

November 2019

U.S. Equipment & Software Investment Momentum Monitor



CONTACT INFORMATION:

Kelli Nienaber, Executive Director

Equipment Leasing & Finance Foundation
knienaber@elfaonline.org
www.leasefoundation.org

Jeff Jensen, Senior Director

Keybridge LLC
jjensen@keybridgedc.com
www.keybridgedc.com

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.

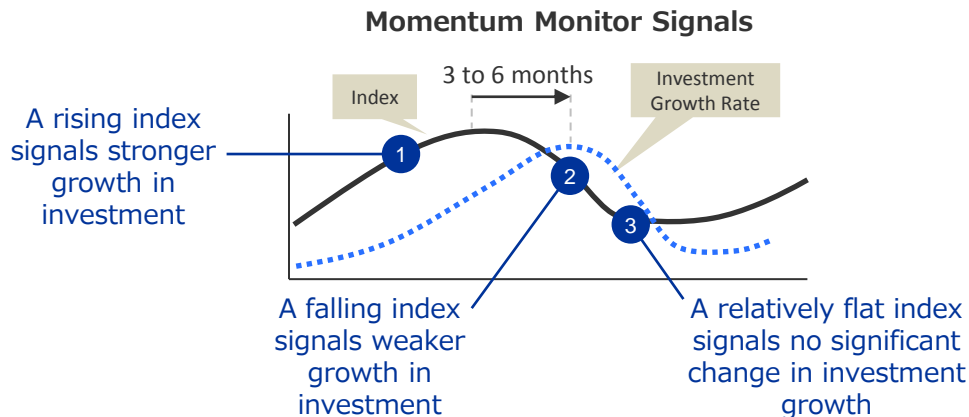
U.S. Equipment & Software Investment Momentum Monitor – 12 Verticals

- | | |
|-----------------------------------|-----------------------|
| 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

November 2019

Momentum Monitor Sector Matrix



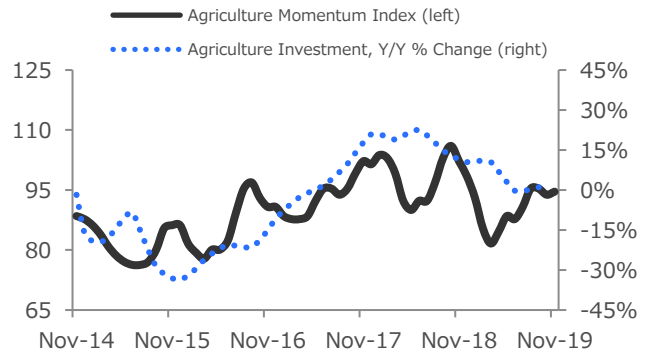
The matrix above summarizes the current values of each of the 12 Equipment & Software Investment Momentum Indices based on two factors: Recent Momentum (x-axis) and Historical Strength (y-axis):

- **"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.

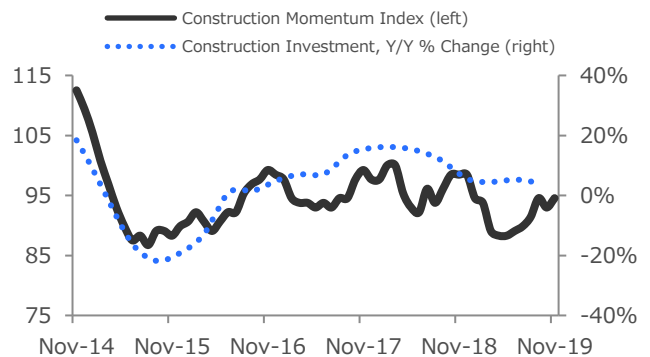
Agriculture Machinery:

Investment in Agricultural Machinery increased 3.2% (annualized) in Q3 2019 and is up 1.0% from one year ago. The Agriculture Momentum Index edged up from 93.8 (revised) in October to 94.6 in November. Shipments of Farm Machinery & Equipment rose 3.2% in August and the Federal Funds Effective Rate fell in October. Overall, the Index suggests the potential for modest improvement in agricultural machinery investment growth over the next three to six months.



