Goldman Sachs | Equity Research

18 October 2023 | 11:48PM EDT

Neutral

Tesla Inc. (TSLA)

Cautious macro comments; new product launches and margins in focus

TSLA	12m Price Target: **$235.00**	Price: **$242.68**	Downside: **3.2%**

Tesla reported revenue/non-GAAP diluted EPS (excluding SBC) of $23.4 bn/$0.66, which was 3% below/$0.07 below the Street (FactSet) and 2% below/$0.01 above GS. The non-GAAP automotive gross margin (including SBC and excluding the revenue from regulatory credits) was 16.3%, below FactSet consensus of 17.6% and just above GS at 16.0%. Tesla continues to expect to deliver about 1.8 mn vehicles in 2023, and expects Cybertruck deliveries to begin later this year. However, Tesla cautioned that macro factors are a headwind.

We believe the 3Q report will add to near-to-intermediate term investor concerns given company commentary that the current macro backdrop/higher rates could gate its growth (including how quickly it ramps factories), and comments that the initial Cybertruck ramp could be slow (due to the quantity of new features and technologies Tesla will be using, not due to demand with >1 mn reservations).

We lower our EPS estimates, reduce our 12-month price target to $235, and we remain Neutral rated on the stock. We continue to expect lower pricing to mitigate cost reductions and weigh on 2024 EPS. However, we believe that Tesla is well positioned for longer-term growth given its leading position in the EV and clean energy markets (which we attribute to factors including its ability to offer full solutions including charging, storage, software/FSD and services, and with a strong cost structure). We note that Tesla reduced cost per vehicle in 3Q to $37.5K, from $37.9K in 2Q, despite the factory shutdowns.

Tesla emphasized that higher rates are weighing on affordability, and we show how monthly car payments have trended over time for the market in this note.

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Key Data

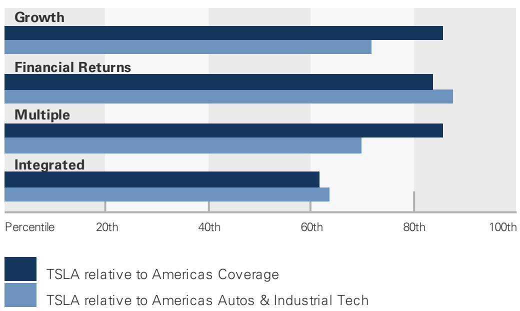
Market cap: $847.7bn
Enterprise value: $830.7bn
3m ADTV: $29.2bn
United States
Americas Autos & Industrial Tech
M&A Rank: 3

GS Forecast

	12/22	12/23E	12/24E	12/25E
Revenue ($ mn) New	**81,462.0**	**96,800.0**	**118,592.1**	**149,704.4**
Revenue ($ mn) Old	81,462.0	98,430.8	122,818.9	148,885.7
EBITDA ($ mn)	19,213.0	16,811.7	22,422.2	31,387.7
EBIT ($ mn)	13,656.0	8,891.8	13,197.6	20,451.8
EPS ($) New	**3.63**	**2.64**	**3.70**	**5.55**
EPS ($) Old	3.63	2.75	4.15	5.60
P/E (X)	72.5	91.9	65.6	43.7
Dividend yield (%)	0.0	0.0	0.0	0.0
Net debt/EBITDA (X)	(0.8)	(1.0)	(1.2)	(1.5)

	9/23	12/23E	3/24E	6/24E
EPS ($)	0.53	0.61	0.68	0.82

GS Factor Profile



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

Neutral

Tesla Inc. (TSLA)

