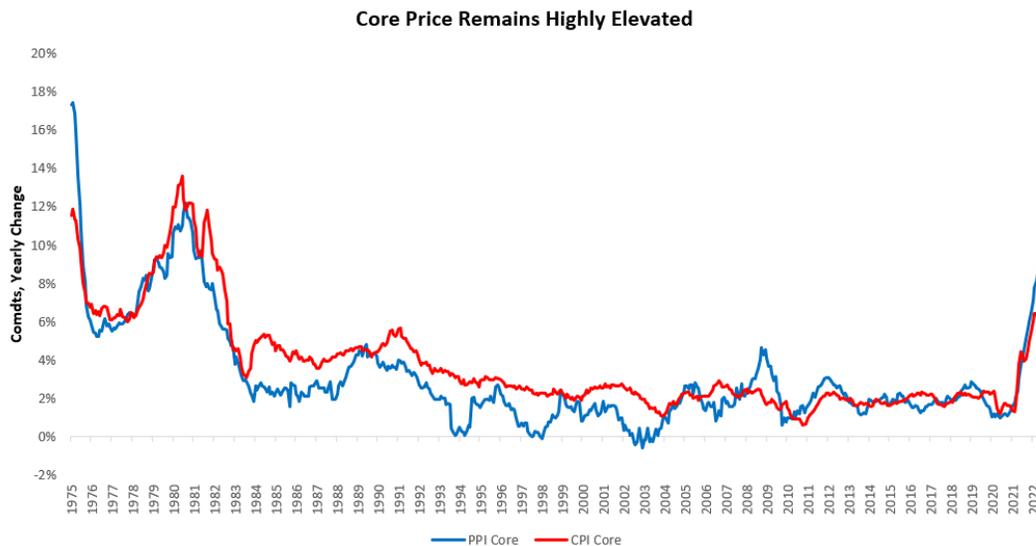
CPI remains elevated, and while the monthly print showed sharp deceleration, this move was far from broad-based. Of particular importance is that headline CPI remained in expansionary territory despite extreme downward pressures coming from energy prices. The composition tells us that there is a widening of inflationary pressures, enough to offset commodity disinflation. Therefore, even if we continue to experience energy deflation like last month, we can continue to have positive inflation momentum. It remains unlikely that we continue to see energy prices continue to fall at the same rate, suggesting that inflation can persist:



The inflationary process begins with the demand for commodities and other real assets and goes through the supply chain to the consumer. Food and energy price shocks can be transmitted to the consumer fairly quickly, but commodity shocks take more time to make their way into service prices. While on the one hand, commodities, food, and energy price movement tend to coincide, on the other, core CPI & PPI are more persistent due to their significant service components. This divergence is because these items reflect contractual obligations marked to market far less than commodity prices. Therefore, as we move up further up the supply chain, prices tend to follow more stable trajectories, i.e., they are autocorrelated. Below, we show the relatively swift pass-through of commodity prices to PPI & CPI food & energy components:

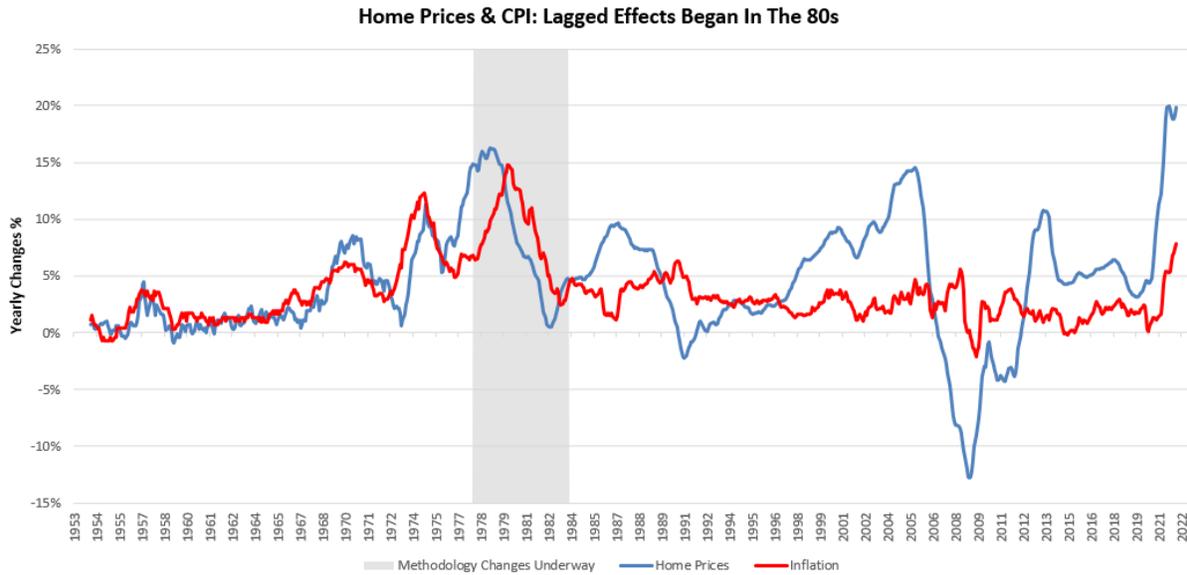


However, these dynamics contrast with those in core prices, which tend to have much more persistent trends:

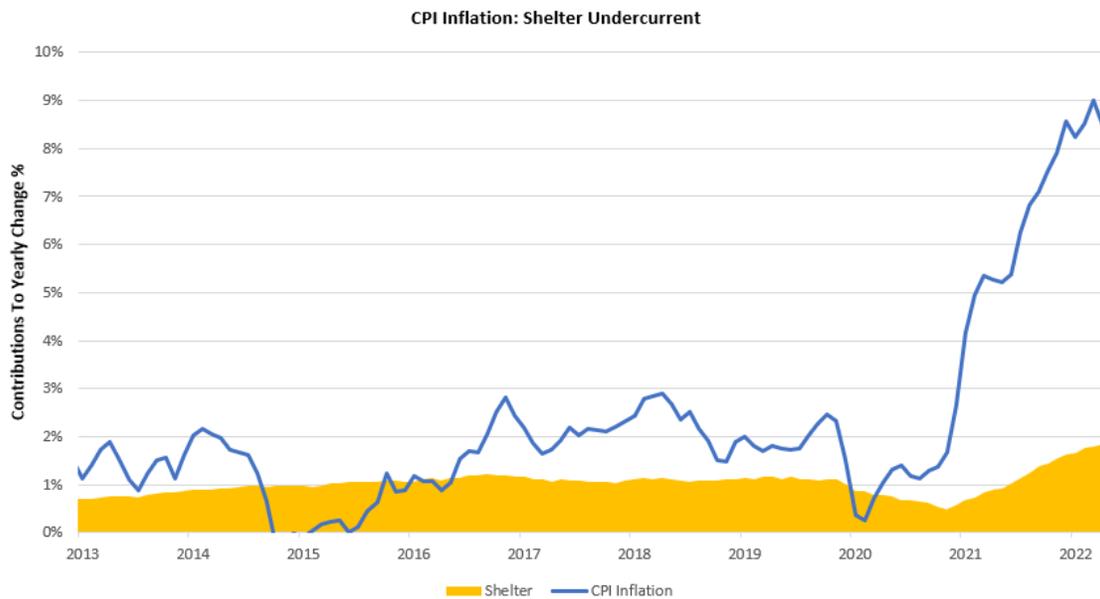


This remains a particularly important observation considering the take off in shelter prices that played a critical role as the primary driver of inflation upside, whereby shelter by itself contributed 1.85% to

