

Tesla Inc. (TSLA)

Better gross margins; ability to meet FSD and vehicle delivery targets in 2025 likely to be key debates; 3Q wrap

TSLA

12m Price Target: \$250.00

Price: \$213.65

Upside: 17.0%

Tesla reported revenue/non-GAAP diluted EPS (excluding SBC) of \$25.2 bn/\$0.72, which was 1% below/\$0.13 above the Street (FactSet) and about in line with/\$0.15 above GS. The automotive non-GAAP gross margin (including SBC and excluding the revenue from regulatory credits) was 17.1%, well above GS at 14.6% (although excluding ~\$326 mn of FSD revenue released tied to feature launches the margin would have been 15.6%). This margin compares to 14.6% in 2Q24, and 16.3% in 3Q23. The gross margin in the Energy segment was also stronger than we expected, at over 30% (vs. our ~25% forecast).

In terms of guidance, Tesla reiterated that it expects vehicle volumes to grow in 2024. In addition, Tesla expects deliveries to increase by 20-30% in 2025. Tesla also said it expects FSD performance to exceed human capability in 2Q25, with miles between critical interventions this year up 100X with V12.5 compared to the start of the year.

We believe the report is an incremental positive, with stronger margins than we had expected. We believe key debates will include whether Tesla can meet its FSD performance and vehicle delivery growth targets for 2025, and also the sustainability of margins. One item in particular we'd look to better understand going forward is the difference between crowd sourced FSD performance data (showing over 100 miles per critical intervention) and the timeframes/performance Tesla spoke to on the earnings call and recently on X (implying reaching 10K+ miles per critical intervention this year or next). Skeptics will likely focus on the historical delays from Tesla on reaching its targets, although more positive investors may point to the increased specificity in Tesla's current FSD outlook as well as the role of AI in R&D.

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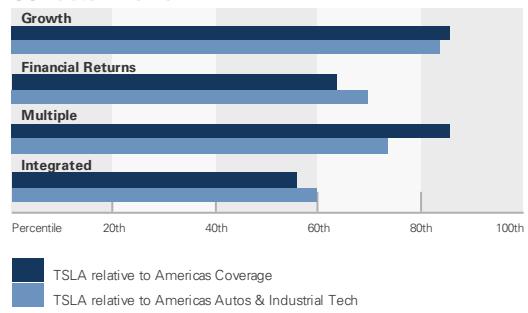
Key Data

Market cap: \$747.1bn
Enterprise value: \$734.2bn
3m ADTV: \$17.7bn
United States
Americas Autos & Industrial Tech
M&A Rank: 3

GS Forecast

	12/23	12/24E	12/25E	12/26E
Revenue (\$ mn) New	96,773.0	100,110.0	117,966.1	140,227.4
Revenue (\$ mn) Old	96,773.0	99,797.9	118,504.8	140,042.1
EBITDA (\$ mn)	16,633.0	16,162.8	22,586.8	30,300.2
EBIT (\$ mn)	8,891.0	8,025.2	11,966.8	17,528.0
EPS (\$) New	2.60	2.03	3.00	4.25
EPS (\$) Old	2.60	1.80	2.95	4.20
P/E (X)	83.5	105.2	71.3	50.3
Dividend yield (%)	0.0	0.0	0.0	0.0
Net debt/EBITDA (X)	(0.9)	(0.8)	(0.9)	(1.1)
	9/24	12/24E	3/25E	6/25E
EPS (\$)	0.62	0.65	0.56	0.67

GS Factor Profile



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

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Neutral

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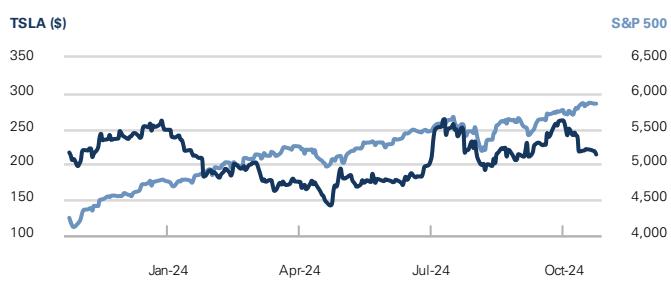
Rating since Jun 25, 2023

