

# Tesla Inc. (TSLA)

## 4Q24 deliveries takeaways

TSLA

12m Price Target: \$345.00

Price: \$403.84

Downside: 14.6%

### Tesla delivered about 496k vehicles and produced about 459k vehicles in 4Q24

Tesla reported preliminary 4Q24 vehicle deliveries of about 496k (up 7% qoq and up 2% yoy), and production of about 459k (down 2% qoq and down 7% yoy). Model 3/Y deliveries in the quarter were about 472k (up 7% qoq and up 2% yoy), and other model deliveries (e.g. S/X/Cybertruck) were about 24k (up 3% qoq and up 3% yoy).

Deliveries of about 496k in 4Q24 came in below consensus, which was roughly in the ~500k-510k range (with Visible Alpha at 512k, FactSet at 498k, and GSe at 510k). Recall that in order for Tesla to have met its objective to grow vehicle deliveries in 2024, it would have required ~515k or more units in 4Q.

We believe weakness in Europe (down double digits yoy in 4Q) was offset by growth in China (mid to high teens growth yoy in 4Q), and that US deliveries were down modestly yoy (with growth from Cybertruck offset by declines in other models).

Relative to our 510k estimate, the downside was driven by S/X/Cybertruck, and similarly we believe the US market was softer than we had expected. This may have been due to less pull-in demand ahead of potential reduced IRA incentives in 2025, a lower response to incentives Tesla was utilizing, and weaker demand for S/X/Cybertruck more generally (potentially due to competition and/or more interest in other Tesla models). Recall that as we published in our 4Q delivery preview on 12/3, HundredX survey data of US consumers showed a decline in Tesla's brand sentiment and net purchase intent scores in recent months.

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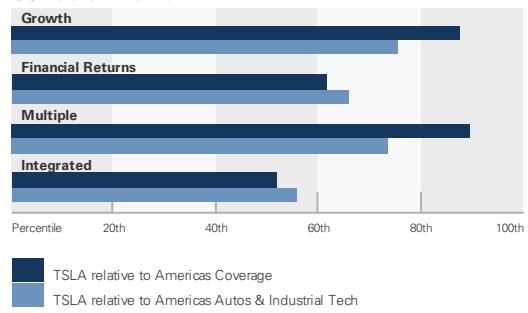
### Key Data

Market cap: \$1.4tr  
Enterprise value: \$1.4tr  
3m ADTV: \$30.2bn  
United States  
Americas Autos & Industrial Tech  
M&A Rank: 3

### GS Forecast

	12/23	12/24E	12/25E	12/26E
<b>Revenue (\$ mn) New</b>	<b>96,773.0</b>	<b>98,877.3</b>	<b>112,170.9</b>	<b>133,013.5</b>
Revenue (\$ mn) Old	96,773.0	99,686.9	113,871.4	133,595.0
EBITDA (\$ mn)	16,633.0	16,027.8	21,564.5	28,767.0
EBIT (\$ mn)	8,891.0	7,895.2	10,943.5	15,979.7
<b>EPS (\$) New</b>	<b>2.60</b>	<b>2.00</b>	<b>2.80</b>	<b>3.95</b>
EPS (\$) Old	2.60	2.01	2.85	3.95
P/E (X)	83.5	NM	144.3	102.2
Dividend yield (%)	0.0	0.0	0.0	0.0
Net debt/EBITDA (X)	(0.9)	(0.9)	(1.0)	(1.1)
	<b>9/24</b>	<b>12/24E</b>	<b>3/25E</b>	<b>6/25E</b>
EPS (\$)	0.62	0.62	0.51	0.63

### GS Factor Profile



Source: Company data, Goldman Sachs Research estimates.  
See disclosures for details.

