



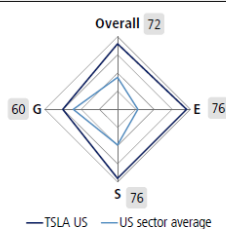
# Tesla (TSLA.O/TSLA US)

Price as of Sep 1: US245

## Model 3 refresh unveiled, paving way for 4Q23F growth

Trading data			
Mkt cap (US\$bn)	777.7		
Outstanding shares (mn)	3,174		
Institutional ownership (%)	45.3		
3M avg. daily trading (mn)	130.4		
52-week trading range (US\$)	101.8-313.8		
Performance			
	3M	6M	12M
Absolute (%)	14.5	23.9	(9.3)
Relative (%)	9.1	12.3	(24.4)

### ESG score card



Source: Refinitiv, KGI securities

### Event

Tesla launched the refreshed Model 3 in Europe, the Middle East, and China.

### Impact

**Model 3 new look, features, & performance positively received, but higher price viewed negatively.** The highly anticipated Model 3 refresh, codenamed Highland, will arrive first in Europe, the Middle East, and China, with order placement available now for delivery as early as in October. The pre-order price for the standard-range (SR) and long-range (LR) Model 3 refresh in China is a respective Rmb259,900 and Rmb295,900, with the SR variant priced 12% higher than the old version. Similarly, the LR Model 3 refresh is priced higher than the old version in Europe. Over the past two days, the media and people who were given previews of the revamped Model 3 shared their views and thoughts, which were mostly positive. The Model 3 refresh got a front-end facelift for a sleeker look and enhanced aerodynamics (drag coefficient lowered to 0.219), with multiple high-end interior design updates and new features. While equipped with the same battery capacity, the new Model 3 delivers 10%-plus more range, with respective claimed range of 344 and 421 miles for the refreshed SR and LR Model 3 variants. New interior features were a positive surprise, including ambient lighting, ventilated seats, a streamlined dashboard, and upgraded front touch screens, previously seen only in Tesla's more premium models. Tesla also added a rear 8-inch touchscreen, giving rear passengers comfort controls and entertainment options. The refreshed Model 3 also has a quieter interior due to improved aerodynamics, addition of acoustic glass to the rear windows and rear windshield, as well as a new suspension system and insulation materials.

**Model 3 refresh, Cybertruck delivery, & FSD improvement to fuel growth; maintain 2023-25F EPS CAGR of 53%.** Tesla will continue its aggressive pricing strategy to boost sales and cash flow by slashing Model S and Model X prices by 15-20% worldwide, as well as the FSD price in North America by US\$3,000 in September. The LR Model X is now priced at US\$79,999 in the US, and meets the tax credit threshold under the IRA. We believe the firm will easily meet its 1.8mn unit delivery target for 2023, with EV shipments to gain strength in 4Q23 on delivery of the refreshed Model 3 and Cybertruck. We maintain our respective 2023-24 delivery forecasts of 1.83mn and 2.34mn units and our 2023-25 EPS CAGR estimate of 53%. Tesla recently launched a US\$300mn AI computer cluster, in line with its heavy capex plan to enhance FSD. Together with its growing training data sets, the firm is on track to sustain its leadership in autonomous driving ability.

### Key financials

	Dec-21A	Dec-22A	Dec-23F	Dec-24F	Dec-25F
Revenue (US\$mn)	53,823	81,462	99,210	126,532	166,691
Gross profit (US\$mn)	13,606	20,853	18,823	28,607	41,143
Operating profit (US\$mn)	6,523	13,656	10,715	19,172	29,398
EBITDA (US\$mn)	9,434	17,403	15,373	16,528	68,512
Net profit (US\$mn)	7,645	14,116	12,476	19,748	29,146
EPS (US\$)	2.26	4.07	3.59	5.68	8.38
Revenue growth (%)	70.7	51.4	21.8	27.5	31.7
EPS growth (%)	202.9	80.1	(11.8)	58.1	47.6
Gross margin (%)	25.3	25.6	19.0	22.6	24.7
Operating margin (%)	12.1	16.8	10.8	15.2	17.6
EBITDA margin (%)	17.5	21.4	15.5	13.1	41.1
Net debt to equity (%)	Net cash	Net cash	Net cash	Net cash	Net cash
Return on average equity (%)	20.0	27.4	18.4	23.7	25.9

