Deutsche Bank
Research

Rating
Buy

North America
United States

Consumer
Autos & Auto Technology

Company
Tesla Inc.

Reuters	Bloomberg	Exchange	Ticker
TSLA.OQ	TSLA US	NMS	TSLA

Date
14 December 2023

Forecast Change

Price at 12 Dec 2023 (USD)	237.01
Price target	260.00
52-week range	293.34 - 108.10

4Q23 and 2024 deliveries + earnings preview

Valuation & Risks

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Key changes

TP	275.00 to 260.00	↓	-5.5%
EPS (USD)	3.15 to 3.10	↓	-1.5%
Revenue (USDm)	96,488.6 to 96,266.1	↓	-0.2%

Source: Deutsche Bank

We expect Tesla's 4Q23 deliveries to meet Street expectations, but still see material downside risk to 2024 consensus due to limited volume growth next year. For Q4, our deliveries estimate remains 476k units, allowing the company to reach 1.8m units for the year as it guided. But the larger risk we see is downside to expectations for 2024 on both growth and earnings, as Tesla candidly admitted the company is now in an intermediate lower-growth period, coming after the very strong growth of Model 3+Y vehicles seen in the past 5 years and which are now getting closer to reaching full volume potential, but before the launch of its next-gen platform which should drive its next high-growth period. Indeed, it is not planning to expand output at Austin and Berlin factories to 10k per week, providing only incremental volume from these two factories next year as well as minimal contribution from the Cybertruck with slower and more complex ramp-up of the vehicle. Our latest base case is for Tesla to guide to ~2.1m deliveries next year, vs. current Consensus now at 2.2m units but caution that there could be downside risk to even our base case amid a slower EV adoption rate.

Although 4Q deliveries should meet expectations, we see some risk to earnings. We now model 4Q revenue of $24.7bn, down slightly from $24.9bn due to lower expectations for ASP, and auto gross margin of 16.2% which is down 10bps QoQ despite higher volume. This is driven by price cuts that took place on Model 3 and Y in the U.S., targeted inventory discounts and incentives, but offset by some price increases in China. At the same time, the largest positive offset to margin is volume improvement and efficiencies gained back from non-recurrence of plant downtime that took place in Q3. Other minor offsets include some raw materials, small improvements in Austin/Berlin, and some contribution from higher IRA. All in, we lower our 4Q EPS to $0.69 vs. prior $0.74, below current Street revenue estimate of $25.5bn and Street EPS of $0.74.

Looking at 2024, however, we see considerable downside risk to earnings expectations, due to still much lower volume outlook than the market believes. Amid next year's particularly muted volume growth (just 300k units, or only 17% YoY), we bake in a ~6% price decline y/y, especially considering that the Model 3 in the U.S. will lose all of the consumer tax credit and company signaled Model Y could see reduction in consumer credit as well. In terms of margin offset, the largest piece should come from better costs in Austin/Berlin (we estimate +300bps), coupled with some IRA benefits from higher battery productions (+50bps), raw materials benefits (+100bps), and logistics/warranty (+100bps), but negated by the

Cybertruck ramp up itself (-60bps), leading to a gross margin decline of 110 bps y/y and equating to auto gross margin of 16.3% for next year and EPS to $3.15, meaningfully below current Consensus of $3.94.

Beyond 2024, all eyes remain on Tesla's next-gen platform. While timing and the initial capacity remain unknown for the next-gen platform launch, Elon Musk recently commented that the first next-gen vehicles will produced at Gigafactory Texas, with Mexico coming on line later. The next-gen platform is by far Tesla's largest growth opportunity, with the platform potentially supporting 5m+ units of annual production across multiple top hats, and capitalizing on its significant cost superiority compared to other automakers. If Tesla can start deliveries on schedule around late-2025, we think it could provide the market with sufficient reason to look past the largely ex-growth years of 2024-25. Nearer-term, and absent any next-gen vehicle updates, we see potential downside risk from weaker fundamentals into 2024; however we remain long-term bullish based on the next-gen platform as Tesla executes on its cost and efficiency initiatives. We reiterate our Buy rating, but trim our price target to $260 (from $275), still based on the average of 45x our 2025 EPS and EV/sales multiple of 10x 2024.

