

Q4 update — October

2016 Equipment Leasing & Finance U.S. Economic Outlook



TABLE OF CONTENTS

Summary	1
Equipment & Software Investment Outlook	2
Foundation-Keybridge U.S. Equipment & Software Investment Momentum Monitor	2
Equipment & Software Investment Annual Growth Forecast	5
U.S. Capital Investment and Credit Markets	6
Recent Trends in Capital Investment.....	6
Recent Trends in Credit Markets	7
Update on Fed Policy	9
Overview of the U.S. Economy	10
Recent Trends in the U.S. Economy	10
Economic Tailwinds	11
Economic Headwinds	12
Additional Factors to Watch.....	12
Projections for Key Economic Indicators	13
Appendix	14
Quarterly Data	14
Monthly Data	15
About the Outlook	16
About the Momentum Monitor	16
How to Read the Momentum Monitor	17
About Keybridge.....	18

SUMMARY

Equipment & Software Investment Outlook: Modest equipment and software investment growth is expected for the rest of 2016 after a dismal first two quarters, as persistent economic headwinds weigh on investment spending and confidence. Weak business confidence caused by rising anxiety about the political and economic environment, both in the United States and abroad, continue to drag down business investment and are likely to remain concerns in the coming months. Driven by negative growth in the first half of the year, we expect overall equipment and software investment to contract -0.5% in 2016 after expanding by 3.8% in 2015. However, several equipment verticals should see an improvement in the investment climate through the end of the year and into early 2017.

- Agriculture Machinery investment growth will likely remain subdued over the next three to six months.
- Construction Machinery investment growth may rebound modestly over the next three to six months.
- Materials Handling Equipment investment is likely to strengthen over the next three to six months.
- All Other Industrial Equipment investment growth is expected to rebound over the next three to six months.
- Medical Equipment investment should remain solid over the next three to six months.
- Mining & Oilfield Machinery investment growth will likely remain sluggish over the next three to six months.
- Aircraft investment growth is likely to strengthen over the next three to six months.
- Ships & Boats investment growth should remain muted in the next three to six months.
- Railroad Equipment investment growth is poised to rebound over the next three to six months.
- Trucks investment growth should improve over the next three to six months.
- Computers investment growth should remain modest over next three to six months.
- Software investment growth should remain solid over the next three to six months.

U.S. Capital Investment & Credit Markets: U.S. credit conditions remain healthy overall, with little change from last quarter in the areas of consumer credit supply and financial stress, and only a slight decrease in commercial credit supply. Business demand for credit remains generally weak but has not deteriorated significantly from last quarter. Meanwhile, consumer credit demand continues to grow at a moderate pace, reflecting high consumer confidence. The Fed opted to delay an interest rate hike in September, but we continue to expect one rate increase in 2016 (likely in December).

Overview of the U.S. Economy: At the beginning of Q4, the U.S. economy appears to be running at cross currents. Labor markets have been consistently strong this year, driving moderate gains in income, personal consumption expenditures, and housing. In contrast, business investment and manufacturing activity continue to disappoint, and government spending has thus far experienced a sustained contraction. Many economic indicators that normally correlate directly — for example, business hiring and business investment — are moving in opposite directions. While uncertainty is unusually high, we expect U.S. economic growth to pick up somewhat during the second half of the year. At the same time, a strong revival of growth is unlikely, and GDP growth for 2016 will fall short of expectations.

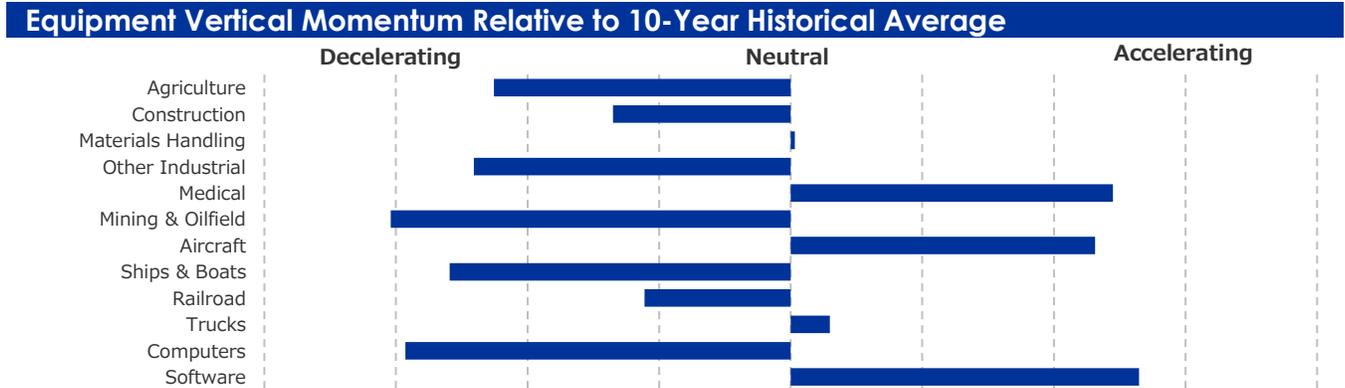
Bottom Line for the Equipment Finance Sector: Equipment and software investment will remain flat or contract slightly in 2016, as continued global headwinds and political uncertainty limit business confidence, particularly in the manufacturing, export, and energy sectors. However, there is some evidence that the investment decline in those sectors may have bottomed out, and small improvements may occur in late 2016 or early 2017. Despite the potential for a modest second-half rebound, poor performance in Q1 and Q2 virtually guarantee that 2016 will be a disappointing year for growth in both the overall economy and business investment. We project 1.6% GDP growth for 2016, while equipment and software investment is likely to contract by -0.5%.

EQUIPMENT & SOFTWARE INVESTMENT OUTLOOK

We expect equipment and software investment to decline by -0.5% in 2016, a significantly worse performance than last year's modest 3.8% growth rate. Contractions of -5.6% in Q1 2016 and -1.2% in Q2 2016 will severely limit potential for positive annual investment growth. Ongoing sluggishness in the energy, manufacturing, and export sectors will continue to dampen investment, although some improvement may occur later this year due to healthy labor markets and a slightly weaker dollar.

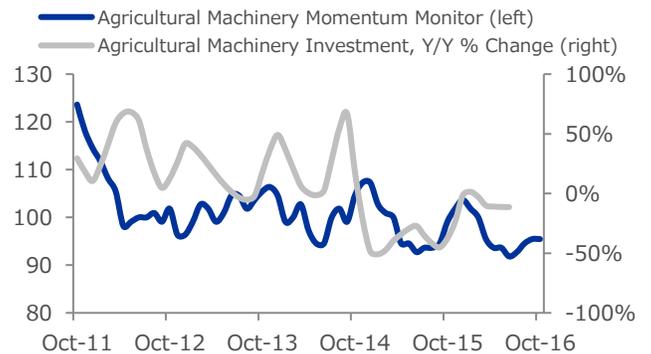
Foundation-Keybridge U.S. Equipment & Software Investment Momentum Monitor

*For more information on how to interpret the Momentum Monitor, please refer to the Appendices on pages 16-17.

