EQUIPMENT LEASING & FINANCE
FOUNDATION
Your Eye on the Future

2024

Equipment Leasing & Finance

U.S. ECONOMIC OUTLOOK

EQUIPMENT LEASING & FINANCE ECONOMIC OUTLOOK

December 2023

Key Trends to Monitor

Consumer Health

Labor Market

Monetary Policy

EXECUTIVE SUMMARY

Equipment and Software Investment: E&S investment was sluggish in Q3, rising 0.5% (annualized) after 7% growth in Q2. Elevated interest rates will continue to drag on investment in 2024, and the climate for near-term investment is still relatively weak.

Momentum Monitor: The latest Momentum Monitor reading suggests that equipment and software investment growth is likely to remain subdued across most equipment verticals over the next two quarters. However, readings in most verticals have improved somewhat in recent months, offering a level of cautious optimism for investment during the second half of the year.

Manufacturing: After a subpar year in which the overall manufacturing sector stagnated, many of the same challenges U.S. manufacturers have faced are likely to persist in 2024. High interest rates continue to weigh on capex plans, and while the U.S. economy is unlikely to experience the same pace of growth, global demand also appears to be soft. Even so, a continued influx of federal dollars should boost certain key industries, including semiconductors and green energy, and benefit equipment verticals that serve these industries.

Small Businesses: Main Street has benefitted from strong consumer spending over the last two years, outperforming expectations. However, small business owners are increasingly pessimistic about near-term sales revenue amid worries that consumers may be finally starting to pull back.

Fed Policy: The Federal Reserve held interest rates steady at its most recent meeting, with rates at 5.25–5.50%. Inflation has fallen significantly over the last six months, and if economic growth weakens significantly in late 2023 and early 2024 as expected, Fed officials may feel pressure to begin cutting rates in the spring, particularly if inflation remains in the 3% range.

U.S. Economy: The U.S. economy likely averted a recession in 2023, as the labor market proved surprisingly resilient to higher interest rates and consumers continued to spend. The Fed's ability to bring inflation to more acceptable levels without triggering widespread job loss has been a welcome surprise, and the combination of a healthy labor market, cooling inflation, and improved consumer sentiment has left us more confident that a "soft landing" scenario is now more likely than not. That said, it is still premature to declare victory, as high government expenditures contributed much more to GDP in 2023 than they will in 2024, consumer spending may weaken amid rising financial stress, and global economic conditions remain weak. A recession during the first half of 2024 is still possible, but a soft landing is now our base case.

2024 Annual Projections

1.7%
*GDP Growth**

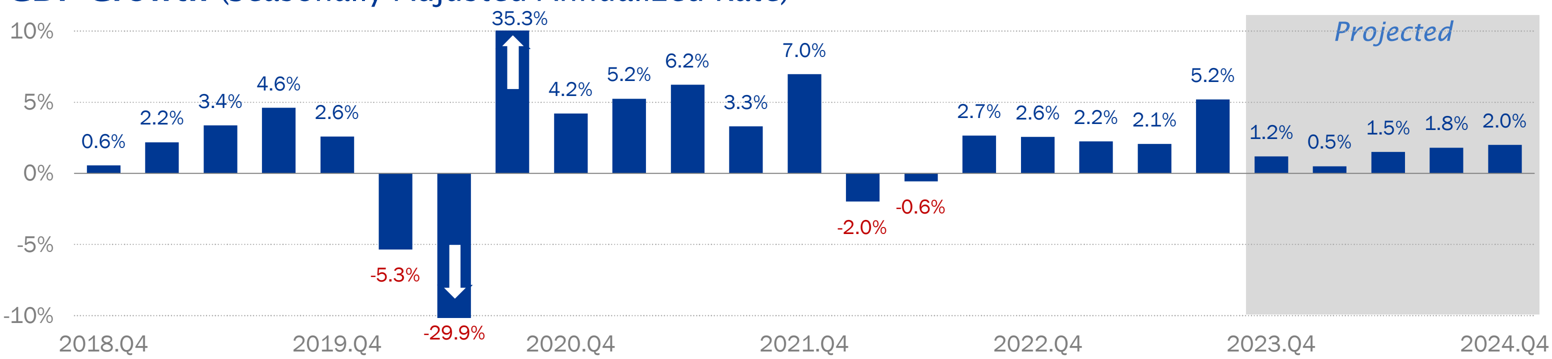
*see explanation on p. 14

2.4%
E&S Investment Growth

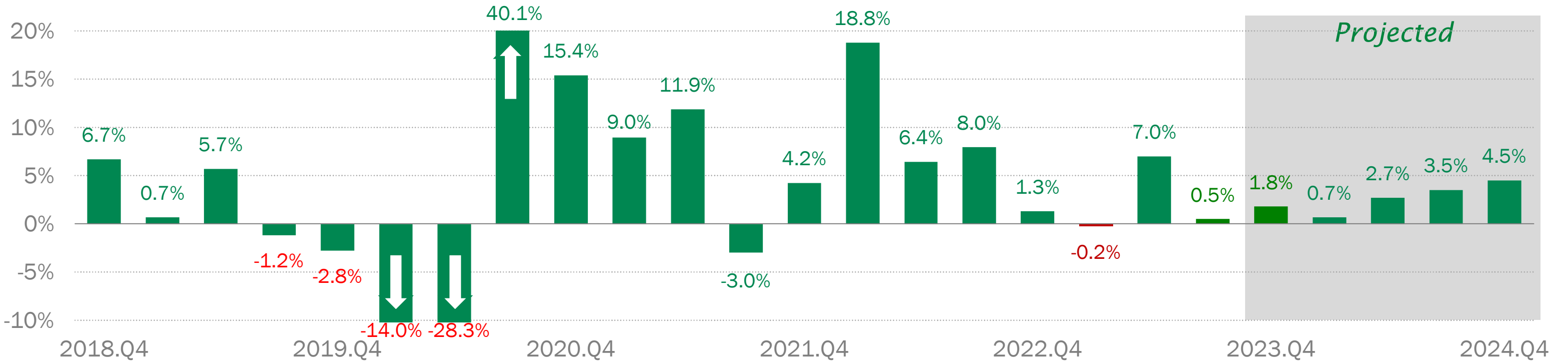
2.8%
Inflation (Headline CPI)

-75bp
Change in Fed Funds Rate from Current Range

GDP Growth (Seasonally Adjusted Annualized Rate)



Equipment and Software Investment (Seasonally Adjusted Annualized Rate)



Source: U.S. Bureau of Economic Analysis; Keybridge LLC

MOMENTUM MONITORS

Sectoral Performance

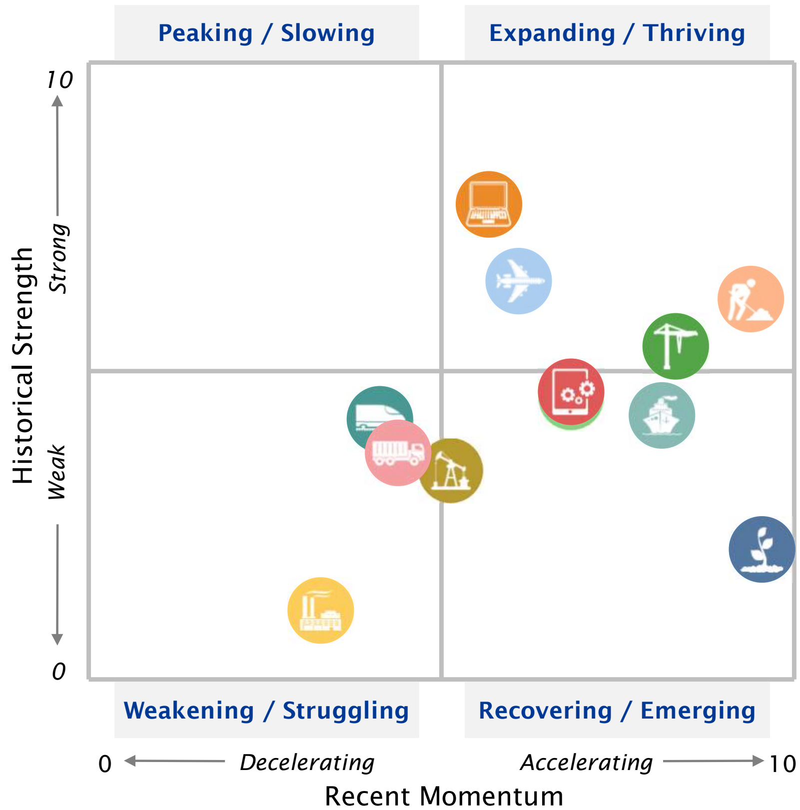
E&S investment expands slightly in Q3

Equipment and Software investment expanded a sluggish 0.5% in Q3 (annualized) after growing 7.0% the previous quarter. Investment growth was negative in 8 of 12 equipment verticals, with mining and oilfield machinery faring the worst (-35% Q/Q annualized). The vertical with the strongest investment growth was Aircraft, which expanded 28% Q/Q (annualized).

While the industry is unlikely to experience breakout growth in E&S investment in the near term, growth forecasts for the next two quarters suggest a modest uptick in investment may be in store. Indeed, several verticals in the Momentum Monitor Sector Matrix have improved their position in recent months and most are now signaling acceleration (see chart). Earlier this year, eight of the 12 tracked verticals were in the bottom-left quadrant. As of December, five verticals are now in the “Recovering / Emerging” section of the matrix, and four are in the “Expanding / Thriving” section.

