2017 Equipment Leasing & Finance U.S. Economic Outlook

EQUIPMENT LEASING & FINANCE
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SUMMARY

Equipment & Software Investment Outlook: Receding headwinds should propel equipment and software investment toward decent growth in 2017, after a dismal 2016 witnessed three consecutive quarters of contraction. Although Q4 data, which has not yet been released, is likely to be stronger than recent quarters, we still expect equipment and software investment to contract -1.1% this year. However, early indicators point to a rebound in equipment investment in 2017. A key factor in this rebound is the energy sector, which has been a major drag on growth for several quarters but is no longer in freefall and should improve in the months ahead. This will benefit several equipment verticals that are closely tied to the energy sector. Meanwhile, most other verticals are also exhibiting positive signs and appear primed to improve in the first half of 2017.

- Agriculture Machinery investment growth will likely remain negative over the next three to six months.
- Construction Machinery investment growth should improve over the next three to six months.
- Materials Handling Equipment investment growth should remain stable over the next three to six months.
- All Other Industrial Equipment investment growth will likely rebound over the next three to six months.
- Medical Equipment investment growth should remain stable over the next three to six months.
- Mining & Oilfield Machinery investment growth is expected to improve over the next three to six months.
- Aircraft investment growth will likely strengthen over the next three to six months.
- Ships & Boats investment growth is set to improve over the next three to six months.
- Railroad Equipment investment growth should continue to strengthen over the next three to six months.
- Trucks investment growth is poised to accelerate over the next three to six months.
- Computers investment growth is likely to improve over the next three to six months.
- Software investment growth should continue to strengthen over the next three to six months.

U.S. Capital Investment & Credit Markets: U.S. credit conditions remain stable, with little change from last quarter in the areas of credit supply and financial stress, and a slight increase in credit demand (especially among consumers and households). Business demand for credit remains tepid but has improved from last quarter. Meanwhile, the Federal Reserve Board seems all but certain to increase its benchmark interest rate in December, which will further fuel a slow rise in U.S. bond yields over the course of 2017.

Overview of the U.S. Economy: As 2016 draws to a close, the U.S. economy appears to have finally moved past a growth pause and is poised for a rebound. Labor markets are this year's persistent bright spot, and continued labor market strength is likely to drive additional gains in wages and income, consumption, and housing growth. Business investment and manufacturing activity were 2016's big disappointments, but most indicators suggest that investment is emerging from a trough and should improve in the coming months. Overall, the economy is well-positioned for decent GDP growth in 2017.

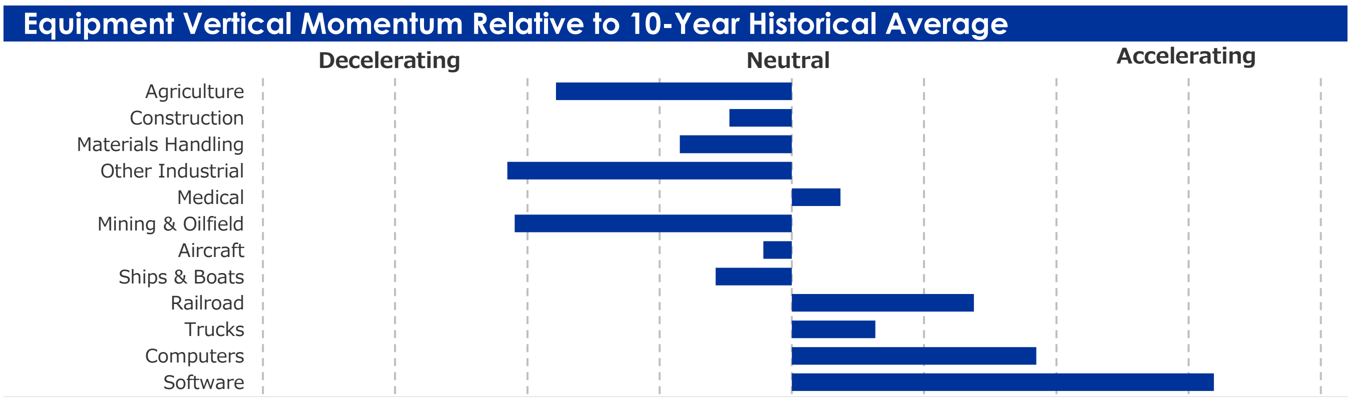
Bottom Line for the Equipment Finance Sector: After a dismal 2016, equipment and software investment is finally on track to improve in 2017. While persistent global headwinds and policy uncertainty are ongoing concerns, the U.S. economy's fundamentals are generally solid, and rising business confidence should lead to increased investment next year. We project 1.6% GDP growth for 2016, along with a -1.1% contraction in equipment and software investment — although in both cases, Q4 data should come in stronger than the annual totals. For 2017, we predict the U.S. economy will grow by 2.7%, while equipment and software investment should expand by about 3.0%.

EQUIPMENT & SOFTWARE INVESTMENT OUTLOOK

We expect equipment and software investment to decline by -1.1% in 2016, a significantly worse performance than last year's modest 4.2% growth rate. Contractions of -5.6% in Q1, -1.2% in Q2, and -1.8% in Q3 virtually guarantee that investment growth will not break -1% this year. Struggles for the energy, manufacturing, and export sectors posed a major drag on business investment all year, but early indicators point to improved growth in Q4 2016 and 2017.

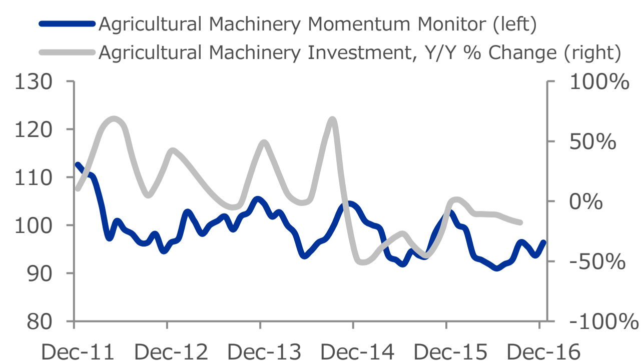
Foundation-Keybridge U.S. Equipment & Software Investment Momentum Monitor

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

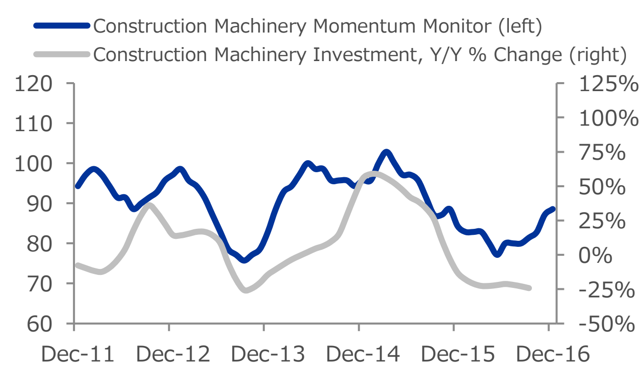


The chart above summarizes the current values of each of the 12 Equipment & Software Investment Momentum Indices relative to the index values for each quarter over the last 10 years. Verticals for which momentum is below the 10-year median are "decelerating," verticals for which momentum is near the 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).

