

January 2018

# U.S. Equipment & Software Investment Momentum Monitor



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## About the U.S. Equipment & Software Investment Momentum Monitor

Business leaders require actionable forward-looking intelligence to make strategic decisions. Accordingly, the Equipment Leasing & Finance Foundation commissioned Keybridge LLC to develop a series of custom leading indicators for the equipment sector. Published monthly, the “U.S. Equipment & Software Investment Momentum Monitor” consists of indices for the 12 equipment and software investment verticals listed below. These indices are designed to identify turning points in their respective investment cycles with a 3 to 6 month lead time.

The Momentum Monitor is based on Keybridge’s extensive research which shows that not all movements in economic data are reliable signals of future economic trends. Keybridge has operationalized its research by constructing indices, each comprised of between 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.

The Momentum Monitor covers 12 equipment and software verticals as defined by the U.S. Department of Commerce Bureau of Economic Analysis.

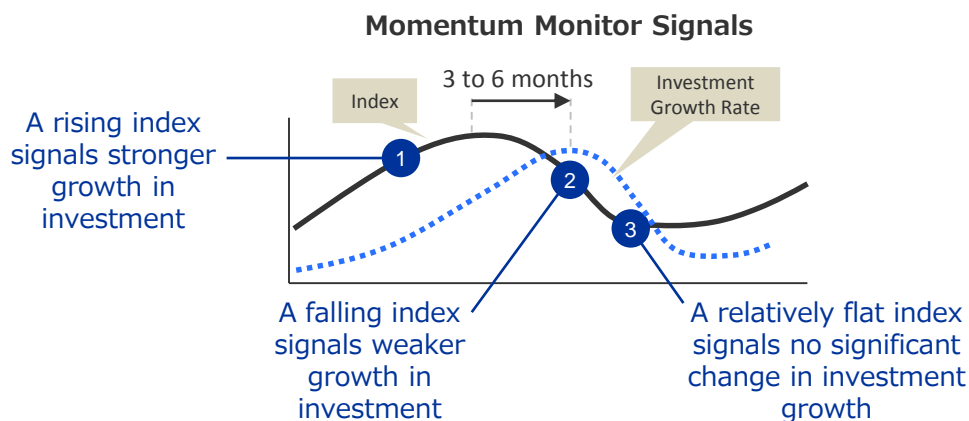
## U.S. Equipment & Software Investment Momentum Monitor – 12 Verticals

- |                                   |                       |
|-----------------------------------|-----------------------|
| 1) Agriculture Machinery          | 7) Aircraft           |
| 2) Construction Machinery         | 8) Ships and Boats    |
| 3) Materials Handling Equipment   | 9) Railroad Equipment |
| 4) All Other industrial Equipment | 10) Trucks            |
| 5) Medical Equipment              | 11) Computers         |
| 6) Mining & Oilfield Machinery    | 12) Software          |