headline & core inflation. Additionally, accounting for the impact of the smoothing process embedded within the calculation methodology for OER (Owner's Equivalent Rent), even if home prices fell dramatically in the coming months, the headline statistic would not reflect these changes for 6-18 months. Therefore, it is this combination of factors that will continue to create significant inflationary pressures across the economy and keep inflation persistent. We show the lagged effect of home prices on inflation below:

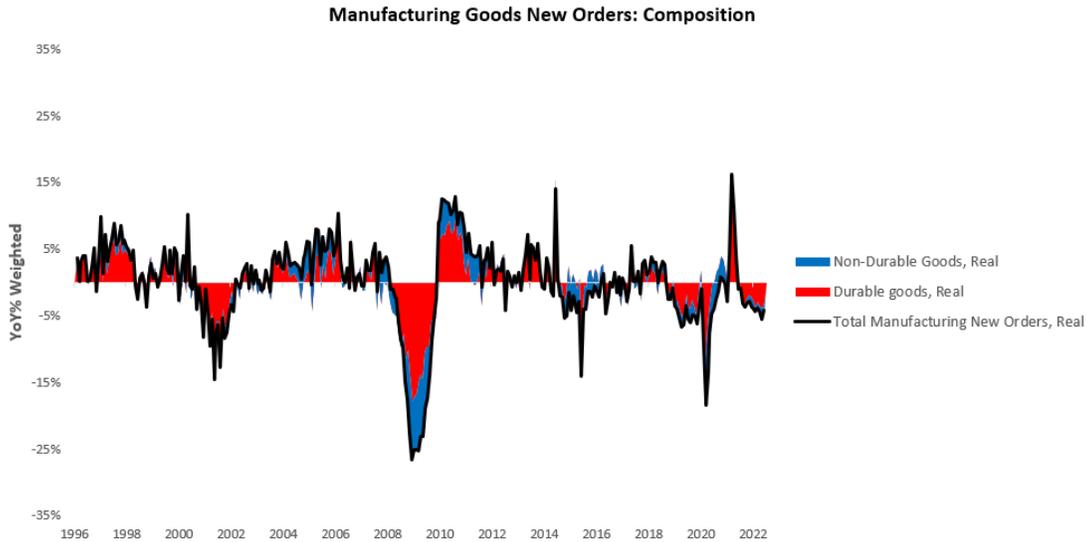


Additionally, we highlight the undercurrent of shelter inflation as a contributor to higher CPI:

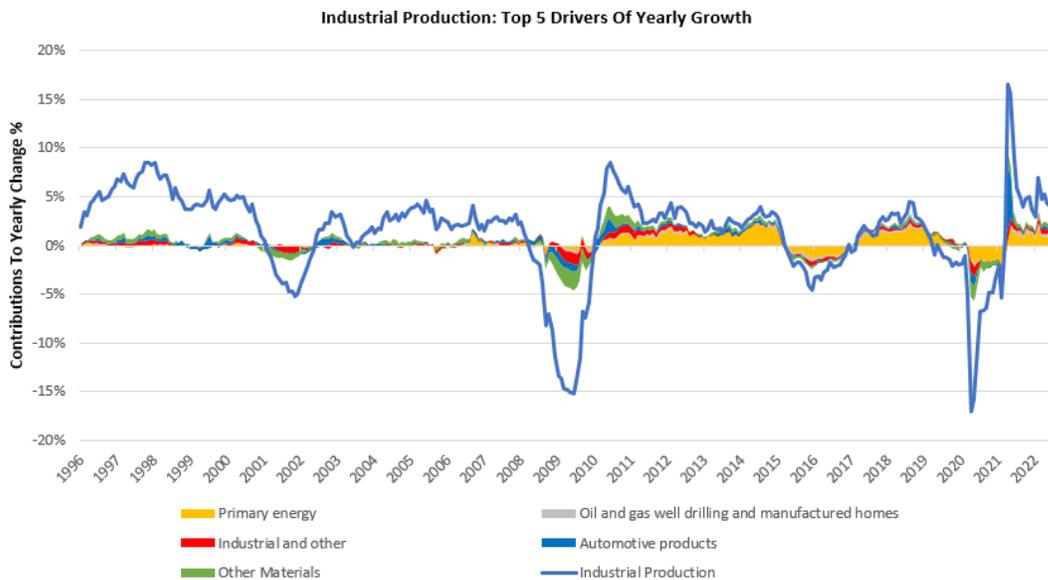


Consequently, this environment of stagflationary nominal growth creates a particularly tough environment for businesses to operate in and produce. It is because in these periods, income gains are not as valuable as in previous periods. When companies distribute incomes to employees, their real consumption power does not improve. Additionally, when companies reinvest their profits, the real

