

# **FNCE30011**

An analysis of Tesla's P/E ratio.



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# Tesla Overview

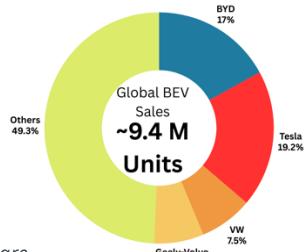


Tesla designs, manufactures, and sells electric vehicles, energy storage systems, and solar products, aiming to accelerate the world's transition to sustainable energy through innovation.

**19.2%**

**Global BEV Market Share.  
(Q2 2023)**

SOURCE: Counterpoint research: Global Electric Vehicle Market Share



## Revenue

**\$77.0B**  
2024  
Revenue

**2.85x**  
2020-2024  
Growth

## Users

**324k**  
Q1 2025  
Deliveries

**900k**  
FSD Users

## Profit

**\$4.18B**  
Q4 2024  
Gross Profit

**\$2.3B**  
Net Income  
Q4 2024

## R&D expenditure

**\$4.0 Bn**  
2023 R&D  
Spend

**4%**  
R&D % of  
Revenue

## COMPETITIVE ADVANTAGE:

**VERTICAL INTEGRATION:** Tesla controls the entire value chain – from battery cells to vehicle software to direct-to-consumer sales – enabling rapid innovation, tighter cost control, and seamless hardware-software integration.

**AI & AUTONOMY:** With over 3.6B real-world autonomous miles driven, Tesla's proprietary AI stack and in-house Dojo supercomputer allow it to iterate and train FSD models faster than any competitor.

**BRAND & ECOSYSTEM:** Tesla has built a fiercely loyal community with zero traditional marketing spend. Its growing ecosystem of EVs, energy products, and the Supercharger network deepens user engagement and long-term retention.

# Market Comparison



Company	P/E
<b>Car Manufacturers</b>	
Volkswagen	3.65
BMW	4.61
Ford	6.68

Company	P/E
<b>Electric Vehicle Manufacturers</b>	
BYD	49.1
Rivian	-2.14
Nio	-2.23
Polestar	-7.89

**4.98**

**Average Car Manufacturer PE:** Wider automotive industry is mature, expecting lower growth which is reflected in a lower P/E

**118.3**

**Tesla TTM P/E:** Based on a share price of \$241.37 as at April 17 2025 and an 2024 EPS of \$2.04

**9.21**

**Average EV Manufacturer PE:** The EV industry on the other hand is in its infancy, with a negative PE (no profits) or a very large PE (high growth expectations)

**131.58**

**Tesla Forward P/E:** Analyst consensus forward PE

SOURCE: Yahoo Finance

**Small Sample Size**

**Highly Comparable Companies of Profitable EV manufacturers are too few and far between to gauge the market PE from average metrics alone.**

An intrinsic valuation based on qualitative factors is necessary.

# Bear Thesis 1



## Political headwinds erode Tesla's brand equity and drive sales decline



### Sales Cannibalisation

Musk's political aspirations in the Trump administration alienate Tesla's core userbase:

Musk's unpopularity has led to unprecedented damage to Tesla's brand, leading to boycotts and declines in sales.



### Shots fired at Tesla dealership as backlash against Elon Musk grows

Police in Oregon say gunshots were fired at a Tesla dealership for the second time in a week

Musk's Leadership has introduced Sales risk which appears unaccounted for in P/E multiple



### Underutilised production assets → Crushed margins

Lower demand will lead to underutilisation of newly built production assets e.g. Berlin-Brandenburg gigafactory:

Large factories require economies of scale to become economically viable.

# 62% and 46%

April monthly sales decline respectively UK and Germany

Coupled with declining sales prices due to falling resale values, margins are expected to fall:

As sales quantity and price decline, factory fixed costs such as rent and utilities will increase per unit produced.

