PTC Inc. (PTC)

Baird Facts

Please refer to Appendix - Important Disclosures and Analyst Certification.

<table>
<thead>
<tr>
<th>Price ($) (5/20/20):</th>
<th>70.41</th>
</tr>
</thead>
<tbody>
<tr>
<td>52WK H-L ($) :</td>
<td>93 - 44</td>
</tr>
<tr>
<td>Market Cap (mil):</td>
<td>8,146</td>
</tr>
<tr>
<td>Shares Out (mil):</td>
<td>115.7</td>
</tr>
<tr>
<td>Float (mil):</td>
<td>103.8</td>
</tr>
<tr>
<td>Avg. Daily Vol (mil):</td>
<td>1.16</td>
</tr>
<tr>
<td>Dividend ($) :</td>
<td>0.00</td>
</tr>
<tr>
<td>Yield (%):</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Price Target ($) : 88
L-Term Rev. Gr Rate Est: 10%
L-Term EPS Gr Rate Est: 57.0%
Debt/Cap: 14.0%
ROE: 88

Outperform Higher Risk
FY Sep
Q1 0.56A 0.57A 0.69E
Q2 0.22A 0.59A 0.77E
Q3 0.23A 0.38E 0.68E
Q4 0.64A 0.77E 1.00E
Total 1.65A 2.31E 3.14E
FY P/E
P/E (Cal) 42.7x 30.5x 22.4x
EPS (Cal) 1.66A 2.43E

<table>
<thead>
<tr>
<th>Headquartered</th>
<th>IPO/Founded</th>
<th>Sep</th>
<th>2019A</th>
<th>2020E</th>
<th>2021E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Needham, MA</td>
<td>1989/1985</td>
<td>1,256.4</td>
<td>1,488.2</td>
<td>1,733.2</td>
<td></td>
</tr>
</tbody>
</table>
% Growth | 0.3% | 18.4% | 16.5%
Operating Margin | 20.3 | 27.3 | 29.6

Company Description
PTC, Inc. offers software products used for CAD modeling, Product Lifecycle Management (PLM), and Service Lifecycle Management (SLM). Additionally, PTC offers a suite of Internet of Things (IoT) solutions that enable its customers to connect “smart” devices, analyze associated data, and create IoT applications. PTC is organized into two business units: 1) Solutions (includes CAD, PLM, and SLM products) and 2) IoT. PTC is headquartered in Needham, MA and has over 5,800 total employees.

Revenue Profile

Source: Baird estimates, Factset, Company reports

Additional Detail (Product or End Market)

<table>
<thead>
<tr>
<th>Geographic</th>
<th>Revenues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asia Pacific</td>
<td>20%</td>
</tr>
<tr>
<td>Americas</td>
<td>43%</td>
</tr>
<tr>
<td>EMEA</td>
<td>37%</td>
</tr>
<tr>
<td>Europe</td>
<td>33%</td>
</tr>
<tr>
<td>Industrial</td>
<td>33%</td>
</tr>
<tr>
<td>Life Sciences</td>
<td>6%</td>
</tr>
<tr>
<td>A&amp;D</td>
<td>14%</td>
</tr>
<tr>
<td>A&amp;D</td>
<td>16%</td>
</tr>
<tr>
<td>Electronics</td>
<td>15%</td>
</tr>
</tbody>
</table>

Competition
PTC faces competition in its core CAD/PLM/SLM markets from a number of well-established companies, such as Autodesk, Dassault, and Siemens. Attrition in the core business due to increased competition could significantly reduce future growth and valuation.
Quick Summary

- **We continue to like PTC.** Stock trading today has been a bit curious with selling at the open, though the subsequent rebound is more in line with our positive views after the quarter (link). Below we expound on a few additional items we are hearing and topics/themes we feel are important coming out of yesterday’s call.

- **End-market exposure shifted favorably since last update.** We have been leveraging end market disclosures from FY18 to think about PTC’s exposure and frame downside risks.
  - One good piece of news is the company’s lower reliance on Automotive since the last update, now single-digit percentage versus 14% previously. While this has developed somewhat organically – legacy CAD tied to combustion engine development lessoning as other areas of the business grow – it also sounds like the company’s remaining exposure is in more durable areas (e.g., PLM).
  - Aerospace & Defense was last disclosed as 16% of revenue, though favorably PTC is more leveraged to Defense with the US government “not dialing back” of late.