## How to Read the 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:

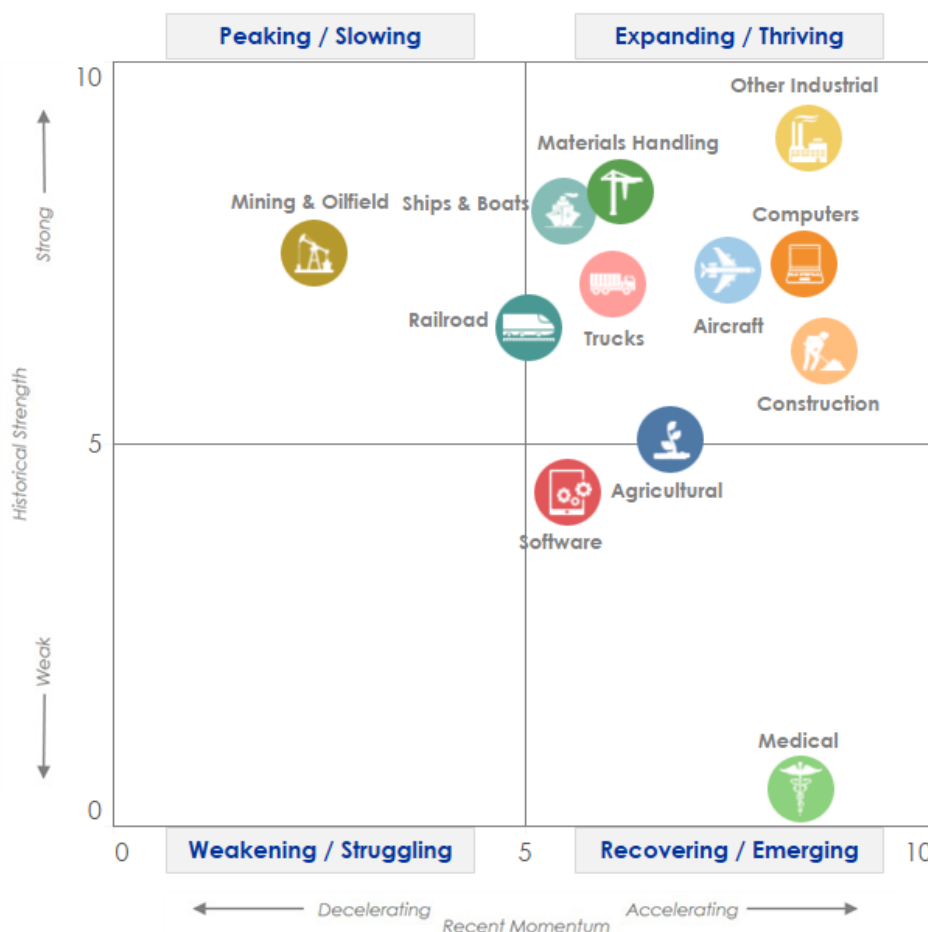
- 1 Investment in Materials Handling Machinery inched up at a 0.3% annualized rate in Q4 2014 and is up 7.3% year-over-year.
- 2 The Materials Handling Momentum Index slipped from 93.5 in February to 92.5 in March.
- 3 A 23% decline in the MNI-Chicago Business Barometer and a spike in Economic Policy 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 recent movements of one or more indicators to help to explain the index's latest reading.
- 4) Finally, the report ends with an interpretation of where investment growth is heading over the next 3 to 6 months based the index's recent movement and historical strength.

# U.S. Equipment & Software Investment Momentum Monitor

## January 2018

### Momentum Monitor Sector Matrix



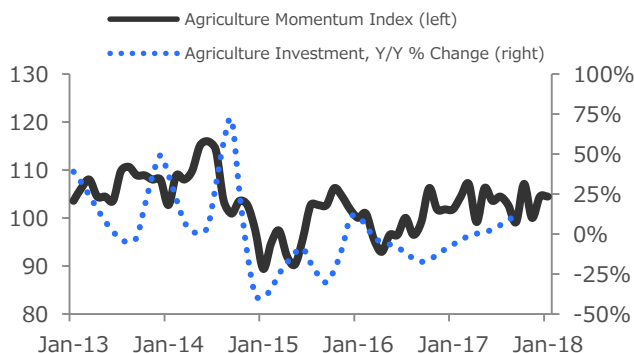
The matrix above summarizes the current values of each of the 12 Equipment & Software Investment Momentum Indices based on two factors: Recent Momentum (x-axis) and Historical Strength (y-axis):

- **"Recent Momentum"** represents the degree of an indicator's recent acceleration or deceleration in the past month relative to its average movement during the previous 3 months. Ratings closer to "0" represent an indicator that is rapidly decelerating, while ratings closer to "10" represent an indicator that is rapidly accelerating.
- **"Historical Strength"** represents the strength or weakness of an indicator in the past month relative to its typical level since 1999. Ratings closer to "0" represent an indicator that is weaker than average, while ratings closer to "10" represent an indicator that is stronger than average.

The matrix is comprised of four quadrants according to each vertical's recent momentum and historical strength readings. If a vertical is located in the top-left quadrant, its momentum reading is higher than average, but positive movement has slowed (and perhaps reversed) in recent months — suggesting that investment levels may fall over the next 1-2 quarters. Verticals located in the bottom-right quadrant, however, have momentum readings that are below average, but recent movement shows promise — suggesting that investment levels may rise over the next 1-2 quarters. This makes them potentially attractive targets for new short-term leasing and finance opportunities.

