Tesla: Reality Check

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Let's get this out of the way. We (Atlantic Investment Management) are short Tesla, and the purpose of this piece is to share my observations and data in an effort to contribute to the debate about Tesla shares. I think all would agree that Tesla is a controversial stock, with 20% of the float sold short and sell side analysts split on the name, with share price targets ranging from $155 to $500 (versus a share price of about $315 now).

A quick background before all those bullish on Tesla stock stop reading. I have run Atlantic Investment, an equity hedge fund firm, for almost 30 years, investing in undervalued consumer and industrial companies globally, including scores of automotive industry related companies. My familiarity with Tesla dates back to when the company went public in 2010, and we have been following it closely since then.

With advance apologies for anything herein that may seem like an inconvenient truth to the visionary Elon Musk, the many committed and talented people working at Tesla and all those supportive of the company, which I readily admit makes good looking battery electric cars and which has done a lot to change an industry, here is what we see as the key issues to consider for Tesla shares.

Lack of Production Capacity to Meet 2020 Target: Current Model 3 production issues aside, Tesla does not have the manufacturing footprint, nor time to achieve the necessary manufacturing footprint, to get even close to the one million car annual production target by 2020 that has been promised by management and that is embedded in the most bullish sell side analyst reports.

Our due diligence has confirmed that the current model S and X production of about 100,000 cars annually takes up more than half of Tesla's one and only car assembly plant, which is located in Fremont, California. In addition, there are now also two Model 3 assembly lines, each with a two-shift peak capacity of 125,000 cars annually that fill up most of the remaining space in the plant. Assuming Tesla is able to work out their current production issues, with existing capacity, they should be able to get to an annual run rate of 350,000 cars, at some point in 2018 (i.e. about 2,000 model S's and X's per week as has been their rate for the past year and 5,000 Model 3's per week, which is Tesla's target run rate for late Q1-2018). For reference, past peak production of this plant when it was owned by GM and Toyota was 430,000 cars annually.

In 2016, Tesla successfully applied to add 4.6 million square feet to the existing 5.3 million square foot at the Fremont plant. According to the application, most of the new space has been dedicated for warehousing, however additional production capability will raise the plant's total capacity to 500,000 cars per year upon completion. The expansion is underway but it is unclear when it will be completed (no target dates have been set publicly by the company).

It is also unclear how Tesla plans to bridge the gap between the stated goal of an annual production rate of one million cars by 2020 and the expanded Fremont plant capacity of 500,000 cars per year. Tesla has publicly discussed its plan for a new car assembly plant in Shanghai, China, but stated that any spending on this plant will not start before 2019. Hence, it would not be until at least late 2021 before the intended 200,000 annual production rate in China could be achievable. No other production plans have been announced.

Another option, which Tesla has not publicly discussed, might be to assemble cars at the Gigafactory, which is in Sparks, Nevada. However, the Gigafactory, which is now 30% built (note: this took more than three years), is fully used "as is," so any meaningful car assembly there would have to be done as an addition to the existing project, which would also be a multi-year effort.

Also note that it took Tesla more than seven years to achieve the current production (all S's and X's) run rate of 100,000 cars annually in the Fremont plant and that quarterly production has been level at about 25,000 for the past four quarters. As to why the company would not have endeavored to make more S's and X's, we understand that Tesla wanted to focus on the Model 3 and preserve room for its assembly lines in the Fremont plant.

Perpetual loss-making enterprise?: In our view, the projected 25% gross margins are unlikely to be achieved as long as production volumes are below one million cars per year, given Tesla's approach to vertically integrated manufacturing, the related inefficiencies and the pending product mix tilting towards Model 3. For Q4 2017, Tesla projects 15% gross margins amid Model 3 production issues. We expect that gross margins will remain below 20% for the foreseeable future. In addition, heavy spending on R&D, proportionally high general administrative costs, the substantial expenses associated with having its own retail/dealer locations and supercharger network, combined with rising interest expenses on the growing debt load (now almost $10 billion), weigh heavily on the bottom line results, and we believe will continue to give rise to significant and stubborn losses even at higher production levels for the foreseeable future.