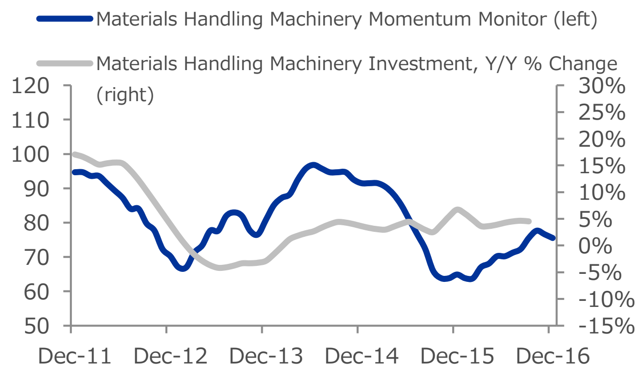
Agricultural Machinery: Investment in Agricultural Machinery decreased at an annual rate of 8.2% in Q3 2016 and is down 17.7% year-over-year. The Agriculture Momentum Index rose from 93.7 (revised) in November to 96.4 in December. In October, National Average Temperature rose 1.8 degrees, while Milk Production Per Cow increased 3.5%. Overall, the Index's persistent low position suggests continued sluggishness in agricultural investment for the next three to six months.



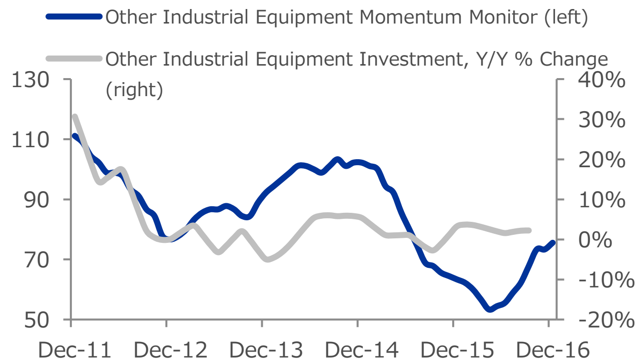
Construction Machinery: Investment in Construction Machinery contracted at a 35.2% annual rate in Q3 2016 (the sixth straight decline), and is down 24.2% from one year ago. The Construction Momentum Index increased from 87.1 (revised) in November to 88.6 in December. In October, Housing Starts jumped 25.5%, the largest-ever monthly increase, while Mobile Home Shipments + Housing Starts also surged 23.7%. Overall, the Index points to improved construction investment growth over the next two quarters.



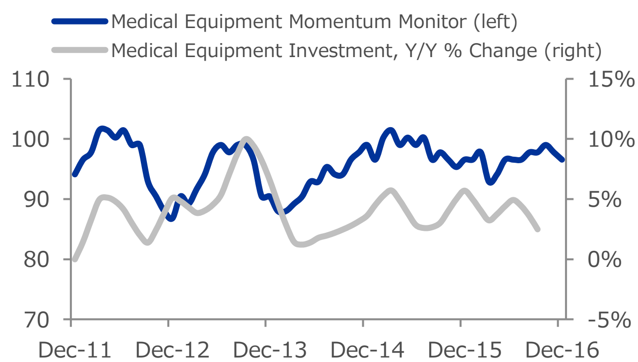
Materials Handling Equipment: Investment in Materials Handling Equipment increased by a 0.9% annual rate in Q3 2016, and is up 4.5% year-over-year. The Materials Handling Momentum Index fell from 76.6 in November to 75.5 in December. Economic Policy Uncertainty jumped 74 points in November (a near-doubling), while Manufacturing Employment declined. Overall, the Index suggests stable growth in materials handling investment over the next two quarters.



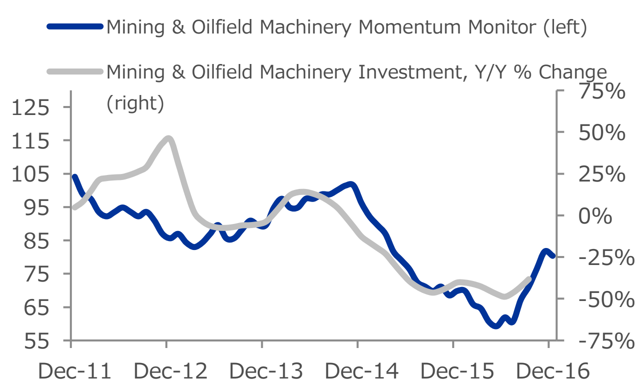
Other Industrial Equipment: Investment in All Other Industrial Equipment fell by a 5.1% annual rate in Q3 2016, but is up 2.2% from one year ago. The Other Industrial Equipment Momentum Index increased from 73.3 in November to 75.6 in December, its strongest reading since June 2015. Manufacturing Defense Shipments rose 0.4% in October, and the ISM Chicago Production Index increased 4.7 points in November. Overall, the Index's recent movement points to a rebound in other industrial equipment investment over the next two quarters.



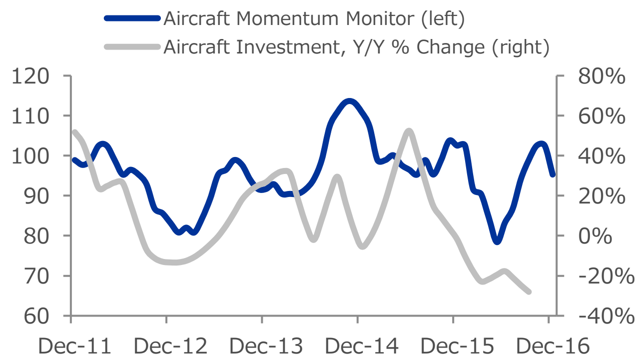
Medical Equipment: Investment in Medical Equipment declined at a 1.9% annual rate in Q3 2016 but is up 2.5% year-over-year. The Medical Equipment Momentum Index slipped from 97.8 (revised) in November to 96.6 in December. Both Federal Health Outlays and Federal Medicare Outlays fell in October by 10.6% and 65.8%, respectively. Overall, the Index suggests stable growth in medical equipment investment over the next three to six months.