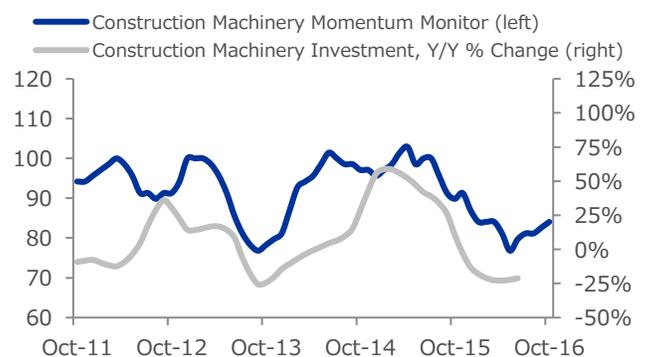


The chart above summarizes the current values of each of the 12 Equipment & Software Investment Momentum Indices relative to the index values for each quarter over the last 10 years. Verticals for which momentum is below the 10-year median are "decelerating," verticals for which momentum is near the 10-year median are "neutral," and verticals for which momentum is near the 10-year maximum are "accelerating." Note that the current momentum trend for each vertical may differ from the current investment volume. For example, a vertical for which the *level* of investment activity is low — but which is exhibiting signs of a comeback in the near future based on the *momentum* suggested by its leading indicators — will be labeled "accelerating" (and vice-versa).

Agricultural Machinery: Investment in Agricultural Machinery increased at an annual rate of 15.1% in Q2 2016, yet remains down 11.4% from one year ago. The Agriculture Momentum Index held steady at 95.5 from September (revised) to October. After a surge in June, Cattle Exports dropped 25.8% in July. However, National Average Precipitation jumped 18.0% in August. The Index's low position overall suggests continued slow growth in agricultural investment for the next three to six months.



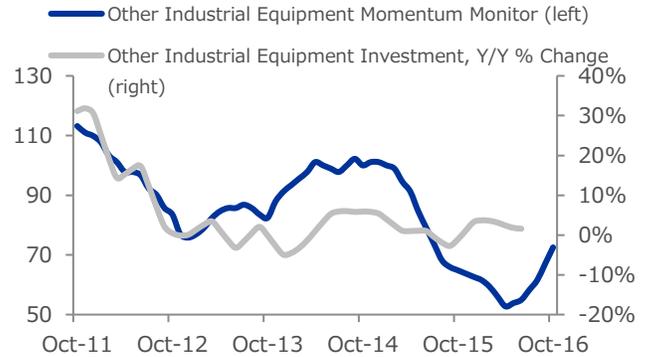
Construction Machinery: Investment in Construction Machinery contracted at a 14.0% annual rate in Q2 2016 (the fifth straight decline), and is down 21.2% year-over-year. However, the Construction Momentum Index increased from 82.6 (revised) in September to 84.1 in October, a 7-month high. Residential Construction Employment increased 0.7% in August, the greatest one-month increase since January, while Median Months for Sale ticked down by 0.3. Overall, the Index suggests the potential for a modest rebound in construction investment growth over the next three to six months.



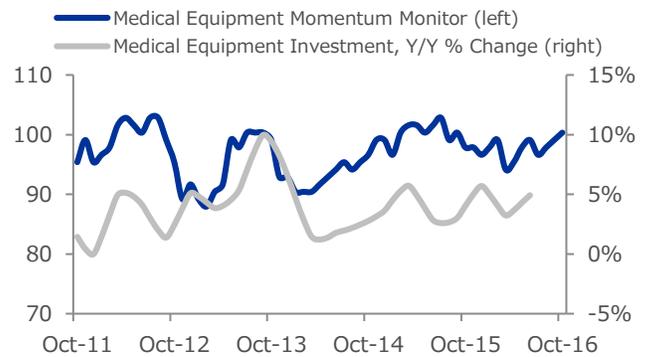
Materials Handling Equipment: Investment in Materials Handling Equipment rose by a 10.2% annual rate in Q2 2016, and is up 4.3% year-over-year. The Materials Handling Momentum Index rose from 75.5 (revised) in September to 78.7 in October. In September, the ISM Chicago Business Barometer rose 2.7 points, but in August the Dow Jones Industrials Balance fell to its lowest level since July 2014. Overall, the Index continues to indicate improved materials handling investment over the next three to six months.



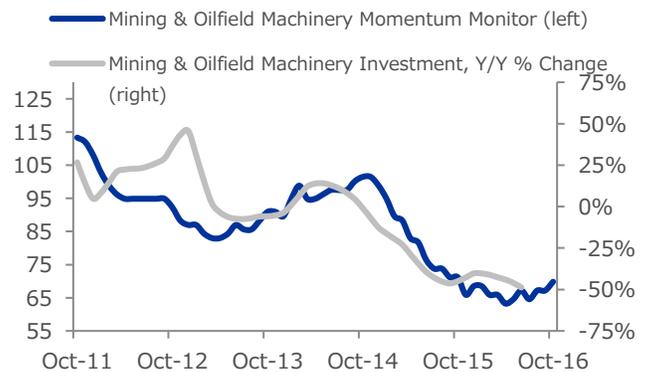
Other Industrial Equipment: Investment in All Other Industrial Equipment expanded by a 9.1% annual rate in Q2 2016, and is up 1.6% from one year ago. The Other Industrial Equipment Momentum Index jumped from 67.0 (revised) in September to 72.5 in October, its highest level in over a year. In August, M1 jumped 2.7% (the largest month-on-month money supply increase since July 2011), while the ISM Manufacturing Index rose back above the expansionary threshold in September. Overall, the Index's recent movement point to a rebound in other industrial equipment investment over the next two quarters.



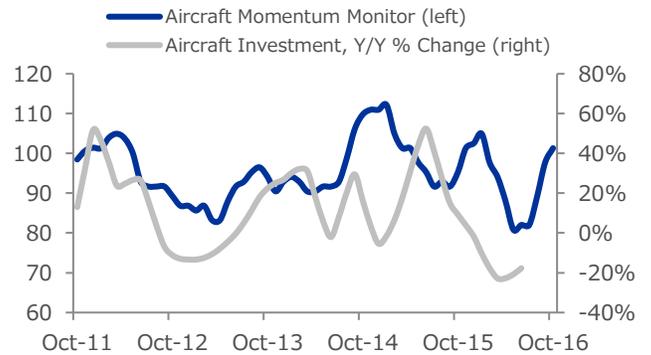
Medical Equipment: Investment in Medical Equipment increased at a 5.0% annual rate in Q2 2016 and is up 4.9% year-over-year. The Medical Equipment Momentum Index rose from 99.1 (revised) in September to 100.3 in October. Physicians' Services CPI jumped 26.5% in August, while New Orders of Non-Defense Capital Goods increased 10.2% in July. Overall, the Index points to solid growth in medical equipment investment over the next three to six months.



