Description

Tesla manufactures high-end electric vehicles (EV) and components. It has its own sales and service network and sells electric powertrain components to other manufacturers. The company maintains a network of around 7,000 charging ports in some 1,100 stations worldwide.

Tesla has three models which are among the world's top-selling electric cars:

- The **Model S**, a luxury EV with an average selling price (ASP) of around $95’000;
- The **Model X**, a crossover SUV with an ASP of around $100’000;
- The new mass market **Model 3** with an ASP reaching $78k despite the $35k initially advertised.

2017 Fiscal Year revenues are broken down as follows:

- Automotive sales and leasing: $9.6bn (82%);
- Energy Generation and Storage: $1.1bn (9.5%) (via the acquisition of Solar City in 2016);
- Services & Other: $1.0bn (8.5%).

Tesla operates multiple plants including its much-discussed Gigafactory in Nevada. These plants primarily produce batteries but also include a vehicle manufacturing facility in Fremont, California.

The company will launch a mobility business in 2019 called **Tesla Network**. The service will allow **Tesla** owners to include their vehicles in a network that will resemble a hybrid of car-sharing and “Uber like” ride-hailing.

Among other ventures are: the launch of a luxury high-speed roadster in 2020, and an electric semi-trailer truck planed for production in 2019.

Our View

Though we reckon that what the company has achieved so far is impressive and that execution risk has receded considerably, we still believe that valuation needs to come off to reflect the multiple risks faced by the company.

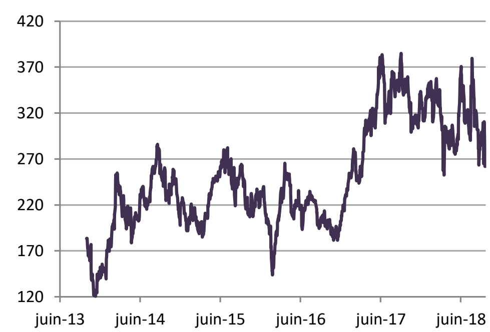
In the meantime EBIT and earnings may not grow as fast as expected, meaning that the stock price faces some significant downside risk.

➔ We advise great caution

November 1, 2018

Sector	Consumer Discretionary
Industry	Automobiles & Components
Mkt Cap ($bn)	44.7
Price	261.95
1Y Range	244.59 - 387.46
200 D Histo Volatility	58%
(in USD MM)	
Revenue	11'759
EBITDA	3.9
EBITDA Margin	0.0%
1 Year Fwd. P/E	231.0
Dividend Yield	0.00%

5 Year Price Action



Source : Bloomberg

Union Securities Research Team
research@unionsecurities.ch

Union Securities Switzerland SA
11 Cours de Rive
1204 Geneva, Switzerland
http://unionsecurities.ch

Investment Case

We stayed away from **Tesla** for a long time as:

- There is an equally large number of strengths and weaknesses, threats and opportunities (see our SWOT analysis);
- The stock trades on sentiment, not fundamentals;
- We found it impossible to rationalize market price by any "reasonable" metric.

Because of the disruptive nature of its technology, the appeal of its products to consumers, and the high-profile personality of Elon Musk, **Tesla** receives a lot of media and investor attention. It is not a member of the S&P 500, but if it were, it would be the 120th largest stock. It is the largest US stock not included in the S&P 500 but does not meet one of the criteria for inclusion: "financial viability" (i.e. the four most recent quarters of GAAP earnings must be positive).

The main considerations that are driving the stock price in the short term are:

- Tesla's ability to ramp up production of the Model 3 and sell it at a target mass-market price
  - A failure to do so would mean that Tesla could lose its advance to other carmakers and remain stuck in the "high-end" market;
- Cash burn and potential capital raise
  - Tesla benefits from a cash advance from customers on prepayments on the Model 3 but as production ramps up, they also will have to pay suppliers, thus limiting cash flows;
- Elon Musk's behavior
  - Though we believe that this is mostly noise, it can have a direct impact on the leadership of the company;

We discuss the valuation of Tesla on page 4. Though Tesla's valuation could be justified in a rosy scenario, uncertainty remains too high to issue a buy recommendation at current levels.

