2023 Q2 Update
Equipment Leasing & Finance U.S. Economic Outlook

EQUIPMENT LEASING & FINANCE FOUNDATION
Your Eye on the Future

EQUIPMENT LEASING & FINANCE ECONOMIC OUTLOOK

April 2023

Key Trends to Monitor

- Financial Instability
- Fed Policy
- Labor Market

EXECUTIVE SUMMARY

Equipment and Software Investment: E&S investment growth has cooled in the opening months of 2023 as the combined effects of a slowing industrial sector and higher interest rates weigh on equipment demand. Though certain end use markets may avoid the worst effects of the looming recession, we expect that the economic downturn will drag on investment across the board.

Momentum Monitor: The latest Momentum Monitor reading points to a slowing economy. Transportation-related sectors, including Ships & Boats and Railroad Equipment, are especially vulnerable in the coming quarters given that consumer and industrial activity are likely to cool.

Manufacturing: The manufacturing sector has worked through much of its pandemic-era supply chain backlogs, and broad measures of activity suggest that the sector is in the midst of a protracted slowdown. However, it is important to keep in mind that the jumping-off point for the current slowdown is a place of strength. As such, while demand is likely to continue to soften this year, the expected downturn may not be as severe as in past cycles.

Small Businesses: Main Street businesses were particularly exposed to pandemic-era labor shortages, and labor-saving investments in equipment and technology continue to be a lifeline. However, loan availability is expected to decrease this year, making it more difficult to finance investments and putting upward pressure on Main Street financial stress.

Fed Policy: The Fed has continued to demonstrate its commitment to bringing inflation to heel after initially being "behind the curve" — including raising rates by 25 bps despite a string of bank failures. The Fed still has its work cut out to bring inflation closer to its 2% target, and for this reason we still expect rates to rise higher than most market-implied forecasts.

U.S. Economy: Growth softened in Q1, and we expect this trend to continue through the year. The labor market remains healthy and lower energy prices are benefitting U.S. consumers, but inflation is proving to be stickier than many expected. Further, despite supply chain improvements and slower price growth in recent months, we believe the balance of inflation risks tilts to the upside. Elsewhere, trends in credit card and auto loan debt suggest that consumer financial stress is rising, and a looming debt ceiling showdown will do little to soothe the turmoil in the financial sector.

While a soft landing scenario is still achievable, we continue to believe that a mild recession wil occur in 2023, likely beginning during the second half of the year.

2023 Annual Projections

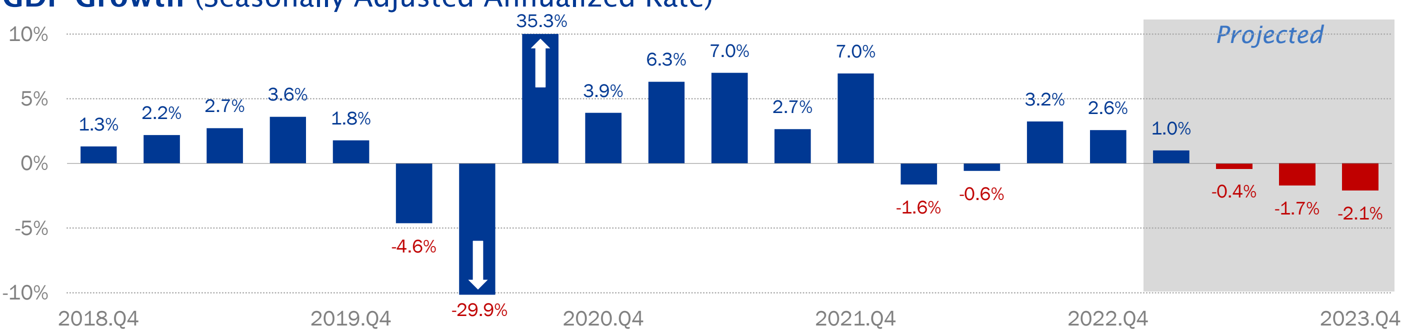
0.7%
*GDP Growth**
*see explanation on p. 13

1.0%
E&S Investment Growth

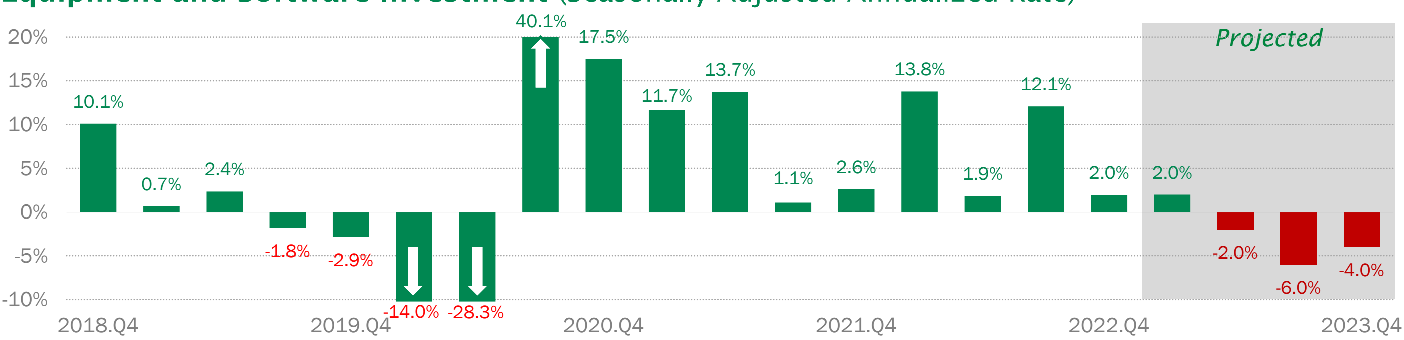
4.4%
Inflation (CPI)

-25bp
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

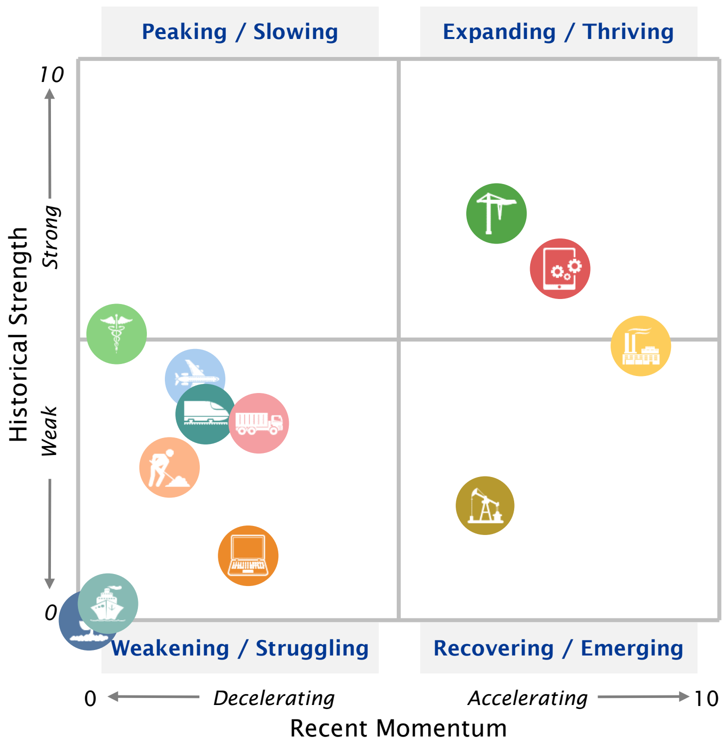
E&S investment slows sharply in Q4

Equipment and Software investment edged up just 2.0% (annualized) in Q4 2022, the weakest growth in over a year.

