

## US Autos & Industrial Tech

# 2Q24 earnings preview

We expect more positive results and guidance this quarter from select companies, including GM (on solid price-cost and buybacks) and VRT/APH (on strong datacenter end demand), but in-line to softer guidance for several auto-exposed suppliers.

On autos, company comments during the quarter suggest that some OEMs are seeking to adjust production schedules to manage inventory levels (with days of inventory in the US above target for some OEMs), and to reflect lower EV mix. On EVs, Tesla's production was -14% yoy in 2Q, lowering inventory but also likely weighing on near-term supplier sales. OEM specific exposures (e.g., Chinese auto OEMs taking share domestically from Western companies) and the higher tariffs on China exports could also create volatility. MGA is a stock where we see downside to Street estimates given its higher exposure to traditional western auto OEMs.

We believe industrial and trucking end-demand datapoints have been mixed to weaker. However, we believe industrial end-market weakness is generally reflected in estimates of our components companies given an already low level of revenue after several quarters of destocking.

In addition to softer auto supply chain datapoints, multiples for early stage companies have generally contracted. We lower estimates and/or price targets on APTV, VC, LEA, MGA, TEL, MBLY, CRNC, and SYM.

We raise estimates and our price target on Tesla post the company's better 2Q deliveries than we had expected and remain Neutral rated.

The stocks in our coverage have traded down 4% at the median since companies' respective 1Q24 reports, with both traditional OEMs and tier 1 suppliers underperforming the S&P 500. Valuations for traditional auto OEMs and suppliers are near multi-year lows. We therefore believe modest negative estimate reductions are reflected in the stocks of tier 1 suppliers, while traditional OEMs could trade higher on positive revisions.

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## underperformed the S&P 500 since 1Q24 earnings and YTD driven by both downward estimate revisions and multiple compression

Since 1Q24 earnings reports, the stocks in our coverage are down 4% at the median vs. the S&P 500 up 7% since the end of 1Q24 earnings season (5/10/2024). Established companies in our coverage are down 2% while early-stage companies are down 7% at the median.

The underperformance has been most acute for auto tier 1 suppliers, which we attribute to the potential for slower auto production in 2H (due in part to rising inventory at select traditional OEMs including Stellantis and Ford in the US), powertrain mix affecting growth over market for more EV exposed suppliers, and customer exposure considerations (with Chinese domestic OEMs taking share from Western OEMs in China).

**Exhibit 1: Stock performance of covered companies since 1Q24 EPS reports and YTD**

	Stock Performance			
	Since 1Q24 reports		2024 YTD	
	Absolute	Relative to S&P 500	Absolute	Relative to S&P 500
<b>Auto OEMs</b>				
GM	2.6%	-7.4%	28.8%	11.9%
F	-0.4%	-10.4%	5.8%	-11.1%
TSLA	81.3%	71.3%	5.6%	-11.3%
RIVN	53.3%	45.8%	-33.0%	-50.0%
<b>Tier 1 Suppliers</b>				
BWA	-11.1%	-21.3%	-11.7%	-28.6%
LEA	-9.3%	-20.1%	-19.2%	-36.1%
GNTX	-4.2%	-13.5%	1.8%	-15.1%
MGA	-8.5%	-17.2%	-27.6%	-44.6%
APTIV	-11.2%	-21.3%	-23.0%	-39.9%
VC	-5.6%	-16.1%	-17.2%	-34.1%
<b>Electronic Components</b>				
APH	18.0%	8.0%	38.4%	21.5%
* TEL	7.0%	-3.0%	6.6%	-10.3%
ST	7.9%	-1.1%	2.7%	-14.3%
BDC	1.6%	-8.5%	16.9%	0.0%
<b>Lidar &amp; Autonomy</b>				
AUR	-12.5%	-20.0%	-32.7%	-49.6%
LAZR	-7.3%	-14.8%	-54.6%	-71.5%
INVZ	-30.4%	-37.9%	-64.3%	-81.2%
MBLY	-13.7%	-24.1%	-38.4%	-55.3%
<b>EMS</b>				
* FLEX	11.2%	0.1%	32.9%	16.0%
* JBL	-1.6%	-3.5%	-13.6%	-30.6%
<b>Test &amp; Measurement</b>				
* KEYS	-14.8%	-19.9%	-14.5%	-31.4%
<b>Power &amp; Thermal Management</b>				
VRT	9.7%	-0.3%	93.1%	76.2%
<b>Voice Technology</b>				
* CRNC	-53.3%	-60.3%	-85.1%	-102.0%
<b>Charging Infrastructure</b>				
* CHPT	2.3%	-1.9%	-24.4%	-41.3%
<b>Warehouse Automation</b>				
* SYM	-9.3%	-16.9%	-25.9%	-42.8%
<b>EV Battery</b>				
QS	-3.3%	-13.2%	-23.7%	-40.7%