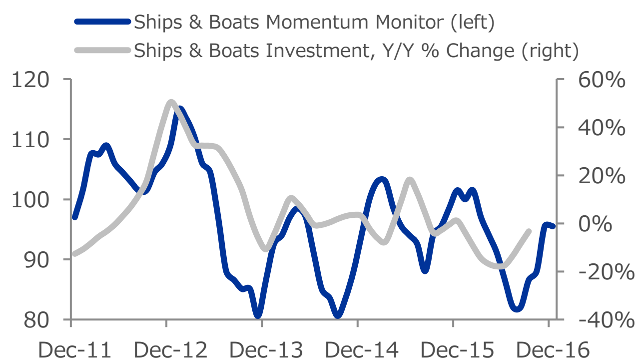
Mining & Oilfield Machinery: Investment in Mining & Oilfield Machinery rose at an 21.7% annual rate in Q3 2016 — its first quarter-on-quarter increase in over two years — but is down 38.3% year-over-year. The Mining & Oilfield Machinery Momentum Index decreased from 81.7 (revised) in November to 80.4 in December. Industrial Production of Natural Gas fell 4.8 points, and Mining Support Employment ticked down 0.1%, the 25th consecutive month of decline. However, the Oil Rig Count rose 27 to 477, its sixth consecutive increase. Overall, the Index points to improvement in mining & oilfield machinery investment over the next three to six months.



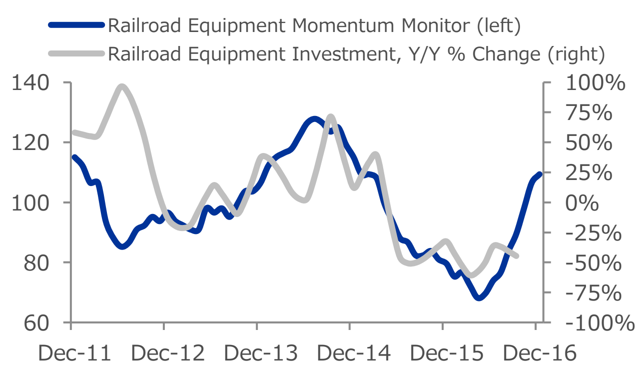
Aircraft: Investment in Aircraft fell at a 39.5% annual rate in Q3 2016 and remains down 28.1% on a year-over-year basis. The Aircraft Momentum Index dropped from 102.5 in November to 95.3 in December. Shipments of Non-Defense Aircraft fell 3.6% in October, while Total Miles Driven dropped 6.8% in September. Overall, the Index signals strengthening investment growth in aircraft over the next three to six months, despite this month's decline.



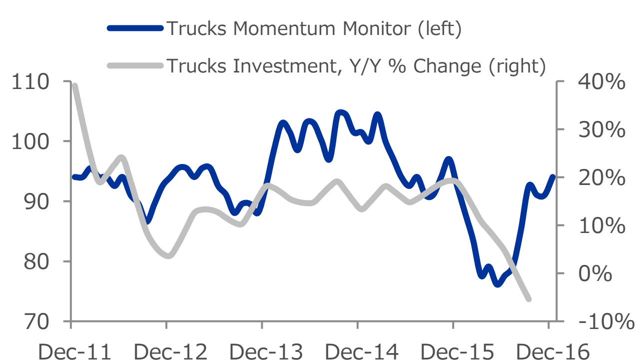
Ships & Boats: Investment in Ships & Boats dropped at an annual rate of 13.8% in Q3 2016 and is down 3.3% year-over-year. The Ships & Boats Momentum Index held steady at 95.5 from November (revised) to December. In October, the ISM Manufacturing Employment Index dipped 0.6 points to 52.3 (but remains above the expansionary threshold). However, the Agricultural Product Trade Balance surged 131.4%. Overall, the Index points to a rebound in ships & boats investment.



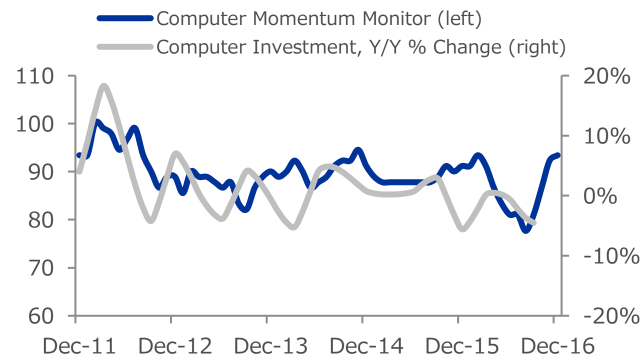
Railroad Equipment: Investment in Railroad Equipment rebounded at a 22.5% annual rate in Q3 2016 but is down 44.7% year-over-year. The Railroad Equipment Momentum Index increased from 106.5 (revised) in November to 109.4 in December, its highest level since February 2015. Coal Production rose 7.0% in October, while Machine Tool Orders surged 47.7%. Overall, the Index points to strengthening railroad equipment investment over the next two quarters.



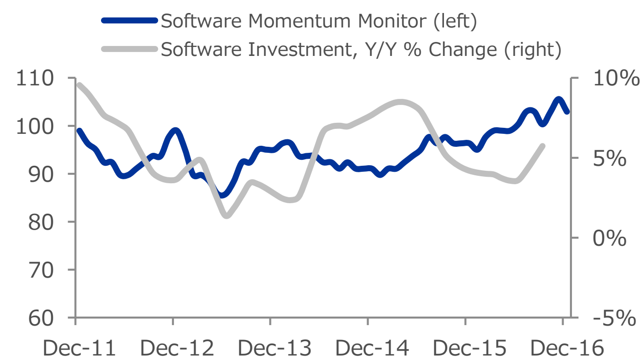
Trucks: Investment in Trucks fell at a 19.3% annual rate in Q3 2016 and is down 5.4% from year-ago levels, its first year-over-year decline since 2009. The Trucks Momentum Index rose from 91.0 in November to 94.0 in December, its strongest reading in over a year. Light Truck Shipments rose 2.0% in October, while the ISM Manufacturing Index rose 1.3 points to 53.2 in November. Overall, the Index signals a rebound in trucks investment over the next three to six months.



Computers: Investment in Computers declined at an annual rate of 4.1% in Q3 2016, yet remains down 4.5% year-over-year. The Computers Momentum Index increased from 92.3 (revised) in November to 93.4 in December. Consumer Expectations rose 10.9% in November, the largest monthly increase since May 2013, while Computer & Electronic Industrial Production increased 1.4 points in October. Overall, the Index points to improved investment growth in computers over the next two quarters.