Ratios & Valuation

	12/23	12/24E	12/25E	12/26E
P/E (X)	83.5	105.2	71.3	50.3
EV/EBITDA (X)	40.6	41.4	29.5	21.7
EV/sales (X)	7.0	6.7	5.6	4.7
FCF yield (%)	0.6	0.1	1.3	1.6
EV/DACF (X)	46.2	47.8	36.9	27.2
CROCI (%)	33.2	22.6	23.7	27.2
ROE (%)	16.9	10.5	13.4	16.2
Net debt/EBITDA (X)	(0.9)	(0.8)	(0.9)	(1.1)
Net debt/equity (%)	(22.5)	(17.6)	(25.0)	(31.6)
Interest cover (X)	57.0	23.7	35.2	51.6
Inventory days	61.1	66.2	62.6	63.6
Receivable days	12.2	15.4	16.2	15.4
Days payable outstanding	68.5	68.0	61.9	57.3

Growth & Margins (%)

	12/23	12/24E	12/25E	12/26E
Total revenue growth	18.8	3.4	17.8	18.9
EBITDA growth	(22.1)	(1.8)	44.0	38.9
EPS growth	(28.2)	(22.0)	47.5	41.8
DPS growth	NM	NM	NM	NM
Gross margin	18.2	18.2	18.2	19.5
EBIT margin	9.2	8.0	10.1	12.5

Price Performance**Income Statement (\$ mn)**

	12/23	12/24E	12/25E	12/26E
Total revenue	96,773.0	100,110.0	117,966.1	140,227.4
Cost of goods sold	(79,113.0)	(81,921.6)	(96,505.6)	(112,865.9)
SG&A	(4,800.0)	(5,768.5)	(4,888.5)	(5,007.3)
R&D	(3,969.0)	(4,394.7)	(4,605.3)	(4,826.3)
Other operating inc./exp.)	—	—	—	—
EBITDA	13,558.0	13,311.8	19,170.8	26,635.2
Depreciation & amortization	(4,667.0)	(5,286.6)	(7,204.0)	(9,107.3)
EBIT	8,891.0	8,025.2	11,966.8	17,528.0
Net interest inc./exp.)	910.0	1,238.0	1,710.0	1,980.0
Income/(loss) from associates	—	—	—	—
Pre-tax profit	9,975.0	9,163.2	13,676.8	19,508.0
Provision for taxes	(926.0)	(2,011.4)	(3,008.9)	(4,291.8)
Minority interest	23.0	(65.0)	(74.0)	(95.0)
Preferred dividends	—	—	—	—
Net inc. (pre-exceptionals)	9,072.0	7,086.8	10,593.9	15,121.2
Net inc. (post-exceptionals)	9,072.0	7,086.8	10,593.9	15,121.2
EPS (basic, pre-except) (\$)	2.86	2.22	3.30	4.67
EPS (diluted, pre-except) (\$)	2.60	2.03	3.00	4.25
EPS (ex-ESO exp., dil.) (\$)	--	--	--	--
DPS (\$)	—	—	—	—
Div. payout ratio (%)	0.0	0.0	0.0	0.0
Wtd avg shares out. (basic) (mn)	3,173.5	3,194.3	3,214.6	3,234.6
Wtd avg shares out. (diluted) (mn)	3,482.8	3,488.5	3,535.3	3,559.6

Balance Sheet (\$ mn)

	12/23	12/24E	12/25E	12/26E
Cash & cash equivalents	17,189.0	18,328.0	26,855.9	37,863.6
Accounts receivable	3,508.0	4,945.4	5,545.7	6,259.4
Inventory	13,626.0	16,072.5	17,006.7	22,354.9
Other current assets	15,541.0	19,907.0	19,907.0	19,907.0
Total current assets	49,864.0	59,252.9	69,315.2	86,384.9
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
Total assets	106,618.0	123,991.3	136,949.6	156,012.0
Accounts payable	14,431.0	16,072.5	16,637.0	18,778.1
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
Total current liabilities	28,748.0	31,995.5	32,560.0	34,701.1
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
Total long-term liabilities	14,261.0	18,565.0	18,565.0	18,565.0
Total liabilities	43,009.0	50,560.5	51,125.0	53,266.1
Preferred shares	—	—	—	—
Total common equity	62,634.0	72,651.8	85,045.7	101,966.9
Minority interest	975.0	779.0	779.0	779.0
Total liabilities & equity	106,618.0	123,991.3	136,949.6	156,012.0
BVPS (\$)	17.98	20.83	24.06	28.65