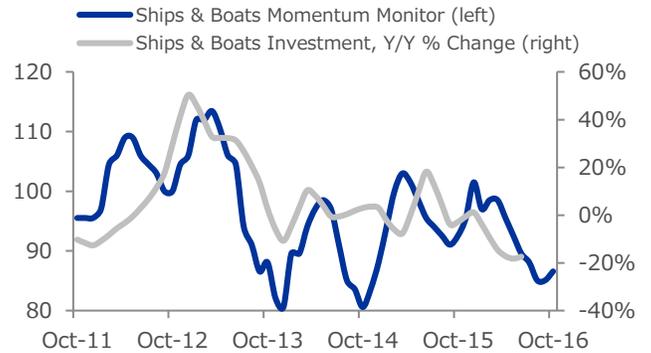
Mining & Oilfield Machinery: Investment in Mining & Oilfield Machinery plummeted at a 70.9% annual rate in Q2 2016, its largest decline since 2002, and is now down 48.8% year-over-year. The Mining & Oilfield Machinery Momentum Index rose from 67.2 (revised) in September to 69.8 in October. In September, Economic Policy Uncertainty fell 13.4%, the third straight drop, but Oil & Petroleum Product Imports fell 17% in August to their lowest level this year. Overall, the Index suggests that the decline in mining & oilfield machinery investment may have bottomed out, but investment will likely remain sluggish in the next three to six months.



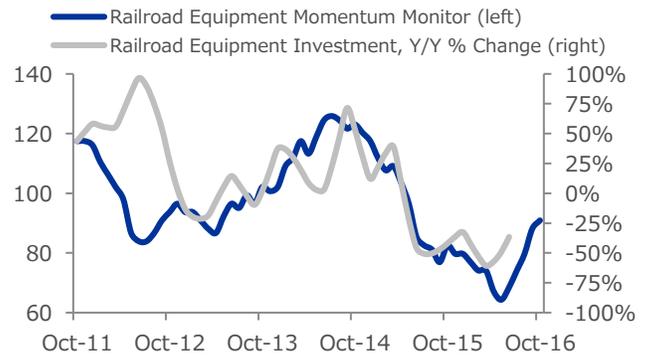
Aircraft: Investment in Aircraft rose at a 64.5% annual rate in Q2 2016, yet remains down 17.7% on a year-over-year basis. The Aircraft Momentum Index climbed from 97.7 (revised) in September to 101.3, a 9-month high, in October. The ISM Non-Manufacturing New Orders Index dropped 14.8% in August, but Economic Policy Uncertainty also fell 13.4% in September. Overall, the Index points to strengthening aircraft investment growth over the next three to six months.



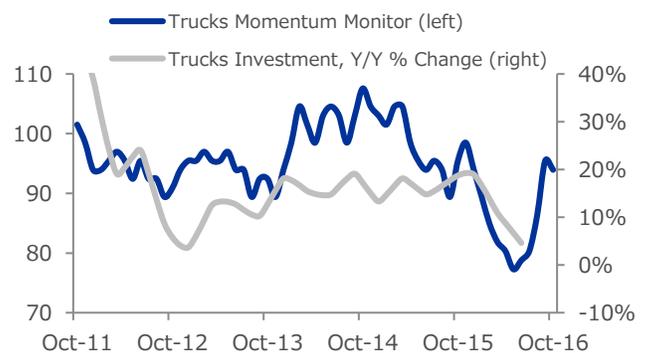
Ships & Boats: Investment in Ships & Boats increased at an annual rate of 14.7% in Q2 2016, yet remains down 17.4% year-over-year. The Ships & Boats Momentum Index increased from 85.1 (revised) in September to 86.6 in October. New Orders and Shipments of Ships & Boats both climbed 14.1% and 10.3%, respectively, in July. The Index's low position suggests that ships & boats investment growth will remain muted in the next two quarters.



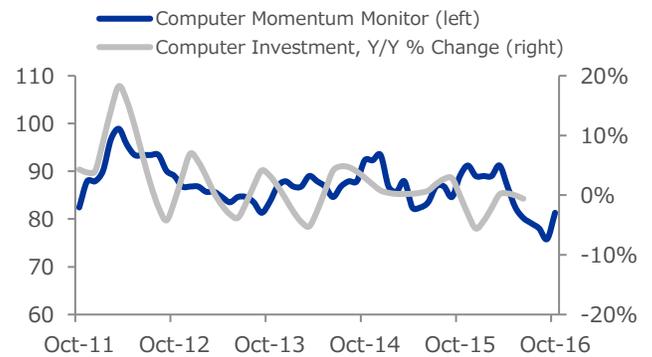
Railroad Equipment: Investment in Railroad Equipment plunged at a 57.1% annual rate in Q2 2016, its third straight decline, and is down 36.6% year-over-year. The Railroad Equipment Momentum Index rose from 88.1 (revised) in September to 90.9 in October, its highest level in over a year. In August, Petroleum Carloads increased 25%, but Average Weekly Hours ticked down. Overall, the Index points to a pick-up in railroad equipment investment over the next two quarters.



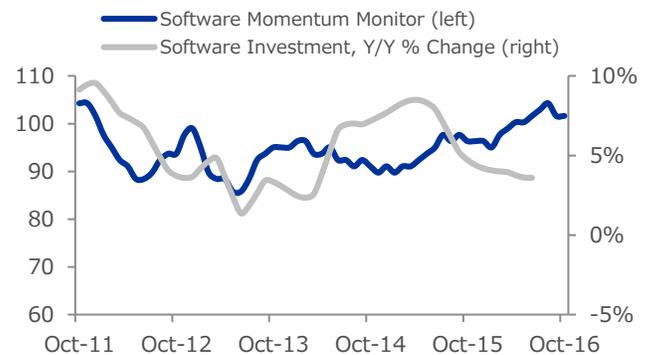
Trucks: Investment in Trucks fell at a 10.1% annual rate in Q2 2016 and is up just 4.6% year-over-year. The Trucks Momentum Index fell from 95.5 (revised) in September to 93.9 in October. Raw Steel Production fell 22.3% in September after a 21.8% rise the previous month, but Coal Production rose 9.5% in August, its fourth straight month of growth after 8 months of decline. Overall, the Index suggests that investment in trucks is primed for a rebound the next three to six months.



Computers: Investment in Computers grew at an annual rate of 11.9% in Q2 2016, yet remains down 0.6% year-over-year. The Computers Momentum Index rose from 75.8 (revised) in September to 81.3 in October. In September, Consumer Expectations rose 5.1%, and in August, Computer & Electronic Industrial Production increased 1.0%, its largest gain this year. However, the Index's low position continues to indicate slow investment growth in the next three to six months.



Software: Investment in Software rose by a 4.5% annual rate in Q2 2016, and is up 3.6% year-over-year. The Software Momentum held steady at 101.6 from September (revised) to October. The September ZEW Survey on the Current Economic Situation ticked up 2.4 points, while in August, the PPI for Software Publishers increased 1.7%, its largest-ever monthly gain. Overall, the Index points to continued 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 Average	Last 4 Quarters	Next 4 Quarters
Agricultural Machinery	4.8%	-11.4%	-8 to 2%
Construction Machinery	5.6%	-21.2%	0 to 8%
Materials Handling Equipment	1.2%	4.2%	2 to 8%
Other Industrial Equipment	1.7%	1.5%	-2 to 6%
Medical Equipment	3.7%	4.9%	3 to 8%
Mining & Oilfield Equipment	3.9%	-48.8%	-15 to 0%
Aircraft	8.3%	-17.7%	6 to 12%
Ships & Boats	4.5%	-17.4%	-2 to 5%
Railroad Equipment	8.9%	-36.6%	-5 to 5%
Trucks	18.2%	3.7%	10 to 15%
Computers	4.8%	-0.6%	0 to 6%
Software	4.2%	3.5%	5 to 10%

Source: Macrobond Financial, Keybridge (forecasts)

U.S. CAPITAL INVESTMENT AND CREDIT MARKETS

Capital spending is likely to remain muted for the rest of 2016, as low business confidence, heightened political and economic uncertainty, and low commodity prices continue to depress business investment. Equipment and software investment saw significant contractions in the first and second quarters of 2016. While investment should improve somewhat in the months ahead, two consecutive negative quarters during the first half of the year will severely limit overall growth for 2016.