Software: Investment in Software rose by a 7.6% annual rate in Q3 2016, and is up 5.7% year-over-year. The Software Momentum Index slipped from 105.6 in November to 102.9 in December. The Producer Price Index for Software Publishers fell 1.8 points to 89.6 in October, while Travel Services Exports decreased 1.1%. Overall, the Index continues to signal strong investment growth in software 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	4.7%	-16.9%	-10 to 0%
Construction Machinery	4.8%	-24.8%	-2 to 6%
Materials Handling Equipment	1.2%	5.4%	3 to 8%
Other Industrial Equipment	1.5%	3.4%	2 to 8%
Medical Equipment	3.6%	2.5%	2 to 6%
Mining & Oilfield Equipment	1.9%	-39.6%	-10 to 5%
Aircraft	7.8%	-28.1%	6 to 12%
Ships & Boats	4.2%	-2.7%	2 to 7%
Railroad Equipment	7.7%	-44.4%	0 to 12%
Trucks	18.0%	-4.5%	8 to 15%
Computers	4.1%	-3.4%	2 to 8%
Software	4.3%	5.7%	5 to 10%

Source: Macrobond Financial, Keybridge (forecasts)

U.S. CAPITAL INVESTMENT AND CREDIT MARKETS

Capital spending is likely to tick up in late 2016 and continue trending upward in 2017. Recovering business confidence, stabilizing energy prices, and consistent consumer demand should help business investment rebound in 2017. However, moderate contractions in the first three quarters of 2016 make it very likely that equipment and software investment growth will remain negative for 2016. Credit market conditions are healthy and should not inhibit business investment or the equipment finance industry. Overall, we expect a -1.1% contraction in equipment and software investment growth for 2016, and a 3.0% expansion in 2017.

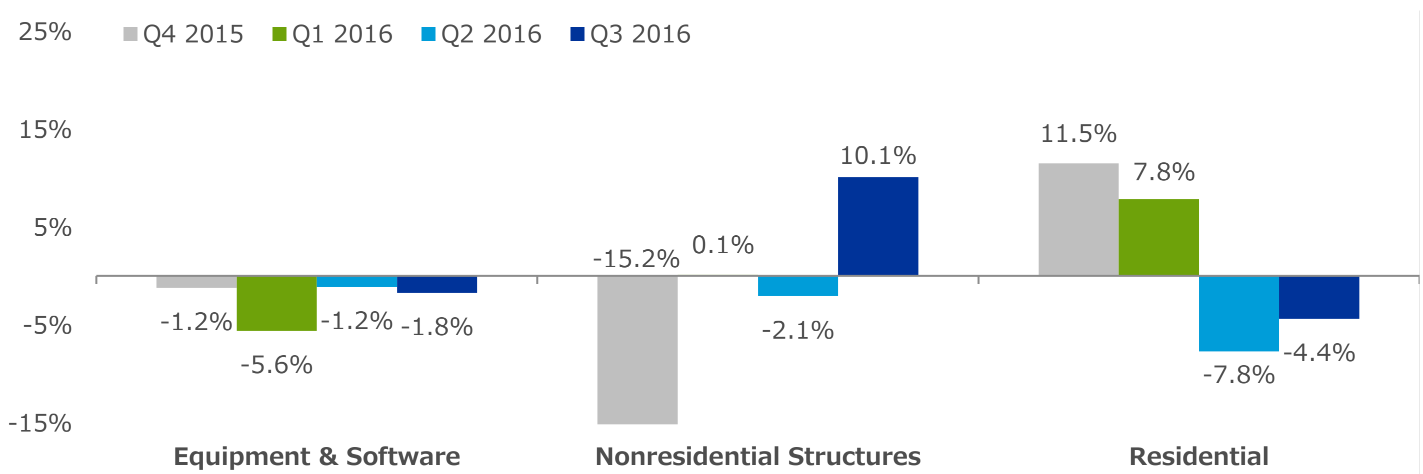
We anticipate that the Federal Reserve will raise its benchmark interest rate by 25 basis points in December. We also expect that a strengthening economy, rising wage growth, and an end to the energy price drag will compel the Fed to raise interest rates three times in 2017, by 75 basis points in total.

Recent Trends in U.S. Capital Investment

Equipment and software investment fell 1.8% (annualized) in the third quarter of 2016, the fourth straight quarterly decline. Residential investment fell by a 4.4% annualized rate, marking its second straight quarter-on-quarter contraction, but nonresidential structures investment posted an encouraging 10.1% annualized expansion in Q3.

Investment Growth Rates

Quarter-on-Quarter, Seasonally Adjusted Annualized Growth Rate



Source: Macrobond Financial

- **Equipment Leasing and Financing:** Industry momentum has been sluggish for most of 2016. The ELFA Monthly Leasing and Finance Index ("MLFI-25") for October was up 6.0% from year-ago levels, but cumulative new business volume year-to-date is down 2.7% from 2015. Portfolio performance remains strong by historical standards, but weakened somewhat in 2016. In October, 30-day delinquencies were at 1.4%, down slightly from the previous month but up from 1.0% in October 2015. Charge-offs, at 0.37%, were also down slightly from the previous month, but have been on the rise throughout 2016 and are up 10 basis points from year-ago levels.

  The Foundation's Monthly Confidence Index for the Equipment Finance Industry ("MCI-EFI") fell 1.4 points to 54.6 in November. Although the current reading is above the 2016 average, industry confidence has lagged all year, with an average reading of just 53.8 (down significantly from averages of 64.7 in 2015 and 62.8 in 2014). Industry executives expect little change in economic conditions over the near term, and they unanimously rated U.S. economic conditions as "fair." With the conclusion of the U.S. elections, some respondents expressed optimism that industry confidence would recover. However, some degree of policy uncertainty is likely to linger as the new administration takes shape.

Looking ahead, we expect industry performance to improve in the fourth quarter and next year. Most indicators suggest that the equipment leasing and finance industry has reached a trough and that investment should recover in 2017.

- **Equipment Verticals:** Q3 2016 was a disappointing quarter for equipment investment, as eight verticals experienced negative growth while just four (Materials Handling Equipment, Mining & Oilfield Machinery, Railroad Equipment, and Software) expanded. The best performing equipment vertical in the third quarter was Railroad Equipment, which grew at an annualized rate of 22.5%. This expansion follows three straight quarters of negative growth, and coincides with our previous Economic Outlook's forecast of an impending rebound for Railroad Equipment investment. At -39.5% annualized growth, Aircraft was Q3's worst-performing equipment vertical, after previously growing the fastest of all verticals in the second quarter (aircraft investment is notoriously volatile). Construction Machinery also contracted at a 35.2% annualized rate, its sixth consecutive contraction. Software is the only vertical that has experienced positive growth throughout 2016.