Cash Flow (\$ mn)

	12/23	12/24E	12/25E	12/26E
Net income	14,974.0	7,091.8	10,593.9	15,121.2
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)	(2,705.4)	(970.0)	(3,920.8)
Others	(4,137.0)	2,815.0	1,800.0	1,800.0
Cash flow from operations	13,256.0	12,488.0	18,627.9	22,107.7
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)
Cash flow from investing	(15,584.0)	(14,209.0)	(10,100.0)	(11,100.0)
Dividends paid	—	—	—	—
Share issuance/(repurchase)	—	—	—	—
Inc/(dec) in debt	2,580.0	2,491.0	—	—
Others	477.0	575.0	—	—
Cash flow from financing	2,593.0	2,860.0	0.0	0.0
Total cash flow	265.0	1,139.0	8,527.9	11,007.7
Free cash flow	4,358.0	932.0	8,627.9	11,107.7
Free cash flow per share (basic) (\$)	1.23	0.23	2.68	3.43

Source: Company data, Goldman Sachs Research estimates.

We maintain our Neutral rating on the stock. We believe Tesla remains well positioned for long-term growth, given its leadership position in EVs; the breadth/depth of its technical capabilities in AI, software, and hardware; and its ability to benefit from a full set of solutions including in charging and storage. However, we see a handful of offsetting factors. These include: 1) We expect the ramp in FSD to take longer than Tesla currently targets; 2) We believe auto fundamentals could remain volatile in the near-term (with lower pricing/incentives a headwind, and we expect delivery volumes to be somewhat lower than Tesla's outlook for 2024/2025); 3) We see valuation as full. Overall, we are raising our EPS estimates driven primarily by higher gross margins and higher regulatory credit revenue. Our 12-month price target moves to \$250 from \$230 reflecting our updated estimates.

3Q24 financial results

Tesla reported 3Q24 revenue of \$25,182 mn (down 1% qoq and up 8% yoy) which was about in line with GS at \$25,279 mn and 1% below the Street (FactSet) at \$25,468 mn. Tesla reported the following by segment:

- **Automotive** revenue of \$20,016 mn (up 1% qoq and up 2% yoy) compared to GS at \$20,240 mn and the Street at \$20,444 mn. The implied vehicle ASP was about \$42.0K and below our \$43.0K estimate. Sales of regulatory credits were \$739 mn in the quarter vs. our estimate of \$450 mn, down from \$890 mn last quarter and up from \$554 mn in 3Q23.
- **Energy Generation and Storage** revenue of \$2,376 mn (down 21% qoq and up 52% yoy) compared to GS at \$2,257 mn. Tesla commented that energy storage deployments were 6.9 GWh and the segment achieved a record gross margin in the quarter (of >30%), despite lower Megapack volumes (though Powerwall achieved record deployments). Energy is currently Tesla's highest margin business.
- **Service and Other** revenue of \$2,790 mn (up 7% qoq and up 29% yoy) compared to GS at \$2,783 mn. Tesla noted that Service and Other achieved a record gross profit in 3Q, driven mostly by higher gross profit from supercharging, service center margin improvement, and higher gross profit generation from parts and merchandise.

As previously reported, total vehicle deliveries in the quarter were about 463k (up 4% qoq and up 6% yoy). Model 3/Y deliveries in the quarter were about 440k (up 4% qoq and up 5% yoy), and other model deliveries (e.g., S/X/Cybertruck) were about 23k (up 6% qoq and up 43% yoy). Tesla produced about 470k vehicles (up 9% yoy).

The total company gross margin (including SBC) was 19.8%, above both GS at 16.1% and the Street at 17.1%. The 2Q24 margin was 18.0%, and 3Q23 was 17.9%.