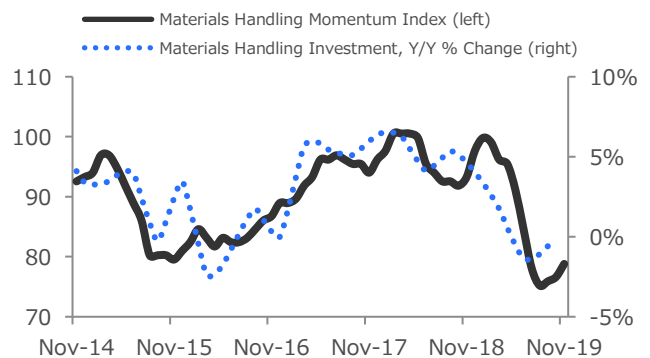
Construction Machinery:

Investment in Construction Machinery fell at a 6.0% annualized rate in Q3 2019 but is up 4.2% year-over-year. The Construction Momentum Index improved from 93.0 (revised) in October to 94.5 in November, matching the highest reading this year. Shipments of Construction Machinery increased 8.0% in August, the strongest improvement since mid-2012, while Public Construction Spending rose 1.5% in September. Overall, the Index points to modest growth in construction machinery investment over the next three to six months.



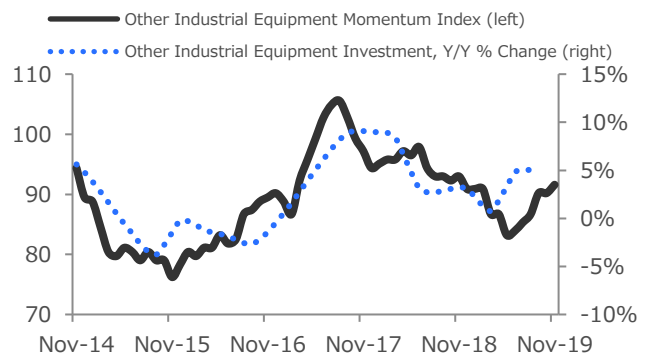
Materials Handling Equipment:

Investment in Materials Handling Equipment improved at an 8.4% annualized rate in Q3 2019 but is down 0.6% year-over-year. The Materials Handling Momentum Index improved from 76.7 (revised) in October to 78.8 in November but remains historically weak. In October, Manufacturing Employment eased 0.3%, while the Chicago Business Barometer fell 8.3%, the seventh monthly decline this year. Overall, the Index points to continued weakness in materials handling equipment investment growth over the next two quarters, despite recent improvements.



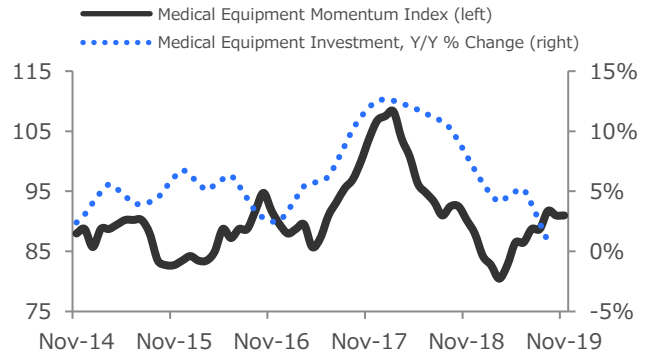
Other Industrial Equipment:

Investment in All Other Industrial Equipment increased at a 6.3% annualized rate in Q3 2019 and is up 4.7% from a year ago. The Other Industrial Equipment Momentum Index rose from 90.2 (revised) in October to 91.6 in November. Exports of Industry Supplies and Materials increased 4.0% in August, and the M1 Money Supply rose 1.6% in September. Overall, the Index suggests moderate growth in other industrial equipment investment over the next three to six months.