Source: Company data, KGI Research estimates

Figure 1: New Model 3 has a smoother front fascia



Source: Tesla; KGI Research

Figure 2: Enlarged 15.4" center touchscreen & integrated steering wheel



Source: Tesla; KGI Research

**Figure 3: New 8" rear touchscreen**


Source: Tesla; KGI Research

**Figure 4: Specs comparison - Tesla Model 3**

Model	Tesla Model 3 RWD		Tesla Model 3 Long range	
	Old	New	Old	New
MSRP (RMB)	231,900	259,900	299,900	295,900
Top speed (km/h)	216	200	233	200
0-100km/h (second)	6.1	6.1	4.4	4.4
Max power (hp)	261	242	346	346
Drag coefficient (Cd)	0.225	<b>0.219</b>	0.225	<b>0.219</b>
Wheelbase (mm)	2,875	2,875	2,875	2,875
Length (mm)	4,694	4,720	4,694	4,720
Height (mm)	1,442	1,443	1,442	1,443
Width (mm)	2,088	2,089	2,088	2,089
Battery capacity (kWh)	57.5	57.5	75	75
Curb weight (kg)	1,752	1,760	1,830	1,823
Max charging rate	170kW DC (236 km/ 15 min)	170kW DC (282 km/ 15 min)	250kW DC (236 km/ 15 min)	250kW DC (282 km/ 15 min)
Power allocation	RWD	RWD	AWD	AWD
WLTP EV range (miles)	305	<b>344</b>	374	<b>421</b>
Speaker	7	<b>9</b>	14	<b>17</b>
Monitor	15" center touchscreen	<b>15.4" center touchscreen with 8" rear touchscreen</b>	15" center touchscreen	<b>15.4" center touchscreen with 8" rear touchscreen</b>
Seat	-	<b>Ventilated front seats</b>	-	<b>Ventilated front seats</b>
Others	-	<b>Integrated steering wheel (removing all stalks)</b>	-	<b>Integrated steering wheel (removing all stalks)</b>

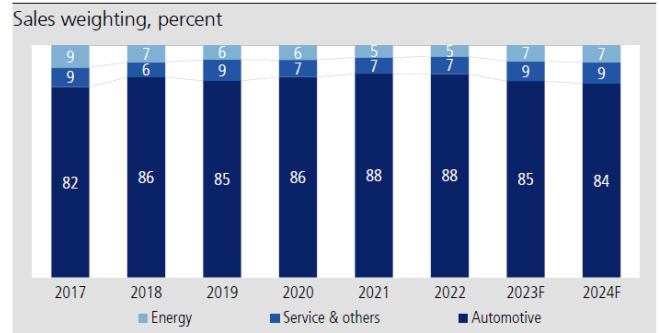
Source: Tesla; KGI Research

**Figure 5: Company profile**

Established in 2003, Tesla was a dedicated electric vehicle maker before entering the solar business after acquiring SolarCity (US) in November 2016. As of 2022, Tesla was the second-largest EV vendor worldwide with sales of 1.31mn units, representing a 13% EV market share. Headquartered in Austin, Texas, Tesla opened its first Gigafactory in Fremont, California in 2010, and started its global expansion in 2019. Gigafactory Shanghai commenced deliveries in January 2020, while two more factories, in Berlin and Texas, started deliveries in March and April last year, respectively.