Of the 12 investment verticals tracked by the Foundation, eight saw positive investment growth in the fourth quarter while four saw investment contract. Notably, construction machinery investment remained strong despite industry headwinds, while computers investment saw its largest quarterly contraction ever.

Looking ahead, eight equipment verticals are in the bottom-left quadrant of the Momentum Monitor Sector Matrix (see chart), indicating that investment growth is weakening in these markets. This is a continuation of a multi-quarter trend and is broadly consistent with a slowing economy. Transportation-related verticals are exhibiting marked weakness, including Aircraft, Trucks, Railroad Equipment, and Ships & Boats.

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	Q4 Investment Growth		Next 6 Months	Short-Term Outlook
	Q/Q	Y/Y		
Materials Handling	3.7%	+0.6%	▲	Though Materials Handling Equipment investment is little changed from a year ago, the latest Momentum Index reading suggests that growth may accelerate in the coming six months.
Ships & Boats	+11%	+17%	▼	The global waterborne shipping industry has slowed notably due to declines in global demand. Ships & Boats investment growth is expected to slow markedly in 2023 as a result.
Computers	-41%	-6.0%	▼	Q4 saw a collapse in Computers investment growth following solid performance throughout the pandemic. The latest Index reading is near an all-time low, suggesting that growth will remain weak in the coming quarters.
Trucks	+5.3%	+12%	▶	The trucking industry will not be immune to the broader slowdown facing the U.S. economy this year. Though growth was strong in Q4, the latest reading suggests that investment is likely to cool in 2023.

CREDIT CONDITIONS

Credit Supply

Lending standards tighten in Q4

Business lending standards tightened significantly in Q4 as the Fed continued to raise rates in response to high inflation. Notably, lending conditions had already tightened *before* the well-publicized regional bank failures occurred in March, suggesting that additional tightening is likely on the way.

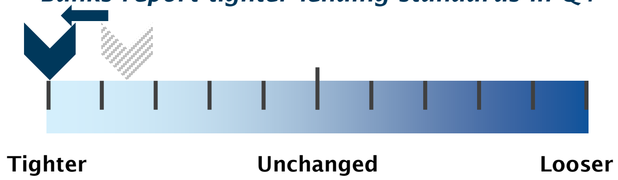
- Overall, lending standards for Commercial and Industrial ("C&I") loans tightened at most banks. For loans to large and middle-market firms, a net 45% of banks reported tightening lending standards, while a net 44% of banks reported tighter standards for loans to smaller firms.
- Lending standards also tightened substantially for commercial real estate ("CRE") loans. A net 69% of banks reported tightening standards for construction and land development loans in Q4.

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

- Credit card approval standards tightened in Q4, with 28% of banks tightening credit standards, up from 19% in the previous quarter.
- Meanwhile, auto loan lending standards tightened, with 19% of banks tightening credit standards. Banks also tightened lending standards for jumbo mortgage loans (net 15%) and non-jumbo mortgage loans (net 7%).

Credit Supply Conditions

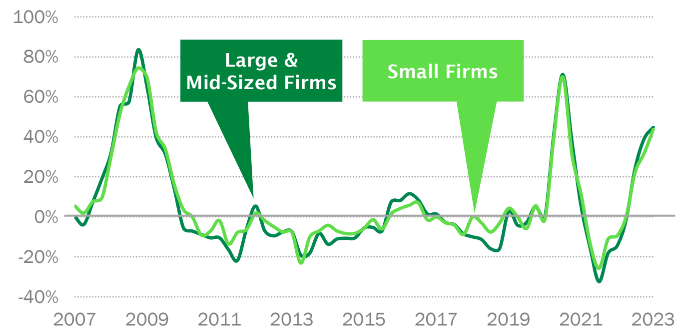
Banks report tighter lending standards in Q4



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

Demand for credit weakens in Q4

Demand for business loans weakened in Q4.

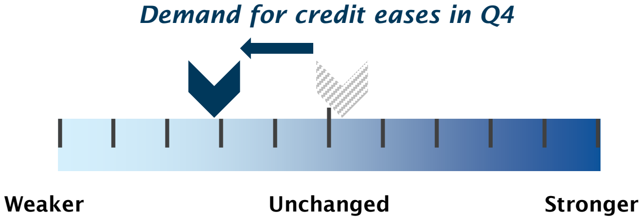
- On net, 31% of banks reported weaker C&I loan demand among medium and large firms in Q4, while a net 42% of banks reported weaker demand from smaller firms. Of those reporting weaker demand, the main reasons were decreasing inventory financing needs, decreasing investment in plant/equipment, and decreasing M&A financing needs (see chart).
- Demand for CRE loans fell sharply, as a net 62% of banks reported weaker demand for construction and land development loans and a net 68% of banks reported weaker demand for loans secured by nonfarm nonresidential properties.

Among households, credit demand also weakened.

- A net 11% of banks reported weaker credit card loan demand as interest rates to rise due to Fed rate hikes.
- At the same time, credit demand fell in other consumer lending categories in Q4, including auto loans (net 39% decline) and other consumer loans (net 26% decline).

Credit Demand Conditions

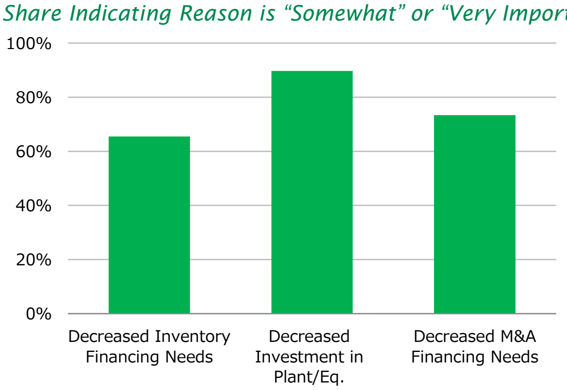
Demand for credit eases in Q4



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

Fed Policy Corner

Inflation persists as new challenges arise

During the first FOMC meeting of the year in late January, Fed officials raised short term interest rates by just 25 basis points amid signs of cooling inflation and a slowing economy. At the time, there were reasons to believe that the Fed might once again pick up the pace of hikes at subsequent meetings:

- A few participants were openly willing to raise rates by 50 bps, noting that it may be more prudent to move to a "sufficiently restrictive" range and observe the results.
- Chair Jay Powell stated that despite recent disinflationary trends, the Fed still needed more evidence to be confident that inflation had abated.
- The inflation hawks were bolstered by stronger-than-expected employment reports in February and March, leading some observers to anticipate rates as high as 6% (or higher) by the end of the year.