Nevertheless, with eight of the 12 verticals below their historical averages, the climate for near-term investment is still relatively weak overall. Elevated interest rates are likely to continue to drag on investment growth in 2024.

Momentum Monitor Sector Matrix



For more information on how to interpret the Momentum Monitor, please refer to the Appendix B (p. 14). A full breakdown of each industry vertical is available at https://www.leasefoundation.org/industry-resources/momentum-monitor/

Movements to Monitor

Equipment Vertical	Q3 Investment Growth		Next 6 Months	Short-Term Outlook
	Q/Q (annualized)	Y/Y		
Materials Handling	-4.6%	-2.8%	▲	Materials Handling Equipment investment growth weakened in Q3, falling for the third consecutive quarter. However, recent movement in the Momentum Monitor suggests that investment growth should improve over the next six months.
Construction Machinery	-3.9%	+11%	▲	Though it disappointed in Q3, investment growth for Construction Machinery has held up this year, despite high interest rates. Looking ahead, the Momentum Monitor points to continued positive investment growth over the next six months.
Software	+7.8%	+8.6%	▲	Software investment growth was positive again and momentum has improved in four of the last five months, setting the stage for a solid start to 2024.
Other Industrial Equipment	-5.8%	+0.3%	▼	Investment growth for Other Industrial Equipment weakened in Q3 and has been essentially flat over the last 12 months. With the Momentum Monitor firmly in the “Weakening/Struggling” quadrant, growth is unlikely to improve in early 2024.

Credit Supply

Lending standards tighten in Q3

Business lending standards continued to tighten in Q3 as the Fed raised interest rates 25bps, likely for the last time in the current business cycle.

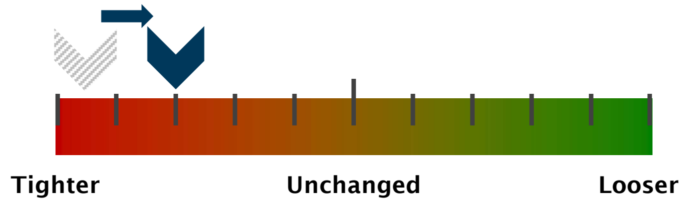
- Lending standards for Commercial and Industrial ("C&I") loans tightened in Q3. For loans to large and middle-market firms, a net 34% of banks reported tightening standards, while a net 30% reported tighter standards for loans to smaller firms.
- Lending standards also tightened for commercial real estate ("CRE") loans in Q3. A net 65% of banks reported tightening standards for construction and land development loans, while a net 56% reported tightening standards for loans secured by nonfarm nonresidential properties. No banks reported easing standards for either category.

In consumer credit markets, lending standards also tightened across the board.

- Regarding credit cards, a net 29% of banks tightened approval standards, while a net 23% of banks lowered credit limits.
- For auto loans, a net 15% of banks tightened standards.
- Mortgage standards also tightened. For example, a net 26% of banks tightened standards for jumbo mortgages.

Credit Supply Conditions

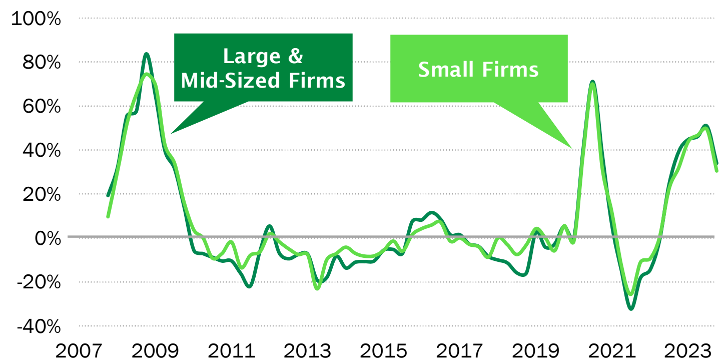
Banks report tighter lending standards in Q3



Source: Federal Reserve Senior Loan Officer Survey

Lenders Tighten Standards for C&I Loans

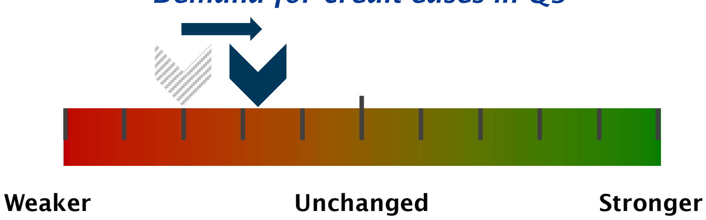
Percent of Respondents



Source: Federal Reserve Senior Loan Officer Survey

Credit Demand Conditions

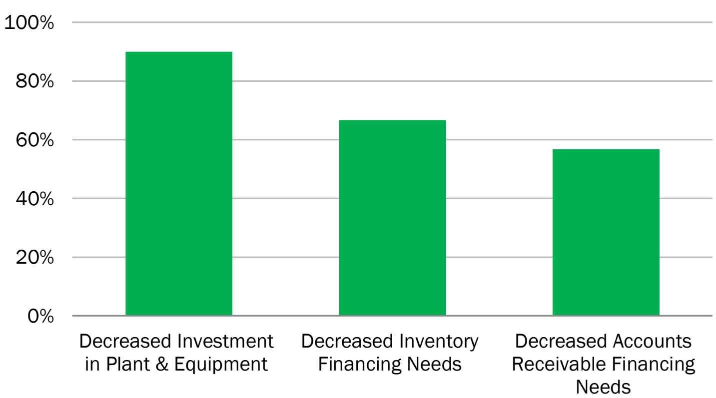
Demand for credit eases in Q3



Source: Federal Reserve Senior Loan Officer Survey

Top Reasons for Weaker C&I Loan Demand

Share Indicating Reason is "Somewhat" or "Very Important"



Source: Federal Reserve Senior Loan Officer Survey

Credit Demand

Demand for credit weakens in Q3

Demand for business loans weakened in Q3.

- On net, 31% of banks reported weaker C&I loan demand among medium and large firms. Demand was even weaker among smaller firms, with a net 49% of banks reporting lower demand. Importantly, the most frequently cited reason for lower demand was decreased investment in plants and equipment (90%), along with decreased inventory financing needs (67%) and decreased accounts receivable financing needs (57%) (see chart).
- Demand for CRE loans weakened again in Q3. A net 53% of banks reported weaker demand for construction and land development loans, while a net 50% reported weaker demand for loans secured by nonfarm nonresidential properties.

Credit demand also weakened among households, particularly for autos and mortgages.

- Demand fell for jumbo mortgage loans (net 54% decline), and non-jumbo mortgage loans (net 61% decline).
- Demand fell for auto loans (net 24% decline) and also moderated for credit card loans (net 9% decline).

Fed Policy Corner

Fed Holds Rates Steady Again in December

During the Fed's December meeting, officials voted unanimously to hold the benchmark funds rate between 5.25% and 5.50%. This was the first time the Fed left rates unchanged at three consecutive meetings in more than two years. The decision to keep rates steady was based on two factors:

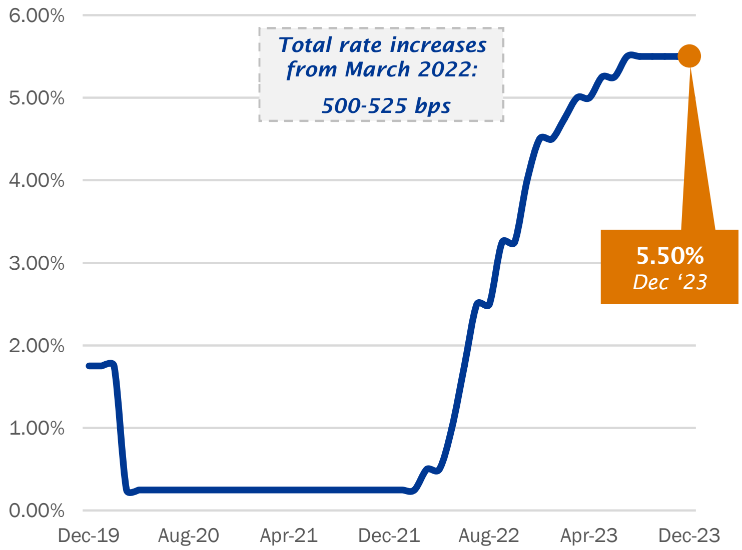
- **Despite Progress, Core Inflation Remains Elevated:** The Core PCE Price Index was +3.5% Y/Y in October. While this reading represents significant progress over the last six months (this metric was +4.3% Y/Y as recently as June), it is still well above the Fed's 2% target
- **The Economy Is Still Running Hot:** The U.S. economy expanded at a robust 5.2% annualized rate in Q3, even after accounting for inflation. This is more than double the rate of growth that has occurred over the previous four quarters. Further, consumer spending rose +0.7% M/M in September — the fastest pace in six months — and while spending slowed to +0.2% in October, Fed officials likely felt that cutting rates after such a strong GDP report would risk sending the wrong message to markets regarding their commitment to bringing inflation back on target.