We also believe investor nervousness around Elon's behavior and the selloff of Technology stocks may cause Tesla stock to break from its nearly two-year trading range.

Bullish Case	Bearish Case
• **Tesla manages to grow sales and production in line with its high ambitions and heavy CAPEX investments and to stay ahead of competitors in terms of quality and costs** • Successful ramp up of Model 3 production • Penetration of mass market with no or little brand dilution • Development of a large charging network and installed based that would lead to the success of the "Tesla Network" project • Greater consumer adoption of EV vehicles and favorable regulatory environment • Declining marginal costs and improving profitability	• **Tesla fails to reach the critical point where it can dominate the EV market and improve its cost structure** • Productions failures or rising material prices putting pressure on costs • Increased competitions or low mass market adoption • The EV market becomes as cyclical as the traditional auto market • Rapid cash burn and additional capital needs • Management issues • Loss of government subsidies • Failure of new ventures such as Tesla Network

SWOT Analysis

Strengths

- Elon Musk
  - Strong drive and vision
  - Appeal to investors
- Technology Leader
  - Innovator/Disruptor
  - First entrant in the high end EV segment
- Favorable industry environment
  - Exposure to the secular trend of EV
  - Large addressable market
  - Scalable business
- Good pricing power
  - Strong Brand
  - Appealing product portfolio
  - High End positioning
  - Direct sale to consumers through company owned stores and galleries
  - No dealer rebate
- Mass-market production capacity
  - Strong vertical integration
  - Low dependence on suppliers
  - Li-ion battery cost leader
- Benefits from a greater than $900M of customer deposit
- Immune from some of the other carmakers issues
  - No pension legacy
  - No diesel scandal

Weaknesses

- Elon Musk
  - Tendency to oversell
  - Handles too many companies
  - Too much media coverage
- Weakness of top management
  - No moderating Sheryl Sanders-type figure
  - Departure of executives
  - Weak corporate governance (dubious acquisition of SolarCity)
- Gigantic investments
  - Forced to achieve global scale rapidly
  - Strong execution risk
  - Chronic cash burn
  - Risk of capital increase
  - High dependence on investors patience
- Production complexity
  - Limited mass-manufacturing experience
  - Rising costs
  - Chronic delays in delivery
- Relatively low barrier to entry
  - Legacy carmakers are all developing electric vehicles
  - New incumbents such as Lucid Motors
- High auto industry regulation
- Low visibility on Energy Storage

Opportunities

- Increased profitability
  - Meets production targets and enters a virtuous cycle of decreasing marginal costs
  - Reduction in battery costs
- Stronger than expected adoption of EV
  - Increasing Gasoline prices
  - Increase of government penalties and regulations on internal combustion engine
- Growth in China and Europe
- Development of new segments
  - New Luxury Roadster
  - Mobility business
  - Electric Trucks
  - Solar Tiles
- Strengthening of board power and better corporate governance
- Favorable regulatory rulings

Threats

- “Key Man” risk…
  - Legal concerns following Elon Musk securities law violation
  - More executives departures
- Brand Issues
  - Brand dilution as the company moves to lower price models
- Production issues
  - Delivery in the ramp up the Model 3 production
  - Rising material prices, procurement issues
  - Supply chain disruption
  - Slower than expected decline in battery costs
- Industry issues
  - Increased competition from traditional carmakers and new entrants
  - Lower than expected adoption of EV
  - End of tax credit for EV buyers in the US
- Additional capital raise
- FX currency risk
- China Tariffs

Making sense of the valuation

For years, investors have granted Tesla a much higher valuation than other car makers.
Among the reasons for this valuation premium are:

- Tesla's higher growth profile, as it is a young company;
- the high-end positioning of its models;
- its integrated business model which promises to eventually return higher margins than the rest of the industry;
- its lack of "legacy issues" such as pension fund or diesel scandals;
- and much more debatable, the fact that Tesla business model could be immune from the traditional high cyclicality and high competitive environment that tends to affect the auto industry;

Tesla valuation metrics are in line with Ferrari (though we believe Ferrari fully deserve a valuation premium) and are lower than most successful Tech companies. Short term PE should be ignored as Tesla deliberately does not try to make short term profits and reinvests heavily (the way Amazon did for years before reaching a 1Trn valuation).