Reflecting this environment, equipment leasing activity has been modest throughout 2016, and industry confidence remains significantly lower than the previous two years. However, credit market conditions remain healthy. Overall, we expect a -0.5% contraction of equipment and software investment growth in 2016.

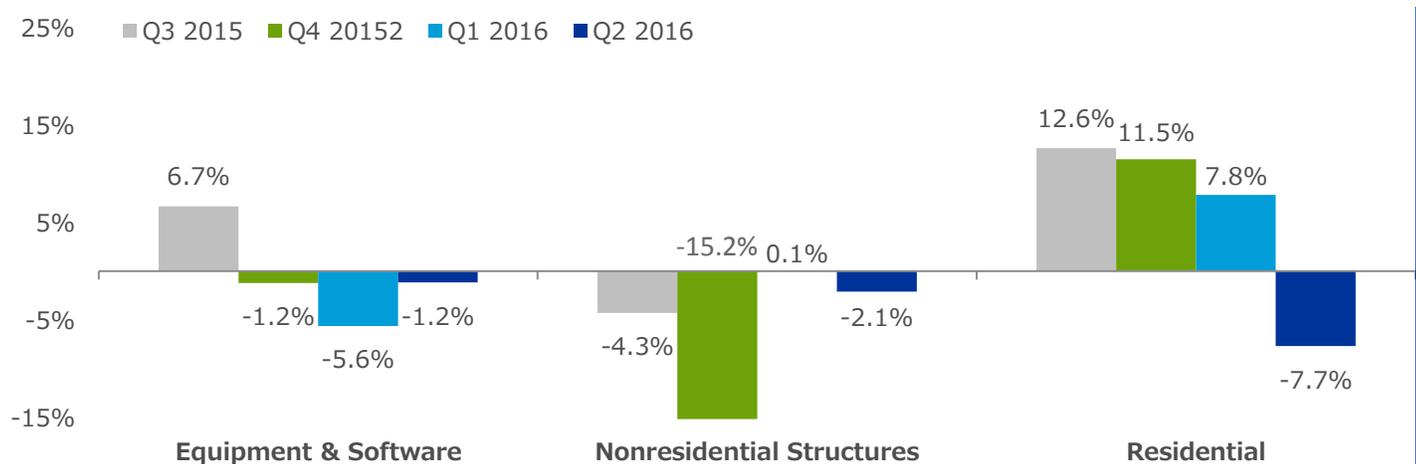
We anticipate that the Federal Reserve will raise interest rates once at the end of 2016, after delaying a rate hike for most of the year. Expectations about future rate hikes have significantly lowered over the last nine months, reflecting market predictions of continued low growth and low inflation over the medium to long term.

Recent Trends in U.S. Capital Investment

Equipment and software investment declined at a 1.2% annualized rate in the second quarter of 2016, the third straight decline but a slight improvement on the previous quarter's annualized drop of 5.6%. Nonresidential structures investment also posted a disappointing 2.1% annualized decline in Q2. Likewise, residential investment fell by a 7.7% annualized rate, its first decline since early 2014 and largest drop since 2010.

Investment Growth Rates

Quarter-on-Quarter, Seasonally Adjusted Annualized Growth Rate



Source: Macrobond Financial

- Equipment Leasing and Financing:** Momentum in the equipment finance industry has been subdued for much of 2016, but has improved since last quarter. The [ELFA Monthly Leasing and Finance Index \("MLFI-25"\)](#) for August reported new business volume at \$7.7 billion, up 12.0% from August 2015. However, year-to-date cumulative new business volume is

5.8% lower than last year. On a more positive note, portfolio performance remains on solid footing. In August, 30-day delinquencies were unchanged at 1.3%, while charge-offs rose 0.06 percentage points to 0.44%.

Underlining the industry's slow growth profile for 2016, the Foundation's [Monthly Confidence Index for the Equipment Finance Industry \("MCI-EFI"\)](#) fell 1.0 points to 53.8 in September, after rising in July and August. Overall, the average MCI-EFI reading for 2016 stands at 53.5, significantly down from 2015's average of 64.7 and 2014's average of 62.8. In the September survey, industry executives generally expected that the next few months would see little change in business conditions, demand for loans, employment, or the overall U.S. economy. Industry executives cited customers' concerns over the November election as a source of low confidence.

Looking ahead, we expect that industry performance will be mostly unchanged through the end of the year. Although some areas of the economy, including the labor market, consumer spending, and residential investment have performed well in 2016 and appear primed for continued growth, soft business confidence and low investment expectations will contribute to relatively weak performance in the equipment leasing and finance industry.

- **Equipment Verticals:** Q2 2016 saw an improvement in investment performance for a majority of equipment verticals, with eight verticals posting positive growth and four (Construction Machinery, Mining & Oilfield Machinery, Railroad Equipment, and Trucks) experiencing a decline. At 64.5% annualized growth, Aircraft investment was the best performing equipment vertical in the second quarter of 2016; most other verticals saw more modest growth ranging from 0%-15%. Meanwhile, Mining & Oilfield investment fell by 70.9% annualized, the eighth straight quarter of contraction and greatest quarter-on-quarter decline since 2002. As previous outlooks have forecasted, investment in Trucking equipment fell by a 10.1% annual rate in Q2 2016, its first contraction in almost three years; however, the Momentum Monitor for Trucks indicates potential for a recovery later this year. Railroad Equipment investment also dropped considerably (-57.1% annualized) but investment growth for this vertical tends to be volatile, and the Railroad Momentum Monitor points to a modest revival in the near future.
- **Other Factors:** Recent data on the industrial sector have been mixed, which is a slight improvement over the previous quarter. On the positive side, the dollar has weakened somewhat in 2016, which helps makes U.S. exports more competitive and could provide a small boost to domestic manufacturing. In addition, industrial production rose 1.1% in June and July (although it gave back 0.4% of those gains in August). On the other hand, capacity utilization slipped in August to 75.5% and is down slightly on the year, shipments of durable goods (a proxy for Q3 growth) fell 0.4% in August, and new orders of durable goods (a proxy for Q4 growth) was flat in August after falling two of the previous three months. On net, the outlook for manufacturing activity and business investment is generally weak for the next few months.