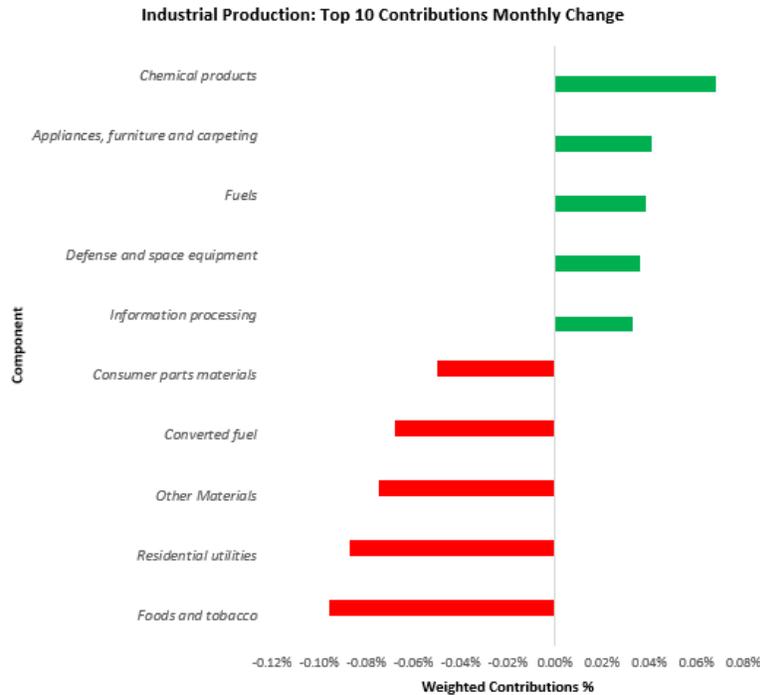
output produced for every nominal dollar invested keeps decreasing. This dynamic creates a self-reinforcing spiral lower and increases the pressure on production to decline. This pressure was reemphasized by the incremental data we received for business output this month. First, we observed a deterioration in real manufacturing new orders that decreased by -1.04%, with durable and nondurable orders contributing -0.07% and -0.97%, respectively. On a real basis, that total manufacturing new orders decreased by 4.15 % v one year ago.



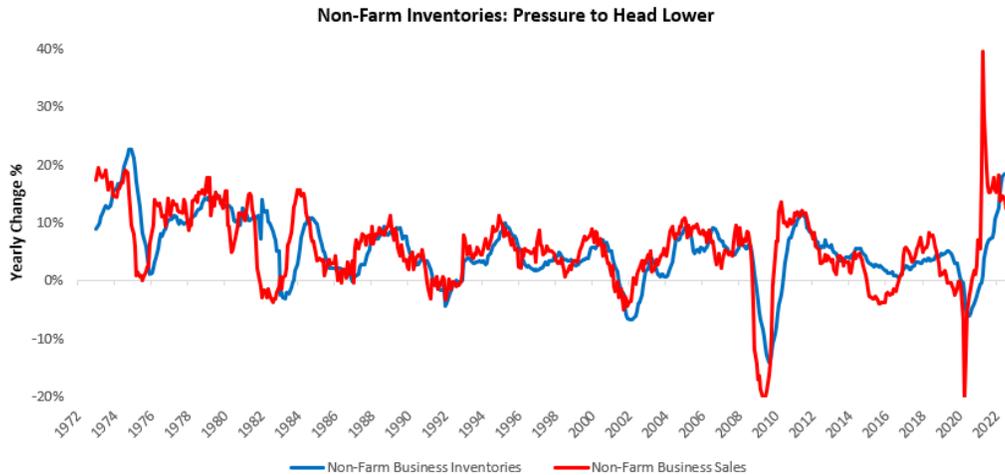
It is worth noting that the immense contribution of weaker nondurable goods orders is an aberration – usually, durable goods command the lion's share of manufacturing new orders, and this decline in orders also preceded a significant contraction in the nondurable goods manufacturing industry. This is an initial sign of weakening demand. Second, Industrial Production decreased -by 0.16% in August, disappointing expectations of 0%.



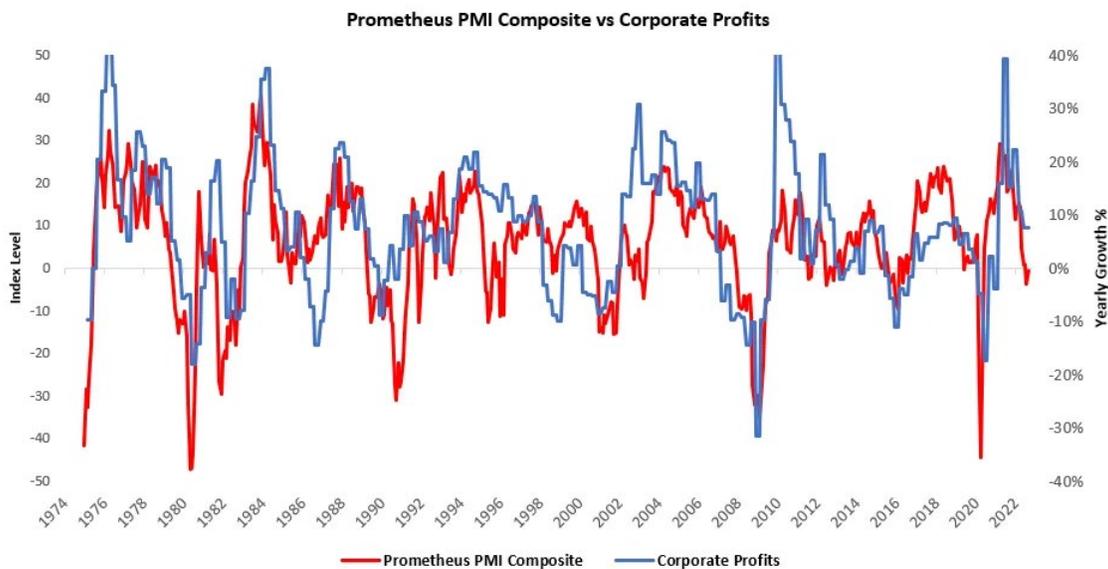
This print contributed to a sequential deacceleration in the quarterly trend relative to the yearly trend. Of note was the significant contraction observed in multiple components of industrial production.



New orders for durable goods are negative on a real basis, i.e. the volume of goods ordered is at odds with industrial production, because of which all the excess production is finding its way into inventory build. Inventory build can help pad profitability because one business's inventory growth is another business's sales growth. Additionally, inventory build is less penalized during inflationary periods, resulting in periods of elevated inventory rise. We judge today to be one of these periods. However, inventory build has limitations and can only go so far as it does not increase productive capacity, and there is a finite ability to add inventories due to physical limitations. Moreover, with nominal sales decelerating on a yearly basis, the pressure is increasing for inventories to fall.