Rating since Jun 25, 2023

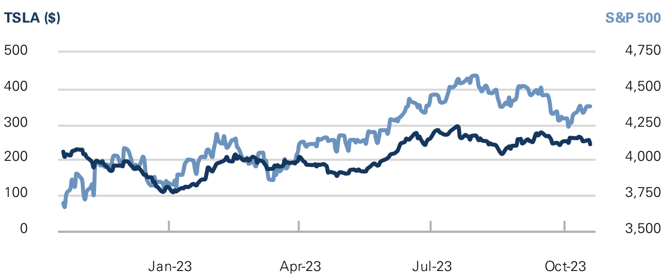
Ratios & Valuation

	12/22	12/23E	12/24E	12/25E
P/E (X)	72.5	91.9	65.6	43.7
EV/EBITDA (X)	42.1	44.8	33.4	23.4
EV/sales (X)	9.9	7.8	6.3	4.9
FCF yield (%)	0.9	0.6	1.2	2.6
EV/DACF (X)	43.7	50.3	38.3	27.0
CROCI (%)	68.2	35.8	35.9	42.4
ROE (%)	33.6	18.2	20.5	24.2
Net debt/EBITDA (X)	(0.8)	(1.0)	(1.2)	(1.5)
Net debt/equity (%)	(33.4)	(29.7)	(36.6)	(49.8)
Interest cover (X)	71.5	65.9	82.5	127.8
Inventory days	56.0	64.7	61.9	56.3
Receivable days	10.9	12.4	14.0	14.8
Days payable outstanding	76.1	75.4	69.7	64.6

Growth & Margins (%)

	12/22	12/23E	12/24E	12/25E
Total revenue growth	51.4	18.8	22.5	26.2
EBITDA growth	84.5	(21.7)	39.9	44.6
EPS growth	121.8	(27.2)	40.1	50.1
DPS growth	NM	NM	NM	NM
Gross margin	25.6	18.3	19.4	20.6
EBIT margin	16.8	9.2	11.1	13.7

Price Performance



	3m	6m	12m
Absolute	(17.3)%	31.7%	10.2%
Rel. to the S&P 500	(13.8)%	25.1%	(6.2)%

Source: FactSet. Price as of 18 Oct 2023 close.

Income Statement ($ mn)

	12/22	12/23E	12/24E	12/25E
Total revenue	81,462.0	96,800.0	118,592.1	149,704.4
Cost of goods sold	(60,609.0)	(79,119.8)	(95,606.2)	(118,798.4)
SG&A	(4,122.0)	(4,779.7)	(5,073.0)	(5,383.6)
R&D	(3,075.0)	(4,008.7)	(4,715.3)	(5,070.7)
Other operating inc./(exp.)	–	–	–	–
EBITDA	**17,403.0**	**13,622.7**	**19,062.2**	**27,572.7**
Depreciation & amortization	(3,747.0)	(4,731.0)	(5,864.6)	(7,120.9)
EBIT	**13,656.0**	**8,891.8**	**13,197.6**	**20,451.8**
Net interest inc./(exp.)	106.0	898.0	1,380.0	1,890.0
Income/(loss) from associates	–	–	–	–
Pre-tax profit	**13,746.0**	**10,129.8**	**14,597.6**	**22,341.8**
Provision for taxes	(1,132.0)	(951.0)	(1,450.0)	(2,325.0)
Minority interest	(31.0)	13.0	(125.0)	(175.0)
Preferred dividends	–	–	–	–
Net inc. (pre-exceptionals)	**12,583.0**	**9,191.8**	**13,022.6**	**19,841.8**
Net inc. (post-exceptionals)	**12,583.0**	**9,191.8**	**13,022.6**	**19,841.8**
EPS (basic, pre-except) ($)	**4.02**	**2.90**	**4.08**	**6.15**
EPS (diluted, pre-except) ($)	**3.63**	**2.64**	**3.70**	**5.55**
EPS (ex-ESO exp., dil.) ($)	**--**	**--**	**--**	**--**
DPS ($)	–	–	–	–
Div. payout ratio (%)	0.0	0.0	0.0	0.0
Wtd avg shares out. (basic) (mn)	3,129.8	3,171.7	3,194.0	3,224.0
Wtd avg shares out. (diluted) (mn)	3,468.8	3,480.0	3,520.2	3,572.5

Balance Sheet ($ mn)

