

Tesla Inc. (TSLA)

Solid 2Q report; Margin trajectory and FSD/AI likely key debates from here

TSLA

12m Price Target: \$275.00

Price: \$291.26

Downside: 5.6%

Tesla reported revenue/non-GAAP diluted EPS (excluding SBC) of \$24.9 bn/\$0.91, which was 3%/\$0.11 above the Street (FactSet) and in line with/\$0.10 above GS prior. Tesla reported a non-GAAP automotive gross margin (including SBC and excluding the revenue from regulatory credits) of 18.1%, just above GS at 18.0%. Tesla continues to expect to deliver about 1.8 mn vehicles in 2023, and noted that vehicle pricing and margins going forward will depend in part on macro factors/interest rates. Tesla is planning to take some production downtime for facility upgrades in 3Q and therefore its production could be slightly lower qoq. The company commented that orders are similar to production.

We believe this was a solid 2Q report with Tesla taking market share and slightly exceeding our automotive non-GAAP margin estimate (and beating in Energy/Services). However, we believe there could continue to be margin headwinds in the intermediate term if Tesla lowers prices to support higher volumes. We remain Neutral rated on the stock, and we believe that our positive long-term view on the company is generally reflected in the stock post the large move YTD. We maintain our Neutral rating and 12-month price target of \$275.

2023 financial results

Tesla reported 2Q23 revenue of \$24,927 mn (up 7% qoq and up 47% yoy) which was in line with GS at \$24,910 mn and 3% above the Street (FactSet) at \$24,221 mn. Tesla reported the following by segment:

- Automotive** revenue of \$21,268 mn (up 7% qoq and up 46% yoy) compared to GS at \$20,893 mn and the Street at \$20,880 mn. Implied vehicle ASP was about \$46K and above our \$45.3K estimate. Sales of regulatory credits were \$282 mn in the quarter vs. our estimate of \$250 mn, down from \$521 mn last

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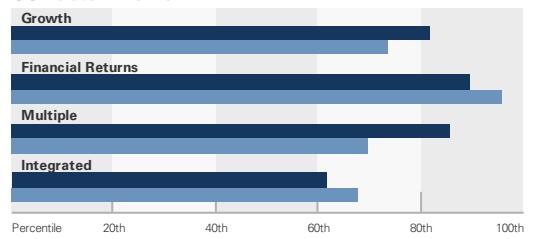
Key Data

Market cap: \$1.0tr
Enterprise value: \$993.2bn
3m ADTV: \$30.3bn
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 | 100,022.8 | 123,151.1 | 149,696.9 |
| Revenue (\$ mn) Old | 81,462.0 | 99,806.2 | 124,664.9 | 152,412.6 |
| EBITDA (\$ mn) | 19,213.0 | 18,135.8 | 24,150.2 | 31,393.0 |
| EBIT (\$ mn) | 13,656.0 | 10,417.3 | 15,560.1 | 21,211.3 |
| EPS (\$) New | 3.63 | 3.00 | 4.25 | 5.60 |
| EPS (\$) Old | 3.63 | 2.95 | 4.25 | 5.60 |
| P/E (X) | 72.5 | 97.2 | 68.6 | 52.0 |
| Dividend yield (%) | 0.0 | 0.0 | 0.0 | 0.0 |
| Net debt/EBITDA (X) | (0.8) | (1.1) | (1.3) | (1.7) |
| | | | | |
| | 6/23 | 9/23E | 12/23E | 3/24E |
| EPS (\$) | 0.78 | 0.73 | 0.76 | 0.80 |

GS Factor Profile



TSLA relative to Americas Coverage
TSLA relative to Americas Autos & Industrial Tech

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

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Neutral

Tesla Inc. (TSLA)