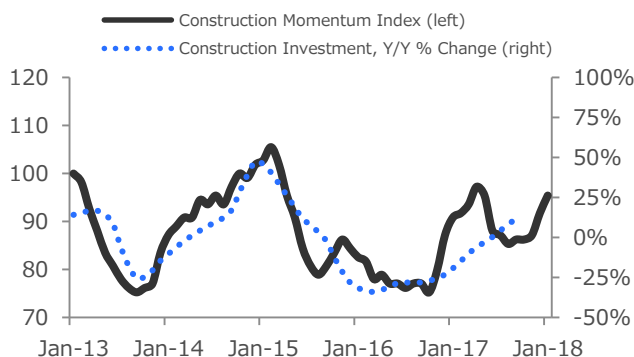
### Agriculture Machinery:

Investment in Agricultural Machinery expanded at an average rate of 24% in Q3 2017 and is up 12% from one year ago. The Agriculture Momentum Index held steady at 104.4 from December (revised) to January. The National Average Temperature rose 0.9 degrees to 55.4 F in November, but National Average Precipitation dropped to its lowest level in a year. Overall, the Index and recent movement point to stable agricultural machinery investment growth over the next three to six months.



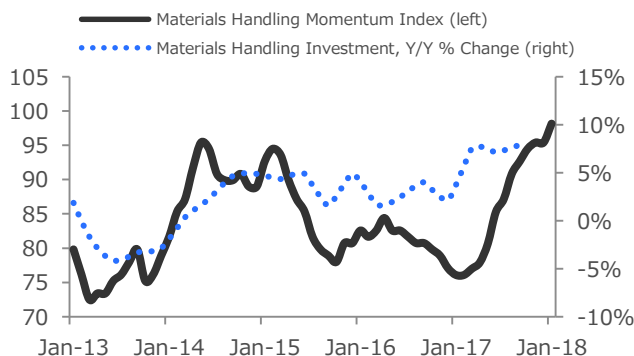
### Construction Machinery:

Investment in Construction Machinery rose at a 6.8% annual rate in Q3 2017 and is up 12% year-over-year. The Construction Momentum Index increased from 91.7 (revised) in December to 95.4 in January. Construction Machinery Shipments increased 2.3% in November, while Housing Starts in the West surged 19%. Overall, the Index suggests that construction machinery investment growth could improve later in 2018.



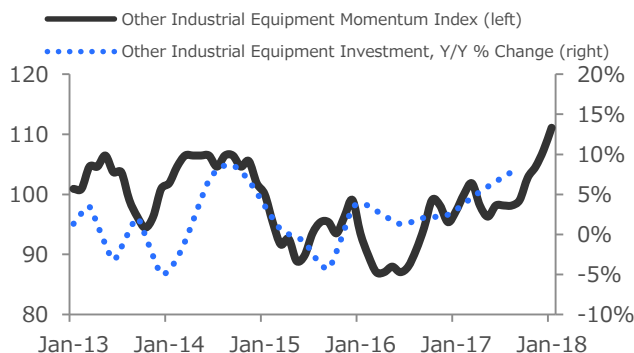
### Materials Handling Equipment:

Investment in Materials Handling Equipment increased at a 6.2% annual rate in Q3 2017 and is up 7.9% year-over-year. The Materials Handling Momentum Index rose from 95.4 in December to 98.2 in January, its highest level since March 2012. The ISM Manufacturing: Supplier Deliveries rose 2.5% in December, while Machinery Inventory Prices increased for the 7<sup>th</sup> consecutive month in November. Overall, the Index points to further strengthening in materials handling equipment investment growth over the next two quarters.



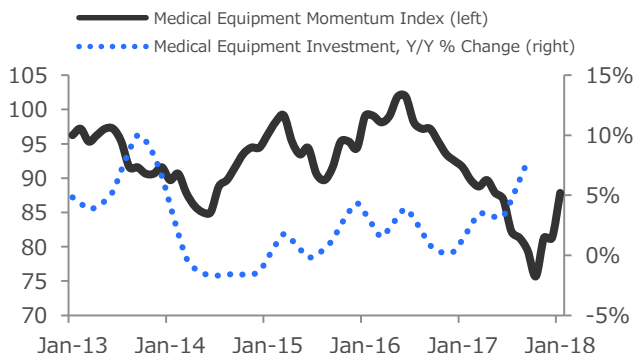
### Other Industrial Equipment:

Investment in Other Industrial Equipment rose by a 8.4% annual rate in Q3 2017 and is up 8.3% from a year ago. The Other Industrial Equipment Momentum Index jumped from 107.4 (revised) in December to 111.1 in January, its strongest reading in six years. Manufacturing Shipments (Excluding Defense) increased 1.2% in November, its 8<sup>th</sup> consecutive increase. However, the Fed Funds Effective Rate jumped 26 basis points. Overall, the Index signals faster growth in industrial equipment investment over the next two quarters.