	12/22	12/23E	12/24E	12/25E
Cash & cash equivalents	16,924.0	19,375.4	28,807.7	49,182.7
Accounts receivable	2,952.0	3,599.1	5,496.3	6,625.6
Inventory	12,839.0	15,227.1	17,221.8	19,435.1
Other current assets	8,579.0	12,394.0	12,394.0	12,394.0
Total current assets	**41,294.0**	**50,595.7**	**63,919.8**	**87,637.3**
Net PP&E	26,111.0	32,101.1	35,308.5	37,267.5
Net intangibles	409.0	425.0	353.0	273.0
Total investments	0.0	0.0	0.0	0.0
Other long-term assets	14,901.0	17,118.0	17,218.0	17,318.0
Total assets	**82,338.0**	**100,040.8**	**116,600.3**	**142,296.9**
Accounts payable	15,255.0	17,442.0	19,053.9	22,968.7
Short-term debt	–	–	–	–
Current lease liabilities	1,502.0	1,967.0	1,967.0	1,967.0
Other current liabilities	9,952.0	10,736.0	10,736.0	10,736.0
Total current liabilities	**26,709.0**	**30,145.0**	**31,756.9**	**35,671.7**
Long-term debt	1,597.0	2,426.0	2,426.0	2,426.0
Non-current lease liabilities	–	–	–	–
Other long-term liabilities	8,134.0	10,380.0	10,380.0	10,380.0
Total long-term liabilities	**9,731.0**	**12,806.0**	**12,806.0**	**12,806.0**
Total liabilities	**36,440.0**	**42,951.0**	**44,562.9**	**48,477.7**
Preferred shares	–	–	–	–
Total common equity	**44,704.0**	**56,060.8**	**71,008.4**	**92,790.1**
Minority interest	1,194.0	1,029.0	1,029.0	1,029.0
Total liabilities & equity	**82,338.0**	**100,040.8**	**116,600.3**	**142,296.9**
BVPS ($)	12.89	16.11	20.17	25.97

Cash Flow ($ mn)

	12/22	12/23E	12/24E	12/25E
Net income	12,587.0	9,150.8	13,022.6	19,841.8
D&A add-back	3,747.0	4,731.0	5,864.6	7,120.9
Minority interest add-back	–	–	–	–
Net (inc)/dec working capital	(3,908.0)	(2,126.3)	(2,279.9)	572.3
Others	2,298.0	1,941.0	1,925.0	1,940.0
Cash flow from operations	**14,724.0**	**13,696.4**	**18,532.3**	**29,475.0**
Capital expenditures	(7,158.0)	(8,592.0)	(9,000.0)	(9,000.0)
Acquisitions	(4,810.0)	(4,188.0)	–	–
Divestitures	–	–	–	–
Others	(5.0)	(25.0)	(100.0)	(100.0)
Cash flow from investing	**(11,973.0)**	**(12,805.0)**	**(9,100.0)**	**(9,100.0)**
Dividends paid	–	–	–	–
Share issuance/(repurchase)	–	–	–	–
Inc/(dec) in debt	(3,364.0)	1,511.0	0.0	–
Others	(105.0)	271.0	–	–
Cash flow from financing	**(3,971.0)**	**1,560.0**	**0.0**	**0.0**
Total cash flow	**(1,220.0)**	**2,451.4**	**9,432.3**	**20,375.0**
Free cash flow	7,566.0	5,104.4	9,532.3	20,475.0
Free cash flow per share (basic) ($)	2.26	1.54	2.98	6.35

Source: Company data, Goldman Sachs Research estimates.

3Q23 financial results

Tesla reported 3Q23 revenue of $23,350 mn (down 6% qoq and up 9% yoy) which was 2% below GS at $23,884 mn and 3% below the Street (FactSet) at $24,188 mn. Tesla reported the following by segment:

- **Automotive** revenue of $19,625 mn (down 8% qoq and up 5% yoy) compared to GS at $19,593 mn and the Street at $20,463 mn. The implied vehicle ASP was about $44.5K and below our $44.8K estimate. Sales of regulatory credits were $554 mn in the quarter vs. our estimate of $275 mn, up from $282 mn last quarter and from $286 mn in 3Q22.
- **Energy Generation and Storage** revenue of $1,559 mn (up 3% qoq and up 40% yoy) compared to GS at $1,775 mn. The company reported storage deployments of 3,980 MWh (up 90% yoy). Tesla commented that the continued growth in deployments was driven by the ongoing ramp of its Megafactory in Lathrop, CA, toward full capacity of 40 GWh with the phase two expansion. Additionally, the production rate improved further sequentially in Q3.
- **Service and Other** revenue of $2,166 mn (up 1% qoq and up 32% yoy) compared to GS at $2,516 mn.

As previously reported, total vehicle deliveries in the quarter were about 435k (down 7% qoq and up 27% yoy). Model 3/Y deliveries in the quarter were about 419k (down 6% qoq and up 29% yoy), and Model S/X deliveries were about 16k (down 17% qoq and down 14% yoy).

Tesla produced about 430k vehicles (down 10% qoq and up 18% yoy), of which 417k were Model 3/Y (down 9% qoq and up 20% yoy) and 14k were Model S/X (down 30% qoq and down 31% yoy). Tesla attributed the reduced production to downtime for factory upgrades (and we believe a key driver of this was the Model 3 changeover in Shanghai).

