Q3 Update — July

2018 Equipment Leasing & Finance U.S. Economic Outlook

EQUIPMENT LEASING & FINANCE
FOUNDATION
Your Eye on the Future

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SUMMARY

Equipment & Software Investment Outlook: Equipment and software investment expanded at a healthy pace in Q1 2018 and is expected to maintain solid momentum throughout 2018. An exceptionally strong labor market and sustained growth in business investment will offer boosts to the economy, though trade policy threats, if realized, could take some wind out of the economy's sails. Overall, investment in the majority of equipment verticals should remain solid in 2018. Over the next three to six months:

- Agricultural Machinery investment growth will likely slow;
- Construction Machinery investment growth should hold steady, though investment growth may peak later this year;
- Materials Handling Equipment investment should continue to grow at a moderate pace;
- All Other Industrial Equipment investment growth has likely peaked and may decelerate;
- Medical Equipment investment growth has likely peaked and may decelerate;
- Mining & Oilfield Machinery investment growth may strengthen;
- Aircraft investment growth is unlikely to worsen and may improve;
- Ships & Boats investment growth is expected to increase;
- Railroad Equipment investment growth should remain steady;
- Trucks investment growth may soften;
- Computers investment growth should remain solid; and
- Software investment growth should remain stable.

U.S. Capital Investment & Credit Markets: Capital spending has been solid thus far in 2018, and strengthening economic momentum coupled with elevated business confidence levels should lead to continued investment during the third and fourth quarters. Credit market conditions remain generally healthy, though credit demand has weakened somewhat and may decline further if federal interest rates continue to rise. Credit supply conditions are mixed, as banks are easing standards for C&I and commercial real estate loans while tightening standards for household lending. Financial stress remains low.

Overview of the U.S. Economy: The U.S. economy is on firm footing in 2018, as most major GDP components are contributing positively to growth, with the notable exception of housing. The labor market should maintain its strength and drive improvements in consumer spending (which fell far short of expectations in Q1), while business investment should continue to impress. Solid economic fundamentals suggest the economy could finally reach the elusive 3% annual growth target in 2018, but a stagnant housing market, potential softening in global growth (particularly in emerging markets), and continued upheaval in U.S. trade policy are areas of concern. Trade policy should be watched closely: a handful of industry-specific trade skirmishes with China are unlikely to derail the economy to a significant extent, but a tit-for-tat global trade war involving Canada, Mexico, and the European Union would have major implications for all U.S. industries, including equipment finance.

Bottom Line for the Equipment Finance Sector: Equipment and software investment should remain strong for the remainder of the year after posting healthy gains in each of the last five quarters, and new business volume growth should follow suit. Business and consumer confidence remain elevated, the labor market is strong and getting stronger, and the global economy continues to expand. Overall, we expect the economy to grow 2.8% in 2018 (up from 2.7% in our previous outlook), while we project that equipment and software investment will expand 7.0% (down from 8.5% in our previous outlook).

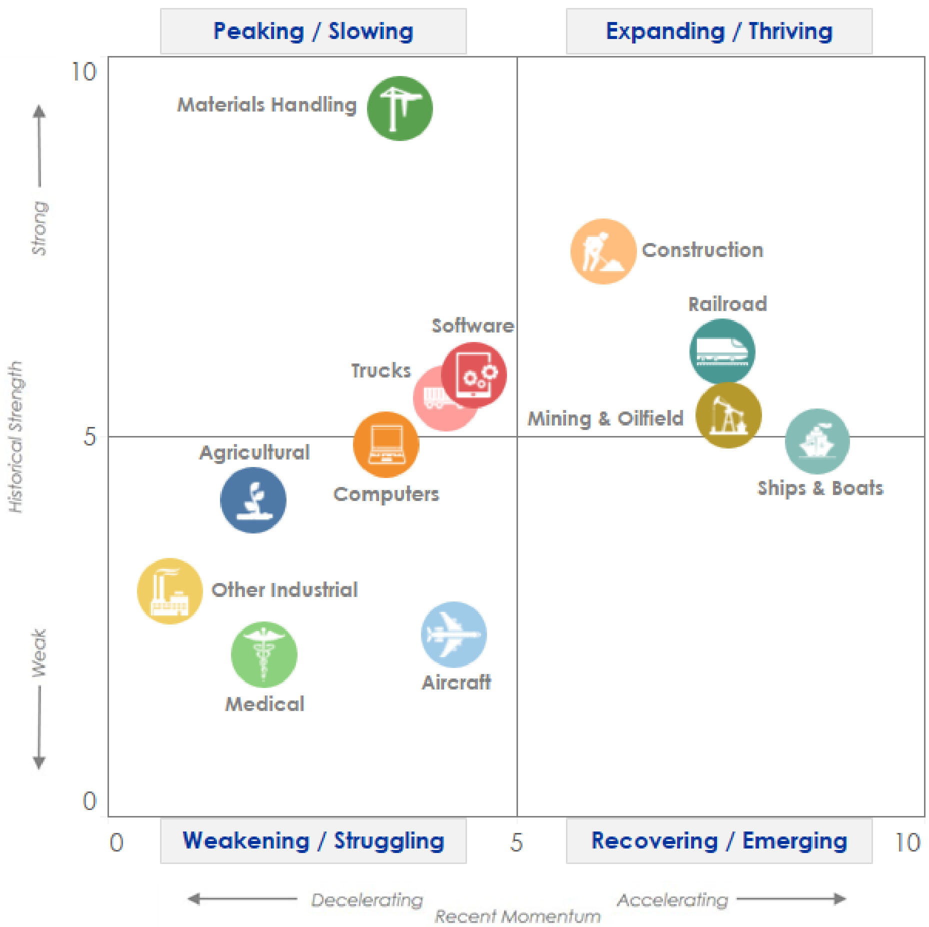
EQUIPMENT & SOFTWARE INVESTMENT OUTLOOK

We expect equipment and software investment to expand by 7.0% in 2018, which would mark the strongest annual growth since 2012. Solid growth in Q1 should propel investment for the rest of the year, though certain industries appear to be peaking and may begin to see growth wane. As illustrated in the Momentum Monitor Sector Matrix below, momentum readings are at or above the long-term historical average (y-axis) in 6 of 12 verticals, and recent momentum (x-axis) accelerated in 4 of 12 verticals.

