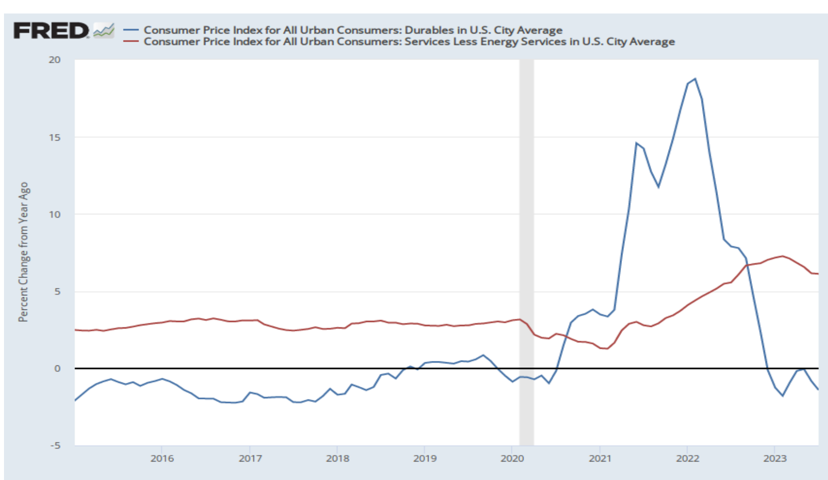
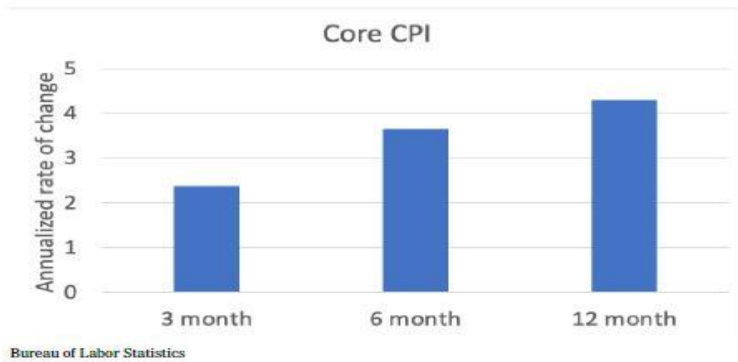
3rd Quarter 2023

Vanderbilt's outlook is for slowing **economic growth** but not a recession. We forecast fourth quarter real GDP to be 1% to 2%. In effect, a soft economic landing in the wake of the Fed's monetary tightening in the last 18 months. The strength of consumer spending (two-thirds of U.S. GDP) is the primary reason we do not expect a recession. The consumer has been supported by a continued strong but cooling labor market that has resulted in job growth and wage gains. However, a headwind to the continued strong labor market will be the lagged effects from a restrictive monetary policy that has seen the fed funds rate rise from 0%-.25% to 5.25%-5.50%. The Fed's policy will negatively impact the labor market. Consumer debt levels have risen after spending some of their funds built up during the Covid government stimulus program. Consumer credit card balances are starting to exceed one trillion dollars and these balances are being financed at eighteen to twenty percent. Furthermore, financing for autos and home mortgages have started to accelerate. In addition, Businesses are more cautious towards spending given the slowing economy and interest coverage and leverage ratios that have deteriorated. Coverage ratios have been declining due to higher interest rates and weaker earnings. Net leverage ratios have risen because of the depletion of cash on the balance sheet relative to debt levels. Another uncertainty is the status of the commercial real estate market.

The course of **inflation** is critical because it will largely determine monetary policy. The Fed's preferred gauge of inflation is the core PCE which excludes the volatile categories of food and fuel. Year-over-year levels for the core PCE were 5.5% in early 2022 with a gradual decline to 3.9% through August 2023. The Fed's objective for this measure is 2.0%. Vanderbilt forecasts that this gradual decline in inflation will continue, albeit, with a volatile path. A key question is to what degree the labor market needs to slowdown to attain the Fed's 2% objective and whether this could tip the economy into a recession. Inflation has declined significantly in the goods sector of the economy while the services sector has started to slow down.