However, the inflation story became more complicated after the dramatic collapse of Silicon Valley Bank and Signature Bank in mid-March. Representing the second- and third-largest bank failures in U.S. history, these events shined a spotlight on the stress that has been building on bank balance sheets as higher rates reduce the value of bank bond holdings — and, for some regional banks, contributed to a loss of confidence in the safety of uninsured deposits.

Financial authorities responded quickly, placing the banks in government receivership and guaranteeing the full value of all deposits. To reduce the likelihood of "contagion," the Fed also established the Bank Term Funding Program (BTFP), an emergency fund through which banks can swap underwater loans for cash at par rather than market value, thereby shoring up balance sheets and reducing the likelihood of additional bank runs.

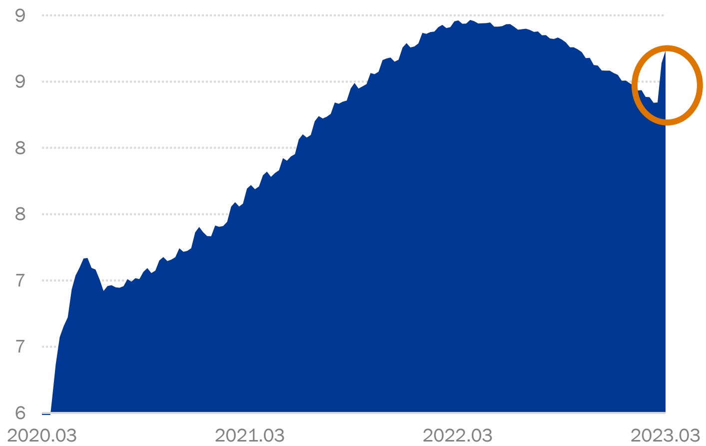
While a full-blown financial crisis has been avoided thus far, these developments could complicate the Fed's efforts to fight inflation. For example:

- The BTFP is open to many U.S. depository institutions, and if it proves to be popular, it could hamper the Fed's efforts to shrink its balance sheet. To this end: the Fed's balance sheet exploded by $300 billion almost overnight, reversing four months of quantitative tightening in the process (see top chart).
- Concerns about sparking another financial panic could cause the Fed to slow the pace of rate hikes. Indeed, the market-implied trajectory of the Fed funds rate has fallen sharply, suggesting that markets expect the Fed will opt for smaller rate hikes this year (see bottom chart).

While it is difficult to find a silver lining after a bank run, the reality is that these bank failures may help the Fed fight inflation if there is a pullback in lending activity. Lenders are widely expected to tighten lending standards and reassess their balance sheet risks given how higher interest rates have affected Treasurys, mortgage debt, and mortgage-backed securities.

All told, though, we expect the Fed to raise rates until core inflation is closer to its 2% target, which will likely require another 25bp increase at the next FOMC meeting. However, we expect the Fed to begin cutting rates later this year, in response to a weakening economy and inflation drawing nearer to the Fed's long-term target.

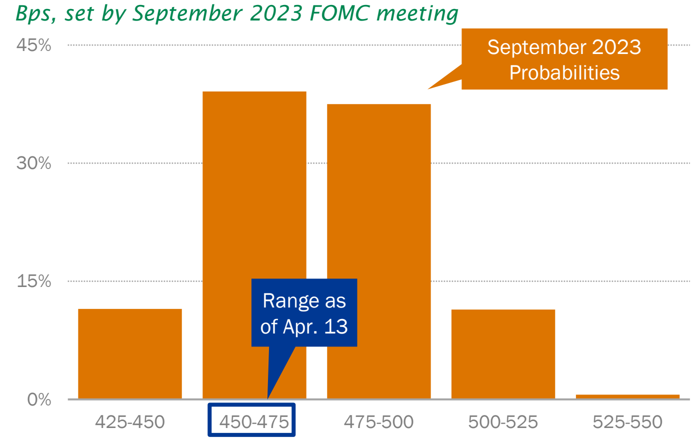
Federal Reserve Balance Sheet
$ Trillions



Source: CME Group

"We remain committed to bringing inflation back down to our 2 percent goal and to keep longer-term inflation expectations well anchored. Reducing inflation is likely to require a period of below-trend growth and some softening in labor market conditions. Restoring price stability is essential to set the stage for achieving maximum employment and stable prices over the longer run." - Jerome Powell, Fed Chairman, 3/22/2023

Q3 2023 Federal Funds Rate Probabilities
Bps, set by September 2023 FOMC meeting



Source: Federal Reserve, Keybridge calculations

Main Street Outlook

Main Street staying afloat amidst headwinds

Main Street continues to face the same headwinds it has faced for the last year: labor shortages, rising interest rates, and high inflation.

Labor shortages have been the most persistent issue for small businesses, and there are few signs that hiring woes will ease in the near term. In fact, over 40% of small businesses report that they have job openings that they are unable to fill (see top chart). Further, according to the Goldman Sachs “10,000 Small Business Voices” survey in February, labor shortages edged out inflation as the most significant problem facing Main Street. Even so, according to the WSJ/Vistage survey, the share of small businesses saying that hiring challenges have impacted their ability to operate at full capacity has fallen since November, suggesting that businesses are finding ways to work around the ongoing labor shortages.

To work around labor shortages, many businesses have been making labor-saving investments in equipment and technology, which has led to strong growth in equipment and software investment over the last two years. Higher interest rates will tend to put downward pressure on investment, particularly among smaller firms, but thus far small business lending has held up: Equifax’s Small Business Lending Index, for example, showed strong improvement in January and February (see middle chart).

Still, there are signs that a slowdown may be on the way. Per NFIB, small business loan availability has been trending downward for months and is currently at its lowest level in more than a decade (see bottom-right chart). Insufficient credit access was an oft-cited concern of small business after the Great Recession, and while it has not yet been a major constraint, the combination of higher rates, slower growth, and recent bank failures are likely to make it more difficult for small firms to obtain credit. This, in turn, could reduce their capacity to invest in equipment and software.

