

November 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.

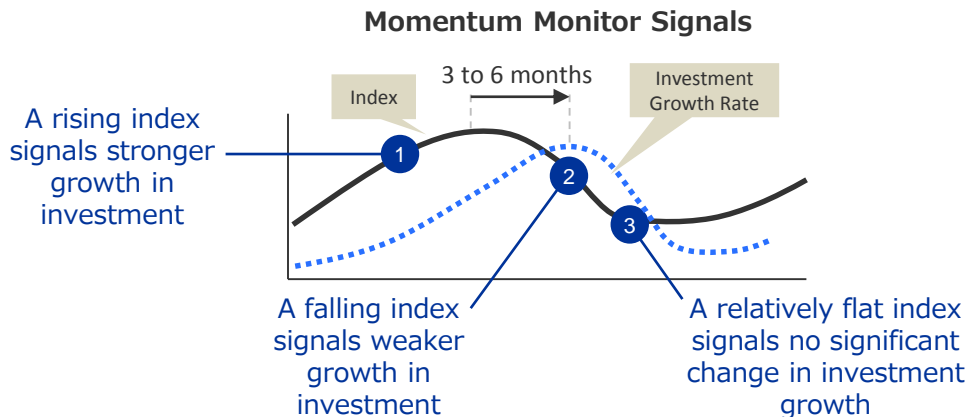
U.S. Equipment & Software Investment Momentum Monitor – 12 Verticals

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

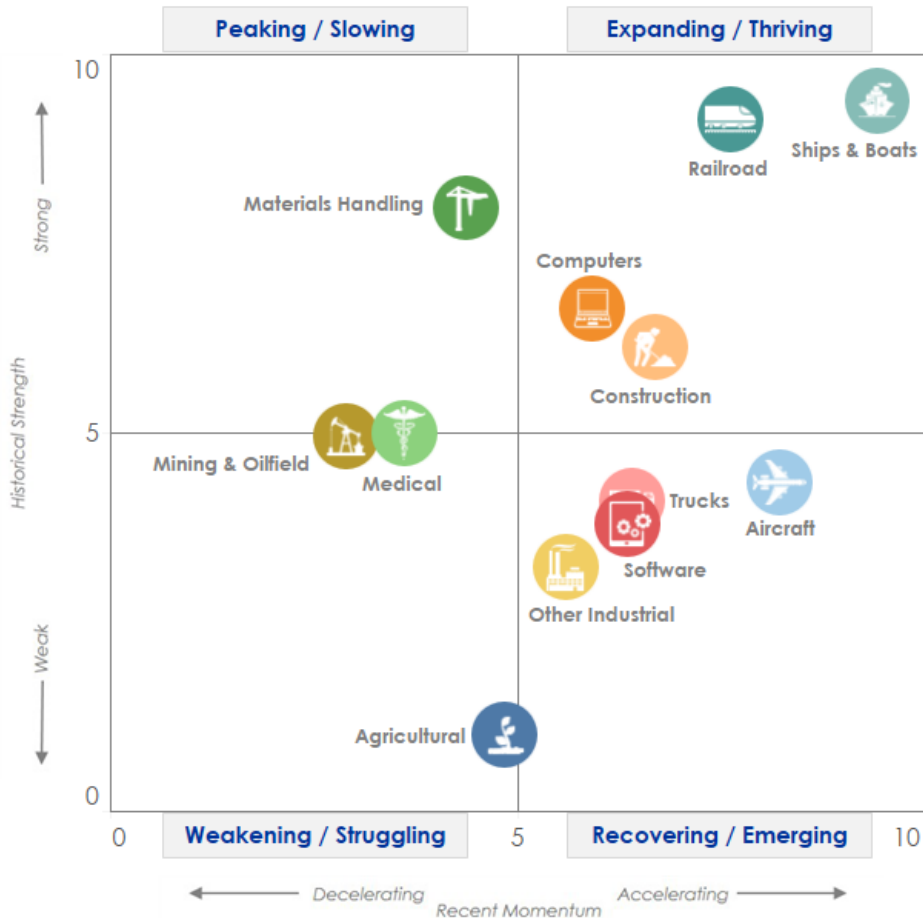
- 1) Investment in Materials Handling Machinery inched up at a 0.3% annualized rate in Q4 2014 and is up 7.3% year-over-year.
- 2) The Materials Handling Momentum Index slipped from 93.5 in February to 92.5 in March.
- 3) A 23% decline in the MNI-Chicago Business Barometer and a spike in Economic Policy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

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Momentum Monitor Sector Matrix