Recent Trends in Credit Markets

Credit markets, already quite healthy, have continued to improve across most measures since last quarter. Although credit supply has tightened slightly for commercial loans, lending standards are not overly strict by historical standards; meanwhile, credit supply for loans to households and consumers is unchanged. Consumer credit demand saw strong growth since last quarter, coinciding with moderately strong consumer spending. In contrast, business demand for credit remains relatively weak due to low business confidence, although demand has not worsened noticeably from last quarter. Financial stress is low and continues to decline gradually.

- Credit Supply & Pricing:** In mid-2016, credit supply decreased slightly for commercial loans, and remained virtually unchanged for household and consumer loans. In the July Fed Loan Officer Survey, banks reported tightening their standards on both commercial and industrial (“C&I”) loans and commercial real estate (“CRE”) loans in the second quarter. Compared to historical averages, however, lending standards for C&I loans are relatively loose, while standards for CRE loans are more stringent than average since 2005. Regarding loans for households, banks reported little change in lending standards for residential real estate mortgage loans. Meanwhile, changes in standards on consumer loans were mixed, with credit standards tightening for auto loans, easing for credit cards, and remaining unchanged for other consumer loans.
- Credit Demand:** Consumer credit demand has been generally strong in recent months. Consumer credit saw healthy increases of 5.8% in July, 4.8% in June, and 7.5% in May, coinciding with a July Fed Loan Officer Survey in which banks cited a noticeable increase in demand for consumer loans, particularly auto loans, in the second quarter. The Conference Board’s Consumer Confidence Index increased 2.3% to 104.1 in September, its highest level in over a year, indicating that the increasing trend in consumer credit demand may continue in the third quarter as consumers appear inclined to spend.

In contrast, business demand for credit is mixed and virtually unchanged from last quarter. Growth in C&I loans fell 0.3% in August, the first month-on-month decrease since October 2010, but stands 8.5% above year-ago levels. The July Fed Loan Officer Survey showed that banks experienced little change in demand for C&I loans, while demand for CRE loans strengthened. The Thomson Reuters/PayNet Small Business Lending Index (“SBLI”) saw a sharp 12.7% drop in July, landing 15.8% below its level one year ago, but above average historically. On the other hand, the National Federation of Independent Business (“NFIB”) Small Business Optimism Index ticked down 0.2% in August, and stands well below its historical average. The Business Roundtable’s CEO Economic Outlook Index fell four points to 69.6 in Q3; however, CEO expectations for capex spending in the next quarter increased slightly. On balance, these indicators do not point to a downfall in business demand for credit, but muted business confidence appears to be weighing on firms’ decisions to finance new investment.

- Financial Stress:** Financial stress decreased in both the second and third quarters of 2016. The St. Louis Fed Financial Stress Index, already historically low in the second quarter, decreased further in July, August, and September. While the Kansas City Fed Financial Stress Index ticked up slightly from July to August, it remains well below its long-run average. Loan and lease delinquencies also fell significantly in the second quarter. Overall, there is little evidence that financial stress will worsen over the near term. Despite some initial turmoil in financial markets following the Brexit vote, markets appear to have recovered and remain healthy overall.
- Other Factors:** 10-year Treasury yields reached a low of 1.37% on July 8 in the wake of the Brexit vote, but have since gradually risen to 1.6% at the end of the third quarter as uncertainty surrounding the fallout dissipated. Despite the steady increase since July, we anticipate that ongoing economic weakness in emerging markets and political uncertainty in Europe will push investors toward U.S. bonds, imposing downward pressure on interest rates. In addition, the Fed’s decision to delay a rate hike in September leaves room for only one modest hike later this year. Treasury yields are therefore expected to remain near historic lows for the rest of 2016.

Summary of Credit Conditions

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

Update on Fed Policy

Since the Federal Reserve Board's last rate increase in December 2015, expectations that 2016 would see a series of rate increases have progressively abated. Month after month the Fed repeatedly chose to delay a hike out of concern that higher interest rates would further constrain the U.S. economy's already weak growth. In the September Federal Open Market Committee meeting, the Fed announced its decision to stand pat on interest rates, but signaled an increased likelihood of a rate hike in December. However, expectations for future rate increases in 2017 and 2018 have lowered, and the Fed is expected to continue to pursue a policy of very gradual rate increases for the foreseeable future. These predictions reflect anticipation that the U.S. economy will continue on a growth trajectory below the long-term average of 3% for the medium to long term.

The FOMC meeting was reported to have been among the most contentious in the Fed's recent history, with three regional bank presidents dissenting against the Board's decision and arguing that a rate increase was necessary to prevent excessive tightening in the labor market and accelerating inflation. Disagreement among Fed officials likely stems from the economy's unusual combination of anemic growth, below-target inflation, and strong labor markets, which leaves the Fed straddled between its aims of supporting high growth, inflation around 2% and unemployment around 5%. In line with consensus, we expect the Fed to raise its benchmark interest rate in December by 25 basis points.

OVERVIEW OF THE U.S. ECONOMY

In 2016, the U.S. economy is likely to experience modest growth overall, as strong labor markets, consumer spending, housing growth, and a somewhat weaker dollar are largely offset by weak business investment and government spending. This picture has persisted for several quarters and appears likely to continue through 2016. A tight labor market has fueled moderate wage increases and income growth, which has in turn driven decent gains in consumption and strong gains in residential investment. (While residential investment unexpectedly declined in Q2, the underlying data suggest this drop is likely a blip in an otherwise healthy market.) These bright spots will continue to drive positive growth for the rest of the year, but growth will likely continue to be weighed down by weak business investment. Although growth may be modest, we do not expect a recession in the near-term.

GDP growth, at just 0.8% in Q1 and 1.4% in Q2, has already had such a bad start to the year that even strong gains in Q3 and Q4 would do little to bolster overall 2016 GDP growth above the mid-1% range. As Q4 begins, the U.S. economy appears to be running at cross currents. Businesses have run lean inventories despite positive consumer spending data (particularly in Q2), and firms have persisted in their hesitance to invest in capital even while continuing to hire new employees. Given this murky picture, we expect the U.S. economy will rebound slightly from the “growth pause” of the last three quarters and expand at a decent pace of 2 – 2.5% through the end of the year.

Overall, we project the U.S. economy to grow 1.6% in 2016 — significantly slower than 2014 and 2015 growth.

Recent Trends in the U.S. Economy

Consumer spending and residential housing will likely continue to drive growth for the rest of 2016, as they have since the beginning of the year. We expect some improvement in business investment growth in Q3 and Q4, but two quarters of negative growth in 2016 will severely limit overall business investment expansion for the year. We also expect to see an increase in government spending, particularly for national defense. Inflation poses a modest risk as wage growth gradually accelerates.