Percent of Small Business with Job Openings

Share with open positions unable to fill

Source: National Federation of Independent Businesses

PayNet Small Business Lending Index

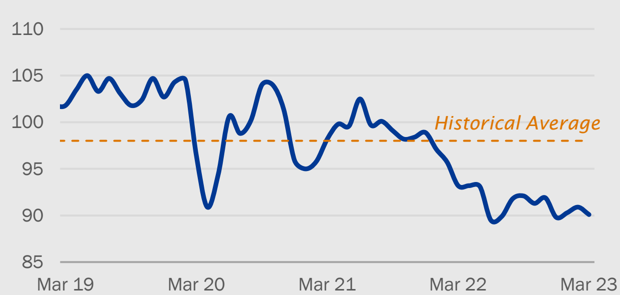
Index of loan origination volume, Jan 2006 = 100

Source: National Federation of Independent Businesses

Small Businesses Credit Access Shrinking, Optimism Low

Small Business Optimism Index

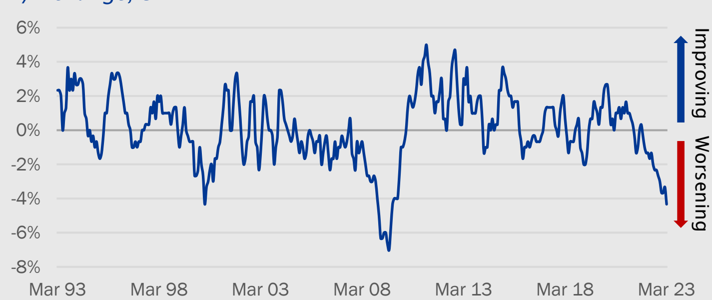
1986 = 100



Source: National Federation of Independent Businesses

Availability of Small Business Loans Now vs. Last Quarter

Y/Y change, 3MMA



Source: National Federation of Independent Businesses

MLFI-25

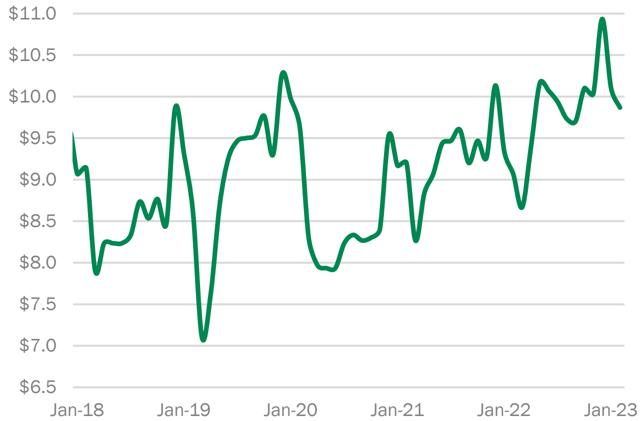
NBV steady amidst economic uncertainty

According to ELFA's Monthly Leasing and Finance Index (MLFI-25), new business volume totaled $7.9 billion in February, up 11% on a Y/Y basis and nearly 9% year-to-date, while the 3-month moving average was up 8.8% Y/Y (see chart). Though the strong gains are partly due to high inflation, new business volume growth has nonetheless held up remarkably well over the last year, even as interest rates have risen. The industry has clearly benefitted from strong equipment and software investment growth since the pandemic: overall, underlying inflation-adjusted investment has expanded nearly 15% from the end of 2020 through the end of 2022.

Portfolio performance was healthy in February. Receivables over 30 days were 1.8%, down slightly from 1.9% January. Charge-offs were 0.32%, down from 0.34% in December but up from 0.09% a year ago.

Credit approvals were 75.7% in February, up slightly from 75.1% in January but still near a post-COVID low.

MLFI-25 New Business Volume
Billions, 3-month moving average



Source: ELFA

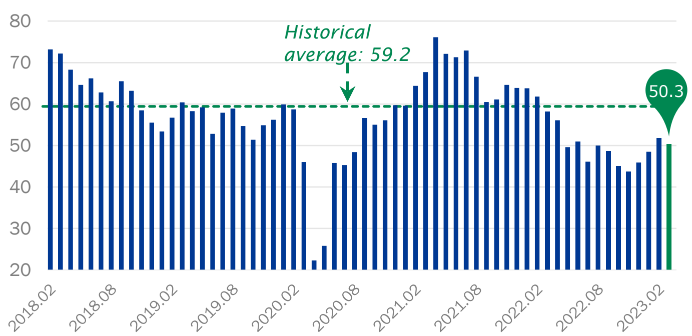
"Monthly data for February shows a substantial rise in new business volume compared to the same period last year. The steady rise in short-term interest rates and stubborn inflationary pressures do not seem to have suppressed demand for productive equipment by U.S. businesses. A mild winter and steady return to a more normalized supply chain in a number of important sectors also contributed to the strong February data. Portfolios of MLFI respondents continue to perform well."

— Ralph Petta, President and CEO, ELFA

MCI-EFI

Industry confidence remains subdued as economy slows

Monthly Confidence Index – Equipment Finance Industry



Source: ELFF

"2023 brings uncertainty with a looming recession in front of us, yet robust volume and credit quality continue to be our experience. Being nimble and creative to find solutions will be valuable attributes to have in your organizations as we stretch our legs into 2023. Fortunately, this is where the commercial equipment finance industry has excelled, and I believe it will once again."

— David Normandin, President/CEO, Wintrust Specialty Finance

In March, the Monthly Confidence Index for the Equipment Finance Industry (MCI-EFI) retreated to 50.3, the first decline in four months. The current reading remains well below the index's long-term average.

- Overall, just 11% of respondents expect business conditions to improve over the next four months, down from 16% in February. 32% of respondents expect business conditions to worsen over the same period, up from 23% in February.
- A larger share of respondents expect improved access to capital used to acquire equipment over the next four months (18%, up from 13% in February).
- Most respondents (89%) rate the current economy as "fair," with fewer respondents (7%, down from 13%) rating the economy as "poor."
- Looking ahead, slightly less than half of respondents (43%) expect the economy to worsen over the next six months, roughly unchanged from February.

Industrial Focus

Growth in shipments and new orders slowing

After a historic expansion in early 2021, annual growth in both new orders and shipments of core capital goods continues to soften (see chart).

- New orders for nondefense, non-aircraft capital goods (a leading indicator of industry performance) eased 0.1% in February, though Y/Y growth was little changed at 4.2%. This reading marks the 24th consecutive month of positive Y/Y growth.
- Shipments of nondefense capital goods excluding aircraft (a concurrent indicator of industry performance) also edged down 0.1% in February, and annual growth decelerated to 5.4%.

Equipment and software investment saw steady growth over the course of the pandemic. However, a clouded economic outlook and higher interest rates are likely to result in a significant slowdown in investment growth this year.

Shipments vs. New Orders of Core Capital Goods
Year-on-year percent change

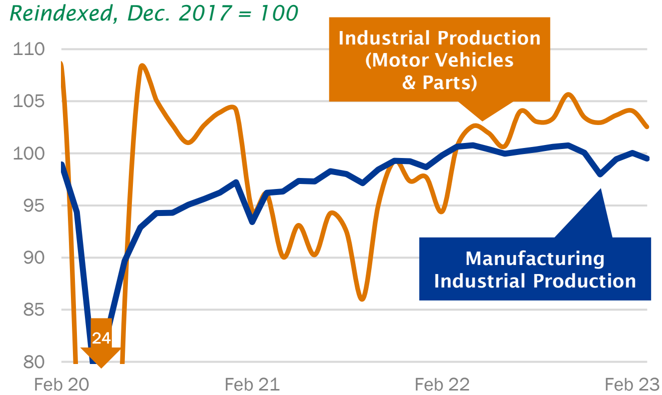
Source: Census Bureau

Manufacturing output wavering

Manufacturing industrial production eased 0.5% in March.