As of mid-December, markets believe the Fed will lower rates by 150 basis points in 2024 (see bottom chart). While we expect that rates will remain higher for longer, the question of when to start cutting and how much to cut will ultimately depend on several factors, including:

- **Inflation:** Over the last six months, core PCE has expanded at an annualized rate of 2.9%. This is still slightly above target, but potentially close enough to give the Fed enough confidence to begin lowering rates in Q1 (provided that recent trends continue).
- **Bond Yields:** After rising to nearly 5% in October, yields on 10-year Treasury Bills — which influence everything from mortgage rates to corporate borrowing costs — have fallen to around 4% as of mid-December but remain near their highest level since 2007. Volatility in longer-term rates has been exacerbated by uncertainty in the bond market regarding the possibility for additional rate increases, along with worries that persistent budget deficits and rising debt servicing costs could drive yields even higher. The Fed will focus primarily on achieving price stability but will be cognizant of how its actions affect the bond market.
- **Global Conflict:** Turmoil in the Middle East, the Russia-Ukraine war, and continued animosity between the U.S. and China will affect the Fed's decision making in 2024. Any larger regional conflict or geopolitical shock that stems from these smaller entanglements could lead to higher oil prices or constrict supply chains, which in turn could stoke higher inflation. At the same time, periods of global conflict often trigger a "safe haven" effect in which demand for Treasuries rises and yields fall.

Top of Federal-Funds Target Range

Percent



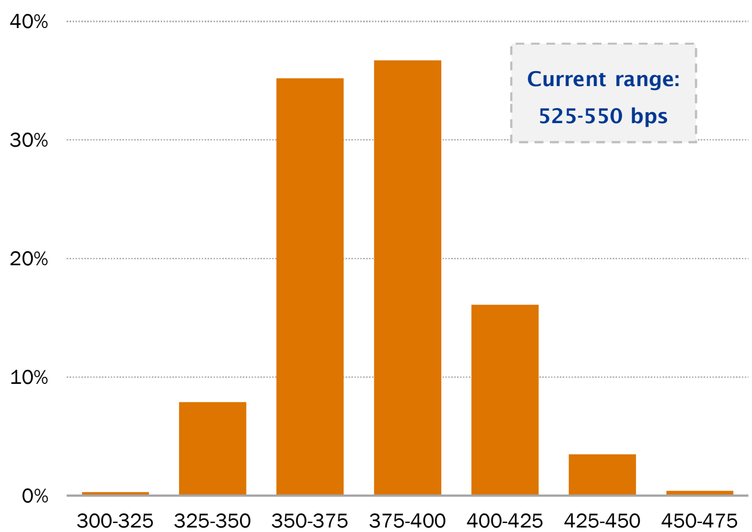
Source: Federal Reserve Bank of New York

"The Federal Open Market Committee is committed to achieving a stance of monetary policy that is sufficiently restrictive to bring inflation down to two percent over time; we are not confident that we have achieved such a stance."

- Jerome Powell, Fed Chairman, 11/09/2023

Q4 2024 Federal Funds Rate Probabilities *(as of Dec. 14)*

Bps, set by December 2024 FOMC meeting



Source: CME Group

"My assessment is that we are at, or near, the peak level of the target range of the federal funds rate. [However], I expect it will be appropriate to maintain a restrictive stance for quite some time."

- John Williams, New York Fed President, 11/30/2023

Main Street Outlook

Small Business Remain Sour on Future Economic Prospects

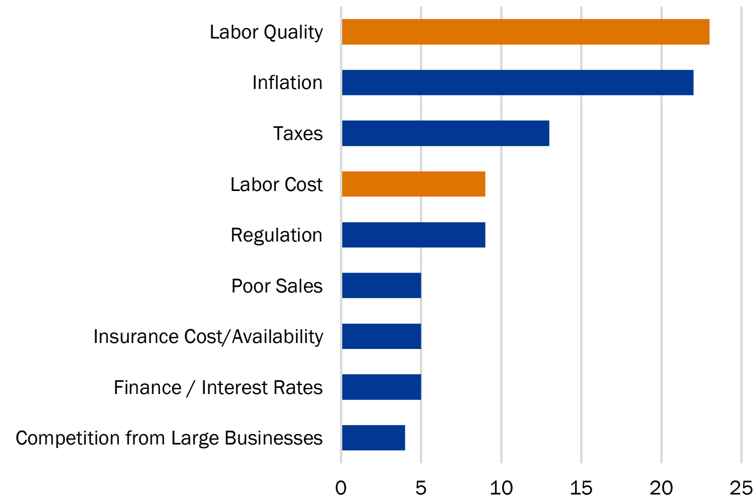
Consumer spending was stronger than expected in 2023, driving higher sales revenues at Main Street businesses and blunting the impact of higher borrowing costs and tighter credit conditions. However, small business owner confidence remains subdued: NFIB reported in October that owners are "not optimistic about better business conditions [and] not growing their inventories," reflecting a gloomy near-term outlook.

Two of the key challenges facing Main Street include:

- **Labor Challenges** — For more than two years, small business owners have struggled to identify and hire qualified candidates, and labor-related issues remain top-of-mind, particularly worker quality and wages (see top chart). Per NFIB, 61% of small firms either hired or were trying to hire in October, but 90% of these firms reported finding few or no qualified applicants. With qualified workers in short supply, compensation is rising accordingly: a recent Chamber of Commerce survey found that more than half of small business owners are finding it difficult to keep up with salary expectations. Fortunately, both wage growth pressures and inflation have eased in recent months, and it is likely that this trend will continue in 2024.
- **Financial Stress** — Small business financial stress rose steadily in 2023, particularly in the transportation sector. Per Equifax, delinquency and default rates are above pre-pandemic levels and are continuing to increase, and the combination of higher borrowing costs and tighter credit conditions have made it more difficult for some small firms to mitigate the stress with credit. For example, a Goldman Sachs survey recently found that nearly 80% of small business owners are worried about their ability to quickly access capital, and less than one-third report being able to afford a loan. Main Street sales revenue was boosted by strong consumer demand in 2023, but if demand slows this year as expected, a higher percentage of small firms may find themselves getting pinched.

Single Most Important Problem

% of Firms Identifying Single Most Important Issue, October



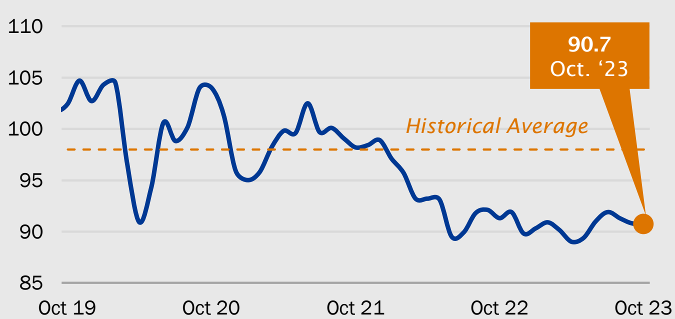
Source: National Federation of Independent Businesses

2024 Outlook: Although the economy is now better positioned to avoid a recession than it was 12 months ago, small business owners remain pessimistic (see bottom-left chart). Indeed, NFIB data indicate that uncertainty is higher, sales expectations are weak, and only 6% of firms believe that now is a good time to expand. Moreover, while the net share of firms who expect business conditions to improve in the next six months is slightly less negative than it was a year ago, the net share of businesses that experienced better sales over the last three months fell to -17%, the lowest reading since the height of the pandemic in mid-2020 (see bottom-right chart). These data suggest that while Main Street has benefitted from strong consumer spending over the last two years (in part due to a heightened dependence on revolving credit card debt), consumers may finally be starting to pull back.

Optimism Remains Subdued on Main Street

Small Business Optimism Index

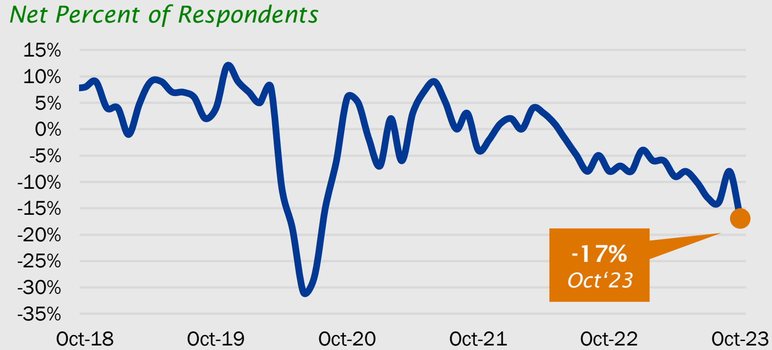
1986 = 100



Source: National Federation of Independent Businesses

Sales in Last 3 Months Better Than Prior 3 Months

Net Percent of Respondents



Source: National Federation of Independent Businesses

MLFI-25

New business volume remains subdued

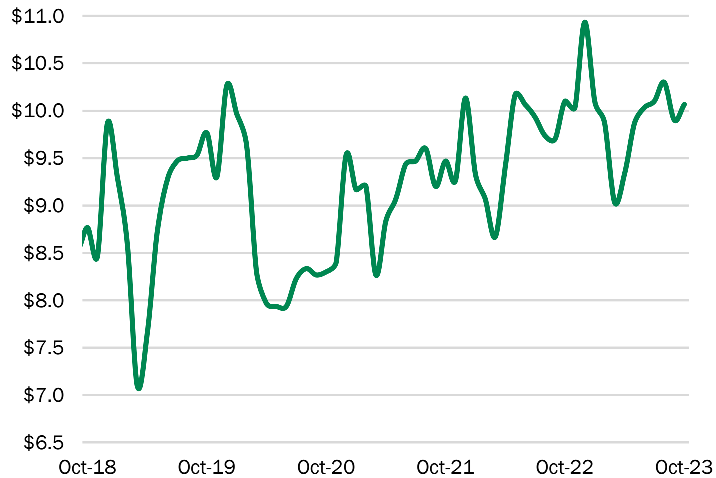
ELFA's Monthly Leasing and Finance Index (MLFI-25) reported new business totaled $10.4 billion in October, down 8% on a Y/Y basis and up 0.7% year-to-date. The 3-month moving average rose 1.7% compared to September and is roughly in line with its level from a year ago (see chart).

