2022
Equipment Leasing & Finance U.S. Economic Outlook

EQUIPMENT LEASING & FINANCE
FOUNDATION
Your Eye on the Future

EQUIPMENT LEASING & FINANCE ECONOMIC OUTLOOK

December 2021

Key Trends to Monitor

Supply Chains

Labor Market Recovery

Inflation

EXECUTIVE SUMMARY

Equipment and Software Investment: After strong growth during the first half of 2021, equipment and software investment slowed in Q3. Looking ahead to 2022, strong consumer demand, low financial stress, an expanding housing sector, and increased federal spending on infrastructure should propel the industry forward for another strong year. Supply chain constraints, high inflation, and tighter monetary policy are key headwinds to growth.

Momentum Monitor: Momentum monitor readings for most of the 12 verticals tracked by the Foundation's Momentum Monitors remain healthy, though investment growth may peak in several verticals during the first half of the year.

Manufacturing Sector: The manufacturing sector should continue to expand at a healthy rate in 2022, though supply chain issues, hiring difficulties, and high inflation could dampen industrial sector output, particularly during the first half of the year.

Small Businesses: The outlook for Main Street has grown increasingly cloudy. Small firms are more susceptible to surging input costs and labor scarcity than larger firms, which may weigh on Main Street firms as the new year gets underway. However, on the positive side, consumer demand remains robust, and the winter months should be smoother this year than last.

Fed Policy: Federal Reserve officials recently shifted their positions in response to new data and now acknowledge that inflationary pressures are likely here to stay. The Fed is now expected to end quantitative easing earlier than planned and raise interest rates at least once by mid-2022. Multiple rate hikes in 2022 are possible, particularly if job growth stays on track.

U.S. Economy: The economy slowed this fall as the pandemic worsened and supply chain constraints snarled global trade and drove inflation to multi-decade highs. Still, growth rebounded in Q4, and the economy appears to be poised for an above-average year in 2022. The pandemic remains the most important X-factor in light of the Omicron variant, but robust consumer demand and a strong labor market provide a solid foundation for growth. Key headwinds include ongoing labor shortages and supply chain issues, as well as high inflation and its impact on monetary policy. Factors to watch include housing activity, which we expect will remain strong, and infrastructure spending, which we expect will provide a modest boost to equipment investment during the second half of the year.

2022 Annual Projections

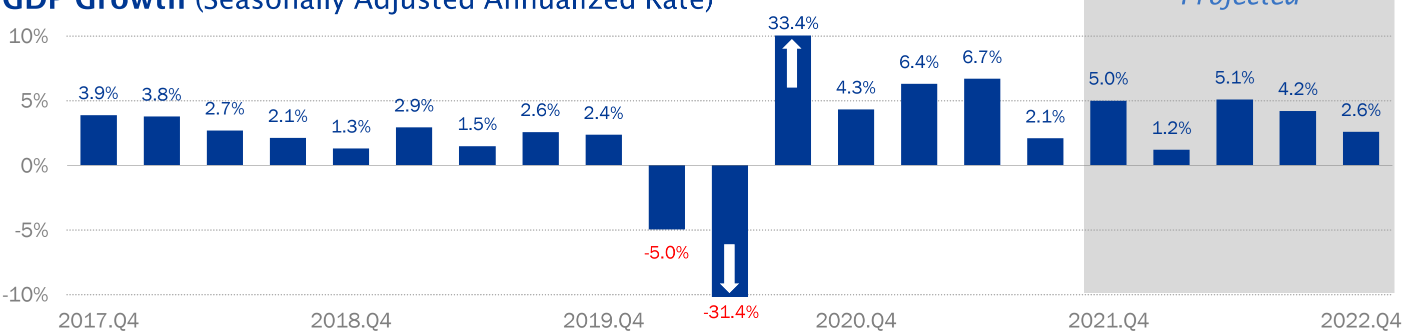
3.5%
GDP Growth

4.6%
E&S Investment Growth

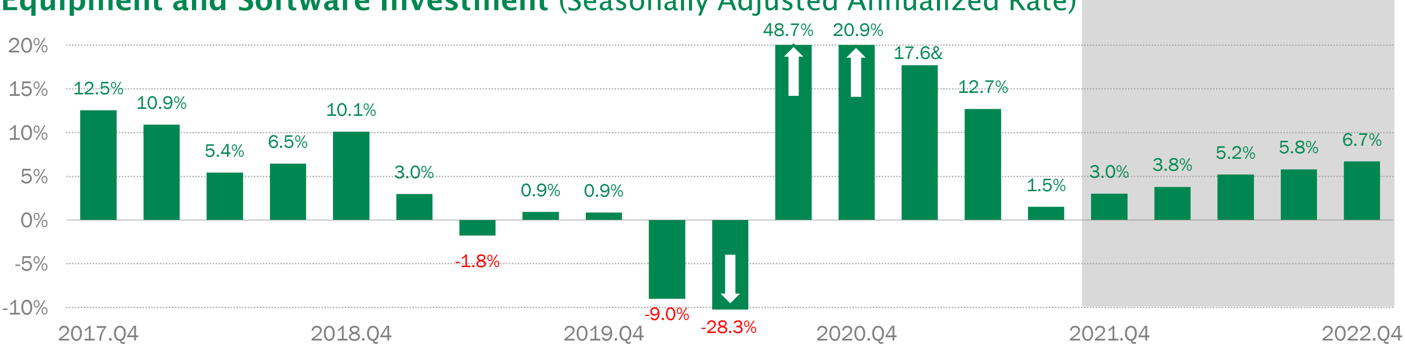
4.9%
Inflation

75 bp
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

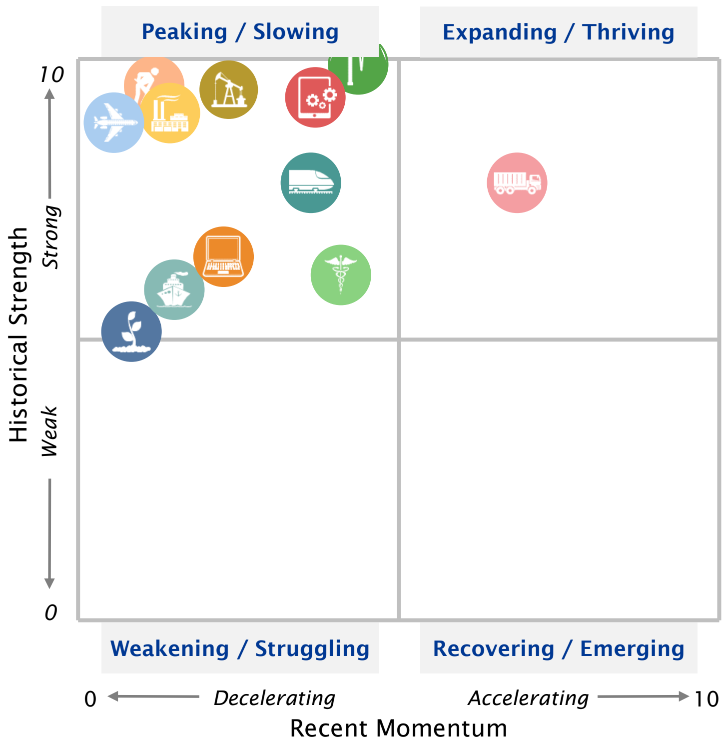
E&S investment growth slows in Q3

Equipment and Software investment increased 1.5% (annualized) in Q3 2021, a modest increase following four straight quarters of robust double-digit growth.