# Bear Thesis 2



Rising Chinese competition squeezes Tesla's market share and growth trajectory



## Supply Chain Efficiencies

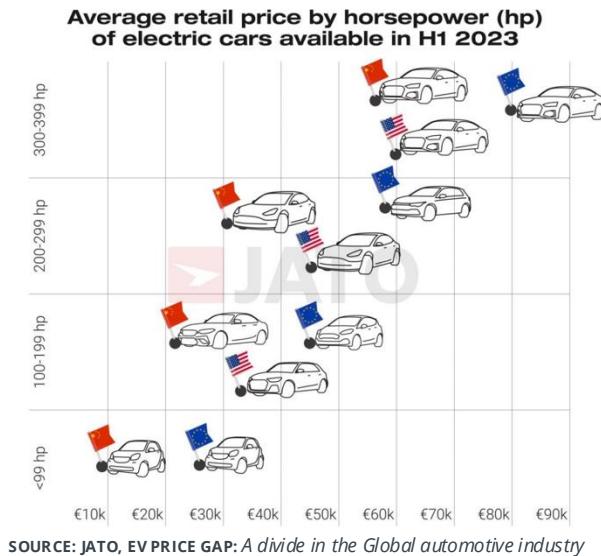
Chinese EV makers (e.g. BYD) control entire supply chains (batteries, chips, vehicle design, and manufacturing):

This integration allows lower costs, faster innovation, and price points Tesla can't match

# \$11,500 USD

Price of BYD Seagull (China) – 58% cheaper than cheapest US EV model

SOURCE: BYD



## China's EV push

# \$230B

Chinese government EV subsidies (2009-2023)

SOURCE: Centre for Strategic and International Studies: *The Chinese EV Dilemma: Subsidized yet Striking*

EV incentives in China included free license plates, tax exemptions, and rebates:

High adoption led to economies of scale and plummeting unit costs.

# Bear Thesis 3



Growth assumptions predicated on Full Self Driving (FSD) technology are bottlenecked by hardware limitations



FSD raises serious safety concerns

Estimates show that FSD is substantially more dangerous than human drivers:

Tesla FSD ~ 11.3 fatalities per 100M miles vs Human Drivers ~ 1.3 fatalities per 100M miles (2024 estimates)

SOURCE: Benn Jordan: Sorry. Your Car Will Never Drive You Around.

Currently, FSD and autopilot features require drivers to be paying full attention and be ready to take over:

Drivers misusing automated features open Tesla to legal liabilities and brand risk

39-42%

Required 10 year FCF CAGR to justify P/E = 118.3

This growth expectation hinges on the assumption of level 4 full self driving coming to market as a subscription service as it will increase margins

Growth expectations appear overstated given the uncertainty around FSD readiness

	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
FCF	\$3,584.00	\$4,988.00	\$6,942.22	\$9,601.93	\$13,447.11	\$18,715.19	\$26,047.11	\$36,251.39	\$50,403.35	\$70,219.09	\$97,728.33
Required Growth	39%	39%	39%	39%	39%	39%	39%	39%	39%	39%	39%
PVCF	\$4,034.62	\$5,757.37	\$8,115.15	\$10,384.06	\$11,820.86	\$14,702.91	\$18,602.70	\$23,536.80	\$29,779.75	\$37,676.50	\$49,356.33



Removal of LiDAR and Ultrasonic sensors in Tesla Cars

Unlike Competitors such as Waymo, Tesla uses only vision for FSD as opposed to LiDAR sensors:

Experts suggest the decision to only use vision systems, limits the maximum capability of FSD

Many older tesla models will not be capable of FSD despite functionality being promised:  
Hardware requirements of new FSD AI models outgrow old models, shrinking FSD fleet size

SOURCE: CNBC: ["Autonomous vehicle pioneer doubles down on technology](#)  
[Tesla CEO Elon Musk calls 'freaking stupid'"](#)

# Key Takeaways



## Components of Tesla P/E

Growth



**Increasing Chinese Competition**



Risk



**Erosion of Brand Value and Shrinking Margins due to Musk's politics**



**Delays and Uncertainty regarding FSD readiness**



Qualitative factors and market comparable analysis suggest Tesla's P/E multiple is severely overvalued.  
Assuming a more likely risk adjusted 10 year FCF CAGR scenario of between 10-20%:

**Estimated Intrinsic P/E multiple: 20-40**