Q2 Update — April

2019 Equipment Leasing & Finance U.S. Economic Outlook

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EQUIPMENT LEASING & FINANCE FOUNDATION

Your Eye on the Future

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SUMMARY

Equipment & Software Investment Outlook: Equipment and software investment growth ended the year on a high note, expanding 7.4% in the fourth quarter and 8.1% rate on the year — the best annual performance since 2012. Although the equipment finance industry is off to a slow start this year, business conditions remain generally favorable and we expect the majority of equipment verticals to post positive growth in 2019. However, as the stimulative effects of tax reform begin to wane and the U.S. manufacturing sector continues to face headwinds, equipment and software investment is likely to slow in 2019.

Over the next three to six months:

- Agricultural Machinery investment growth is likely to slow;
- Construction Machinery investment growth should remain weak and may contract;
- Materials Handling Equipment investment is likely to expand at a modest rate;
- All Other Industrial Equipment investment growth will likely remain weak and may stall;
- Medical Equipment investment growth is expected to slow;
- Mining & Oilfield Machinery investment growth may improve, but a strong rebound appears unlikely;
- Aircraft investment should expand at a moderate rate;
- Ships & Boats investment is likely to remain weak;
- Railroad Equipment investment growth is likely to remain negative;
- Trucks investment is expected to expand at a moderate rate;
- Computers investment growth will likely growth modestly; and
- Software investment growth should slow.

U.S. Capital Investment & Credit Markets: Capital spending exceeded expectations at the close of 2018, despite some weakening in the underlying economic fundamentals. However, business investment faces significant downside risk in the first half of 2019 given the recent slowdown in the industrial sector and weaker global growth. Credit market conditions remain mostly healthy, though banks continue to tighten lending standards for some loans and demand for credit has weakened among both businesses and consumers. Financial stress remains in check, however, as delinquencies and charge-offs are still well below historical norms.

Overview of the U.S. Economy: After achieving 2.9% growth in 2018 — tied with 2015 for the strongest year of growth during the current business cycle — the U.S. economy appears to have slowed in early 2019. Consumer spending should continue to serve as the backbone for economic growth, but business investment appears likely to slow after a Q4 rebound due to lower oil prices, easing confidence, and waning global demand. The combination of rising wages and a more dovish Fed should keep the economy growing and prevent a stall-out this year, but weaknesses in the U.S. manufacturing sector and from Europe and China are significant concerns. Recent declines in business and consumer confidence and the ongoing negotiations with China on trade policy are two wildcards that should be closely monitored.

Bottom Line for the Equipment Finance Sector: After two consecutive solid years, equipment and software investment growth is likely to slow in 2019. Business and consumer confidence have fallen from the highs experienced last year in the wake of tax reform but remain elevated, and a strong labor market and rising wages should lead to solid consumer spending growth. However, the global outlook continues to weaken, and trade-related headwinds will dampen U.S. growth prospects, particularly in the manufacturing sector. Overall, we expect the economy to grow 2.2% in 2019 (down slightly from our annual outlook published in December), while equipment and software investment is projected to expand 4.5% this year (up from our previous estimate of 4.1%)

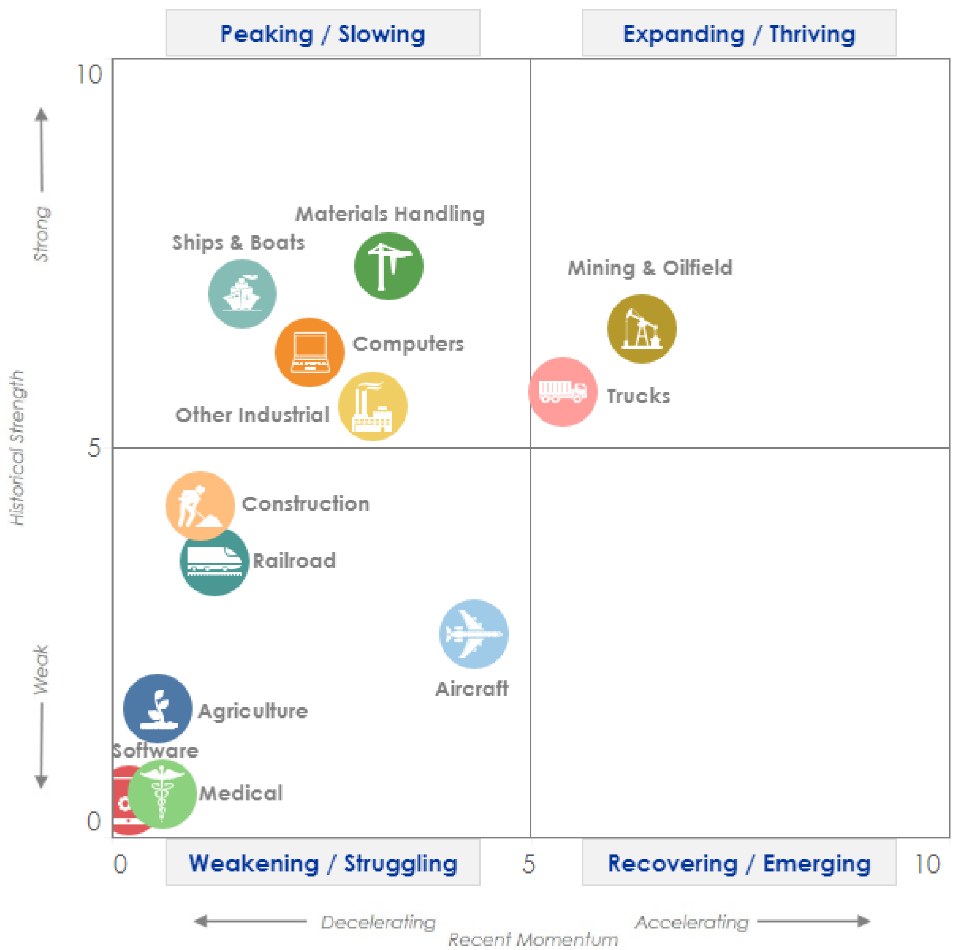
Equipment & Software Investment Outlook

We expect equipment and software investment to expand by 4.5% in 2019, mirroring slower growth in the broader economy as the business cycle continues to mature. As illustrated in the Momentum Monitor Sector Matrix below, momentum readings are above the long-term historical average (y-axis) in 6 of 12 verticals, while 2 of the 12 verticals saw recent momentum (x-axis) accelerate and 4 verticals were unchanged.

Foundation-Keybridge U.S. Equipment & Software Investment Momentum Monitor

*For more information on how to interpret the Momentum Monitor, please refer to the Appendices on pages 18–19.