Neutral

**Tesla Inc. (TSLA)**

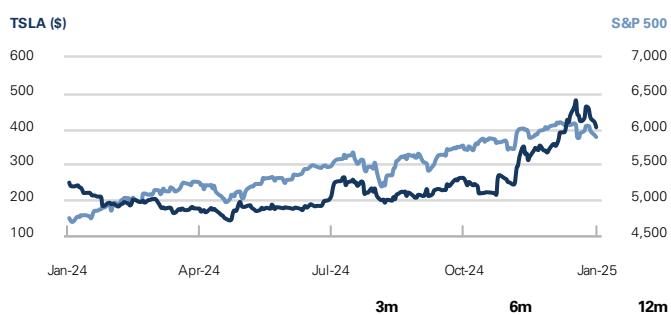
Rating since Jun 25, 2023

**Ratios & Valuation**

	12/23	12/24E	12/25E	12/26E
P/E (X)	83.5	NM	144.3	102.2
EV/EBITDA (X)	40.6	79.6	59.4	44.5
EV/sales (X)	7.0	12.9	11.4	9.6
FCF yield (%)	0.6	0.2	0.4	0.8
EV/DACF (X)	46.2	91.5	73.8	55.0
CROCI (%)	33.2	22.8	23.1	26.0
ROE (%)	16.9	10.3	12.7	15.3
Net debt/EBITDA (X)	(0.9)	(0.9)	(1.0)	(1.1)
Net debt/equity (%)	(22.5)	(20.4)	(24.2)	(30.4)
Interest cover (X)	57.0	23.3	32.2	47.0
Inventory days	61.1	62.5	61.0	64.7
Receivable days	12.2	14.1	15.4	15.6
Days payable outstanding	68.5	67.3	62.2	57.1

**Growth & Margins (%)**

	12/23	12/24E	12/25E	12/26E
Total revenue growth	18.8	2.2	13.4	18.6
EBITDA growth	(22.1)	(2.8)	37.7	38.2
EPS growth	(28.2)	(23.3)	40.0	41.2
DPS growth	NM	NM	NM	NM
Gross margin	18.2	18.3	18.1	19.3
EBIT margin	9.2	8.0	9.8	12.0

**Price Performance**

Source: FactSet. Price as of 31 Dec 2024 close.

**Income Statement (\$ mn)**

	12/23	12/24E	12/25E	12/26E
Total revenue	96,773.0	98,877.3	112,170.9	133,013.5
Cost of goods sold	(79,113.0)	(80,832.0)	(91,872.7)	(107,316.4)
SG&A	(4,800.0)	(5,761.9)	(4,810.9)	(4,907.8)
R&D	(3,969.0)	(4,388.2)	(4,543.8)	(4,809.6)
Other operating inc./exp.)	—	—	—	—
<b>EBITDA</b>	<b>13,558.0</b>	<b>13,181.8</b>	<b>18,147.5</b>	<b>25,087.0</b>
Depreciation & amortization	(4,667.0)	(5,286.6)	(7,204.0)	(9,107.3)
<b>EBIT</b>	<b>8,891.0</b>	<b>7,895.2</b>	<b>10,943.5</b>	<b>15,979.7</b>
Net interest inc./exp.)	910.0	1,233.0	1,710.0	1,990.0
Income/(loss) from associates	—	—	—	—
<b>Pre-tax profit</b>	<b>9,975.0</b>	<b>9,028.2</b>	<b>12,653.5</b>	<b>17,969.7</b>
Provision for taxes	(926.0)	(1,983.1)	(2,657.2)	(3,773.6)
Minority interest	23.0	(65.0)	(73.0)	(90.0)
Preferred dividends	—	—	—	—
<b>Net inc. (pre-exceptionals)</b>	<b>9,072.0</b>	<b>6,980.1</b>	<b>9,923.3</b>	<b>14,106.1</b>
<b>Net inc. (post-exceptionals)</b>	<b>9,072.0</b>	<b>6,980.1</b>	<b>9,923.3</b>	<b>14,106.1</b>
<b>EPS (basic, pre-except) (\$)</b>	<b>2.86</b>	<b>2.18</b>	<b>3.08</b>	<b>4.35</b>
<b>EPS (diluted, pre-except) (\$)</b>	<b>2.60</b>	<b>2.00</b>	<b>2.80</b>	<b>3.95</b>
<b>EPS (ex-ESO exp., dil.) (\$)</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
DPS (\$)	—	—	—	—
Div. payout ratio (%)	0.0	0.0	0.0	0.0
Wtd avg shares out. (basic) (mn)	3,173.5	3,196.9	3,225.1	3,245.1
Wtd avg shares out. (diluted) (mn)	3,482.8	3,493.4	3,546.8	3,570.1