\*Since companies most recent FY quarterly reports

Source: FactSet

CY24/CY25 consensus EPS estimates for established companies in our coverage have been revised -5%/-5% YTD at the median and -1%/-1 % since the day before companies' respective 1Q24 reports.

**Exhibit 2: 2024 and 2025 estimate revisions since before 1Q24 EPS reports, intra quarter, and YTD**

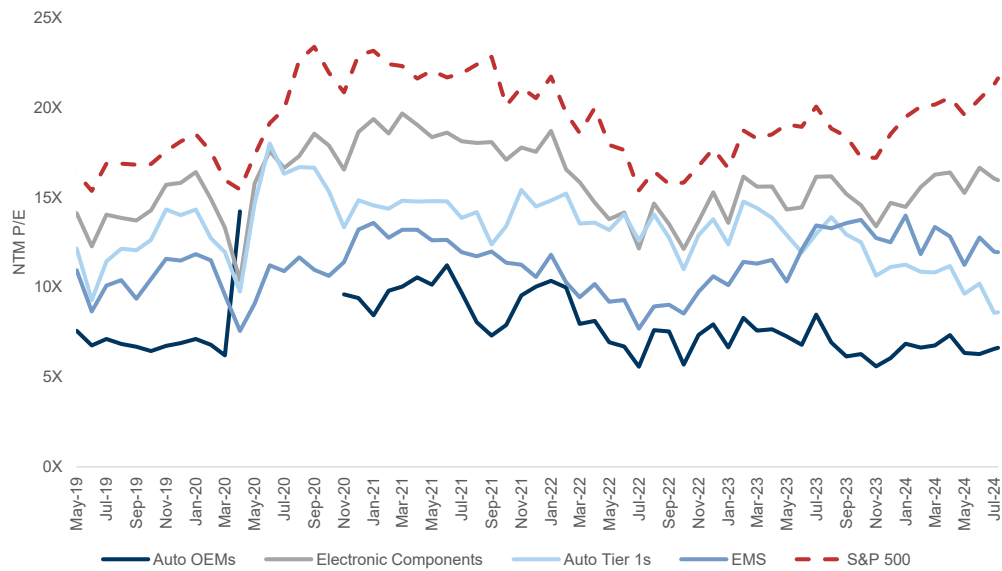
	Change in consensus EPS estimates					
	2024			2025		
	Since T-1 1Q24 reports	Since (EPS +7 days)	2024 YTD	Since T-1 1Q24 reports	Since (EPS +7 days)	2024 YTD
<b>Auto OEMs</b>						
GM	6.2%	2.1%	24.1%	5.0%	1.3%	24.6%
F	6.4%	0.7%	13.0%	5.4%	2.1%	15.0%
TSLA	-9.5%	-3.1%	-36.9%	-8.1%	-0.6%	-37.0%
<b>Tier 1 Suppliers</b>						
BWA	4.6%	0.2%	-5.0%	5.9%	0.3%	-4.9%
LEA	-1.8%	-1.7%	-11.4%	-2.9%	-1.7%	-9.8%
GNTX	-0.8%	-0.3%	-2.2%	-0.9%	-0.3%	-3.7%
MGA	-4.7%	-1.2%	-16.1%	-6.0%	-2.3%	-15.0%
APTV	5.4%	1.8%	2.7%	7.0%	0.7%	4.9%
VC	-1.7%	-0.1%	-9.3%	-1.8%	-0.4%	-9.0%
<b>Electronic Components</b>						
APH	3.4%	0.8%	6.0%	5.0%	2.8%	8.1%
* TEL	-1.2%	-0.1%	0.9%	-0.9%	0.0%	0.2%
ST	0.8%	-0.1%	-7.0%	0.5%	-0.3%	-8.3%
BDC	3.3%	0.1%	4.7%	2.1%	0.5%	1.8%
<b>Lidar &amp; Autonomy</b>						
MBLY	0.2%	1.0%	-54.3%	-0.4%	0.1%	-35.4%
<b>EMS</b>						
* FLEX	-5.9%	0.0%	12.1%	-6.1%	0.0%	11.4%
* JBL	-3.7%	0.0%	-9.7%	-10.2%	0.0%	-11.8%
<b>Test &amp; Measurement</b>						
* KEYS	-2.9%	0.0%	-14.5%	-4.8%	0.0%	-12.7%
<b>Power &amp; Thermal Management</b>						
VRT	3.6%	0.6%	7.2%	5.6%	1.8%	13.1%
<b>Voice Technology</b>						
* CRNC	-54.1%	0.0%	-58.1%	-109.8%	--	-108.2%
<b>Warehouse Automation</b>						
* SYM	12.6%	0.0%	-8.7%	4.0%	0.0%	-9.4%