Momentum Monitor Sector Matrix

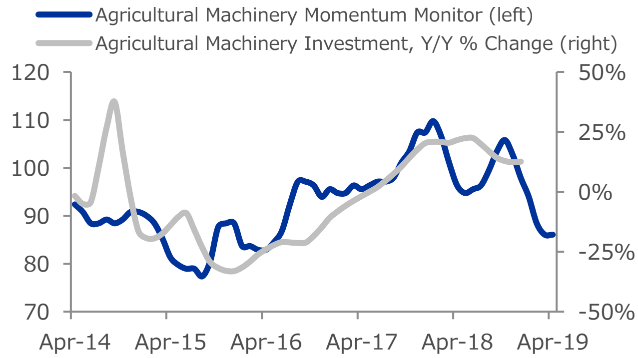


The matrix above summarizes the current values of each of the 12 Equipment & Software Investment Momentum Indices based on two factors: Recent Momentum (x-axis) and Historical Strength (y-axis):

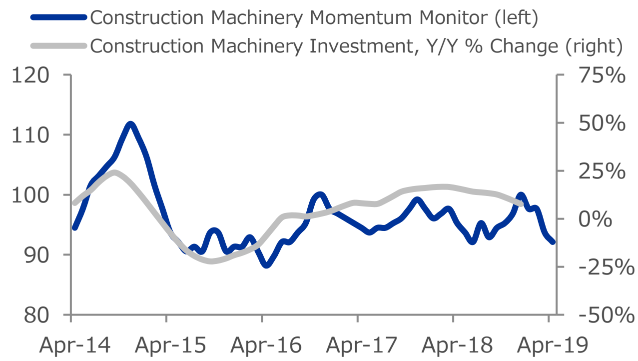
- "Recent Momentum" indicates a vertical's recent acceleration or deceleration in the past month relative to its average movement during the previous 3 months. Ratings closer to "0" indicate rapid deceleration, while ratings near "10" represent rapid acceleration.
- "Historical Strength" reflects a vertical's 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 resides 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 investment levels may fall over the next 1-2 quarters. Verticals in the bottom-right quadrant, however, have momentum readings that are below average, but recent movement shows promise — suggesting that investment levels may rise over the next 1-2 quarters.

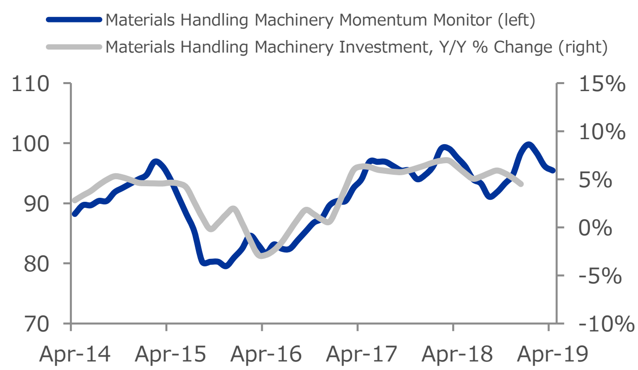
Agricultural Machinery: Investment in Agricultural Machinery increased 27% (annualized) in Q4 2018 and is up 13% from one year ago. The Agriculture Momentum Index held steady at 86.1 from March (revised) to April. The Agricultural Price Index for All Crops rose 8.5% in February, but Soybean Futures fell 2.2% in March, the eighth decline in the past year. Overall, the Index continues to point to slower growth in agricultural machinery investment over the next three to six months.



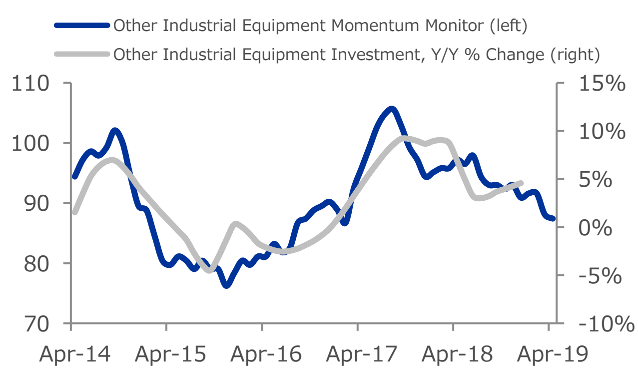
Construction Machinery: Investment in Construction Machinery contracted at a 0.9% annual rate in Q4 2018 but is up 7.6% year-over-year. The Construction Momentum Index declined from 92.2 (revised) in March to 90.6 in April. In February, Non-Residential Construction Spending edged down 0.5%, while Existing Homes For Sale increased 2.5%. Overall, the Index points to weaker and potentially negative growth in construction machinery investment over the next three to six months.



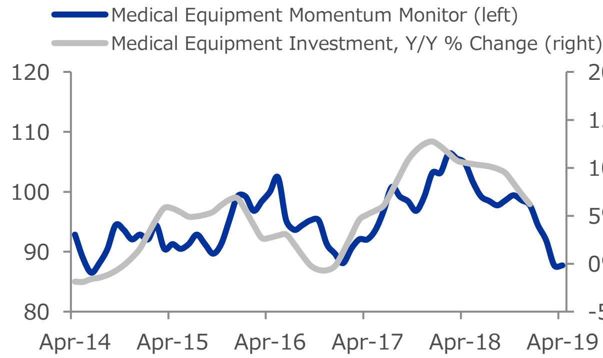
Materials Handling Equipment: Investment in Materials Handling Equipment rose at a 0.6% annual rate in Q4 2018 and is up 4.8% year-over-year. The Materials Handling Momentum Index fell from 96.2 in March to 95.5 in April. Inventories of Materials Handling Equipment declined 1.1% in January, while Earnings in Materials Handling Equipment Manufacturing edged down 0.3% in February. Overall, the Index points to continued modest growth in materials handling equipment investment over the next two quarters.



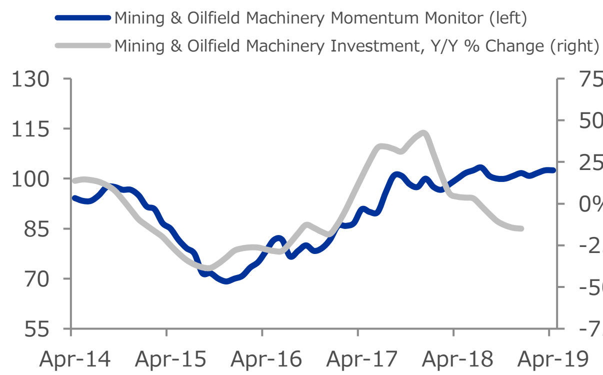
Other Industrial Equipment: Investment in All Other Industrial Equipment rose at an 8.3% annual rate in Q4 2018 and is up 4.6% from a year ago. The Other Industrial Equipment Momentum Index eased from 88.1 (revised) in March to 87.4 in April, its lowest reading since February 2017. In February, Capacity Utilization for Electrical Equipment Manufacturing fell 0.6 percentage point to 74.9%, while Industrial Production for Total Machinery declined 1.8%. Overall, the Index continues to point to weak and potentially stalled growth in other industrial equipment investment over the next three to six months.



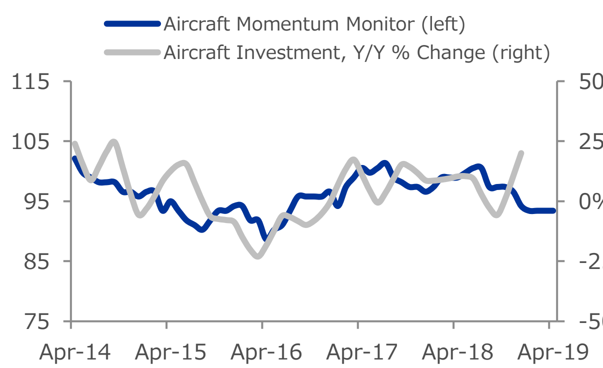
Medical Equipment: Investment in Medical Equipment expanded at a 2.4% annual rate in Q4 2018 and is up 6.2% year-over-year. The Medical Equipment Momentum Index held steady at 87.7 from March (revised) to April. The Consumer Price Index for Hospital & Related Services decreased 0.6% in February, while the S&P 500 Health Care Index fell 0.7% in March. Overall, the Index points to further slowing in medical equipment investment growth over the next two quarters.