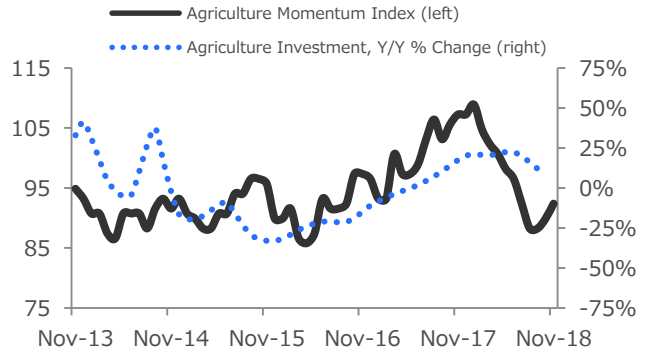
The matrix above summarizes the current values of each of the 12 Equipment & Software Investment Momentum Indices based on two factors: Recent Momentum (x-axis) and Historical Strength (y-axis):

- **"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.

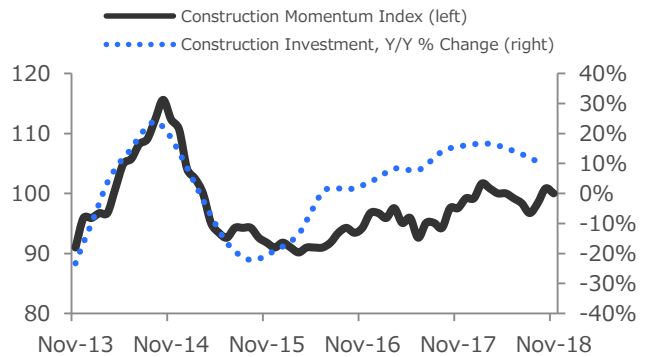
Agriculture Machinery:

Investment in Agricultural Machinery fell 13% (annualized) in Q3 2018 but is up 12% from one year ago. The Agriculture Momentum Index improved from 89.9 (revised) in October to 92.4 in November. Exports of Rice & Other Food Grains increased 9.3% in August, but Lamb & Mutton Production dropped 15% in September. Overall, despite recent increases, the Index continues to point to a softening in agricultural machinery investment growth over the next three to six months.



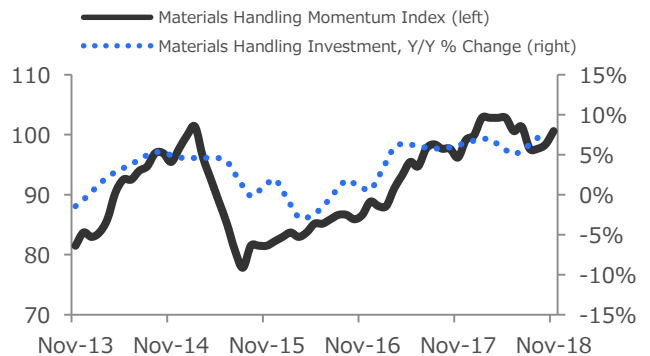
Construction Machinery:

Investment in Construction Machinery declined at a 3.0% annual rate in Q3 2018 but is up 10% year-over-year. The Construction Momentum Index edged down from 100.8 (revised) in October to 100.0 in November. For-Sale Housing Stock expanded 2.8% in September, the strongest increase since December 2016, while Construction Employment rose 0.4% in October. Overall, the Index points to steady growth in construction machinery investment over the next three to six months.



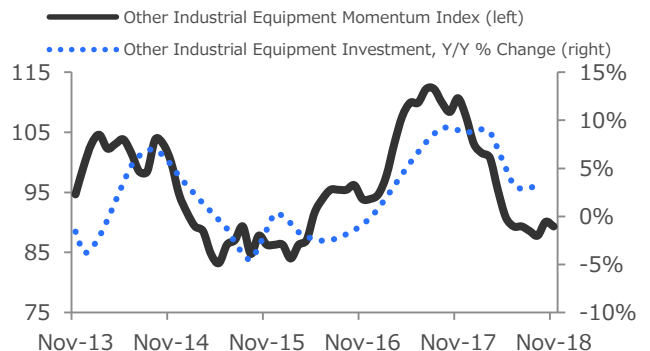
Materials Handling Equipment:

Investment in Materials Handling Equipment increased at a 12% annual rate in Q3 2018 and is up 7.1% year-over-year. The Materials Handling Momentum Index rose from 98.4 (revised) in October to 100.6 in November. Exports of Materials Handling Equipment expanded 5.3% in August, and Inventories of Materials Handling Equipment increased 1.5% in September. Overall, the Index points to continued solid growth in materials handling equipment investment growth over the next two quarters.



