



April 2023

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 an approximate 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 10–20 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



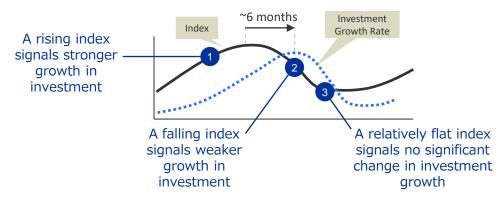


How to Read the Monitor

Each Momentum Monitor index provides a signal of the direction and magnitude of growth in equipment investment over the next six 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



To help the reader interpret the latest Momentum Monitor signals, a summary report for each equipment vertical follows a specific outline:

Materials Handling Equipment:

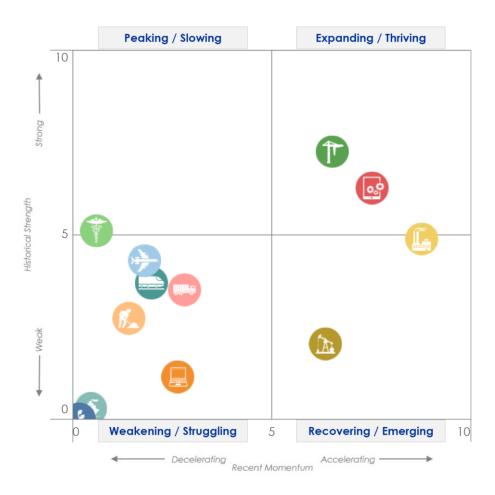
- 1 Investment in Materials Handling Machinery inched up at a 0.3% annualized rate in Q4 2014 and is up 7.3% year-over-year. 2 The Materials Handling Momentum Index slipped from 93.5 in April to 92.5 in April. A 3 8% decline in the MNI-Chicago Business Barometer and a spike in Economic Policy Uncertainty 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 six months.
- 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 six 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 six months based the index's recent movement and historical strength.





U.S. Equipment & Software Investment Momentum Monitor April 2023

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 two 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 two quarters. This makes them potentially attractive targets for new short-term leasing and finance opportunities.

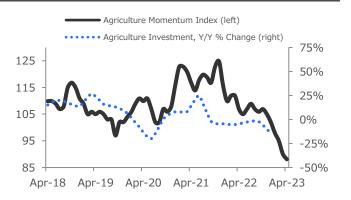
U.S. EQUIPMENT AND SOFTWARE INVESTMENT MOMENTUM MONITOR





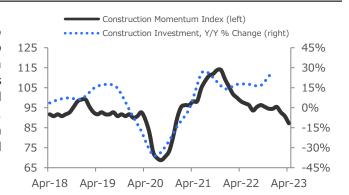
Agriculture Machinery:

Investment in Agricultural Machinery fell 37% (annualized) in Q4 2022 and was down 15% from one year ago. The Agriculture Momentum Index dropped from 90.1 in March (revised) to 88.1 in April. The Livestock Agricultural Price Index fell 2.3% in February and the Federal Funds Rate was lifted to 5.0% in March. Overall, the Index's position and recent movement suggest that agriculture machinery investment growth is likely to weaken further over the coming six months.



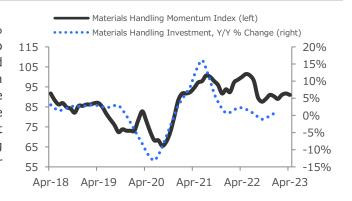
Construction Machinery:

Investment in Construction Machinery surged 46% (annualized) in Q4 2022 and was 27% above its year-ago level. The Construction Momentum Index edged down from 90.8 in March (revised) to 87.2 in April. Shipments of Construction Machinery fell 3.3% in February and Mobile Home Shipments dropped 5.4% in January. Overall, the Index's position suggests that construction machinery investment growth may have peaked and could start to slow over the coming two quarters.



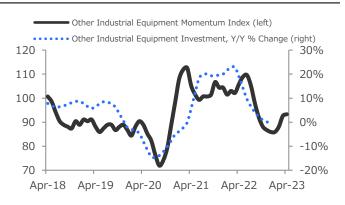
Materials Handling Equipment:

Investment in Materials Handling Equipment rose 3.7% (annualized) in Q4 2022 and was 0.6% above year-ago levels. The Materials Handling Momentum Index dipped from 91.7 in March (revised) to 91.0 in April. In December, Energy Consumption declined 3.4% while Export Prices of Materials Handling Equipment were unchanged in February. Overall, the Index's recent movement and position suggest that materials handling equipment investment growth may pick up slightly over the coming three to six months.



Other Industrial Equipment:

Investment in All Other Industrial Equipment rose at a 6.8% (annualized) rate in Q4 2022 but was down 0.5% Y/Y. The Other Industrial Equipment Momentum Index increased from 92.6 in March (revised) to 93.3 in April. In March, the Nominal Emerging Marketing Economies Exchange Rate Index fell 1.3% while the Chicago Business Barometer Index increased 0.4%. Overall, the Index's position and recent movement suggest that other industrial equipment investment growth may have bottomed out and could start to pick up over the coming two quarters.