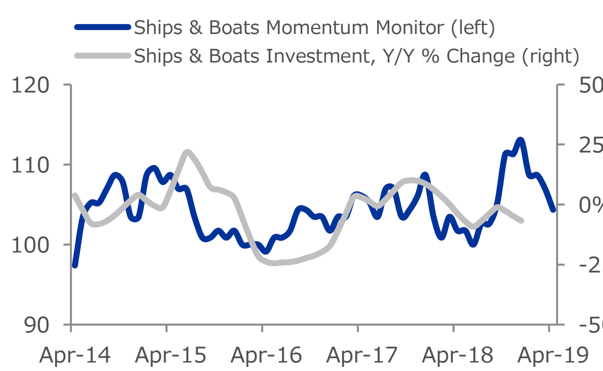
Mining & Oilfield Machinery: Investment in Mining & Oilfield Machinery declined at a 15% annual rate in Q4 2018 and is also down 15% year-over-year. The Mining & Oilfield Machinery Momentum Index held steady at 102.5 from March (revised) to April. Capacity Utilization for Petroleum & Coal Products dropped 4.2 percentage points to 78.8% in February, but Mining & Logging Employment rose 0.5% in March. Overall, the Index points to a potential improvement in mining & oilfield machinery investment over the next three to six months, though a strong rebound is unlikely.



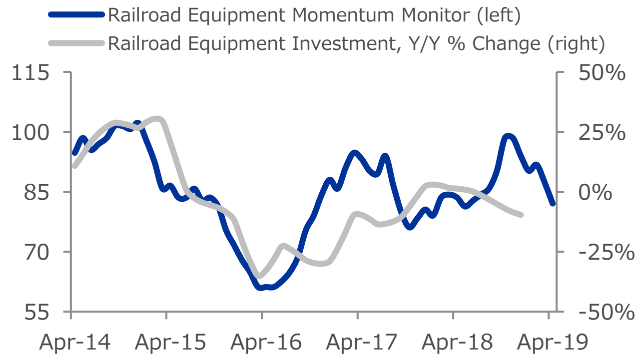
Aircraft: Investment in Aircraft surged 59% (annualized) in Q4 2018 and is up 20% on a year-over-year basis. The Aircraft Momentum Index remained at 93.4 from March (revised) to April. Mexico Air Traffic surged 34% in December, its third straight double-digit increase, but Exports of Computers and Electronic Products fell 9% in January. Overall, the Index points to moderate growth in aircraft investment over the next two quarters.



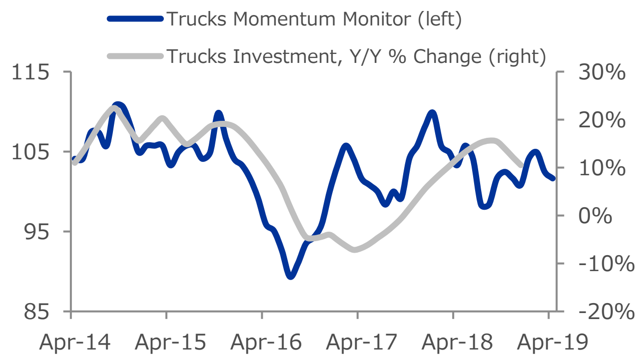
Ships & Boats: Investment in Ships & Boats declined at an annual rate of 5.9% in Q4 2018 and is down 6.7% year-over-year. The Ships & Boats Momentum Index declined from 107.0 (revised) in March to 104.3 in April. In February, Houston Shipping Container Traffic dropped 7.7%, its fourth straight decline, while the Producer Price Index for Ship and Boat Building rose 0.2%. Overall, the Index points to continued weakness in ships and boats investment over the next three to six months.



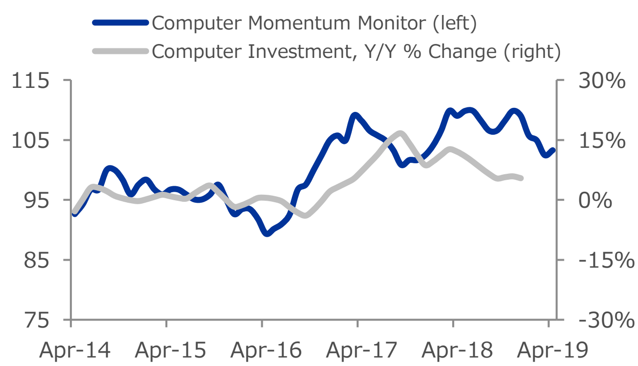
Railroad Equipment: Investment in Railroad Equipment rose at a 3.4% annual rate in Q4 2018 but is down 9.6% year-over-year. The Railroad Equipment Momentum Index declined from 84.2 (revised) in March to 81.2 in April, its lowest level since January 2018. In March, Rail Carloads of Petroleum Products decreased 2.3%, the sixth decline in the past year, while the ISM Manufacturing Supplier Deliveries Index fell 0.7 point to 54.2. Overall, the Index points to negative growth in railroad equipment investment over the next two quarters.



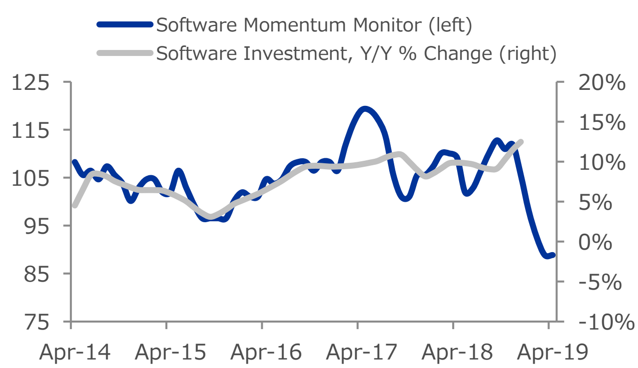
Trucks: Investment in Trucks rose at a 6.7% annual rate in Q4 2018 and is up 10% from year-ago levels. The Trucks Momentum Index slipped from 102.5 (revised) in March to 101.6 in April. In February, Capacity Utilization for Furniture Manufacturing declined 1.4 percentage points to 76.2%, but Industrial Production for Motor Vehicles rose 2.2%. Overall, the Index points to moderate growth in trucks investment over the next three to six months.



Computers: Investment in Computers fell at an annual rate of 15% in Q4 2018 but is up 5.4% year-over-year. The Computers Momentum Index edged up from 102.5 (revised) in March to 103.3 in April. Shipments of Communication Equipment ticked up 0.3% in February, while Industrial Production for Computer & Electronic Product Manufacturing rose 1.6%. Overall, the Index points to modest growth in computers investment over the next two quarters.



Software: Investment in Software rose at a 10% annual rate in Q4 2018 and is up 12% year-over-year. The Software Momentum Index held steady at 88.9 from March (revised) to April. Microsoft's Market Cap declined 1.3% in February, and the Total M1 Money Supply contracted 0.2% in March. Overall, the Index continues to indicate a slowdown in software investment growth over the next three to six months.