Of the 12 investment verticals tracked by the Foundation, seven saw investment rise in the third quarter while five saw investment weaken. Six verticals experienced double-digit investment growth, including Construction, Mining & Oilfield, Railroad, Computers, and Software.

Looking ahead, eleven equipment verticals are in the upper-left quadrant in the Momentum Monitor Sector Matrix (see chart), suggesting that investment growth may peak or begin to slow over the next ~6 months. This result is not surprising given the rapid pace of growth experienced over the last year, but we expect overall investment growth to remain healthy despite the slowing momentum in light of robust industrial sector demand. Most equipment verticals should experience continued expansion in 2022.

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	Y/Y		
Railroad Equipment	+21%	+2.9%	▲	Railroad equipment investment improved steadily in 2021 and recently posted its largest annual gain since 2018. Investment growth is expected to remain strong.
Computers	+14%	+5.8%	◀▶	Computer investment has eased since the beginning of the year. Looking ahead, investment growth should remain positive but is unlikely to accelerate in the next six months.
Medical Equipment	+9.9%	+12%	▼	Medical investment growth was strong in 2021, but the growth rate appears to have peaked, and the trend of deceleration will likely continue into 2022.
Aircraft	-3.6%	72%	▼	Aircraft investment growth has eased since the start of 2021, and the latest momentum reading suggests that growth will continue to decelerate (though remain positive Y/Y) during the first half of 2022.

Credit Supply

Lending standards ease in Q3

Business lending standards eased further in Q3 as conditions continued to normalize.

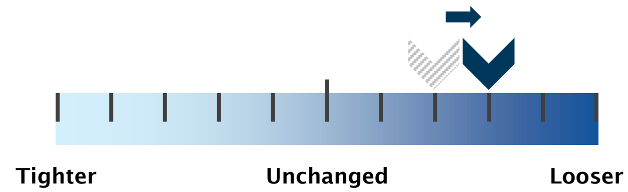
- Overall, lending standards for C&I loans were basically unchanged for 82–89% of banks. For loans to large and middle-market firms, 18% of banks reported easing lending standards, while 11% of banks reported easing standards for loans to smaller firms. No banks reported tightening standards for C&I loans.
- Lending standards also eased for commercial real estate ("CRE") loans. A net 9.4% of banks reported loosening standards for construction and land development loans in Q3, a slight change from Q2 during which a net 7.1% eased standards.

For consumers, credit conditions also eased again in Q3.

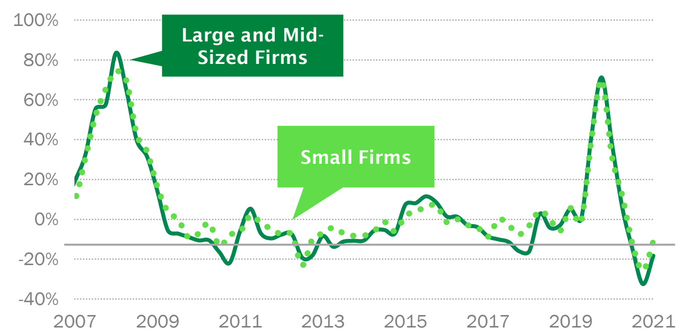
- A net 9.4% of banks reported easing standards on auto loans, while a net 31% reported easing standards on credit cards.
- Meanwhile, standards eased or were unchanged for all categories of residential real estate (RRE) loans, with the exception of subprime loans, which tightened on net.

Net Change in Credit Supply Conditions
Fed Senior Loan Officer Survey

Banks report looser standards in Q3



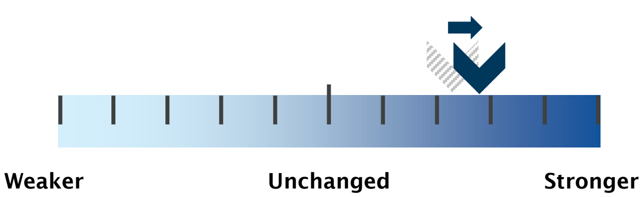
Tightening Standards on C&I Loans
Percent of Respondents



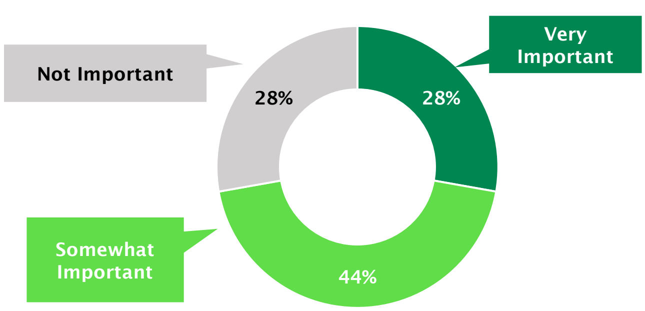
Source: Federal Reserve Senior Loan Officer Survey

Net Change in Credit Demand Conditions
Fed Senior Loan Officer Survey

Demand for credit edges up in Q3



"Customer Merger or Acquisition Financing Needs" Driving Stronger Demand
Percent of Respondents



Source: Federal Reserve Senior Loan Officer Survey

Credit Demand

Business demand strengthens in Q3

Demand for business loans increased or was mostly unchanged in Q3 depending on the type of loan.

- On net, 7.6% of banks reported stronger C&I loan demand among medium and large firms in Q3, while demand from smaller firms was unchanged. Of those reporting stronger demand, the most-cited reason was "customer merger or acquisition financing needs" (see chart).
- Among CRE loans, a net share of banks reported stronger demand for the second consecutive quarter, particularly for multifamily residential properties.

Among households, credit demand was mixed.

- A net 23% of banks reported weaker demand for GSE-eligible RRE loans in Q3, a reversal from Q2 when a net share of banks reported stronger demand for such loans. Similarly, a net 15% of banks reported weaker auto loan demand, in part due to significant supply chain issues in the automobile sector.
- Conversely, a net 16% of banks reported stronger demand for credit card loans.