With all the growth Tesla has achieved to date, for which Elon Musk and the Company are rightly proud, their cash burn and reported losses have mounted even faster. Tesla claims Model S and X are both profitable at this time, and that it is the deliberate spending on Model 3 that is causing the current losses. They make this claim without any proof or numbers, but instead asked investors to calculate the margins for each major product and business-line themselves. We submit that at this time Tesla is losing money from a bottom-line perspective on all major products and business units, including the S and X models, Solar City (the highly questionable 2016 acquisition), their power packs and solar roof tiles. If this is not the case, we urge Tesla to provide greater transparency on product/unit results.

Ballooning cash needs and debt balances: Liquidity and balance sheet issues could become a major issue in the very near future. The cash burn rate for the next five quarters is estimated to be around $3 billion, which Tesla says they will cover with new debt issuance, since they view their stock as undervalued currently. The Company's working capital is about $600 million, as current assets as of September 30th total $7.1 billion, including cash of $3.5 billion, and current liabilities total $6.5 billion. This suggests that not much of the $3.5 billion in cash is excess, but most of it is needed to run the business, which combined with the substantial cash burn rate, fuels the need for a substantial capital raise soon.

We would see it prudent for Tesla to issue $3-5 billion in equity now to take advantage of the current, in our view highly overvalued, share price to establish enough runway for operations during the next one or two years. Given that Tesla recently issued debt for its latest capital raise while its shares were trading in the $350/share range, we doubt that they would issue equity while the share price is down in the $300/share range. For a money-losing operation like Tesla, raising further capital with debt reduces its margin of safety and potentially creates a serious liquidity issue in case the firm suffers from continued production issues and steep losses.

Impending onslaught of BEV competition hitting the markets in 2018-2021: More than 100 new Battery Electric Vehicle models from major automotive brands, which are supported by deep-pocketed car manufacturers with mass production capabilities, are scheduled to hit the market within the next one to three years.

Key man risk: Elon Musk appears increasingly distracted with his various pursuits, including SpaceX, Mars, Hyperloop, tunneling, etc. Tesla is highly dependent on his persona and involvement for future growth and success. If Tesla does not have Musk's undivided attention, it is doubtful anyone will be able to emulate his ability to have others believe in Tesla's vision, which has proven intoxicating to so many and resulted in Tesla's Enterprise Value to reach $500,000 per car produced versus $10,000 per car produced for General Motors or Volkswagen.

Most bullish sell side analysts have share price targets for Tesla ranging from $400 to $500 per share. Their 2020-2021 projections are based on annual production of 600,000 to one million cars per year, which, as we outlined, are simply not achievable in that time frame. Further, it is impossible for us to reconcile their lofty Tesla share price targets even when using their own highly optimistic, sometimes unrealistic, assumptions: the bullish Tesla sell side analysts' estimates for 2019, which are based on successful production scale-up to 500,000 cars/year and a 25% gross margin, lead on to an average 2019 EPS estimate of $7/share. Using a P/E of 20x (three times that of traditional car makers in recognition of Tesla's status as the leader in BEVs and its growth prospects), **we get to a share price target of $140/share**, less than 50% of where Tesla shares are trading today. Given the significant and ongoing production issues, margin pressure due to poorly controlled spending, mounting interest expenses and liquidity concerns, we can easily craft a scenario whereby Tesla shares are headed lower than that $140 share price number.

In sum, all those following and caring about Tesla need to be critical and take a hard look at how the enterprise is run and financed. They need to take a hard look at what has been promised and what has been and can be delivered. For Tesla shareholders specifically, given the issues we have raised here, we ask them one question, posed by Clint Eastwood in the film *Dirty Harry*: "Do you feel lucky?"

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Founder and CIO
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Atlantic Investment Management is a $1.2 billion fundamental, value-oriented equity investment firm founded by Alex Roepers in 1988. The firm's investing methodology is differentiated by its: (1) well-defined universe of quality publicly-traded industrial / consumer companies; (2) concentration of capital and research on its highest conviction investments; (3) private equity-like due diligence; (4) constructive engagement with managements and boards to enhance and accelerate shareholder value; (5) strict adherence to its buy/sell cash flow focused valuation discipline; and (6) maintenance of liquidity to allow for opportunistic trading around core positions. Besides its flagship concentrated long-only U.S. and global best ideas funds, the firm manages long-biased hedge funds for each of the U.S., Europe, Japan and Asia ex-Japan markets. Atlantic has been a Registered Investment Adviser since 2006 and has 26 employees located in New York and Tokyo.