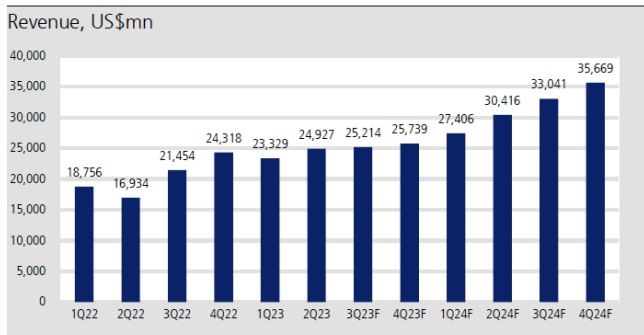
Source: Company data; KGI Research

**Figure 6: Revenue mix**



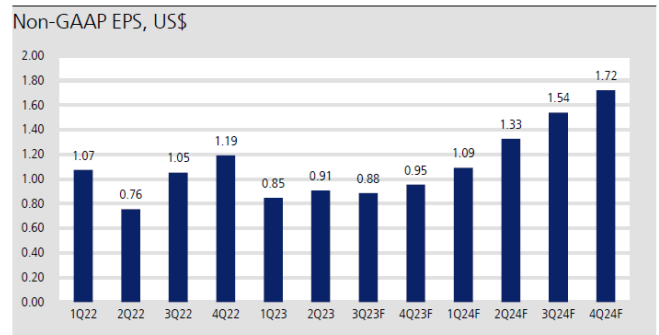
Source: Company data; KGI Research

**Figure 7: Revenue**



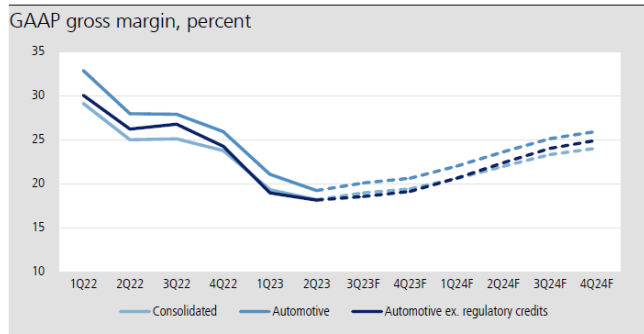
Source: Company data; KGI Research

**Figure 8: Non-GAAP EPS**



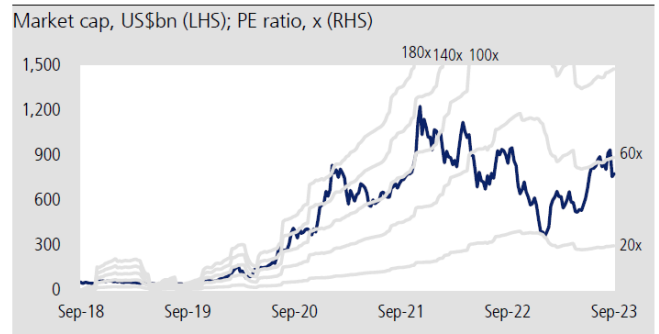
Source: Company data; KGI Research

**Figure 9: GAAP gross margin**



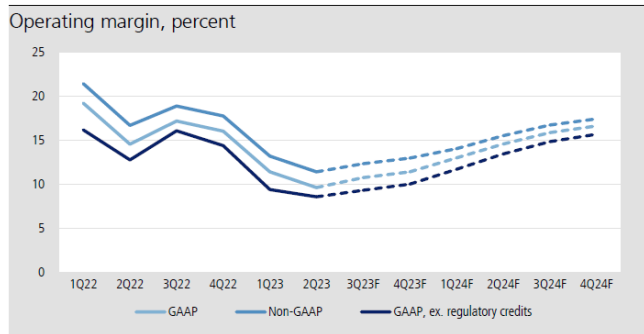
Source: Company data; KGI Research

**Figure 10: 12M forward PE band**



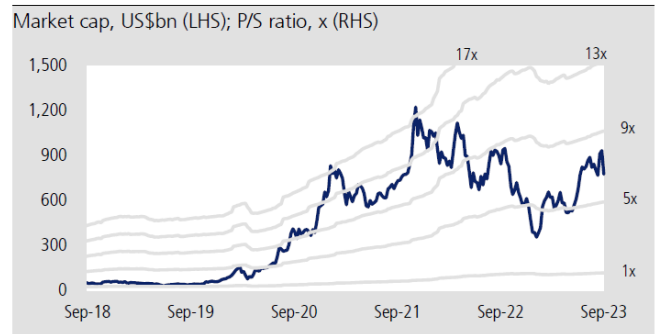
Source: Bloomberg; KGI Research

**Figure 11: Operating margin**



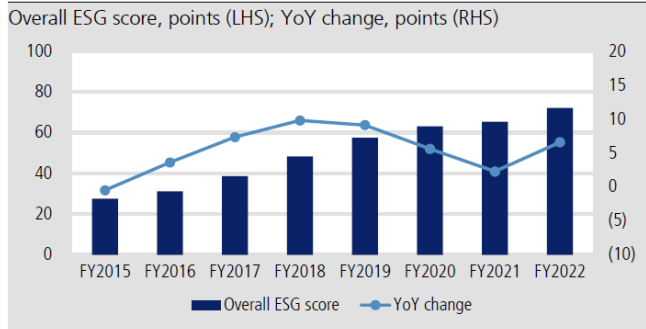
Source: Company data; KGI Research