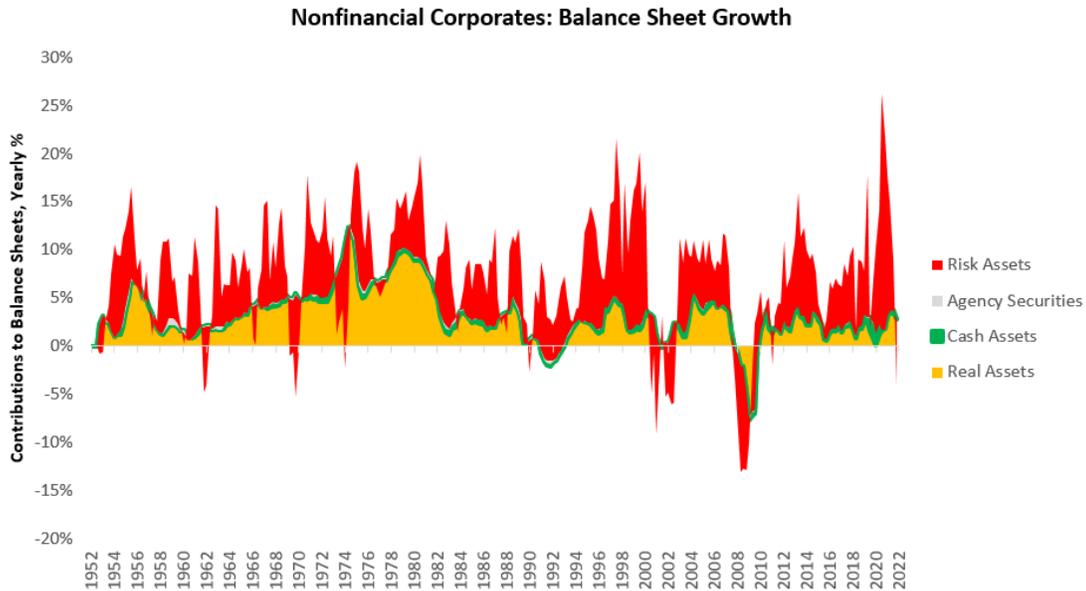


With PMIs flagging a deterioration in cyclical activity, production under pressure due to nominal growth dynamics, inventories at extremely elevated growth rates & the fiscal impulse tightening – our systems continue to estimate the outlook for profitability looks weak.

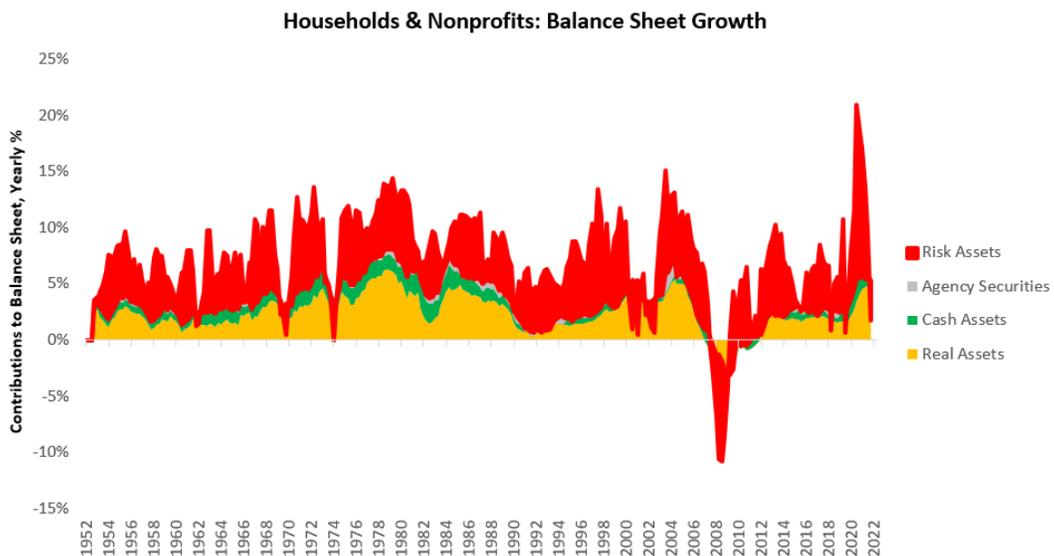


Above, we show how our PMI composite paints a grim picture for future profitability. Recall that these are nominal, and their inflation-adjusted values are negative. Negative real profits are a significant drag on future output. The purpose of profitability is to decrease your real cost of capital. However, when inflation eats away at profitability, businesses generate less incremental output per dollar reinvested into operations. When we combine these issues with an increasing cost of borrowing coming from higher interest rates, the outlook for future output and profitability is weak. Furthermore, businesses are not only being impacted via inflation; the Fed is actively causing a contraction in the present value of business assets.

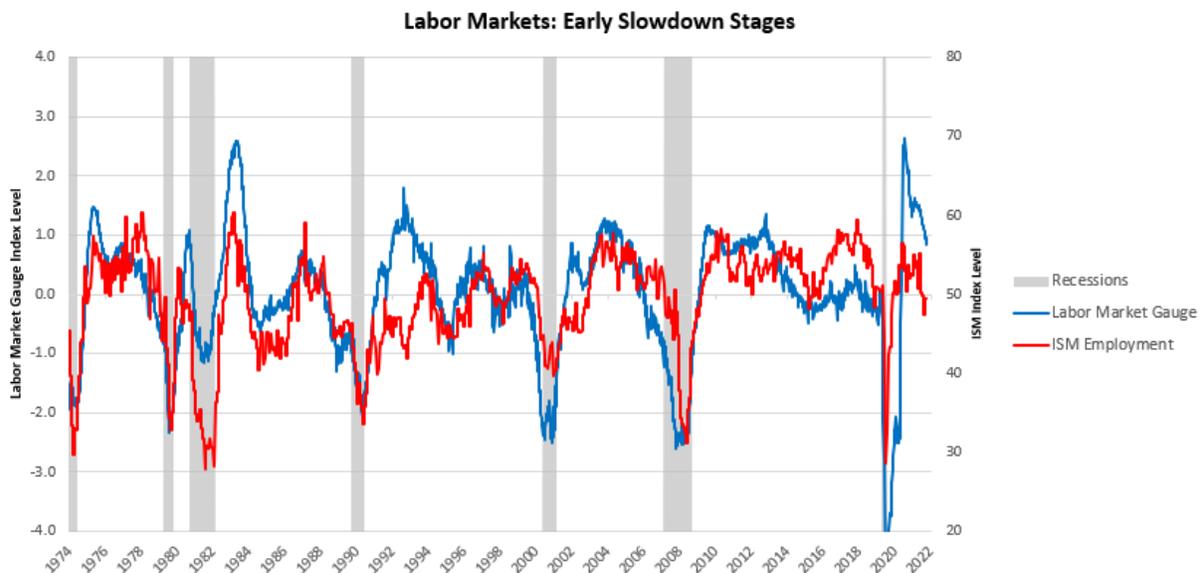
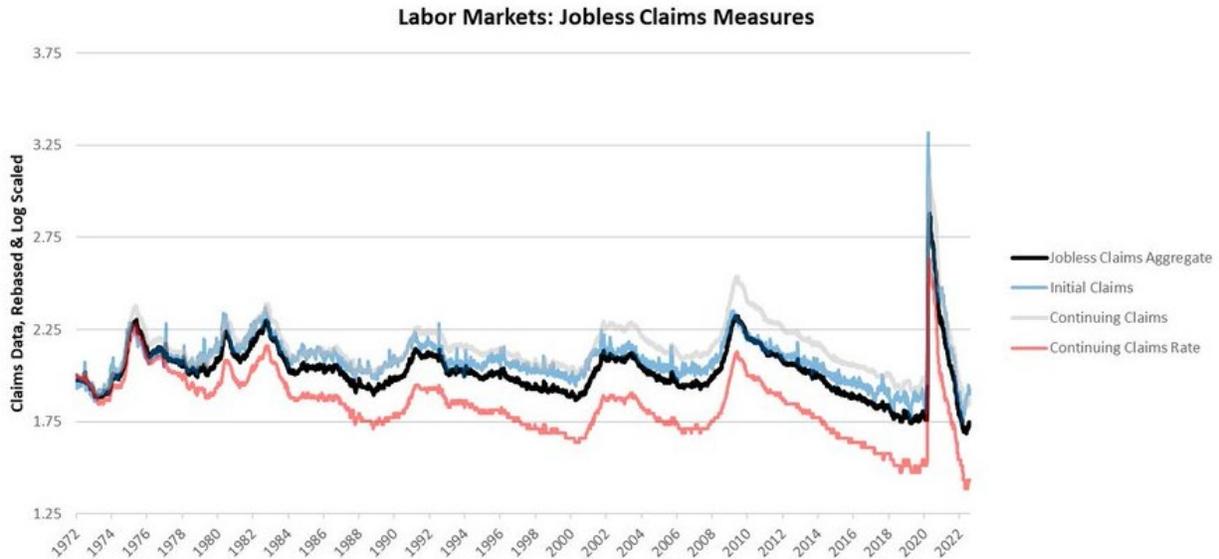
In fact, in Q2 2022 itself - corporate balance sheets contracted -by 4.14% versus the previous year, with liabilities increasing by 1.72% and Net Worth decreasing -by 5.86%. Driving these changes, Real Assets increased by 2.81%, Cash Assets decreased -by 0.05%, Agency Securities increased by 0.04%, Risk Assets decreased -by 6.94%, and Financial Liabilities increased by 1.72%.