Equipment & Software Investment Annual Growth Forecast

Year-on-Year % Growth Rates

Sector	10-Year Historical Average	Last 4 Quarters	Next 4 Quarters
Agricultural Machinery	2.3%	12.6%	-8 to 2%
Construction Machinery	2.8%	7.6%	-3 to 4%
Materials Handling Equipment	2.6%	4.5%	2 to 6%
Other Industrial Equipment	1.7%	4.6%	-6 to 2%
Medical Equipment	5.4%	6.2%	-4 to 4%
Mining & Oilfield Equipment	0.6%	-15.0%	-10 to 5%
Aircraft	6.9%	20.0%	6 to 12%
Ships & Boats	-1.1%	-6.7%	-2 to 5%
Railroad Equipment	2.5%	-9.6%	-12 to -2%
Trucks	15.2%	10.5%	3 to 9%
Computers	4.8%	5.4%	2 to 7%
Software	7.8%	12.5%	2 to 7%

Source: Macrobond Financial, Keybridge (forecasts)

U.S. CAPITAL INVESTMENT AND CREDIT MARKETS

Capital spending exceeded expectations at the close of 2018, despite some weakening in the underlying economic fundamentals. However, business investment faces significant downside risk in the first half of 2019 given the recent slowdown in the industrial sector and weaker global growth. Credit market conditions remain mostly healthy, though banks continue to tighten lending standards for some loans and demand for credit has weakened among both businesses and consumers. Financial stress remains in check, however, as delinquencies and charge-offs are still well below historical norms.

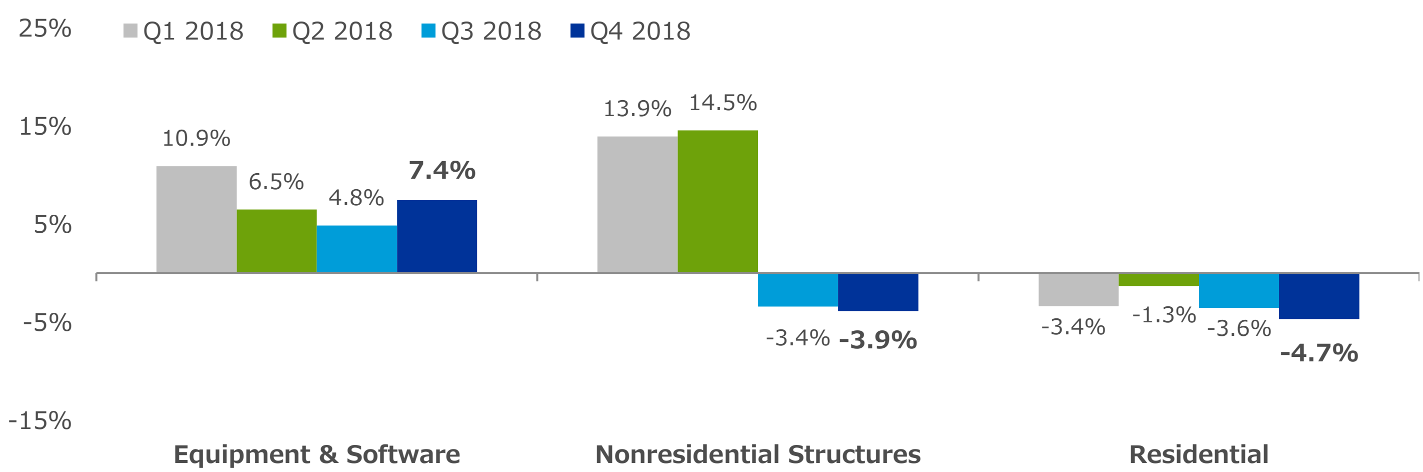
Based on stronger-than-expected investment growth in the fourth quarter, our forecast for equipment and software investment growth was revised upward to 4.5% in 2019, though this growth is still significantly slower than the 8.1% growth experienced last year. We do not expect the Federal Reserve to raise interest rates this year after four rate increases in 2018.

Recent Trends in U.S. Capital Investment

Equipment and software investment growth improved to an annualized rate of 7.4% in the fourth quarter, up from 4.8% in Q3. Investment in nonresidential structures fell 3.9% (annualized), marking the second consecutive quarter of contraction. Meanwhile, residential investment declined 4.7% (annualized) and has now posted negative growth in each of the last four quarters.

Investment Growth Rates

Quarter-on-Quarter, Seasonally Adjusted Annualized Growth Rate



Source: Macrobond Financial

- **Equipment Leasing and Financing:** After a solid year in 2018, new business volume growth for the equipment finance industry is off to a slow start. According to the ELFA Monthly Leasing and Finance Index ("MLFI-25"), the industry gained $5.9 billion in new business volume in February, down 24% from year-ago levels. Year to date, cumulative new business volume is down 10 percent compared to 2018. Portfolio performance remains healthy, however, and financial stress appears to be relatively stable: 30-day delinquencies ticked up to 1.80% in February and are up two-tenths of a point compared to a year ago, while charge-offs were unchanged at 0.35%, up from 0.28% a year ago. Delinquencies and charge-offs may continue to climb this year as the credit cycle matures and economic growth slows, but the industry's financials should remain healthy by historical standards.

The Foundation's Monthly Confidence Index for the Equipment Finance Industry ("MCI-EFI") rose 3.7 points to 60.4 in March, its third consecutive monthly increase, though the index remains well below its 2018 average of 65.5. Most surveyed industry executives (70%) expect business conditions to stay the same over the next four months, though there was a notable uptick in the number of executives who now expect business conditions to improve (20%, up from 10% in February). Roughly one-third of executives rated the current U.S. economy as "excellent" while the remainder assessed current economic conditions as "fair," and most (80%) expect economic conditions to stay the same over the next six months. Executives specifically noted that uncertainty surrounding the federal government and a softening housing market are concerns facing the industry, but most are optimistic about the industry's growth prospects in 2019.

Overall, despite the soft patch in the first quarter, the equipment finance industry should resume its expansionary track in 2019. However, the industry does face headwinds moving forward, such as contracting investment in residential and nonresidential construction and softening small business sentiment.

- **Equipment Verticals**: Equipment and software investment sustained strong growth in the fourth quarter of 2018. Of the 12 equipment verticals tracked by the Foundation, nine experienced positive annualized growth and four posted double-digit gains, including Aircraft (+20%), Agricultural Machinery (+13%), Software (+13%), and Trucks (+10%). Three verticals experienced declines in investment growth in the fourth quarter: Mining and Oilfield Machinery (-15%), Railroad Equipment (-9.6%), and Ships & Boats (-6.7%).

  We expect the majority of equipment verticals to experience positive investment growth in 2019, though momentum in several verticals appears to be fading, including Agricultural Equipment, Medical Equipment, Railroad Equipment, and Software.

- **Other Factors:** The industrial sector has weakened in recent months. Industrial production inched upward in February after declining 0.4% in January, while capacity utilization fell to 78.2%, its third consecutive monthly decline. The ISM Purchasing Managers' Index (PMI) also points to slower growth in the industrial sector, as it is down nearly 7% from year-ago levels despite increasing 1.2 points to 55.3 in March. Shipments of durable goods (a leading indicator of same-quarter business activity) edged up 0.2% in February, but new orders of durable goods (a leading indicator of next-quarter business activity) fell 1.6%. Meanwhile, the U.S. trade deficit declined in January, falling to $51.2 billion due to a slowing U.S. economy and volatile trade dynamics with China, and the unexpected decline should result in a small boost to GDP in the first quarter.