**Balance Sheet (\$ mn)**

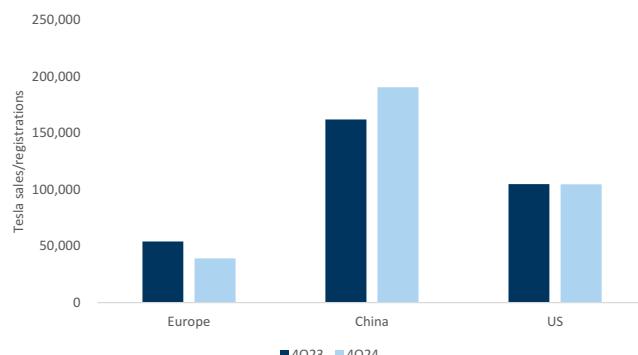
	12/23	12/24E	12/25E	12/26E
Cash & cash equivalents	17,189.0	20,359.1	25,961.4	36,063.8
Accounts receivable	3,508.0	4,137.6	5,322.8	6,073.6
Inventory	13,626.0	14,038.2	16,678.1	21,362.4
Other current assets	15,541.0	19,907.0	19,907.0	19,907.0
<b>Total current assets</b>	<b>49,864.0</b>	<b>58,441.9</b>	<b>67,869.4</b>	<b>83,406.8</b>
Net PP&E	33,905.0	42,584.4	45,444.4	47,401.1
Net intangibles	431.0	395.0	331.0	267.0
Total investments	0.0	0.0	0.0	0.0
Other long-term assets	22,666.0	22,104.0	22,204.0	22,304.0
<b>Total assets</b>	<b>106,618.0</b>	<b>123,180.3</b>	<b>135,503.8</b>	<b>153,034.0</b>
Accounts payable	14,431.0	15,368.2	15,968.4	17,592.5
Short-term debt	—	—	—	—
Current lease liabilities	2,373.0	2,291.0	2,291.0	2,291.0
Other current liabilities	11,944.0	13,632.0	13,632.0	13,632.0
<b>Total current liabilities</b>	<b>28,748.0</b>	<b>31,291.2</b>	<b>31,891.4</b>	<b>33,515.5</b>
Long-term debt	2,857.0	5,405.0	5,405.0	5,405.0
Non-current lease liabilities	—	—	—	—
Other long-term liabilities	11,404.0	13,160.0	13,160.0	13,160.0
<b>Total long-term liabilities</b>	<b>14,261.0</b>	<b>18,565.0</b>	<b>18,565.0</b>	<b>18,565.0</b>
<b>Total liabilities</b>	<b>43,009.0</b>	<b>49,856.2</b>	<b>50,456.4</b>	<b>52,080.5</b>
<b>Total common equity</b>	<b>62,634.0</b>	<b>72,545.1</b>	<b>84,268.4</b>	<b>100,174.4</b>
Minority interest	975.0	779.0	779.0	779.0
<b>Total liabilities &amp; equity</b>	<b>106,618.0</b>	<b>123,180.3</b>	<b>135,503.8</b>	<b>153,034.0</b>
BVPS (\$)	17.98	20.77	23.76	28.06