Equipment leasing and finance volumes have clearly taken a hit in 2023, as the combination of higher borrowing costs and reduced investment activity created weaker industry conditions even as the broader economy continued to expand. Although year-to-date new business volume growth is slightly positive in nominal terms, growth levels have lagged inflation throughout the year.

Portfolio performance slipped somewhat in October, with charge-offs rising 6bps to 0.42% (16bps above year-ago levels). Receivables over 30 days also rose, and at 2.5% they are now up 80 bps Y/Y. Still, credit approvals improved markedly in October, rising from 73.6 to 76.0%.

MLFI-25 New Business Volume

Billions, 3-month moving average



Source: ELFA

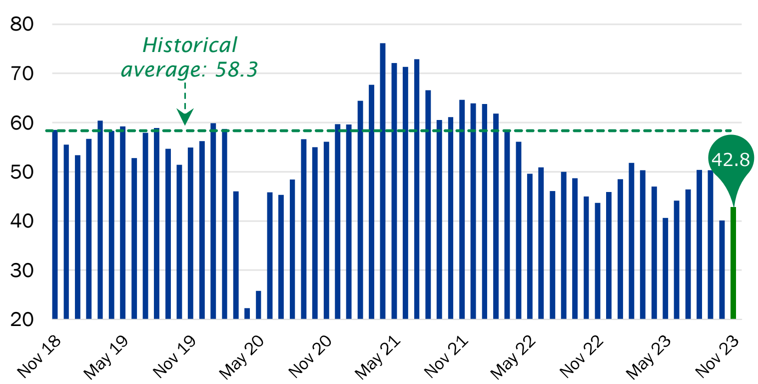
"[The] slight increases in both losses and delinquencies [are] indicative of the challenges experienced by some businesses as they operate in a higher interest rate environment [that is] constrained in some sectors…by reports of a pull-back in bank lending. Origination activity for the year continues to be in acceptable ranges."

— Ralph Petta, President and CEO, ELFA

MCI-EFI

Industry confidence bottoms as economy slows

Monthly Confidence Index – Equipment Finance Industry



Source: ELFF

"The depth of geopolitical uncertainty, and our own domestic political uncertainty, will have a significant impact on how the economy and our industry fare over the next 6-12 months."

— Sean Duffy, Chief Financial Officer, Global Financial & Leasing Services

In November, the Monthly Confidence Index for the Equipment Finance Industry (MCI-EFI) was 42.8, well below the historical average. After steady improvement in the index over the summer, industry confidence has tumbled back to post-recession lows this fall. The general decline in industry confidence likely reflects concern over how the industry will fare in the face of prolonged elevated interest rates and heightened economic and political uncertainty in the months ahead.

- No respondents expect business conditions to improve in the next four months. Three-fourths of respondents expect conditions to remain the same.
- No respondents expect demand for leases and loans to fund capex to increase. Three-fourths of respondents expect steady demand, while one-fourth expect demand to worsen.
- While most respondents expect do not anticipate a change in their hiring plans, the share who expect hiring to improve (15%) is roughly double the share who expect it to decline (7%).
- While most respondents (82%) rate the economy as "fair," 15% assess it as "poor," up from 7% in October.

Industrial Focus

Growth in shipments and new orders slowing

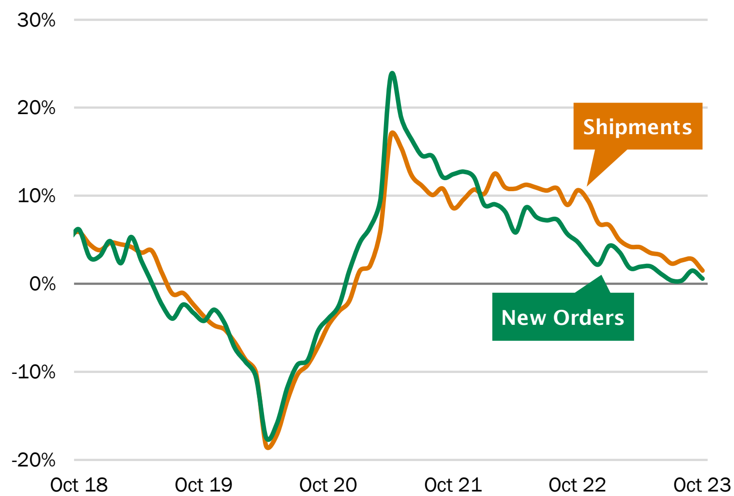
Growth rates for new orders and shipments of core capital goods continues to trend downward (see chart).

- New orders growth for nondefense capital goods excluding aircraft (a leading indicator of industry performance) fell slightly in November, marking the fourth monthly contraction in the last five months. Year-over-year growth decreased to 0.6% Y/Y. Overall, the data suggest that near-term prospects for equipment investment volumes remain modest.
- Shipments of nondefense capital goods excluding aircraft (a concurrent indicator of industry performance) held steady in November. On an annual basis, growth slowed to 1.5% Y/Y, the slowest pace in nearly three years.

Mediocre readings for both orders and shipments align with subdued industry confidence and soft manufacturing data.

Shipments vs. New Orders of Core Capital Goods

Year-on-year percent change



Source: Census Bureau

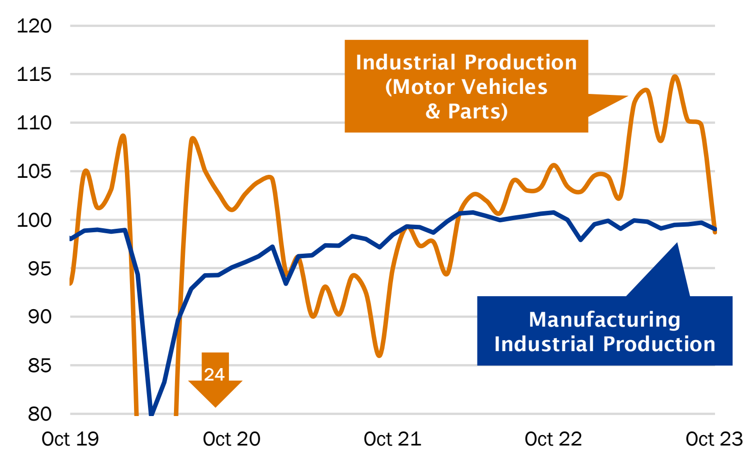
Motor vehicle IP sinks after record high

Manufacturing industrial production decreased 0.7% M/M in October as motor vehicle industrial production plummeted 10% M/M due to the auto industry strike. Manufacturing output is 1.7% below its year-ago level, underscoring the extent to which strong consumer spending offset persistent weakness in the industrial segment of the economy.

- The November reading of the ISM Purchasing Managers Index was 46.7, its 13th consecutive sub-50 reading. All five sub-indices are in contractionary territory. Meanwhile, capacity utilization decreased 0.6 percentage point to 78.9% in October, falling below its long-term average.
- Notably, industrial production was held back by disruptions in the auto industry. After rising to an all-time high this spring, IP for motor vehicles softened in the fall and plummeted at the onset of the UAW strike. With the strike now resolved, manufacturing activity may improve.

IP: Total Production vs. Motor Vehicles & Parts

Reindexed, Dec. 2017 = 100



Sources: Federal Reserve Board of Governors; G17 report

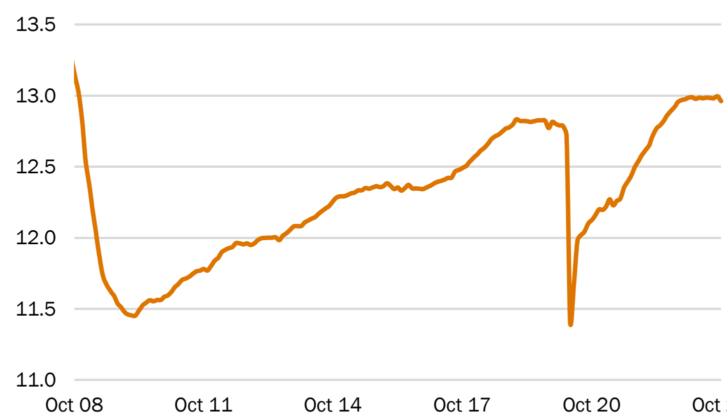
Manufacturing payrolls hold steady

After reaching a new high last year, manufacturing employment growth in 2023 and has hovered just shy of 13 million for most of the year

- Manufacturing employment rose by 28,000 workers in November, though this effect was driven by the resolution of the auto sector strike.
- Average weekly hours for manufacturing workers has fallen modestly over the last year and now stands at 40.0 hours, its lowest reading since mid-2020. A sustained decrease in hours worked often signals future layoffs.
- At the same time, a recent Manufacturing Institute study found evidence of a manufacturing industry labor shortfall of more than 2 million workers by 2030. With a shortage on the horizon, layoffs are less likely.