Consumer Finances

Financial stress low as inflation eats into incomes

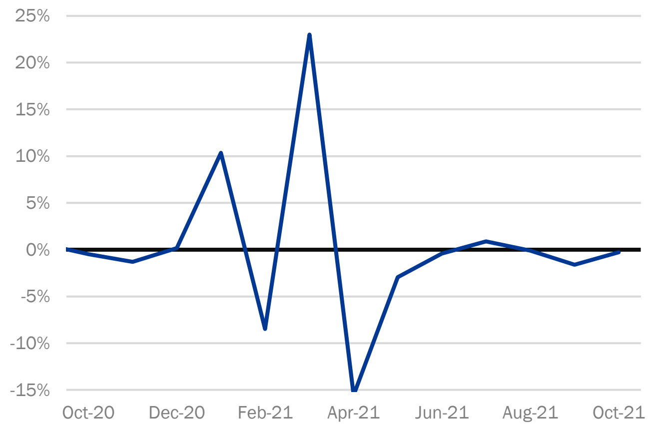
Consumers remain in good financial position overall, reflecting accumulated savings from federal relief measures and below-trend spending during the pandemic.

- Per the NY Fed, just 99,000 consumers filed for bankruptcy in Q3, a record low.
- Retail sales grew at a healthy pace in October for the third consecutive month, even after accounting for inflation.
- However, rising prices for food, energy, and rent have reduced purchasing power, particularly among lower-income consumers. Inflation has outpaced wage increases since the summer, and real disposable income has fallen in six of the last seven months *(see chart).*

Financial stress may rise as consumers draw down pandemic-era savings and contend with rising prices. However, given the strong labor market, a sharp decline in consumer financial health is unlikely in 2022.

Real Disposable Personal Income

% change M/M, SA



Source: Bureau of Economic Analysis

Business Finances

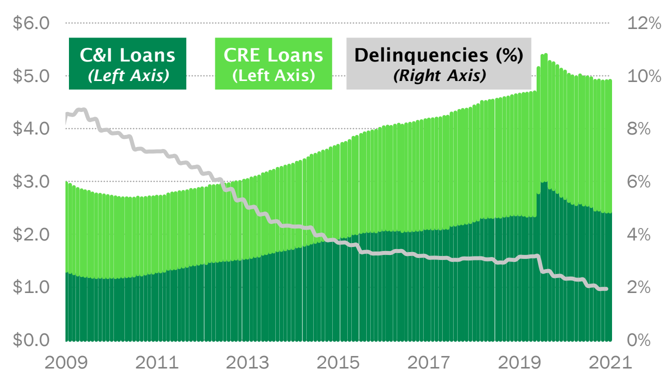
Financial stress continues to fall

Financial stress among businesses further declined thanks to strong consumer demand. Though hiring difficulties and rising input costs are worrying trends, businesses are not yet exhibiting signs of elevated stress.

- After surging to historically high levels last spring, loan volumes of both C&I and CRE loans have stabilized above pre-pandemic levels.
- Despite increased lending activity, however, delinquencies fell again in Q3 and are near record lows.
- Similarly, the Trepp CMBS Special Servicing Rate fell for the thirteenth straight month in October. Servicing rates improved in all five major property types, and industry researchers expect further improvements in the commercial mortgage-backed securities market.

Business Loan Volume

$ Trillions



Source: Federal Reserve Board

Fed Policy Corner

FOMC announces asset-purchase "tapering"

- The Fed began tapering its monthly asset purchases in November, with plans to conclude the program in 2022.
- Notably, Chairman Powell has "retired" the word transitory when describing inflation, acknowledging that price pressures are unlikely to recede in the near-term.
- President Biden announced his intent to nominate Jerome Powell for a second term starting in February, with Lael Brainard set to be vice chair.

"Labor markets are not going to get to equilibrium as soon as we hoped, but demand was also going to stay high…that combination means we're going to have inflationary pressures."

— Raphael Bostic, Atlanta Fed President

"We will use our tools both to support the economy and a strong labor market, and to prevent higher inflation from becoming entrenched." — Jerome Powell, Fed Chairman

Main Street Outlook

SMB prospects clouded by supply chain issues, labor pressures, and inflation

Small businesses are on solid financial footing for now thanks to strong consumer demand. Consumers — particularly those in middle-income brackets — are spending savings they amassed during the pandemic thanks to relief programs and below-trend consumption.

However, supply chain constraints are a significant headwind to growth and are preventing even more spending from materializing. According to NFIB, more than two-thirds of small firms said supply chain constraints were at least moderately impacting their business, while a Census Bureau survey conducted in mid-October found that 45% of small businesses had experienced domestic supplier delays in the prior week, a share that has grown steadily since this summer *(see chart below).*

Small businesses are more vulnerable to supply chain issues than larger firms are, particularly during the holiday season. For example:

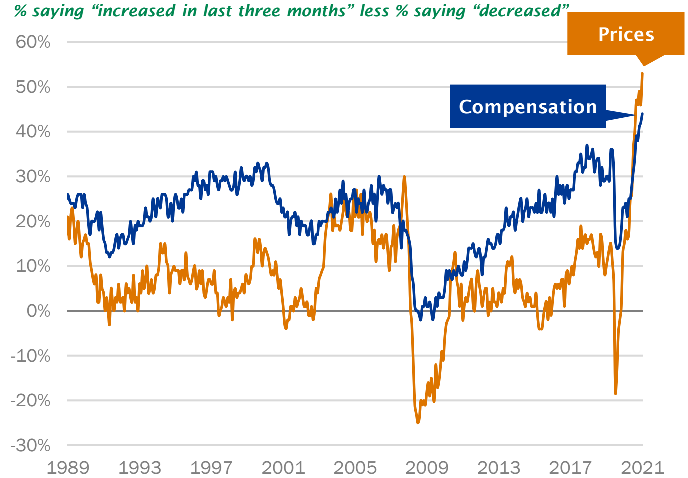
- Major retailers can spend millions of dollars to charter their own ships and planes to bring in merchandise, giving them a leg up over smaller competitors.
- Main Street businesses are less able to absorb higher labor costs without raising prices. A net 44% of small firms raised compensation in October (the highest share in 48 years) and 53% of small firms reported raising prices *(see chart at right).*

Many small firms are also struggling to find workers. An October U.S. Chamber of Commerce/MetLife survey found that about half of small business owners reported difficulty filling job openings, suggesting that wage and price pressures may worsen for Main Street firms.

Increased input and labor costs are straining business finances and driving inflation higher across the economy. Per Business.org, 71% of small business owners reported a 20% or greater increase in costs of supplies and services. These pressures are weighing on financial health, narrowing profit margins, and in some cases deterring customers.