The total company gross margin (including SBC) was 17.9%, above GS at 16.4% and in line with the Street at 17.9%. The 2Q23 margin was 18.2%, and 3Q22 was 25.1%.

The non-GAAP automotive gross margin (including SBC and excluding the revenue from regulatory credits) was 16.3%, compared to GS at 16.0% and FactSet at 17.6%. The 2Q23 margin was 18.1%, and 3Q22 was 26.8%.

Tesla commented that margins were impacted by reduced ASPs (due to mix and pricing), an increase in operating expenses driven by Cybertruck, AI and other R&D projects, the cost of the production ramp and idle cost related to factory upgrades, and a negative FX impact. These headwinds were partially offset by growth in vehicle deliveries (despite a margin headwind from the underutilization of new factories), a lower cost per vehicle, IRA credits, gross profit growth in Energy as well as Services, and growth in regulatory credit sales.

Non-GAAP diluted EPS (excluding SBC) was $0.66, slightly above GS at $0.65 and below the Street at $0.73.

Including SBC, EPS was $0.53 vs. GS at $0.52. Relative to our estimate, a higher gross margin (150 bp higher driven in part by higher regulatory credit sales), higher interest and other income, and a lower tax rate were mostly offset by ~2% lower revenue and higher operating expenses.

Cash and cash equivalents and short-term marketable securities increased by $3 bn qoq to $26.1 bn, with FCF of $0.8 bn (4% of revenue). Inventory dollars were down $0.6 bn qoq to $13.7 bn.

Details on production and product development

- **US:** Tesla commented that at Gigafactory Texas, the company began pilot production of the Cybertruck, which Tesla believes remains on track for initial deliveries this year. The company is expecting the Model Y production rate in Texas to grow very gradually from its current level as it ramps additional supply chain needs in a cost-efficient manner. Production of the company's higher density 4680 cell is progressing as planned, and Tesla continues building capacity for cathode production and lithium refining in the US.
- **China:** Tesla commented besides the scheduled downtime in Q3, its Shanghai factory has been successfully running near full capacity for several quarters, and the company does not expect a meaningful increase in the weekly production run rate. Giga Shanghai remains Tesla's main export hub.
- **Europe:** Tesla commented that Model Y remained the best-selling vehicle of any kind in Europe year-to-date (based on the latest available data as of August). Similar to Texas, Tesla expects that further production ramp of Model Y will be gradual.

Tesla's stated installed annual capacity estimates across its factories was 650K in California, >950K in Shanghai, and at 375K in Berlin and >375K in Texas, including >125k for Cybertruck in Texas (vs. 2Q23 at 650K in California, >750K in Shanghai, and at 375K in Berlin and >250K in Texas).

Company Outlook

The company continues to expect to deliver about 1.8 mn vehicles in 2023. This compares to both GS prior and Visible Alpha consensus at ~1.82 mn.

Additionally, Tesla expects the Model Y production rate in Texas and Berlin to grow very gradually from its current level as the company ramps additional supply chain needs in a cost-efficient manner. Tesla also commented that the timeline for its Mexico factory ramp is in part dependent upon the overall macro economy and interest rate environment.

Tesla commented that Cybertruck remains on track for initial deliveries later this year (with the delivery event planned for 11/30). In addition, the company stated that it continues to make progress on its next generation platform.

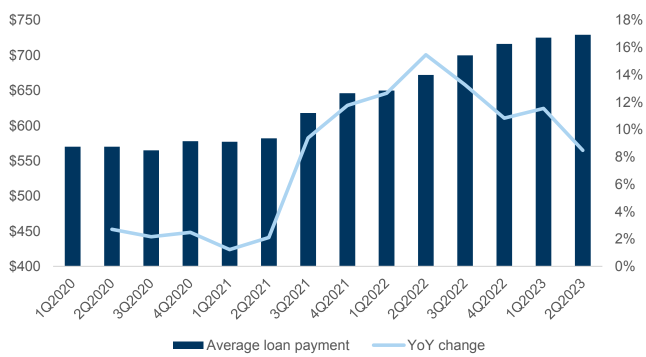
Tesla commented that, despite macroeconomic headwinds, planned factory shutdowns in Q3 and the ongoing ramp at new factories, the average vehicle cost was ~$37.5K, and Tesla continues to work to reduce the cost further. This is down from ~$37.9K last quarter.