Most of this contractionary force came from the revaluation of corporate equities, i.e., corporate equities declined and caused net worth to fall. This contraction in corporate balance sheets has been consistent with the Fed's objectives of limiting credit creation. As of Q2, some of this impact has also passed onto households, but the effect has remained muted by real estate prices—which remain elevated. Nonetheless, the pass-through of lower equity values onto balance sheets remains significant. With the Fed set on its path to tightening financial conditions, household net worth is likely to contract in the coming quarters.

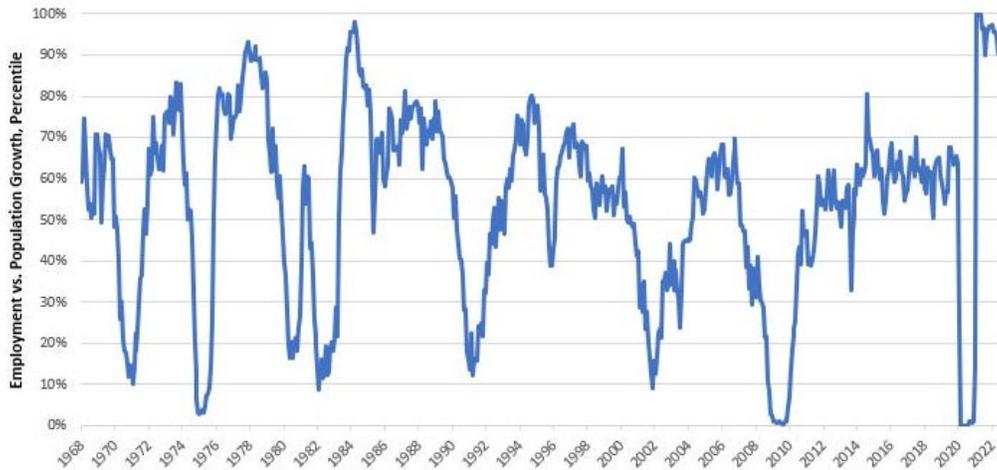


We believe that the ramifications of declining corporate profitability, industrial production, and falling inventories will be on the business hiring. Both our Labour Market Gauge and the Jobless Claims Aggregate have begun to turn. When these enter negative territory, we expect markets to price significant changes to the growth outlook.



However, this does little to diminish the fact that currently, we are witnessing one of the tightest labour markets on record. Additionally, it is this tightness in the labour market conditions that continues to feed services inflation, and yet, we have only seen the most nascent signs of a turning point. In fact, upon analysing the recent evolution of Jobless Claims data over a period of twelve months, our analysis suggests that we are currently ways off from the recessionary territory.

Labor Markets: Historical Levels Of Tightness

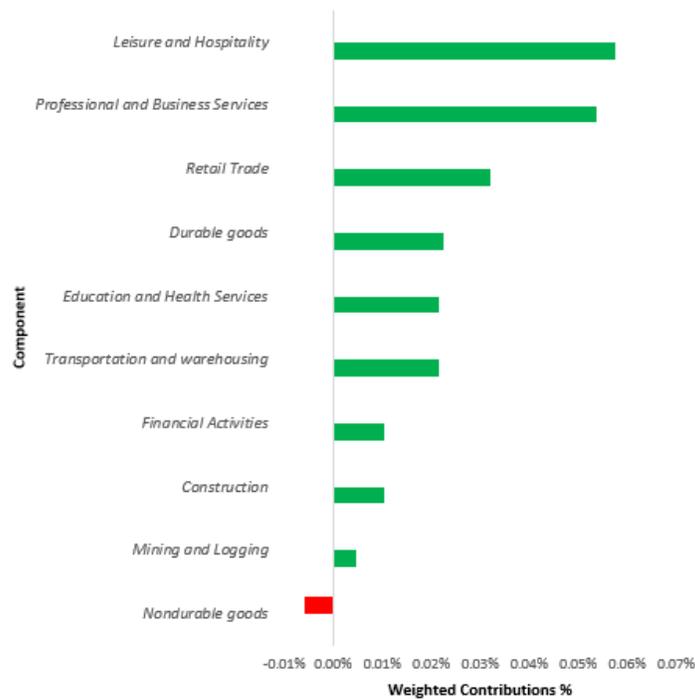


Jobless Claims: Recent History Relative To Recessionary Averages

	Initial Claims	Continuing Claims	Continuing Claims %
6/10/2022	231	1331	1.00%
6/17/2022	233	1324	0.90%
6/24/2022	231	1372	1.00%
7/1/2022	236	1333	0.90%
7/8/2022	244	1384	1.00%
7/15/2022	261	1365	1.00%
7/22/2022	237	1420	1.00%
7/29/2022	248	1430	1.00%
8/5/2022	252	1434	1.00%
8/12/2022	245	1412	1.00%
8/19/2022	237	1438	1.00%
8/26/2022	232	-	-
Recessionary Avg. (Ex-COVID)	473	3395	3.51%
Recessionary Avg	573	3658	3.64%