Recent Trends in Credit Markets

Credit markets remained generally healthy in the fourth quarter, despite the late stage of the credit cycle and higher interest rates. The supply of credit to businesses fell slightly in Q4 compared to Q3, while credit demand continued to fall among both businesses and consumers. Financial stress remains near historic lows.

Summary of Credit Conditions

Factor	Conditions Compared With Last Quarter
Supply	Slight Decrease
Demand	Moderate Decrease
Financial Stress	Slight Decrease

- **Credit Supply & Pricing:** Credit supply conditions fell slightly for businesses in the fourth quarter of 2018. According to the January Fed Loan Officer Survey, standards for commercial real estate ("CRE") loans tightened over the past three months, particularly for loans secured by multifamily residential properties and loans for construction and land development purposes. Meanwhile, banks reported that standards and terms for commercial and industrial ("C&I") loans were generally unchanged in the fourth quarter, though banks expect to tighten lending standards on C&I loans in the coming year.

  The January Fed Loan Officer Survey reports that lending to households largely held steady over the past quarter, as standards for auto loans and other consumer loans remained basically unchanged. The one exception was credit cards, where a modest net share of banks (9%) reported tighter lending limits.

- **Credit Demand:** On balance, business demand for credit weakened over the past three months. According to the January Fed Loan Officer Survey, demand for C&I loans eased among firms of all sizes, while demand for CRE loans also weakened (particularly for construction and land development loans). Confidence in the construction industry has softened, echoing weaker demand for construction and land development loans. The Commercial Construction Index, a new measure of commercial construction confidence among contractors, fell three points in Q1 of 2019 to 72, its lowest reading in two years. Overall measures of business confidence are also moderating, though confidence remains elevated by historical standards. For example, the NFIB Small Business Optimism Index has fallen nearly 7% since reaching an all-time high last summer but remains healthy, while the Business Roundtable CEO Economic Outlook Survey fell more than 9 points to 95.2 in the first quarter but continues to signal moderate economic growth.

  Consumer demand for credit also weakened in Q4 2018, with banks reporting falling demand for auto loans, credit cards, and other consumer loans. Consumers remain relatively upbeat about the economy, but confidence has slipped in recent months. The Conference Board Consumer Confidence Index fell seven points to 124.1 in March and is now 10% below its 2018 peak, while the University of Michigan Index of Consumer Sentiment climbed 4.6 points to 98.4 in March but is nearly 3% below its 2018 high.

- **Financial Stress:** U.S. credit markets continue to exhibit low levels of financial stress. For example, the Kansas City Fed Financial Stress Index dropped from -0.02 in January to -0.48 in February, and the St. Louis Fed Financial Stress Index fell to remained at -1.2 at the end of March. Meanwhile, loan delinquencies decreased to 0.94% in Q4 and have fallen consistently since Q2 2016, while lease delinquencies edged down to 1.02% in the fourth quarter and remain low by historical standards.

- **Other Factors:** After hovering between 2.55% and 2.75% for most of the first quarter, ten-year Treasury yields steadily fell in March, briefly dipping below 2.4% before recovering to around 2.5% in early April. Yields on 30-year notes have also declined in March while short term yields are mostly unchanged, resulting in downward pressure on the yield curve. Parts of the curve have inverted, but the 10-year / 2-year spread remains positive (18bp as of early April) and the 1-month / 30-year spread hovers around 50 basis points, relieving some recession fears for 2019.

Update on Fed Policy

As expected, the Fed raised the federal funds rate last December for the fourth time in 2018 to an upper bound of 2.5%. Since that time, however, the economy has clearly weakened, and at its March meeting the Federal Open Market Committee held rates steady and indicated that they do not anticipate another rate hike in 2019. In another sign of movement toward a more dovish monetary policy stance, the Fed also announced that it will slow the pace of shrinking its $4 billion balance sheet and will end its runoff of Treasury holdings later this year. In light of these actions, the prospect of weaker economic conditions both domestically and abroad, and inflation remaining in check, we do not expect the Fed to raise rates in 2019 — and a rate cut later this year is not out of the question.

OVERVIEW OF THE U.S. ECONOMY

After achieving 2.9% growth in 2018 — tied with 2015 for the strongest year of growth during the current business cycle — the U.S. economy appears to have slowed in early 2019. Consumer spending should continue to serve as the backbone for economic growth, buoyed by a robust labor market, strong nominal wage growth, and a reduced tax burden. Business investment rebounded in the fourth quarter of 2018, but the combination of lower oil prices, easing confidence, and waning global demand will weigh on investment in 2019. As such, a slower pace of growth this year should be expected. Moreover, residential investment and exports, which each subtracted from growth in 2018, are likely to remain weak.

Looking ahead, the combination of rising wages and a more dovish posture from the Federal Reserve should keep the economy moving forward and prevent a stall-out this year, but weaknesses in the U.S. manufacturing sector and from economies abroad (particularly China and Europe) are significant concerns and will likely lead to slower growth compared to last year's performance. Two wildcards are the recent declines in business and consumer confidence and the ongoing negotiations with China on trade policy, as each has the potential to change the narrative for the U.S. economy in 2019 (for better or for worse) depending on how things unfold in the months ahead.

Overall, we project the U.S. economy to grow 2.2% in 2019, down slightly from our initial estimate of 2019 growth published last December.

Recent Trends in the U.S. Economy

U.S. economic conditions are currently a mixed bag, and slower growth is expected after a strong performance in 2018. On the positive side, consumers continue to benefit from a robust labor market and rising wage growth, suggesting that consumer spending should remain healthy. The outlook for business investment is also reasonably positive after surprisingly strong growth in the fourth quarter — though the combination of falling oil prices, higher interest rates, waning business confidence, and faltering global demand could make this rebound difficult to sustain. On the negative side, residential investment was abysmal throughout 2018 and will likely continue to be a modest headwind to economic activity in 2019. In addition, net exports were a drag on growth again in the fourth quarter due to uncertainty around U.S. trade policy, a stronger dollar, and weakening global demand.

Indicator	Recent Activity
Consumption	Consumer spending rose at an annualized rate of 2.5%, a moderate growth rate.
Equipment & Software Investment	Equipment & software investment growth accelerated to 7.4% (annualized).
Residential Investment	Residential investment fell 4.7% (annualized) and declined in every quarter of 2018.
Government Expenditures	Government declined by 0.4% (annualized), the weakest growth in nearly two years.
Net Exports	Net exports declined again in Q4, subtracting 0.08 percentage points from growth. Exports inched up 1.8% (annualized) while imports rose 2.0%.

- **GDP:** The U.S. economy expanded at an annualized rate of 2.2% in the fourth quarter, bringing full-year growth to 2.9%. Consumer spending eased slightly in Q4 but expanded at a solid 2.5% rate, while business investment grew 3.7%. Equipment & software investment surprised on the upside (+7.4% annualized), though this growth was partially offset by a contraction in nonresidential structures investment (-3.9% annualized). Meanwhile, residential investment fell 4.7% (annualized) in Q4, the fourth consecutive quarterly decline. Net exports improved from Q3, but still subtracted 0.08

percentage point from GDP. Finally, government spending, which had grown solidly for the first three quarters of 2018, contracted 0.4% in the fourth quarter.

- **Inflation:** Inflationary pressures have eased in early 2019. The headline consumer price index is decelerating, falling to just 1.5% Y/Y growth in February, largely due to lower oil prices. Core inflation, however, has held steady in the 2.1–2.3% Y/Y growth range, but shows few signs of accelerating in the near term.