Tesla commented that it has commissioned one of the world's largest supercomputers to accelerate the pace of its AI development, with compute capacity more than doubling compared to Q2 with Tesla bringing on a large number of Nvidia H100 GPUs. Tesla also said that its installed base of vehicles continues to generate anonymized video and other data used to develop its FSD Capability features.

Interest rate impact and market share overview

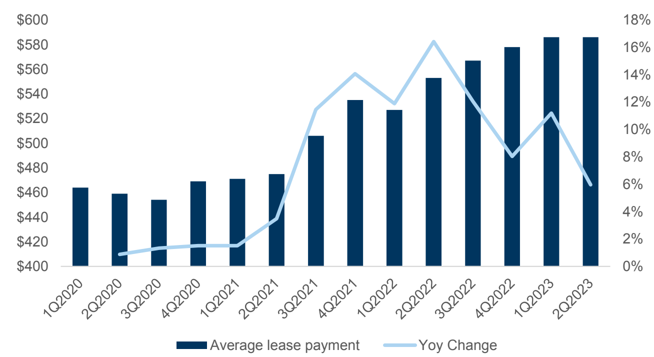
Tesla emphasized how higher borrowing costs are weighing on affordability, and we show in Exhibit 1 and Exhibit 2 how the average cost of a car payment for loans and leases have progressed over the last few years per Experian.

Exhibit 1: The average monthly auto loan payment has increased ~28% since 1Q2020
Average monthly loan payment



Source: Experian

Exhibit 2: The average auto lease payment has risen over the last 3 years
Average monthly lease payment



Source: Experian

Management commented that its price reductions have allowed payments to remain relatively similar and offset higher borrowing costs. We show in Exhibit 3 an illustrative case study on how Model Y monthly payments may have trended YTD for a typical driver with higher rates/lower car pricing.

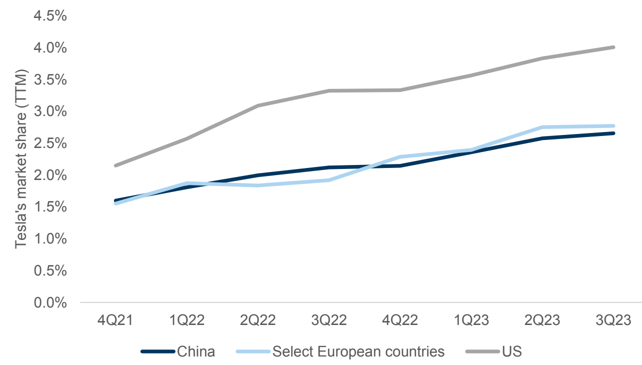
Exhibit 3: Model Y monthly payments have remained relatively unchanged due to lower ASPs offsetting higher interest rates

Total vehicle loan cost	Jan-23	Jun-23	Oct-23
Vehicle Cost	$52,990	$50,490	$48,490
Down payment	$4,500	$4,500	$4,500
Financed amount	$48,490	$45,990	$43,990
Loan Term (months)	72	72	72
Interest rate	6.1%	6.4%	6.9%
Monthly payments	$805	$771	$747

Source: Board of Governors of the Federal Reserve System, Company data, Goldman Sachs Global Investment Research

We believe that Tesla's product set and its competitive EV pricing has helped the company maintain its strong position in the EV market (and take share of the auto market overall).

Exhibit 4: Tesla's market share is trending higher in key regions
Tesla's market share in key markets (TTM)



Source: CPCA, ACEA, PFA, UNRAE, ANFAC, KBA, SMMT, Motor Intelligence, Goldman Sachs Global Investment Research

Implications

We believe the 3Q report will add to near-to-intermediate term investor concerns given company commentary that the current macro backdrop/higher rates could gate its growth (including how quickly it ramps factories), and comments that the initial Cybertruck ramp could be slow (due to the quantity of new features and technologies Tesla will be using, not due to demand with >1 mn reservations).

We lower our EPS estimates, reduce our 12-month price target to $235 (from $265), and we remain Neutral rated on the stock.

We continue to expect lower pricing to mitigate cost reductions and weigh on 2024 EPS, although we now model both modestly lower deliveries in 2024 (now at 2.20 mn, from 2.275 mn prior) and a slower rate of ASP compression (to reflect the slower volume ramp). We believe that automotive gross margins excluding regulatory credits will trend higher from 3Q driven by generally lower costs and higher volumes (albeit at a measured rate due to lower pricing), and the cadence of margins will likely be a key debate for investors.