4Q and FY23 volume seemingly on track

We expect Tesla to report 4Q23 deliveries of 476k units (+17% YoY, +9% QoQ), unchanged from prior estimate, and consistent with company's guidance for 1.8m units for the year. By vehicle, we estimate 139k units of Model 3, 15k of Model S+X, and 322k of Model Y. By region, we estimate 59k Model 3 deliveries in North America, 39k in Europe, and over 36k in China. For Model Y, we expect 105k in North America, 132k in China, and 61k in Europe.

Our 4Q revenue is lowered to $24.7bn, down from $24.9bn on slightly lower ASP. At the same time, we lower our gross margin (ex-credit) expectations to -10bps q/q to 16.2% for the quarter (down from 16.5% prior), reflecting some price cuts that took place on Model 3 and Y in the U.S., targeted inventory discounts and incentives, and offset by some price increases in China. At the same time, the largest positive offset to margin is volume improvement and efficiencies gained back from non-recurrence of plant downtime that took place in Q3. Other minor offsets include some raw materials, small improvements in Austin/Berlin, and some contribution from higher IRA. All in, this leads to EPS of $0.69 vs. prior $0.74, below current Street revenue estimate of $25.5bn and Street EPS forecast $0.74.

Figure 1: 4Q deliveries expectations

(units)	DBe	Street
Deliveries	**475,961**	**480,889**
Model 3	138,655	
North America	*58,588*	
China	*36,273*	
Europe	*39,155*	
Other	*4,639*	
Model Y	321,914	
North America	105,015	
China	132,353	
Europe	60,961	
Other	23,585	
Model 3+Y	**460,569**	**461,684**
Model S+X	**15,392**	**17,923**

Source : Deutsche Bank, Bloomberg Finance LP

Figure 2: Q3 to Q4 gross margin walk

Q3 to Q4 walk	
Q3 gross margin (ex-credit)	**16.3%**
Pricing	-250bps
Factory ramp	+30bps
Raw materials	+30bps
Volume improvement & Efficiencies	+150bps
IRA	+30bps
Q4 gross margin (ex-credit)	**16.2%**

Source : Deutsche Bank, Company Filings

2024 earnings still present large downside risk

Looking ahead to 2024, we continue to see meaningful downside risk to volume and earnings as Tesla candidly admitted at our recent DB AutoTech conference that it is now at an intermediate lower-growth period, coming after the very strong growth of Model 3+Y vehicles seen in the past 5 years and which are now getting closer to reaching full volume potential, but before the launch of its next-gen platform which should drive its next high growth period. In this context, and with a shallower EV adoption curve than expected, as well as macro pressure, the company will look to expand output at Austin/Berlin very gradually, and continues to review pricing weekly on regional and model/trim basis. Indeed even at our prior IAA investor meeting, Tesla indicated that it is no longer targeting to reach 10k/ week in production run-rate at Austin and Berlin. With growth in 2024 only coming from these two facilities, we think the most Tesla could target in unit volume is roughly 2.1m units, representing 300k units in incremental volume vs. 2023, including some minor contribution from Cybertruck given slower and more complex ramp-up due to the dependency on 4680 cells. This still represents downside to current Consensus calling for 2.2m units.

On the cost side, the company sees large opportunity to keep lowering COGS next year, with the largest lever being efficiencies at Austin and Berlin, followed by some modest raw materials unwind, and long tail of smaller items including logistics and warranty. Tesla believes its COGS/unit should keep coming down every single quarter for a while longer. At the same time, Cybertruck has started delivery and will become a large negative cost offset, as its profitability and FCF should be negative for the next 18 months, considering the large pool of new technologies embedded into the ramp.