  Looking ahead, inflation is likely to remain muted for at least the next 3–4 months. Despite the strongest nominal wage growth since the Great Recession, the combination of lower oil prices, a strong dollar, and moderating domestic growth should keep inflationary pressures in check — though higher inflation remains a possibility later in the year if oil prices remain in the $55–60 range.

- **Growth Forecasts:** The *Economist* Poll of Forecasters for March estimated a growth rate of 2.3% for 2019, while the *Wall Street Journal* consensus forecast calls for 2.1% growth. These estimates are at the upper end of the Federal Reserve's March "central tendency" forecast of 1.9–2.2% growth for 2019.

Economic Tailwinds

A strong labor market has finally translated into a broad-based acceleration of wages. Meanwhile, in the wake of low inflation and slowing global growth, the Federal Reserve has signaled its intent to pause monetary policy tightening, providing a more accommodative environment.

- **Robust wage growth:** The unemployment rate has held at or below 4% for an entire year, the longest such streak in fifty years. In response, employers are raising wages to attract increasingly scarce workers, causing nominal wage growth to rise above 3% for the last eight months — the first time the economy has experienced this level of nominal wage growth since the 2008–09 recession. Wage gains for production & nonsupervisory employees (who represent roughly 80% of the workforce) have been even more robust in recent months compared to managerial and supervisory employees, suggesting that wage gains are broad-based and not concentrated only among high-earners. Despite a rare decline in consumer spending in December, low unemployment and strong wage growth should provide a solid foundation for consumer spending in 2019.

- **Dovish Federal Reserve:** After raising interest rates four times in 2018, recent financial market volatility — along with softer inflation and slowing global growth — caused the Fed to shift gears in January and adopt a "wait-and-see" approach to monetary policy. Fed Chairman Jerome Powell now considers the fed funds rate "roughly neutral" (i.e., neither encouraging nor restricting growth), and most Fed officials expect zero rate hikes in 2019. This stable interest-rate outlook encouraged a nearly 15% stock-market rally so far this year and should help ease debt-servicing costs for consumers and businesses alike.

Economic Headwinds

During the first three months of 2019, the global growth picture worsened more quickly than many analysts expected. Although the Japanese economy rebounded, economies throughout the rest of the world continued to falter. Slowing growth in China spread rapidly to Europe, where declining industrial output and a weak financial system forced the European Central Bank to renew its monetary stimulus efforts. Meanwhile, although the United States was largely insulated from slower growth abroad in 2018 (primarily because of tax reform), the U.S. manufacturing sector decelerated sharply at the beginning of the year and may worsen if global demand remains weak and trade frictions are not resolved.

- **Softening Chinese economy:** The Chinese economy expanded at a 6.7% rate in 2018, the slowest growth since 1990. China, whose economy accounts for roughly one-third of all global economic growth, is the driving force behind worries of a global economic downturn. Indeed, China's economy is exhibiting weakness across nearly every sector. For example, the real estate vacancy rate is above 20% (vs. 13% in the United States) and prices are falling in many areas, which could dampen consumer spending. Meanwhile, Chinese factory output growth slowed to 5.3% Y/Y in the January–February period, the weakest growth on record. Factory output has suffered due to the ongoing trade conflict with the United States, which has led to the sharpest annual decline in Chinese exports in three years. As China's slowdown broadens and deepens, Beijing has reduced its 2019 growth target and is pursuing new stimulus measures — though they appear to be having a limited effect on growth. Going forward, a protracted slowdown in China will reduce demand for U.S. and European exports and will likely lead to price declines for commodities such as oil and agricultural products.

- **Slowing European economy:** The Eurozone economy has slowed sharply in recent months, largely due to weaker demand from China. Bloc-wide industrial production has contracted on an annual basis for three straight months — the first time this has happened in more than five years — and the IMF now forecasts that growth in the Eurozone will be just 1.6% in 2019. Leading the slowdown is Germany, whose economy is expected to grow at an anemic 1.3% growth in 2019. Italy's economy recently entered recession, with the effects of an unstable banking system and an ill-functioning populist coalition government continuing to weigh heavily on economic activity. Compounding these concerns, the Trump administration has again threatened to impose tariffs on all foreign cars, which would further dampen growth in the Eurozone, where the automotive sector represents roughly 7% of EU GDP. Meanwhile, after a series of failed Brexit votes — and a successful vote against a "no deal" departure — the path of the UK's exit from the EU is even murkier. Given the combination of a rapidly weakening economic environment and heightened political uncertainty, the European Central Bank announced in early 2019 a new stimulus package for the bloc. If this effort is unsuccessful in mitigating the effects of the slowdown, weakness may continue to spread across the continent.

- **U.S. manufacturing weakness:** The U.S. manufacturing sector output declined sharply in both January and February. A slowing global economy, a strong dollar, and trade frictions have all weighed on demand for American manufactured goods, causing the goods trade deficit to widen to a record high of $891 billion in 2018. Further signs of manufacturing slowdown include:
    - The ISM Manufacturing PMI, which has fallen 5.5 points in the last 7 months;
    - Manufacturers' inventories-to-sales ratio, which has risen to its highest point since late 2017 due to declining sales and rising inventories;
    - Manufacturing capacity utilization, which has fallen from a multiyear high to its lowest point since June 2018;
    - Job openings in the manufacturing sector are down nearly 10% from their peak after reaching an all-time high in November 2018;
    - Average hourly earnings for production & nonsupervisory workers in the manufacturing sector, which recently decelerated to 2.5% Y/Y growth — down from 3.4% a year ago and well below average wage growth for all workers;
    - Average weekly overtime hours for manufacturing-sector workers, which eased to 4.3 hours/week in March, a notable decline from 4.7/hours a week in April 2018.

Taken together, these indicators point to a continued softening in the manufacturing sector this year. While this development is unlikely to drag the entire U.S. economy into a recession in 2019, it likely will reduce demand for some types of equipment (e.g., industrial machinery).

Additional Factors to Watch

Weaker confidence readings among businesses and consumers point to a growing sense of unease about the economy, though sentiment remains positive by historical standards. Meanwhile, the trade conflict with China remains unresolved, and the ongoing negotiations present both the risk of further tariffs and the opportunity for meaningful reforms to Chinese industrial and trade policies that would benefit U.S. exporters.

- **Waning confidence in the economy?** The first quarter of 2019 saw multiple measures of business and consumer confidence retreat from record highs achieved in 2018.
  - For example, the NFIB Small Business Optimism Index recently dropped to its lowest level since the 2016 election, driven lower by a sharply weaker outlook for general business conditions. Meanwhile, the Business Roundtable CEO Economic Outlook Index has declined for four consecutive quarters after reaching an all-time high in 2018 Q1 after the passage of tax reform.
  - On the consumer side, both the Conference Board Consumer Confidence Index and the University of Michigan Consumer Sentiment Index have eased, mostly due to weakening expectations.

  While these negative movements are notable, it is important to note that most measures of confidence remain quite healthy and do not point to an imminent recession. That said, if confidence in the U.S. economy continues to weaken, businesses may begin to scale back investment and hiring plans and consumers may tighten their belts and decrease discretionary spending. Given that business fixed investment and consumer spending were the two brightest spots in the U.S. economy in 2018, measures of confidence should be watched closely in the months ahead.