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

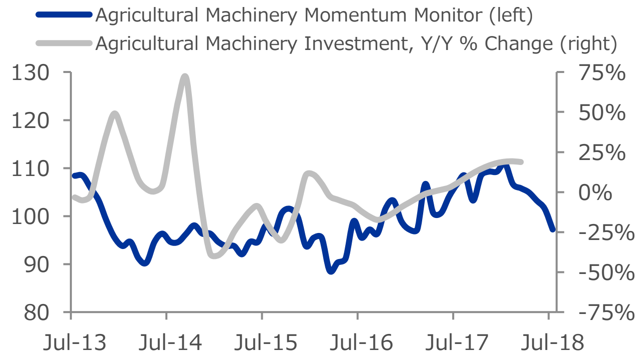


The matrix above summarizes the current values of each of the 12 Equipment & Software Investment Momentum Indices based on two factors: Recent Momentum (x-axis) and Historical Strength (y-axis):

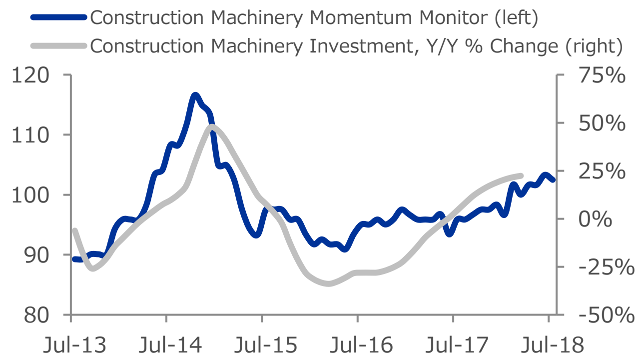
- “Recent Momentum" indicates a vertical’s recent acceleration or deceleration in the past month relative to its average movement during the previous 3 months. Ratings closer to "0" indicate rapid deceleration, while ratings near “10” represent rapid acceleration.
- "Historical Strength" reflects a vertical’s 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 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 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.

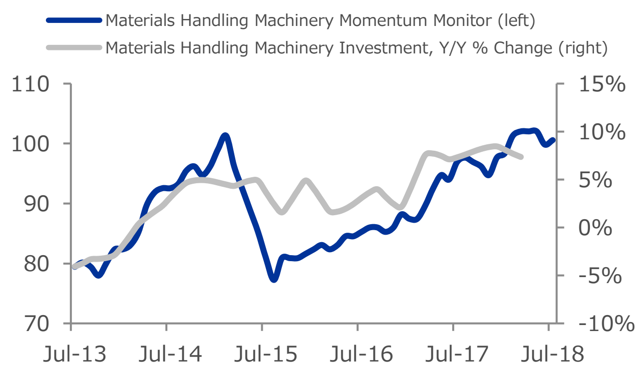
Agricultural Machinery: Investment in Agricultural Machinery edged down 1.7% (annualized) in Q1 2018 but is up 19% from one year ago. The Agriculture Momentum Index fell sharply from 101.5 (revised) in June to 97.2 in July. In May, Capacity Utilization for Beverage & Tobacco dropped 0.4% while M1 also slipped. Overall, the Index suggests that agricultural machinery investment growth will soften over the next three to six months.



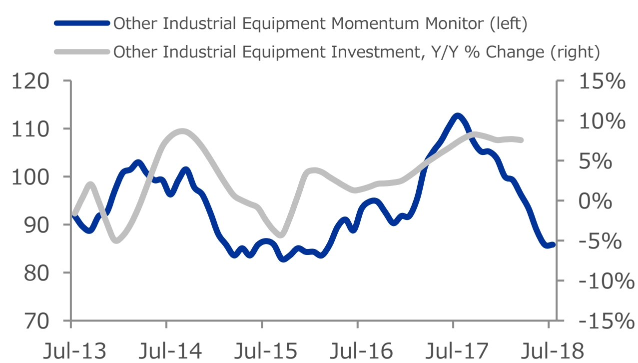
Construction Machinery: Investment in Construction Machinery expanded at a 30% annual rate in Q1 2018 and is up 22% year-over-year. The Construction Momentum Index fell slightly from 103.3 (revised) in June to 102.5 in July. New Privately-Owned Homes Completed jumped 14% in May and Existing Homes for Sale rose 2.8%, its fifth consecutive increase. Overall, the Index suggests that construction machinery investment growth will remain steady over the next two quarters, though there are warning signs on the horizon that investment growth may peak later this year.



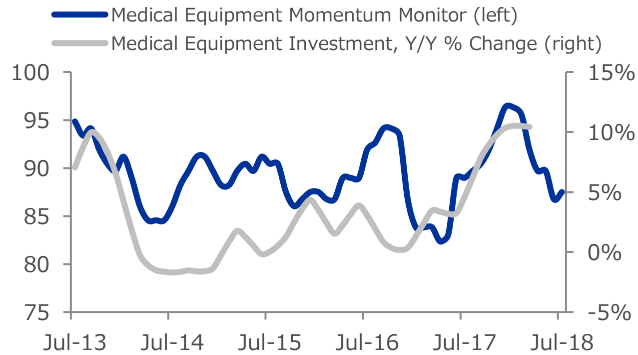
Materials Handling Equipment: Investment in Materials Handling Equipment increased at a 9.4% annual rate in Q1 2018 and is up 7.4% year-over-year. The Materials Handling Momentum Index ticked up from 99.8 (revised) in June to 100.6 in July. Exports of Materials Handling Equipment increased 4.8% in April, while Inventories of Materials Handling Equipment edged up 1.0% in May. Overall, the Index continues to suggest steady growth in materials handling equipment investment over the next three to six months.



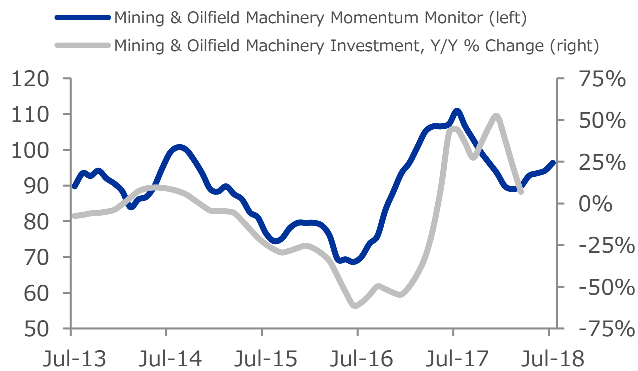
Other Industrial Equipment: Investment in All Other Industrial Equipment rose at a 4.3% annual rate in Q1 2018 and is up 7.6% from a year ago. The Other Industrial Equipment Momentum Index held steady at 85.8 from June (revised) to July. Inventories of Machinery slipped 0.6% in May, and the Other Important Trading Partners Nominal FX Index increased 1.8% in June. Overall, the Index continues to suggest that investment growth in other industrial equipment has peaked, and slower growth is likely over the next three to six months.



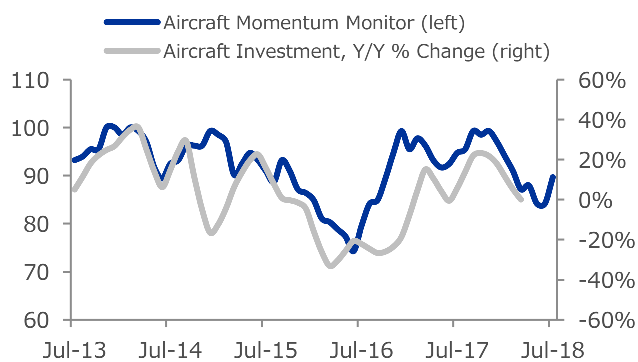
Medical Equipment: Investment in Medical Equipment expanded at a 3.9% annual rate in Q1 2018 and is up 10% year-over-year. The Medical Equipment Momentum Index edged up from 86.8 (revised) in June to 87.5 in July. Johnson & Johnson's Market Cap rose 1.4% in June, its first increase in six months, but Cardinal Health's Market Cap dropped 6.3%. Overall, despite a slight uptick this month, the Index suggests that medical equipment investment growth appears to have peaked in the first quarter and may decelerate over the next six months.



