

Changing the Conversation on Tesla

No Doubt, the **Shorts** Got it Wrong!!
 But Are **Longs** Now Making the Same Mistake??



As reluctant as we have become to comment on Tesla (NASDAQ:TSLA), how can any active market commentator not have an opinion on this darling of the stock market? As Chrysler prepares its \$11 billion IPO with \$1.6 billion in trailing net income, how can we not acknowledge that the street has shifted into placing Tesla stock inexorably into the public's hands ... at exactly the wrong time.

Chart 2: Institutional ownership of TSLA shares vs stock price



Source: Bloomberg

It was one year ago that Elon Musk now famously told Fox News that there was a

“Tsunami of hurt coming for those holding a short position”

-- Elon Musk, CEO, Tesla Motors

<http://www.siliconbeat.com/2012/09/13/video-elon-musk-tells-fox-business-that-tsunami-of-hurt-coming-for-those-shorting-tesla/>

At the time, the stock price was \$30 a share, and shorts were betting the Model S would fail to gain widespread acceptance with the public, causing the company to crash and burn. The short thesis was based on the assumption that **nothing could go right for the company**. The shorts were wrong, and they paid for it.

Not only did things go right, they went better than anyone expected. Tesla Model S became an instant automotive success story. Combined with a roaring bull market, the stock launched to stratospheric levels that were never anticipated by any auto analyst, or probably even the mighty Mr. Musk himself.

That is the past. The current market cap of Tesla is over \$22 billion, which forces us to ask the question:

“Are shareholders now making the same mistake that shorts were making one year ago?”

-- Andrew Left, Editor Citron Research

Tesla’s stock is now priced as if nothing can or will ever go wrong, and execution will unfold without delay or misstep flawlessly over the next 5 years, as Tesla undergoes the inevitable transformation from a disruptive company selling to early adopters, into a global auto-manufacturing brand.

If you owned TSLA stock at 30, you owned the future of the Model S, and you were rewarded with a trip to 60. If you bought at 60, you owned the future Model X, and you were rewarded with a trip to 90 and a well-supported secondary. But now, if you buy at 180, your basis is so high that you own the potential and the liabilities of Tesla’s Gen 3 -- presumably its “Model E” -- 3 or 4 years out in the future, which has significantly greater risks than previous models.

As the shift of the stock ownership has gone into retail hands, we believe much of the bull case is based on oversimplification and halo effect. Before Citron addresses some of the oversimplified foundations of the bull thesis, we will discuss the elephant in the room:

Generation 3 Tesla

Here is a point not up for debate. Selling electric cars to a mass market has been an uphill battle for **ALL** automakers. Whether it is the Nissan Leaf, Chevy Volt, or Prius Electric, the mass market has been reluctant to make the switch.

Why?

- Access to garage with charger
- Willingness to pay more now to save more later
- Consumers who rely on **one** car – therefore need a longer range option
- The question of “how much a month” takes precedence over any cool factor

Currently, Toyota, the world’s largest automaker, is being forced to cut prices on the Rav4EV – a car powered by Tesla battery and motor.

<http://www.bloomberg.com/news/2013-08-26/toyota-adds-discounts-for-tesla-powered-rav4-ev.html>

“We’ll sell more (Chevrolet) Volts and lose less money on the Volts than they’ll lose on the (Tesla) Model S,” – Dan Akerson, General Motors CEO

Translation: Moving down-market is a dogfight.

Selling \$80,000 cars to environmentally conscious people in the 1% is a different animal than the blistering competition of a mass-market car. If you thought the competition in mass market EV’s has been tough over the past 3 years, it now gets far tougher, with GM, Volkswagen, and BMW offering **all future models** as plug-in’s, with GM most recently declaring a 200 mile plug-in at \$30,000 price point.

<http://www.motoring.com.au/news/2013/chevrolet/gm-ev-rumours-strain-credibility-38979>

Moving down-market, Tesla’s Gen 3 will be playing catch-up to everyone. By the time this product is even approaching market, there will be multiple other 200-mile range plug-ins that have been out for years. Ironically, including this one, a Mercedes-Tesla partnered car. The competitive landscape is going to be completely different than Model S, where Tesla actually proved the viability of a new category.

<http://www.extremetech.com/extreme/153888-tesla-mercedes-pair-up-to-create-a-mainstream-ev-with-115-mile-range>

Merrill Lynch released an interesting analyst report on September 23, 2013 with a **\$45** target on TSLA. Yes, that was \$45, not \$145. What made this report unique is that it

modeled 2015 without consideration of the Gen 3 car. The volumes for 2015 on Model S and X were within 10% of all other analysts.