Manufacturing Payroll Employment

Millions SA



Source: Bureau of Labor Statistics

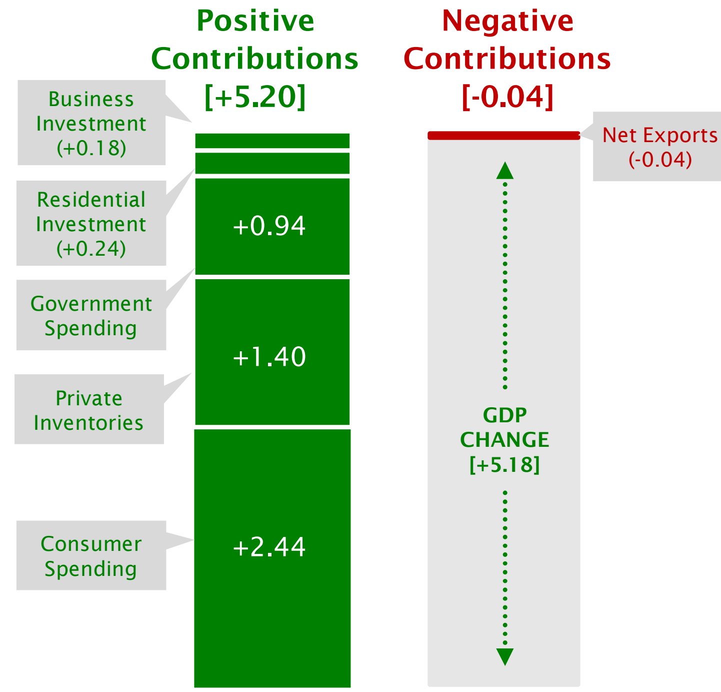
State of the U.S. Economy

Economic growth booms in Q3

The U.S. economy expanded at a robust 5.2% annualized rate in the third quarter. The economic expansion was broad based, reflecting strong increases in consumer spending, private inventories, and government expenditures, as well as modest gains in both residential investment and business investment. Net exports were a slight drag on growth.

- **Consumer spending** expanded 3.6% (annualized) in Q3 after modest 0.8% growth in Q2. Durable goods fueled the increase (+6.8%) while non-durable goods (+3.5%) had its best quarter since mid-2021.
- **Government spending** grew solidly in Q3, driven by a sharp 8.2% annualized increase in federal defense spending. Federal non-defense spending expanded 5.5% while state and local spending increased 4.6%.
- **Residential investment** grew 6.2% annualized, the first expansion since early Q1 2021 and a sign that the housing market may have turned a corner.
- **Equipment investment** fell 3.5% annualized as most subcategories contracted other than transportation, which was essentially unchanged. Software investment, however, expanded for the 14th consecutive quarter.
- **Net exports** fell slightly, as increased imports more than offset an increase in exports.

Contributions to GDP Growth
Q3 2023



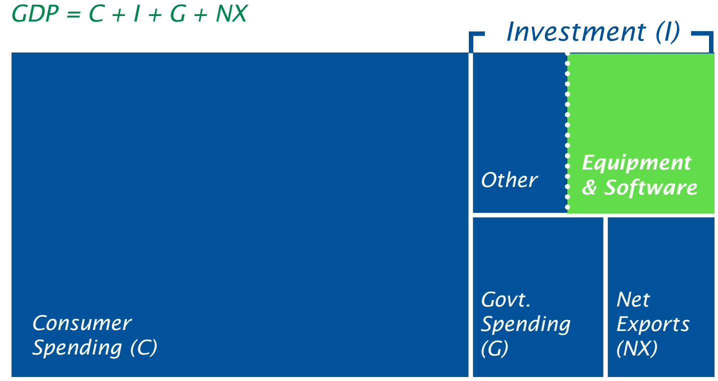
Source: Bureau of Economic Analysis

Economy appears on track for soft landing

The U.S. economy had a remarkably strong Q3. Consumer and government spending boosted growth and investment, bolstered by the strong labor market. Just as importantly, robust economic growth was paired with a steady decline in inflation, even as the Fed slowed and eventually paused its rate hike schedule. After starting the year at 6.4% Y/Y, headline CPI inflation was just 3.2% in October, while the Core PCE Price Index (the Fed's preferred inflation measure) fell from 4.9% to 3.5% over the same period. The unusual combination of 5+ percent growth, a healthy labor market, and cooling inflation has resulted in more optimism about the economy's prospects, and we believe a "soft landing" scenario is now more likely than not.

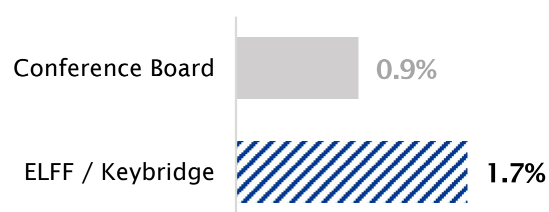
However, it is still premature to declare victory. Due to support programs and large spending bills, government expenditures contributed much more to GDP growth in 2023 than is typical, which is unlikely to be repeated in 2024. Additionally, consumer spending may weaken given a combination of slower job growth, depleted savings, and rising financial stress. Meanwhile, elevated interest rates are continuing to hold back the housing market and, outside of a few key industries that are benefitting from new federal spending, are discouraging business owners from investing in new capital. With global economic conditions unlikely to improve, a U.S. recession during the first half of 2024 is possible. Still, a soft landing is now our base case.

Composition of Gross Domestic Product (GDP)
GDP = C + I + G + NX



Source: Keybridge LLC. Rectangles drawn to scale, based on BEA data.

2024 Growth Forecasts*



*Note: The Bureau of Economic Analysis reports annual GDP growth as the percent change in the average level of quarterly GDP from one year to the next.

Consumer Financial Stress

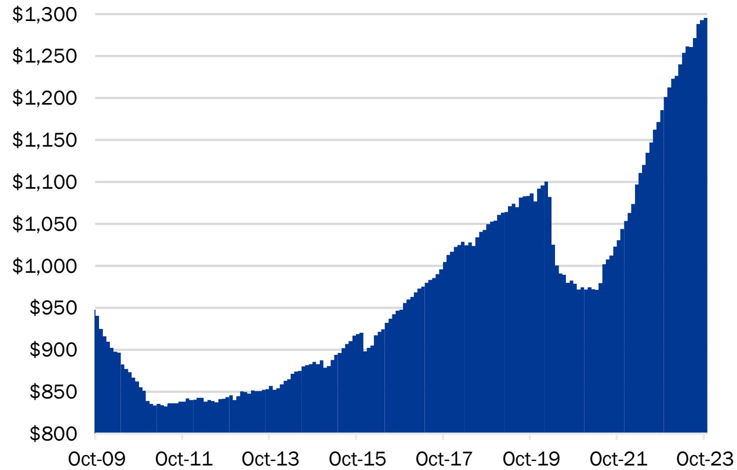
With payment obligations on the rise, can consumers continue to drive economic growth?

As consumers continued to propel the economy forward in 2023, debt levels and financial stress have been on the rise and are a key factor to watch in 2024. Americans leaned heavily on credit cards to support spending throughout 2023, and after a period of deleveraging in 2020 and early 2021, revolving credit is now at its highest point on record and is still growing significantly faster than pre-pandemic trend (see top-right chart). Indeed, from 2011 – 2019, the average annual growth rate for revolving credit was around 3%, including 3.6% in both 2018 and 2019. In 2022, revolving credit expanded a stunning 15% — even faster than the debt-fueled consumer economy of 2006 that preceded the Great Recession — and as of October the year-over-year growth rate is nearly 10%. A similar trend is occurring for automobiles: from 2017 – 2019, motor vehicle loans increased at a 3-4% annual rate; over the last three years, they have expanded 14%, 8%, and 5%, respectively.

As consumers finance more of their spending using credit cards, buy-now pay-later products, and other forms of borrowing, the rapid rise in interest rates since 2021 has made repaying this debt significantly more expensive. For example, at the end of 2019, the average credit card interest rate was 14.9%; in August 2023, it was 21.2%, and among accounts that were assessed interest, the rate is an even higher 22.8%.

