



May 2017

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 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 highfrequency 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

- Aircraft
- Ships and Boats 8)
- 9) Railroad Equipment
- 10) Trucks
- 11) Computers
- 12) Software



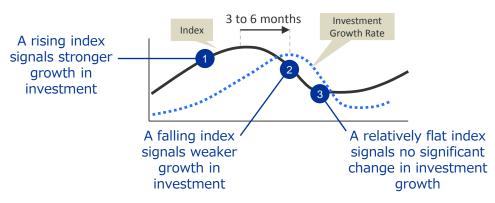


How to Read the Monitor

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. 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



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, report ends the 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 May 2017

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):

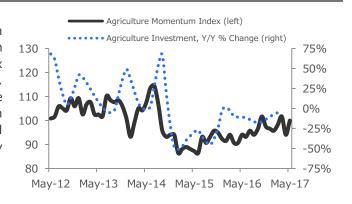
- "Recent Momentum" represents the degree of an indicator's recent acceleration or deceleration in the past month relative to its
 average movement during the previous 3 months. Ratings closer to "0" represent an indicator that is rapidly decelerating, while ratings
 closer to "10" represent an indicator 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.



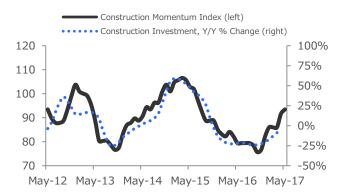
Agriculture Machinery:

Investment in Agricultural Machinery contracted at an annual rate of 17% in Q1 2017 and is down 3.8% from one year ago. The Agriculture Momentum Index increased from 98.3 (revised) in April to 104.3 in May. The M1 money supply rose 2.1% in March, while the Food Commodity Price Index rose nearly 4%, its fifth consecutive increase. Overall, the Index current level and recent movement suggest that investment growth may improve over the next three to six months.



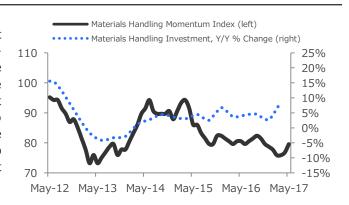
Construction Machinery:

Investment in Construction Machinery rose at a 32% annual rate in Q1 2017 but remains down 8.7% year-over-year. The Construction Momentum Index increased from 91.6 (revised) in April to 93.5 in May. Housing Starts in the West fell 16% in March (partially offsetting a 46% increase the previous month), and Median Months for Sale rose by 0.2. Overall, the Index signals improved construction machinery investment growth over the next two quarters.



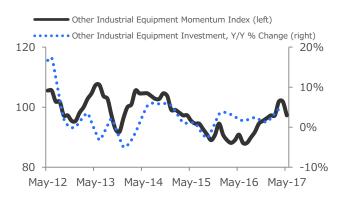
Materials Handling Equipment:

Investment in Materials Handling Equipment increased at a 21% annual rate in Q1 2017, and is up 8.6% year-over-year. The Materials Handling Momentum Index rose from 76.8 (revised) in April to 79.5 in May. Wholesale Machinery Sales rose 2.3% in February, the largest increase since June 2016, while in April the ISM Chicago Business Barometer climbed to 58.3, well above the expansionary threshold. Overall, the Index points to potential improvement in materials handling equipment investment growth over the next three to six months.



Other Industrial Equipment:

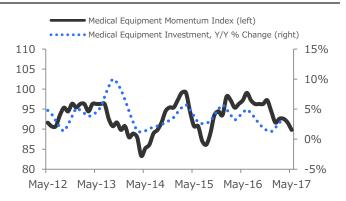
Investment in All Other Industrial Equipment rose by an 8.9% annual rate in Q1 2017 and is up 4.5% from a year ago. The Other Industrial Equipment Momentum Index declined from 101.8 (revised) in April to 97.2 in May. In April, the Dow Jones Industrials Balance fell 8.6 points to its weakest reading since February 2008, while the Fed Funds Rate rose slightly. Overall, the Index's recent movement suggests that growth in other industrial equipment investment may be peaking and could begin to ease in the next two quarters.





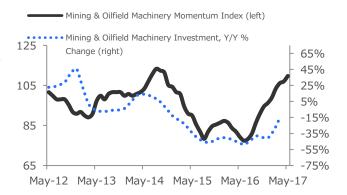
Medical Equipment:

Investment in Medical Equipment expanded at a 3.6% annual rate in Q1 2017 and is up 3.5% year-over-year. The Medical Equipment Momentum Index fell from 91.7 (revised) in April to 89.8 in May. Industrial Production for Medical Equipment dropped two points, but the Export Price Index for Medical Equipment inched up. Overall, the Index points to a slowdown in medical investment growth over the next three to six months.



