

January 2017

# 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.

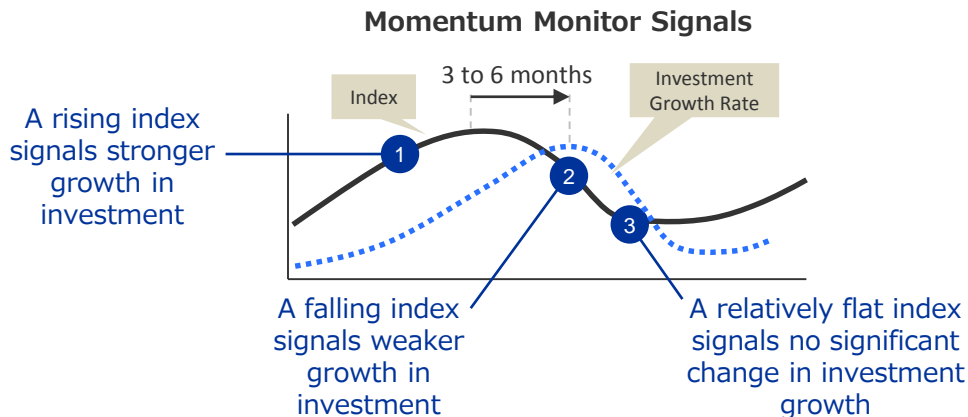
## U.S. Equipment & Software Investment Momentum Monitor – 12 Verticals

- |                                   |                       |
|-----------------------------------|-----------------------|
| 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:

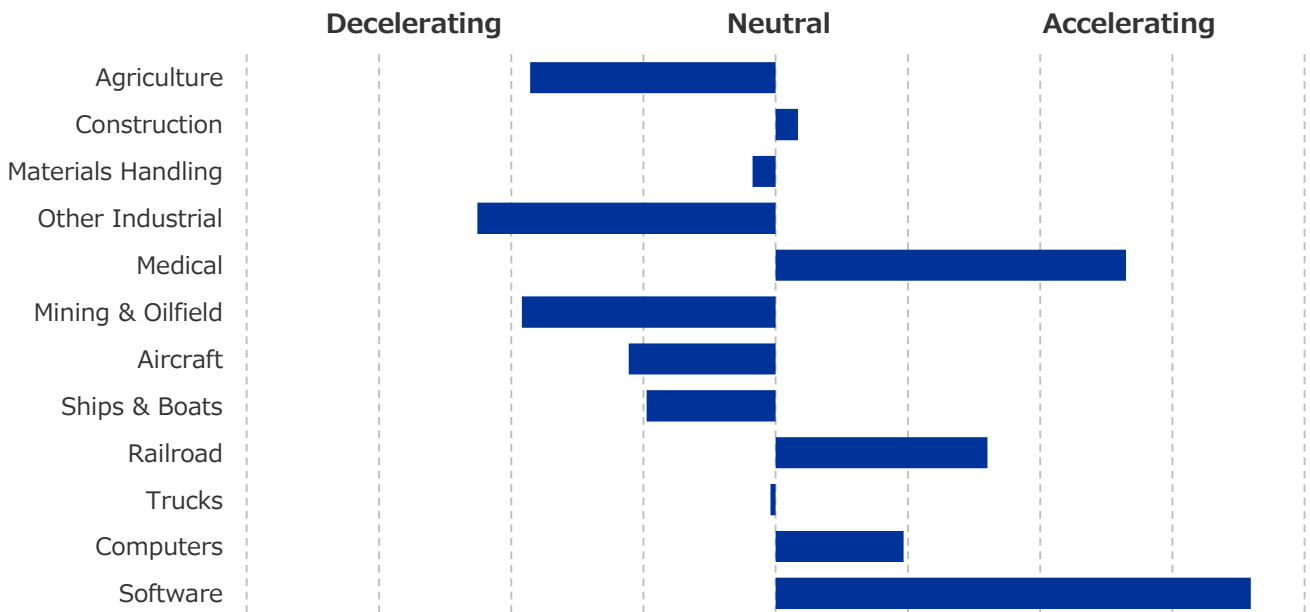
- 1 Investment in Materials Handling Machinery inched up at a 0.3% annualized rate in Q4 2014 and is up 7.3% year-over-year.
- 2 The Materials Handling Momentum Index slipped from 93.5 in February to 92.5 in March.
- 3 A 23% decline in the MNI-Chicago Business Barometer and a spike in Economic Policy 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 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.