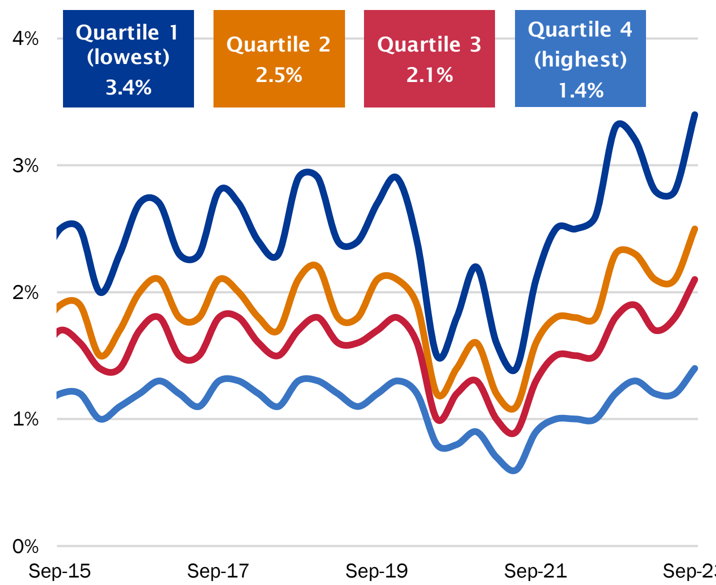
Given the rapid increase in both consumer debt levels and the cost of servicing that debt, it should come as no surprise that U.S. consumers are exhibiting increasing signs of financial stress. For example, the share of households reporting difficulty paying their usual expenses rose steadily in 2023 and reached a post-pandemic high in October (see bottom chart), while the share of credit cardholders who are newly delinquent is now above 2019 levels for all four income quartiles (see middle chart). Unfortunately, much of the financial stress is still to come, as the revolving debt that accrued this spring and summer and helped drive robust economic growth in Q3 will likely lead to higher delinquency rates in the months ahead.

Total Revolving Consumer Credit Owned
In billions of $, monthly



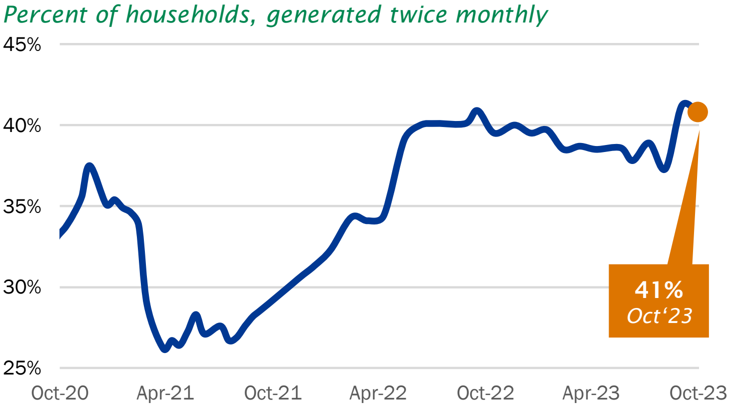
Source: Federal Reserve Bank of New York

Share of CC Borrowers who are Newly Delinquent
Median income quartiles, percent



Source: Federal Reserve Bank of New York

Difficulty Paying Usual Household Expenses
Percent of households, generated twice monthly



Source: U.S. Census Bureau Household Pulse Survey

Still, the most important factor determining consumer financial stress is the labor market, which remains in solid shape heading into 2024 (see next page). Job growth remains well above replacement rate, and stronger than pre-pandemic job growth. Meanwhile, wage growth has moderated but is outpacing inflation, and the unemployment rate has risen slightly but is still under 4%. As long as the labor market remains in the "Goldilocks Zone" (i.e., wage growth is healthy, jobs are plentiful, and inflation is generally contained), most households should be reasonably well positioned to manage their payment obligations and the increase in consumer financial stress should be gradual rather than steep. However, if unemployment ramps up, financial stress will follow suit.

Labor Market

Jobs were plentiful in 2023, despite higher interest rates. Are cracks beginning to show?

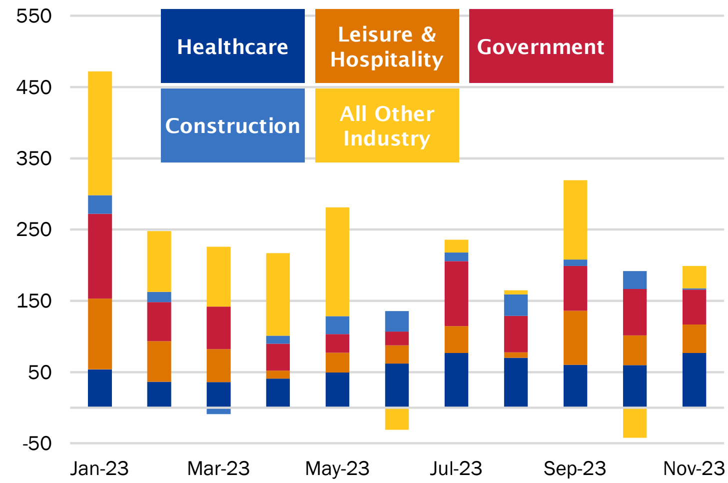
Despite rapidly rising interest rates and expectations that job gains would slow or reverse, the labor market remained a pillar of strength in the U.S. economy in 2023. Through December, the U.S. economy has added more than 2.5 million jobs this year, exceeding the expectations of most economic forecasters. Job growth has slowed somewhat since the beginning of the year as higher interest rates take hold, but with more than 185K jobs per month created on net during the second half of the year and unemployment at 3.7%, labor market conditions continue to be indicative of a healthy economy.

However, recent data suggest that change could be in the air, and the question of whether the labor market can continue to stand firm in 2024 despite higher interest rates remains to be seen.

- **Job Growth:** While headline job growth has been solid throughout the year, over the last six months most jobs have been created in the healthcare, accommodation & food services, and government sectors (see top-right chart). More recently, several major private sector industries have either flatlined or contracted during the first two months of Q4, including Manufacturing (-7K), Professional & Business Services (-7K), Information Services (-9K), Transportation & Warehousing (-17K), and Retail Trade (-43K).
- **Wage Growth:** In the years leading up to the pandemic, nominal wage growth was typically 1-2 percentage points above the rate of inflation, but this relationship flipped in April 2021 as inflation accelerated (see middle chart). For two years, inflation exceeded wage growth, leaving consumers worse off overall, even as nominal wages climbed. With inflation falling to more acceptable levels, real wage growth has once again turned positive, even as nominal wage growth slowly recedes. A key question in 2024 is whether wages continue to grow above the inflation rate, or whether a slowdown in consumer spending leads to a positive feedback loop of reduced demand for workers and slower wage growth, which would likely trigger a recession.
- **Job Openings and Quit Rates:** In 2021 and 2022, historically tight labor market conditions offered workers more leverage to demand higher pay or quit their jobs to seek other opportunities, and as a result, both job openings and quit rates soared (see bottom chart). However, recent data indicate that the leverage workers once enjoyed may be dissipating: job openings per unemployed worker have fallen by 25%, while the quit rate has returned to its pre-pandemic level. While these trends are consistent with a job market that is normalizing, they also suggest that employers are no longer as hungry for labor as they once were — and may be more willing lay off workers if demand slows.

Change in Payrolls by Industry

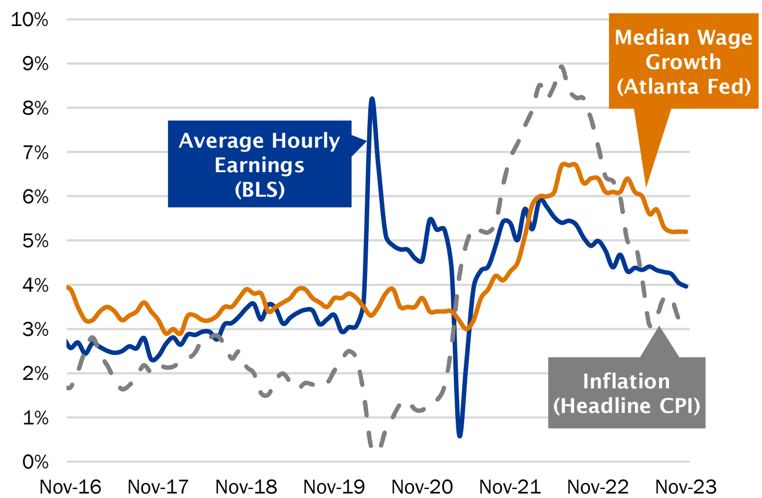
Monthly, thousands



Source: Labor Department

Wages and Prices, Percent Change from a Year Earlier

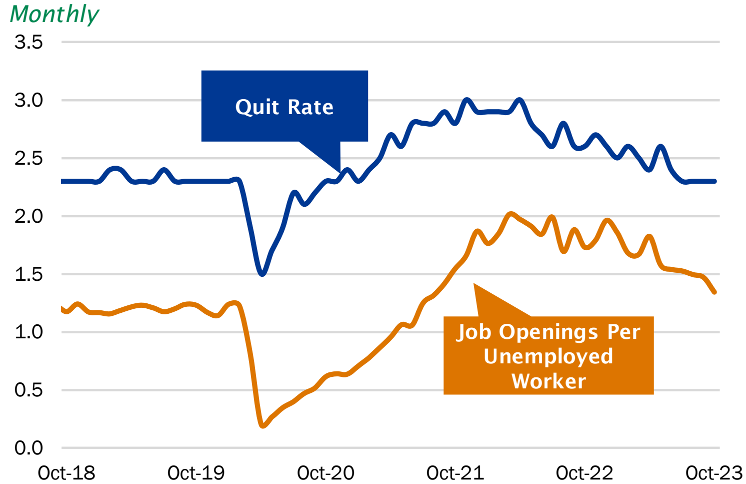
Monthly, avg. weekly earnings, 3MMA median hourly wages, CPI



Source: Labor Department, Atlanta Fed

Quit Rates & Job Openings Per Unemployed Person

Monthly



Source: Labor Department

Global Conflict May Impact Energy Prices

Oil prices ease as demand weakens, but global turmoil adds to uncertainty

The economic impact of mounting geopolitical tensions is a key area of uncertainty facing the U.S. economy this year. The Russo-Ukrainian is likely to continue to impact stability and confidence in Europe and threaten to disrupt supply chains. Meanwhile, political tensions with China will continue to complicate business efforts for multinational U.S. companies and accelerate efforts to diversify supply chains. particularly given recent Chinese efforts to strengthen ties with Russia. Unanticipated conflict is also a concern: a recent survey of institutional investors conducted by Natixis found that the biggest macroeconomic risk for 2024 is geopolitical bad actors who, with one action, could upset economic and market assumptions.