\*Since companies most recent FY quarterly reports

Source: FactSet

We show NTM P/E multiples by sub-sector over time in [Exhibit 3](#).

Exhibit 3: NTM median P/E by subsector since 2019



Source: FactSet

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## Exhibit 4: Coverage snapshot

					CY2025E					
	Rating	12-month Price Target	Price	Upside/ Downside	Mkt Cap (\$US mn)	ROE	P/E	EV/EBITDA	EV/Sales	EV/FCFF
Auto OEMs										
F	Neutral	\$14	\$12.90	9%	\$51,897	11%	6x	2x	0.2x	2x
GM	Buy	\$52	\$46.26	12%	\$53,754	11%	5x	2x	0.2x	4x
TSLA	Neutral	\$248	\$262.33	-5%	\$913,958	20%	82x	38x	7x	--
RIVN	Neutral	\$14	\$15.71	-11%	\$15,364	--	--	--	2x	--
Median						21%	6x	2x	1x	3x
Tier 1 Suppliers										
BWA	Neutral	\$36	\$31.66	14%	\$7,228	15%	7x	5x	1x	16x
MGA	Neutral	\$45	\$42.75	5%	\$12,274	11%	7x	4x	0x	13x
LEA	Buy	\$155	\$114.16	36%	\$6,576	14%	7x	4x	0x	10x
GNTX	Neutral	\$35	\$33.26	5%	\$7,740	18%	14x	10x	3x	19x
VC	Buy	\$133	\$103.47	29%	\$2,897	25%	10x	5x	1x	14x
APTV	Buy	\$101	\$69.08	46%	\$19,018	17%	9x	7x	1x	15x
Median						16%	8x	5x	0.6x	15x
Components and Systems										
APH	Buy	\$74	\$68.62	8%	\$86,173	26%	34x	23x	6x	36x
TEL	Buy	\$184	\$149.76	23%	\$46,426	19%	18x	12x	3x	21x
BDC	Buy	\$106	\$90.33	17%	\$3,748	25%	11x	9x	2x	15x
ST	Neutral	\$41	\$38.57	6%	\$5,821	19%	9x	9x	2x	14x
Median						22%	15x	11x	2.5x	18x
Lidar and Autonomy										
AUR	Sell	\$2.00	\$2.94	-32%	\$4,519	--	--	--	10x	--
MBLY	Buy	\$32	\$26.68	20%	\$21,504	--	67x	47x	8x	31x
Median						--	--	--	6x	--
EMS										
FLEX	Buy	\$37	\$29.30	26%	\$12,453	21%	14x	8x	0.5x	14x
JBL	Buy	\$132	\$110.01	20%	\$13,388	36%	15x	7x	0.5x	12x
Median						29%	14x	7x	0.5x	13x
Test and Measurement										
KEYS	Buy	\$175	\$136.06	29%	\$23,811	27%	22x	17x	5x	21x
Power and Thermal Management										
VRT	Buy	\$116	\$92.76	25%	\$36,111	28%	28x	20x	4x	41x
Voice Technology										
CRNC	Neutral	\$3	\$2.93	2%	\$122	5%	--	-12x	1x	20x
EV Battery										
QS	Sell	\$4.50	\$5.30	-15%	\$2,616	--	--	--	4x	--
Charging Infrastructure										
CHPT	Sell	\$1.50	\$1.77	-15%	\$749	--	--	--	1x	--
Warehouse Automation										
SYM	Neutral	\$40	\$38.04	5%	\$21,904	--	--	91x	91x	69x
Coverage Median						19%	11X	8X	2X	15X

\*All price targets are for a 12-month time frame.