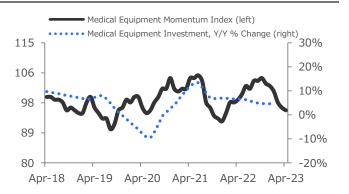
U.S. EQUIPMENT AND SOFTWARE INVESTMENT MOMENTUM MONITOR





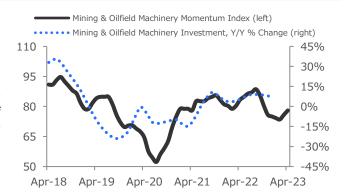
Medical Equipment:

Investment in Medical Equipment rose 6.9% (annualized) in Q4 2022 and was up 4.6% year-over-year. The Medical Equipment Momentum Index fell from 96.1 in March (revised) to 95.3 in April. In February, Disability Program Social Security Assistance fell 3.8% and Medicare Outlays dropped 4.8%. Overall, the Index's position and recent movement suggest that medical equipment investment growth is unlikely to pick up over the coming six months.



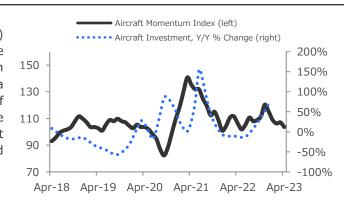
Mining & Oilfield Machinery:

Investment in Mining & Oilfield Machinery fell 14% (annualized) in Q4 2022 but was 7.0% above year-ago levels. The Mining & Oilfield Machinery Momentum Index rose from 75.8 in March (revised) to 78.0 in April. In March, Mining & Logging Employment rose 0.5% while the Brent Spot Price eased 4.8%. The current position of the Index suggest that mining & oilfield machinery investment growth may have peaked and could decelerate over the coming two quarters.



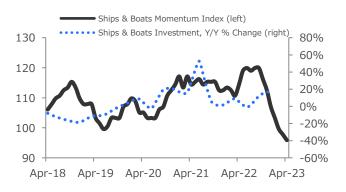
Aircraft:

Investment in Aircraft surged at a 114% (annualized) rate in Q4 2022 and was 71% above year-ago levels. The Aircraft Momentum Index declined from 107.1 in March (revised) to 103.6 in April. Aircraft Departures to Canada and Mexico fell 19% in January and the Market Cap of Southwest Airlines dipped 3.1% in March. Overall, the Index's position and recent movement suggest that aircraft investment growth may have peaked and could decelerate over the coming two quarters.



Ships & Boats:

Investment in Ships & Boats jumped at an annualized rate of 11% in Q4 2022 and was 17% above its year-ago level. The Ships & Boats Momentum Index fell from 97.8 in March (revised) to 95.9 in April. In February, Industrial Production of Ships & Boats fell 0.6% and NY & NJ Cargo Traffic Volumes fell 12%. Overall, the Index's position and recent movement suggest that ships & boats investment growth could decelerate sharply over the coming six months.



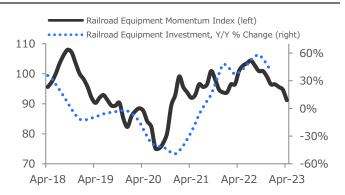
U.S. EQUIPMENT AND SOFTWARE INVESTMENT MOMENTUM MONITOR





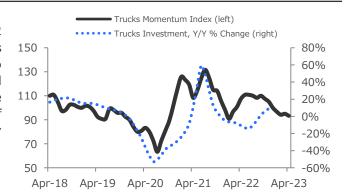
Railroad Equipment:

Investment in Railroad Equipment decreased 23% (annualized) in Q4 2022 but was up 40% year-over-year. The Railroad Equipment Momentum Index declined from 94.7 in March (revised) to 91.2 in April. In March, Rail Carloads of Petroleum Products fell 7.3% and Transportation & Warehousing Employment eased 0.1%. Overall, the current position and recent movement of the Index suggest that railroad equipment investment growth may start to cool but will likely remain in positive territory over the coming six months.



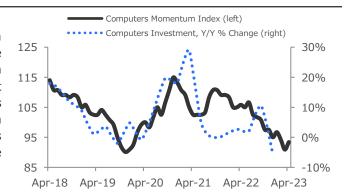
Trucks:

Investment in Trucks rose 5.3% (annualized) in Q4 2022 and was 12% above year-ago levels. The Trucks Momentum Index dipped from 95.0 in March (revised) to 93.3 in April. In February, Coal Production decreased 10% while Shipments of Heavy-Duty Trucks were unchanged. Overall, the position and recent movement of the Index indicate that trucks investment growth is likely to sidewind over the coming two quarters.



Computers:

Investment in Computers plunged 41% (annualized) in Q4 2022 and was down 6.0% year-over-year. The Computers Momentum Index increased from 90.9 in March (revised) to 93.4 in April. Total Revolving Debt increased 0.9% in January and Computers Exports increased 12% in February. Overall, the Index's position and recent movement suggest that computers investment growth will likely remain weak over the coming six months.



Software:

Investment in Software rose 14% (annualized) in Q4 2022 and was up 14% from a year prior. The Software Momentum Index edged down from 99.0 in March to 98.2 in April. In March, the ISM Non-Manufacturing Supplier Deliveries Index fell 3.8% and the ISM Non-Manufacturing Prices Index fell 9.3%. Overall, the Index's position and recent movement suggest that software investment growth may reach a peak over the coming two quarters.