Category	Name	Mkt Cap ($bn)	EV ($bn)	Revenue ($bn)	Est Revenue ($bn)	Est. PE - 12M Fwd	Est. PE - 24M Fwd	Est. PE GAAP	Est. EV/EBITDA	Est. Price/Sales	Est. EV/Sales
	Tesla	**44.7**	**55.3**	**11.8**	**26.8**	**231.0**	**32.9**	**na**	**17.9**	**1.7**	**2.0**
Ultra Luxury Cars	Ferrari	25.0	25.8	3.9	4.3	32.3	28.7	31.5	18.2	5.9	6.2
Luxury Cars	BMW	57.3	106.2	111.5	114.2	7.0	6.8	6.9	4.0	0.5	0.9
Luxury Cars	Daimler	67.4	46.6	185.6	196.6	6.2	6.0	6.2	1.9	0.3	0.2
Diversified Carmarker	Volkwagen	84.0	84.4	260.6	284.9	5.3	4.9	5.3	1.8	0.3	0.3
Diversified Carmarker	Ford	36.3	27.1	156.8	148.5	6.6	5.9	6.6	2.3	0.2	0.2
Diversified Carmarker	GM	48.1	46.6	145.6	146.7	5.7	5.9	5.7	2.6	0.3	0.3
Tech Disruptors	Amazon	921.7	934.4	177.9	274.7	55.0	41.3	79.9	23.1	3.4	3.4
Tech Disruptors	Google	808.5	714.2	110.9	126.7	21.0	17.6	25.4	11.6	6.4	5.6
Tech Disruptors	Apple	1083.3	948.7	229.2	279.7	16.4	15.0	16.4	11.8	3.9	3.4
Tech Disruptors	Adobe	128.5	125.0	7.3	10.5	34.2	29.0	43.1	25.8	12.3	12.0
Tech Disruptors	Salesforce	117.3	116.6	10.5	15.0	58.3	47.8	183.9	30.7	7.8	7.8
Tech Disruptors	Paypal	98.5	94.7	13.1	17.4	30.5	25.2	41.1	20.6	5.7	5.5