Amid next year's particularly muted volume growth (300k units, or only 17% YoY) but potentially less pricing pressure vs. what was seen in 2023, we bake in a ~6% price decline y/y, especially considering that the Model 3 in the U.S. will now lose all of the consumer tax credit and company signaled Model Y could see reduction in consumer credit as well.. In terms of margin offset, the largest piece should come from better costs in Austin/Berlin (we estimate +300bps), coupled with some IRA benefits from higher battery productions (+50bps), raw materials benefits (+100bps), and logistics/warranty (+100bps), but negated by the Cybertruck ramp up itself (-60bps), leading to a net margin decline of 110 bps y/y and equating to auto gross margin of 16.3% for next year and EPS to $3.15, considerably below current Consensus of $3.94 and represents very minor growth vs. our $3.10 for 2023. At the same time, we wonder if Tesla might face much higher labor costs depending on the unionization status of its workforce in the U.S., which if it were to take place, would represent another bucket of headwind currently not baked into our 2024 assumptions (see our analysis below on the potential headwind from labor cost).

Figure 3: 2023 to 2024 gross margin walk

2023 to 2024 walk	
2023 gross margin (ex-credit)	**17.4%**
Pricing	-600bps
Austin/Berlin costs	+300bps
Logistics/warranty	+100bps
Raw materials	+100bps
IRA	+50bps
Cybertruck ramp	-60bps
2024 gross margin (ex-credit)	**16.3%**

Source : Deutsche Bank, Company Filings

Figure 4: Estimate revisions

	Prior			Revised		
	2022	2023E	2024E	2022	2023E	2024E
Revenue ($m)	**81,462**	**96,489**	**111,061**	**81,462**	**96,266**	**107,399**
Automotive	71,462	81,965	93,380	71,462	81,743	89,718
Energy/storage	3,909	6,244	8,160	3,909	6,244	8,160
Services and other	6,091	8,279	9,521	6,091	8,279	9,521
Deliveries	**1,313,851**	**1,800,074**	**2,137,984**	**1,313,851**	**1,800,135**	**2,105,256**
Model 3	473,266	531,066	539,032	473,266	524,721	529,968
Model S	37,676	24,778	24,778	37,676	23,721	23,721
Model X	29,029	39,627	39,627	29,029	37,576	37,576
Model Y	773,880	1,204,103	1,481,047	773,880	1,214,017	1,462,890
Auto GM	27.6%	19.7%	19.8%	27.6%	19.3%	18.1%
Auto GM ex credit	**26.8%**	**17.9%**	**18.1%**	**26.8%**	**17.4%**	**16.3%**
EPS	**$4.14**	**$3.15**	**$3.65**	**$4.14**	**$3.10**	**$3.15**
FCF ($m)	**7,566**	**3,624**	**6,298**	**7,566**	**3,095**	**4,971**

Source : Deutsche Bank, Company Filings

Risk from labor cost inflation

The UAW has launched a campaign looking to expand its union and to unionize non-D3 OEMs, including Tesla. Tesla has disclosed on its 2022 Impact report its average national wage for manufacturing jobs in the US was $22.98, up 6.4% y/y from 2021. If we assume a similar 6% increase for 2023, the average wage may have risen to ~$24 this year. This compares to the UAW's top wage rate (including COLA) at the end of 2024 of around $37 per hour and nearly $43 per hour at the end of the newly signed contract in 2027. In a worst case scenario where Tesla raises compensation for its US manufacturing employees (of about 44k workers in the U.S. by our estimate) to match UAW levels as of year-end 2024 (including COLA), we estimate this could amount to over ~$1.2bn in incremental labor cost headwinds in 2024 which would represent about 140bps headwind to gross margin. At the same time, the threat of unionization in Europe is growing larger as well. In October, there were reports of IG Metal in Germany gaining traction with unionization efforts at Gigafactory Berlin. Currently, there are sympathy strikes/boycotts spreading across the Nordics following unionization efforts of a small group of Tesla service workers in Sweden.