Forward Revenue & EBITDA take 2026 for CHPT; 2027 GSe for AUR; 2028 GSe for QS; all discounted back to 2025

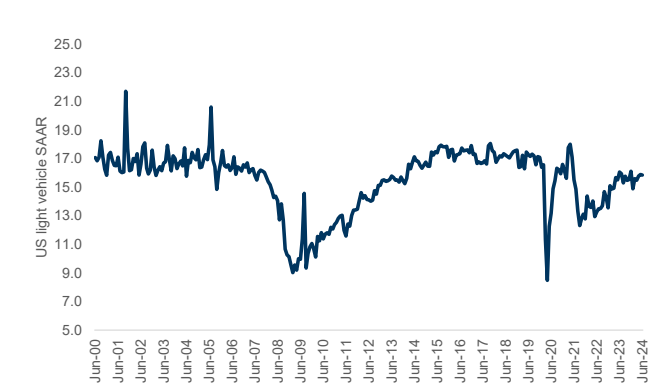
Source: Goldman Sachs Global Investment Research, FactSet

## Automotive supply and demand trends

### Auto sales have increased YTD

Auto sales have risen YTD. US light vehicle SAAR was in the high 15 mn range in 2Q24. Sales in the US were up 2% YTD through June, and sales were about flat yoy for 2Q on a reported basis (Wards estimates about a 50k unit impact from the [cyberattack on CDK](#) in June, and excluding this event sales would have been up 3% YTD and up slightly yoy in 2Q).

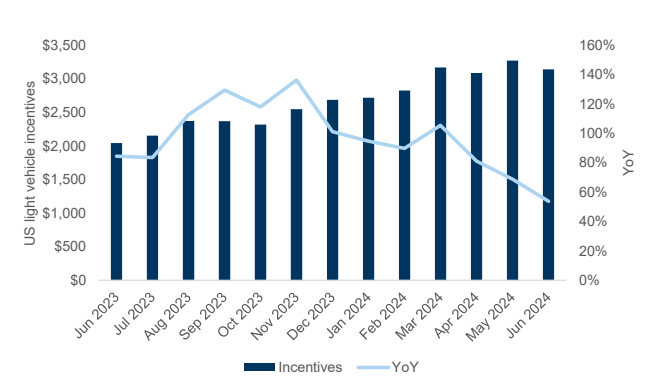
Exhibit 5: US light vehicle SAAR



June 2024 SAAR excluding impact of the cyberattack is estimated at 15.9 mn

Source: Wards

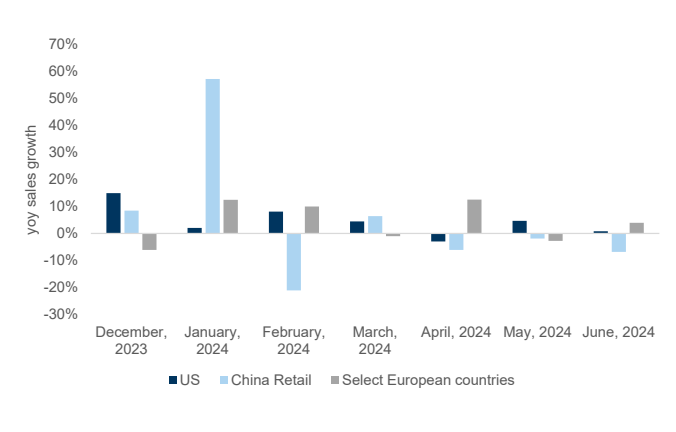
Exhibit 6: Incentives in the US are trending towards normalized levels



Source: Autodata

European auto sales in key geographies are up 5% YTD, and sales in China are up 3% YTD. We show monthly auto sales by region in [Exhibit 7](#) and [Exhibit 8](#).