Share of Small Firms Reporting Price & Compensation Hikes

% saying "increased in last three months" less % saying "decreased"



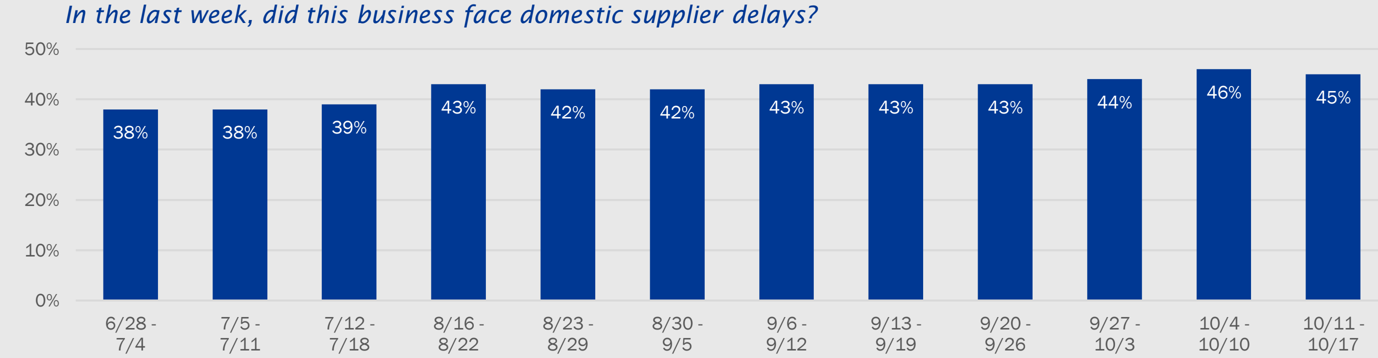
Source: NFIB

Though some businesses expected high prices to subside after a few months and thus absorbed the higher costs, many firms already have or are planning to increase prices. Inflation has already dampened consumer and business confidence in recent months, and persistent, high inflation could be a major headwind for Main Street and the overall economy next year.

Looking ahead, the 2022 outlook for small businesses is murky. Lingering supply chain issues and hiring difficulties will extend into the new year, especially for those businesses reliant on the holiday shopping season to bolster revenues. However, the situation is not expected to become as dire as last winter thanks to healthy consumer demand.

Small Businesses Increasingly Constrained by Supplier Delays

In the last week, did this business face domestic supplier delays?



Source: Census Bureau Small Business Pulse Survey

MLFI-25

NBV rises despite supply-side issues

ELFA's Monthly Leasing and Finance Index (MLFI-25) rose to $10.7 billion in October, up 16% from October 2020 and up 10% year-to-date. The 3-month moving average grew by 2.9% in October and is up 14% compared to a year ago (see chart). The high reading comes despite supply chain disruptions, higher prices, and labor shortages that weighed on boarder economic activity in the second half of the year.

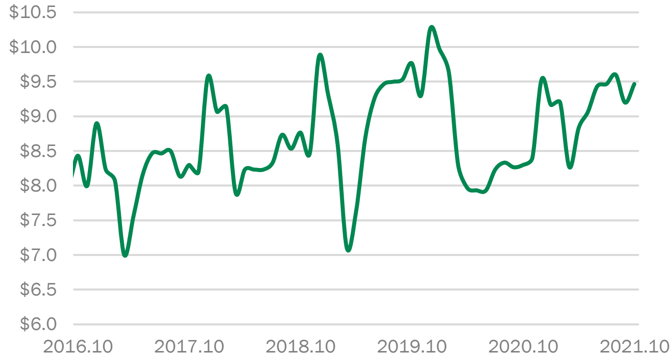
Portfolio performance remained healthy in October. Receivables over 30 days were 1.7 percent, up marginally from 1.6 percent in September but well below the 2.2 percent reading in October 2020. Meanwhile, charge-offs fell to 0.16 percent, down 19bp compared to the previous month and significantly below the 0.60 percent reading from last October. The latest charge-off reading is the second lowest since the MLFI-25 began in 2009, just shy of the 0.15% reached in October 2014.

Total credit approvals rose significantly to 78% in October from 76.3% in September, a pandemic-era high.

The total headcount of equipment finance companies was 11% below year-ago levels, though the decline is mostly due to significant downsizing at a MLFI reporting company.

MLFI-25 New Business Volume

Billions, 3-month moving average



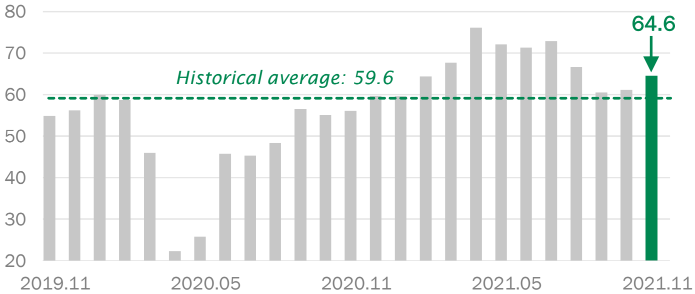
Source: ELFA

"New business volume shows double digit growth, a somewhat surprising development given anecdotal evidence by some ELFA members of supply chain disruptions negatively impacting the availability and cost of capital goods in certain market sectors. Q4 economic growth is projected to be buoyant despite higher prices and labor imbalances."

— Ralph Petta, President and CEO, ELFA

MCI-EFI

Industry confidence rises; corporate earnings remain strong



Source: ELFF

"Business owners are feeling much more confident and are moving forward with capital acquisitions, some that had been delayed because of the pandemic. Pending no flare up of COVID-19 infections in the coming months, we expect smooth sailing for the next several quarters."

— Bruce J. Winter, President, FSG Capital, Inc.

In November, the Monthly Confidence Index for the Equipment Finance Industry (MCI-EFI) increased 3.5 points to 64.6, rising for the second straight month.

- Overall, 35% of respondents expect business conditions to improve over the next four months, up from 26% in October. However, 19% of respondents expect business conditions to worsen, up sharply from 4% in October.
- 54% of respondents expect to hire more employees over the next four months, up from 41% in October. No respondent expected to hire fewer employees, a positive sign for Q1 job growth in the financial services sector.
- Near-term expectations for access to capital used to acquire equipment improved. Just over one-quarter of respondents (27%) expected capital access to increase over the next four month, while 73% expected the same level of capital access. No respondent expected capital access to decrease.