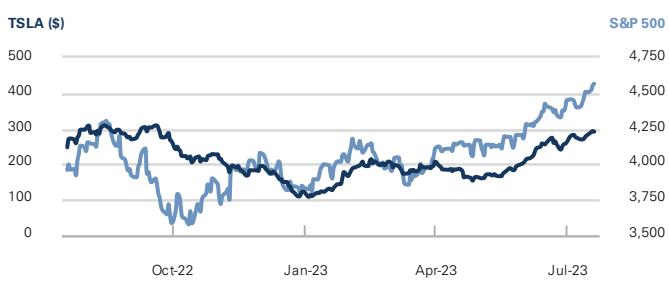
Rating since Jun 25, 2023

Ratios & Valuation

| | 12/22 | 12/23E | 12/24E | 12/25E |
|--------------------------|--------|--------|---------|--------|
| P/E (X) | 72.5 | 97.2 | 68.6 | 52.0 |
| EV/EBITDA (X) | 42.1 | 50.0 | 37.7 | 28.6 |
| EV/sales (X) | 9.9 | 9.1 | 7.4 | 6.0 |
| FCF yield (%) | 0.9 | 0.6 | 1.3 | 2.1 |
| EV/DACF (X) | 43.7 | 56.6 | 42.1 | 32.5 |
| CROCI (%) | 68.2 | 39.0 | 41.4 | 44.9 |
| ROE (%) | 33.6 | 20.5 | 23.0 | 23.7 |
| Net debt/EBITDA (X) | (0.8) | (1.1) | (1.3) | (1.7) |
| Net debt/equity (%) | (33.4) | (33.9) | (42.9) | (54.0) |
| Interest cover (X) | 71.5 | 113.2 | 1,037.3 | — |
| Inventory days | 56.0 | 65.5 | 62.2 | 56.3 |
| Receivable days | 10.9 | 12.7 | 14.3 | 14.9 |
| Days payable outstanding | 76.1 | 74.8 | 69.6 | 65.2 |

Growth & Margins (%)

| | 12/22 | 12/23E | 12/24E | 12/25E |
|----------------------|-------|--------|--------|--------|
| Total revenue growth | 51.4 | 22.8 | 23.1 | 21.6 |
| EBITDA growth | 84.5 | (13.2) | 41.1 | 32.3 |
| EPS growth | 121.8 | (17.4) | 41.7 | 31.9 |
| DPS growth | NM | NM | NM | NM |
| Gross margin | 25.6 | 18.7 | 19.7 | 20.5 |
| EBIT margin | 16.8 | 10.4 | 12.6 | 14.2 |

Price Performance

Source: FactSet. Price as of 19 Jul 2023 close.

Income Statement (\$ mn)

| | 12/22 | 12/23E | 12/24E | 12/25E |
|---------------------------------------|-----------------|-----------------|-----------------|-----------------|
| Total revenue | 81,462.0 | 100,022.8 | 123,151.1 | 149,696.9 |
| Cost of goods sold | (60,609.0) | (81,320.3) | (98,898.8) | (118,961.9) |
| SG&A | (4,122.0) | (4,666.3) | (4,864.2) | (5,151.0) |
| R&D | (3,075.0) | (3,618.9) | (3,827.9) | (4,372.8) |
| Other operating inc./exp.) | — | — | — | — |
| EBITDA | 17,403.0 | 15,098.8 | 21,310.2 | 28,193.0 |
| Depreciation & amortization | (3,747.0) | (4,681.5) | (5,750.1) | (6,981.7) |
| EBIT | 13,656.0 | 10,417.3 | 15,560.1 | 21,211.3 |
| Net interest inc./exp.) | 106.0 | 854.0 | 1,150.0 | 1,550.0 |
| Income/(loss) from associates | — | — | — | — |
| Pre-tax profit | 13,746.0 | 11,556.3 | 16,710.1 | 22,761.3 |
| Provision for taxes | (1,132.0) | (1,164.0) | (1,500.0) | (2,375.0) |
| Minority interest | (31.0) | 53.0 | (115.0) | (165.0) |
| Preferred dividends | — | — | — | — |
| Net inc. (pre-exceptionals) | 12,583.0 | 10,445.3 | 15,095.1 | 20,221.3 |
| Net inc. (post-exceptionals) | 12,583.0 | 10,445.3 | 15,095.1 | 20,221.3 |
| EPS (basic, pre-except) (\$) | 4.02 | 3.28 | 4.67 | 6.19 |
| EPS (diluted, pre-except) (\$) | 3.63 | 3.00 | 4.25 | 5.60 |
| 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 | 3,184.0 | 3,234.5 | 3,264.5 |
| Wtd avg shares out. (diluted) (mn) | 3,468.8 | 3,487.3 | 3,555.7 | 3,612.4 |