So is \$45 a bad thing? Would Mr. Musk be a loser at \$45? No! That would make Tesla a \$5.5 billion company that has a niche in high-end production of electric vehicles. The danger of the recent soaring stock price is it forces Tesla's hand to commit to making these Gen 3 cars. Do they really want to fight a price war against GM, Volkswagen, Ford, and Toyota?

The dedication to high end is how Porsche has maintained industry-leading margins without having to get their hands dirty. They eventually sold this iconic brand to Volkswagen for \$10 billion (illustrating again how ridiculous TSLA's 22 billion market cap really is).

By investing with the premise that nothing can go wrong at Tesla over the next 5 year time span, you are assuming that every market penetration and real operating margin target will be hit perfectly without a hitch. If all that pans out, you should be able to see 20% out of your investment. If not, you are just as vulnerable as the short seller was at \$30 a share.

Tesla Dilemma – Shrinking Battery Cost vs. Fixed-Price Resale Value Guarantee

(How long can Tesla tell an inherently contradictory story to shareholders and customers?)

A driving force behinds Tesla's ability to gain mass acceptance for Model S was the offer to guarantee a buyback value from its customers. Tesla has made a **very big deal** about guaranteeing a 50% resale value of its Model S in three years. As it currently stands, Tesla's guarantee program promises a higher resale value for a Model S than similar models from BMW, Audi and Mercedes-Benz.

At the same time, Tesla has been able to tell the story of Gen 3 by assuming significantly lower battery costs. Morgan Stanley's analyst further pegged his own estimate of battery costs, predicting the lithium battery cost will drop from \$400/kWh to \$200/kWh in the next three years. This theory has been emphasized by Tesla to the investment community. When a Barron's writer, interviewing Mr. Musk, raised the question of whether battery cost could possibly drop by half in the next three years to allow for a successful Gen III launch, [Musk abruptly hung up the phone](#).

There is one MAJOR problem here that everyone has failed to address. The reality of an anticipated 50% battery price reduction is in **direct conflict** with Tesla's current 50% sale price buyback program for the Model S. However, Tesla's guarantees will come at

an increased cost (e.g. currently **unbooked** losses) which escalate, the further the price of new batteries falls at the time.

It is well-known the battery pack is a significant part of Model S' cost structure. The 85 kWh battery model sells for \$73,570. Using Morgan Stanley's estimate of \$400/kWh, the battery pack alone is worth \$34,000, roughly 46% of the total cost of the vehicle. Should the battery cost drop by half over the next three years, as projected by Morgan Stanley and Tesla's management, the same brand new battery pack should be worth roughly \$17,000. What did Mr. Musk promise to buy a 3-year old used battery pack back at? The same \$17,000? So if Mr. Musk is right about the trajectory of battery prices, it's going to cost his company \$8,000 - \$10,000 per guarantee to buy back the used batteries in those cars at new battery prices.

Sure the company will be able to sell equity to make up for the deficit, but that creates yet another risk for shareholders. Also, it will negatively impact those who bought the Model S initially, before the guarantee was made available. This aggressive strategy is consistent with other corporate actions and claims that have recently come under scrutiny, such as overstated safety rankings, to understate the true cost of ownership, while understating the true unsubsidized losses selling Model S incurs.

<http://www.autoblog.com/2013/08/22/nhtsa-rebuffs-tesla-model-s-safest-car-claim-video/>

<http://www.autonews.com/article/20130916/RETAIL07/130919867/tesla-ad-probe-sought-by-california-dealers-association#>

Citron will now take the opportunity to debunk three of the main oversimplification theories regarding Tesla:



Case #1 -- Before you write anything -- have you even driven the car? Yes, I have driven the car, and it is great. I would prefer a bit more luxury inside for the price point, and a larger backseat, but the drive was terrific. And? That was bull case at \$30, not \$180. Investors must be able to separate the product from the stock – the market will do that inevitably.



Case #2 -- Tesla is not an automotive company; it is more of a technology company. So what does their competition do? Make horse and buggies? Every car company is a technology company. As a matter of fact, Tesla spends significantly less money than its competitors on research and development. True they have fewer models, but the numbers are compelling.

This month Mercedes launches their new S Class which will be available in a plug-in/hybrid in 12 months. The Wall Street Journal just called the car a “Technological Tour de

Force “: the car has 60 onboard computers. Does that make Mercedes a technology company?

<http://online.wsj.com/article/SB10001424127887324123004579055150121200912.html>

Investors had better hope Tesla remains a car company rather than a tech company. Competition drives down the costs of tech precipitously. What retains more value on a percentage basis: a well-made 3 year old car, or a 3 year old smartphone? [Moore's Law](#) has never been applicable to automobile values. We have no doubt that Elon Musk's team can continue to innovate impressively at the fringes, but it is just not a credible investing thesis that Mr. Musk's personal engineering prowess is going to stand apart from the onslaught of R&D investing in the space.