Manufacturing Focus

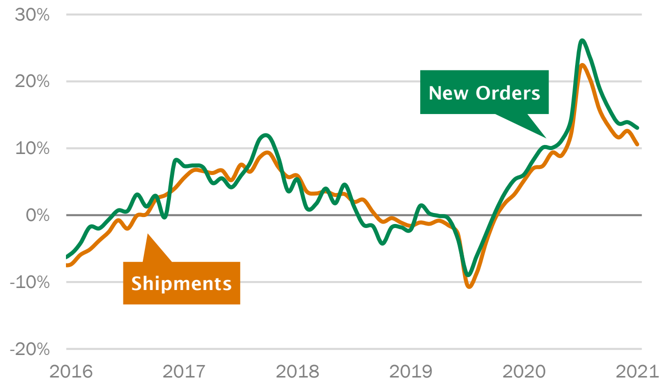
New orders and shipments remain elevated

In October, growth rates for both new orders and shipments of core capital goods held steady and remain well above pre-pandemic readings. The level of both orders and shipments recorded all-time highs.

- New orders for nondefense, non-aircraft capital goods (a leading indicator of industry performance) rose 0.6% in October and were up 13% compared to last year.
- Shipments of nondefense capital goods excluding aircraft (a concurrent indicator of industry performance) increased 0.3% in October and are up 11% Y/Y, despite ongoing supply chain constraints.

Although business investment slowed near the end of 2021, it is expected to remain solid in 2022 — indeed, growth may pick up as supply chains disruptions unravel.

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



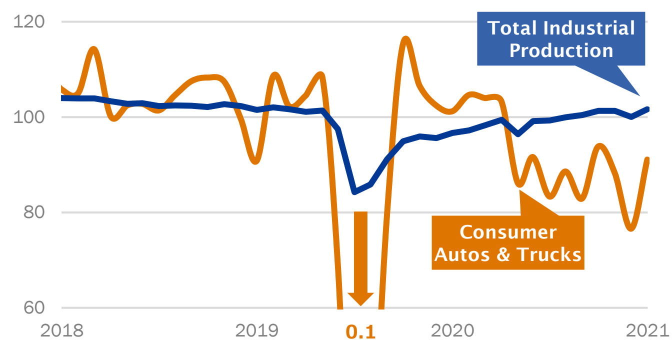
Source: Census Bureau

Industrial production rises in October

Industrial Production rose 1.6 points to 101.6 in October, finally surpassing its February 2020 level.

- Consumer goods, business equipment, business supplies, and materials production all improved in October.
- Industrial production for consumer durables rose 4.9pp, driven by consumer autos & trucks, which improved for the first time since July (*see chart).*
- Industrial production of business equipment ticked up 0.2pp in October. Transit equipment made a substantial gain, while information processing equipment slipped.
- Machinery production remains elevated despite falling by 1.3%, partially due to a strike at a major manufacturer.

IP: Total Production vs. Consumer Autos & Trucks
Seasonally adjusted, 2017 = 100



Source: Federal Reserve Board of Governors, G17 report

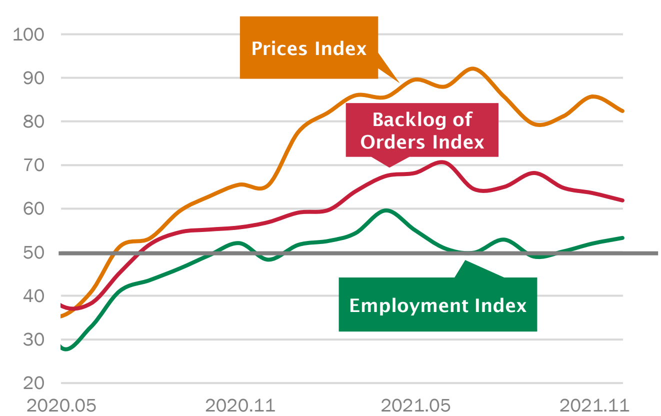
Factories face production constraints

The ISM Manufacturing Index edged down in October, but at 60.8 the current reading continues to signal a strong expansion. However, despite strong demand, U.S. manufacturers continue to contend with an assortment of challenges that are weighing on the industry's 2022 outlook.

- Factories are struggling with retaining and hiring workers. In September, the quit rate in the manufacturing sector rose to an all-time high. Meanwhile, manufacturing job openings grew to the second-highest level on record.
- U.S. port congestion, truck driver shortages, and high global freight rates are expected to continue into 2022.
- Many manufacturers are raising prices to compensate for the financial strain caused by supply chain delays, labor and parts shortages, and rising input costs.

By some measures, order backlogs and prices paid have improved from mid-2021. However, these issues are far from resolved and will likely weigh on activity well into 2022.

Manufacturing PMI Indices
Above 50 = expansion



Source: Institute for Supply Management

State of the U.S. Economy

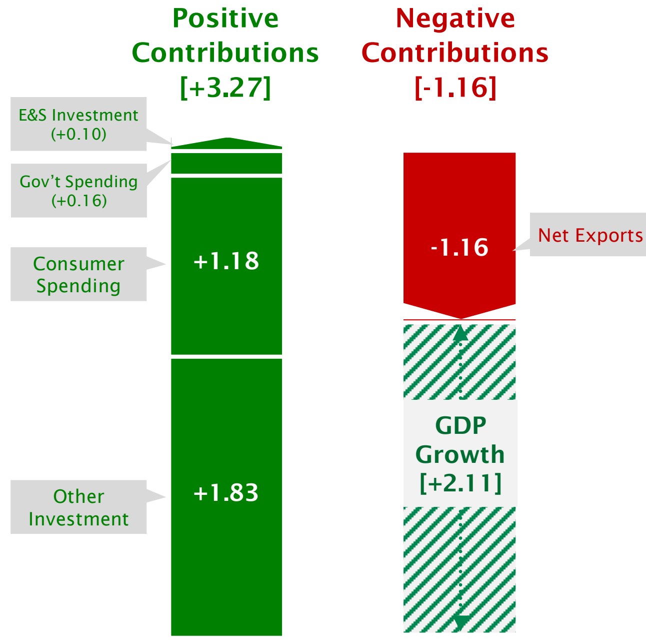
Economy expands at 2.1% rate in Q3

The U.S. economy slowed in the third quarter as the Delta variant and supply chain issues weighed on consumer confidence and economic activity. GDP grew at a seasonally adjusted rate of 2.1% (annualized) in Q3, with much of that growth driven by a build-up of business inventories.

- **Consumer spending**, the economy's largest component, edged up 1.7% (annualized) in Q3. Spending on durable goods fell sharply, while spending on services and nondurable goods rose.
- **Equipment and software (E&S) investment**, a subset of overall business investment and the lifeblood of the equipment finance industry, inched up 1.5% following robust 13% growth in Q2.
- **Net exports** weighed heavily on growth again thanks to global supply chain frictions.
- **Government spending** expanded 0.9% in Q3, driven by a solid increase in state and local government spending.
- **Other investment** rose in Q3 thanks to a sharp increase in private inventories. Nonresidential structures investment and residential investment both fell.