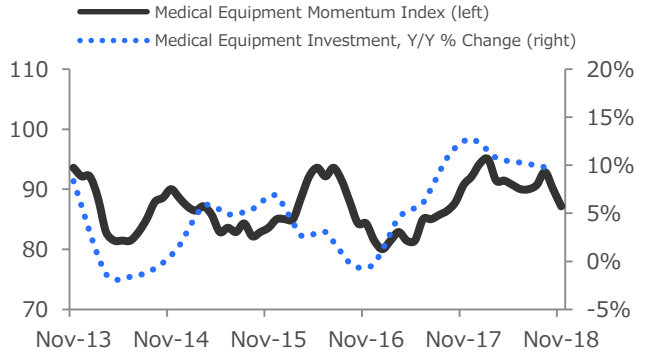
Other Industrial Equipment:

Investment in All Other Industrial Equipment rose at a 9.1% annual rate in Q3 2018 and is up 3.3% from a year ago. The Other Industrial Equipment Momentum Index ticked down from 90.1 (revised) in October to 89.3 in November. Export Prices of Industrial Supplies & Materials dropped 29% in September, its sharpest decrease in over a year, while the Manufacturing PMI fell 2.1 points to 57.7 in October. Overall, the Index continues to point to weak growth in other industrial equipment investment over the next three to six months.



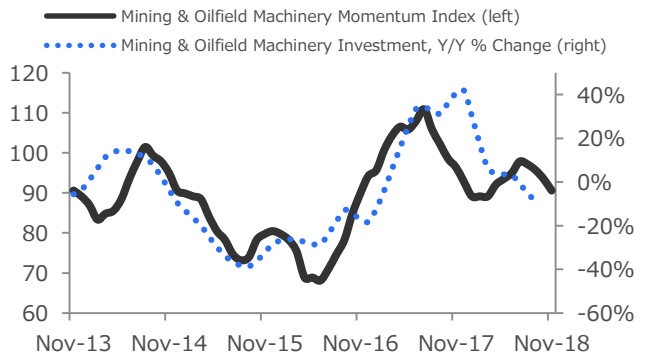
Medical Equipment:

Investment in Medical Equipment expanded at a 13% annual rate in Q3 2018 and is up 10% year-over-year. The Medical Equipment Momentum Index decreased from 90.0 (revised) in October to 87.1 in November, its lowest level in over a year. Household Spending on Medical Services fell 0.1% in September, and the Cardinal Health Market Cap declined 6.3% in October. Overall, the Index points to somewhat slower growth in medical equipment investment over the next two quarters.



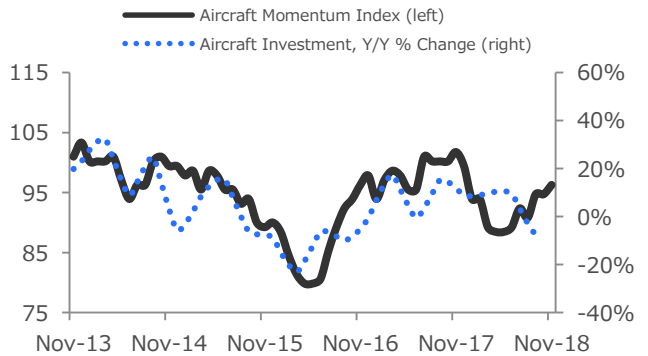
Mining & Oilfield Machinery:

Investment in Mining & Oilfield Machinery declined at an 18% annual rate in Q3 2018 and is down 9.2% year-over-year. The Mining & Oilfield Machinery Momentum Index fell from 93.5 (revised) in October to 90.6 in November, its fourth consecutive decline. In September, Cooling Degree Days dropped 33%, while Industrial Production in Support Activities for Mining & Drilling fell 1.4%, its third straight decline. Overall, the Index points to continued weakness in mining & oilfield machinery investment over the next three to six months.



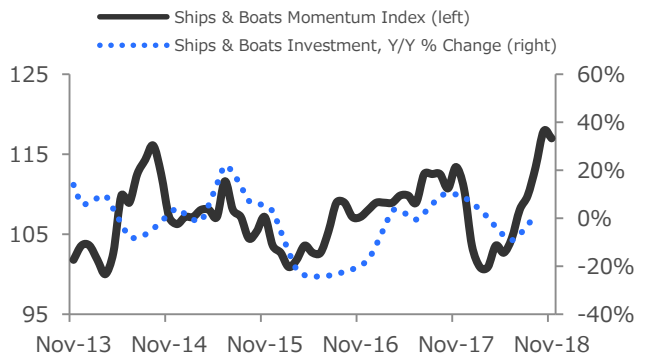
Aircraft:

Investment in Aircraft dropped 26% (annualized) in Q3 2018 and is down 7.8% on a year-over-year basis. The Aircraft Momentum Index rose from 94.7 (revised) in October to 96.3 in November. Inventories of Defense Capital Goods edged up 0.8% in September, while Exports of Civilian Aircraft jumped 30%, its second consecutive double-digit gain. Overall, the Index points to improved aircraft investment growth over the next two quarters.