War in Israel-Palestine is the latest addition to a laundry list of global challenges, and should the war broaden outside Israel's borders it would further destabilize the region. From an economic perspective, the primary risk of destabilization is its effect on energy markets, as a regional conflict would likely impact major oil exporters, including Saudi Arabia and Iran. Higher global oil prices could benefit U.S. producers and potentially encourage more production, but would also negatively affect consumers — and, if sustained, could relight the embers of inflation.

Crude Oil Prices

USD/barrel, 5-day moving average, as of December 6th

Source: Energy Information Administration

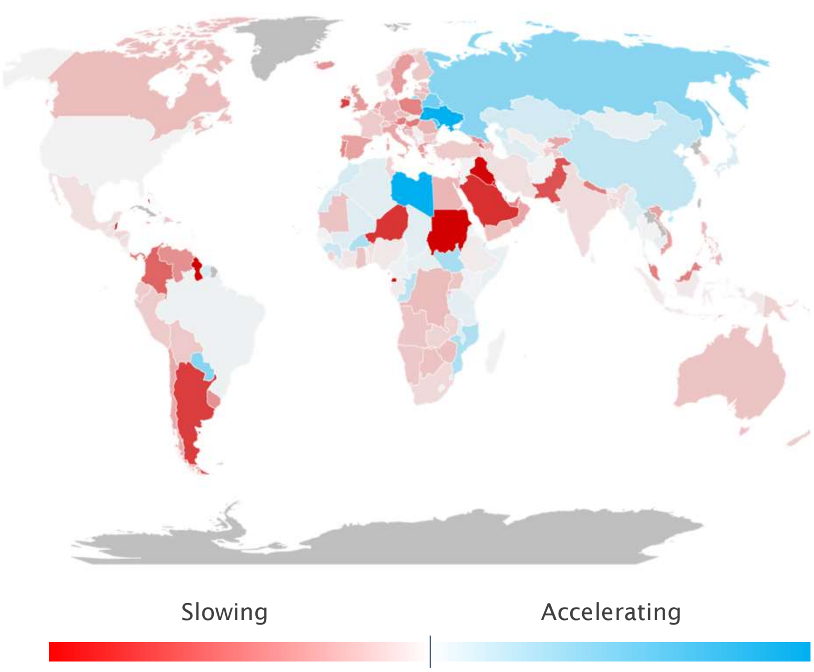
Interestingly, oil prices have actually *fallen* roughly 20% since the Hamas attack on October 7th, largely due to lower global demand, particularly in China (see chart).

A Sluggish Global Economy Expected to Drag on Demand

U.S. exports may suffer as global demand remains relatively weak

Growth of Economies by Country

Forecasted change in growth rate from 2022 to 2023



Source: IMF World Economic Outlook (October 2023)

While U.S. economic growth exceeded expectations this year, many other economies struggled. Inflation was pervasive in Europe, leading to anemic growth for the EU (+0.6% Y/Y) and an outright contraction in several manufacturing-oriented economies, including Germany. However, after a combination of lower commodity prices, easing supply constraints, and monetary tightening brought inflation down to more manageable levels, the IMF is now expressing cautious optimism that most European Union countries will avoid an outright recession, even as overall growth remains weak.

One of the biggest downside risks to the global economy is an economic slowdown in China. After decades of overbuilding that was fueled by excess borrowing, China's real estate sector crisis is contributing to weaker consumer confidence, manufacturing activity, and domestic demand. This, in turn, is negatively affecting commodity exporters and other firms and countries that depend on China's supply chains.

Overall, the IMF is forecasting 2.9% growth in 2024, slightly slower than 2023 and well below the historical average. However, while global growth rates may disappoint in 2024, this could allow the Fed to lower interest rates with more confidence that doing so will not reignite inflation.

After a Dismal 2023, the Housing Market Outlook Remains Subdued

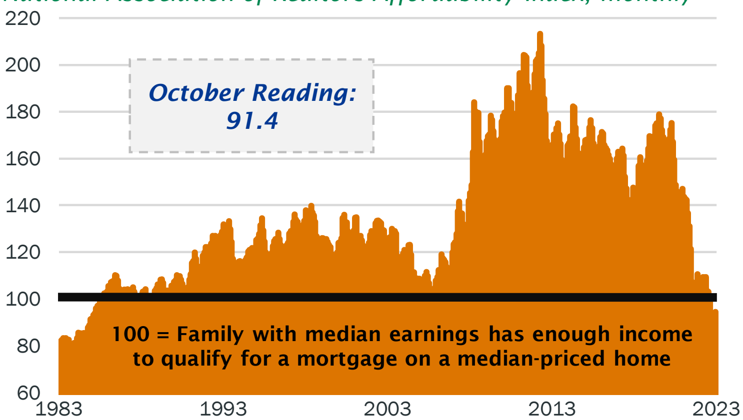
Mortgage rates expected to moderate somewhat in 2024, but affordability issues remain

Not surprisingly, high interest rates dealt a significant blow to the housing market in 2023. With mortgage rates rising well above 7% and housing prices still elevated after a historic market boom in 2020–22, housing affordability is at its lowest point in 40 years. Moreover, a large share of homeowners either purchased or refinanced their home within the last three years — per Redfin, nearly two-thirds of homeowners have a mortgage rate under 4% — which created a "lock-in" effect that has severely curtailed the number of homes on the market. In response, an increasing share of prospective homebuyers have sought newly constructed homes instead of previously owned homes (see right chart). As a result, housing construction has not fallen as much as it would have otherwise: building permits for new residential construction have risen 11% since January, while residential construction employment has also increased during this period. This has provided a lift to the construction equipment vertical.

Current housing market dynamics are unlikely to change until interest rates fall significantly, which we believe is unlikely until at least the second half of the year. Further, regardless of when the Fed begins to cut rates, it is unlikely that mortgage rates will approach 2020–21 levels. As such, the lock-in effect is expected to persist, meaning that the supply of available housing will remain constrained and housing affordability will be an ongoing concern.

Housing Affordability

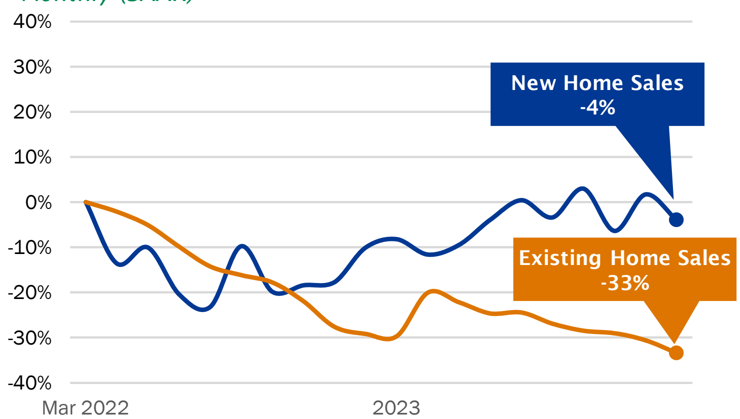
National Association of Realtors Affordability Index, monthly



Sources: National Assoc. of Realtors, Freddie Mac

Change in Home Sales from Start of Rate Increases

Monthly (SAAR)



Sources: U.S. Census Bureau; National Association of Realtors

Outlook For U.S. Manufacturers Varies Substantially By Sector

Though overall economic headwinds persist, IRA and CHIPS propel some industries

Headwinds were strong in the manufacturing sector this year, and by some measures the sector has been mired in a mini-recession. For example:

- The ISM Manufacturing Purchasing Managers Index (PMI) was 46.7 in November, its 13th consecutive month below 50.
- Overall industrial production fell 0.7% Y/Y in October and has been essentially flat all year. Industrial production for manufacturing is down 1.7% Y/Y.
- Capacity utilization for manufacturing has trended downward for the last six months and fell 0.6 pp to 77.2% in October. It is now below its average reading for the five-year period preceding the pandemic.