- **Other Factors:** Recent industrial sector data have been generally weak. Industrial production, already lower on average in 2016 than in 2015, was flat in October after falling in September. Capacity utilization has declined for the last three months, and was down 0.9 percentage points on the year in October. On a more positive note, shipments of durable goods, an indicator of Q4 growth, rose slightly in September and October (+0.8% and +0.1%, respectively), while new orders of durable goods, an indicator of Q1 2017 growth, rose 0.4% in September and an unusually strong 4.8% in October. Nevertheless, both indicators remain below where they started in 2016. Despite Q3's encouraging data on exports, the near-term outlook for exporting manufacturers has worsened due to the dollar's stronger position since early November.

Recent Trends in Credit Markets

Credit markets are still mostly healthy and have seen little major developments since last quarter, and loan standards are mostly unchanged. Credit demand has grown noticeably for consumers and households and increased slightly for businesses, underlying the potential for higher levels of consumer spending, residential investment, and business investment. At the same time, financial stress is historically low. The most noteworthy recent development in credit markets has been the jump in Treasury yields, spurred by Donald Trump's victory in the Presidential election.

- **Credit Supply & Pricing:** In Q3, Credit supply decreased slightly for commercial loans, increased slightly for household loans, and was unchanged for consumer loans. In the October Fed Loan Officer Survey, responders reported a net tightening on standards for commercial real estate ("CRE") loans, while standards for commercial and industrial (C&I) loans were flat. For household loans, banks eased standards on residential real estate mortgages, while consumer loan standards were unchanged.

- **Credit Demand:** Consumer credit demand is strong, as it has been throughout 2016. Deposits and loans for consumers grew by

Summary of Credit Conditions

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

annualized rates of 6.3% in September and 8.8% in August. In line with those increases, the October Fed Loan Officer Survey reported a moderate increase in demand for both auto and credit card loans in the third quarter. Meanwhile, the Conference Board's Consumer Confidence Index jumped 6.3 points to 107.1 in November, and the Michigan Consumer Sentiment Index likewise increased 4.1 points to 107.3, after a dip in September and October.

However, business demand for credit remains tepid. While the October Fed Loan Officer Survey showed a modest increase in demand for CRE loans, it also revealed a slight decline in demand for C&I loans, especially from large and middle-market firms. Year-on-year growth in C&I loans was 8.5-9.0% in Q3, down from over 10% earlier this year. Recent surveys are more optimistic, pointing to slightly improved business confidence that may boost credit demand. The Thomson Reuters/PayNet Small Business Lending Index ("SBLI") surged 8.6% in August and stands well above its historical average (but remains down 1.4% from year-ago levels.) Additionally, the National Federation of Independent Business ("NFIB") Small Business Optimism Index rose 0.9% in October after falling 0.3% in September, while Business Roundtable's Q4 CEO Economic Outlook Index was up 4.6 points to 74.2 (although CEO plans for capex spending during the first half of 2017 fell). Overall, these measures point to a modest uptick in business investment for the first half of 2017.

- **Financial Stress:** Financial stress is virtually unchanged from last quarter. The St. Louis Fed Financial Stress Index increased slightly in November but remains below normal, while the Kansas City Fed Financial Stress Index fell slightly. Loan and lease delinquency rates were flat in Q3, although delinquencies have increased overall in 2016, moving from 0.87% to 1.56% for loans and from 0.77% to 0.98% for leases. Looking ahead, while delinquencies may continue to trend slowly upwards, there is little indication of a large-scale deterioration in financial market conditions in 2017.
- **Other Factors:** 10-year Treasury yields have risen significantly so far in the fourth quarter. Interest rates on 10-year bonds rose gradually from 1.60% at the close of the third quarter to 1.88% on the morning of the November 8 election. Within 24 hours, bond yields surged 19 basis points to 2.07% on the close of November 9. They have continued their ascent since then and now stand close to 2.4%. Much of this sudden increase can be attributed to market expectations that President-elect Trump will deliver on his promised package of infrastructure investment, tax cuts, and reduced regulatory burden. It may also suggest these policies could lead to larger budget deficits and place upward pressure on inflation. Another major factor behind higher bond yields is the market's expectation for a December interest rate hike (see below).

Update on Fed Policy

After a year of waiting, most economists and institutional investors believe that the Federal Reserve Board will raise its benchmark interest rate by 25 basis points, to 0.50%, at its December 13-14 meeting. We concur with this consensus view, as Janet Yellen and the Board of Governors have sent strong signals in recent weeks that a rate increase is likely. With unemployment remaining at or below 5% throughout 2016 and the upward revision of Q3 GDP to 3.2% (up from an initial estimate of 2.9%), there is growing evidence that the U.S. economy appears to be on track for 2-3% growth after a growth pause in the first half of 2016 — offering further justification for the Fed to resume its efforts to normalize interest rates.

Over the course of 2016, market expectations for future rate increases in 2017 and 2018 have significantly lowered, considering the Fed's less optimistic growth projections for the medium term. However, we anticipate that the U.S. economy's solid fundamentals, the potential for increased business investment next year, and continued tightening in the labor market will compel the Fed to raise rates three times in 2017, as opposed to the consensus average of two rate increases.

OVERVIEW OF THE U.S. ECONOMY

In 2017, the U.S. economy is poised to experience decent growth. Consumer spending, labor markets, and wage growth are likely to remain solid, while business investment, residential investment, and exports are showing signs of improvement. After a growth pause during the first half of 2016 in which low energy and commodity prices contributed to weak business confidence and investment, the U.S. economy appears to be back on more solid footing. Healthy consumption levels — coupled with improving business confidence due to expectations that reduced political gridlock will increase the likelihood of market- and business-friendly policies — are key factors behind our optimistic growth outlook.

In the third quarter of 2016, GDP growth climbed above 3% after three straight quarters of weak growth. That improvement was driven by a moderate recovery in business investment, especially in structures and inventories; a surge in exports; and reasonably solid contributions from personal consumption and federal expenditures. Although residential investment declined for the second straight quarter, housing market fundamentals remain solid: housing starts jumped more than 25% in October, and indicators of rising demand should lead to a recovery in residential investment in the months ahead. The U.S. economy's major headwinds for 2017 are the "known unknowns" of mounting geopolitical tensions and an unpredictable policy environment.

Overall, we project the U.S. economy to grow 2.7% in 2017 —above the consensus estimate of 1.9% - 2.2%.