Balance Sheet (\$ mn)

| | 12/22 | 12/23E | 12/24E | 12/25E |
|---------------------------------------|-----------------|-----------------|------------------|------------------|
| Cash & cash equivalents | 16,924.0 | 20,158.8 | 32,224.1 | 52,457.4 |
| Accounts receivable | 2,952.0 | 4,018.0 | 5,656.5 | 6,597.1 |
| Inventory | 12,839.0 | 16,359.1 | 17,346.6 | 19,351.6 |
| Other current assets | 8,579.0 | 10,429.0 | 10,429.0 | 10,429.0 |
| Total current assets | 41,294.0 | 50,964.9 | 65,656.3 | 88,835.1 |
| Net PP&E | 26,111.0 | 31,291.5 | 34,613.4 | 36,711.7 |
| Net intangibles | 409.0 | 433.0 | 361.0 | 281.0 |
| Total investments | 0.0 | 0.0 | 0.0 | 0.0 |
| Other long-term assets | 14,901.0 | 16,560.0 | 16,660.0 | 16,760.0 |
| Total assets | 82,338.0 | 99,013.4 | 117,054.7 | 142,351.8 |
| Accounts payable | 15,255.0 | 18,081.1 | 19,609.2 | 22,870.0 |
| Short-term debt | — | — | — | — |
| Current lease liabilities | 1,502.0 | 1,459.0 | 1,459.0 | 1,459.0 |
| Other current liabilities | 9,952.0 | 10,860.0 | 10,860.0 | 10,860.0 |
| Total current liabilities | 26,709.0 | 30,400.1 | 31,928.2 | 35,189.0 |
| Long-term debt | 1,597.0 | 372.0 | 0.0 | — |
| Non-current lease liabilities | — | — | — | — |
| Other long-term liabilities | 8,134.0 | 9,945.0 | 9,945.0 | 9,945.0 |
| Total long-term liabilities | 9,731.0 | 10,317.0 | 9,945.0 | 9,945.0 |
| Total liabilities | 36,440.0 | 40,717.1 | 41,873.2 | 45,134.0 |
| Preferred shares | — | — | — | — |
| Total common equity | 44,704.0 | 57,244.3 | 74,129.4 | 96,165.7 |
| Minority interest | 1,194.0 | 1,052.0 | 1,052.0 | 1,052.0 |
| Total liabilities & equity | 82,338.0 | 99,013.4 | 117,054.7 | 142,351.8 |
| BVPS (\$) | 12.89 | 16.42 | 20.85 | 26.62 |

Cash Flow (\$ mn)

| | 12/22 | 12/23E | 12/24E | 12/25E |
|---------------------------------------|-------------------|-------------------|------------------|------------------|
| Net income | 12,587.0 | 10,377.3 | 15,095.1 | 20,221.3 |
| D&A add-back | 3,747.0 | 4,681.5 | 5,750.1 | 6,981.7 |
| Minority interest add-back | — | — | — | — |
| Net (inc)/dec working capital | (3,908.0) | (2,397.0) | (1,097.9) | 315.3 |
| Others | 2,298.0 | 1,746.0 | 1,790.0 | 1,815.0 |
| Cash flow from operations | 14,724.0 | 14,407.8 | 21,537.3 | 29,333.3 |
| Capital expenditures | (7,158.0) | (8,132.0) | (9,000.0) | (9,000.0) |
| Acquisitions | (4,810.0) | (1,885.0) | — | — |
| Divestitures | — | — | — | — |
| Others | (5.0) | (51.0) | (100.0) | (100.0) |
| Cash flow from investing | (11,973.0) | (10,068.0) | (9,100.0) | (9,100.0) |
| Dividends paid | — | — | — | — |
| Share issuance/(repurchase) | — | — | — | — |
| Inc/(dec) in debt | (3,364.0) | (926.0) | (372.0) | — |
| Others | (105.0) | 160.0 | — | — |
| Cash flow from financing | (3,971.0) | (1,105.0) | (372.0) | 0.0 |
| Total cash flow | (1,220.0) | 3,234.8 | 12,065.3 | 20,233.3 |
| Free cash flow | 7,566.0 | 6,275.8 | 12,537.3 | 20,333.3 |
| Free cash flow per share (basic) (\$) | 2.26 | 1.86 | 3.88 | 6.23 |

Source: Company data, Goldman Sachs Research estimates.

quarter and down from \$344 mn in 2Q22.

- **Energy Generation and Storage** revenue of \$1,509 mn (down 1% qoq and up 74% yoy) compared to GS at \$1,727 mn. The company reported storage deployments of 3,653 MWh (up 222% yoy). Tesla commented that the yoy storage deployment increase was driven by the ongoing ramp of its dedicated Megapack factory.
- **Service and Other** revenue of \$2,150 mn (up 17% qoq and up 47% yoy) compared to GS at \$2,289 mn.