**Cash Flow (\$ mn)**

	12/23	12/24E	12/25E	12/26E
Net income	14,974.0	6,985.1	9,923.3	14,106.1
D&A add-back	4,667.0	5,286.6	7,204.0	9,107.3
Minority interest add-back	—	—	—	—
Net (inc)/dec working capital	(2,248.0)	(567.6)	(3,224.9)	(3,810.9)
Others	(4,137.0)	2,815.0	1,800.0	1,800.0
<b>Cash flow from operations</b>	<b>13,256.0</b>	<b>14,519.1</b>	<b>15,702.4</b>	<b>21,202.4</b>
Capital expenditures	(8,898.0)	(11,556.0)	(10,000.0)	(11,000.0)
Acquisitions	(6,686.0)	(2,622.0)	—	—
Divestitures	—	—	—	—
Others	0.0	(31.0)	(100.0)	(100.0)
<b>Cash flow from investing</b>	<b>(15,584.0)</b>	<b>(14,209.0)</b>	<b>(10,100.0)</b>	<b>(11,100.0)</b>
Dividends paid	—	—	—	—
Share issuance/(repurchase)	—	—	—	—
Inc/(dec) in debt	2,580.0	2,577.0	—	—
Others	477.0	574.0	—	—
<b>Cash flow from financing</b>	<b>2,593.0</b>	<b>2,860.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Total cash flow</b>	<b>265.0</b>	<b>3,170.1</b>	<b>5,602.4</b>	<b>10,102.4</b>
Free cash flow	4,358.0	2,963.1	5,702.4	10,202.4
Free cash flow per share (basic) (\$)	1.23	0.84	1.77	3.14

Source: Company data, Goldman Sachs Research estimates.

**Exhibit 1: We believe Tesla's 4Q24 deliveries were down yoy in Europe, up strongly in China, and down modestly yoy in the US.**



Europe and US data through November and China data through 12/29

Source: Motor Intelligence, CPCA, CnEVPost, Tesla Motors Club, EU-EVs

Lease mix was 5% of deliveries in 4Q24 (vs. ~3% in 3Q24).

2024 deliveries of ~1.79 mn were down 1% yoy.

Importantly on inventory, we note that in 2024, Tesla's deliveries of ~1.79 mn outpaced production of ~1.77 mn by nearly 16k units. We attribute this in part to the company seeking to reduce inventory ahead of a likely Model Y refresh in 2025. Recall that in 2023, Tesla's production of ~1.85 mn units outpaced deliveries of ~1.81 mn by ~37k.

Separately, Energy storage deployments of 11.0 GWh in 4Q24 were above our expectation of 9.6 GWh.

### Implications and analysis

We expect the focus from investors from here to be on the following key topics:

**1) Can the auto business grow more meaningfully in 2025, with Tesla having guided to 20-30% yoy growth:** 4Q24 volumes were up yoy, but 2024 deliveries were down slightly yoy, and Tesla did not achieve its goal to grow for the year (which it reiterated on its 3Q24 call). We believe a key debate in the market will be whether Tesla can grow more meaningfully in 2025/2026, driven by a refreshed Model Y and a new lower cost model(s). Recall the company is targeting 20-30% yoy growth in deliveries in 2025 (we're currently modeling 12% growth). We believe that the degree that the features/costs of new model(s) are differentiated enough vs. what Tesla currently provides, and when Tesla launches new models, will be a few key variables in terms of how fast Tesla grows. While Tesla may somewhat cannibalize sales of the current 3/Y with new variants depending on the degree of differentiation, net net as new model(s) fully ramp we'd expect them to add at least 100K to Tesla's annual volumes (as we discussed in our note "Framing the market size for lower cost vehicles"). We also believe the implications of the potential removal of the \$75K EV purchase tax credit under the IRA to be a focus for investors.