1Y Fwd Estimates, Source: Bloomberg

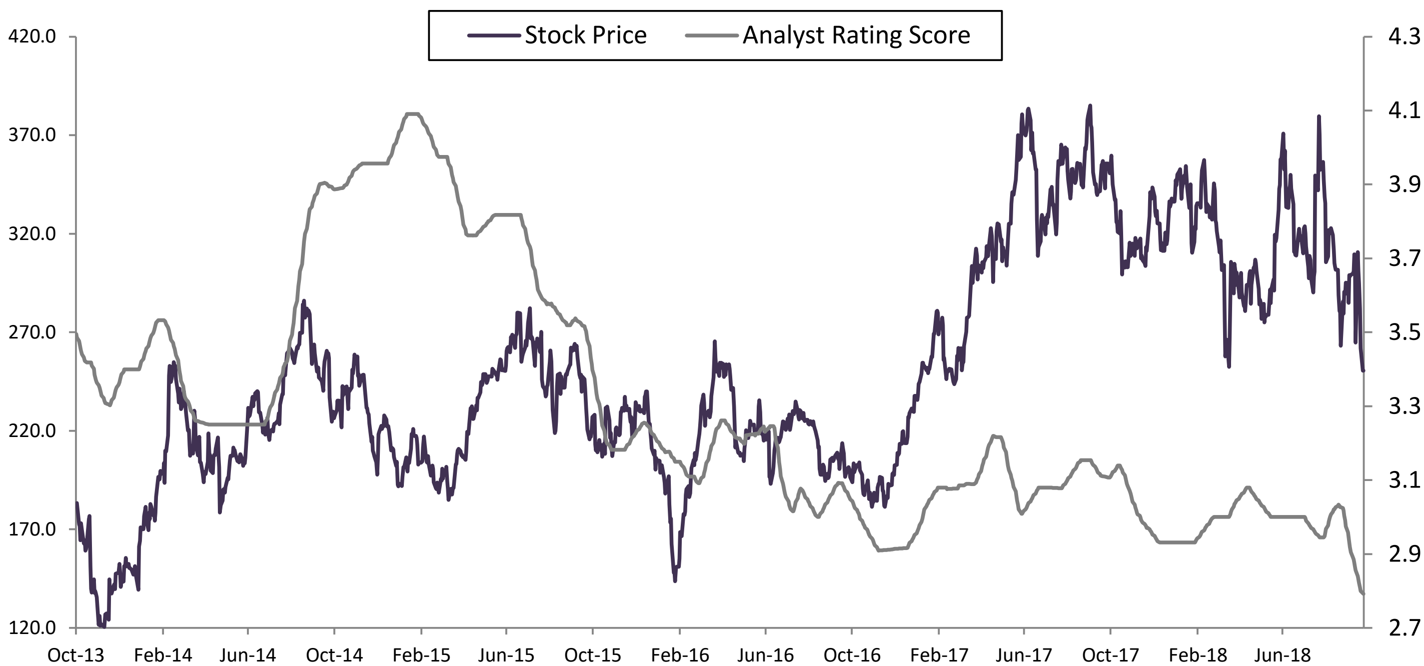
It is also growing faster than traditional carmakers and deserves a "growth premium". Gross margins are in line with that of other carmakers. Its Gross margin is in line with that of other carmakers; when Tesla manages to progressively reduce cost to bring EBIT margins in line with competitors, earnings will grow strongly and PE will collapse.

Name	Sales Growth (3y avg.)	EPS Growth (3y avg.)	LT Exp. EPS CAGR	Est. Gross Margin	Est. EBIT Margin	Est. Net Margin
Tesla	**55.8%**	**-105%**	**35%**	**22.5%**	**0.7%**	**0.4%**
Ferrari	7.4%	na	13%	52.1%	24.6%	17.9%
BMW	7.2%	14%	-2%	19.6%	9.4%	7.2%
Daimler	8.3%	15%	-1%	21.0%	8.1%	5.5%
Volkwagen	4.5%	na	2%	21.8%	7.4%	5.6%
Ford	2.9%	176%	-8%	10.1%	5.0%	3.7%
GM	-1.8%	na	11%	12.7%	6.5%	5.6%

Though we believe valuation ignores much of the execution risk, it is clearly expensive but not unreasonable. If the many risks faced by Tesla fail to materialize, valuation will progressively come down as earnings grow.

Estimated earnings are, of course, dependent on company guidelines and analyst expectations.

As shown in the graph below, analysts are overly negative or prudent on the company (28.6% Buys, 34.3% Holds, 37.1% Sells) and consensus estimates are probably very conservative.



Source: Bloomberg - Rating Scale: 0-5

Disclaimer

Investment research – Risk information: USS researches are prepared and published by Union Securities Switzerland SA (regulated by FINMA in Switzerland) “USS”.

The investment views have been prepared in accordance with legal requirements designed to promote the **independence of investment research**.