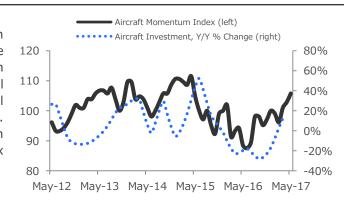
Mining & Oilfield Machinery:

Investment in Mining & Oilfield Machinery rebounded at a robust 144% annual rate in Q1 2017, but remains down 14.7% year-over-year. The Mining & Oilfield Machinery Momentum Index increased from 107.0 (revised) in April to 109.7 in May, its 11th consecutive monthly increase. The Gas Rig Count rose to 171 in April, its highest level since November 2015, while Initial Jobless Claims in North Dakota fell 19% in March. Overall, the Index continues to signal a rebound in mining & oilfield investment growth.



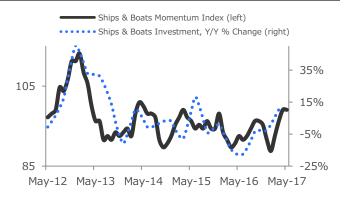
Aircraft:

Investment in Aircraft increased at an 88% annual rate in Q1 2017 and is up 12.8% on a year-over-year basis. The Aircraft Momentum Index rose from 102.9 (revised) in April to 105.8 in March. Although Total Miles Driven fell 3.6% in February to their lowest level in a year, in April the VIX dropped to its lowest closing value in a decade. Overall, the Index points to continued improvement in aircraft investment growth over the next three to six months.



Ships & Boats:

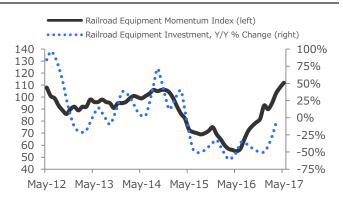
Investment in Ships & Boats rose at an annual rate of 34% in Q1 2017 and is up 10.5% year-over-year. The Ships & Boats Momentum Index held steady at 99.1 from April (revised) to May. Raw Steel Production ticked down 0.7% in April, its third straight decline, but Boat Building Employment rose 2.1% in February. Overall, the Index continues to suggest improved investment growth in ships & boats over the next three to six months.





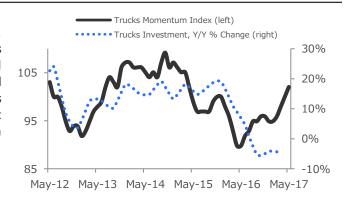
Railroad Equipment:

Investment in Railroad Equipment surged at a 116% annual rate in Q1 2017 but remains down 7.7% year-over-year. The Railroad Equipment Momentum Index increased from 108.0 (revised) in April to 112.0 in May, its strongest reading in five years. Industrial Production for Mining and Raw Steel each rose to their highest levels since 2015. Overall, the Index points to continued improvement in railroad equipment investment over the next two quarters.



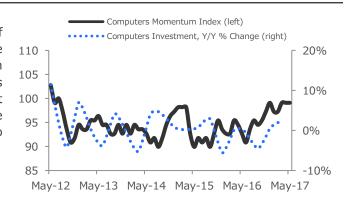
Trucks:

Investment in Trucks rose by a 3.1% annual rate in Q1 2017 but is down 4.2% from year-ago levels. The Trucks Momentum Index increased from 100.0 (revised) in April to 102.0 in May. In February Gas & Diesel Production fell 1.3%, its third straight monthly decline, while Inventories of Transportation declined by 1.5%. Overall, the Index continues to signal a rebound in investment growth in trucks over the next two quarters.



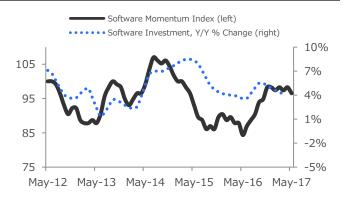
Computers:

Investment in Computers expanded at an annual rate of 12% in Q1 2017 and is up 2.2% year-over-year. The Computers Momentum Index held steady at 99.1 from April (revised) to May. Appliance & Electronics Retail Sales continued declined in February, but Microsoft's Market Cap rose 3.9% in April. Overall, the Index points to stable investment growth in computers over the next three to six months.



Software:

Investment in Software rose by a 3.6% annual rate in Q1 2017, and is up 4.1% year-over-year. The Software Momentum Index dropped from 98.3 (revised) in April to 96.5 in May. The NFIB Small Business Optimism Index ticked down 0.6 points in March, but the ISM Chicago Business Barometer rose to 58.3. Overall, the Index's recent movement signals little change in software investment growth over the next two quarters.