Critical for next-gen platform to launch on time

While timing and the initial capacity remain unknown for the next-gen platform launch, we now know that the first next-gen vehicles will be produced at Gigafactory Texas. Elon Musk indicated during an interview in early December that the next-gen vehicle will be first produced in Texas, then in Mexico. Musk noted that it will take too long to complete the factory in Mexico for it to be the first location. There has also been other recent news flow around the potential for Gigafactory Shanghai expansions to possibly produce the next-gen vehicle. On top of this, there have been reports of Tesla looking at industrial sites in Thailand with the country's PM and the company looking to invest up to $2bn in a factory in India. The next-gen platform is by far Tesla's largest growth opportunity, with the platform potentially supporting 5m+ units of annual production across multiple top hats, and taking advantage of significant cost superiority compared to other automakers. If Tesla can start deliveries on schedule around late-2025, we think it could provide the market with sufficient reason to look past the largely ex-growth years of 2024-25.

Trim price target to $260 and reiterate Buy

Admittedly, near-term fundamentals may present challenges for the stock, but we continue to view Tesla as an EV leader in the autos sector and more recently this has especially manifested as traditional OEMs unveiled multiple challenges in their ability to ramp up production and at deeply unprofitable levels. In the very near term, we think worries over 2024 growth could dampen investor sentiment somewhat, especially considering the meaningful downside risk to next year's earnings. Longer term, however, we believe much of the stock trajectory will remain about the highly anticipated next-gen platform targeted for 2025. We continue to believe that as Tesla executes on its cost and efficiency initiatives in the next gen platform, the company could deepen its competitive moat and maintain its lead in the electrification space for years to come. We trim our price target to $260, based on the average of 45x our 2025 EPS and EV/sales multiple of 10x 2024. Reiterate Buy.

Appendix 1

Important Disclosures

*Other information available upon request

Disclosure checklist

Company	Ticker	Recent price*	Disclosure
Tesla Inc.	TSLA.OQ	237.01 (USD) 12 Dec 2023	7, 8, 14, 15, 21, 24

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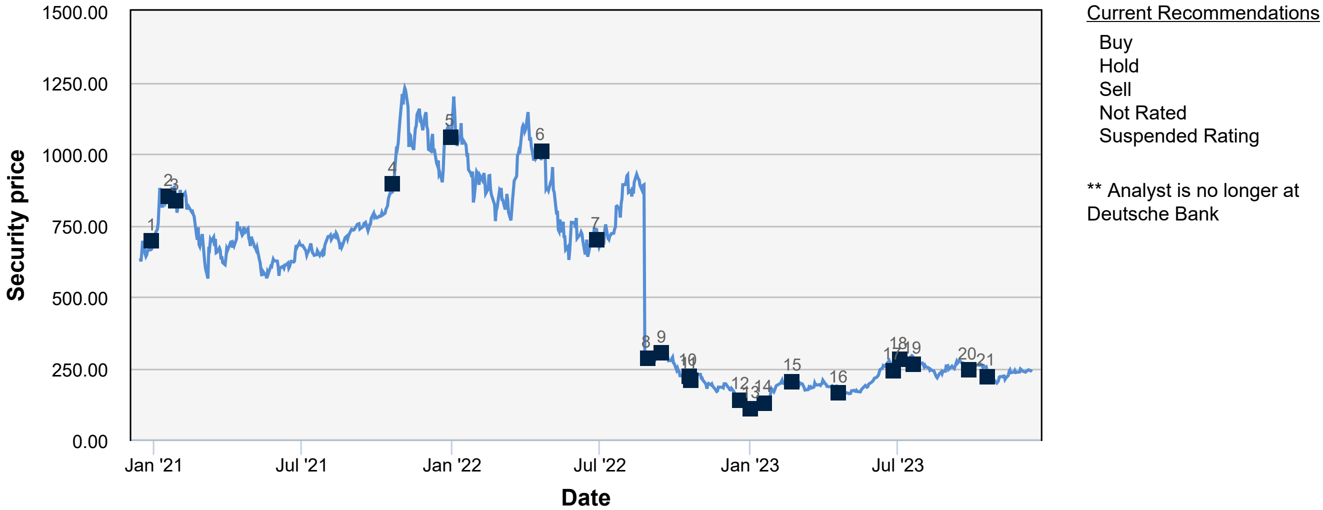
Historical recommendations and target price: Tesla Inc. (TSLA.OQ)