Recent Trends in the U.S. Economy

Solid consumer spending, improving business confidence, and a pickup in business and residential investment should propel U.S. economic growth in 2017. The 3.2% growth achieved in the third quarter signified the end of an extended growth pause in which the economy was stuck at 1% growth, and this uptick should persist into next year. However, a stronger dollar and the risk of a less-friendly trade environment could harm exports in 2017. Moreover, the combination of a strong labor market, rising wages, and a slowly recovering energy sector is likely to result in a moderate increase in inflationary pressures.

Indicator	Recent Activity
Consumption	Consumer spending rose at an annualized rate of 2.8%, a moderately strong reading.
Equipment & Software Investment	Equipment & software investment declined 1.8% (annualized), its fourth straight quarterly decline.
Residential Investment	Residential investment fell 4.4% (annualized), its second straight decline after eight quarters of growth.
Government Expenditures	Government spending rose slightly (+0.2% annualized). Federal spending posted +2.5% growth after two quarters of decline, while state and local spending fell.
Net Exports	Net exports rose significantly, as exports surged 10.1% (annualized) in Q3 while imports increased 2.1% (annualized).

- **Q3 GDP:** The U.S. economy grew at an annual rate of 3.2% in the third quarter of 2016, ending a period of near-stagnancy that defined the first half of the year. Consumer spending continued to support growth, while business investment expanded at 2.1% (annualized) after contracting for three consecutive quarters. This growth was mostly driven surging inventories and a 10.1% annualized expansion in structures investment (the first positive contribution in 6 quarters). Equipment investment, however, contracted by 4.8% (the fourth consecutive decline) and residential investment also surprisingly fell by 4.4%, despite reasonably solid leading indicators of housing activity in recent months. Net exports, which have disappointed for nearly two years, surged in Q3, although much of the increase was driven by a boom in soybean exports.

- **Inflation:** Inflation accelerated significantly in the third quarter. Beginning at a low of 0.8% year-on-year in July, headline inflation increased to 1.1% in August, then climbed to 1.5% in September and 1.6% in October. At this rate, inflation seems poised to reach the Fed's 2% target during the first quarter of 2017. As oil prices stabilize and remaining labor market slack is absorbed, we expect inflation to continue increasing at a moderate pace throughout the year. Economic fundamentals do not point to a rapid acceleration of inflation, as GDP projections are moderate (below 3%) and oil prices are expected to remain in the $40-$50 range. However, if President-elect Trump can deliver on his promises of tax cuts and infrastructure spending, inflationary pressures may mount at a faster pace than otherwise expected.
- **Growth Forecasts:** The *Economist* Poll of Forecasters for November estimated a growth rate of 2.1% for 2017. This falls within the range of the Federal Reserve's September "central tendency" forecast of 1.9%-2.2% growth.

Economic Tailwinds

Likely increases in business optimism, energy sector growth, and continued wage gains should help push the U.S. economy toward higher growth in 2017.

- **Improved Business Confidence:** Recent gains in business confidence across a range of sizes and sectors suggest that business investment could improve in 2017. The latest (pre-election) readings of the NFIB Small Business Optimism Index and Business Roundtable CEO Economic Outlook Index both rose, and while the Equipment Leasing and Finance Foundation's MCI-EFI declined in November, other signs are more positive. For example, stock markets (another proxy for business confidence) have surged in recent weeks, suggesting that investors believe a Trump administration and Republican Congress will provide a business-friendly climate. In addition, the Russell 2000 index of small stocks spiked 10% in the 10 days after November 8, while the Dow Jones Industrial Average experienced its best week in five years in mid-November. Stock performance in the financial and energy sectors has been particularly strong, which is a positive sign for the equipment leasing and finance industry.
- **Strong Wage Growth:** As labor markets continue to firm, wages should rise gradually throughout 2017. Average hourly earnings have increased steadily over the last year, driven by solid labor market growth, sustained sub-5% unemployment, and record-low jobless claims. If GDP growth picks up in 2017 as expected, the labor market should continue to tighten — and given that the economy is nearing full employment, businesses will increasingly need to entice new workers with higher wages to attract talent. Upward wage pressures would be amplified if federal policymakers can agree on an infrastructure spending package and tax relief for consumers and businesses. Wage growth, in turn, should translate into healthy personal consumption expenditures in 2017, which typically comprise 60-70% of the economy.
- **Oil Recovery**: With oil prices now settling in the $45–55 range and oilfield and mining investment exhibiting positive signs for the first time in two years, there appears to be a growing likelihood that the sector has bottomed out and, potentially, poised to resume growth. Mining and oilfield investment finally saw positive gains of 21.7% (annualized) in the third quarter, after seven consecutive quarters of major contractions. After reaching a nadir in May, the oil rig count has risen steadily; it now stands at 474, the highest reading since January. Most market experts do not expect oil prices to rise significantly in the near-term, but positive investment growth in Q3 growth suggests that the steep decline has halted. An additional factor working in the oil sector's favor is the prospect of a friendlier regulatory environment as the incoming Administration and

Republican-led Congress could relax restrictions on oil extraction, potentially boosting business confidence. While energy market forces are global, complex, and difficult to predict, the oil sector is unlikely to hold back growth the same extent as previous years — and could be a modest growth driver if recent investment trends continue.

Economic Headwinds

New downside risks have emerged over the last couple of months, posing potential headwinds to growth in 2017.

- **Trade Risks:** President-elect Trump's campaign rhetoric characterized free trade with other nations as a threat to domestic economic growth and prosperity. Despite a general view among economists that trade is good for the economy, the possibility that the United States could enact new trade barriers could bring with it serious economic consequences. Early signals from his transition team suggest that the President-elect Trump is prepared to follow through on at least some of his anti-trade rhetoric, including walking away from the Trans-Pacific Partnership (TPP), renegotiating or withdrawing from the North American Free Trade Agreement (NAFTA), and striking a sterner tone with China — including possibly labeling it as a currency manipulator. This posture toward trade could lead to retaliation from trading partners (particularly China), which would be counterproductive for all parties, including U.S. workers. While it remains unclear whether or how these plans will be pursued, the downside risk of a trade war, if realized, would be a major headwind to growth.
- **Potential Immigration Restrictions**: President-elect Trump repeatedly stated his opposition to immigration, especially illegal immigration, on the campaign trail. While his exact policy plans on immigration remain unclear, it appears likely that there will be a crackdown on illegal immigration, with hundreds of thousands (if not millions) of unauthorized residents facing deportation. Key advisors and cabinet officials have stated that legal immigration should also be reduced, including high-skilled and seasonal low-skilled workers. Most economists believe that immigrants, including undocumented immigrants, help to spur economic growth and create, rather than destroy, jobs for native-born workers overall. Several recent studies that have modeled the economic effect of hardline immigration policies have found that mass deportation would shave hundreds of billions off U.S. GDP, eliminate millions of jobs, negatively impact the housing market, and significantly lower household incomes. Although it remains to be seen what the new Administration's precise stance toward immigration will be, the downside economic risks of a draconian approach are significant.
- **Geopolitical Tensions:** 2016 was a year of sharp geopolitical shifts, and it appears likely that these trends will continue in 2017. The rise of new populist political movements has added a new level of unpredictability to the politics and policies of advanced economies. These movements (represented by President-elect Trump in the United States, the campaign for Brexit in the United Kingdom, the National Front in France, and other groups around the world that are skeptical of the benefits of immigration and free trade) offer renewed scrutiny to the liberal, free-market international order originally established and historically led by the United States and its allies. Many international relations experts worry that these new attitudes may lead to trade route closures, policy and regulatory unpredictability, the dismantling of alliances, increased military adventurism, and more high-stakes altercations between nations that increase the probability of war. It is difficult to determine how these new geopolitical risks will affect the U.S. economy, but they represent a potentially serious headwind that should not be ignored.