- Q2 GDP:** The U.S. economy grew at an annual rate of 1.4% in the second quarter of 2016, the third consecutive disappointing quarter after gains of 0.9% and 0.8% in Q4 2015 and Q1 2016, respectively. Growth in Q2 was almost entirely driven by consumer spending, which expanded at a strong rate of 4.3% (annualized). With the exception of net exports, which

Indicator	Recent Activity
Consumption	Consumer spending growth came in strong at 4.3% (annualized), its fastest pace since Q4 2014.
Equipment & Software Investment	Equipment & software investment declined 1.2% (annualized), its third straight Q/Q decline.
Residential Investment	Residential investment growth fell 7.7%, after eight straight quarters of positive growth.
Government Expenditures	Government expenditures dropped 1.7% (annualized) driven by declines in national defense (-3.2%) and state and local (-2.5%) spending.
Net Exports	Net exports increased (+5.4%), as exports rose 1.8% (annualized) in Q2 while imports rose 0.2% (annualized).

expanded modestly, all other major components of GDP experienced negative growth. Business investment contracted at a 7.9% annual pace, the largest drop since the second quarter of 2009. Of that, nonresidential fixed investment rose 1.0% (annualized) driven by relatively strong R&D investment, but residential investment contracted by 7.7% (annualized) after eight consecutive positive quarters. Government spending also suffered a 1.7% annualized decline, driven by contractions

in national defense spending and state and local spending; only federal nondefense spending saw an increase, at 3.8% annualized growth.

- **Inflation:** At 1.1% year-on-year in August, inflation continues to remain well below the Fed's 2% target rate. However, several factors point to the possibility of modestly increasing inflation for the rest of 2016. Oil prices have climbed since bottoming out in early 2016 and appear likely to add upward pressure on consumer prices in the months ahead. Continued signs of tightening in the labor market — including sub-5% unemployment, healthy job growth, and low initial claims for unemployment benefits — should continue to push up average hourly earnings closer to 3% annual growth over the rest of 2016 and add to inflationary pressures. Overall, we expect inflation to gradually increase in the next six months.
- **Growth Forecasts:** The *Economist* Poll of Forecasters for September estimated 1.5% GDP growth for 2016, a downgrade from August's 1.7% projection. Similarly, the Federal Reserve's September "central tendency" forecast was in the range of 1.7%-1.9%, down significantly from its previous projection of 1.9%-2.0% growth in June.

Economic Tailwinds

While the economy is unlikely to experience breakout growth over the remainder of 2016, the labor market remains strong and should drive growth in wages and, by extension, consumer spending. Residential investment should also perform well after a weak Q2.

- **Strong Labor Market:** Most signs point to continued improvement in the labor market and strong demand for workers, especially in the services sector. A disappointing May jobs report has turned out to be a blip: job growth has continued apace in the months since, with 271,000 jobs added in June, 275,000 added in July and 151,000 added in August. Unemployment is currently at 4.9%, in line with the Fed's range for full employment. New jobless claims remain low, and we are currently experiencing the longest streak of consecutive weeks of initial claims below 300k since 1970. The U-6 unemployment rate, which includes part-time workers and those marginally attached to the labor force, has remained under 10% for nearly a year. For the rest of 2016, we expect the labor market to continue to tighten, although the pace of job growth may slow relative to 180,000 jobs per month created in the first 8 months of the year.
- **Continued Wage and Income Growth:** With labor markets firming, wages and income are set to rise in the coming months. Average hourly earnings rose 0.1% in August, 0.3% in July, and are up 2.4% from year-ago levels. The Census Bureau's 2015 Income and Poverty Report states that real median household income increased 5.2% from 2014 to 2015. This marks the largest increase since the Census began tracking the measure in 1967 and the first increase since 2007 — suggesting that the slump in income growth caused by the recession has finally subsided. These promising gains in wages and income should have beneficial effects on the U.S. economy, driving consumer spending and housing investment.
- **Sustained Residential Investment:** Despite a surprising 7.7% drop in residential housing investment in Q2 2016, other measures have since indicated that housing growth should remain relatively strong. Housing prices, a leading indicator of new residential construction, rose 0.5% in July and are up 5.8% on the year. The NAHB Housing Market Index rose six points to 65 in September, driven by increases in current sales, sales expectations, and traffic of prospective buyers. Builder confidence also jumped six points in September, as historically low mortgage rates and a tight housing supply pave the way for new home construction. The few negative readings in the housing market generally indicate that supply is struggling to keep up with surging demand. As wages and income continue to rise, demand for housing will likely remain high, which will in turn drive additional residential investment.

Economic Headwinds

Uncertainty underlies a number of major economic headwinds, including weak capital investment, low business confidence, and a challenging geopolitical environment.

- **Weak Capex Spending:** Businesses have been cutting back on investment at a pace not seen since the Great Recession. The industrial sector has been in a growth pause over the last nine months, with Q2 2016 marking the third consecutive decline in nonresidential fixed investment. Weak business investment has been a significant drag on GDP growth in 2016, despite a somewhat weaker dollar (which helps to make U.S. manufactured goods more competitive in overseas markets) and interest rates remaining near historic lows. Businesses' reluctance to invest is closely related to weak business confidence (see below).
- **Low Business Confidence:** Both small and large businesses continue to report low levels of confidence stemming from an uncertain economic and political environment. The NFIB's Small Business Optimism Index fell to 94.4 in August and remains below its historical average of 98. In the same survey, a record-high 39 percent of business owners cited the political climate as a reason not to expand. The Business Roundtable's CEO Economic Outlook Index fell from 73.5 in Q2 to 69.9 in Q3; while this drop does not point to a confidence "crisis," the level is also below average. The Equipment Leasing and Finance Association's MCI-EFI also registered a small drop in equipment sector confidence from 54.8 in August to 53.8 in September, and monthly readings are roughly 10 points lower than in 2015. Industry executives noted a lack of confidence caused by anxiety about the presidential election, hostile world events, and a somewhat volatile stock market.
- **Challenging International Environment:** 2016 has witnessed a host of negative geopolitical events. Many of these developments reveal weakness in the liberal, democratic world order that allows international trade to flourish and financial markets to function. In the last year, the Syrian refugee crisis combined with broader migration flows from across the Middle East and Africa and spilled into Europe, fueling the rise of populist, nationalist movements. The most visible manifestation of this development was the United Kingdom's "Brexit" referendum, where fears of immigration and frustrations with globalization and multilateralism drove U.K. citizens to turn inward and vote to leave the European Union. Around the world, examples of democratic backsliding and increasing authoritarianism abound. Russia and Turkey have grown more erratic and less amenable to international cooperation, while China's ongoing economic slowdown may be contributing to its push for new projects, including South China Sea expansion. Meanwhile, terrorist attacks add to already heightened security and stability concerns.

These developments have real implications for economic growth and confidence. Already, the populist, nationalist backlash against globalization has contributed to the abandonment of high-profile trade deals. Events like Brexit have left financial markets jittery. Overall, the world has become more uncertain and unpredictable, and this fact poses a major headwind for business and commerce, which rely on stability to move forward.

Additional Factors to Watch

Several other economic and political developments are also likely to influence U.S. economic growth this year.