- **Negotiated settlement with China?** In late February President Trump announced a delay in the implementation of new tariffs on Chinese imports coming into the U.S. This delay, which was purportedly due to the two sides nearing an agreement, calmed financial markets but has not yet resulted in a deal. U.S. and Chinese negotiators remain at odds on key issues such as forced technology transfers, intellectual property theft, and subsidies to state-owned-enterprises. China appears unwilling to enact these fundamental changes, which U.S. negotiators continue to insist must be included in any deal. Meanwhile, recent negotiations between the U.S. and North Korea have been unsuccessful, causing Chinese negotiators to worry about the potential for a failed summit between Presidents Xi and Trump. On a more optimistic note, both sides have strong political and economic incentives to reach a deal, and any negotiated agreement would be a welcome reprieve for export markets that have been suffering under the weight of punitive tariffs. Talks between the two countries are likely to continue and should be closely monitored by equipment industry leaders.

Projections for Key Economic Indicators

Indicator	2017	2018	2019 Quarterly Estimates				2019e
			Q1e	Q2e	Q3e	Q4e	
Real GDP (SAAR %)	2.2%	2.9%	1.5%	2.3%	1.7%	1.4%	2.2%
Real Investment in Equipment & Software (SAAR %)	6.9%	8.1%	3.6%	4.1%	2.7%	2.1%	4.5%
Inflation (year-on-year %)	2.1%	2.4%	1.5%	1.5%	1.7%	1.9%	1.7%
Federal Funds Target Rate (upper bound, end of period)	1.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%
10-year Treasury Rate (end of period)	2.40%	2.70%	2.46%	2.50%	2.40%	2.30%	2.30%
Total Payroll Growth (in thousands)	+2,153	+2,679	+541	+525	+450	+425	+1941

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.

QUARTERLY DATA

Indicator	2016	2017				2018			
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Real Gross Domestic Product (SAAR %)									
GDP	1.8%	1.8%	3.0%	2.8%	2.3%	2.2%	4.2%	3.4%	2.2%
Consumer Spending	2.6%	1.8%	2.9%	2.2%	3.9%	0.5%	3.8%	3.5%	2.5%
Gross Private Fixed Investment	8.1%	4.9%	5.7%	8.8%	0.8%	9.6%	-0.5%	15.2%	3.7%
Inv: Equipment & Software	2.4%	9.7%	10.5%	10.1%	6.7%	10.9%	6.5%	4.8%	7.4%
Inv: Agricultural Machinery	-4.4%	0.6%	24.6%	24.5%	34.1%	1.2%	32.9%	-5.9%	26.9%
Inv: Construction Machinery	11.1%	18.3%	16.8%	10.3%	18.8%	20.5%	7.3%	4.7%	-0.9%
Inv: Materials Handling Equipment	3.4%	7.5%	8.4%	3.7%	6.1%	9.5%	1.0%	7.2%	0.6%
Inv: All Other Industrial Equipment	6.7%	5.0%	16.5%	8.9%	4.7%	5.3%	-5.4%	10.8%	8.3%
Inv: Medical Equipment	7.7%	12.8%	8.1%	14.8%	15.4%	5.1%	6.2%	11.4%	2.4%
Inv: Mining & Oilfield Machinery	-23.9%	104.4%	39.4%	37.1%	3.5%	-35.7%	24.1%	-22.5%	-15.5%
Inv: Aircraft	-23.6%	71.6%	-8.1%	46.5%	-39.6%	76.9%	-8.8%	-19.0%	58.9%
Inv: Ships & Boats	21.5%	10.6%	-1.9%	7.9%	18.9%	-20.1%	-33.7%	51.7%	-5.9%
Inv: Railroad Equipment	-26.3%	3.0%	-18.2%	3.4%	25.7%	0.1%	-22.9%	-16.4%	3.4%
Inv: Trucks	-0.2%	-5.9%	-1.2%	5.3%	27.0%	11.9%	14.1%	9.4%	6.7%
Inv: Computers	12.3%	11.5%	29.4%	14.1%	-15.3%	28.7%	15.6%	-2.3%	-15.1%
Inv: Software	7.5%	11.7%	13.1%	11.3%	-2.6%	18.6%	12.5%	9.1%	9.9%
Credit Conditions									
Nonfinancial Sector Debt (% of SAAR GDP)	68.7%	68.7%	69.1%	68.6%	69.1%	69.4%	69.2%	69.1%	69.1%
Loan Delinquency Rate	1.6%	1.5%	1.3%	1.3%	1.2%	1.1%	1.1%	1.0%	0.9%
Lease Delinquency Rate	1.1%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Net Tightening of C&I Loan Standards	1.5%	1.4%	-2.8%	-3.9%	-8.5%	-10.0%	-11.3%	-15.9%	-15.9%

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.

MONTHLY DATA

Indicator	2018										2019		
	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Employment													
Change in Total Payrolls (thousands)	182	196	270	262	178	282	108	277	196	227	311	20	196
Change in Private Payrolls (thousands)	173	184	264	236	173	246	108	285	200	224	308	25	182
Unemployment Rate	4.0%	3.9%	3.8%	4.0%	3.9%	3.8%	3.7%	3.8%	3.7%	3.9%	4.0%	3.8%	3.8
Business Activity													
Industrial Production	106.4	107.7	106.8	107.4	107.9	108.8	109.1	109.2	109.8	109.9	109.5	109.7	-
Capacity Utilization	77.5%	78.2%	77.5%	77.8%	78.0%	78.5%	78.5%	78.5%	78.8%	78.7%	78.3%	78.2%	-
PMI Composite Index	59.3	57.9	58.7	60.0	58.4	60.8	59.5	57.5	58.8	54.3	56.6	54.2	55.3
NFIB Small Business Optimism Index	104.7	104.8	107.8	107.2	107.9	108.8	107.9	107.4	104.8	104.4	101.2	101.7	-
Consumer Activity													
Consumer Confidence	127.0	125.6	128.8	127.1	127.9	134.7	135.3	137.9	136.4	126.6	121.7	131.4	124.1
Personal Consumption (M/M % Chg)	0.6%	0.3%	0.3%	0.3%	0.3%	0.3%	0.0%	0.5%	0.5%	-0.6%	-	-	-
Retail Sales (M/M % Chg)	0.7%	0.3%	1.2%	0.2%	0.6%	-0.1%	-0.2%	1.0%	0.0%	-1.6%	0.2%	-	-
Lending Activity													
C&I Loans (M/M % Chg)	0.8%	2.0%	0.1%	0.8%	0.8%	0.0%	0.2%	0.9%	1.4%	1.6%	1.0%	0.3%	-
MLFI-25 New Business Volume (Bil.$)	9.10	7.90	7.70	9.10	8.20	8.90	8.50	8.90	8.00	12.70	7.20	-	-
MLFI-25 Avg Losses as a % of Net Rec.	0.51%	0.30%	0.31%	0.33%	0.31%	0.29%	0.40%	0.37%	0.37%	0.55%	0.35%	-	-
MLFI-25 Credit Approval Ratio	75.2%	76.2%	76.8%	75.8%	76.2%	76.4%	75.7%	76.5%	77.2%	77.9%	76.1%	-	-
Interest Rates (% avg of period)													
Fed Funds Target Rate (Lower Bound)	1.50	1.50	1.50	1.75	1.75	1.75	2.00	2.00	2.00	2.25	2.25	2.25	2.25
1-Year Treasury Rate	2.06	2.15	2.27	2.33	2.39	2.45	2.56	2.65	2.70	2.66	2.58	2.55	2.49
3-Year Treasury Rate	2.42	2.52	2.66	2.65	2.70	2.71	2.84	2.94	2.91	2.67	2.52	2.48	2.37
10-Year Treasury Rate	2.84	2.87	2.98	2.91	2.89	2.89	3.00	3.15	3.12	2.83	2.71	2.68	2.57
30-Year Treasury Rate	3.09	3.07	3.13	3.05	3.01	3.04	3.15	3.34	3.36	3.10	3.04	3.02	2.98
AAA Corporate Bond Yield	3.87	3.85	4.00	3.96	3.87	3.89	3.98	4.14	4.22	4.02	3.93	3.79	3.77
BAA Corporate Bond Yield	4.64	4.67	4.83	4.84	4.79	4.77	4.88	5.07	5.22	5.13	5.12	4.95	4.84
Prices													
Headline Inflation (Y/Y % Chg)	2.4	2.5	2.8	2.9	2.9	2.7	2.3	2.5	2.2	1.9	1.6	1.5	-
Core Inflation (Y/Y % Chg)	2.1	2.1	2.2	2.3	2.4	2.2	2.2	2.1	2.2	2.2	2.2	2.1	-
Oil Price (West Texas Int., $/barrel)	64.87	68.56	66.98	74.13	69.88	69.84	73.16	65.31	50.78	45.15	53.84	57.21	60.19