With this note, we reduced our vehicle delivery assumptions for 2024/2025 to 1.79 mn/2.01 mn driven by 4Q24 results and lower S/X/Cybertruck volume assumptions. This

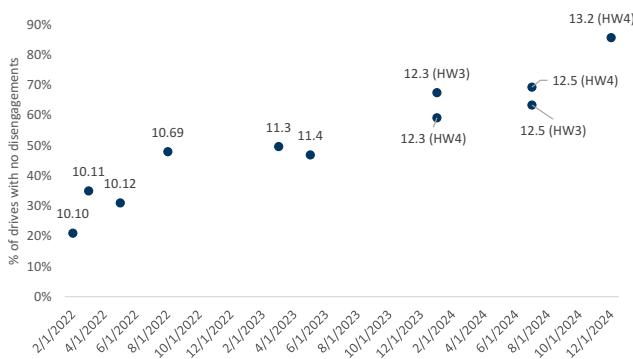
still implies 12% yoy delivery unit growth for 2025. Our 2026 delivery forecast remains 2.30 mn (with somewhat lower S/X/Cybertruck estimates offset by a modestly higher assumption for growth from new models). Our estimates for 2025/2026 are below Visible Alpha Consensus Data at 2.04 mn/2.41 mn.

**2) Automotive gross margin:** We expect Tesla's automotive non-GAAP gross margin excluding regulatory credits to remain a key focus for investors, and we're now modeling the automotive non-GAAP gross margin to be 15.0% in 4Q, down from our prior 15.2% estimate (and compared to the 17.1% in 3Q24, or ~15.6% excluding the FSD deferred revenue release). We believe there will be several puts and takes to gross margin in 4Q qoq, including the incremental incentives Tesla used to support 4Q growth, higher tariffs in 4Q, but also higher sales volumes and we believe lower materials costs.

**3) Progress with FSD and AI-related efforts:** We believe investors will be looking for management commentary and data on progress with FSD (full self driving), including the performance of v13.

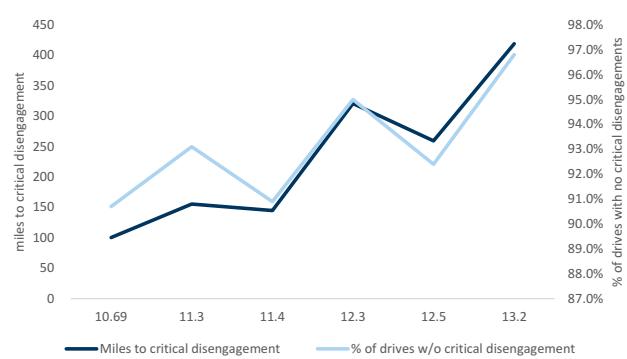
Tesla continues to roll out updates to its FSD software for AI4 (HW4) vehicles, with v13 released at the end of November/beginning of December to some customers and more broadly in mid-December, which includes the ability for FSD to park, unpark, and reverse. Crowdsourced data for v13.2 from Tesla's FSDtracker shows improvement relative to v12.5, especially on highways, with miles to critical intervention up to ~260-400 miles (~260 miles as shown on the FSDtracker dashboard which only includes testers that have reported >2k miles in total and ~400 miles when considering all available data). This compares to ~200-300 miles for v12.5.x. Moreover, 97% of drives using v13 have no critical disengagement (vs. v12.5.x at ~92%), although we acknowledge that the crowdsourced data has some limitations related to control and sample size (especially with the v13 data only across ~6k miles so far vs. >80k miles for v12.5).

