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Tesla Inc. (TSLA)
Competition Has Arrived

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STRONG SELL
Current Price: $179
Price Target: $70

Key Thesis

- Competition has arrived for Tesla, as the largest auto companies in the world, and new startups finally deliver EVs that can effectively compete with all of Tesla's models.
- The company has long received a premium for its uniqueness, Elon's personality, and because it seemed like the easiest way for investors to profit from in increased EV adoption in a low interest rate environment.
- Tesla's past premium will turn into a discount as the competition catches up, Elon turns into a liability, and their risk in China is fully realized in the stock price.

Tesla is one company that everyone's familiar with, whether it's their cars that made electric vehicles "mainstream," the incredibly controversial CEO Musk, or stock which has gone from one of the best performers from 2016 to 2021, to now one of the worst. They primarily make their money from their Shanghai car factory, which they refer to as "Gigafactory Shanghai" or just "Giga Shanghai." However, they started in the United States with their Fremont factory, and have since added an Austin, Texas factory, and moved the headquarters to the state, while also building one in Berlin, Germany, to service European demand.

The Risks for Tesla include the Chinese Government, increasing electric vehicle competition, Elon Musk's distractions, and FSD Failure & Recall.

When it comes to the Chinese Government, it's been estimated that most of the corporate cash is kept in Chinese domestic banks which won't let Tesla move the money outside of the country. As well, the past few years with Alibaba have made it clear that while the favor of the Chinese Government is instrumental in a company (and its shareholder's) success lies in the hands of the Chinese Communist party, it's the same for their potential failures. In the event of increase US-China tensions, it may lead to American companies and shareholders losing their rights to assets in China which would be detrimental for Tesla. Many American companies with a large percent of profits based out of China receive a discounted valuation, and there is an even higher discount for companies with operations only in China. However, we do not believe that Tesla receives any sort of similar discount to its valuation, despite China being its profit center.

Tesla had remained the king of the electric/plug in hybrid vehicle subset, for many years as automobile conglomerates failed to properly build new models and with sufficient supply. We believe the tide has changed and Tesla's are no longer the clear victor. This is in part due to the legacy automakers like Ford, General Motors, Volkswagen, and Toyota, but also because of newer entrants like Rivian and Lucid Motors. Even in China, Nio, and BYD have shown that Tesla has serious competition if they want to expand further.

Elon Musk's distractions became even clearer when he entered a merger agreement to buy Twitter (then a public company) but attempted to backed out because of "bots." However, it went to the Delaware Court of Chancery and was set to go to trial, until Elon caved in to fulfilling his merger agreement, and took the company private while adding billions in high interest debt. Since then, the Twitter private loans have been marked at 50c on the dollar and there are rumors of how long the company could last at its current burn rate. Through Twitter as the new owner, he has taken to insulting politicians, changing the user interface every week, and causing advertisers to flee the platform because of a decrease in moderation when it comes to hate speech. In essence, we believe that in the last few years Tesla and its stock have received a premium due to the eccentric CEO, but in the next few years it could be the opposite for both the stock and willing buyers of Tesla cars.

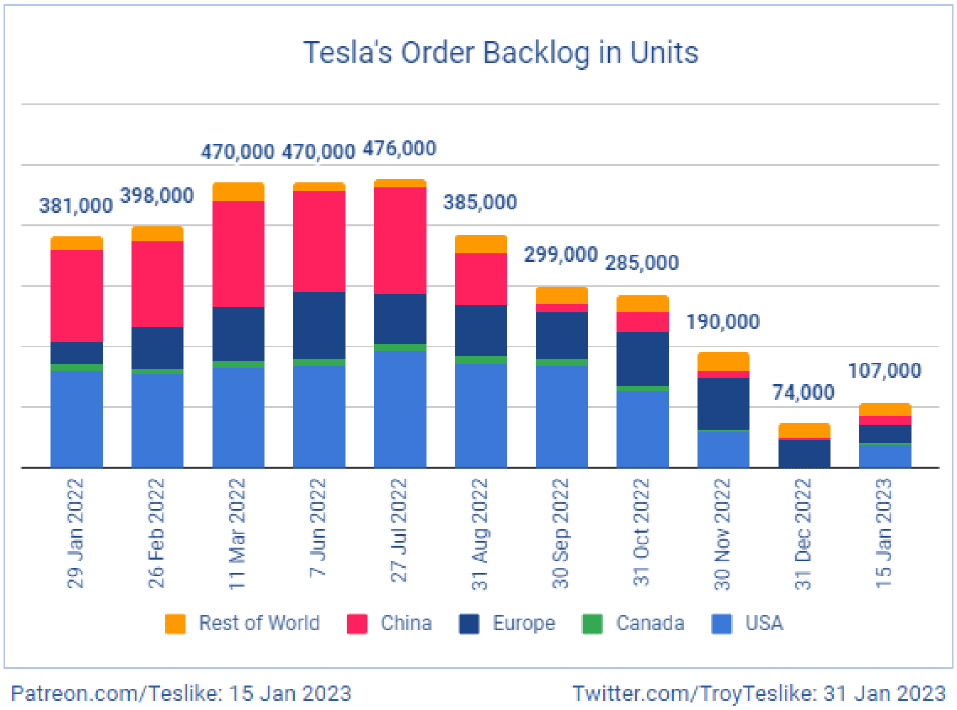
When it comes to "Full Self Driving" Elon continues to perpetuate every year that he will finally achieve what the name claims "this year." However, we have seen the opposite. As competitors like Cruise and Waymo continue their successful projects (even if they are geofenced) Tesla's continuing to be unpredictable when in "Full Self Driving" and the company itself has had to state that all hands should be on the wheel and driver fully alert even during FSD. Even the newest "Beta Program" has had the same issues as the public version. As customers have been paying the full price for all these years where the software doesn't work as it has been advertised, one major risk is regulators forcing Tesla to recall the software and refund everyone who bought it. This would lead to billions in revenue and cash being taken away from Tesla.