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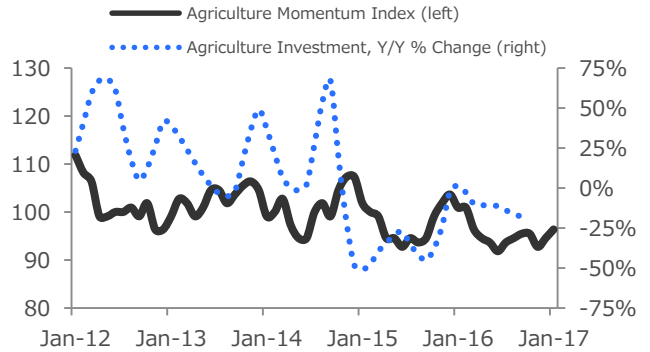
## Equipment Vertical Momentum Relative to 10-Year Historical Average



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).

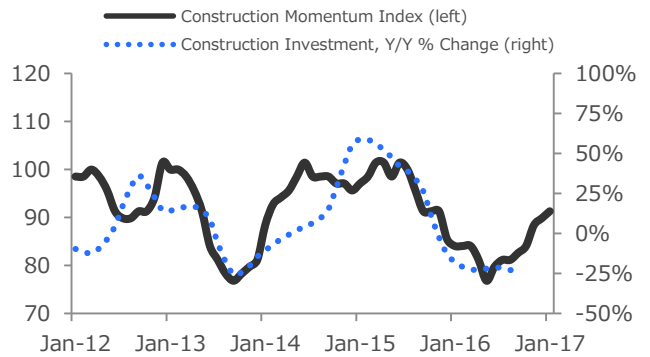
**Agriculture Machinery:**

Investment in Agricultural Machinery contracted at an annual rate of 9.1% in Q3 2016 and is down 17.9% from one year ago. The Agriculture Momentum Index rose from 94.5 (revised) in December to 96.4 in January. The National Average Temperature increased 3.4% in November, and Farm Machinery Inventories rose 2.0% in October, their third straight increase. However, in December the Fed Funds Rate jumped 24 basis points to 0.55. Overall, the Index suggests little change in agricultural machinery investment growth over the next three to six months.



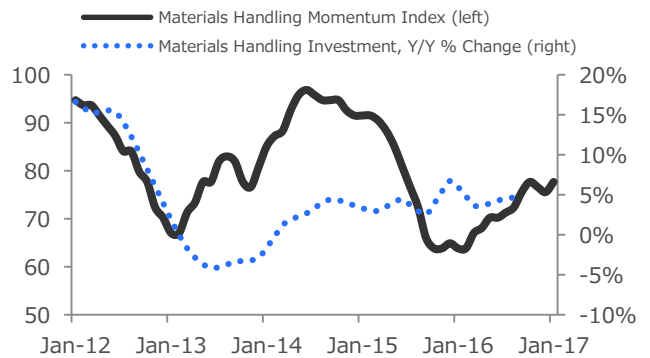
**Construction Machinery:**

Investment in Construction Machinery fell at a 35.2% annual rate in Q3 2016 (the sixth straight decline), and is down 24.2% year-over-year. However, the Construction Momentum Index increased from 89.9 (revised) in December to 91.3 in January, its highest level in over a year. In October, Construction Machinery Shipments rose 2.9% (its third consecutive increase) and Real Personal Consumption Expenditures ticked up 0.1% in November. Overall, the Index points to a rebound in construction machinery investment growth over the next two quarters.



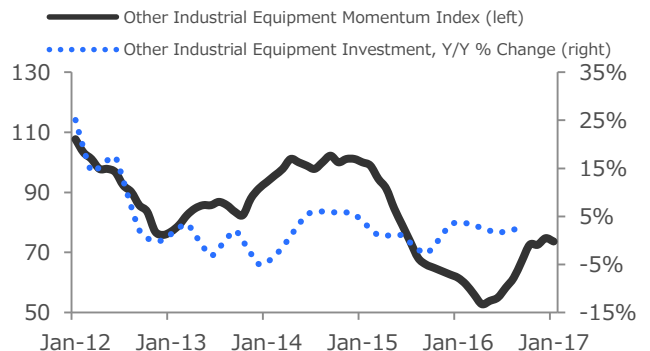
**Materials Handling Equipment:**

Investment in Materials Handling Equipment rose by a 0.8% annual rate in Q3 2016, and is up 4.5% year-over-year. The Materials Handling Momentum Index increased from 75.5 in December to 77.7 in January. The Dow Jones Industrial Balance jumped 29.5% in December, while Machinery Wholesale Sales ticked up 1.1% in October. Overall, the Index suggests stronger investment growth in materials handling equipment over the next three to six months.