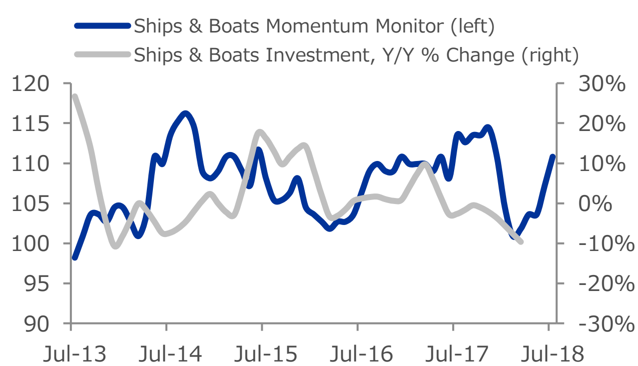
Mining & Oilfield Machinery: Investment in Mining & Oilfield Machinery decreased at a 36% annual rate in Q1 2018, but is up 6.9% year-over-year. The Mining & Oilfield Machinery Momentum Index increased from 94.2 (revised) in June to 96.4 in July. Industrial Production for Support Activities for Mining & Drilling rose 3.9% in May, while Cooling Degree Days jumped 88% in June. Overall, the Index continues to suggest that growth in mining & oilfield machinery investment may improve over the next three to six months.



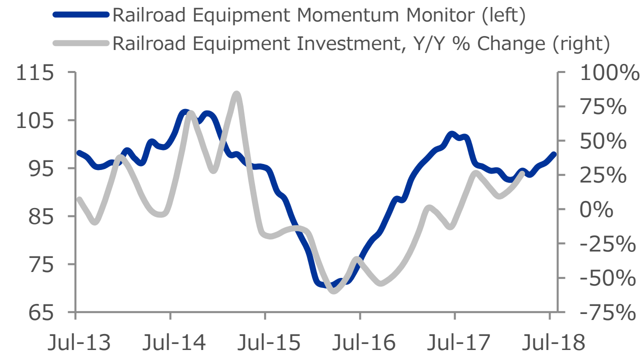
Aircraft: Investment in Aircraft fell 7.0% (annualized) in Q1 2018 and is essentially flat on a year-over-year basis. The Aircraft Momentum Index jumped from 84.2 (revised) in June to 89.7 in July. Shipments of Non-Defense Aircraft & Parts surged 23% in May, its strongest growth since January 2016, while Industrial Production for Aircraft & Parts rose 1.3%. Overall, the index indicates that aircraft investment growth could improve modestly over the next two quarters.



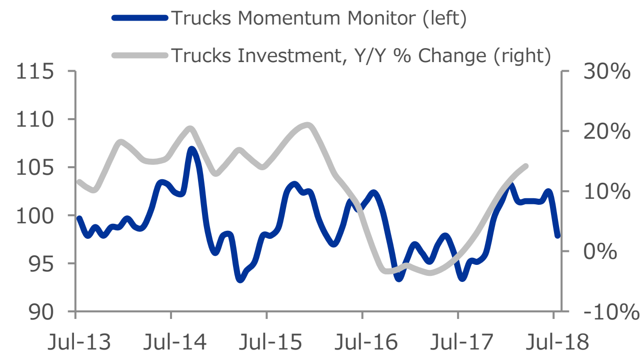
Ships & Boats: Investment in Ships & Boats declined at an annual rate of 26% in Q1 2018 and is down nearly 10% year-over-year. The Ships & Boats Momentum Index increased from 107.2 (revised) in June to 110.8 in July. Inventories of Ships & Boats edged up 0.5% in May, while the Major Currencies Nominal FX Index rose 0.8% in June. Overall, the Index suggests that investment growth in ships and boats will likely strengthen over the next three to six months.



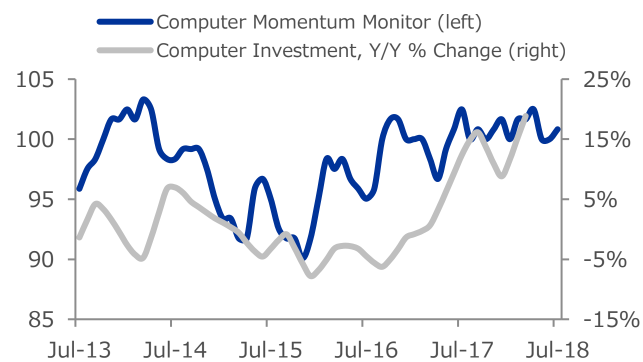
Railroad Equipment: Investment in Railroad Equipment surged at a 58% annual rate in Q1 2018 and is up 26% year-over-year. The Railroad Equipment Momentum Index rose from 96.1 (revised) in June to 97.8 in July. Industrial Production for Mining rose 1.8% in May, its fourth straight increase, and Crude Oil & Petroleum Product Exports expanded 6.3% in June. Overall, the Index suggests steady growth in railroad equipment investment over the next two quarters.



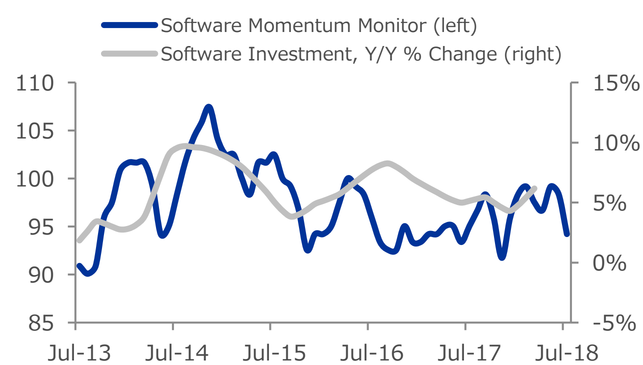
Trucks: Investment in Trucks rose at an 11% annual rate in Q1 2018 and is up 14% from year-ago levels. The Trucks Momentum Index declined sharply from 102.4 (revised) in June to 97.9 in July. In May, Shipments of Primary Metals fell 0.4%, and Capacity Utilization for Automobiles & Light Duty Motor Vehicles declined 10%. Overall, the Index points to a potential softening in in trucks investment over the next three to six months.



Computers: Investment in Computers increased at an annual rate of 47% in Q1 2018 and is up 19% year-over-year. The Computers Momentum Index edged up from 100.0 (revised) in June to 100.8 in July. Defense Communication Equipment Shipments fell 6.5% in May, but Inventories of Computers & Electronic Products rose 1.3%. Overall, the Index suggests that investment growth in computers should remain solid over the next two quarters.