(as of 12/12/2023)



1.	12/30/2020	Buy, Target Price Change USD 705.00, Current Price USD 694.78 Emmanuel Rosner, CFA
2.	01/20/2021	Buy, Target Price Change USD 890.00, Current Price USD 850.45 Emmanuel Rosner, CFA
3.	01/28/2021	Buy, Target Price Change USD 900.00, Current Price USD 835.43 Emmanuel Rosner, CFA
4.	10/21/2021	Buy, Target Price Change USD 1000.00, Current Price USD 894.00 Emmanuel Rosner, CFA
5.	12/31/2021	Buy, Target Price Change USD 1200.00, Current Price USD 1056.78 Emmanuel Rosner, CFA
6.	04/21/2022	Buy, Target Price Change USD 1250.00, Current Price USD 1008.78 Emmanuel Rosner, CFA
7.	06/28/2022	Buy, Target Price Change USD 1125.00, Current Price USD 697.99 Emmanuel Rosner, CFA
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11.	10/20/2022	Buy, Target Price Change USD 355.00, Current Price USD 207.28 Emmanuel Rosner, CFA
12.	12/21/2022	Buy, Target Price Change USD 270.00, Current Price USD 137.57 Emmanuel Rosner, CFA
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14.	01/19/2023	Buy, Target Price Change USD 220.00, Current Price USD 127.17 Emmanuel Rosner, CFA
15.	02/23/2023	Buy, Target Price Change USD 250.00, Current Price USD 202.07 Emmanuel Rosner, CFA
16.	04/20/2023	Buy, Target Price Change USD 200.00, Current Price USD 162.99 Emmanuel Rosner, CFA
17.	06/26/2023	Buy, Target Price Change USD 260.00, Current Price USD 241.05 Emmanuel Rosner, CFA
18.	07/03/2023	Buy, Target Price Change USD 270.00, Current Price USD 279.82 Emmanuel Rosner, CFA
19.	07/20/2023	Buy, Target Price Change USD 300.00, Current Price USD 262.90 Emmanuel Rosner, CFA
20.	09/26/2023	Buy, Target Price Change USD 285.00, Current Price USD 244.12 Emmanuel Rosner, CFA
21.	10/19/2023	Buy, Target Price Change USD 275.00, Current Price USD 220.11 Emmanuel Rosner, CFA

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TSR = Total Shareholder Return. Percentage change in share price from current price to projected target price plus projected dividend yield

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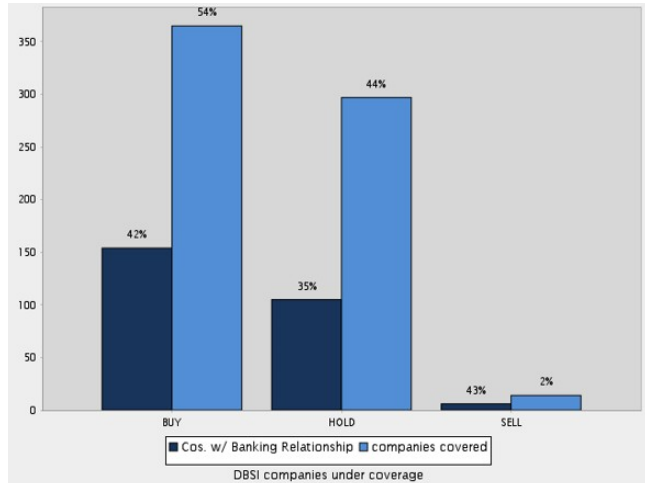

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