KLA-Tencor Corporation (NASDAQ: KLAC)
Sector: Technology    Industry: Semiconductors

<table>
<thead>
<tr>
<th>Target Price</th>
<th>Current Price</th>
<th>52 Week High</th>
<th>52 Week Low</th>
<th>P/E</th>
<th>Market Cap.</th>
<th>Dividend Yield</th>
<th>Beta</th>
</tr>
</thead>
<tbody>
<tr>
<td>$129</td>
<td>107.35</td>
<td>$109.78</td>
<td>$73.30</td>
<td>16</td>
<td>$16,935.4M</td>
<td>2.18%</td>
<td>.88</td>
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**Business Description**
KLA-Tencor is a semiconductor equipment supplier. The company manufactures machines that are critical to process control and yield management for semiconductor manufacturers. KLA-Tencor’s products lead the industry in performance, and allow users to correct defects through in-line feedback. KLA’s products are necessary due to the fragile nature of semiconductor manufacturing.

**Investment Thesis**
KLA-Tencor is a leader in the semiconductor process control industry. The industry is poised for strong growth because of the need for more specialized and high-end semiconductors to facilitate technological developments in AI, VR, AR, the IoT, and autonomous vehicles. Within the industry, KLAC has a sustainable competitive advantage through their high R&D investment rate. This advantage translates to the bottom line, where KLAC’s gross and profit margins are 15-20% and 5-10% higher than their competition, respectively. Furthermore, the industry has high barriers to entry, helping to shield the company from new entrants. Finally, favorable consumer trends will continue to fuel growth.

**Industry Trends**
Electronic products ultimately purchased by consumers are the major demand driver for semiconductors. The development of innovative technologies such as artificial intelligence, virtual reality, autonomous vehicles, and internet of things will maintain growth in the semiconductor industry, and ultimately in the process control market, where KLA-Tencor is a market leader. As faster, smarter, and smaller electronic devices continue being developed in the coming years, the need for inspection and metrology will continue increasing, which will favor KLA-Tencor.

**Valuation Assumptions**
The valuation for KLAC had several assumptions that were largely conservative. The first assumption is the projected growth rate for the company. The first two years of growth were modeled in line with analyst expectations, and the remaining years were held to 5%, slightly below analyst assumptions. The next assumption was that gross and operating margins held fairly constant. This is a conservative assumption because the majority of the margins have been improving in recent years as KLAC has gained scale. The valuation assumed a discount rate of 9.50% and a terminal growth rate of 3.5%, and provided a sensitivity analysis to show a range of valuations.

**Competitive Analysis**
The yield management and process control market is highly competitive. KLA-Tencor competes against semiconductor machinery manufacturers, as well as process control machinery manufacturers. Throughout the next five years, competition is expected to intensify, but KLA-Tencor is well-positioned for such environment with high investment in research and development, which allows it to provide leading and innovative products and technologies in the process control and yield management markets.

**Competitive Advantages**
KLA-Tencor focuses on one major step in the semiconductor manufacturing process: inspection and metrology. The company also invests intensively in R&D. These strategies allow KLA-Tencor to provide leading technologies and the most sophisticated products in such area, making it a leader in the process control and yield management market.

**Risks**
One of the risks of an investment in KLAC is cyclicality. Semiconductor companies have been cyclical since their inception, due to their close ties to the consumer electronics market. This risk should be mitigated going forward though as semiconductors become ubiquitous in industrial machinery. Another risk is that a larger new entrant could buy their way into the market and outspend KLAC on R&D. This risk does not seem likely though, as regulators have been reluctant in the past to allow such large moves in this industry. A third risk is that new computing capabilities from quantum computing could outpace demand for traditional computers. This is unlikely to affect KLA’s core business even in the long run though, because the fundamental uses for these machines are different. The final risk is the purchase price. As KLAC is at all-time highs, there is risk that the stock price could suffer if the market corrected.

**Corporate Social Responsibility**
KLA-Tencor Foundation: Total global donations of over $1.5M in 2016.
Environmental Disclosure Score: 26.4 (Industry average: 26.5)
CEO tenure: 11.50 years (Industry average: 5.47 years)

Sources: Bloomberg, KLA-Tencor’s 10K, KLA-Tencor’s website, Mergent Online