**Figure 12: 12M forward P/S band**



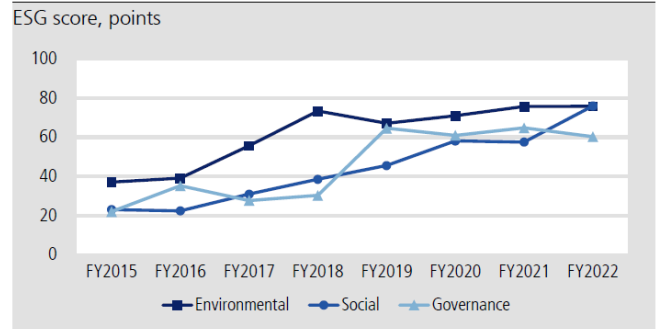
Source: Company data; KGI Research

Figure 13: Overall ESG score



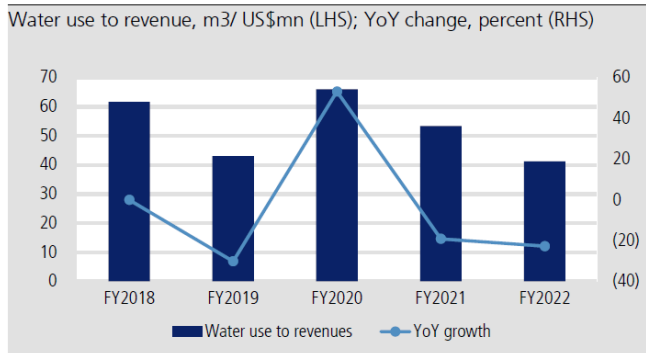
Source: Refinitiv; KGI Research; Company data

Figure 14: ESG score by category



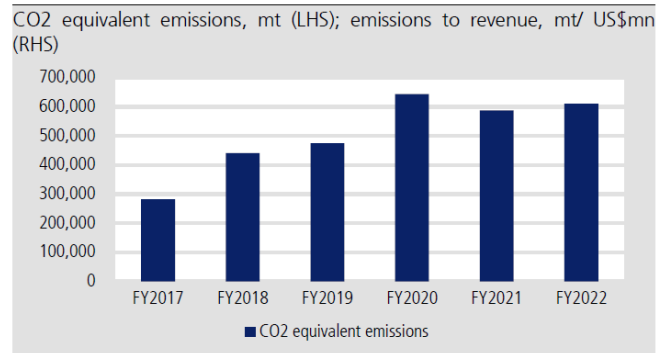
Source: Refinitiv; KGI Research; Company data

Figure 15: Water use to revenue



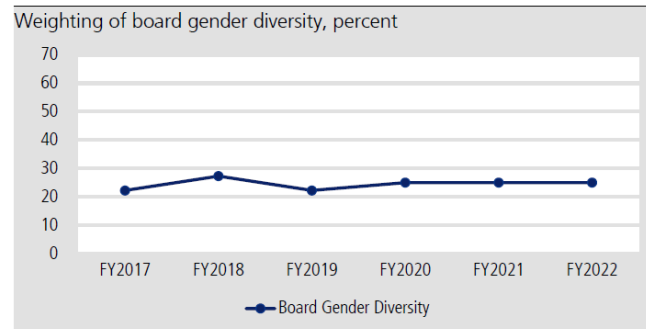
Source: Refinitiv; KGI Research; Company data

Figure 16: CO2 equivalent emissions



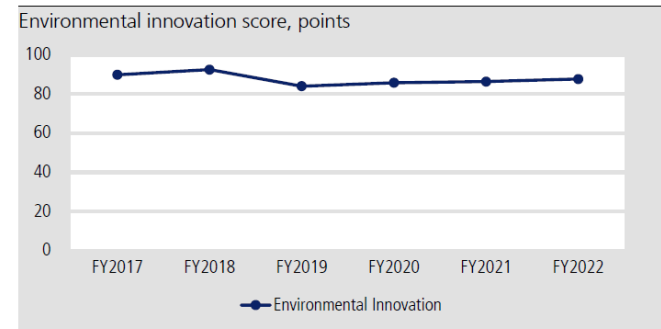
Source: Refinitiv; KGI Research; Company data

Figure 17: Board gender diversity



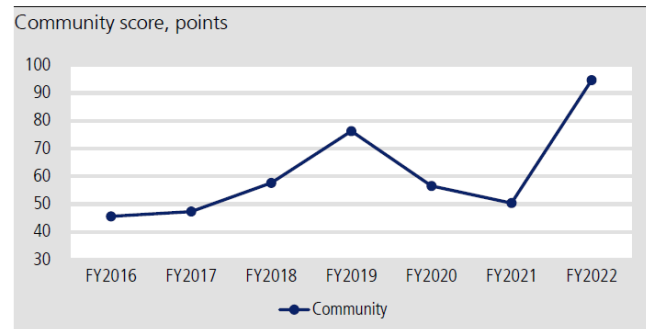
Source: Refinitiv; KGI Research; Company data