**Exhibit 2: % drives with no disengagements by version**



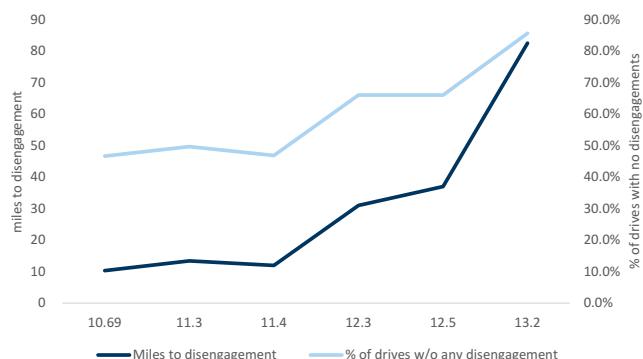
Source: TeslaFSDtracker

**Exhibit 3: Miles to critical disengagement and % of drives without critical disengagement have improved with v13**



Source: TeslaFSDtracker

**Exhibit 4: Miles to disengagement and % of drives without any disengagement also continues to improve**



Source: TeslaFSDtracker

On robotaxis specifically, Tesla is targeting to deploy a robotaxi service in Texas and/or California in 2025 using Model 3/Y vehicles, and expects to start production of its Cybercab robotaxi in 2026 (although we note that the company has historically been optimistic with its timelines). We would also look for additional comments or details related to Tesla's robotaxi business on the upcoming earnings call.

We continue to believe the FSD data suggests that Tesla is among the leaders with its AI technology for the AV market (especially given the wide operating domain of FSD relative to a geofenced robotaxi service), but also that Tesla is unlikely to reach its goal of being safer than a human driver in 2Q25. However, it's possible in our opinion that Tesla could begin a robotaxi service in a narrow geographic area within the next 12-24 months in part by actively making use of remote assistance (which could help improve performance relative to the current FSD consumer product). Note that robotaxi deployments currently on the road (e.g. from Waymo, Pony.ai, and Apollo Go) make use of remote assistance and geofencing.

We also believe that given the improving FSD performance especially on highways, that Tesla can grow its FSD business in the coming years, potentially with a situationally eyes off product (e.g. on highways in good weather) over the next 24-36 months.

**4) Growth in other segments, including Services and Energy:** Tesla deployed 11.0 GWh of energy storage products in 4Q, above the 3Q level of 6.9 GWh and consistent with commentary on its 3Q call for Energy deployments to more than double yoy in 2024. Recall Tesla has previously noted that given the large-scale nature of some projects, deployments by quarter could be lumpy. While we acknowledge energy shipments can be lumpy due to the nature of project size and timing, we continue to expect Energy to grow as the company ramps capacity. Profitability in the Energy segment has also been very strong recently.

**5) Progress with Optimus and expectations on ramp timing:** Tesla has highlighted improved dexterity of its Optimus robot, and per an X post at the end of November, Optimus's new hand and forearm have double the number of degrees of freedom (DoFs) compared to previous robots (there's now 22 DoFs on the hand and 3 on the

wrist/arm). Recall that in an X post from June 2024, Tesla said that it had deployed two Optimus robots performing tasks in the factory autonomously. Furthermore, on its 2Q24 EPS call, Tesla commented that it expects to have the first version of Optimus in limited production starting in early 2025 (for Tesla consumption) and then to produce several thousand Optimus robots by the end of the year and deployed in the Tesla factories. The company also said that it expects to ramp up production and begin to provide Optimus robots to outside customers in 2026. We expect that investors will continue to gauge the progress Tesla is making with Optimus.

### Price target and estimate changes

We lower our 2025 deliveries estimate to ~2.01 mn from ~2.03 mn prior and maintain our 2026 deliveries estimate of 2.30 mn. We slightly lower our 2024 EPS estimate including SBC to \$2.00, from \$2.01 prior, reflecting the 4Q deliveries result and lower auto gross margin, partially offset by a higher energy gross margin. We also lower our 2025 EPS estimate including SBC to \$2.80, from \$2.85 prior, primarily reflecting lower auto deliveries. We maintain our 2026 EPS estimate of \$3.95. Our CY24/25/26 non-GAAP EPS estimates (ex. SBC) are \$2.41/\$3.20/\$4.35.

We maintain our 12-month price target of \$345, which is still based on 95X applied to Q5-Q8E EPS including SBC.

We remain Neutral rated on the stock. While we see fundamental headwinds to the core auto business over the near to medium term, we also believe Tesla's longer-term growth should be stronger driven in part by a growing software and services business.