Software: Investment in Software rose at a 12% annual rate in Q1 2018 and is up 6.2% year-over-year. The Software Momentum Index moderated from 98.3 in June to 94.2 in July. Business Construction Spending increased 1.4% in May, but the Consumer Price Index for Computer Software & Accessories edged down 1.2% Overall, the Index points to stable growth in software investment 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	6.1%	18.8%	5 to 12%
Construction Machinery	-1.7%	22.3%	12 to 20%
Materials Handling Equipment	2.1%	7.4%	6 to 12%
Other Industrial Equipment	1.4%	7.6%	-3 to 4%
Medical Equipment	2.2%	10.4%	2 to 8%
Mining & Oilfield Equipment	-3.5%	6.9%	8 to 18%
Aircraft	-1.9%	0.1%	2 to 10%
Ships & Boats	-2.5%	-9.6%	-2 to 7%
Railroad Equipment	4.7%	25.8%	10 to 20%
Trucks	6.9%	14.2%	4 to 10%
Computers	2.2%	18.9%	8 to 14%
Software	4.4%	6.2%	4 to 8%

Source: Macrobond Financial, Keybridge (forecasts)

U.S. CAPITAL INVESTMENT AND CREDIT MARKETS

Capital spending remains on solid footing thus far in 2018, and equipment and software investment appears poised for sustained growth as heightened business confidence and a healthy investment climate offer a boost to the equipment finance industry. Despite somewhat weaker credit demand, credit market conditions are generally healthy. Supply saw little change from last quarter, and financial stress declined.

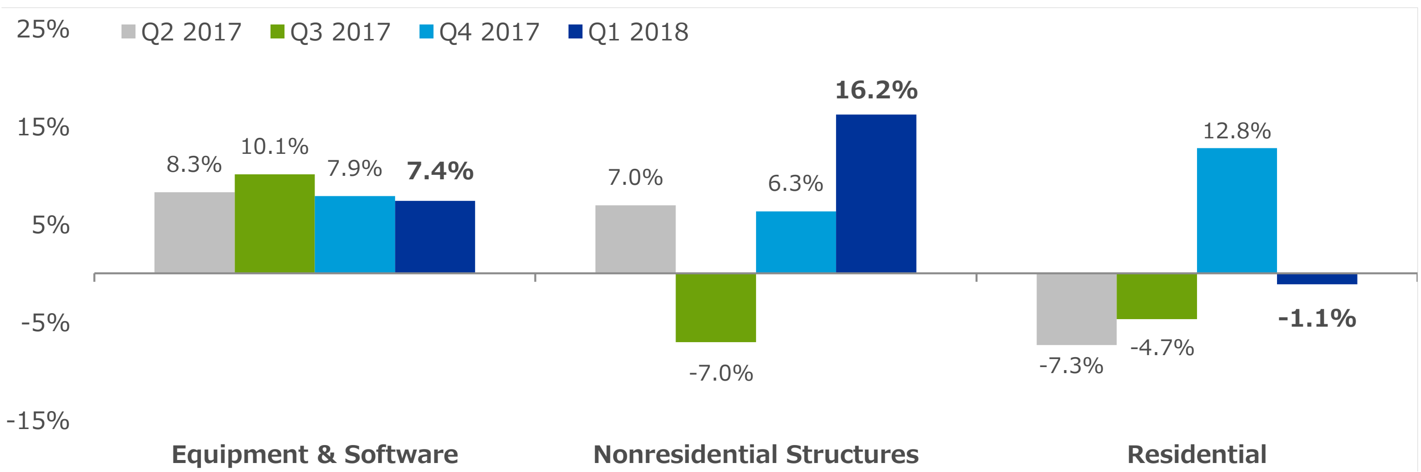
Overall, we expect equipment and software investment to expand by 7.0% in 2018, which would mark the strongest annual growth rate in six years. We also anticipate that elevated confidence levels and strong fundamentals in the U.S. economy will continue to put upward pressure on inflation, leading the Federal Reserve to lift its benchmark interest rate twice more in 2018, for a total of four rate hikes over the year.

Recent Trends in U.S. Capital Investment

Although growth slowed slightly from Q4, equipment and software investment expanded at a healthy 7.4% annualized rate in Q1. Nonresidential structures surged at a 16% annualized rate in Q1, its strongest pace in four years. Meanwhile, residential investment declined at a 1.1% pace after expanding sharply in the previous quarter.

Investment Growth Rates

Quarter-on-Quarter, Seasonally Adjusted Annualized Growth Rate



Source: Macrobond Financial

- **Equipment Leasing and Financing:** New business volume growth has been solid throughout the first half of 2018, reflecting sound fundamentals in the U.S. economy. Although the ELFA Monthly Leasing and Finance Index ("MLFI-25") was flat in April compared to a year ago, year-to-date growth is up 9%. However, 30-day delinquencies jumped seven tenths of a percent to 2.4% in April, the highest level since June 2012, likely reflecting the combination of a maturing business cycle, increased risk-taking among lenders, and rising interest rates. Meanwhile, charge-offs fell to 0.30% in April after a jump in March, but may rise later this year if delinquencies continue to climb.

  The Foundation's Monthly Confidence Index for the Equipment Finance Industry ("MCI-EFI") rose 1.6 points to 66.2 in June, its first increase since peaking in January after the passage of tax reform legislation. Nearly 40% of industry executives rated the current U.S. economy as "excellent," and one in three executives believe that U.S. economic conditions will improve over the next four months. Executives also noted that planned interest rate hikes have pushed customers to pull forward planned investments before financing costs increase, which has increased short-term demand.

Looking ahead, we expect positive momentum in the industry to persist throughout the remainder of 2018. However, the tit-for-tat trade spat with traditional allies and China could pose a major headwind to economic growth in the medium term if a full-blown trade war breaks out.

- **Equipment Verticals:** Equipment and software investment sustained healthy growth in the first quarter of 2018. Of the 12 equipment verticals tracked by the Foundation, eight experienced positive annualized growth, and five posted double-digit gains, including Railroad Equipment (+58%), Computers (+47%), Construction Machinery (+30%), Software (+12%), and Trucks (+11%). Four equipment verticals saw declines in investment growth, including Mining & Oilfield Equipment (-36%) and Ships & Boats (-26%).

  During the second half of the year, we expect the majority of equipment verticals to continue posting solid investment gains, though growth may begin to wane in certain industries, including medical equipment, other industrial equipment, and agricultural machinery.

- **Other Factors:** Recent industrial sector data continue to paint a picture of generally strong health. Industrial production edged down one-tenth of a point to 107.3 in May after reaching an all-time high in April. Similarly, capacity utilization moderated slightly to 77.9% in May but remains near post-recession highs, indicating sustained momentum in the industrial economy. The ISM Purchasing Managers' Index (PMI), a key indicator of growth in the manufacturing sector, rose from 58.7 in May to 60.2 in June and is now in the top 15% of historical readings. However, shipments of durable goods (a leading indicator of same-quarter business activity) were flat in April and May after rising for eight consecutive months, while new orders of durable goods (a leading indicator of next-quarter business activity) edged down 0.4% in May. Furthermore, the Fed's major currencies nominal FX index has increased consistently since mid-April and reached 90.6 in late June, its highest level in a year. A strengthening U.S. dollar threatens to stifle industrial and manufacturing activity by making U.S. goods and services more expensive on the world market and decreasing demand for U.S. exports. The dollar will likely continue to strengthen if trade tensions persist or escalate.