Additional Factors to Watch

Other potential developments under a Trump administration could have significant implications for the U.S. economy.

- **Infrastructure Spending:** One of President-elect Trump's major campaign proposals was a temporary boost to infrastructure spending. Policymakers of both parties recognize the need for additional investment to repair roads, bridges, airports, railroads, and other infrastructure, which increases the likelihood of a deal in Congress. An infrastructure bill would almost certainly benefit the construction industry, but other equipment verticals would likely also benefit, both directly and indirectly. Whether such a bill will materialize remains to be seen; the incoming Administration is likely to advocate strongly for it, but budget-conscious Republicans may balk. If the funding scheme relies at least partially on private sector investment through public-private partnerships and/or the establishment of an infrastructure bank, it is conceivable that the country could benefit from the stimulus boost while avoiding a major deficit increase. Any significant infrastructure improvement plan would help the U.S. economy, but a key factor to watch will be the size, design, and level of support for the final plan.
- **Corporate Tax Reform:** President-elect Trump has also promised to lower corporate taxes. At 35%, the U.S. corporate tax rate is among the world's highest, and there is general bipartisan agreement that lower rates would increase business activity, reduce the incentive to keep corporate profits offshore, and improve economic growth. However, disagreements often arise around the exact rate, as well as other tax code reforms and tangential but politically sensitive matters. Under a unified Republican government, corporate tax reform appears to be likely and should provide an economic boost — particularly if it is paired with a one-time incentive for businesses to repatriate foreign earnings at a reduced tax rate.
- **Regulatory Reform:** Finally, the President-elect has prioritized reforming the federal regulatory process and reducing the cumulative burden of regulation on U.S. businesses. While the details of his approach are not yet clear, he has promised to create a business-friendly regulatory environment and advocated for a "one in, two out" approach in which federal agencies could implement new regulations only if other regulations are rescinded. As with most policy matters, the devil will be in the details, and while several regulatory reform bills have been proposed in Congress over the years, few have gained traction in the House or Senate. However, given that President-elect Trump will appoint the officials who will oversee regulatory activities at EPA, USDA, DOL, DOI, and most other federal agencies, businesses will likely find the regulatory environment more favorable to their interests over the next four years than they have in the previous eight.

Projections for Key Economic Indicators

Indicator	2015	2016e	2017 Quarterly Estimates				2017e
			Q1e	Q2e	Q3e	Q4e	
Real GDP (SAAR %)	2.6%	1.6%	2.4%	2.7%	3.2%	3.3%	2.7%
Real Investment in Equipment & Software (SAAR %)	4.2%	-1.1%	2.8%	3.4%	3.7%	4.0%	2.1%
Inflation (year-on-year %)	0.1%	1.3%	2.0%	2.1%	2.2%	2.4%	2.2%
Federal Funds Target Rate (lower bound, end of period)	0.25%	0.50%	0.50%	0.75%	1.00%	1.25%	1.25%
10-year Treasury Rate (end of period)	2.3%	2.4%	2.6%	2.7%	2.8%	3.0%	3.0%
Total Payroll Growth (in thousands)	+2,744	+2,157	+504	+515	+540	+570	+2,129

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		
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Real Gross Domestic Product (SAAR %)									
GDP	5.0%	2.3%	2.0%	2.6%	2.0%	0.9%	0.8%	1.4%	3.2%
Consumer Spending	3.7%	4.6%	2.4%	2.9%	2.7%	2.3%	1.6%	4.3%	2.8%
Gross Private Fixed Investment	8.9%	2.6%	9.9%	1.0%	2.0%	-2.3%	-3.3%	-7.9%	2.1%
Inv: Equipment & Software	13.9%	-5.3%	9.1%	1.1%	6.7%	-1.2%	-5.6%	-1.2%	-1.8%
Inv: Agricultural Machinery	282.5%	-93.4%	-9.4%	22.0%	23.7%	-31.3%	-36.9%	15.1%	-8.2%
Inv: Construction Machinery	21.8%	242.8%	21.5%	-20.1%	-24.2%	-22.6%	-23.6%	-14.0%	-35.2%
Inv: Materials Handling Equipment	7.6%	-5.0%	8.2%	7.6%	-0.1%	11.6%	-3.8%	10.2%	0.9%
Inv: All Other Industrial Equipment	7.7%	-13.6%	-3.4%	15.8%	-7.4%	9.9%	-4.0%	9.1%	-5.1%
Inv: Medical Equipment	7.1%	1.6%	4.5%	-1.6%	7.8%	12.5%	-4.9%	5.1%	-1.9%
Inv: Mining & Oilfield Machinery	-6.2%	-53.6%	-32.3%	-54.2%	-42.4%	-28.8%	-42.4%	-70.9%	21.7%
Inv: Aircraft	220.0%	-10.6%	48.2%	27.3%	3.6%	-52.4%	-43.5%	64.5%	-39.5%
Inv: Ships & Boats	5.0%	-10.4%	57.3%	31.8%	-54.1%	9.8%	-19.6%	14.7%	-13.8%
Inv: Railroad Equipment	130.1%	-64.2%	63.0%	-93.6%	111.0%	-5.0%	-81.2%	-57.1%	22.5%
Inv: Trucks	9.0%	2.1%	37.5%	13.4%	20.6%	6.5%	3.7%	-10.1%	-19.3%
Inv: Computers	3.8%	3.9%	-17.1%	15.1%	12.7%	-26.1%	4.9%	11.9%	-4.1%
Inv: Software	9.8%	7.4%	8.6%	6.0%	-0.8%	3.3%	7.6%	4.5%	7.6%
Credit Conditions									
Nonfinancial Sector Debt (% of SAAR GDP)	65.2%	65.6%	66.3%	66.5%	67.2%	68.3%	69.0%	69.3%	69.8%
Loan Delinquency Rate	0.8%	0.7%	0.8%	0.8%	0.9%	1.0%	1.5%	1.6%	1.6%
Lease Delinquency Rate	0.8%	0.7%	0.7%	0.8%	0.8%	0.8%	0.9%	1.0%	1.0%
Net Tightening of C&I Loan Standards	-10.7%	-10.5%	-5.5%	-5.3%	-7.0%	7.4%	8.2%	11.6%	8.5%