- **Political Uncertainty:** The 2016 Presidential Election has been the most unusual in recent history. After a highly contentious primary round for both parties, Hillary Clinton, a seasoned politician with political baggage, faces Donald Trump, a candidate who is relatively new to national politics and has a reputation for unpredictable behavior and provocative rhetoric. This political environment has created heightened anxiety among consumers and businesses alike. Trump's

unconventional candidacy makes it more difficult to predict the outcome than in recent elections, and a close race for political power in the Senate adds to the uncertainty surrounding future policy developments. If the election results in the same party controlling both Congress and the White House, it would likely reduce gridlock in Washington but could also lead to the success of legislative proposals that are more ideologically extreme (and potentially anti-business). Conversely, six years of divided government have produced few policy compromises — particularly on key economic policy concerns such as taxes, government spending on infrastructure improvements and entitlement programs, and trade — and it is unclear whether continued divided government would change this underlying condition. Citing political uncertainty, some businesses have taken a “wait and see” approach and are postponing major investments until the political environment clarifies. If this reaction is shared by a significant percentage of businesses, it could reduce the pace of business investment growth until after the election.

- Recovery of Oil Markets:** Oil prices bottomed out in February at just under \$30/barrel and have since climbed steadily, having now settled in the \$45-50 range. As prices have stabilized, we would expect to see a gradual recovery in the mining and oilfield equipment sector. While Q2 2016 saw abysmal -71.0% annualized growth, there are indications that the investment freefall has bottomed out. After reaching a trough of 316 in May, the oil rig count has risen 13 times in the last 14 weeks and now stands at 425. However, other signs are less encouraging, as both employment and investment in the oil extraction and mining industry have not yet shown any improvement. Signs of increases in these areas will be a significant factor to watch in the months ahead, as a rebound in the mining & oilfield sector would likely spill over into other related industries (e.g., industrial equipment, railroad).

Projections for Key Economic Indicators

Indicator	2014	2015	2016 Quarterly Estimates				2016e
			Q1	Q2	Q3e	Q4e	
Real GDP (SAAR %)	2.4%	2.6%	0.8%	1.4%	3.0%	2.1%	1.6%
Real Investment in Equipment & Software (SAAR %)	5.6%	4.2%	-5.6%	-1.2%	2.3%	3.4%	-0.5%
Inflation (year-on-year %)	1.6%	0.1%	1.1%	1.1%	1.3%	2.2%	1.4%
Federal Funds Target Rate (lower bound, end of period)	0.00%	0.25%	0.25%	0.25%	0.25%	0.50%	0.50%
10-year Treasury Rate (end of period)	2.2%	2.3%	1.8%	1.5%	1.6%	1.9%	1.9%
Total Payroll Growth (in thousands)	+3,015	+2,744	+587	+439	+600	+520	+2,146

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	2014				2015			2016	
	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Real Gross Domestic Product (SAAR %)									
GDP	4.0%	5.0%	2.3%	2.0%	2.6%	2.0%	0.9%	0.8%	1.4%
Consumer Spending	3.8%	3.7%	4.6%	2.4%	2.9%	2.7%	2.3%	1.6%	4.3%
Gross Private Fixed Investment	7.2%	7.4%	1.3%	3.7%	4.3%	5.7%	-0.2%	-0.9%	-1.1%
Inv: Equipment & Software	6.9%	13.9%	-5.3%	9.1%	1.1%	6.7%	-1.2%	-5.6%	-1.2%
Inv: Agricultural Machinery	-42.0%	282.5%	-93.5%	-9.4%	22.0%	23.7%	-31.3%	-36.9%	15.1%
Inv: Construction Machinery	16.2%	21.8%	242.8%	21.5%	-20.1%	-24.2%	-22.6%	-23.6%	-14.0%
Inv: Materials Handling Equipment	16.4%	16.3%	4.7%	-5.8%	7.6%	0.1%	17.5%	-3.8%	10.2%
Inv: All Other Industrial Equipment	13.5%	4.2%	-10.4%	1.2%	32.1%	-5.4%	7.7%	-4.0%	9.1%
Inv: Medical Equipment	15.7%	16.8%	3.9%	5.0%	-3.5%	13.2%	9.7%	-4.9%	5.1%
Inv: Mining & Oilfield Machinery	22.6%	-9.9%	-53.8%	-33.8%	-51.9%	-42.1%	-32.4%	-42.4%	-70.9%
Inv: Aircraft	-64.9%	332.6%	-13.5%	34.8%	5.8%	25.9%	-48.2%	-43.5%	64.5%
Inv: Ships & Boats	-35.5%	31.8%	-15.5%	10.4%	19.6%	2.1%	1.8%	-19.6%	14.7%
Inv: Railroad Equipment	191.4%	190.7%	-34.9%	-55.7%	-90.1%	49.3%	-11.5%	-81.2%	-57.1%
Inv: Trucks	27.2%	12.6%	-5.2%	29.5%	3.8%	21.5%	-1.0%	3.7%	-10.1%
Inv: Computers	10.1%	3.6%	-3.7%	-20.6%	27.6%	19.6%	-30.4%	4.9%	11.9%
Inv: Software	7.8%	10.0%	5.5%	9.2%	5.9%	-1.0%	1.4%	7.6%	4.5%
Credit Conditions									
Nonfinancial Sector Debt (% of SAAR GDP)	67.2%	67.3%	67.9%	69.1%	69.5%	69.8%	70.3%	71.5%	71.7%
Loan Delinquency Rate	0.8%	0.8%	0.7%	0.8%	0.8%	0.9%	1.0%	1.5%	1.6%
Lease Delinquency Rate	0.7%	0.8%	0.7%	0.7%	0.8%	0.8%	0.8%	0.9%	1.0%
Net Tightening of C&I Loan Standards	-11.1%	-10.7%	-10.5%	-5.5%	-5.3%	-7.0%	7.4%	8.2%	11.6%