The non-GAAP automotive gross margin (including SBC and excluding the revenue from regulatory credits) was 17.1%, compared to GS at 14.6%. The 2Q24 margin was 14.6%, and 3Q23 was 16.3%. We note that Tesla benefited from ~\$326 mn of FSD revenue being released (driven by FSD on Cybertruck, and actually smart summon), and excluding the discrete revenue release the non-GAAP automotive gross margin excluding credits would have been 15.6%.

EBIT of ~\$2.7 bn was above our forecast of ~\$1.8 bn.

Non-GAAP diluted EPS (excluding SBC) was \$0.72, above both GS at \$0.57 and the Street at \$0.59. Relative to our estimate, EPS upside was driven by a ~370 bp higher gross margin, which was partially offset by lower interest and other income and higher taxes.

EPS was \$0.62 on a GAAP basis (including SBC).

Cash and cash equivalents and investments increased by \$2.9 bn qoq to \$33.6 bn, with FCF of \$2.7 bn in 3Q. Inventory dollars were up \$0.3 bn qoq to \$14.5 bn.

By region, Tesla commented that:

- **US:** Tesla commented that the refreshed Model 3 ramp continued successfully with higher total production and lower COGS qoq. Cybertruck production increased sequentially and achieved a positive gross margin for the first time. Preparation of the Semi factory in Nevada continues and remains on track with builds scheduled to start by the end of 2025.
- **China:** Tesla commented that the Shanghai factory recently produced its 3-millionth vehicle in October and exported its 1-millionth vehicle in September. COGS per vehicle improved sequentially to a new low. Shanghai remains on track to begin shipping Megapacks in 1Q25.
- **Europe:** Tesla noted that COGS per vehicle improved sequentially. Additionally, Tesla noted that Model Y has strong market share in several European countries.

Additional product updates

On FSD, Tesla commented that it has seen a 100X improvement in miles between critical interventions with V12.5 relative to the start of the year, and the company expects further improvement with the V13 release. Furthermore, the company expects FSD miles between critical interventions to surpass that of the average human driver in 2Q25.

In Energy, Tesla reported a record gross margin of >30%, which the company noted was a function of mix of projects being deployed in the quarter. The company also expects that there will be fluctuation in margins as it manages through deployments and inventory. Tesla commented that its pipeline and backlog continues to grow qoq as it fills 2025 production slots.

On batteries, Tesla stated that it produced its 100-millionth 4680 cell and continues to progress on its dry-cathode manufacturing lines.

Separately, the company noted that Cybercab, which will be built on the next-gen platform, will have an estimated efficiency of 5.5 mi/kWh.

Company Outlook

Tesla also noted that plans for new vehicles, including more affordable models, remain on track. Tesla expects to begin starting production in 1H25. Recall that these vehicles

will utilize aspects of the next-gen platform while being produced on the same manufacturing lines as the current vehicle line-up.

The company importantly highlighted that despite ongoing macroeconomic conditions, it still expects to achieve slight growth in vehicle deliveries in 2024. Tesla expects deliveries to grow 20-30% yoy in 2025.

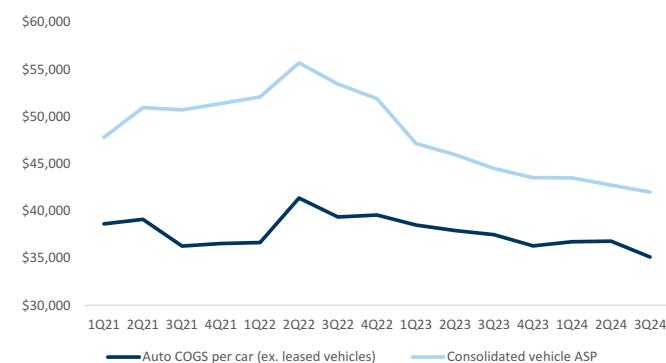
Management believes that Energy storage deployments will more than double yoy in 2024.

Tesla commented that it now expects capex to exceed \$11 bn this year.

Implications

We believe the report is an incremental positive, with stronger margins than we had expected driven by factors including lower vehicle COGS and Energy. Tesla's automotive margin expanded despite a lower ASP driven in part by lower COGS per vehicle ([Exhibit 1](#)).

