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

Momentum Monitor Signals

- A rising index signals stronger growth in investment
- A falling index signals weaker growth in investment
- A relatively flat index signals no significant change in investment growth

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. 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 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 on the index’s recent movement and historical strength.
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 2.9% (annualized) in Q1 2019 but is up 11% from one year ago. The Agriculture Momentum Index declined from 91.8 (revised) in May to 89.8 in June. In May, Cattle Futures declined 11%, while the MSCI Commodity Producers Sector Index also dropped 11%, its steepest decline since July 2015. Overall, the Index’s recent movement points to modestly positive growth in agricultural machinery investment over the next three to six months.

Construction Machinery:
Investment in Construction Machinery increased at a 10% annualized rate in Q1 2019 and is up 5.2% year-over-year. The Construction Momentum Index decreased from 90.8 in May to 89.2 in June, its lowest level since April 2016. In April, Existing Homes For Sale surged 9.6%, its sharpest increase in a year, and New Privately-Owned Houses fell 2.1%. Overall, the Index continues to suggest weaker and potentially stalled growth in construction machinery investment over the next three to six months.

Materials Handling Equipment:
Investment in Materials Handling Equipment decreased at a 1.2% annualized rate in Q1 2019 but is up 4.8% year-over-year. The Materials Handling Momentum Index fell sharply from 87.0 (revised) in May to 81.3 in June, its lowest reading in more than three years. In April, Industrial Production eased 0.5% while Unfilled Orders for Materials Handling Equipment decreased 0.6%. Overall, the Index points to slowing and potentially negative growth in materials handling equipment investment over the next two quarters.

Other Industrial Equipment:
Investment in All Other Industrial Equipment declined at a 3.6% annualized rate in Q1 2019 but remains 2.3% above its year-ago level. The Other Industrial Equipment Momentum Index improved from 82.6 (revised) in May to 84.0 in June, its first gain in 2019. In April, Capacity Utilization for Electrical Equipment Manufacturing declined 1.6 points to 71.7, but M1 money supply rose 1.5%, its fastest monthly growth in two years. Overall, the Index continues to suggest softening and possibly negative growth in other industrial equipment investment over the next three to six months.
Medical Equipment:
Investment in Medical Equipment edged up at a 0.7% annualized rate in Q1 2019 and rose 5.1% year-over-year. The Medical Equipment Momentum Index fell from 87.2 (revised) in May to 83.5 in June. Private Hospital Construction Spending dropped 4.2% in April, while the S&P 500 Health Care Index decreased 2.5% in May. Overall, the Index points to modest growth in medical equipment investment over the next two quarters.

Mining & Oilfield Machinery:
Investment in Mining & Oilfield Machinery dropped at a 13% annualized rate in Q1 2019 and is down 8.2% year-over-year. The Mining & Oilfield Machinery Momentum Index declined from 101.7 in May to 98.3 in June. In April, Mining & Logging Production & Non-Supervisory Employment eased 0.7%, but Industrial Production for Crude Petroleum & Natural Gas Extraction increased 2.0%, expanding 10 of the past 12 months. Overall, the Index points to little change in mining & oilfield machinery investment growth over the next three to six months.

Aircraft:
Investment in Aircraft declined 39% (annualized) in Q1 2019 and is down 8.0% on a year-over-year basis. The Aircraft Momentum Index rose from 94.2 (revised) in May to 95.8 in June. Manufacturers’ Inventories of Defense Capital Goods improved 0.6% in April, its sharpest increase in a year, but Boeing Stock Returns decreased 9.0% in May. Overall, the Index points to sluggish growth in aircraft investment over the next two quarters.

Ships & Boats:
Investment in Ships & Boats increased at an annualized rate of 16% in Q1 2019 and rose 2.4% year-over-year. The Ships & Boats Momentum Index slipped from 107.8 (revised) in May to 107.0 in June. In April, Houston Shipping Container Traffic dropped 10%, its sharpest decline since November 2017, and Inventories of Ships and Boats fell 2.7%. Overall, the Index points to continued weak growth in ships and boats investment over the next three to six months.
**Railroad Equipment:**
Investment in Railroad Equipment surged at an 18% annualized rate in Q1 2019 but is down 5.8% year-over-year. The Railroad Equipment Momentum Index eased from 81.1 (revised) in May to 79.6 in June, its lowest level since November 2017. Industrial Production for Railroad Rolling Stock fell 0.5% in April, while Oil & Gas Rig Counts declined 0.6% in May. Overall, the Index points to continued weakness in railroad equipment investment growth over the next three to six months.

**Trucks:**
Investment in Trucks rose at an 18% annualized rate in Q1 2019 and is up 12% from year-ago levels. The Trucks Momentum Index held steady at 98.4 from May (revised) to June. In April, Manufacturers’ Inventories of Light Trucks & Utility Vehicles rose 2.3%, but Shipments of Light Trucks & Utility Vehicles fell 4.0%, its seventh decline over the past year. Overall, the Index continues to point to slower growth in trucks investment over the next three to six months.

**Computers:**
Investment in Computers increased at an annualized rate of 8.6% in Q1 2019 and is up 1.0% year-over-year. The Computers Momentum Index decreased from 97.5 (revised) in May to 95.9 in June, its seventh consecutive decline. Capacity Utilization for Computer & Electronic Product Manufacturing eased 0.7 point in April, its steepest decline in nearly two years, while the ISM Manufacturing PMI decreased 0.7 point in May. Overall, the Index points to stalled and potentially negative growth in computers investment over the next two quarters.

**Software:**
Investment in Software increased at a 9.4% annualized rate in Q1 2019 and is up 10% year-over-year. The Software Momentum Index remained at 94.2 from May to June. Shipments of Computers & Related Products rose 4.9% in April, but IBM’s Market Cap dropped 9.5% in May. Overall, the Index points to moderate growth in software investment over the next two quarters.