The macro environment is not looking great for Tesla due to the forecasted recession and what that means for car prices. Furthermore, if interest rates remain elevated that had a devastating effect on Tesla's valuation because of how much of the current valuation is being justified by the earnings from 2030 and beyond. In a recessionary environment used car prices collapse, which makes things even worse for Tesla as most automakers are not as affected by the used car inventory, but Tesla itself holds them as opposed to 50/50 between the dealerships and the automotive parent.

We will speak more in depth on our model, but if we were to increase the discount rate from an already low 9% to 12%, it decreases the DCF valuation to $61 from $70. Especially for some of the more aggressive "bullish" scenarios, a higher interest rate would cause the valuation for Tesla to plummet further.

Growth remains an issue, despite being priced in by the stock @ $179 a share. Tesla must face the difficult choice of whether to achieve the volume growth that they promise to investors or keep prices high. At the start of the year with the 20% price cuts, it's clear that they are choosing the former. As seen in Figure 1, Tesla's backlog of orders collapsed in the past few quarters. For context, if 100 people order Tesla, and they produce 90 and deliver 90, that leaves a backlog of 10 cars yet to be produced or delivered, and it would mean that they could easily grow, and deliver 100 cars, in that scenario. However, if they build 439,700 cars and deliver only 405,200 like they did in Q4'22 it means they must slow their growth, cut prices, or both.

Figure 1



Source: TroyTeslike

The Pipeline of future cars has been a disaster for tesla, as the Cybertruck, 2020 Roadster, and Tesla Semitruck were hyped up to be Tesla's future years ago. We believe that for the first 2 cars they will not be able to profitably deliver them like they stated in the original unveilings. For the Cybertruck, Tesla has stated that they would use stainless steel and the IDRA Giga Press to make the cars but based on the cost of goods for each cybertruck, they cannot deliver on their original promises. In fact, they may just release a quad-motor (as opposed to the single, dual, and trial motor models promised) cybertruck at a price close to $80,000 which is long gone from the original $39,900 price. Even if it is a success, the most popular pickup truck in America, the Ford F Series, only sold 618,000 units in 2022 which is a far cry from the outlandish cybertruck estimates that are being priced into the stock.

For the 2020 Roadster, we believe that it could still be many years out, especially if one is waiting for the promised specifications. While it was never going to be a too meaningful portion of Tesla's sales, the failure on their behalf will not help with regards to keeping up relations with their top customers.

As for the Tesla Semi Truck, deliveries were supposed to have started in January 2023, but it's yet to become a meaningful part of Tesla's business yet. Even from those who drive non-Tesla semitrucks for work, they have reviewed the truck as a disaster built to look cool, but not to function well. In our model we forecast 45,000 annual semitruck deliveries in 2028.

Profitability has become a serious issue due to the rampant price cuts, despite being seen as one of the most profitable automakers when it came to gross margin. Q1'23 should be a great window into how strong or weak these new margins are. However, even with a $37,000 COGS to produce a Model 3, with a $40,000 ASP that would mean only a 7.5% gross margin. This is further minimized by the fact that Tesla includes various expenses in the SG&A category that other automakers include as part of gross margin.

Many have theorized that the Tesla "Megapacks" which are part of their energy suite, are currently getting gross margins around 50%, but we have seen nothing of the sort in the actual financials. Despite this, we accounted for a 35% energy gross margin in 2028. We believe this is generous considering the 10% Energy business gross margin in Q3'19. In our base case, we assume energy grows at a 53% CAGR until 2028.

The Bull Case would be one where Tesla truly achieves what they promised for Full Self Driving, somehow the past cars are compatible, Tesla Energy successfully ramps, they are able to hold industry high margins, and Elon does not face further charges from the SEC or Justice Department. Even in this scenario, we see the stock as worth only $180/share, or only a 0.6% gain from the current stock price for what we believe is an unlikely bull case.

In this $180/share scenario, we still have 7.5 million deliveries in 2028, a 4% free cash flow yield in 2028, Full Self Driving continues to be sold, and it all leads to $364 billion in 2028 revenue, with an 18% gross margin. At $12.80 2028 EPS, that would still be trading at 14x 2028 earnings, despite still being in 2023, which is quite high for an automaker.

The Valuation for Tesla that we set as our base case is $70 a share, we have them at 6.2 million deliveries for 2028, with the delivery unit growth being at 10% YoY. Gross Margins are also at 17%, and we assume that operating expenses do not grow substantially. We have also kept FSD constant at a 2% take rate, despite the price climbing to $25,000 for the software. As well, we have a fraction of those as FSD subscribers. While we think it's a worthless software, we wanted to lean with more bullish assumptions, and assume that Tesla is allowed to keep selling the software.

For the discounted cash flow model, we assumed an 8% free cash flow yield, and a 9% discount rate. At our current $3.20 2023 EPS estimate, it would be a 21.9x my 2023 earnings per share estimate. The current 2023 EPS analyst estimate is $3.61, and $70 would be 19.4x the analyst consensus estimate.

Overall, we view Tesla as worth $70 for 2023, and that the current stock price factors in the unlikely bullish scenarios for the company. While it is undeniable that Tesla helped to revolutionize the electric vehicle industry, that was the past decade, and for the next decade the picture is much grimmer for the automobile conglomerate. Especially as they begin to be valued like an automaker.