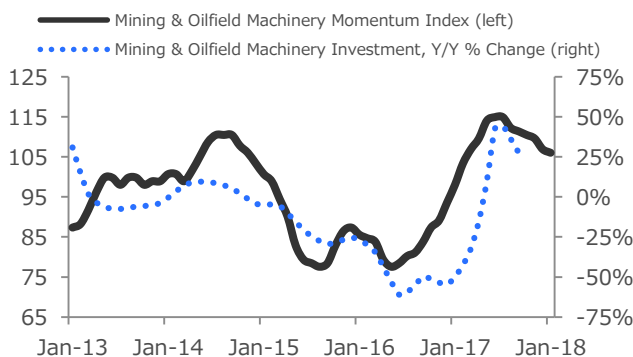
### Medical Equipment:

Investment in Medical Equipment expanded at a 17% annual rate in Q3 2017 and is up 7.9% year-over-year. The Medical Equipment Momentum Index surged from 81.3 (revised) in December to 87.9 in January. The Monthly Household Estimate rose 0.4% in September after another robust 0.5% increase in August, but CPI Medical: Physicians' Services is down 1.8% on the year in November. Overall, the Index points to continued positive growth in medical equipment investment over the next two quarters.



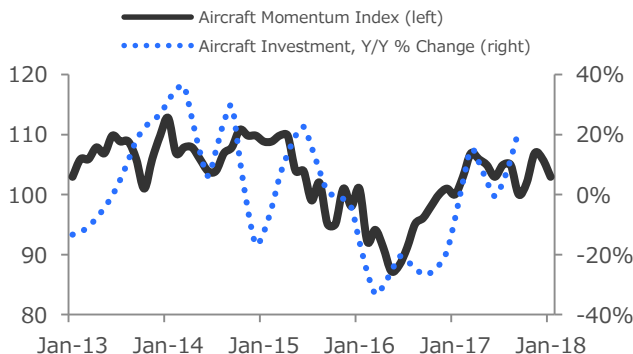
### Mining & Oilfield Machinery:

Investment in Mining & Oilfield Machinery increased at a 23% annual rate in Q3 2017 and is up 27% year-over-year. The Mining & Oilfield Machinery Momentum Index slipped from 106.9 (revised) in December to 106.0 in January. Industrial Production: Oil & Gas Extraction rose 2.8% in November, but Jobless Claims in North Dakota rose 10% in December and are now up nearly 400% since September. Overall, Index's current level suggests continued strength in mining & oilfield machinery investment over the next three to six months, though the investment growth rate may have peaked last spring.



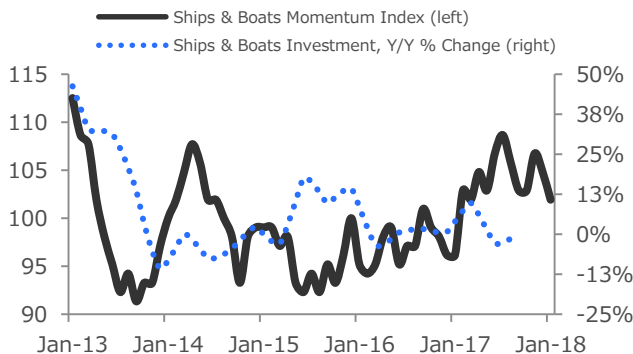
### Aircraft:

Investment in Aircraft surged at a 74% annual rate in Q3 2017 and is up 22% on a year-over-year basis. The Aircraft Momentum Index dropped from 105.9 (revised) in December to 102.9 in January. Southwest Airlines Market Cap rose 7.9% in December, but was outweighed by a 26% drop in Exports of Civilian Aircraft in October. Overall, the Index's recent movement points to continued positive growth in aircraft investment over the next two quarters.