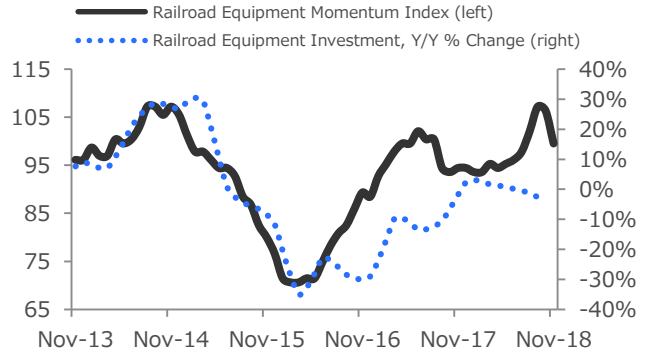
Ships & Boats:

Investment in Ships & Boats surged at an annual rate of 69% in Q3 2018 and is up 1.6% year-over-year. The Ships & Boats Momentum Index edged down from 117.9 (revised) in October to 117.0 in November. Inventories of Ships & Boats rose 0.3% in September, while the ISM Employment Index declined to 56.8 but remains above the expansion threshold. Overall, the Index continues to indicate stronger growth in ships and boats investment over the next three to six months.



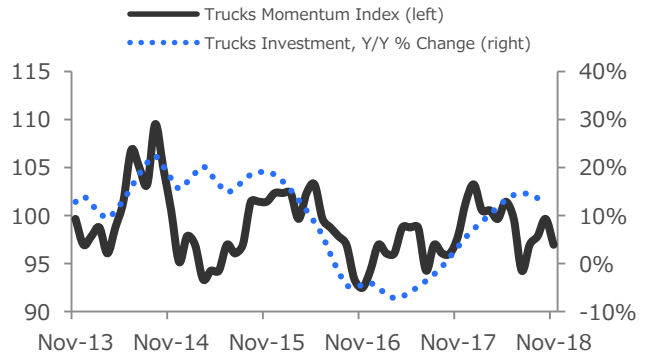
Railroad Equipment:

Investment in Railroad Equipment declined at a 7.6% annual rate in Q3 2018 and is down 2.7% year-over-year. The Railroad Equipment Momentum Index fell sharply from 106.4 (revised) in October to 99.5 in November. Industrial Production of Railroad Rolling Stock decreased 3.9% in September, but Carloads of Grain rose 4.7% in October. Overall, despite the decline in November, the Index suggests stronger railroad equipment investment growth over the next two quarters.



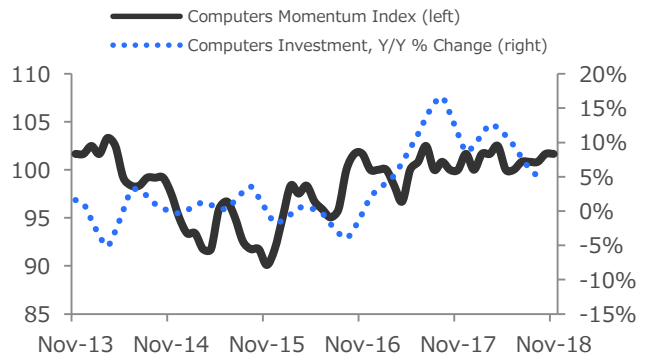
Trucks:

Investment in Trucks rose at a 2.7% annual rate in Q3 2018 and is up 14% from year-ago levels. The Trucks Momentum Index declined from 99.7 (revised) in October to 97.0 in November. Average Hourly Earnings for Freight Trucking rose 0.2% in September, while Sales of Heavy Trucks declined 4.5% in October, its first decrease in six months. Overall, the Index suggests that investment growth in trucks may soften over the next three to six months.



Computers:

Investment in Computers decreased at an annual rate of 3.3% in Q3 2018 but is up 5.1% year-over-year. The Computers Momentum Index held steady at 101.7 from October to November. Computer Exports increased 7.1% in September, but the NASDAQ Computer Index fell 8.5% in October. Overall, the Index points to stable growth in computers investment over the next two quarters.



Software:

Investment in Software rose at a 13% annual rate in Q3 2018 and is up 10% year-over-year. The Software Momentum Index rose from 92.6 in October to 97.5 in November. Business Construction Spending increased 0.8% in September, while the NFIB Small Business Average Interest Rate jumped 20%, the strongest increase in the history of the series. Overall, the Index points to continued strong growth in software investment over the next three to six months.