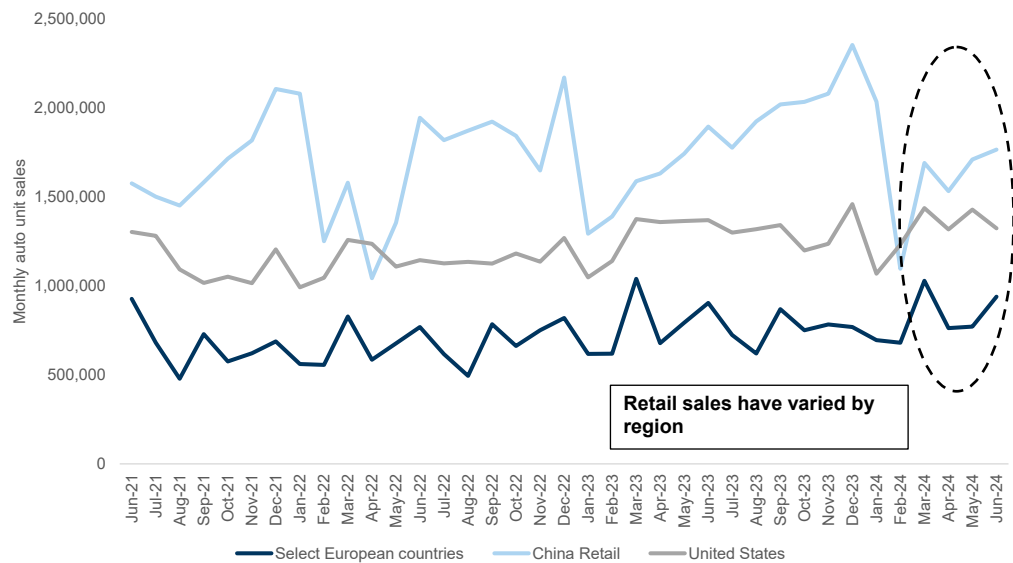
Exhibit 7: Regional yoy sales growth in key regions



Source: Wards, Motor Intelligence, ACEA, CPCA

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Exhibit 8: Monthly regional auto sales



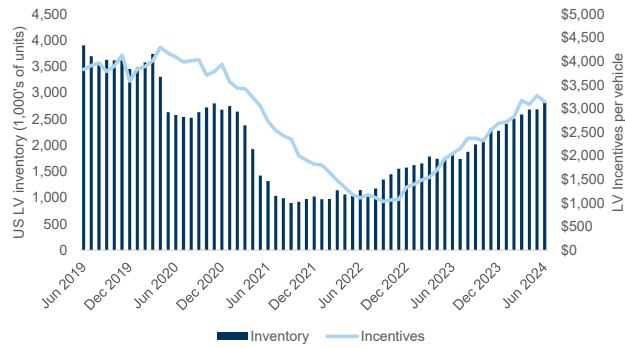
Source: Autodata, CPCA, ACEA

Auto inventory remains below average vs. history for the US market in total at 2.8 mn units (vs. historical levels at ~3.5 mn; [Exhibit 9](#)) and at about 55 days (vs. the historical average of about 60-70). However, days of inventory for Ford and Stellantis are above average ([Exhibit 10](#)). Per Motor Intelligence, days of inventory in June was at 66 days for GM, 89 days for Ford, and 94 days for Stellantis.

Some of the inventory increase may be due to the cyberattack, and vehicles in transit. We estimate that if sales were ~50k higher and inventory was lower by the same amount without the cyberattack, then inventory days for the industry would have been about 3 days lower. In addition, in 1Q Ford held back F-Series vehicles for quality controls and in-transit units could have affected inventory.

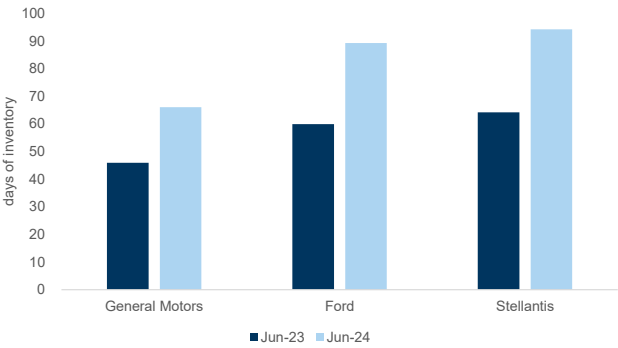
However, these OEMs could still seek to reduce inventory. Ford implied at an investor conference in June that the industry needs to be very thoughtful about production versus demand, and the stock at the dealers.