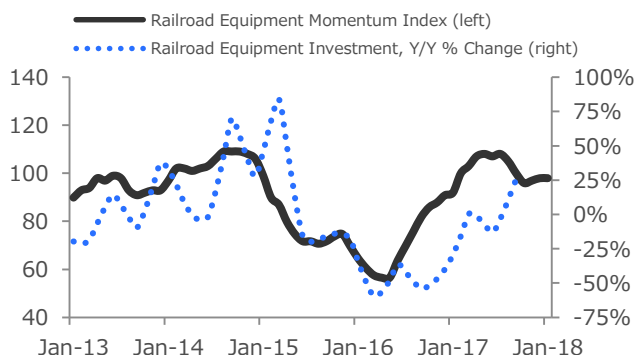
### Ships & Boats:

Investment in Ships & Boats fell at an annual rate of 5.5% in Q3 2017 and is down 0.5% year-over-year. The Ships & Boats Momentum Index fell from 104.8 in December to 101.9 in January. Port of LA Container Traffic surged 23% in November, but Raw Steel Production declined by a further 2.6% in December after falling 20% the previous month. Overall, the Index points to modest growth in ships and boats investment over the next three to six months.



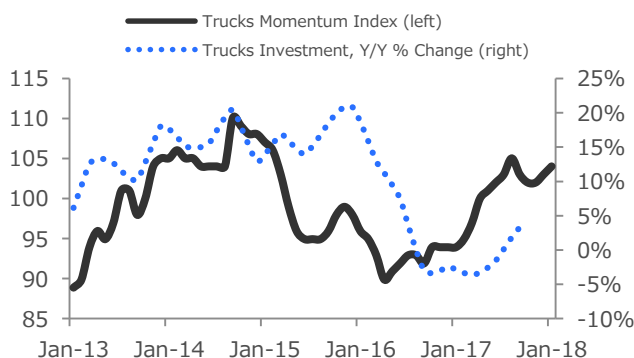
### Railroad Equipment:

Investment in Railroad Equipment rebounded at a 225% annual rate in Q3 2017 and is up 26% year-over-year. The Railroad Equipment Momentum Index held steady at 98.0 from December (revised) to January. In November, Industrial Production: Mining rose 2.0%, but Industrial Production: Railroad Rolling Stock fell 3.0%. Overall, the Index signals a slight moderation in railroad equipment investment growth over the next two quarters.



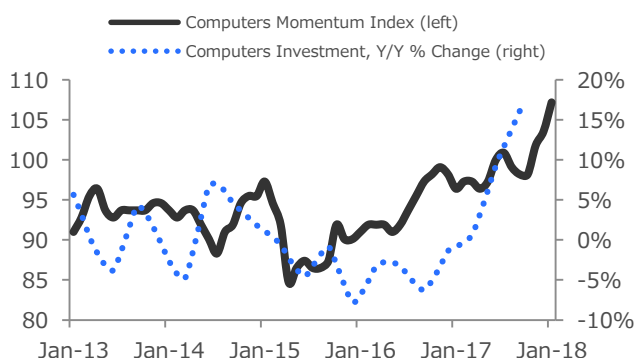
### Trucks:

Investment in Trucks rose at a 4.5% annual rate in Q3 2017 and is up 3.3% from year-ago levels. The Trucks Momentum Index increased from 103.0 in December to 104.0 in January. The ISM Manufacturing Index rose 2.6% in December, while Inventories of Transportation equipment ticked up slightly in November after declining the previous three months. Overall, the Index signals that trucks investment growth should continue to strengthen over the next three to six months.



### Computers:

Investment in Computers expanded at an annual rate of 26% in Q3 2017 and is up 16% year-over-year. The Computers Momentum Index surged from 103.6 in December to 107.2 in January. Shipments of Consumer Goods rose 1.5% in November, the largest monthly increase in nearly a year. Meanwhile, Microsoft's Market Cap furthered gains by 1.6% in December. Overall, the Index points to further strengthening in computers investment growth over the next two quarters.



### Software:

Investment in Software rose by an 8.2% annual rate in Q3 2017 and is up 5.4% year-over-year. The Software Momentum Index increased from 92.2 (revised) in December to 94.8 in January. Consumer Revolving Credit rose 0.8% in October, the largest gain in nearly a year, while Real Personal Consumption Expenditures rose 0.4% in November. Overall, the Index's recent movement suggests little change in software investment growth over the next three to six months.