- Manufacturing output has cooled somewhat from its late-2022 peak and has shown signs of deceleration in 2023.
- Capacity utilization for manufacturing fell to 78.1%, the lowest reading in three months.
- Industrial production for motor vehicles & parts declined in March but is still slightly above its year-ago level. The combination of slower economic growth, higher interest rates, and falling used car prices may help to alleviate some of the pent-up demand for automobiles.

IP: Total Production vs. Motor Vehicles & Parts
Reindexed, Dec. 2017 = 100



Sources: Federal Reserve Board of Governors; G17 report

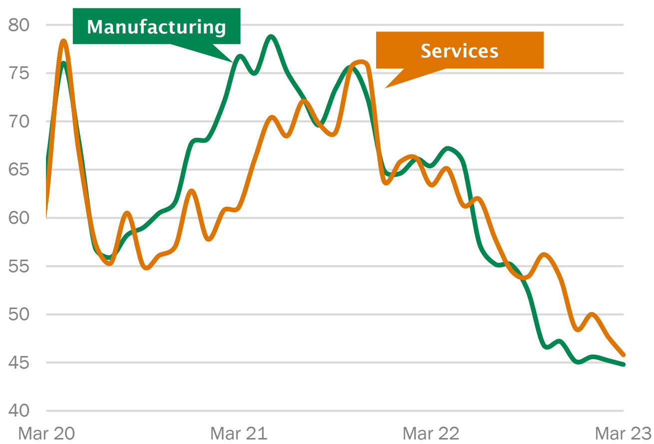
Supply chains better than historical averages

Three years after the pandemic triggered unprecedented snarls in global supply chains, delivery times have finally normalized, and shipping costs have fallen substantially.

- The ISM Supplier Deliveries Indices now sit below their historical averages. Supplier delivery times are now faster in both services and manufacturing sectors, a significant improvement from a year ago (*see chart*). However, delivery times have fallen into ranges associated with recessions in prior business cycles, a worrying sign.
- Elsewhere, shipping and long-distance freight trucking costs have cratered in recent months. Freight trucking prices declined more than 10% Y/Y in February, the largest annual decline in series history.

The good news is that improved supply chain stability should put downward pressure on inflation. However, faster delivery times also reflect lower demand, and as such could be a harbinger for an economic downturn later this year.

ISM Supplier Deliveries Indices
Index, readings over 50 indicate slower delivery times



Source: Institute for Supply Management

State of the U.S. Economy

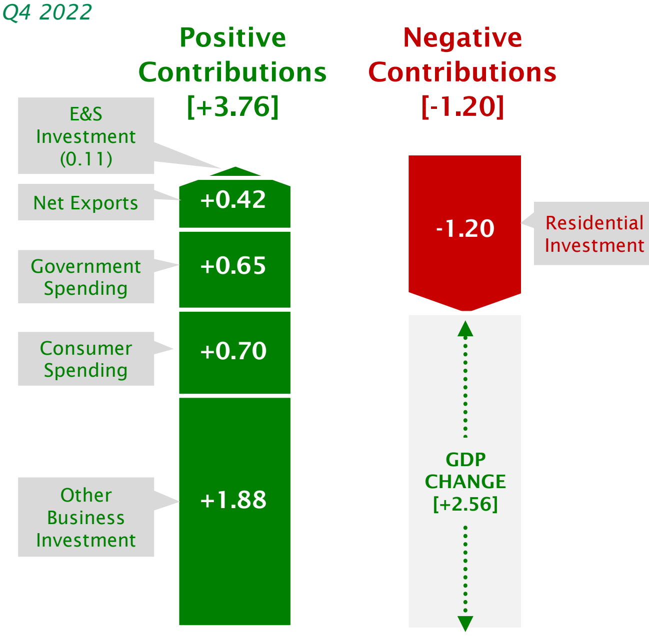
Economy expands to close out 2022

The U.S. economy expanded in the fourth quarter after rebounding from two quarters of contraction in Q3. Growth was fueled by inventory investment, tepid consumer spending, and a rebound in government spending. Meanwhile, E&S investment was weak while residential investment cratered once again.

- **Consumer spending**, the economy's largest component, rose a modest 1.0% (annualized) in Q4. Spending on services rose while goods spending contracted.
- **Equipment and software (E&S) investment**, a subset of overall business investment and the lifeblood of the equipment finance industry, was soft in Q4, growing just 2.0% (annualized).
- **Net exports** made a positive contribution to growth in Q4 again, though this was thanks to imports (-5.9%) declining more than exports (-3.7%) (both annualized).
- **Government spending** rose 3.8% (annualized), the biggest expansion in nearly two years.
- **Other investment** rose in Q2 thanks to a substantial increase in inventory investment. Inventory build-ups can sometimes reflect elevated business confidence, but in this case the build-up may suggest falling demand.

Contributions to GDP Growth

Q4 2022



Source: Bureau of Economic Analysis (BEA)

Signs increasingly point to a recession in 2023

The U.S. economy closed out 2022 with another quarter of healthy growth, and early indications suggest that the economy maintained some degree of momentum in early 2023. However, several recent developments, most notably heightened stress and uncertainty in the banking sector, have introduced new risk factors to the outlook.

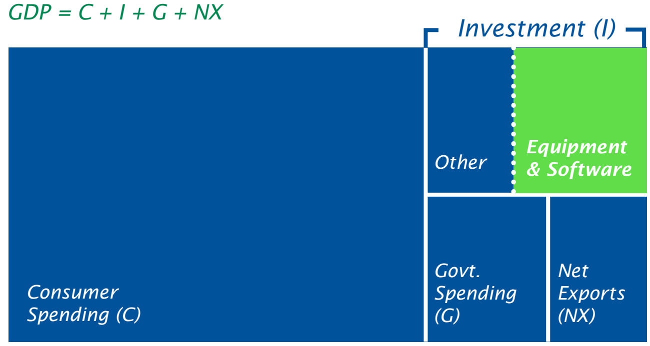
Thus far, the labor market has largely defied Fed efforts to slow hiring and wage growth. While this has complicated the Fed's mission to stabilize prices, the silver lining is that a hot labor market and strong wage growth have been two of the key reasons why consumer financial stress remains low. Similarly, energy prices have fallen in recent months, boosting the U.S. industrial sector and helping Europe avoid an economic catastrophe this winter.