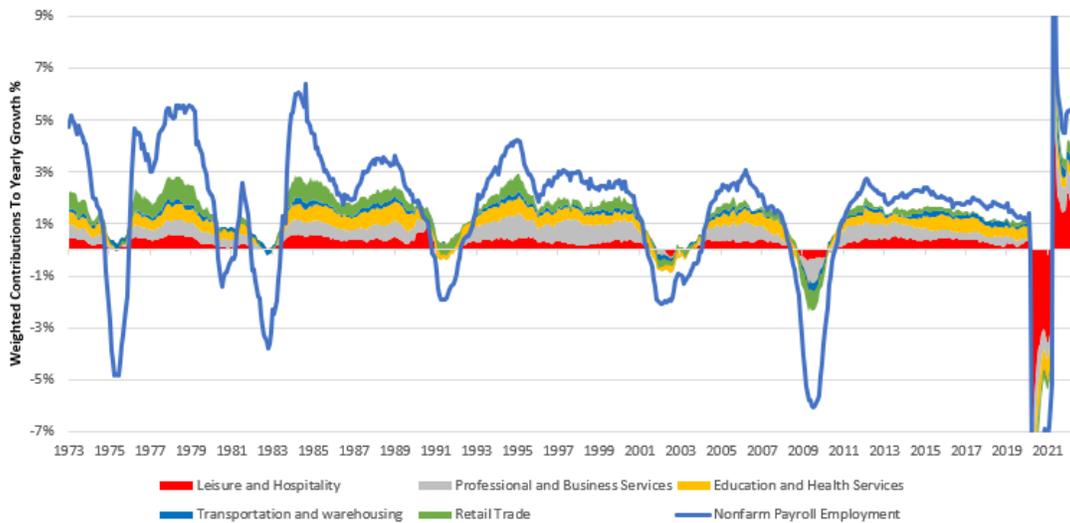
Nonetheless, there are two key observations to be made of all the incremental information we received on the labour markets over the past month. First, this month's non-farm payrolls data release suggests the first inclinations of weakening real demand passing through to the labor market in the form of contraction in nondurable goods manufacturing employment.

Nonfarm Payrolls: Top 10 Contributions To Monthly Change



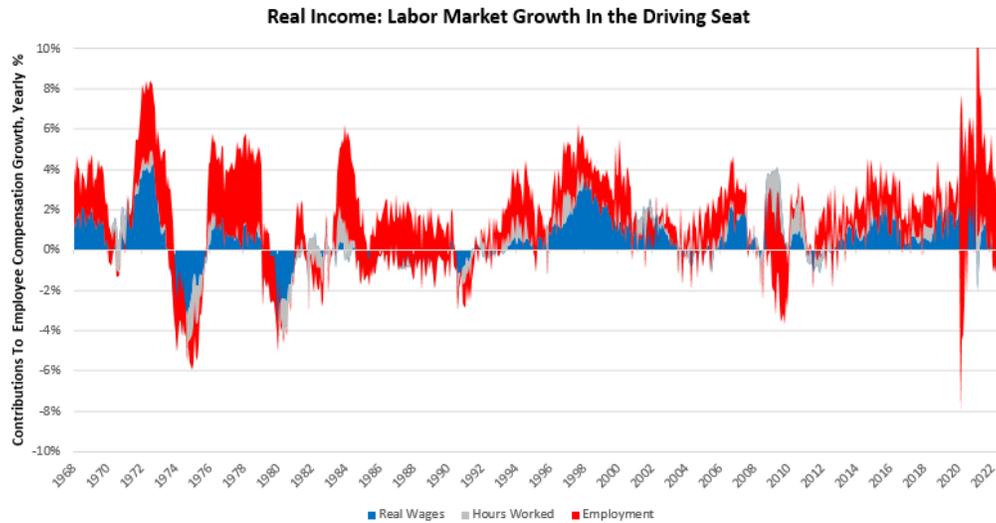
Second, labor market strength is relatively concentrated in the more procyclical sectors of the economy, i.e., Retail Trade (0.31%), Transportation and warehousing (0.37%), Professional and Business Services (0.74%), Education and Health Services (0.57%), & Leisure and Hospitality (1.31%). As the cyclical slowdown continues, these areas are likely to see a pullback in employment.

Nonfarm Payrolls: Top 5 Drivers Of Yearly Growth

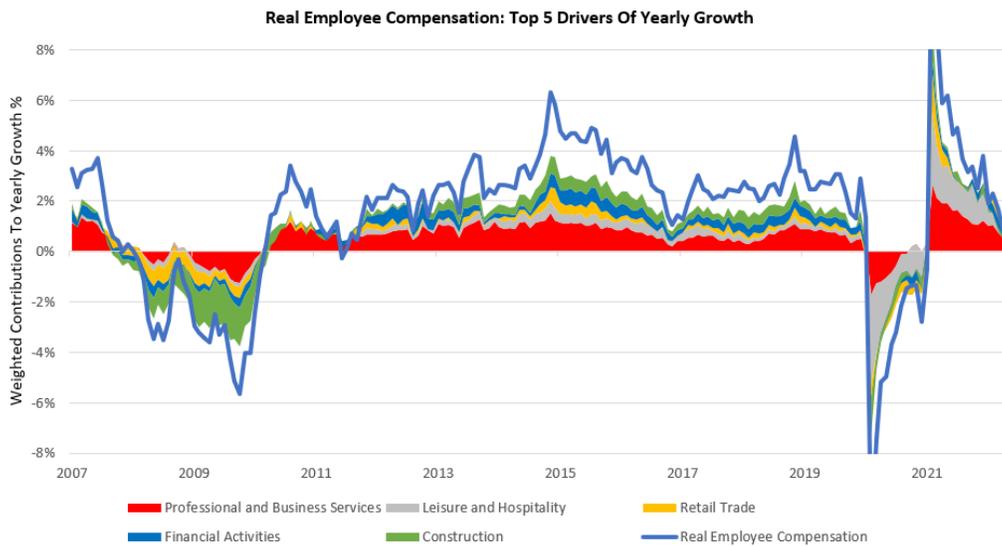


Additionally, it is worth emphasizing that the labor market strength illustrated above will allow the Fed further room to tighten policy, and the eventual contraction in the labor force will likely create self-reinforcing pressures in real incomes and spending.