Contributions to GDP Growth

Q3 2021



Source: Bureau of Economic Analysis (BEA)

Solid economic growth expected in 2022

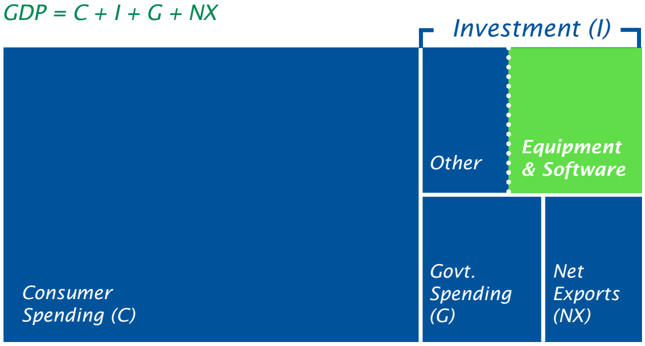
The economy slowed this fall as the pandemic worsened and supply chain snags continued to take their toll on consumption, driving inflation higher and degrading consumer confidence. However, growth in Q4 likely rebounded, and the economy appears to be poised for an above-average year in 2022.

As has been the case for the last two years, the most important factor in the economy is the pandemic. Though the risk posed by Omicron and other new variants is concerning, most adults are vaccinated (including the vast majority of those 65 and older) and boosters are widely available and remain highly effective. History has shown that when the pandemic is under control, economic activity improves. Uncertainty surrounding new variants notwithstanding, robust consumer demand and a strong labor market form a solid foundation for economic growth over the next year.

At the same time, there are headwinds and other factors to monitor. Labor shortages and ongoing supply chain issues threaten businesses, while high inflation is a major concern that will likely trigger tighter monetary policy and could slow growth and impact equity markets. Still, the industry should benefit from increased infrastructure spending and housing activity should remain strong. Overall, we anticipate a broader theme of "getting back to business" in 2022, provided vaccines remain effective at curbing the pandemic.

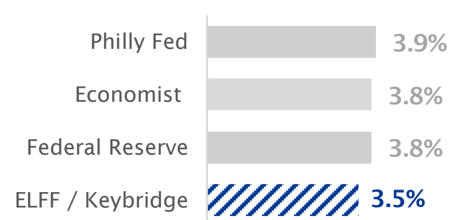
Composition of Gross Domestic Product (GDP)

GDP = C + I + G + NX



Source: Keybridge LLC, based on BEA data

2022 Growth Forecasts



Improved Public Health Situation

Consumer mobility and spending proving resilient

While the emergence of the Omicron variant is concerning and raises uncertainty, the U.S. public health situation this winter is significantly improved compared to a year ago. COVID-19 vaccines and boosters are broadly available and remain highly effective (especially in preventing hospitalization, severe illness, and death), and despite widespread media coverage on vaccine hesitancy, more than 70% of the population has received at least one dose, including 83% of adults. Further, while medical experts are still learning about the Omicron variant, vaccine manufacturers have expressed confidence in their ability to quickly adapt vaccines to protect against new variants, as needed.

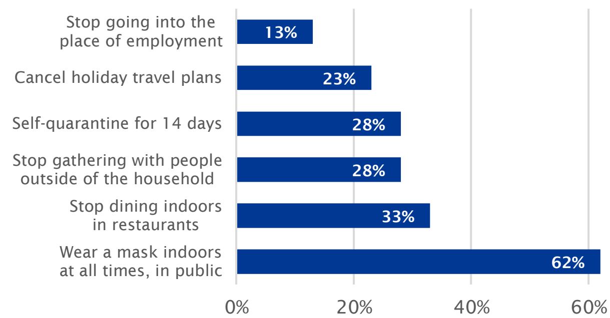
Not surprisingly, the improved public health situation has translated directly into stronger economic activity. Consumers are returning to normal activity levels according to various consumer mobility metrics:

- Thanksgiving weekend was the busiest for air travel since the beginning of the pandemic, and daily passenger volumes are only 10-15% below 2019 levels.
- Black Friday store traffic was up 48% compared to 2020.
- Consumer mobility in retail and recreation areas is just 4% below the pre-pandemic baseline, while mobility is *up* 4% in grocery stores and pharmacies.

While the pandemic is not yet over, the availability of effective vaccines and treatments has helped Americans adapt to the virus and resume normal mobility and spending patterns. An Axios-Ipsos poll conducted shortly following news of the Omicron variant found that while a majority of respondents are willing to wear masks while indoors in public, most do not plan to avoid indoor dining or cancel their holiday plans (see chart). Consumer confidence data show that Americans are more concerned about higher prices than public health risks.

While Omicron or other new variants could temporarily derail the economy if vaccines are less effective against them and consumers pull back again, for now the improved public health outlook should serve as an economic tailwind.

Behavioral Responses to the Omicron Variant
Share of Respondents



Source: Axios-Ipsos poll; data collected from December 3-6, 2021

Infrastructure Bill Finally Arrives

Law should benefit equipment finance industry later in the year

After many years of false starts, Congress finally came to an agreement on a bipartisan infrastructure spending bill in mid-November. The bill, which is the largest public infrastructure spending effort since the American Recovery and Reinvestment Act of 2009 (Recovery Act), includes $550 billion in new funding for traditional infrastructure assets such as roads, bridges, railroads, and ports. It also funds other needed infrastructure improvements, such as rural broadband access, municipal drinking water, and upgrades to the U.S. power grid.

While the bill is unlikely to provide a game-changing surge of equipment investment next year, it is a clear tailwind for the industry and should boost several equipment verticals. We expect to see increased demand for trucks, railroad, communications, and materials handling equipment (along with software) as funds are disbursed.

However, it is important to keep in mind that projects will not kick off overnight. By comparison, the Department of Transportation spent just 9% of the funds allocated by the Recovery Act during the first six months after the bill's passage. The lion's share of the impact occurred 7–24 months later, suggesting that much of the positive effect on equipment investment may not occur until the second half of 2022 or 2023.

Despite the delayed effect, most economists expect the infrastructure spending will increase the economy's long-run productivity, which should pay dividends for the equipment finance industry for years to come.

> "Most consumers still have a substantial financial cushion, which should keep the economy humming along in 2022 as long as the public health situation does not materially deteriorate."
> — Robert Wescott, President, Keybridge

Labor Market Tensions

Businesses struggle with filling positions and wage pressures

The labor market recovery has been faster than most economists expected, and unemployment fell to 4.2% in November. Demand for labor is robust, and workers are taking advantage of their leverage. According to the Job Openings and Labor Turnover Survey, more than 4 million people have quit their jobs in each of the last four months (see chart), and there were 1.6 job openings for every unemployed person seeking work — the highest ratio since recordkeeping began in 2000.