Recent Trends in Credit Markets

Credit market conditions are generally healthy. Supply of credit has largely held steady, though increased competition has pushed some lenders to ease credit standards in an effort to capture more business. Credit demand weakened slightly across most loan types, potentially reflecting a shift away from credit as rising federal interest rates push financing costs up. However, financial stress remains muted and continues to signal solid portfolio performance.

Summary of Credit Conditions

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

- **Credit Supply & Pricing:** Credit supply conditions were mixed in the first quarter of 2018. The April Fed Loan Officer Survey indicates that banks eased standards for commercial and industrial ("C&I") loans, while standards for commercial real estate ("CRE") loans loosened for nonfarm nonresidential loans but tightened for multifamily loans. On balance, standards for loans to households generally tightened, particularly for auto and credit card loans, though standards were unchanged for most categories of residential real estate ("RRE") loans. In a special question, banks reported easing important lending terms across all major categories of CRE loans largely due to increased competition from other lenders. This could portend a rise in delinquencies and defaults in the months ahead.

- **Credit Demand:** Credit demand decreased across the board in the first quarter. Banks reported weaker demand for C&I loans from large and mid-sized firms in the April Fed Loan Officer Survey, as well as a modest softening in demand for C&I loans from small firms. Likewise, demand for CRE loans fell, particularly among loans secured by multifamily residential properties. Demand for most types of consumer loans moderated as well, including credit card loans, auto loans, and some RRE loans.

  Data on consumer loan growth generally support the picture of weakening demand. Growth in deposits and loans to consumers fell from 9.6% (annualized) in November to just 2.9% (annualized) in April, the second-slowest growth rate in nearly seven years. The deceleration in consumer credit largely reflects a slowdown in non-revolving credit (e.g., student loans, car loans). However, measures of consumer confidence remain elevated, suggesting that consumer spending will likely remain solid in the coming months (though rising interest rates may shift consumer financing from credit to debit or cash, further dampening credit demand).

  In contrast to consumer lending, data on growth in business lending do not appear to support a story of softening demand. C&I loans have strengthened after a lull in late 2017, rising from 0.5% annual growth in November 2017 to 4.6% in May 2018. Similarly, the Thomson Reuters / PayNet Small Business Lending Index ("SBLI") has climbed fairly consistently since October 2017 and reached a new series high in the most recent reading. Furthermore, measures of business confidence remain strong across all sizes of firms. While the data appear to show a potential pick-up in demand for business lending in coming months, recently-proposed tariffs have injected uncertainty into markets and could inhibit some business investment moving forward.

- **Financial Stress:** Despite recent increases in federal interest rates, financial health remained solid over the last quarter. The Kansas City Fed Financial Stress Index fell from -0.37 in April to -0.54 in May, signaling low levels of financial stress. Similarly, the St. Louis Fed Financial Stress Index fell to -1.1 in late June after climbing to -0.9 in early April. Lease delinquencies declined to 0.95% in the first quarter (the lowest level in two years), while loan delinquencies decreased for the seventh straight quarter to 1.1%.

- **Other Factors:** Ten-year Treasury yields oscillated throughout the second quarter. After starting the quarter at 2.73%, yields briefly crossed 3% in late April for the first time since early 2014. Since that time, Treasuries fell to 2.77% in late May before bouncing back to 2.85% at the end of June. These fluctuations are largely a function of the push and pull between strong economic data and fears of an all-out trade war. Specifically, while nascent inflationary pressures and increases in the federal funds rate put upward pressure on yields, proposed tariffs on imports from key trading partners have driven many investors to shift toward U.S bonds as a safer investment, pushing yields down.

Update on Fed Policy

Consistent with expectations, the Federal Reserve raised its benchmark interest rate by 25 basis points in June, the second increase this year. As we predicted in our original 2018 annual outlook published in late 2017, concern that an overheating economy will yield stronger inflationary pressures has led Fed officials to raise rates more quickly expected in 2018, and many market-watchers now agree with our position that the Fed will raise rates a total of four times in 2018 (bringing the upper bound to 2.50% by the end of the year). Though we continue to project four rate increases this year, we acknowledge the possibility that strong economic momentum and sustained hiring amid an already tight labor market will elevate inflationary pressures and lead the Fed to raise rates even faster. For more information on why interest rates may rise faster than some anticipate — and how a rising inflation and interest rate environment is likely to affect the equipment finance industry — see the Foundation's new report entitled "On the Rise: How Inflationary Pressures and Rising Interest Rates Could Impact the Equipment Finance Industry."

OVERVIEW OF THE U.S. ECONOMY

Overall economic conditions for the U.S. economy are strong. Business investment, which emerged as the leading sector of the U.S. economy in late 2017, continues to expand at a robust pace, although growth may slow somewhat during the second half of the year. Consumer spending disappointed in the first quarter but appears likely to strengthen in mid-2018, supported by a historically strong labor market and steady (though not yet robust) wage gains. Both government spending and net exports should contribute positively to GDP growth after serving as headwinds in recent years, but the housing sector appears to have stagnated. Overall, 2018 is likely to be a strong year for the U.S. economy — potentially the best year since before the 2008-09 recession.

Weighing on this otherwise optimistic story is the continued uncertainty surrounding U.S. trade policy and the potential for tit-for-tat retaliatory measures from U.S. trading partners, including China, Canada, Mexico, and the E.U. Policy actions taken so far have had significant impacts on the stock market, the U.S. metals industry, and the broader industrial economy, but have not yet inhibited economic growth. Although these effects have been mild thus far, a full-scale trade war involving tariffs on automobiles and other industries critical to several U.S. trading partners would be a game-changer and could dramatically inhibit U.S. economic growth in the near- and medium-term.

Overall, we project the U.S. economy to grow 2.8% in 2018 — up one tenth from our last forecast, and well above last year's 2.3% growth rate.

Recent Trends in the U.S. Economy

The U.S. economy has experienced strong economic growth in the first half of 2018, and sound fundamentals should result in continued solid growth for the next two quarters. With the exception of housing, no major GDP component is likely to hold back growth over the remainder of the year. The outlook for business investment continues to benefit from historically strong business confidence, increased corporate cash flow, and a thriving energy sector. Although consumer spending — which comprises roughly two-thirds of GDP — was disappointing in the first quarter, most signs point to a resurgence in the second quarter. Government spending is likely to continue providing modest gains to GDP, and the outlook for export growth is also brightening, led by a strong oil and gas sector resurgence. However, the rising likelihood of an all-out trade war threatens to derail what is otherwise a very strong economy.

