

Pathfinder Investment Outlook

For the week ending October 4th, 2024

Meeting Management in Japan: JEOL Ltd

As mentioned in our previous [Outlook](#), we recently met more than 20 companies during our research trip in Japan. This week, we will focus on JEOL Ltd., a company we own in our international fund.

JEOL was established in 1949 as Japan **E**lectron **O**ptics **L**aboratory, developing and manufacturing electron microscopes. By utilizing its advanced electron beam technology, which enables the observation of extremely small particles, it has expanded into the electron-beam mask writing equipment business, becoming a key contributor to the cutting-edge lithography technology known as the Extreme Ultraviolet (EUV) Lithography process. EUV lithography process is currently the only viable method for producing smaller, more complex, and powerful chips (7nm or smaller). Those chips power the latest smartphone and AI data centers.

We own JEOL as part of our semiconductor investment thesis. We expect the key technological trends – such as digitization, automation, AI, and IoT – will drive an exponential growth in the demand for chips, and the tools used to make them. With its strong commitment to the Japanese craftsman spirit, JEOL occupies a unique position, dominating a niche market that rapidly expanding with the growing adoption of EUV technology. After meeting with the company, we are even more optimistic for three key reasons:

- 1) **Vital role:** JEOL's machines are mission-critical for its end customers. Even the world's largest semiconductor manufacturers – such as TSMC, Samsung, and Intel – depend on JEOL for timely maintenance and service to keep their equipment running 24/7. This highlights the strong relationship between JEOL and its end customers, emphasizing its vital role within the supply chain. This fosters greater customer loyalty and a collaborative business approach.
- 2) **Competitive edge:** JEOL continues to invest in next-generation products, with plans to launch a 1nm-capable machine next year (the cutting-edge is 2nm). By 2027, it aims to introduce technology for 0.7nm process, maintaining a multi-year lead over its only competitor.
- 3) **New opportunity:** JEOL's legacy electron microscope business is seeing strong demand for the semiconductor industry, driven by a major shift from optical microscopes to electron ones. This is because traditional optical machines can't deliver the level of resolution required to inspect advanced chips (7nm or smaller).

“This means that” the Investment Team at Pathfinder will remain proactive in meeting with companies, identifying new investment opportunities, as well as reassessing those currently in our portfolio.

Michael Rudd, CFA | President, CEO & Portfolio Manager

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Sources: Bloomberg, Pathfinder Asset Management Limited

Disclosure

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Changes in Leverage. We are increasing the asset ceiling to 2.0 times the market value of equity for [Pathfinder International Fund](#) and [Pathfinder Conviction Fund](#) to be consistent with [Pathfinder Partners' Fund](#) and [Pathfinder Resource Fund](#).

For more information, please follow the links above to review the fund term sheets.

*All returns are time weighted and net of investment management fees. Returns from the Pathfinder Partners' Fund and Pathfinder Real Fund are presented based on the master's series of each fund. The Pathfinder North American Equity Portfolio and The Pathfinder North American Income Portfolio are live accounts. These are actual accounts owned by the Pathfinder Chairman (Equity) and client (High Income) which contain no legacy positions, cash flows or other Pathfinder investment mandates or products. Monthly inception dates for each fund and portfolio are as follows: Pathfinder North American Equity Portfolio (January 2011), Pathfinder North American High-Income Portfolio (October 2012) Pathfinder Partners' Fund (April 2011), Pathfinder Real Fund (April 2013), and Pathfinder International Fund (November 2014).

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