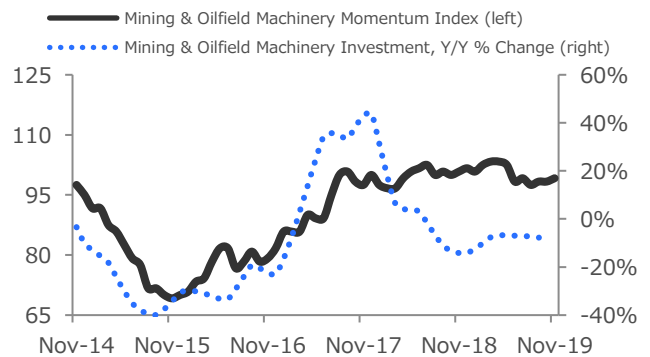
Medical Equipment:

Investment in Medical Equipment fell at a 7.4% annualized rate in Q3 2019 but edged up 0.8% year-over-year. The Medical Equipment Momentum Index held steady at 91.0 from October (revised) to November. In September, the Consumer Price Index for Medical Care Services edged up 0.4%, the 13th consecutive increase, but the Capacity Utilization for Electrical Equipment Manufacturing fell 0.8 percentage point. Overall, the Index points to improved growth in medical equipment investment over the next two quarters.



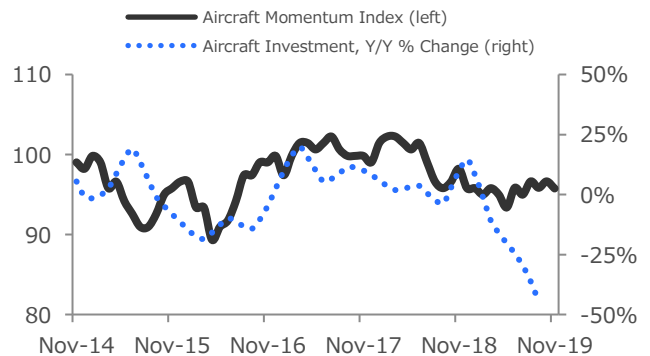
Mining & Oilfield Machinery:

Investment in Mining & Oilfield Machinery declined at a 24% annualized rate in Q3 2019 and is down 7.8% year-over-year. The Mining & Oilfield Machinery Momentum Index inched up from 98.3 in October to 99.2 in November. In September, Motor Gasoline Production fell 3.1%, the sharpest decline in a year, while Industrial Production for Natural Gas Distribution dropped 1.5%. Overall, the Index suggests little improvement in mining & oilfield machinery investment over the next three to six months.



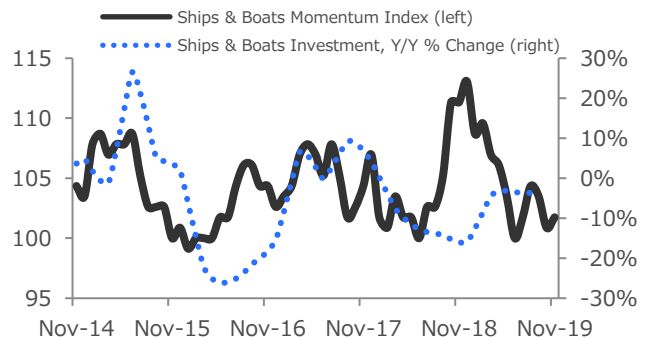
Aircraft:

Investment in Aircraft plummeted 80% (annualized) in Q3 2019 and is now 45% below year-over-year levels. The Aircraft Momentum Index eased from 96.7 (revised) in October to 95.8 in November. Imports of Civilian Aircraft decreased 11% in August, while the S&P 500 Volatility Index fell 19% in October, the sixth-double digit monthly decline in a year. Overall, the Index suggests continued negative growth in aircraft investment over the next two quarters.