The shelter component of the price indices impacts inflation with a lag. This sector has begun to exhibit disinflation. For example, during the last three months the core CPI is up only 2.2% at an annual rate reflecting recent shelter price data. Inflationary expectations remain satisfactory, the outlook has not risen and remains near the Fed’s objective.



Potential problems in the inflation outlook include a UAW and a Kaiser Permanente labor strike as well as the recent increase in oil prices. While we do not know when a settlement will occur in the auto industry or what the details will be, a settlement with larger than expected gains for labor could serve as a precedent for other industries. If so, this could result in greater wage push inflation. Over the last several months the price of crude oil has risen approximately 30%. This is due to a combination of OPEC constraining supply and global demand holding up better than expected. While energy prices are not in the core PCE, they will be reflected in the broader inflation gauges.

The **Federal Reserve** has paused their increase in the fed funds rate as they monitor the data on the economy and the various inflation measures. One of the uncertainties the Fed must contend with are the lagged and variable effects from raising the fed funds rate eleven times the last 18 months. It is important to distinguish a pause in rates from that of a pivot. The slowing of inflation is gradual and sticky. The Fed is likely to keep rates higher for longer as the fears of a recession fade and inflation continues to show signs of stickiness. The Fed would only be in a position to consider a gradual lowering of rates once the core PCE appears to be at a sustainable level of 2.0%. A recession could complicate Federal Reserve policy if they felt they had to prematurely lower interest rates to support the economy prior to attaining their inflation objective. Another dynamic that has resulted due to higher U.S. interest rates has been the strength of the U.S. dollar. Higher rates make dollar denominated assets more attractive thereby drawing money out of other markets and causing their currencies to depreciate. This adds to inflation pressures in other countries and makes it harder to pay back debt that was issued in dollars.

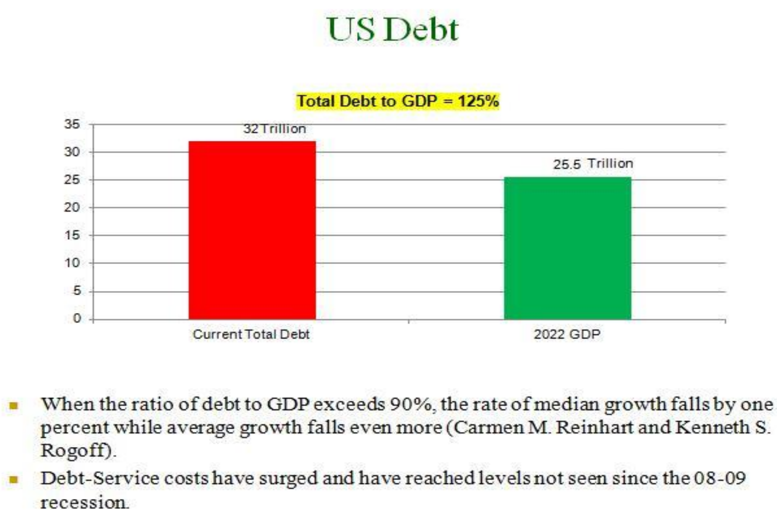
The combination of price volatility across asset classes, higher interest rates, the lagged effects from these higher rates and financial leverage will continue to cause negative surprises. We have seen this with problems in the U.K. gilt market, developing country debt and the U.S. regional bank sector. We do not think problems in the **regional bank** sector are over with. Regional banks have loan exposure to problems in the commercial real estate sector. Between 2014-2019 construction spending grew at an average rate of 15.6% - five times the rate of economic growth. Supply of office space was typically absorbed by demand. The post pandemic work from home trend results in companies leasing significantly less office space. A significant amount of office space debt is structured in floating rate terms that have risen as rates have gone up. $1.3 trillion in debt is maturing by 2025 and there are expected to be defaults as well as debt restructurings where the value of the loans are worth significantly less than their carrying value. Given the exposure of regional banks to this sector, there is a possibility of uninsured depositors continuing to move funds from the regional banks to money center banks and/or other short-term government obligations.