ABOUT THE OUTLOOK

The Equipment Leasing & Finance Foundation (the Foundation) recognizes that with the wide variety and increasing complexity of economic data available to the public, the best way to utilize key equipment investment data is to have it all in one place, where business leaders can access it easily and quickly, thus assisting them in making the best business decisions.

The Foundation partnered with Keybridge LLC to produce this economic outlook, highlighting key trends in equipment investment and placing them in the context of the broader U.S. economic climate. The outlook report also includes an analysis of domestic capital spending as well as an evaluation of how capital spending is affected by various related and exogenous factors, both currently and in the foreseeable future. Additionally, the outlook includes custom leading indicators for 12 equipment and software verticals. The Foundation-Keybridge U.S. Equipment & Software Investment Momentum Monitor, described below, is published monthly.

This Q2 report is the first update to the 2019 Annual Outlook, and two more quarterly updates will follow in July and October. This research was guided by a steering committee of dedicated industry volunteers who gave their time and expertise by providing comments and suggestions throughout the development of the report.

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 3-6 month lead time.

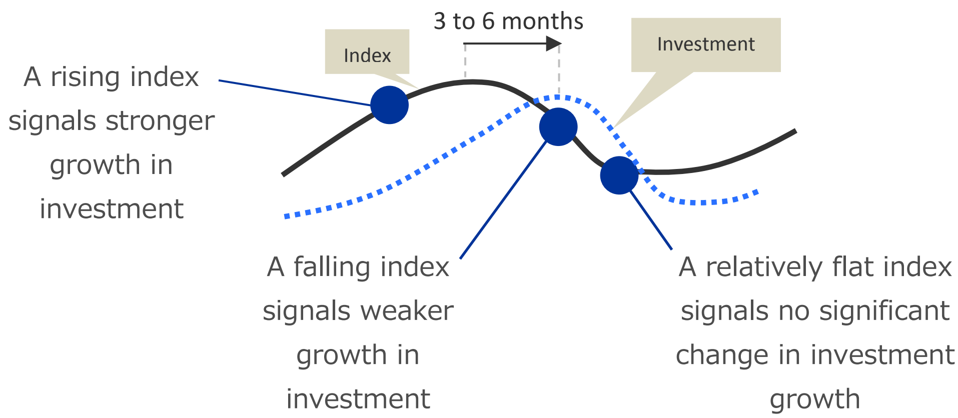
The Momentum Monitor is based on Keybridge's extensive research which shows that not all movements in economic data are reliable signals of future economic trends. Keybridge has operationalized its research by constructing indices, each comprised of 15–20 high-frequency indicators. These indicators undergo 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

Each Momentum Monitor index provides a signal of the direction and magnitude of growth in equipment investment over the next 3 to 6 months. It is important to note that index values do not correspond to particular growth rates. Instead, the Momentum Monitor indices should be interpreted within the context of prior index readings and investment growth rates. For example, there are several simple rules to follow when examining the latest index values:

1. A rising index signals that growth in investment will accelerate from the current rate;
2. A falling index signals that growth in investment will decelerate from the current rate; and
3. No change in the index signals no meaningful change from the current growth rate.

Momentum Monitor Signals



To help the reader interpret the latest Momentum Monitor signals, a summary report for each equipment vertical follows a specific outline:

Materials Handling Equipment:
1 Investment in Materials Handling Machinery inched up at a 0.3% annualized rate in Q4 2014 and is up 7.3% year-over-year. 2 The Materials Handling Momentum Index slipped from 93.5 in February to 92.5 in March. 3 A 23% decline in the MNI-Chicago Business Barometer and a spike in Economic Policy Uncertainty offset gains in Machinery Sales, Manufacturing Sales, and the ISM Manufacturing Suppliers Deliveries Index. 4 The Index's recent trend continues to indicate that growth may moderate over the next three to six months.

1 The first sentence reports the latest growth rate for investment in a given vertical. This provides a context for interpreting the order of magnitude of growth over the next 3 to 6 months.

2 The second sentence explains the latest movement in the index, indicating whether momentum is accelerating or decelerating.

3 The report then describes the specific indicators driving the latest index value. This allows readers to understand the key drivers of the outlook.

4 Finally, the report ends with an interpretation of where investment growth is heading over the next 3 to 6 months.

ABOUT KEYBRIDGE

Keybridge is a public policy economics consulting firm. Keybridge provides analytical support and strategic advice to a select clientele that includes Fortune 500 companies, global financial firms, G-7 governments, premier industry associations, and non-profit organizations. Keybridge's experience and expertise make it uniquely suited to assist organizations that frequently operate at the interface of business, economics, and public policy.

Founded in 2001, Keybridge's mission is to provide balanced, credible, and timely technical analysis and strategic insights that inform business decisions and drive public policy debates. Our dedication to the principles of sound analysis, clear communication, and unmatched client service guide our work and serve as the foundation of our success.

Keybridge's senior staff is comprised of experts with distinguished academic credentials and extensive experience in the areas of economics and public policy. On a day-to-day basis, Keybridge principals work closely with clients to develop strategy and conduct timely analysis. For longer-term projects and highly specialized topics, the firm leverages its network of advisers — including world-class experts in the fields of econometrics, energy, and finance — to build project teams tailored to clients' unique needs.

Keybridge provides clients with access to a full suite of analytical services, including macroeconomic risk assessments, econometric modeling studies, policy impact studies, qualitative policy evaluations, and survey design and analysis. For clients requiring regular consultations, Keybridge offers on-going strategic advisory services in the areas of macroeconomic trends and risks, international trade and finance, and energy and environmental economics. Keybridge also assembles and manages inter-disciplinary teams of experts to conduct thought leadership projects to assist clients with building competitive advantages or reforming policy debates through the development, sharing, and application of innovative ideas. Keybridge's principals are regularly asked to present research and share insights with economic, financial, and policy audiences around the world, including corporate strategic planning committees, congressional committees, and international conferences.

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