Despite high demand, however, the labor force participation rate is still roughly 1.5% below its pre-pandemic level, translating to more than 2.5 million “missing” workers. While there are multiple factors contributing to this exodus (e.g., early retirements, family care demands, and the extra cushion provided by pandemic-era relief programs), the result has been an increasing share of firms reporting labor shortages. For example, per the Conference Board CEO Confidence survey, 74% of firms cited difficulty finding qualified candidates in Q3 (up from 57% in Q2). Many companies, particularly in the services sector, have reported having to cut hours or operations in response.

To compete for scarce talent, firms are raising wages and offering nonfinancial incentives. According to a survey by the National Association of Business Economics, 58% of firm owners said they increased wages in Q3, and nearly the same share expect to do so again in Q4. Many smaller firms will find it comparatively more difficult to attract talent than their larger competitors.

We expect labor force participation to slowly improve this year, but many sectors will continue to face challenges in recruiting and retaining qualified workers. Firms will need to be willing to increase wages and offer more generous benefits, as the tight labor market is likely here to stay.

Total Nonfarm Quits

Thousands, Seasonally Adjusted

Source: Bureau of Labor Statistics

Supply Chain Woes Persist

No resolution in sight as 2021 ends

Supply chain issues hamstrung the U.S. economy in late 2021. Most industries are facing high shipping costs and delivery delays, often resulting in product shortages. Disruptions can be observed first-hand at the Port of Los Angeles, where the average time at anchor and berth surged to nearly a month in November, compared to 2-5 days in 2019 and most of 2020. While holiday shopping demand is partially responsible for the fall surge, bottlenecks are likely to persist in 2022, especially if U.S. trading partners shut their borders in response to new virus strains. Shipping delays could also eat into consumer demand and pare back spending, making this issue one of the key risks to growth.

Average Days at Anchor & Berth

7DMA, Port of Los Angeles

Source: Port of Los Angeles

Inflationary Pressures Worsen

Rising costs of food, energy, and more

CPI inflation rose to 6.2% in October 2021, the highest rate in more than thirty years. While earlier in the year inflation was mostly contained to industries particularly exposed to the effects of the pandemic, price increases are now more broad-based. The cost of everyday goods and services like electricity (+7% Y/Y), meat (+15% Y/Y), used cars (+27% Y/Y), and gasoline (+50% Y/Y) is substantially higher, causing consumers’ views on the economy to sour. While the drop in confidence has not yet impacted real spending (which remains strong despite inflation), consumer behavior may shift if high inflation persists into 2022, as expected. Two developments are worth monitoring:

- First, while real spending (i.e., adjusted for inflation) is strong, real disposable income has declined in all but one month since April 2021. Pandemic-era savings accumulation has kept consumption activity strong, and there is evidence that a significant amount of pent-up savings remains in the economy. Eventually, however, lower real income will translate into reduced spending.
- Second, inflation has become a political liability. The administration released oil reserves in an attempt to tame oil prices, but if prices remain high as the midterm elections approach, other measures (e.g., an oil export ban) are possible. This would put downward pressure on demand for mining and oilfield machinery.

Housing Outlook: Another Bullish Year?

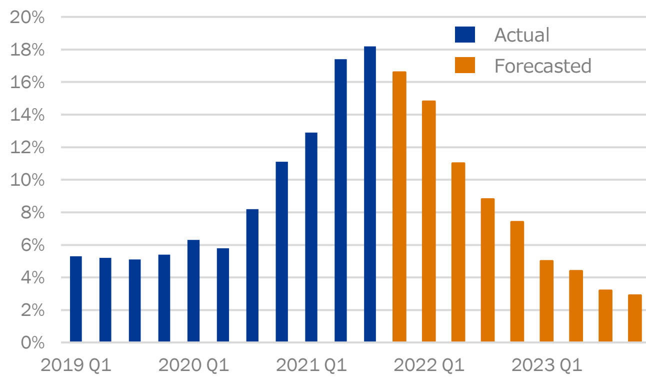
Housing market expected to slow but remain healthy in 2022

The housing market has been one of the economy's bright spots throughout the pandemic, but activity appears to be slowing. Price growth is expected to decelerate *(see chart),* and the market is exhibiting normal signs of seasonality, which were largely absent last winter. Both demand- and supply-side factors are contributing to the slowdown.

- **Demand:** Though many of the factors that propelled the housing market earlier in the pandemic — including amassed savings, low mortgage rates, and demand for more living space due to the prevalence of remote work — are still largely present, demand has waned somewhat due to record-high prices. Mortgage rates also appear likely to rise sooner than expected given the likelihood that the Fed raises rates in response to high inflation. Still, demand for homes among Millennials is expected to keep the market expanding.
- **Supply:** Builders have struggled to keep up with demand due to a lack of available lots, soaring materials costs, supply chain disruptions, and a shortage of skilled labor. These factors are expected to continue impacting homebuilders in the near term. However, there is a large backlog of homes waiting to be built, and the eventual unraveling of supply chains should keep the homebuilding expansion on track.

In sum, the housing market will face substantial cross-currents in 2022, and much will depend on the trajectory of the pandemic, homebuilding input costs, and Fed policy. We expect housing to be a net positive for the economy and equipment finance industry, but there is significant uncertainty due to the above factors.

Annual Home Price Growth
Quarterly



Source: Fannie Mae Housing Forecast via Business Insider
Note: Data from FHFA Purchase-Only Index

Equity Market Froth?

Downside risks are mounting

Equity markets have marched steadily upwards since bottoming out in late March 2020, and the S&P 500 has more than doubled in the last 18 months. The emergence of the Omicron variant triggered a post-Thanksgiving sell-off, leading some market watchers to question whether equity markets are overvalued. There is some evidence for this view: for example, the ratio of the total S&P 500 market cap to total revenues of all its component companies reached 2.75 this summer — for comparison, that ratio never reached 2.0 during the dot-com bubble. Loose monetary policy (e.g., quantitative easing and a near-zero Federal Funds Rate) has been a key factor in driving up equity valuations, but the Fed intends to end its bond-buying program sooner than scheduled and appears likely to raise interest rates in 2022 — potentially several times.