Figure 18: Environmental innovation



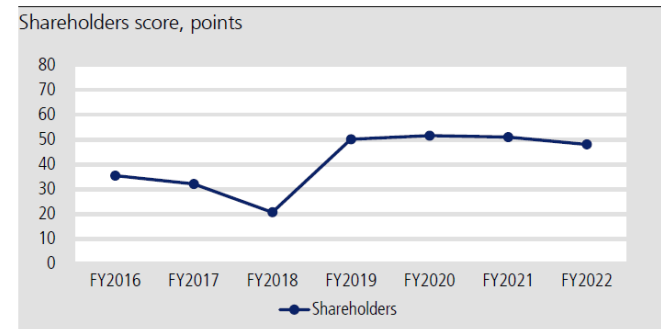
Source: Refinitiv; KGI Research; Company data

Figure 19: Community



Source: Refinitiv; KGI Research; Company data

Figure 20: Shareholders



Source: Refinitiv; KGI Research; Company data

Item	Definition
Energy use	Total direct and indirect energy consumption in gigajoules. - the total amount of energy that has been consumed within the boundaries of the company's operations - total energy use = total direct energy consumption + indirect energy consumption - purchased energy and produced energy are included in total energy use - for utilities, transmission/ grid loss as part of its business activities is considered as total energy consumed and data does not consider electricity produced to answer energy use (utility company produces to sell) - for utilities, raw materials such as coal, gas or nuclear used in the production of energy are not considered under 'total energy use'
Renewable energy purchased	Total primary renewable energy purchased in gigajoules. - energy consumed by the company from various sources and among the purchased energy, how much energy is renewable in nature (solar, wind, hydro, biomass, geothermal) are in scope - if there is no evidence that renewable energy is produced by the company, then we consider the reported energy figure as renewable energy purchased
Renewable energy use ratio	Renewable energy to total energy used
CO2 equivalent emissions	Direct CO2 and CO2 equivalent emissions in metric tons. - direct emissions from sources that are owned or controlled by the company (scope 1 emissions) - following gases are relevant: carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), hydrofluorocarbons (HFCs), perfluorinated compound (PFCS), sulfur hexafluoride (SF6), nitrogen trifluoride (NF3)
CO2 equivalent emissions to sales	Direct CO2 and CO2 equivalent emissions (metric tons) to sales (NT\$mn) - direct emissions from sources that are owned or controlled by the company (scope 1 emissions) - following gases are relevant: carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), hydrofluorocarbons (HFCs), perfluorinated compound (PFCS), sulfur hexafluoride (SF6), nitrogen trifluoride (NF3)
Waste total	Total amount of waste produced in metric tons. - total waste = non-hazardous waste + hazardous waste - only solid waste is taken into consideration, exceptionally if liquid waste is reported in metric tons, then we do the summation to derive total including liquid waste - for sectors like mining, oil & gas, waste generation like tailings, waste rock, coal and fly ash are also considered
Waste recycling ratio	The waste recycling ratio as reported by the company. - waste recycling ratio = waste recycled/total waste*100 - waste to energy or waste incinerated with energy recovery are considered as waste recycled - waste recovered via composting is considered as recycled waste
Water withdrawal total	Total water withdrawal in cubic meters. - the total volume of water withdrawn from any water source that was either withdrawn directly by the reporting organization or through intermediaries such as water utilities - different sources of water like wells, town/utility/municipal water, river water, and surface water are considered
Environmental expenditures	Total amount of environmental expenditures. - all environmental investment & expenditures for environmental protection or to prevent, reduce, control environmental aspects, impacts, and hazards. It also includes disposal, treatment, sanitation, and clean-up expenditures
Turnover of employees	Percentage of employee turnover. - includes employees who left the company for any reason (voluntary or involuntary), such as resignations, retirement, natural departure/death, medical incapacitation, redundancy, layoffs, restructuring, dismissal, retrenchment or end of a fixed-term contract - employees turnover rate = (employees leaving/average number of employees)*100 - where the average number of employees = (employees at the end of the current year + employees at the end of the previous year)/2 - employees at the end of the current fiscal year = employees at the end of the previous fiscal year + new employees - employees leaving
Women managers	Percentage of women managers. - percentage of women managers among total managers of the company - if there is a breakdown by category in percentage, such as top, senior, middle, and junior management, then we consider the percentage of middle women managers - percentage of women managers = number of women managers/total number of managers*100
Women employees	Percentage of women employees. - percentage of women employees to the total number of employees of the company - percentage of women employees = number of women/total number of employees*100
Training hours total	Total training hours performed by all employees. - consider only employee training hours - includes all types of training given to general employees (such as health & safety, environmental, emergency response, skills & career development training) - if the value is given in days, multiply by 8, assuming that 1 day = 8 hours worked
Training hours per employee	Training hours per employee per year

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