Indicator	Recent Activity
Consumption	Consumer spending grew by a relatively weak 0.9% (annualized) in Q1 2018.
Equipment & Software Investment	Equipment & software investment rose 7.4% (annualized) in Q1, marking two years of consistent growth.
Residential Investment	Residential investment dropped 1.1% (annualized).
Government Expenditures	Government expenditures increased by a robust 1.3% (annualized) in the first quarter.
Net Exports	Net exports were a slight drag on growth, as goods exports slowed to 3.4% (down from 11.6% in Q1) while service imports rose 5.9%

- **GDP:** The U.S. economy grew at a 2.0% annualized rate in the first quarter of 2018, a relative soft patch of growth that is likely to rebound in the second quarter. Growth was held back by two main factors: weak consumer spending side (personal consumption expenditures increasing by a mere 0.9% annualized, the worst quarter in five years) and a flailing housing sector (residential investment contracted at a 1.1% annual rate). On the positive side, business investment was strong in the first quarter, continuing recent trends. Equipment & software investment rose 7.4% (annualized), while investment in structures surged 16%.

- **Inflation:** Inflationary pressures appear to be building, as the combination of a strong economy, tight labor market, and rising energy prices push consumer prices higher. Headline inflation accelerated to 2.8% in May, its highest point since early 2012 and notably higher than six months ago (2.2%). Meanwhile, core inflation (which excludes volatile food and energy prices) advanced to 2.2%, the highest since February 2017. Although the U.S. economy is not yet in a stage of breakout inflation, many economists and analysts believe that underlying conditions are ripe for a notable inflation acceleration in the next six months. The Federal Reserve will keep an especially close eye on signs that its schedule to increase the federal funds rate may need to be compressed.

- **Growth Forecasts:** The *Economist* Poll of Forecasters for July estimated 2.8% GDP growth for 2018, unchanged from its June forecast, while the Wall Street Journal consensus forecasts 2.9% growth for 2018. The Federal Reserve's "central tendency" forecast from its June meeting ranged from 2.7–3.0%.

Economic Tailwinds

The labor market — already in its best condition in close to 20 years — continues to strengthen, with job gains beating expectations nearly every month this year. In addition to serving as a positive bellwether for business confidence and overall growth conditions, a strong labor market is typically a precursor of faster wage gains and stronger consumer spending. The outlook for business investment remains exceptionally strong, though investment growth may decelerate in late 2018. Meanwhile, a structural shift in the U.S. energy sector should boost export growth.

- **Persistent Labor Market Strength:** The unemployment rate fell to an 18-year low in May before inching back up to 4.0% in June. Meanwhile, job growth continues at a robust pace, averaging 215,000 monthly gains over the past six months. These encouraging data are an indication of underlying economic strength and business confidence and should put upward pressure on wage growth and consumer spending for the rest of 2018. In the near term, there is little evidence of a broad-based deterioration in labor market conditions. However, a key question that remains is whether the economy can continue to sustain such strong job growth while the unemployment rate remains near historic lows. To determine the answer, two key measures to watch are the labor force participation rate and inflation. The labor force participation fell significantly after the Great Recession due to a combination of demographic and economic factors and has hovered around 62.5% – 63% since 2014. There are signs that labor force participation is improving (particularly among "prime-age" workers age 25 – 54), suggesting that some working-age adults who were previously not working or seeking work are being drawn back into the labor force. On the other hand, if the labor force participation rate remains at current levels while inflation accelerates, it would signal that the U.S. economy has a worker shortage that will lead to higher input costs and, all else equal, weaker growth. Generally, however, the labor market remains a bright spot for the U.S. economy.

- **Robust Business Investment:** After persistent weakness in 2015 and 2016, capital expenditures have been on a tear over the last several quarters and have been an important contributor to economic growth, helping to offset weaker growth in consumer spending. Equipment and software investment, for example, expanded by 8.4% over the last four quarters, compared to an average 3.0% annual growth rate over the last ten years. All signs point to sustained investment growth in the coming months, as indicators of business confidence continue to come in strong: the National Federation of Independent Business ("NFIB") Small Business Optimism Index hit a 35-year high in May, while Business Roundtable's

CEO Economic Outlook Index, released quarterly, recently hit its third-highest reading ever. Spurred by the combination of lower tax burdens on individuals and businesses following passage of the Tax Cuts and Jobs Act last December and a broad-based cyclical upturn, businesses appear to be in expansion mode. Although a slowdown will occur eventually, things look good for the remainder of 2018.

- **Energy-Driven Export Growth:** The U.S. trade balance has been persistently negative for decades, and, taken alone, net exports of goods and services typically shave a few tenths off GDP growth each year. However, several indicators point to the possibility that this may shift in 2018:
  - One factor is the United States' imposition of tariffs (see below), which, by limiting imports, cause net exports to rise. (Importantly, the small boost to net exports imposed by tariffs is more than offset by the decline in consumption and business investment caused by higher prices on imported goods and inputs.)
  - Another factor is increasing oil and gas exports. Technological advancements following the mid-2010s "shale revolution" have allowed extractors to earn higher margins on each barrel of oil produced which, when combined with the lifting of the oil export ban in 2016, have led to surging oil exports. The trend has continued throughout 2018, with crude oil exports rising from 6.1 million barrels/day in early January to 7.6 million barrels/day in mid-June while imports have held steady. The value of these exports has also risen due to higher oil prices. Although there are headwinds that could derail this story, this development nevertheless represents a structural shift that should add positively to U.S. growth in the months and years ahead.

Economic Headwinds

The United States is on the verge of descending into a major trade conflict with key trading partners, which threatens to seriously disrupt an otherwise promising outlook for the U.S. and global economies. Although righting trade imbalances gradually would be a positive force for U.S. economic growth, a reckless approach will likely cause a variety of negative unintended consequences. Meanwhile, the housing sector faces deteriorating conditions, and the global growth outlook worsens due to rising U.S. interest rates and political risk.

- **Trade Policy Threats:** The past quarter has witnessed astounding developments on the trade policy front that could lead to widespread disruption and transform the U.S. and global economies over the short and long term. In May, the Trump administration allowed the temporary exemption from steel and aluminum tariffs to expire for Canada, Mexico, and the European Union; this act was met promptly with threats of retaliation. Meanwhile, the Trump administration imposed a wide-ranging set of measures designed to target China's economy and key industrial sectors, including tariffs on $50 billion of Chinese goods (and threats of additional tariffs on $400 billion more) as well as policies designed to limit Chinese investment in the United States. Economic modeling studies on the impact of tariffs on growth generally find that the steel and aluminum tariffs already imposed will have a small negative impact on U.S. growth. However, if our trading partners retaliate (which appears likely) — and if the United States responds with additional tariffs on other goods, including automobiles (which the Trump administration has already floated) — it would quickly magnify the decline. The prospect of automobile tariffs is particularly concerning for growth, as the automobile industry comprises a much larger share of the global economy and is a cornerstone industry for several U.S. trading partners. If President Trump carries out these threats, an all-out global trade war would be imminent.