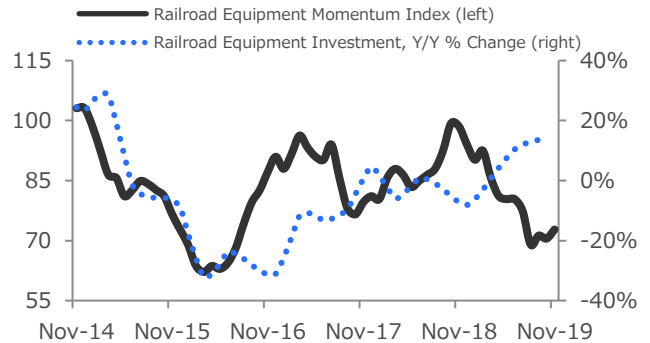
Ships & Boats:

Investment in Ships & Boats surged at an annualized rate of 25% in Q3 2019 but is down 3.1% year-over-year. The Ships & Boats Momentum Index improved slightly from 100.9 (revised) in October to 101.7 in November. Houston Shipping Container Traffic pulled back 2.9% in September, the eighth monthly decline in a year, while the Advanced Foreign Economies Currency Index eased 0.4% in October. Overall, despite this month's improvement, the Index continues to point to weak growth in ships and boats investment over the next three to six months.



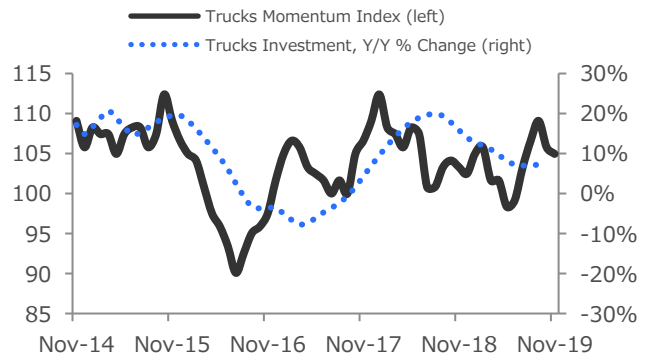
Railroad Equipment:

Investment in Railroad Equipment rose at a 2.8% annualized rate in Q3 2019 and is up 14% year-over-year. The Railroad Equipment Momentum Index increased from 70.5 (revised) in October to 72.8 in November. In September, Industrial Production for Railroad Rolling Stock fell 2.4%, while Capacity Utilization for Transportation Equipment Manufacturing fell 1.6 percentage points to the lowest level since April. Overall, the Index continues to indicate slower year-over-year growth in railroad equipment investment over the next three to six months.



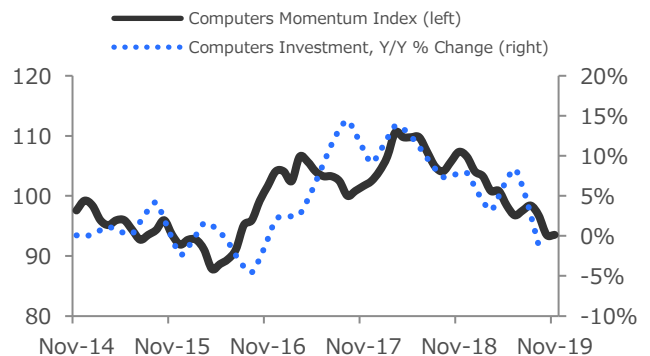
Trucks:

Investment in Trucks rose at an 8.2% annualized rate in Q3 2019 and is up 7.3% from year-ago levels. The Trucks Momentum Index eased from 105.8 in October to 105.0 in November. Manufacturers' Inventories of Light Trucks & Utility Vehicles improved 2.5% in August, and Capacity Utilization for Furniture Manufacturing increased 1.0 percentage point, the strongest increase since January 2017. Overall, the Index points to moderate growth in trucks investment over the next three to six months.



Computers:

Investment in Computers decreased at an annualized rate of 31% in Q3 2019 and fell 1.3% year-over-year. The Computers Momentum Index held steady at 93.5 from October (revised) to November, remaining at the lowest level since July 2016. In August, Revolving Consumer Credit eased 0.2%, while New Orders for Electromedical Products decreased 1.0%. Overall, the Index points to continued weak growth in computers investment over the next two quarters.



Software:

Investment in Software increased at an 8.2% annualized rate in Q3 2019 and is up 9.8% year-over-year. The Software Momentum Index edged down from 96.6 (revised) in October to 95.8 in November. In October, the S&P 500 Software & Services Index rose 1.6%, the ninth monthly increase in the past year, and Microsoft's Market Cap grew 3.0%. Overall, the Index points to continued solid growth in software investment over the next two quarters.