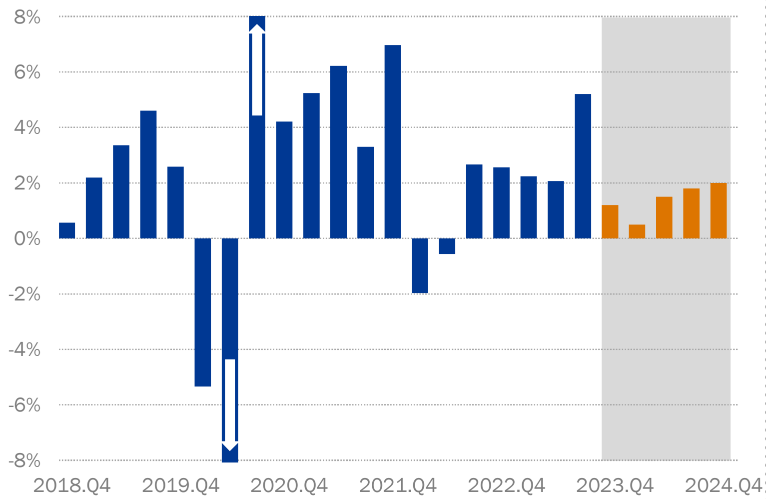
Higher interest rates have taken a toll on manufacturers, particularly in certain sectors. For example, automobile manufacturers have seen reduced demand due to higher loan payments, while Equifax data show that delinquency and default rates for small business transportation loans have tripled this year.

Aside from high interest rates, U.S. manufacturers must also content with other headwinds. For example, soft global demand is likely to dampen the prospects for U.S. exporters, while worker shortages and high labor costs are an ongoing challenge.

Still, some manufacturing industries are booming. The hundreds of billions of federal dollars authorized by major legislation passed in 2022 should boost demand in several industries this year, likely benefitting equipment verticals such as construction machinery; mining, oil & gas equipment, batteries & electrical equipment, and power transmission equipment. Moreover, demand is expected to remain strong for semiconductors and green energy, and if interest rates begin to fall in 2024 as expected, business that paused capital expenditure plans in 2023 due to the high cost of borrowing may revisit these investments, particularly during the second half of the year.

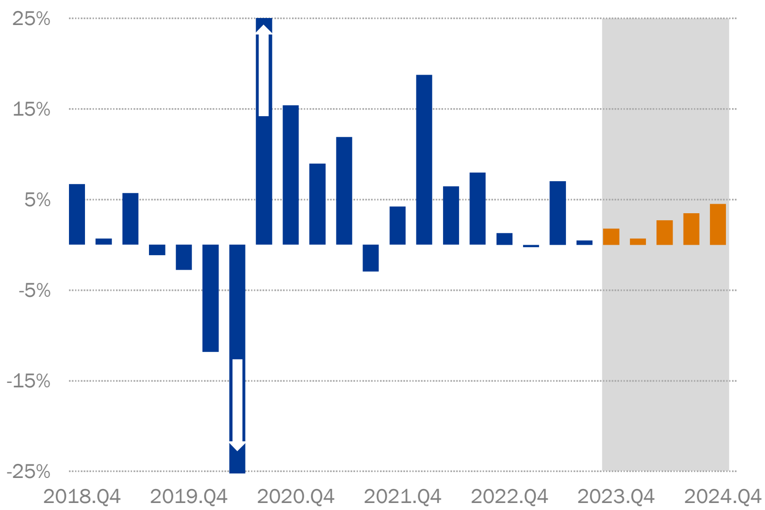
APPENDIX A | KEYBRIDGE FORECASTS

Real GDP Growth (% SAAR)



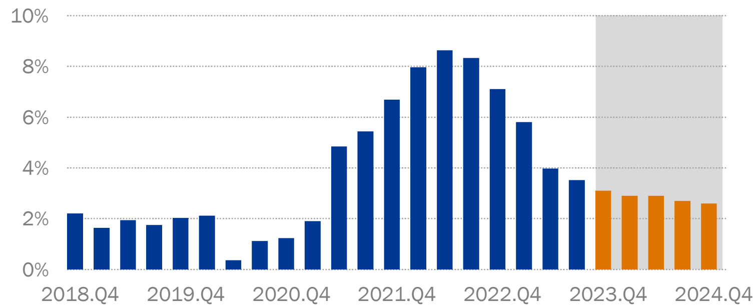
Source: Bureau of Economic Analysis; Keybridge LLC

Real E&S Investment Growth (% SAAR)



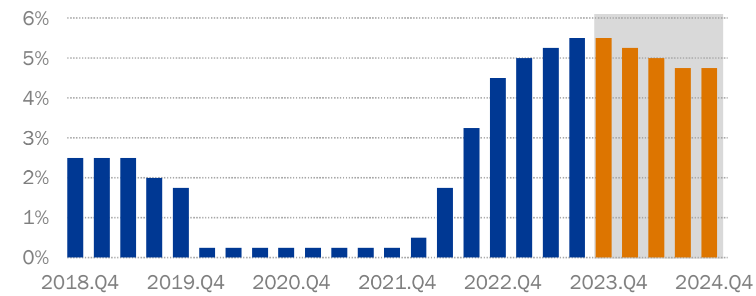
Source: Bureau of Economic Analysis; Keybridge LLC

CPI Inflation (year-on-year %)



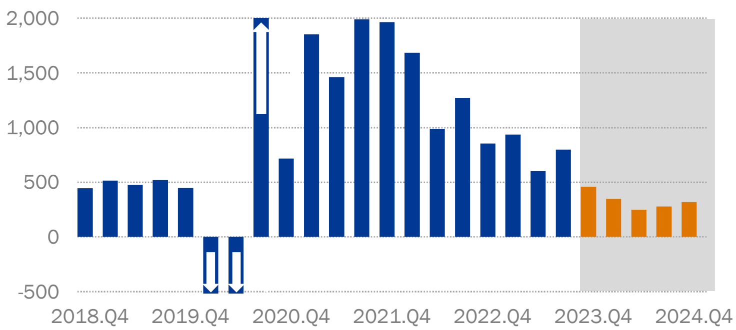
Source: Bureau of Labor Statistics; Keybridge LLC

Fed Funds Target (upper bound, end of period)



Source: Federal Reserve Board of Governors; Keybridge LLC

Total Payroll Growth (thousands)



Source: Bureau of Labor Statistics; Keybridge LLC

INDICATOR	2022	2023e	2024 QUARTERLY ESTIMATES				2024e
			Q1e	Q2e	Q3e	Q4e	
Real GDP* *(SAAR)*	*1.9%*	**2.4%**	0.5%	1.5%	1.8%	2.0%	**1.7%**
Real Investment in Equipment & Software *(SAAR)*	*7.9%*	**3.0%**	0.7%	2.7%	3.5%	4.5%	**2.2%**
Inflation *(Headline CPI, year-on-year %)*	*8.0%*	**4.1%**	2.9%	2.9%	2.7%	2.6%	**2.8%**
Federal Funds Target Rate *(upper bound, end of period)*	*4.50%*	**5.50%**	5.25%	5.00%	4.75%	4.75%	**4.75%**
Non-Farm Payroll Growth *(thousands)*	*4,793*	**2,663**	350	250	280	320	**1,200**

*Note: SAAR % refers to the annualized rate of change in seasonally adjusted data from one quarter to the next, which is the Bureau of Economic Analysis' ("BEA") standard method for reporting growth in the national accounts data. The BEA defines annual GDP growth as the % change in the average level of quarterly GDP from one year to the next. Some organizations (including the Federal Reserve) report GDP growth on a Q4/Q4 basis, which can result in differing reported growth rates.

About the Momentum Monitor

Business leaders require actionable forward-looking intelligence to make strategic decisions. Accordingly, the Foundation commissioned Keybridge LLC to develop a series of custom leading indicators for the equipment sector. The Foundation-Keybridge Equipment & Software Investment Momentum Monitor consists of indices for 12 equipment and software investment verticals. These indices are designed to identify turning points in their respective investment cycles with a ~6-month lead time.

The Momentum Monitor is based on Keybridge's extensive research which shows that not all movements in economic data are reliable signals of future economic trends. Keybridge has operationalized its research by constructing indices, each comprised of between 15 to 20 high-frequency indicators. These indicators undergo rigorous testing to determine the optimal thresholds at which their short-term fluctuations are economically meaningful. In simpler terms, the Momentum Monitor sifts out the "noise" in the data and identifies the dominant trends. As a result, each Momentum Monitor index is statistically optimized to signal turning points in the investment cycle without giving false readings of shifts in momentum.

How to Read the Momentum Monitor

The Momentum Monitor Matrix summarizes the current values of each of the 12 Equipment & Software Investment Momentum Indices based on two factors: Recent Momentum (x-axis) and Historical Strength (y-axis):

- "Recent Momentum" indicates a vertical's recent acceleration or deceleration in the past month relative to its average movement during the previous 3 months. Ratings closer to "0" indicate rapid deceleration, while ratings near "10" represent rapid acceleration.
- "Historical Strength" reflects a vertical's strength in the past month relative to its typical level since 1999. Ratings closer to "0" represent an indicator that is weaker than average, while ratings closer to "10" represent an indicator that is stronger than average.

The matrix consists of four quadrants based on readings for each vertical's recent momentum and historical strength. If a vertical falls in the top-left quadrant, its momentum reading is higher than average, but positive movement has slowed (and perhaps reversed) in recent months — suggesting that Y/Y investment growth may slow over the next two quarters. Verticals in the bottom-right quadrant, however, have momentum readings that are below average, but recent movement shows promise — suggesting that Y/Y investment growth may increase over the next two quarters.