- **Housing Stagnancy:** The housing sector continues to face several headwinds on both the supply and demand sides which are likely to constrain growth in 2018 and continue a pattern of disappointing growth over the last several quarters. After contracting 1.1% in the first quarter, residential investment should improve modestly in Q2 given the May surge in housing starts. However, the likely rebound in Q2 may turn out to be a temporary blip in an otherwise struggling sector. On the supply side, already high input costs — especially for lumber and labor — are all but certain to rise over the coming months as wage pressures rise and trade tensions grow. The price of U.S. framing lumber per thousand board feet has nearly tripled since early 2016 to roughly $600, and the recent imposition of a 20% tariff on Canadian lumber will drive costs even higher. Likewise, reported labor shortages in the construction sector (an industry in which immigrant labor comprises 25% of payrolls) could be exacerbated by new immigration restrictions and overall worker shortages. Housing demand has been strong over the past couple of years, but rising interest rates and tighter credit may deter some home buyers. In short, there are several clouds hanging over the housing sector that will likely constrain growth for the rest of the year.
- **Potential Softening of Global Growth:** The synchronized global growth story that has helped propel the U.S. economy over the 12–18 months has not yet faded, but several economies around the world are showing early signs of slippage. On the positive side, the World Bank maintained its 3.1% global growth outlook in its June report, but the outlook for emerging markets has worsened considerably, in part due to rising U.S. interest rates that have prompted a widespread flood of capital out of emerging markets in pursuit of higher yields. In particular, Argentina and Turkey have suffered from a sudden deterioration in their currencies and a rapidly increasing debt burden. These conditions threaten to spread to other emerging markets, including Mexico, Brazil, and China. In addition, Europe's economies have begun to exhibit signs of a slowdown — the Eurozone Purchasing Managers Index (PMI) has fallen for the past several months and now sits at an 18-month low, and Consumer Confidence weakened considerably in June — leading many analysts and economists to worry about a weakening growth outlook. Adding to Europe's woes, Italy's new populist government and their promises to ramp up fiscal stimulus at a time when the country's debt-to-GDP stands at 130% (the world's third-highest) and threatens the viability of Europe's common currency.

Additional Factors to Watch

Risks and challenges associated with higher inflation and a rising interest rate environment persist, but the exact path for prices and rates remains highly uncertain. Likewise, an increase in the U.S. national debt threatens the country's economic viability, but the United States' fiscal path is dependent on several "known unknowns."

- **Interest Rates / Inflation Watch:** After years of slow growth, inflationary pressures appear to be picking up steam in 2018. As the economy continues to add jobs and the labor market tightens further, employers should face increasing pressures to raise wages in order to attract and retain talent, which generally feeds into pricing consumer and producer prices in turn. On an annual basis, headline inflation growth rose for the fourth consecutive month to 2.8% in May, its strongest pace in six years. However, rising inflationary pressures have compelled the Fed to accelerate its rate increase schedule in an effort to combat those pressures and prevent the economy from overheating. The Fed previously anticipated raising rates three times in 2018 to keep inflation in check, but now expects four rate increases (and may end up raising rates even more if inflation continues to rise). A rapid and unexpected rise in interest rates may have numerous effects on the equipment finance industry, impacting the industry's spreads, profitability, and customer demand — and could even trigger a recession. For more information on how rising interest rates are likely to affect the industry, see the Foundation's new report "On the Rise: How Inflationary Pressures and Rising Interest Rates Could Impact the Equipment Finance Industry."

- **Persistent Budget Deficits and the National Debt:** The Congressional Budget Office recently announced that U.S. public debt will likely balloon over the next several years, with the debt-to-GDP ratio projected to reach 96% by 2028 (compared to current ratio of 78%). While the U.S. fiscal outlook was already set to deteriorate over the next decade due to increased government spending on Social Security and Medicare and higher debt servicing costs, the Tax Cuts and Jobs Act — while likely good for short-term economic growth — has worsened the long-term fiscal outlook considerably. Persistently large deficits, particularly during periods of peace and economic prosperity, weaken the United States' long-term viability and constrain policymakers' ability to respond to future challenges. More immediately, the accelerating increase in the national debt may put additional upward pressure on interest rates due to the increased risk associated with holding U.S. bonds.

Projections for Key Economic Indicators

Indicator	2016	2017	2018 Quarterly Estimates				2018e
			Q1	Q2e	Q3e	Q4e	
Real GDP (SAAR %)	1.5%	2.3%	2.0%	3.7%	2.9%	2.5%	2.8%
Real Investment in Equipment & Software (SAAR %)	-0.9%	4.9%	7.4%	6.5%	3.8%	3.0%	7.0%
Inflation (year-on-year %)	1.3%	2.1%	2.2%	2.8%	2.8%	2.7%	2.6%
Federal Funds Target Rate (upper bound, end of period)	0.75%	1.50%	1.75%	2.00%	2.25%	2.50%	2.50%
10-year Treasury Rate (end of period)	2.45%	2.40%	2.74%	2.85%	3.15%	3.25%	3.25%
Total Payroll Growth (in thousands)	+2,344	+2,188	+655	+632	+520	+495	+2,302

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
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Real Gross Domestic Product (SAAR %)									
GDP	0.6%	2.2%	2.8%	1.8%	1.2%	3.1%	3.2%	2.9%	2.0%
Consumer Spending	1.8%	3.8%	2.8%	2.9%	1.9%	3.3%	2.2%	4.0%	0.9%
Gross Private Fixed Investment	-4.0%	-2.7%	2.4%	8.5%	-1.2%	3.9%	7.3%	4.7%	7.5%
Inv: Equipment & Software	-8.1%	2.0%	0.0%	1.8%	4.5%	8.3%	10.1%	7.9%	7.4%
Inv: Agricultural Machinery	-32.3%	2.1%	-11.3%	9.7%	-3.9%	19.2%	24.4%	36.5%	-1.7%
Inv: Construction Machinery	-38.4%	-17.1%	-30.5%	-0.7%	15.9%	27.3%	6.8%	26.9%	29.8%
Inv: Materials Handling Equipment	-7.3%	8.9%	3.1%	4.5%	14.0%	7.2%	6.2%	6.7%	9.4%
Inv: All Other Industrial Equipment	-4.0%	6.2%	1.9%	6.1%	4.4%	14.4%	8.4%	3.4%	4.3%
Inv: Medical Equipment	-8.3%	3.9%	-1.5%	8.0%	3.6%	3.1%	17.3%	18.3%	3.9%
Inv: Mining & Oilfield Machinery	-48.2%	-92.2%	93.3%	-45.9%	162.7%	51.2%	22.6%	10.6%	-36.4%
Inv: Aircraft	-55.3%	91.6%	-23.2%	-33.3%	78.9%	6.9%	73.5%	-41.9%	-7.0%
Inv: Ships & Boats	-31.9%	37.9%	-13.9%	27.8%	-4.5%	-15.1%	-5.5%	12.2%	-26.0%
Inv: Railroad Equipment	-88.2%	-9.3%	-26.5%	69.5%	-10.1%	-48.9%	225.0%	-4.3%	57.7%
Inv: Trucks	0.7%	-2.2%	-13.7%	6.8%	-4.3%	6.8%	4.5%	37.3%	10.8%
Inv: Computers	-4.5%	3.4%	-1.0%	-3.1%	3.5%	43.9%	26.1%	-25.4%	47.4%
Inv: Software	9.4%	10.3%	6.4%	2.1%	4.8%	6.8%	8.2%	-2.2%	12.5%
Credit Conditions									
Nonfinancial Sector Debt (% of SAAR GDP)	62.5%	62.6%	62.9%	63.3%	64.0%	64.7%	64.7%	64.7%	72.3%
Loan Delinquency Rate	1.5%	1.6%	1.6%	1.6%	1.5%	1.4%	1.3%	1.2%	1.1%
Lease Delinquency Rate	0.9%	1.0%	1.0%	1.1%	1.0%	1.0%	1.0%	1.0%	1.0%
Net Tightening of C&I Loan Standards	8.2%	11.6%	8.5%	1.5%	1.4%	-2.8%	-3.9%	-8.5%	-10.0%