While we lower our estimates, we believe that Tesla is well positioned for longer-term growth given its leading position in the EV and clean energy markets (which we attribute to factors including its ability to offer full solutions including charging, storage, software/FSD and services, and with a strong cost structure). We see Tesla as a leader in autonomous capabilities given the depth and breadth of its engineering team and technology, although we think it could be more than 12 months before Tesla will offer L3/4 driving (e.g. eyes off and hands off) based on the rate of progress and the very high level of performance needed for such a milestone in a wide operating domain/geographic area.

We see valuation as full. Although we appreciate the company's opportunity long-term from AI and software, we note that TSLA shares trade at >100% premium to NVDA and AMD on 2024 P/E on GS estimates.

Estimate changes

We lower our 2023E EPS estimate (including SBC) to $2.64 from $2.75, primarily on higher opex, reduce our 2024 estimate to $3.70 from $4.15 on lower deliveries and higher opex, and slightly lower our 2025 EPS estimate to $5.55 from $5.60 on higher opex (partly offset by a higher regulatory credit sales than we previously assumed).

Our CY23/24/25 non-GAAP EPS estimates (ex. SBC) are now $3.16/$4.25/$6.10 (vs. $3.25/$4.65/$6.10 prior).

Exhibit 5: GS estimate revisions

TSLA estimate revisions	Dec Q4E		2023E		2024E		2025E	
	Old GSe	New GSe	Old GSe	New GSe	Old GSe	New GSe	Old GSe	New GSe
Revenue	$26,291	$25,194	$98,431	$96,800	$122,819	$118,592	$148,886	$149,704
Automotive non-GAAP gross margin excl. credits	18.4%	17.8%	17.9%	17.8%	20.0%	19.8%	21.8%	21.6%
EBIT margin including SBC	9.9%	8.2%	9.6%	9.2%	12.4%	11.1%	14.2%	13.7%
Non-GAAP EPS including SBC	$0.73	$0.61	$2.75	$2.64	$4.15	$3.70	$5.60	$5.55
Non-GAAP EPS excluding SBC	$0.85	$0.75	$3.25	$3.16	$4.65	$4.25	$6.10	$6.10

Source: Goldman Sachs Global Investment Research

Valuation, price target, and key risks

We lower our 12-month price target to $235 from $265, which is now based on 45X (from 50X prior to better reflect higher rates/market valuations) applied to our updated Q5-Q8 EPS estimate including SBC.

Key downside risks to our view relate to potentially larger vehicle price reductions than we expect, increased competition in EVs, 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 from 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 and Optimus) 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.

Unless otherwise stated, the individuals listed on the cover page of this report are analysts in Goldman Sachs' Global Investment Research division.

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 (DACF) (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.

M&A Rank

Across our global coverage, we examine stocks using an M&A framework, considering both qualitative factors and quantitative factors (which may vary across sectors and regions) to incorporate the potential that certain companies could be acquired. We then assign a M&A rank as a means of scoring companies under our rated coverage from 1 to 3, with 1 representing high (30%-50%) probability of the company becoming an acquisition target, 2 representing medium (15%-30%) probability and 3 representing low (0%-15%) probability. For companies ranked 1 or 2, in line with our standard departmental guidelines we incorporate an M&A component into our target price. M&A rank of 3 is considered immaterial and therefore does not factor into our price target, and may or may not be discussed in research.

Quantum

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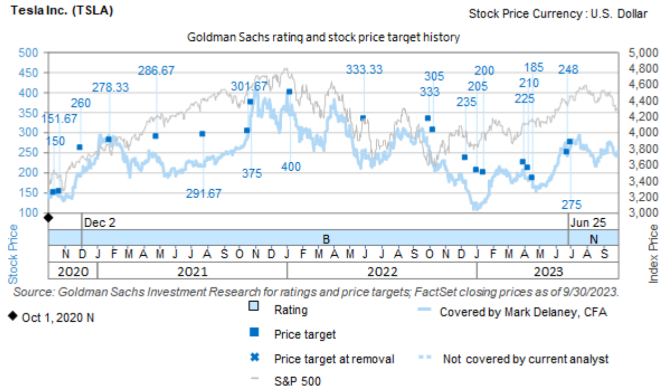

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