- **Interesting developments in PLM.** CAD/PLM are sticky products, and so we try not to overthink individual quarters and the respective performance by key vendors.
  - But (!), PTC has recorded six-consecutive quarters of Core ARR growth between 10-12% with PLM called out as a source of strength over much of that time. We think this compares favorably to Dassault’s ENOVIA (more impacted by large license deals, so F1Q revenues were down 11% YoY amid “good” recurring revenue growth) and Siemens’ Teamcenter (we estimate growth at/below Siemens’ targeted 8% rate of growth in overall Software).
  - PTC shared additional details on how Windchill PLM is benefiting: “Because Windchill has been a pure Web application from the start, it doesn’t matter where you are or what device you have;” “[receiving] accolades from numerous Windchill customers regarding how effective the software has been in their transition to a work-from-home environment;” “[one Automotive CIO] uses a competitor’s PLM system that unlike Windchill…isn’t readily accessible from home.”

- **CAD forecasts coalescing around similar assumptions.** Both PTC and Dassault have outlined similar expectations for churn and new ACV during the remainder of the year (PTC taking more conservative approach).
  - Given ARR growth is 5x more leveraged to changes in churn rates versus changes in new ACV growth, there has been more debate about the churn assumption (e.g., up 100bp to 8%).
  - History here is favorable, however, with PTC holding renewal rates steady during FY09 (“modest dip” in March quarter followed by recovery in June quarter). And, as PTC pointed out yesterday, the portfolio of offerings is more relevant to today’s market needs/demands than it was in FY09.

Investment Thesis

**Valuation.** Our $88 price target is based on 23x our NTM FCF estimates, one year from now. This is consistent with the median valuation of the trailing 12 months, a level at which we believe weighs current market uncertainties against the company’s strong growth opportunity. Over the past three years, PTC has traded between 20x FCF and 45x FCF. As the company executes on its subscription business model and drives double-digit ARR growth with higher FCF, we believe there is likely upside to valuation.

**Benefiting from the convergence of physical and digital worlds.** Gartner estimates that the number of IoT endpoints will grow by over 30% per year through 2020. PTC’s existing relationships with device manufacturers who are CAD/PLM/SLM customers puts PTC in a unique position to drive a significant acceleration in growth as their nascent IoT business continues to gain traction.

**Business model transition.** PTC is in the process of transitioning its user base from Perpetual License and Maintenance to Subscription. We believe that while the transition creates a short-term deceleration in revenue growth and margins, the long-term effect will be higher steady-state earnings power and cash flow generation as the model normalizes.

**Improving go-to market.** PTC brought on a new COO in 2015 and improved the way PTC goes to market, driving increased accountability and direct management of the salesforce while working to better leverage the indirect channel (which is especially important for IoT). While the COO has since moved on to take a CEO position back in Europe, the discipline and cadence he brought to the sales organization still persists.

**Financial metrics have hit their trough.** Headline metrics like top-line revenue growth, margins, and free cash flow will continue to improve as we advance through the transition. As these headline metrics steadily improve under a steady-state business model, investors should see outperformance even as valuation multiples compress to normalized levels.

**Risks & Caveats**

**Growth tied to success of nascent IoT business.** The IoT space is in the early stages of development with a number of competitors vying for share in what stands to be a very large market in the future. If PTC is unable to continue to drive innovation in its IoT business, future growth may lag management’s goal of low-teens growth.

**Competition.** PTC faces competition in its core CAD/PLM/SLM markets from a number of well-established companies, such as Autodesk, Dassault, and Siemens. Attrition in the core business due to increased competition could significantly reduce future growth and valuation.

**Execution risk.** PTC is in the early stages of its business model transition, and execution missteps could result in increased customer attrition and depressed growth and margins.
Supplemental Information
Our $88 price target is based on 23x our NTM FCF estimates, one year from now.
Appendix - Important Disclosures and Analyst Certification

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1 Robert W. Baird & Co. Incorporated makes a market in the securities of PTC.

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