As previously reported, total vehicle deliveries in the quarter were about 466k (up 10% qoq and up 83% yoy). Model 3/Y deliveries in the quarter were about 447k (up 8% qoq and up 87% yoy), and Model S/X deliveries were about 19k (up 80% qoq and up 19% yoy).

Tesla produced about 480k vehicles (up 9% qoq and up 86% yoy), of which 460k were Model 3/Y (up 9% qoq and +90% yoy) and 19k were Model S/X (about flat qoq and +19% yoy).

The non-GAAP automotive gross margin (including SBC and excluding the revenue from regulatory credits) was 18.1%, which compares to GS at 18.0%. The 1Q23 margin was 19.0%, and 2Q22 was 26.2%.

Tesla commented that margins were impacted by reduced ASPs (due to mix and pricing), costs for 4680 cells, increases in operating expenses driven by Cybertruck and AI, and FX. These headwinds were partially offset by growth in vehicle deliveries (despite a margin headwind from the underutilization of new factories), lower cost per vehicle, lower raw materials costs, IRA credits, and gross profit growth in the Energy and Service and Other business lines.

Non-GAAP diluted EPS (excluding SBC) was \$0.91, above GS at \$0.81 and above the Street at \$0.80.

Including SBC, EPS was \$0.78 vs. GS at \$0.69. While EBIT was about in line with our estimate, upside came below the line in particular due to interest & other income (~\$0.09 tailwind vs. our estimate; most of this was from other income, with the press release citing FX gains on intercompany balances).

Cash and cash equivalents and short-term marketable securities increased by \$0.7 bn qoq to \$23.1 bn, with FCF of \$1.0 bn (4% of revenue). Inventory dollars were about flat qoq at \$14.4 bn.

Details on production and product development

- **US:** Tesla commented that at Gigafactory Texas it is working on equipment installation for Cybertruck which remains on track for initial deliveries this year. Additionally, the company noted that it has made notable progress on yield improvement for its 4680 cell production lines and continues to build capacity for its cathode production and lithium refining in the US.
- **China:** Tesla commented the Shanghai factory has been successful at running near full capacity for several months and that it does not expect a meaningful increase in

the weekly production run rate.

- **Europe:** The Germany facility produced standard range Model Y vehicles in Q2 for the first time.

Tesla's stated installed annual capacity estimates across its factories was 650K in California, >750K in Shanghai, and at 375K in Berlin and >250K in Texas (vs. 1Q23 at 650K in California, >750K in Shanghai, and at >350K in Berlin and >250K in Texas).

Company Outlook

The company continues to expect to deliver about 1.8 mn vehicles in 2023. This compared to GS prior at ~1.84 mn and Visible Alpha of ~1.86 mn. Tesla had previously said that 2 mn units is an upside case.

Tesla commented that Cybertruck remains on track for initial deliveries this year. In addition, the company stated that it continues to make progress on its next generation platform.

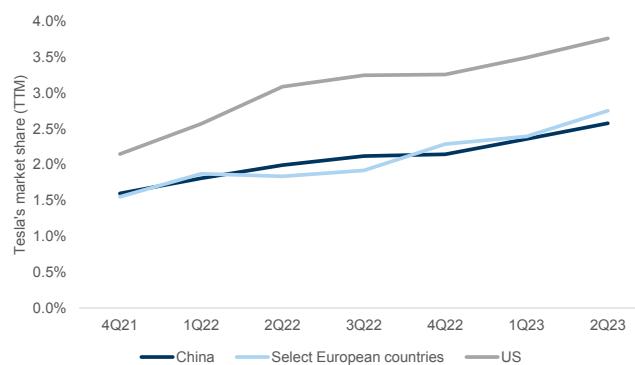
Tesla commented that this month, it is taking steps towards faster and cheaper neural net training with the start of production of its Dojo AI training computer.

Market share overview

Tesla continues to outgrow the broader automotive market. We attribute this to its product set and its cost reductions that it instituted earlier this year. For further evidence, the company commented that Model Y became the best-selling vehicle globally.

Exhibit 1: Tesla has incrementally increased its market share 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 2Q report was solid, with the company slightly exceeding our automotive non-GAAP gross margin forecast of 18.0% (at 18.1%), and Tesla took automotive market share in 2Q. Additionally, Tesla's margin in both its Energy and its Service & Other segment was strong. Finally, the company continues to invest in key

technologies and it recently started the production of its AI training product Dojo.

We believe key debates for investors from here will center on the intermediate term margin trajectory and AI/FSD.