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	2017							2018					
	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Employment													
Change in Total Payrolls (thousands)	239	190	221	14	271	216	175	176	324	155	175	244	213
Change in Private Payrolls (thousands)	220	188	208	16	277	217	174	188	321	153	174	239	202
Unemployment Rate	4.3%	4.3%	4.4%	4.2%	4.1%	4.1%	4.1%	4.1%	4.1%	4.1%	3.9%	3.8%	4.0%
Business Activity													
Industrial Production	103.8	103.6	103.2	103.2	104.8	105.3	105.8	105.4	105.9	106.4	107.4	107.3	-
Capacity Utilization	76.2%	76.1%	75.7%	75.7%	76.8%	77.1%	77.3%	77.0%	77.2%	77.5%	78.1%	77.9%	-
PMI Composite Index	56.7	56.5	59.3	60.2	58.5	58.2	59.3	59.1	60.8	59.3	57.3	58.7	60.2
NFIB Small Business Optimism Index	103.6	105.2	105.3	103.0	103.8	107.5	104.9	106.9	107.6	104.7	104.8	107.8	-
Consumer Activity													
Consumer Confidence	117.3	120.0	120.4	120.6	126.2	128.6	123.1	124.3	130.0	127.0	125.6	128.8	126.4
Personal Consumption (M/M % Chg)	0.1%	0.2%	0.0%	0.6%	0.2%	0.5%	0.3%	-0.2%	-0.2%	0.6%	0.3%	0.0%	-
Retail Sales (M/M % Chg)	0.4%	0.2%	0.0%	1.9%	0.6%	0.8%	0.0%	-0.1%	0.1%	0.7%	0.4%	0.8%	-
Lending Activity													
C&I Loans (M/M % Chg)	0.2%	0.2%	0.2%	0.5%	0.0%	0.0%	0.1%	0.3%	0.1%	0.9%	2.1%	0.0%	-
MLFI-25 New Business Volume (Bil.$)	9.80	7.90	7.80	8.70	8.40	7.50	12.80	6.90	7.70	9.10	7.90	7.70	-
MLFI-25 Avg Losses as a % of Net Rec.	0.38%	0.35%	0.44%	0.40%	0.41%	0.42%	0.48%	0.34%	0.28%	0.51%	0.30%	0.31%	-
MLFI-25 Credit Approval Ratio	75.9%	76.0%	75.3%	74.0%	74.6%	73.6%	77.6%	76.9%	74.2%	75.2%	76.2%	76.8%	-
Interest Rates (% avg of period)													
Fed Funds Target Rate (Lower Bound)	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.25%	1.25%	1.25%	1.50%	1.50%	1.50%	1.75%
1-Year Treasury Rate	1.20%	1.22%	1.23%	1.28%	1.40%	1.56%	1.70%	1.80%	1.96%	2.06%	2.15%	2.27%	2.33%
3-Year Treasury Rate	1.49%	1.54%	1.48%	1.51%	1.68%	1.81%	1.96%	2.15%	2.36%	2.42%	2.52%	2.66%	2.65%
10-Year Treasury Rate	2.19%	2.32%	2.21%	2.20%	2.36%	2.35%	2.40%	2.58%	2.86%	2.84%	2.87%	2.98%	2.91%
30-Year Treasury Rate	2.80%	2.88%	2.80%	2.78%	2.88%	2.80%	2.77%	2.88%	3.13%	3.09%	3.07%	3.13%	3.05%
AAA Corporate Bond Yield	3.68%	3.70%	3.64%	3.63%	3.60%	3.57%	3.51%	3.55%	3.82%	3.87%	3.85%	4.00%	3.96%
BAA Corporate Bond Yield	4.37%	4.39%	4.31%	4.30%	4.32%	4.27%	4.22%	4.26%	4.51%	4.64%	4.67%	4.83%	4.84%
Prices													
Headline Inflation (Y/Y % Chg)	1.6%	1.7%	1.9%	2.2%	2.0%	2.2%	2.1%	2.1%	2.2%	2.4%	2.5%	2.8%	-
Core Inflation (Y/Y % Chg)	1.7%	1.7%	1.7%	1.7%	1.8%	1.7%	1.8%	1.8%	1.8%	2.1%	2.1%	2.2%	-
Oil Price (West Texas Int., $/barrel)	46.02	50.21	47.26	51.67	54.36	57.4	60.46	64.82	61.43	64.87	68.56	66.98	74.13

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 Q3 report is the second update to the 2018 Annual Outlook, and one more quarterly update will follow in 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.

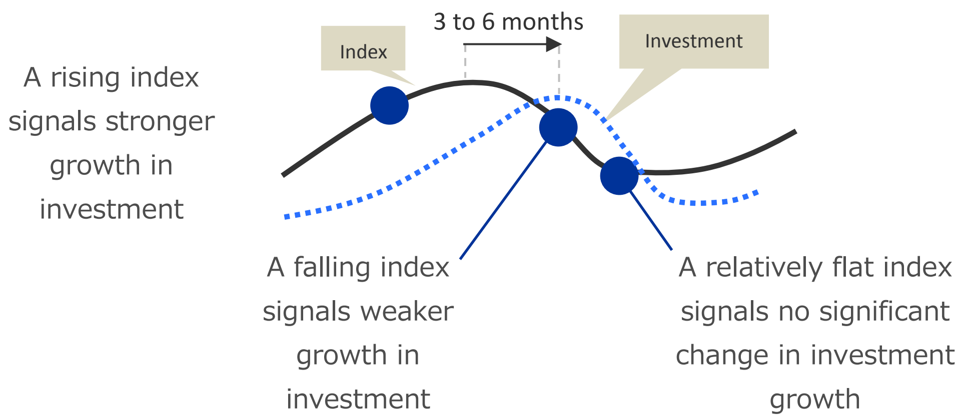
The Momentum Monitor is based on Keybridge's extensive research which shows that not all movements in economic data are reliable signals of future economic trends. Keybridge has operationalized its research by constructing indices, each comprised of 15–20 high-frequency indicators. These indicators undergo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