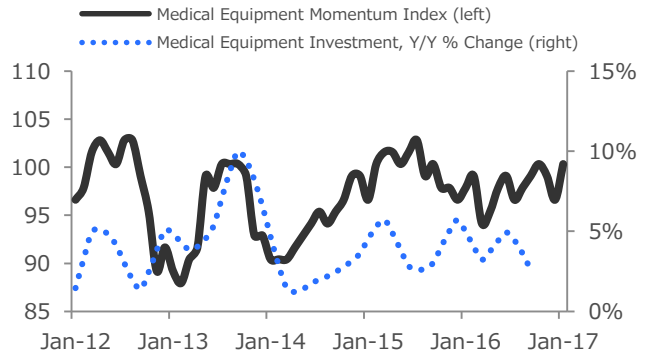
**Other Industrial Equipment:**

Investment in All Other Industrial Equipment fell by a 4.5% annual rate in Q3 2016, but is up 2.4% from a year ago. The Other Industrial Equipment Momentum Index slipped from 74.7 (revised) in December to 73.6 in January. In December, the Fed Funds Rate jumped 24 basis points to 0.55, but the ISM Chicago Price Paid Index increased 2.1%. Overall, the Index's recent movement points to a pick-up in industrial equipment investment growth over the next three to six months.



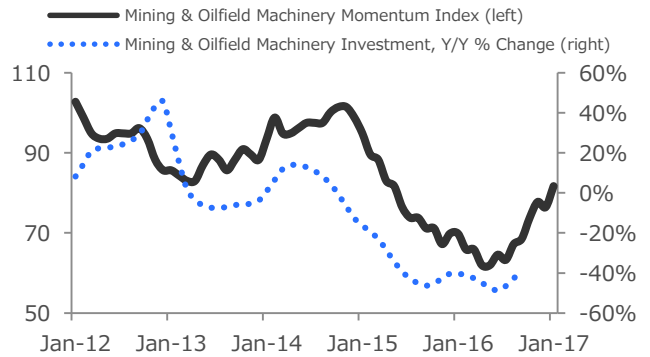
**Medical Equipment:**

Investment in Medical Equipment decreased at a 1.4% annual rate in Q3 2016 but is up 2.6% year-over-year. The Medical Equipment Momentum Index increased from 96.6 in December to 100.3 in January. In November, Education & Health Services Employment rose 0.2% (continuing a trend of steady increases), while New Orders of Non-Defense Capital Goods jumped 14.4% in October. Overall, the Index suggests no major change in medical investment growth over the next three to six months.



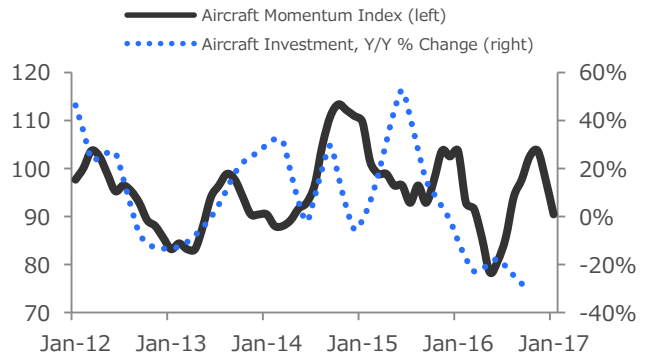
**Mining & Oilfield Machinery:**

Investment in Mining & Oilfield Machinery rose at a 23.1% annual rate in Q3 2016 — its first quarterly increase in over two years — but remains down 38.1% year-over-year. The Mining & Oilfield Machinery Momentum Index rose from 76.4 (revised) in December to 81.7 in January, its strongest reading in 18 months. In November, Oil & Petroleum Product Imports increased 13.9%. Overall, the Index points to improved mining & oilfield investment growth over the next two quarters.



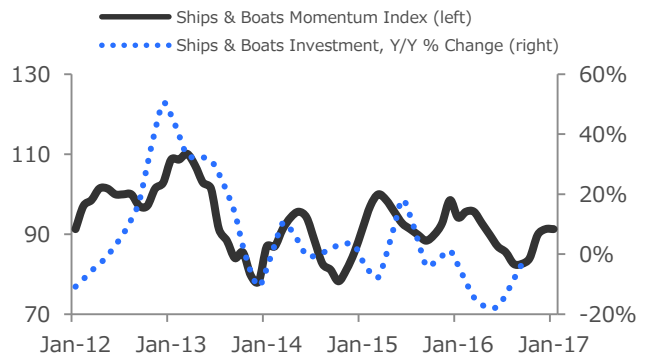
**Aircraft:**

Investment in Aircraft dropped 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 97.7 (revised) in December to 90.5 in January. Overseas Tourism dropped 5.7%, and Shipments of Non-Defense Aircraft fell 8.2% in November. However, New Orders of Non-Defense Aircraft jumped 103.3%. Overall, the Index signals strengthening aircraft investment growth over the next three to six months, despite the recent decline.