Still, the Fed appears steadfast in its commitment to bring inflation closer to its 2% target this year, and as a result additional rate hikes are likely before the Fed reverses course, even if it puts more pressure on bank balance sheets. Geopolitical risks have also multiplied, which could lead to further global conflict and reduce investment and trade. Domestically, the housing market is still searching for a bottom, and a looming debt ceiling fight could further roil financial markets.

In short, while the economy is still above water, most indicators suggest that the tide is going out, and we continue to expect a recession to begin later this year.

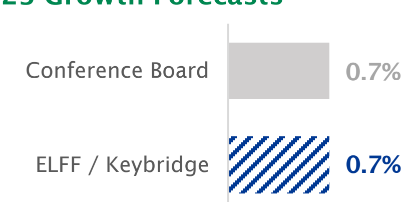
Composition of Gross Domestic Product (GDP)

GDP = C + I + G + NX



Source: Keybridge LLC, based on BEA data

2023 Growth Forecasts*



*Note: Due to BEA's method of calculating annual GDP growth (i.e., the percent change in the average quarterly level of GDP), positive growth earlier in the year, as well as in Q4 of the previous year, has a larger impact on overall annual GDP growth in the current year. As a result, annual GDP growth can be positive even when a recession is forecasted.

Labor Market Strong Despite A Year of Rate Hikes

A tight labor market is a boon to consumers and is keeping the economy afloat.

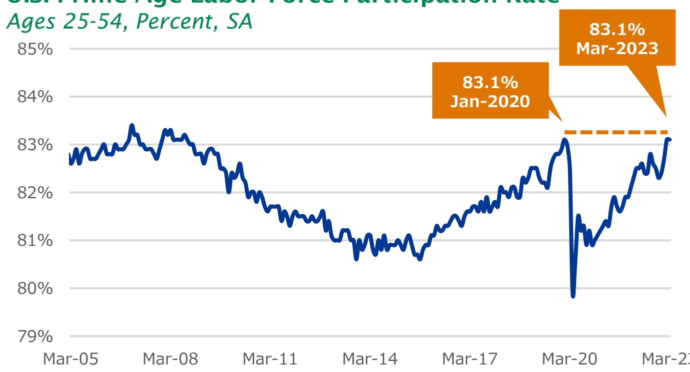
The labor market has long been a point of strength for the U.S. economy, and this has continued into the first quarter of the year. Through March, employers have already added more than one million jobs on net, keeping the unemployment rate near multi-decade lows and boosting consumers' financial situation despite high inflation.

A key difference between this inflationary cycle and past cycles is that wage growth has eased following a surge in early 2022. Though wage growth remains elevated compared to pre-2020 levels, it is well below the rate typically associated with a labor market this tight, particularly given the difficulties business owners face in their efforts to hire qualified workers.

However, a recent development suggests that the last bit of labor market slack finally has been wrung out, which could portend faster wage growth and, absent additional Fed intervention, upward pressure on inflation. Specifically, the labor force participation rate for "prime age" workers (i.e., 25- to 54-year-olds) returned to its pre-recession level in February and held there in March, matching its highest level since 2008 (see top chart). This metric, which adjusts for the aging population as Baby Boomers retire, suggests that few available workers are still on the sidelines.

There are early signs that labor market strength may be easing: technology and finance companies have reduced their workforce significantly over the last few months, and the number of job openings has fallen by 1.3 million (or 12%) in the first two months of the year. Overall, however, the labor market remains historically healthy, and as long as this remains true, the economy should stave off recession — an unlikely outcome in our view, but not inconceivable.

U.S. Prime Age Labor Force Participation Rate
Ages 25-54, Percent, SA



Source: Bureau of Labor Statistics

Low Energy Prices Offer Lifeline in Trying Times

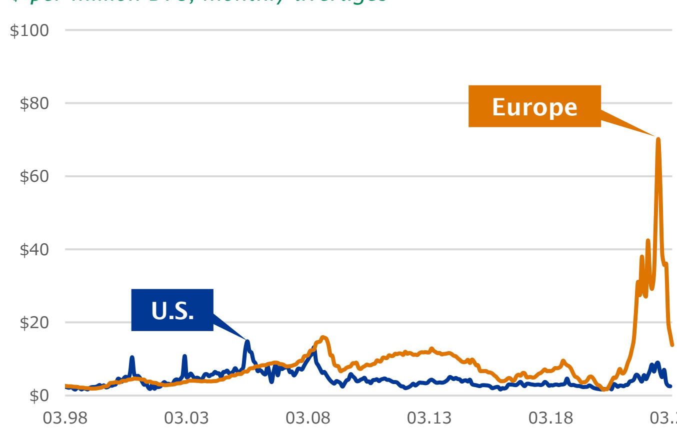
Gas and oil prices have fallen, easing stress throughout the economy

In early 2022 energy prices soared in the United States and across Europe as import controls on Russian energy supplies forced many countries to look elsewhere for oil and gas supplies. Europe was hardest hit, and natural gas prices shot up to nearly $90 per million BTUs, a previously unfathomable price (see chart below). The energy crunch led to dire predictions that the European continent would face a winter with insufficient energy sources to keep homes heated and industry running (along with a nearly certain recession). Meanwhile, the United States suffered back-to-back quarters of economic contraction during the first half of 2022 as high energy prices (and, relatedly, high inflation) led consumers and businesses to reduce economic activity.

Fortunately, a temperate winter combined with a rapid reconfiguring of global supply lines (and, in some European countries, price controls) reduced energy prices in both Europe and the United States (see chart). Indeed, energy prices subtracted from overall U.S. CPI growth in February, and the price of a barrel of oil has now fallen from its peak of around $120 in May 2022 to around $80 in April.

A realignment of supply lines has been a major source of easing energy price pressures. In particular, the U.S. has regained the spotlight as the global leader in energy production, making a commitment to become a key supplier of natural gas to Europe in the years ahead. Furthermore, both Europe and the United States. have increased their commitment to producing green energy. Renewable energy investment in European nations, combined with increased federal and private investment in the United States, should catalyze faster growth in the sector. In the near term, the combination of lower energy prices and increased energy investment should benefit the U.S. economy.

U.S. and European Natural Gas Prices
$ per million BTU, monthly averages



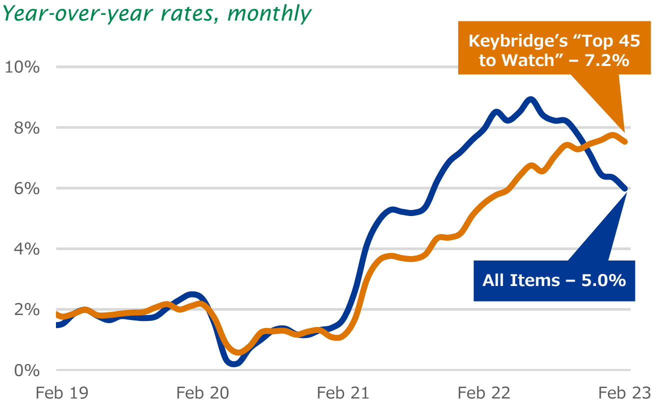
Source: Energy Information Administration, World Bank

Inflation Proving Stickier than the Fed Expected

Upside risks to inflation outlook mean greater likelihood of a hard landing

Sticky inflation remains a substantial problem for the U.S. economy. Though annual CPI inflation has eased steadily since peaking at 8.9% last June, it currently stands at 5%, still far above the rate the Fed considers acceptable. Further, the services sector is now driving much of the inflation consumers and businesses are dealing with, which will make it more difficult to bring inflation to heel.