R&D Spending Last 3 Years, Compared

(Thousands, USD)	2010	2011	2012
Tesla	93,000	209,000	274,000
Daimler	4,217,113	5,002,028	5,034,857
Ford	5,000,000	5,300,000	5,500,000
GM	6,962,000	8,124,000	7,368,000
Toyota ('11,'12,13)	9,484,416	9,747,500	8,180,344



Case #3 -- Tesla is the new Apple.

As foolish as we feel addressing it, we will. In Apple's ascent to glory, its stock price followed its current earnings. When the company introduced the iPhone, the market cap didn't shoot to \$500 billion and just wait until the earnings caught up to support it. Although more innovative than its competition, Apple NEVER traded more than 25x trailing earnings multiple, and that includes during the introduction of the iPhone. (http://ycharts.com/companies/AAPL/pe_ratio). That is why investors were able to make money over time. Needless to say Tesla's P/E, excluding compensation, would be way over 220x and that is without any income from operations, only money made from environmental credits.

Lastly, needless to say, Apple sells a mass product for a global market that carries a gross margin of close to 60%, compared to Tesla, which manufactures high-end vehicles in California – and, aside from subsidies, loses money doing it.

It is the opinion of Citron that sentiment about Tesla today resembles Apple one year ago, when investors were convinced en masse that AAPL was going straight to \$1,000. That's when it turned on a dime. The product was still good but sentiment can change fast.

If we are going to introduce Apple as a comparison, then we have to make sure we are not forgetting Blackberry. As recently as 2011, Blackberry was one of the 50 best

global brands in the world, on par with Ford, Adidas, and Nestle. They were an innovator of wireless devices and everyone including President Obama was addicted to their “crackberry”. In response every major consumer electronic brand -- from Apple and Samsung to Google, targeted Blackberry. The company went from an early innovator a “must have” product, and “must own” stock, to being sold for a pittance, compared to their former glory. The moral of the story is being the early innovator gives you a big head start but also puts a big target on your back from competition. Tesla will not be an exception.

Why Now Citron? What makes this the right price to reevaluate?

Tesla issued a convertible note on May 15 2013 for \$650 million USD. The initial conversion price was struck at \$124.52 a share. Concurrent with entering into the convertible note hedge transactions, the company issued warrant transactions with the hedge counterparties relating to the same number of shares of our common stock, with a strike price of **\$184.48**.

To dynamically hedge the call spread, the banks became natural buyers of the stock as it moves above the initial \$124 strike price. At the current stock price, the banks should have purchased significant amount of its total hedging needs, therefore removing a significant buyer in the market. If the stock price starts moving below the \$184.48, dynamic hedging strategy would dictate the banks to **sell shares purchased** due to decreased position delta. 5.5 million shares is a sizable position in a top-heavy stock.



There is a whole list of potential problems facing Tesla, any one of which holds the potential to trigger a major decline in Tesla stock:

- The need to raise capital for CAPEX expenses
- The inability to manufacture and sell profitably without environmental credits (which they have not been able to do yet)
- Competition on the high-end from the world's foremost prestige brands
- The inability to mass-produce cars affordably in California (Doing business in California has become cost prohibitive, that is why Tesla has the only large scale factory in the state)
- Cannibalization of Model S buyers by the Model X
- Cannibalization of Model S buyers to pre-owned Model S within 2 years
- Failure to penetrate China due to lack of infrastructure to support pure electric competitive domestic manufacturers, and government protectionism
- Failure to establish dealer networks in pushback states
- R&D Expense requirements to create new compelling product (automated cars)

Analysts

While some analysts like JPM, Goldman and Merrill have confined themselves to realistic goals for Tesla, generating sobering targets, others have pegged moonshot valuations. Before you rely on analysts to tell you when to sell your stock, consider the breakdown of buy-hold-sell ratings for companies in the S&P 500 index from S&P Capital IQ. The data encompasses the more than 11,000 individual buy-hold-sell ratings that S&P has gathered from Wall Street analysts for the companies in that index.

	% of all ratings in this category
Strong Buy	30.2%
Buy	17.8%
Hold	45.5%
Weak Hold	4.3%
Sell	2.2%

Point being: no how matter how high stocks go -- people do not know when to sell, **and analysts will never tell you to sell, ever**. This is how bubbles are created.



Conclusion

Citron could probably write another 100 pages about the challenges facing Tesla over the next 5 years. If you are a shareholder and you believe that the company will have an unobstructed rocket ride from here to over the rainbow, you might be rewarded with a 20% gain from its current value. But, if anything goes wrong, or even stays status quo, you are in for a tsunami of hurt, as the stock is perched at a level of extreme unsustainability.

Cautious Investing to All