**Ships & Boats:**

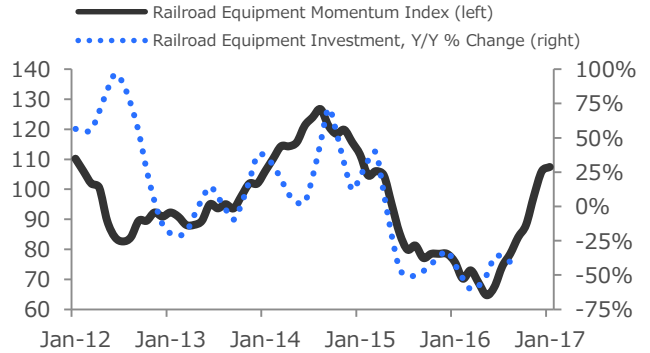
Investment in Ships & Boats fell at an annual rate of 13.6% in Q3 2016 and is down 3.3% year-over-year. The Ships & Boats Momentum Index held steady at 94.0 from December (revised) to January. Although the ISM Manufacturing Employment Index rose 1.5% in December, this was offset by a 4.5% decline in Industrial Production of Consumer Energy Products in November. Overall, the Index suggests continued subdued investment growth in ships & boats over the next three to six months.





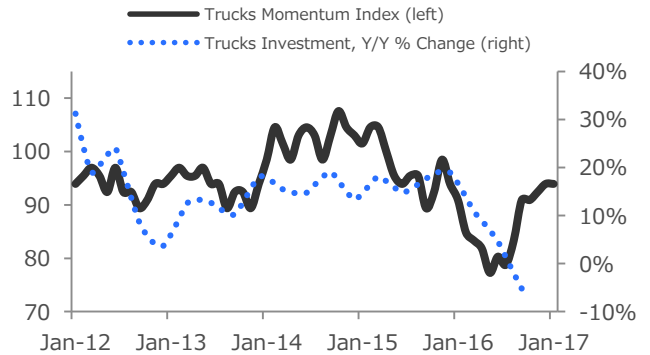
**Railroad Equipment:**

Investment in Railroad Equipment rose at a 22.5% annual rate in Q3 2016 but remains down 44.6% year-over-year. The Railroad Equipment Momentum Index climbed from 106.1 (revised) in December to 107.4 in January, its highest level in two years. In November, the Unemployment Rate fell to 4.6% (its lowest level in nearly 10 years), while Machine Tool Orders jumped 47.7% in September. Overall, the Index points to a rebound in railroad equipment investment growth over the next two quarters.



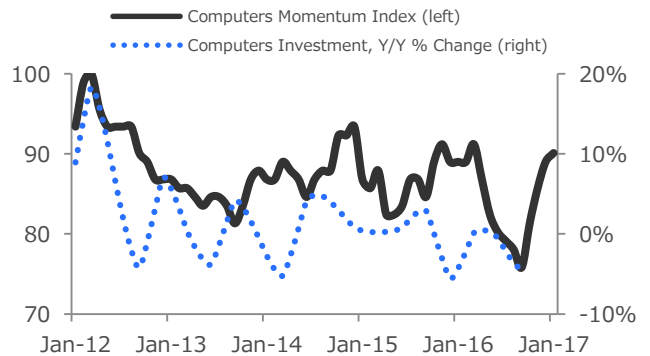
**Trucks:**

Investment in Trucks declined at a 18.9% annual rate in Q3 2016 and is down 5.3% from year-ago levels (the first year-over-year decline since 2009). The Trucks Momentum Index held steady at 93.9 from December (revised) to January. In November, Housing Starts dropped 18.7%, while Industrial Production of Non-Durable Energy Materials also fell 1.7%. Overall, the Index continues to signal an investment growth rebound in trucks over the next two quarters.



**Computers:**

Investment in Computers fell at an annual rate of 4.2% in Q3 2016 and is down 4.5% year-over-year. The Computers Momentum Index ticked up from 89.0 (revised) in December to 90.1 in January. Computer & Electronic Industrial Production climbed 0.5%, while Appliance & Electronic Retail Sales fell 6.6% in October. Overall, the Index suggests that computers investment growth will rebound over the next three to six months.



**Software:**

Investment in Software rose by a 6.6% annual rate in Q3 2016, and is up 5.5% year-over-year. The Software Momentum Index slipped from 107.7 (revised) in December to 106.4 in January. Travel Services Exports fell 1.1% in October, its first decline in six months. Overall, the Index's elevated position indicates that software investment growth will continue to improve over the next three to six months, despite recent slippage in momentum.