The Equipment Leasing & Finance Foundation

We're the Foundation for Your Future

Founded in 1989, the Equipment Leasing & Finance Foundation is dedicated to inspiring thoughtful innovation and contributing to the betterment of the equipment leasing and finance industry. The Foundation is a 501c3 non-profit organization, funded through charitable individual and corporate donations.

Your Benefits Through the Foundation

- Access to industry-leading research and resources Forward-looking Foundation studies and other informational resources that are indispensable to equipment finance industry participants and observers, as well as widely cited by respected business media, including The Wall Street Journal, Bloomberg and Investor's Business Daily.
- Relationship building with industry thought leaders Participating in Foundation activities builds your connections with other talented, successful leaders in equipment finance.
- A voice in creating new industry research The Foundation welcomes your suggestions of research study topics that will benefit the industry and your own business.
- Opportunities to author industry-related studies and articles Foundation research reports and publications, including *The Journal of Equipment Lease Financing*, provide opportunities to contribute to the industry's body of knowledge.
- University and academic relations The Foundation works closely with the academic community to foster initiatives that drive innovation in the equipment finance industry, including funding research grants and authorship honorariums, supporting case study development and teaching modules, and providing access to statistical databases and other Foundation resources.

Your Invitation to Become a Valued Donor

The resources and benefits provided by the Foundation are exceeded only by the opportunities available to Foundation donors, and include:

- Early previews of studies It would cost hundreds of thousands of dollars to produce only a few of the Foundation's various reports. Gifts of any size are welcome but please note that a minimum donation level of \$500 for individuals or \$2,500 for of wide public release.
- conferences and events, including the Foundation Luncheon held each year at the your company's role in supporting the equipment finance industry.

We invite you to invest in a strong Foundation for your business and for the equipment finance industry through a tax-deductible financial contribution. The Foundation is funded through charitable contributions from corporations and individuals from all market sectors because our research, resources and opportunities have value across the entire industry. For more information on contributing, and to see who supports us, visit https://www.leasefoundation.org/giving/

organizations will entitle you to receive copies of all new studies delivered in advance • **Recognition among peers in the equipment finance industry** – Foundation Equipment Leasing and Finance Association's Annual Convention, spotlight you and Visit the Equipment Leasing & Finance Foundation website at http://www.leasefoundation.org/ Subscribe to the Foundation Forecast e-newsletter at https://www.leasefoundation.org/news/forecast/





















Insightful, In-Depth Industry Resources

The Foundation is your source for the most comprehensive, future-focused research and analyses available on equipment finance industry topics that will enable your best informed decision-making. The following highly-regarded, widely utilized resources are must-reads for equipment finance industry participants.

Equipment Leasing and Finance U.S. Economic Outlook

This report highlights key trends in equipment investment and places them in the context of the broader U.S. economic climate. The report is updated quarterly throughout the year. http://www.leasefoundation.org/research/eo/

Foundation-Keybridge Equipment & Software Investment Momentum Monitor

A monthly report of indices for 12 equipment and software verticals designed to identify turning points in their respective investment cycles with a 3 to 6-month lead time. http://www.leasefoundation.org/research/eo/mm.cfm

Industry Future Council Report

Based on the deliberations of the Foundation's Industry Future Council of leading industry lessors, analysts, and service providers on current issues, trends and future industry outlook, the IFC Report is a guidebook for providers and arrangers of equipment finance as they undertake their own strategic planning efforts.

http://www.leasefoundation.org/research/ifc/

State of the Equipment Finance Industry Report

The SEFI provides a unique look at trends in the equipment finance industry over the past year, identifies key drivers for future growth, and explores emerging opportunities and risks that could shape the industry over the next 3-5 years.

http://www.leasefoundation.org/research/sefi/

Monthly Confidence Index for the Equipment Finance Industry

Designed to collect leadership data, the MCI reports a qualitative assessment of both the prevailing business conditions and expectations for the future as reported by key executives from the \$1 trillion equipment finance sector.

http://www.leasefoundation.org/research/mci/

Journal of Equipment Lease Financing

The only scholarly periodical dedicated to equipment leasing and finance, the Journal is published quarterly and spotlights research, case studies, trends and practical information through in-depth articles. Author guidelines are available online at https://www.leasefoundation.org/research/jelf/

Industry Studies

Through the Foundation, industry leaders have access to the research and analyses that help them make wise decisions for their corporations and employees, available at our online library at *www.store.leasefoundation.org*.

Stay Connected

Follow us:



Twitter: @LeaseFoundation



Facebook: Equipment Leasing & Finance Foundation



Linked In: https://www.linkedin.com/company/10989281