Change in Consumer Prices by Category
Year-over-year rates, monthly



Source: BLS, Keybridge Analysis*

* Keybridge has analyzed monthly data from the Bureau of Labor Statistics and selected from 70+ components of the Consumer Price Index for a "Top Series to Watch" based on our thinking about which goods and services are indicative of longer-term inflation (e.g., electricity, food away from home, pet care).

Lower energy prices and normalizing supply chains have helped contain inflation on in goods-producing sectors in recent months, which helped reduce headline inflation in February for the eighth consecutive month. However, Keybridge's "Top 45 to Watch" series (see left chart) is running much hotter than headline CPI inflation and has fallen only 0.6% in the last five months, suggesting that price pressures are becoming embedded in the economy and that the difficult work in the inflation fight lies ahead.

Further, there are several upside risk factors for inflation:

- **Wage growth** is elevated, and there is a risk that growth could pick up in the near term (see prior page).
- **The end of China's "Zero-Covid" policy** will put upward pressure on global energy demand and, by extension, energy prices.
- **Shelter costs** rose nearly 0.6% M/M in March and grew at nearly a 9% annualized rate in the first quarter. Shelter prices are likely to continue putting upward pressure on the overall CPI throughout the year.

Bringing inflation down from nearly 9% to 5% was, unfortunately, the easy part. The Fed's job now gets tougher and more complicated, with higher rates likely needed to bring inflation down to a more acceptable range, but also increasing the risk of a recession and, potentially, a financial crisis.

Geopolitical Uncertainty

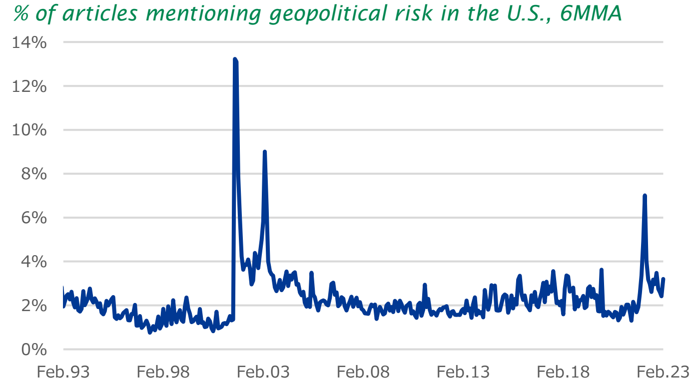
Russia, Ukraine, China, and worsening global tensions

Russia's invasion of Ukraine catalyzed a wave of geopolitical uncertainty not encountered since the 9/11 attacks. As the global economy was still recovering from the effects of the pandemic, the invasion caused food and energy prices to skyrocket: the cost of a barrel of oil rose above $120 while the price of a bushel of wheat nearly doubled. Today, a slowing global economy, combined with tenuous agreements between Russia and Ukraine allowing grain to be exported from Ukrainian ports, have brought prices closer to their historical norms.

However, higher food prices were only one of many downside economic risks that stemmed from the war, and these risks have arguably grown more acute as Russia's military has lost ground. An apparent alliance between Chinese President Xi and Vladimir Putin has raised the stakes of conflict in Ukraine, and concern that China could invade Taiwan in the near future has led to increased American military activity in the Pacific. Due to these tensions, the Geopolitical Risk Index rose to its highest level since the United States invaded Iraq in 2003 and has remained at or near 20-year highs ever since.

Geopolitical uncertainty will be a headwind for global growth and will force corporations and governments to invest in realigning supply chains. A similar trend has occurred across Europe, as links between Western nations have been galvanized with a renewal of focus on NATO and other international political alliances. Though these shifts may benefit Western economies in the long run, they are expected to create major frictions for global trade this year.

Concern Over Rising Geopolitical Risk
% of articles mentioning geopolitical risk in the U.S., 6MMA



Source: Economic Policy Uncertainty

How Long Can Consumer Financial Stress Stay Muted?

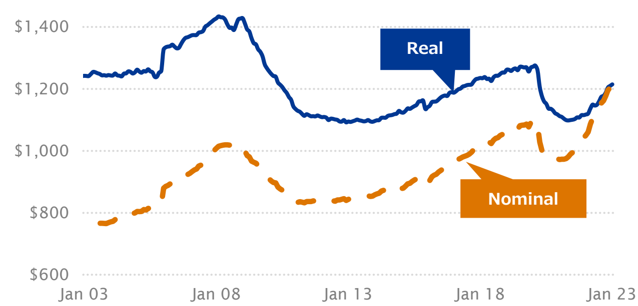
Consumers racking up debt, but overall delinquencies remain low

Despite mounting economic headwinds, consumers appear to be on top of their debt obligations for now, as most delinquency rates remain below pre-pandemic levels for both new and serious delinquencies. However, signs are mounting that stress may rise in the coming months:

- Nominal revolving credit has spiked in recent months, rising 16% Y/Y in January (although, notably, when adjusted for inflation, revolving credit is still below its pre-pandemic level, as shown in the chart).
- The Fed's rate hikes have tightened lending standards and driven increases in credit card APRs. As interest rates rise and borrowing becomes more expensive, credit card debt will become a greater burden for tens of millions of consumers, likely causing credit card delinquency rates to climb, particularly as consumer savings built up during the pandemic continue to dwindle.
- Some borrowers, especially those with auto loans, are already falling behind on payments. According to a report form Cox Automotive, in January the share of severely delinquent auto loans was at its highest rate since 2006.

For now, overall delinquency rates are still quite low, and most consumers are well-positioned to handle debt burdens. However, with credit card and auto debt rising rapidly and higher interest rates driving up the cost of repayment, financial stress is on the rise for many consumers.

Revolving Credit Owned and Securitized
Billions USD, Seasonally Adjusted



Source: Federal Reserve Board of Governors

Has Housing Hit Bottom?

Market decline may finally be turning around

After a sharp contraction last year, the housing sector appears to be showing some signs of life. Per Redfin, the steady downward march of home sales has started to reverse, and the share of active listings with price drops (an indication that sellers are struggling to find buyers for their homes) remains elevated but appears to have peaked. Additionally, NAHB's Housing Market Index, a measure of homebuilder sentiment, has now improved in each of the last four months, a welcome relief after contracting in each of the previous 12 months.

