

FNCE30011

An analysis of Tesla's P/E ratio.



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Tesla Overview

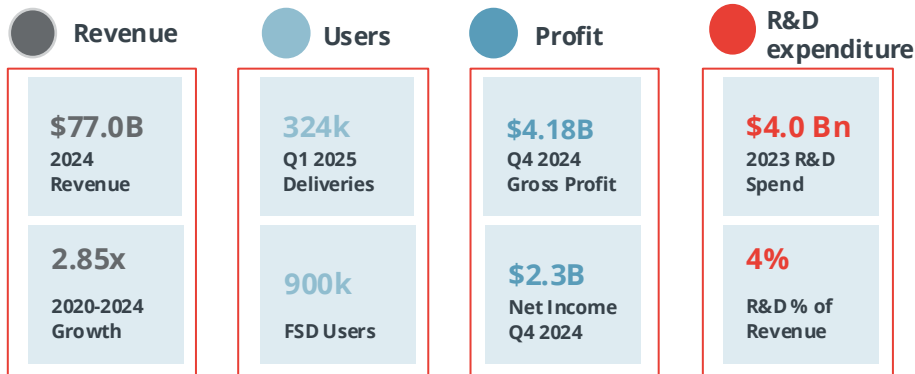
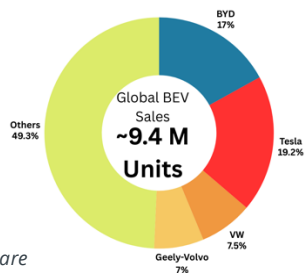


Tesla designs, manufactures, and sells electric vehicles, energy storage systems, and solar products, aiming to accelerate the world's transition to sustainable energy through innovation.

19.2%

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

SOURCE: Counterpoint research: *Global Electric Vehicle Market Share*



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
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Car Manufacturers

Volkswagen	3.65
BMW	4.61
Ford	6.68

Electric Vehicle Manufacturers

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.

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.

62% and 46%

April monthly sales decline respectively UK and Germany

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):

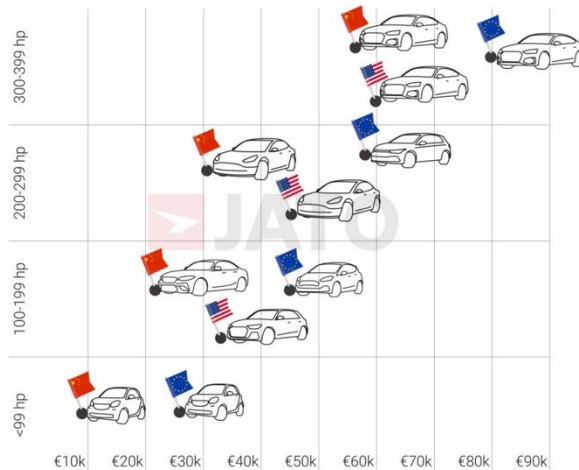
This integration allows lower costs, faster innovation, and price points Tesla can't match

\$11,500 USD

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

SOURCE: BYD

Average retail price by horsepower (hp) of electric cars available in H1 2023



SOURCE: JATO, EV PRICE GAP: A divide in the Global automotive industry



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)



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



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

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

Growth expectations appear overstated given the uncertainty around FSD readiness

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'"](#)

	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
FCF	\$3,584.00	\$4,988.08	\$6,942.22	\$9,661.93	\$13,447.11	\$18,715.19	\$26,047.11	\$36,251.39	\$50,453.35	\$70,219.09	\$97,728.33
Required Growth	39%	39%	39%	39%	39%	39%	39%	39%	39%	39%	39%
PVFCF	\$4,534.62	\$5,727.37	\$7,233.12	\$9,184.06	\$11,620.86	\$14,702.81	\$18,602.70	\$23,536.86	\$29,775.75	\$37,678.65	
Resulting											
PV(TV)	\$1,954,586.51	\$713,570.00	13130	37000	\$775,440.00						
Enterprise value											
(-) Total Debt											
(+) CCE											
as of 18 APR											
Market Cap											
FCF exit multiple											
20											
DISCOUNT RATE											
10%											

Key Takeaways



Components of Tesla P/E

Growth



Increasing Chinese Competition



Delays and Uncertainty regarding FSD readiness



Risk



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



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**