Key downside risks to our view relate to potentially larger vehicle price reductions than we expect, increased competition in EVs, slower EV demand, delays with products/capabilities like FSD/4680, key person risk, the internal control environment, margins, and operational risks associated with Tesla's high degree of vertical integration. Upside risks include faster EV adoption and/or share gain by Tesla, a stronger macroeconomic environment for new vehicle sales more generally, earlier new product launches than we expect, and an earlier/larger impact from AI enabled products (e.g., FSD, Optimus and robotaxis) than we currently anticipate.

# Disclosure Appendix

## Reg AC

We, Mark Delaney, CFA, Will Bryant, Morgan Leung and Aman Gupta, hereby certify that all of the views expressed in this report accurately reflect our personal views about the subject company or companies and its or their securities. We also certify that no part of our compensation was, is or will be, directly or indirectly, related to the specific recommendations or views expressed in this report.

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## GS Factor Profile

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**Growth** is based on a stock's forward-looking sales growth, EBITDA growth and EPS growth (for financial stocks, only EPS and sales growth), with a higher percentile indicating a higher growth company. **Financial Returns** is based on a stock's forward-looking ROE, ROCE and CROCI (for financial stocks, only ROE), with a higher percentile indicating a company with higher financial returns. **Multiple** is based on a stock's forward-looking P/E, P/B, price/dividend (P/D), EV/EBITDA, EV/FCF and EV/Debt Adjusted Cash Flow (DACP) (for financial stocks, only P/E, P/B and P/D), with a higher percentile indicating a stock trading at a higher multiple. The **Integrated** percentile is calculated as the average of the Growth percentile, Financial Returns percentile and (100% - Multiple percentile).

Financial Returns and Multiple use the Goldman Sachs analyst forecasts at the fiscal year-end at least three quarters in the future. Growth uses inputs for the fiscal year at least seven quarters in the future compared with the year at least three quarters in the future (on a per-share basis for all metrics).

For a more detailed description of how we calculate the GS Factor Profile, please contact your GS representative.

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## Quantum

Quantum is Goldman Sachs' proprietary database providing access to detailed financial statement histories, forecasts and ratios. It can be used for in-depth analysis of a single company, or to make comparisons between companies in different sectors and markets.

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Goldman Sachs expects to receive or intends to seek compensation for investment banking services in the next 3 months: Tesla Inc. (\$403.84)

Goldman Sachs has received compensation for non-investment banking services during the past 12 months: Tesla Inc. (\$403.84)

Goldman Sachs had an investment banking services client relationship during the past 12 months with: Tesla Inc. (\$403.84)

Goldman Sachs had a non-investment banking securities-related services client relationship during the past 12 months with: Tesla Inc. (\$403.84)

Goldman Sachs had a non-securities services client relationship during the past 12 months with: Tesla Inc. (\$403.84)

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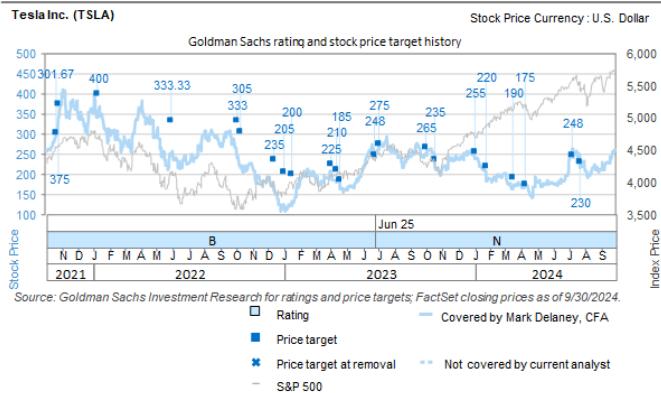
## Distribution of ratings/investment banking relationships

Goldman Sachs Investment Research global Equity coverage universe

	Rating Distribution			Investment Banking Relationships		
	Buy	Hold	Sell	Buy	Hold	Sell
Global	49%	34%	17%	63%	57%	40%

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