However, the market remains far from recovered and may have further to fall. After the 30-year mortgage rate jumping back above 7% for a brief period in early March, mortgage applications sharply declined, revealing just how sensitive the sector is to the path of interest rates — and suggesting that if the Fed continues to raise rates to bring inflation to heel, the housing market may suffer. Separately, March saw the first decline in construction employment since January 2022, suggesting that homebuilders may have finally worked through their backlog of homes.

Still, as the old adage goes, there is no better cure for high prices than high prices. After home values skyrocketed during the pandemic, they are now falling on a Y/Y basis for the first time in a decade, per Redfin.

Debt Ceiling Showdown?

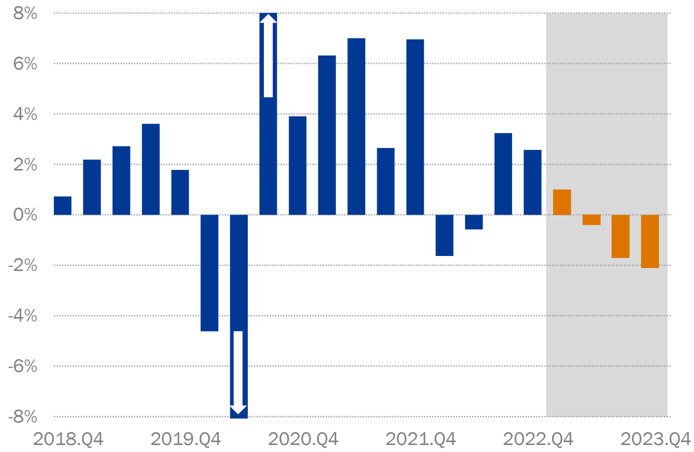
Debate could have serious consequences

Though divided control of Congress is likely to yield little in terms of major legislation during this session, one critical legislative issue that will need to be addressed soon is the federal debt ceiling. The U.S. government breached the statutory debt limit in January, triggering a series of "extraordinary measures" from the Treasury Department that amount to prioritizing payments where necessary and shifting money around within the government's coffers. Such measures have been taken before and can delay a debt ceiling breach for several weeks or months — but eventually, the limit will need to be raised to avoid default.

Although the precise date when government will default on an obligation (absent intervention) is uncertain, the "X-date" is likely to occur this summer or early fall. Thus far, there has been little progress toward a bipartisan agreement, and Republican and Democratic leadership appear to be far apart on a solution. Some factions are demanding major cuts to social spending, others want commensurate cuts to defense spending, and still others insist on a "clean" increase that is separate from any spending agreement. At present, it is unclear where legislators will ultimately land.

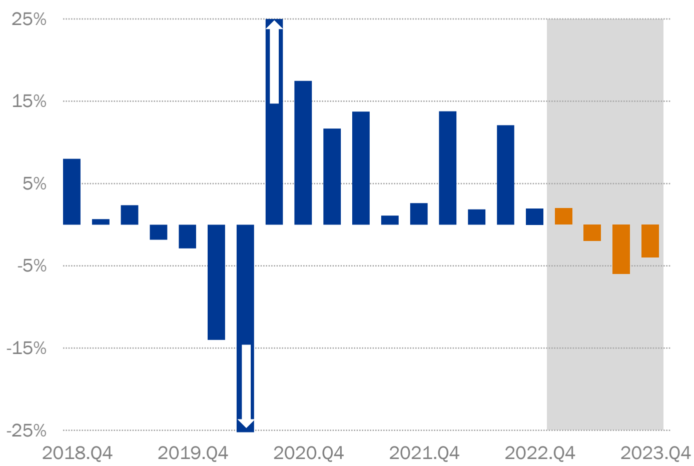
What is clear, however, is that if a debt ceiling breach occurs, the economy would be in uncharted territory. Most economists believe the consequences would be severe: U.S. Treasurys have long functioned as a safe haven for the global financial system, and if the government defaults it would throw financials markets into turmoil.

Real GDP Growth (% SAAR)



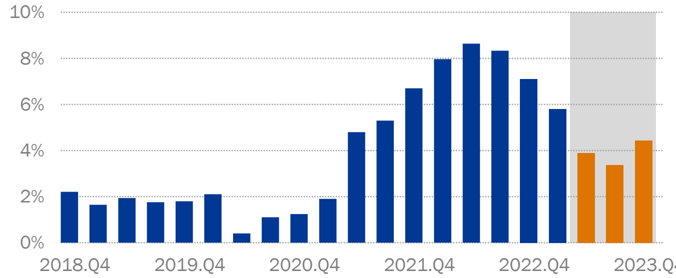
Source: Bureau of Economic Analysis; Keybridge LLC

Real E&S Investment Growth (% SAAR)



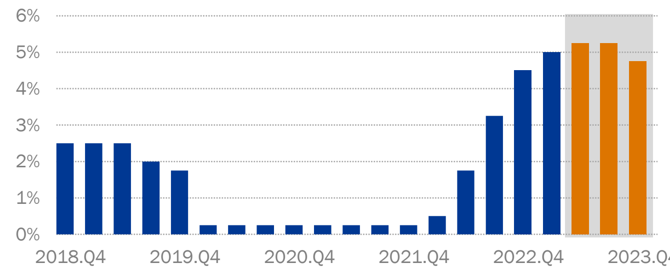
Source: Bureau of Economic Analysis; Keybridge LLC

CPI Inflation (year-on-year %)



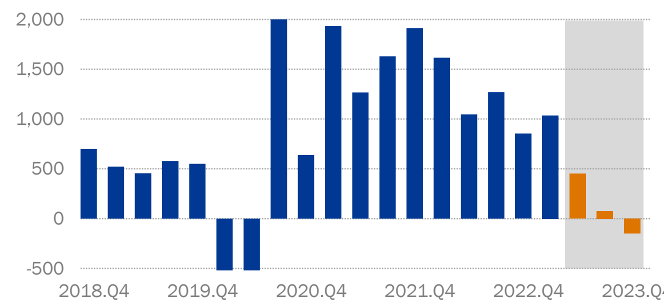
Source: Bureau of Labor Statistics; Keybridge LLC

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	2021	2022	2023 QUARTERLY ESTIMATES				2023e
			Q1e	Q2e	Q3e	Q4e	
Real GDP* *(SAAR %)*	*5.9%*	**2.1%**	1.0%	-0.4%	-1.7%	-2.1%	**0.7%**
Real Investment in Equipment & Software *(SAAR %)*	*11.1%*	**6.8%**	2.0%	-2.0%	-6.0%	-4.0%	**1.0%**
Inflation *(year-on-year %)*	*4.7%*	**8.0%**	5.8%	3.9%	3.4%	4.4%	**4.4%**
Federal Funds Target Rate *(upper bound, end of period)*	*0.25%*	**4.50%**	5.00%	5.25%	5.25%	4.75%	**4.75%**
Total Payroll Growth *(thousands)*	*6,743*	**4,793**	1034	450	75	-150	**1,409**

*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. Many other entities (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.