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										
	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
Employment													
Change in Total Payrolls (thousands)	280	271	168	233	186	144	24	271	252	176	208	142	178
Change in Private Payrolls (thousands)	279	259	155	222	167	147	-1	238	221	132	205	135	156
Unemployment Rate	5.0%	5.0%	4.9%	4.9%	5.0%	5.0%	4.7%	4.9%	4.9%	4.9%	5.0%	4.9%	4.6%
Business Activity													
Industrial Production	104.5	104.0	104.5	104.4	103.4	103.8	103.7	104.2	104.6	104.5	104.2	104.3	-
Capacity Utilization	75.7%	75.4%	75.7%	75.6%	74.9%	75.2%	75.1%	75.4%	75.7%	75.6%	75.4%	75.3%	-
PMI Composite Index	48.4	48.0	48.2	49.5	51.8	50.8	51.3	53.2	52.6	49.4	51.5	51.9	53.2
NFIB Small Business Optimism Index	94.5	95.2	93.9	93.0	92.6	93.6	93.8	94.5	94.6	94.4	94.1	94.9	-
Consumer Activity													
Consumer Confidence	92.6	96.3	97.8	94.0	96.1	94.7	92.4	97.4	96.7	101.8	103.5	100.8	107.1
Personal Consumption (M/M % Chg)	0.2%	0.3%	-0.1%	0.3%	0.0%	0.7%	0.2%	0.4%	0.3%	-0.2%	0.3%	0.1%	-
Retail Sales (M/M % Chg)	0.4%	0.4%	-0.5%	0.3%	-0.3%	1.2%	0.2%	0.7%	0.1%	0.0%	1.0%	0.8%	-
Lending Activity													
C&I Loans (M/M % Chg)	1.0%	0.4%	0.6%	1.2%	1.7%	0.9%	0.7%	0.3%	0.4%	-0.3%	0.8%	1.0%	-
MLFI-25 New Business Volume (Bil.$)	6.1	12.5	6.0	6.1	8.1	7.3	6.8	10.0	7.0	7.7	9.4	8.2	-
MLFI-25 Avg Losses as a % of Net Rec.	0.30%	0.41%	0.26%	0.37%	0.51%	0.31%	0.33%	0.65%	0.38%	0.44%	0.46%	0.37%	-
MLFI-25 Credit Approval Ratio	79.0%	80.2%	78.0%	79.2%	77.7%	78.2%	76.5%	78.1%	75.9%	76.9%	76.6%	77.3%	-
Interest Rates (% avg of period)													
Fed Funds Target Rate (Lower Bound)	0.00	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
1-Year Treasury Rate	0.48	0.65	0.54	0.53	0.66	0.56	0.59	0.55	0.51	0.57	0.59	0.66	0.74
3-Year Treasury Rate	1.20	1.28	1.14	0.90	1.04	0.92	0.97	0.86	0.79	0.85	0.90	0.99	1.22
10-Year Treasury Rate	2.26	2.24	2.09	1.78	1.89	1.81	1.81	1.64	1.50	1.56	1.63	1.76	2.14
30-Year Treasury Rate	3.03	2.97	2.86	2.62	2.68	2.62	2.63	2.45	2.23	2.26	2.35	2.50	2.86
AAA Corporate Bond Yield	4.06	3.97	4.00	3.96	3.82	3.62	3.65	3.50	3.28	3.32	3.41	3.51	-
BAA Corporate Bond Yield	5.46	5.46	5.45	5.34	5.13	4.79	4.68	4.53	4.22	4.24	4.31	4.38	-
Prices													
Headline Inflation (Y/Y % Chg)	0.5%	0.7%	1.4%	1.0%	0.9%	1.1%	1.0%	1.0%	0.8%	1.1%	1.5%	1.6%	-
Core Inflation (Y/Y % Chg)	2.0%	2.1%	2.2%	2.3%	2.2%	2.1%	2.2%	2.2%	2.2%	2.3%	2.2%	2.1%	-
Oil Price (West Texas Int., $/barrel)	40.43	37.13	33.66	32.74	36.94	45.98	49.10	48.27	41.54	44.68	47.72	46.83	49.41

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

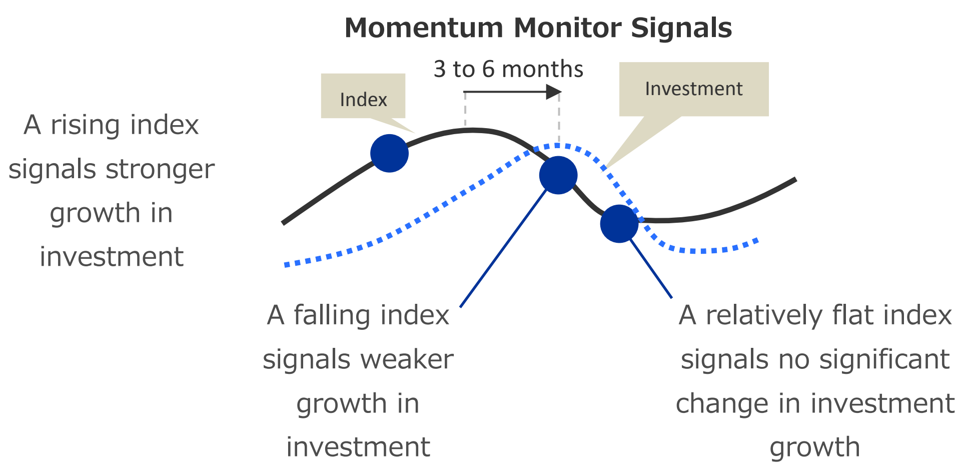
Business leaders require actionable forward-looking intelligence to make strategic decisions. Accordingly, the Foundation commissioned Keybridge LLC to develop a series of custom leading indicators for the equipment sector. The Foundation-Keybridge Equipment & Software Investment Momentum Monitor consists 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.

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.

KEYBRIDGE
Public Policy Economics

EQUIPMENT LEASING & FINANCE
FOUNDATION
Your Eye on the Future

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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