Real employee incomes are a product of wages, hours worked, and total employment. Labor force growth accounts for more than 100% of real income growth today, as wages rates and hours worked have moved into contractionary territory. Currently, all income gains are coming from increasing employment. We show the relative contributions below:

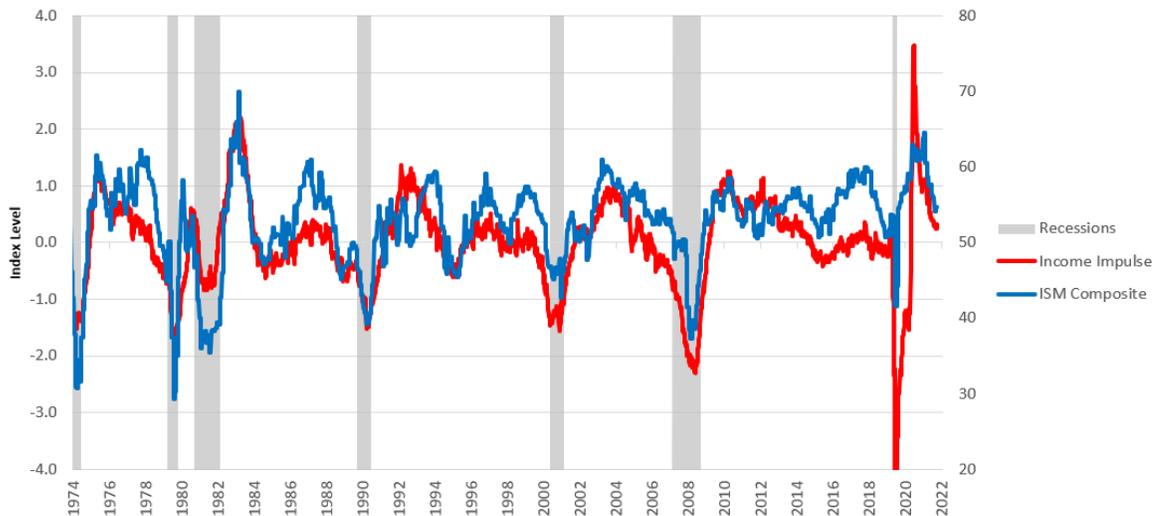


Additionally, we show the composition of real employee compensation below:



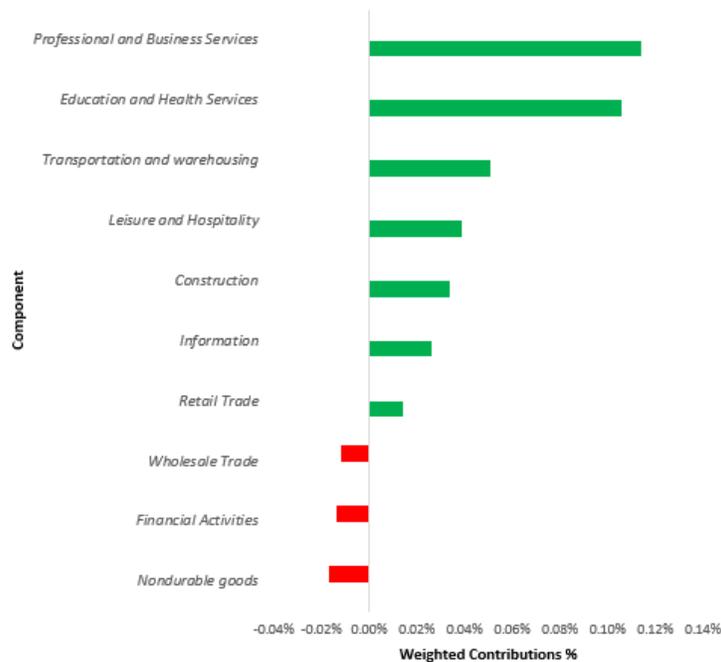
In addition to these metrics, we show how our income impulse gauges continue to paint a picture of decelerating real incomes.

Real Income Gauge: Slowdown Continues



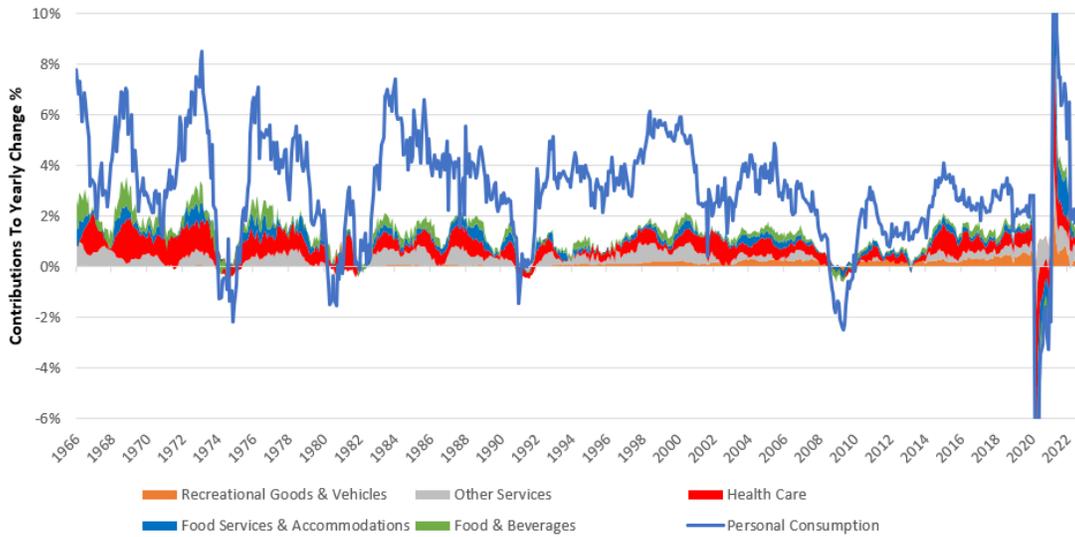
Additionally, it is worth highlighting that our tracking of nominal employee compensation showed a significant deceleration in August, with four of the top ten movers declining in nominal terms. Consequently, if this deacceleration continues to spread across industries, we will likely be in contractionary territory quite soon.