This material is for your **information only** and is not intended as an offer, or a solicitation of an offer, to buy or sell any investment or other specific product. Certain services and products are subject to legal restrictions and cannot be offered worldwide on an unrestricted basis and/or may not be eligible for sale to all investors. All information and opinions expressed in this material were obtained from sources believed to be reliable and in good faith, but no representation or warranty, express or implied, is made as to its accuracy or completeness (other than disclosures relating to USS). All information and opinions as well as any forecasts, estimates and prices indicated are current as of the date of this report, and are subject to change without notice. The market prices provided in performance charts and tables are closing prices on the respective principal stock exchange. The analysis contained herein is based on numerous assumptions. Different assumptions could result in materially different results. Opinions expressed herein may differ or be contrary to those expressed by other business areas or divisions of USS as a result of using different assumptions and/or criteria.

In no circumstances may this document or any of the information (including any forecast, value, index or other calculated amount ("Values")) be used for any of the following purposes (i) valuation or accounting purposes; (ii) to determine the amounts due or payable, the price or the value of any financial instrument or financial contract; or (iii) to measure the performance of any financial instrument including, without limitation, for the purpose of tracking the return or performance of any Value or of defining the asset allocation of portfolio or of computing performance fees. By receiving this document and the information you will be deemed to represent and warrant to USS that you will not use this document or otherwise rely on any of the Information for any of the above purposes or otherwise rely upon this document or any of the information.

Opinions expressed herein may differ or be contrary to those expressed by other business areas or divisions of USS, as a result of using different assumptions and/or criteria. USS and any of its directors or employees may be entitled at any time to hold long or short positions in investment instruments referred to herein, carry out transactions involving relevant investment instruments in the capacity of principal or agent, or provide any other services or have officers, who serve as directors, either to/for the issuer, the investment instrument itself or to/for any company commercially or financially affiliated to such issuers. At any time, investment decisions (including whether to buy, sell or hold securities) made by USS and its employees may differ from or be contrary to the opinions expressed in USS research publications. Some investments may not be readily realizable since the market in the securities is illiquid and therefore valuing the investment and identifying the risk to which you are exposed may be difficult to quantify. USS relies on information barriers to control the flow of information contained in one or more areas within USS, into other areas, units, divisions or affiliates of USS. Futures and Options trading is not suitable for every investor as there is a substantial risk of loss, and losses in excess of an initial investment may occur. Past performance of an investment is no guarantee for its future performance. Additional information will be made available upon request. Some investments may be subject to sudden and large falls in value and on realization you may receive back less than you invested or may be required to pay more. Changes in foreign exchange rates may have an adverse effect on the price, value or income of an investment. The analyst(s) responsible for the preparation of this report may interact with trading desk personnel, sales personnel and other constituencies for the purpose of gathering, synthesizing and interpreting market information. Tax treatment depends on the individual circumstances and may be subject to change in the future. USS does not provide legal or tax advice and makes no representations as to the tax treatment of assets or the investment returns thereon both in general or with reference to specific client's circumstances and needs. We are of necessity unable to take into account the particular investment objectives, financial situation and needs of our individual clients and we would recommend that you take financial and/or tax advice as to the implications (including tax) of investing in any of the products mentioned herein. This material may not be reproduced or copies circulated without prior authority of USS. Unless otherwise agreed in writing USS expressly prohibits the distribution and transfer of this material to third parties for any reason. USS accepts no liability whatsoever for any claims or lawsuits from any third parties arising from the use or distribution of this material. This report is for distribution only under such circumstances as may be permitted by applicable law. Forecasts and estimates are current only as of the date of this publication and may change without notice. USS manages conflicts and maintains independence of its investment views and publication offering, and research and rating methodologies. Additional information on the relevant authors of this publication and other USS publication(s) referenced in this report; and copies of any past reports on this topic; are available upon request from your sales representative.

External Asset Managers / External Financial Consultants: In case this research or publication is provided to an External Asset Manager or an External Financial Consultant, USS expressly prohibits that it is redistributed by the External Asset Manager or the External Financial Consultant and is made available to their clients and/or third parties.

Important notice USA: This document is not intended for distribution into the US, and/or to US persons, by USS personnel.