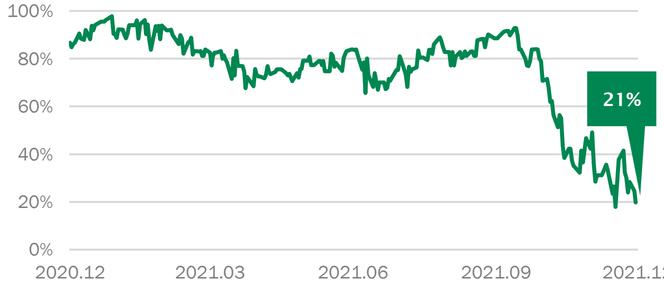
China also remains an area of concern as the government attempts to unwind the massive web of toxic debt on the balance sheet of the country's largest property developer, who was officially declared to be in default in early December. Several other, smaller developers have also defaulted in recent months, raising concerns about the government's ability to prop up the residential housing market. Though distress in China's property market has not yet spread to other asset classes or foreign financial markets, the risk of ripple effects should be monitored.

Accelerated Tightening?

FOMC singing a more hawkish tune

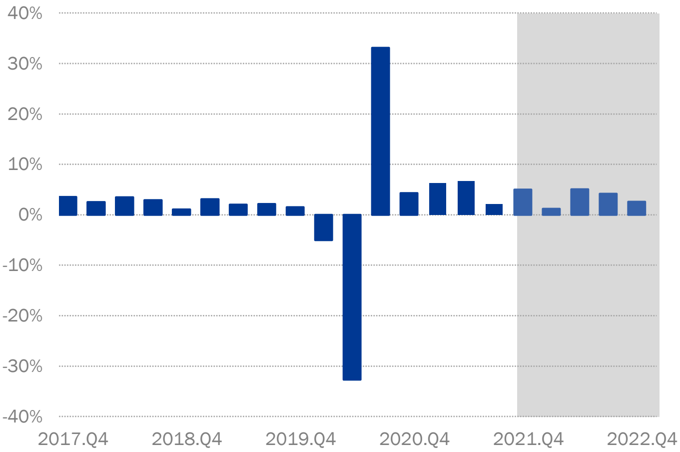
FOMC members officials have largely acknowledged that inflation is not transitory and will continue to spread through the economy, leading to more hawkish language in their public statements. While investors previously expected the Fed to keep short-term rates near zero though June 2022 (see chart below), inflation has flipped the script, and investors now expect at least one rate hike, on balance, by June. This view aligns with recent Fed guidance that its asset purchase program (i.e., quantitative easing) will end sooner than planned. While plans could change depending on the pandemic, tighter financial conditions are likely in 2022, putting downward pressure on investment, all else equal.

Probability of No Fed Rate Hike by June 2022
Implied Probability FFR is set at 0-25bps at 6/22 Meeting



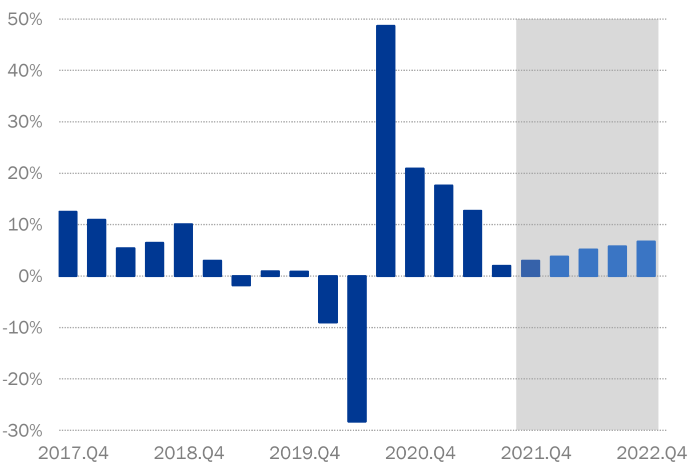
Source: CME Group

Real GDP Growth (% SAAR)



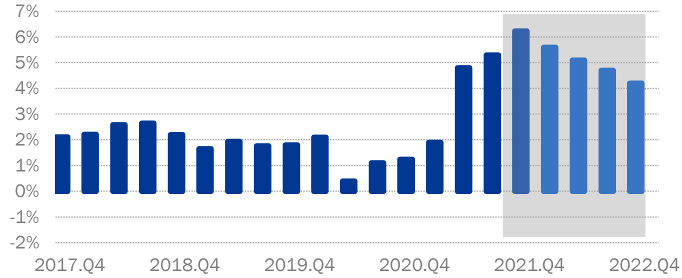
Source: Bureau of Economic Analysis; Keybridge LLC

Real E&S Investment Growth (% SAAR)



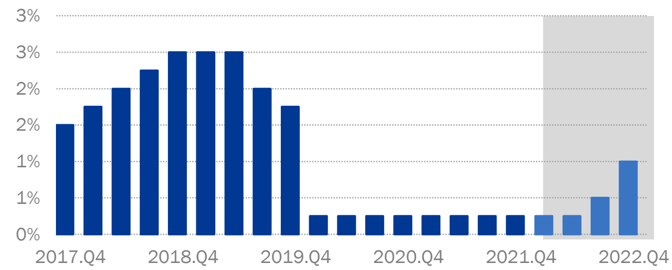
Source: Bureau of Economic Analysis; Keybridge LLC

CPI Inflation (year-on-year %)



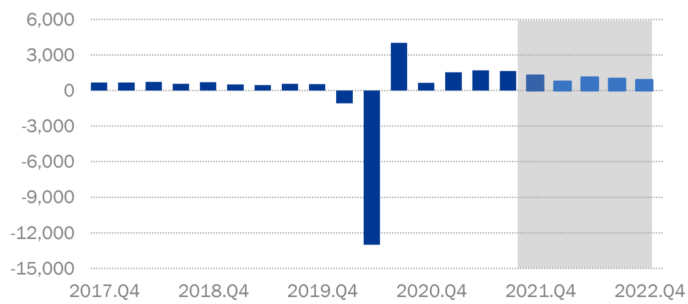
Source: Bureau of Labor Statistics; Keybridge LLC

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,	2020	2021e	2022 QUARTERLY ESTIMATES				2022e
			Q1	Q2	Q3e	Q4e	
Real GDP *(SAAR %)*	*-3.5%*	*5.5%*	1.2%	5.1%	4.2%	2.6%	**3.5%**
Real Investment in Equipment & Software *(SAAR %)*	*-2.1%*	*13.2%*	3.8%	5.2%	5.8%	6.7%	**4.6%**
Inflation *(year-on-year %)*	*1.2%*	*4.6%*	5.6%	5.1%	4.7%	4.2%	**4.9%**
Federal Funds Target Rate *(upper bound, end of period)*	*0.25%*	*0.25%*	0.25%	0.25%	0.50%	1.00%	**1.00%**
Total Payroll Growth *(thousands)*	*-9,416*	*6,612*	750	1,100	1,000	900	**3,750**

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' standard method for reporting growth in the national accounts data.

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.