Employee Compensation: Top 10 Contributions To Monthly Change

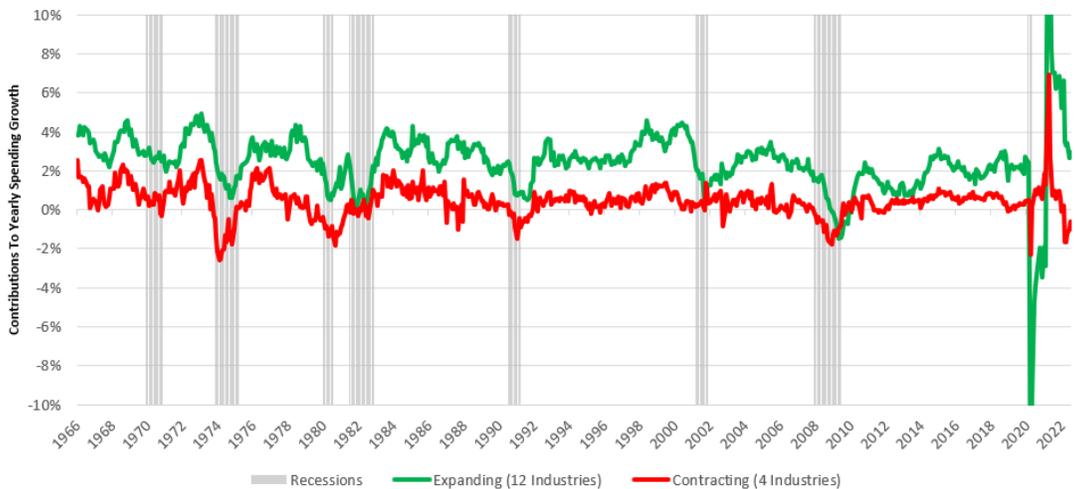


We are seeing the initial signs of a slowdown in spending data. Four out of sixteen industries are already in contraction, and all four are highly cyclical (Motor Vehicle & Parts, Furnishing & Durable Household Equipment, Food and Beverages, and Gasoline & Energy Goods).

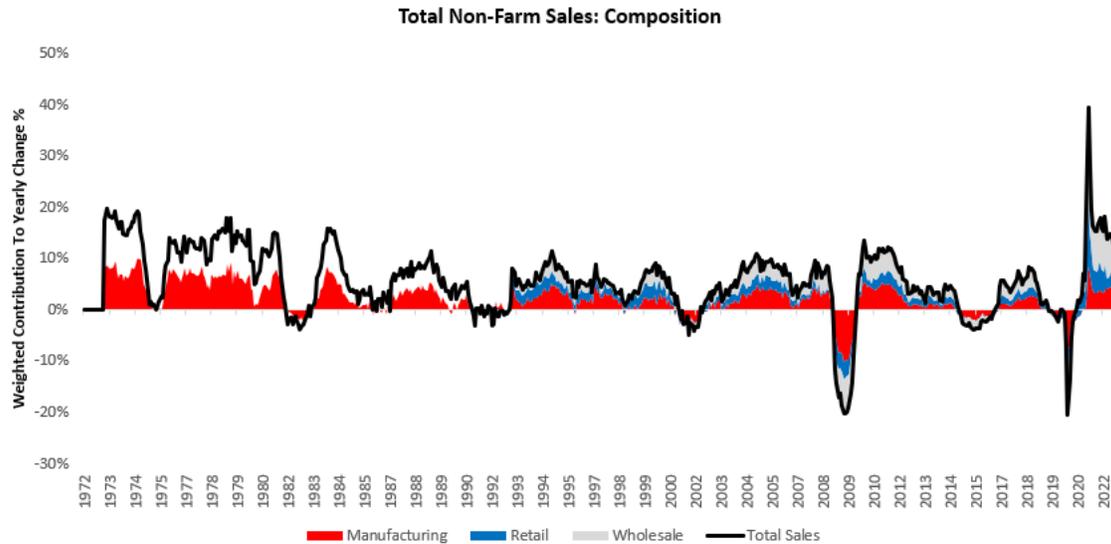
Real Spending: Top 5 Drivers Of Yearly Growth



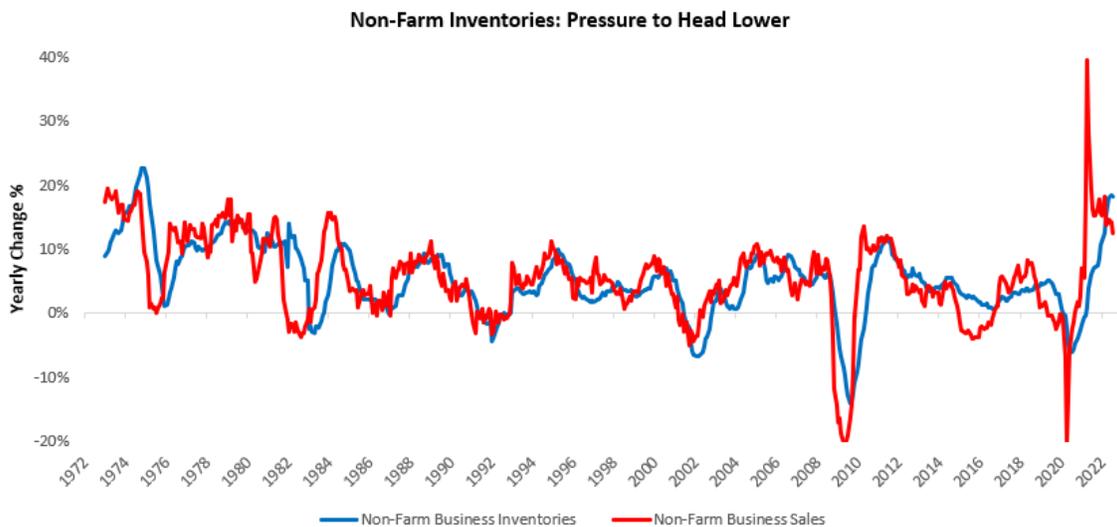
Real Spending: Expanding vs. Contracting Industries



While we have seen declining real income in some segments of the consumer economy, nominal business sales remain robust. However, this sales activity is predominantly driven by inventory growth because one business's inventory growth is another business's sales. Additionally, if analyzed on a rate of change basis, total business sales are currently below inventories. As the gap widens – the pressure will build on inventory growth to fall.



It is also worth noting that while nominal sales generally impact the direction of travel for inventories, real sales significantly impact the hiring outlooks for businesses. During times of rising real sales growth, we typically see employment pulled up as firms attempt to expand their output and capacity. Conversely, falling real sales growth tends to drag employment as firms curb output. Today, sales growth is below employment growth, suggesting downwards pressures on future hiring. The divergence between sales and hiring is significant relative to history, suggesting string downward pressures on future employment. Since 1966, there have been eight periods that resemble today in terms of the decline in real sales relative to employment – and all of them have resolved themselves in a contraction in labour markets.



The pressures on production and employment are increasing, and we are slowly moving towards an environment of lower output and employment. These moves are likely to come alongside a backdrop of heightening nominal demand. The combination of these factors is likely to push us into outright stagflation.