Exhibit 1: Tesla's auto ASP and COGS per vehicle (ex leasing) over time



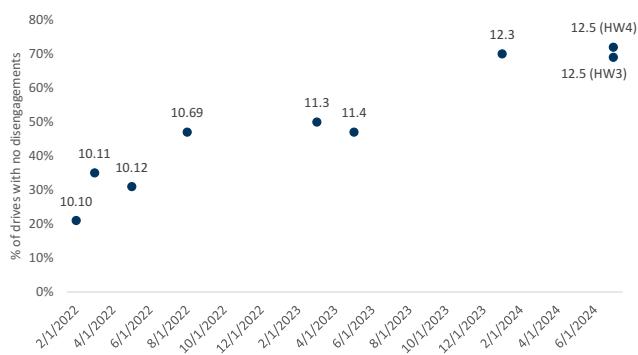
Source: Company data, Goldman Sachs Global Investment Research

We believe key debates going forward will include whether Tesla can meet its FSD performance and vehicle delivery growth targets for 2025, and also the sustainability of margins. One item in particular we'd look to better understand going forward is the difference between [crowd sourced FSD performance](#) data (showing over 100 miles per critical intervention on HW4 equipped vehicles) and the timeframes/progress Tesla spoke to on the earnings call and recently on X (implying reaching 10K+ miles per critical intervention this year or next). Skeptics will likely focus on the historical delays from Tesla on reaching its targets, although more positive investors may point to the increased specificity in Tesla's current FSD outlook as well as the role of AI in R&D.

On Full Self Driving (FSD), we continue to view Tesla as a leader in autonomous technology, and Tesla stated that miles per intervention continues to improve (and we show the percent of drives without a disengagement in [Exhibit 2](#) per TeslaFSDTracker). Tesla expects to start unsupervised FSD robotaxi operations in Texas and California (pending regulatory approval) next year with its currently available models (e.g. 3 and Y) and be in production with the Cybercab in 2026/before 2027 (although the company

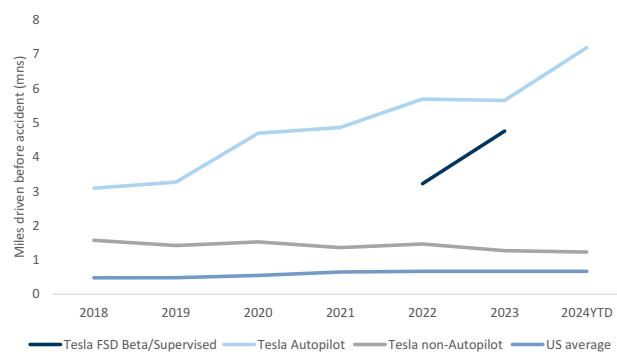
noted that it tends to be optimistic with timelines at the 10/10 event). While we believe reaching L4 in wide scale may take some time (e.g. full AV without a narrow geofence), in the next few years we think Tesla can reach highway eyes-off capability (e.g. L3) and we believe this could support growing FSD revenue. To the extent that Tesla is able to offer L3/L4 capabilities, we believe it can drive more meaningful profit growth and support an attractive EPS CAGR in the long-term. Please see our recent deep dive report on Tesla's FSD efforts and the broader global AV market for details: "[Can new AI technology help accelerate AV deployments? Updating our global ADAS and AV forecast](#)".

Exhibit 2: Tesla continues to make progress on drives without intervention, with crowd-sourced data suggesting 65-75% of drives on V12.5 have no disengagements



Source: TeslaFSDTracker

Exhibit 3: Tesla FSD with human supervision is already safer than the average US driver per data from Tesla