We continue to model lower vehicle pricing to help support higher volumes in 2H23/24. This is consistent with the fact that Tesla commented that orders are similar to production, compared to its commentary earlier in the year that orders were above production. Management said on the 2Q call that the macro backdrop and interest rates will be important factors as to what happens with its pricing. We expect margins to rise from 2Q levels driven by lower costs, albeit at a measured pace given the potential for lower vehicle pricing. We believe this could be an overhang on the stock.

We also expect AI and FSD (full self driving) to be a focus for investors. Tesla stated that it is in early discussions to potentially license FSD to another OEM and that it hopes to be able to have a more complete FSD release by the end of the year in the US. We continue to believe that Tesla is well positioned in AI given the breadth and depth of its engineering talent, its vertical integration and full solution capabilities, and its access to data. However, we believe an eyes-off FSD release could take time given the rate of progress historically and complexity of the issue.

We maintain our Neutral rating on the stock. We believe that Tesla is well positioned for long-term growth, given its leading position in the EV and clean energy markets (which we attribute in part to its ability to offer full solutions including charging, storage, software/FSD and services with a direct sales model), but we believe this is generally reflected in the stock given the large YTD move (+136% vs. the S&P 500 +19%). We note that Tesla is trading at about a 50% premium to NVDA on 2024 P/E on GS estimates.

Estimate changes

We slightly raise our 2023E EPS estimate (including SBC) to \$3.00 from \$2.95, with a higher gross margin (driven by Energy & Services) partly offset by higher opex. Our estimates for 2024/2025 including SBC remain \$4.25/\$5.60. Our CY23/24/25 non-GAAP EPS estimates (ex. SBC) are now \$3.50/\$4.75/\$6.10 (vs. \$3.45/\$4.75/\$6.10 prior).

Exhibit 2: GS estimate revisions

| TSLA estimate revisions | Sep Q3E | | 2023E | | 2024E | | 2025E | |
|--|----------|----------|----------|-----------|-----------|-----------|-----------|-----------|
| | Old GSe | New GSe | Old GSe | New GSe | Old GSe | New GSe | Old GSe | New GSe |
| Revenue | \$25,506 | \$25,650 | \$99,806 | \$100,023 | \$124,665 | \$123,151 | \$152,413 | \$149,697 |
| Automotive non-GAAP gross margin excl. credits | 19.0% | 18.8% | 18.8% | 18.8% | 20.5% | 20.6% | 22.1% | 22.1% |
| EBIT margin including SBC | 10.7% | 10.2% | 10.6% | 10.4% | 12.6% | 12.6% | 14.1% | 14.2% |
| Non-GAAP EPS including SBC | \$0.76 | \$0.73 | \$2.95 | \$3.00 | \$4.25 | \$4.25 | \$5.60 | \$5.60 |
| Non-GAAP EPS excluding SBC | \$0.89 | \$0.86 | \$3.45 | \$3.50 | \$4.75 | \$4.75 | \$6.10 | \$6.10 |

Source: Goldman Sachs Global Investment Research

Valuation, price target, and key risks

We maintain our 12-month price target of \$275, which is still based on 55X Q5-Q8 EPS including SBC.

Key risks to our thesis relate to the rate of EV adoption, auto demand and the auto cycle, market share, FSD, key person risk, margins, and operational risks and

opportunities associated with Tesla's high degree of vertical integration.

Disclosure Appendix

Reg AC

We, Mark Delaney, CFA, Will Bryant and Morgan Leung, 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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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).

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Quantum

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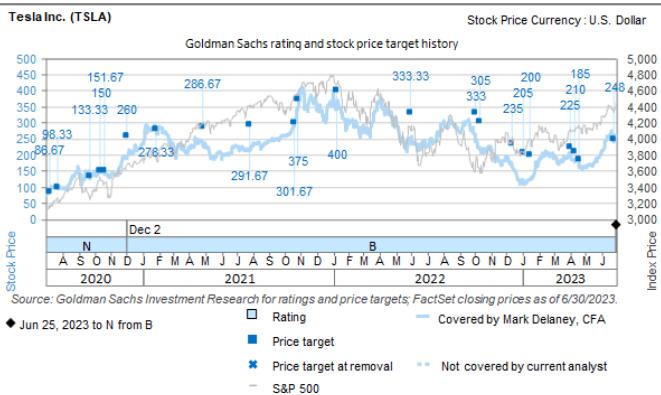
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|--------|---------------------|------|------|----------------------------------|------|------|
| | Buy | Hold | Sell | Buy | Hold | Sell |
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