Numerous parties bear responsibility for the deposit run and liquidity problems at Signature and Silicon Valley banks. The Fed is part of the problem because they waited too long to begin the gradual increase in rates and then to catch up, raised the funds rate from near 0% to 5.5% in eighteen months. Regulators are part of the problem. They focused on making sure money center banks were well capitalized and did not allocate enough resources to regional bank compliance - even after citing problems at some of the regional banks. Obviously, management at these institutions are also the problem. A significant portion of their U.S. Treasury, Agency, and mortgage-backed security investments were classified as "held to maturity." As interest rates rose and the market values of these securities declined significantly, the HTM categorization permitted the institution to not reflect the lower shareholders equity value on their balance sheets properly. As these regional banks were flush with deposits, management chose the exact wrong time to extend duration in their investment portfolio to garner yield. This duration mismatch with deposits caused the lower market value of their investment portfolio to be insufficient to meet the amounts required to meet deposit withdrawals. Whereas deposits used to be more stable for the regional banks, in the digital age of communication the deposits will move out of the banks almost instantaneously at the first sign of problems.

The current path of U.S. **fiscal policy** has significant negative long-term ramifications. While the deficit was reduced from fiscal year 2021 to 2022 following unprecedented spending due to Covid, unfortunately this will not be the case going forward. Even though the economy has been relatively strong, sustained and increasingly large Federal fiscal deficits have occurred. Both political parties are at fault and with an upcoming election next year, there is little chance of addressing this issue anytime soon. Debt service costs are soaring because of larger debt levels and higher interest rates from the Fed's monetary tightening. It is a toxic combination of higher debt levels having to be financed at higher interest rates. Deficits over the past half century averaged 3.3% of Gross Domestic Product. The deficit has expanded to approximately 6% of GDP and promises to stay there, if not increase in the future. This year's deficit (for the fiscal year ending September 30, 2023) will be $1.7 trillion. Interest payments on the debt now take up about 14% of federal tax revenue. Net interest payments on the Federal debt have surged above $600 billion a year from around $380 billion when the pandemic hit. For the first 11 months of this fiscal year (through August) interest payments are up to $644 billion. This is up 70% from

2020. Interest on the debt payments are getting close to spending on par with national defense spending of $692 billion. A third of the current deficit is going to pay interest. Maturities on U.S. Treasury securities have become shorter and almost one-third of the national debt needs to be rolled over within the next 12 months (clearly the government should have extended maturities during the low-rate environment).

One of the uncertainties is that it is not clear what level of federal debt would trigger a crisis. A debt/GDP ratio above 90% has historically been a threshold where serious problems develop. Economic studies show that above this threshold the rate of median growth falls by 1% while average growth falls even more. The U.S. debt level is currently well above this level at 125% of GDP. It will take a long-term bi-partisan plan to address this issue. However, the current polarized state of politics in Washington offers little hope of any serious approach to this problem in the foreseeable future.



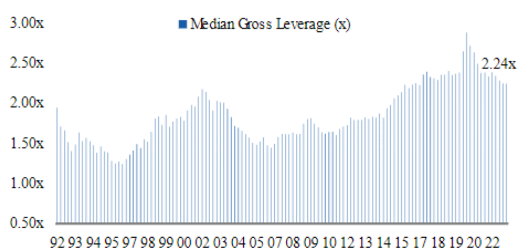
Since the start of the Federal Reserve's interest rate hiking cycle in March 2022, the bond market has been no stranger to significant moves in rates across the curve. Although the Fed only raised rates once in the third quarter of 2023, and by a relatively benign 25 basis points, we saw significant moves in rates across the curve. The difference this time versus the last 18 months was that long-term rates increased by a greater magnitude than short-term rates, lowering the amount of inversion in the yield curve by 53 basis points.