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	2015				2016								
	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Employment													
Change in Total Payrolls (thousands)	149	295	280	271	168	233	186	144	24	271	275	151	-
Change in Private Payrolls (thousands)	162	304	279	259	155	222	167	147	-1	238	225	126	-
Unemployment Rate	5.1%	5.0%	5.0%	5.0%	4.9%	4.9%	5.0%	5.0%	4.7%	4.9%	4.9%	4.9%	-
Business Activity													
Industrial Production	105.3	105.2	104.5	104.0	104.6	104.4	103.4	103.9	103.7	104.3	104.9	104.4	-
Capacity Utilization	76.4%	76.3%	75.7%	75.4%	75.8%	75.6%	74.9%	75.2%	75.1%	75.5%	75.9%	75.5%	-
PMI Composite Index	50.0	49.4	48.4	48.0	48.2	49.5	51.8	50.8	51.3	53.2	52.6	49.4	51.5
NFIB Small Business Optimism Index	96.0	96.0	94.5	95.2	93.9	92.9	92.6	93.6	93.8	94.5	94.6	94.4	-
Consumer Activity													
Consumer Confidence	102.6	99.1	92.6	96.3	97.8	94.0	96.1	94.7	92.4	97.4	96.7	101.1	104.1
Personal Consumption (M/M % Chg)	0.2%	0.1%	0.3%	0.2%	-0.1%	0.3%	0.0%	0.7%	0.2%	0.4%	0.3%	-0.1%	-
Retail Sales (M/M % Chg)	-0.1%	0.0%	0.3%	0.4%	-0.5%	0.3%	-0.3%	1.2%	0.2%	0.7%	0.1%	-0.3%	-
Lending Activity													
C&I Loans (M/M % Chg)	0.4%	1.0%	1.0%	0.4%	0.6%	1.2%	1.7%	0.9%	0.7%	0.3%	0.4%	-0.3%	-
MLFI-25 New Business Volume (Bil.\$)	8.4	7.7	6.1	12.5	6.0	6.1	8.1	7.3	6.8	10.0	7.0	7.7	-
MLFI-25 Avg Losses as a % of Net Rec.	0.27%	0.27%	0.30%	0.41%	0.26%	0.37%	0.51%	0.31%	0.33%	0.65%	0.38%	0.44%	-
MLFI-25 Credit Approval Ratio	80.5%	80.1%	79.0%	80.2%	78.0%	79.2%	77.7%	78.2%	76.5%	78.1%	75.9%	76.9%	-
Interest Rates (% avg of period)													
Fed Funds Target Rate (Lower Bound)	0.00	0.00	0.00	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
1-Year Treasury Rate	0.37	0.26	0.48	0.65	0.54	0.53	0.66	0.56	0.59	0.55	0.51	0.57	0.59
3-Year Treasury Rate	1.01	0.93	1.20	1.28	1.14	0.90	1.04	0.92	0.97	0.86	0.79	0.85	0.90
10-Year Treasury Rate	2.17	2.07	2.26	2.24	2.09	1.78	1.89	1.81	1.81	1.64	1.50	1.56	1.63
30-Year Treasury Rate	2.95	2.89	3.03	2.97	2.86	2.62	2.68	2.62	2.63	2.45	2.23	2.26	2.35
AAA Corporate Bond Yield	4.07	3.95	4.06	3.97	4.00	3.96	3.82	3.62	3.65	3.50	3.28	3.32	3.41
BAA Corporate Bond Yield	5.34	5.34	5.46	5.46	5.45	5.34	5.13	4.79	4.68	4.53	4.22	4.24	4.31
Prices													
Headline Inflation (Y/Y % Chg)	0.0%	0.2%	0.5%	0.7%	1.4%	1.0%	0.9%	1.1%	1.0%	1.0%	0.8%	1.1%	-
Core Inflation (Y/Y % Chg)	1.9%	1.9%	2.0%	2.1%	2.2%	2.3%	2.2%	2.1%	2.2%	2.3%	2.2%	2.3%	-
Oil Price (West Texas Int., \$/barrel)	45.06	46.60	40.43	37.13	33.66	32.74	36.94	45.98	49.10	48.27	41.54	44.68	47.72

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 (“Momentum Monitor”), described below, is published on a monthly basis.

This Q2 report is the first update to the 2016 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

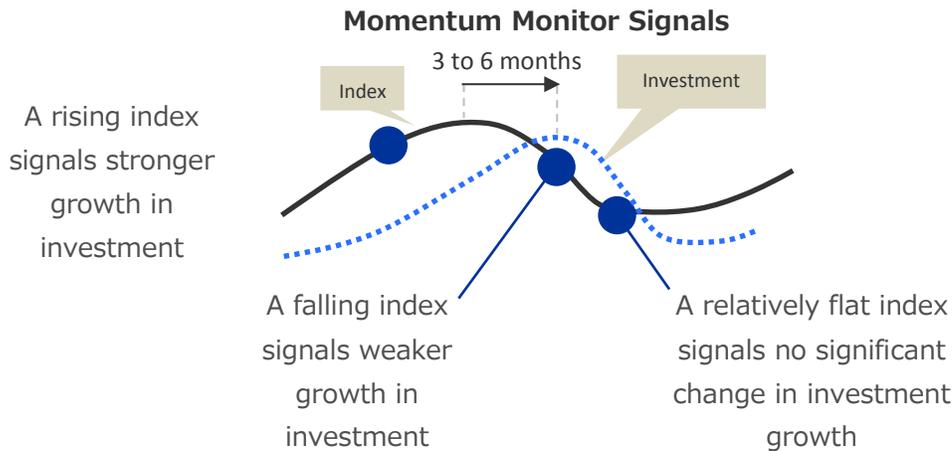
Business leaders require actionable forward-looking intelligence to make strategic decisions. Accordingly, the Foundation commissioned Keybridge LLC to develop a series of custom leading indicators for the equipment sector. The [Foundation-Keybridge Equipment & Software Investment Momentum Monitor](#) 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 three-to-six month lead time.

The Momentum Monitor is based on Keybridge’s extensive research which shows that not all movements in economic data are reliable signals of future economic trends. Keybridge has operationalized its research by constructing indices, each comprised of between 10 to 20 high-frequency indicators. These indicators undergo rigorous testing to determine the optimal thresholds at which their short-term fluctuations are economically meaningful. In simpler terms, the Momentum Monitor sifts out the “noise” in the data and identifies the dominant trends. As a result, each Momentum Monitor index is statistically optimized to signal turning points in the investment cycle without giving false readings of shifts in momentum.

HOW TO READ THE MOMENTUM MONITOR

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.



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.

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 interdisciplinary 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.



Insightful, In-Depth Industry Resources

Founded in 1989, the Equipment Leasing & Finance Foundation is a 501c3 non-profit organization dedicated to inspiring thoughtful innovation and contributing to the betterment of the \$1 trillion equipment leasing and finance industry.

Future-Focused Research and Analyses

The Foundation is the premier source for the most comprehensive, future-focused research and analyses available on issues of interest to business leaders, academics and other participants in the equipment finance sector. All research releases, studies and articles* are available at the Foundation's online library www.store.leasefoundation.org/, including the following:

Equipment Leasing and Finance U.S. Economic Outlook – This report highlights key trends in equipment investment and places them in the context of the broader U.S. economic climate. The report is updated quarterly throughout the year.

Foundation-Keybridge Equipment & Software Investment Momentum Monitor – A monthly report of indices for 12 equipment and software verticals designed to identify turning points in their respective investment cycles with a 3 to 6-month lead time.

Industry Future Council Report – Based on the deliberations of the Foundation's Industry Future Council of leading industry lessors, analysts, and service providers on current issues, trends and future industry outlook, the IFC Report is a guidebook for providers and arrangers of equipment finance as they undertake their own strategic-planning efforts.

State of the Equipment Finance Industry Report – The SEFI provides a unique look at trends in the equipment finance industry over the past year, identifies key drivers for future growth, and explores emerging opportunities and risks that could shape the industry over the next 3-5 years.

Monthly Confidence Index for the Equipment Finance Industry – Designed to collect leadership data, the MCI reports a qualitative assessment of both the prevailing business conditions and expectations for the future as reported by key executives from the \$1 trillion equipment finance sector.

Journal of Equipment Lease Financing – The only scholarly periodical dedicated to equipment leasing and finance, the Journal is published quarterly and spotlights research, case studies, trends and practical information through in-depth articles. Author guidelines are available online at www.leasefoundation.org/research/jelf/

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University and Academic Relations – Working closely with the academic community is an important part of the Foundation's mission to foster initiatives that drive innovation in the equipment finance industry. For information including research grants, access to statistical databases and other Foundation resources, visit www.leasefoundation.org/academics/

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1825 K STREET • SUITE 900

WASHINGTON, DC 20006

WWW.LEASEFOUNDATION.ORG

202-238-3429

KELLI JONES NIENABER, EXECUTIVE DIRECTOR