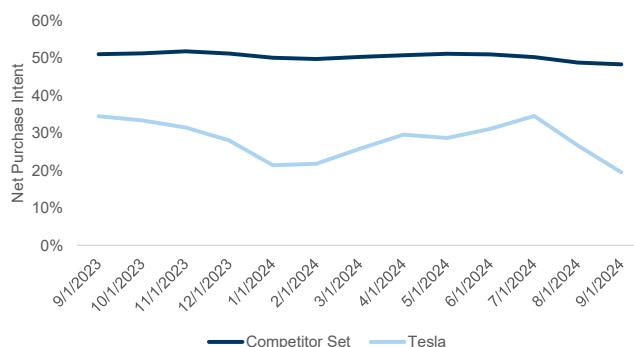


Source: Company data, Goldman Sachs Global Investment Research

We raised our volume outlook for 2024 (now expecting flat compared to down 1% yoy prior) with Tesla recently putting new incentives in place for the US market. Based on HundredX survey data of US consumers, customer net purchase intent trends for Tesla have declined in recent months, as shown in [Exhibit 4](#). We note that per the surveys, the main negative drivers in September relative to the competitor set aggregate include price, quality/reliability, and dealer location. Tech/features and website were the main positive drivers for Tesla vs. peers.

We'd expect more of the growth in 4Q to come from China driven by seasonality and in line with recent momentum from Tesla in that region.

Exhibit 4: HundredX data on net purchase intent has declined in the past few months



Source: HundredX

The ability for the auto business to grow (not only in 2024 but in 2025 and beyond) driven by a refreshed Model Y and a new lower cost model(s) has been a key focus item for investors, and Tesla expects vehicle volumes to increase by 20-30% in 2025. While Tesla may somewhat cannibalize sales of the current 3/Y with new variants depending on the degree of differentiation that a new model has, net net as new model(s) fully ramp we'd expect them to add at least 100K to Tesla's annual volumes. We framed how impactful new vehicle model(s) could be for Tesla's volumes in our June 2024 note, "Framing the market size for lower cost vehicles".

We left our mid teens volume forecast (~2.1 mn vehicles) for 2025 unchanged, and would look for more color on new models (including pricing, features, and launch dates) to consider taking a more positive view on growth.

Estimate changes

Our 2024 delivery assumption is now 1.81 mn from 1.79 mn prior and our 2025/26 assumptions are effectively unchanged at 2.10 mn/2.40 mn respectively.

Overall, we are raising our EPS estimates driven primarily by higher gross margins and higher regulatory credit revenue, and partly offset by a higher tax rate.

We raise our 2024/2025/2026 EPS estimates including SBC to \$2.03/\$3.00/\$4.25 from \$1.80/\$2.95/\$4.20. Our CY24/25/26 non-GAAP EPS estimates (ex. SBC) are now \$2.44/\$3.40/\$4.65.

Valuation, price target, and key risks

We maintain our Neutral rating on the stock. We raise our 12-month price target to \$250 from \$230, which is still based on 65X applied to Q5-Q8E EPS including SBC.

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/the third generation platform/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 (e.g., a vehicle using the third generation platform), 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

The Goldman Sachs Factor Profile provides investment context for a stock by comparing key attributes to the market (i.e. our coverage universe) and its sector peers. The four key attributes depicted are: Growth, Financial Returns, Multiple (e.g. valuation) and Integrated (a composite of Growth, Financial Returns and Multiple). Growth, Financial Returns and Multiple are calculated by using normalized ranks for specific metrics for each stock. The normalized ranks for the metrics are then averaged and converted into percentiles for the relevant attribute. The precise calculation of each metric may vary depending on the fiscal year, industry and region, but the standard approach is as follows:

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

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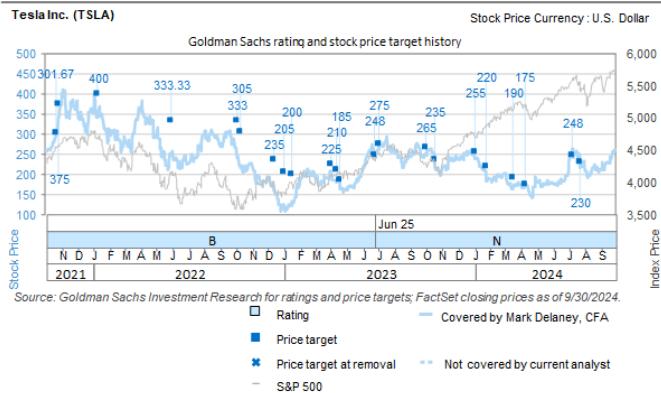
Distribution of ratings/investment banking relationships

Goldman Sachs Investment Research global Equity coverage universe

	Rating Distribution			Investment Banking Relationships		
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