	3 Month	2 Year	5 Year	10 Year	**10 Yr – 2 Yr**
9/26/23	5.47	5.09	4.63	4.56	**-.53**
6/30/23	5.28	4.90	4.16	3.84	**-1.06**

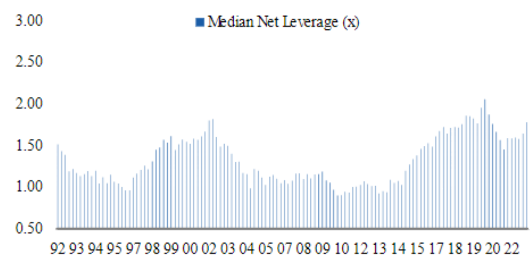
Change	+.19	+.19	+.47	+.72	**+.53 steeper**

Historically, an inverted yield curve has been a harbinger of recessions, only becoming confirmed after the curve steepens back to its normal shape. We are not there yet, but the recent re-steepening of the yield curve is pointing in that direction. And while there still may be a chance of an economic soft landing as the Fed has articulated, based on the evolving shape of the curve, an economic slowdown in the future is becoming more likely.

An area where we are seeing some indications of weakness developing is in corporate fundamentals. Although healthy and still above pre-Covid levels, interest coverage ratios are under pressure. A company's interest coverage ratio divides a company's earnings by the interest payments on its expenses, thereby showing how well positioned it is to pay interest on its debts. Since the start of 2023, higher interest rates coupled with weaker earnings have plagued interest coverage ratios, sending them lower each quarter. Another area of concern is net leverage. While gross leverage, which measures a company's debt divided by its assets, has been steadily declining, net leverage has recently ticked up sharply. To calculate net debt, one must subtract cash equivalent holdings from total debt, before dividing by a company's assets. The decrease in net debt is therefore occurring because of a decrease in companies' cash relative to their debt, something that we are tracking.



Source: Morgan Stanley Research, Bloomberg



Source: Morgan Stanley Research, Bloomberg

Commercial real estate is also developing cracks in some areas. We can see that many segments of commercial real estate are poised for growth. This includes logistics which are reaping the benefit from e-commerce, data centers whose growing demand follows that of digital information, and multi-family housing which provides an alternative to the current shortage experienced in residential housing. Our concern is the office market, however, which could prove to be the canary in the coal mine. With a large subset of businesses offering employees remote work, the demand for office space is falling. Compound the dwindling demand for office space with the growth in this sector over the last decade, financed by adjustable-rate mortgage loans which will be resetting in the next 1-2 years at grossly higher levels, and the possibility of large-scale defaults by office building borrowers across the country could become a reality. The defaults on office loans will be immediately absorbed by the smaller banks who are holding the loans, but we would expect that other areas of the economy will not be spared. The fallout could affect the metro areas where the buildings are located, with some experiencing more pain than others, as populations have shifted in the last few years. Possible consequences from these defaults could include surrounding businesses, as well as city and state tax revenues, which will filter down to municipal services. While office buildings can be converted to different uses in response to demand from other segments of the economy, their location may not be suitable, and the amount of time to reconfigure the buildings for some uses could take years.

In contrast to commercial real estate, residential housing prices continue to increase, as supply of homes nationwide is suppressed because of most homeowners' unwillingness to part with their low mortgage-rate-carrying homes. After a brief 8-month period that saw month-over-month home price decreases in response to higher mortgage rates, the Case-Schiller 20-city composite index has now posted five consecutive months of price increases. Even as home ownership affordability continues to decline with rising mortgage rates, the overwhelming demand for homes is bolstering prices.

Builders have been answering the call of prospective buyers, building, and selling new homes when existing homes sales are stunted. The costs to builders, however, have been rising as well with the higher cost of materials and of labor, which continues to be tight. To facilitate the sale of homes to buyers, builders have been offering more affordable financing options, potentially putting themselves in a vulnerable position if the fallout from a housing slowdown comes to fruition.