Exhibit 9: US LV inventory and incentives continue to increase towards more normalized levels



Source: Autodata

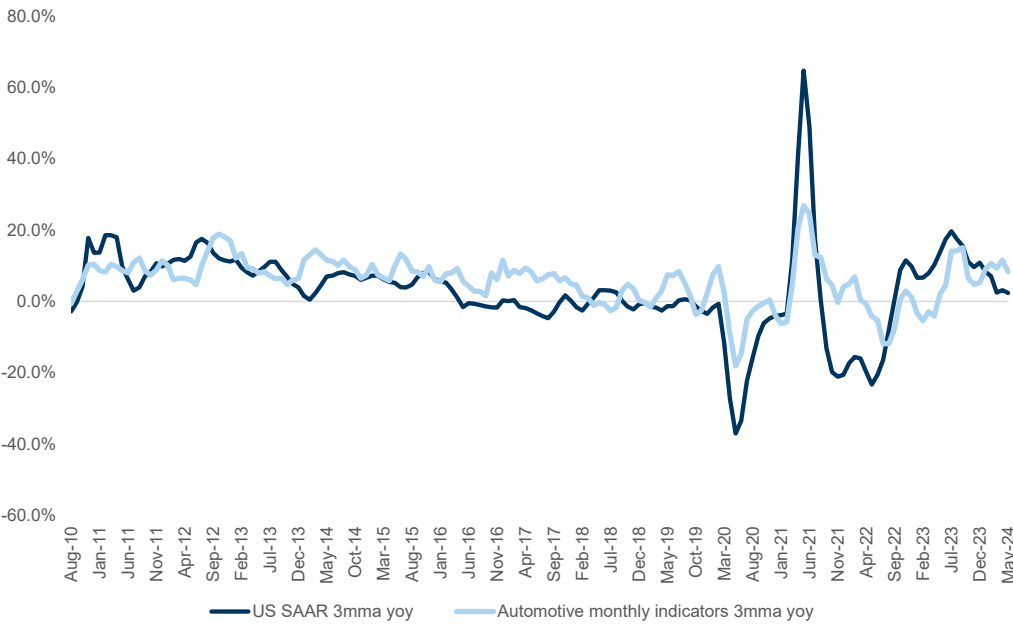
Exhibit 10: Days of inventory for GM, Ford, and Stellantis for June 2023 vs June 2024



Source: MotorIntelligence

Sales growth in 2H could also help inventory somewhat. Our auto monthly indicators index (AMI) tracks key inputs including Google search traffic, housing starts, and consumer sentiment, and has an R-squared of 0.6 on a 2-month lead vs. the US SAAR yoy. It continues to imply modest yoy growth.

Exhibit 11: US SAAR vs. Auto Monthly Indicators

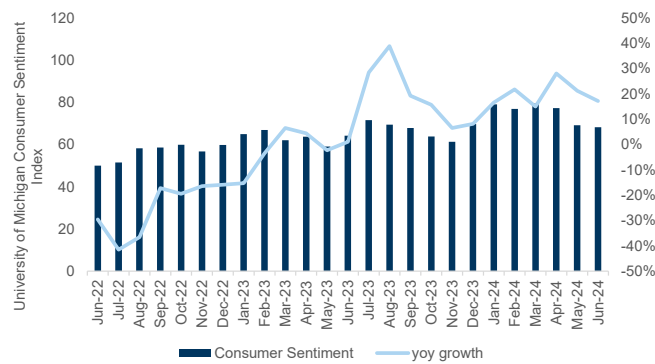


Source: Goldman Sachs Global Investment Research, University of Michigan, The Conference Board, St. Louis Federal Reserve

The implied growth in our leading indicators analysis is due in part to consumer sentiment, which was up yoy in April, May, and June albeit from a low base ([Exhibit 12](#)). One mitigating factor to our leading indicators analysis is housing starts, which decreased yoy in March, April, and May after increasing from November 2023 through February 2024.



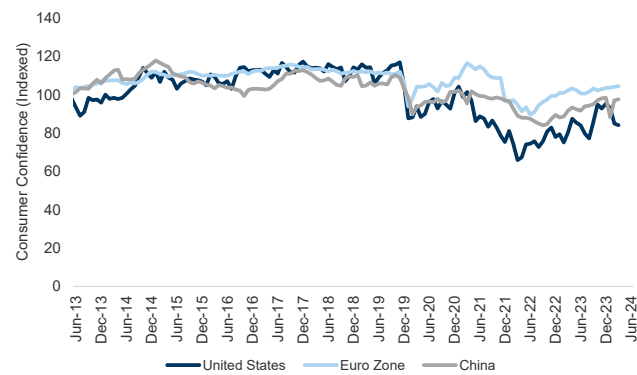
**Exhibit 12: US consumer confidence increased by ~6% yoy in June and was up 21%/17% respectively in April/May**



Source: University of Michigan

Consumer confidence continues to improve globally off the bottom, but is still at lower levels vs. history in key regions.

**Exhibit 13: Consumer Confidence Indexed to 100**



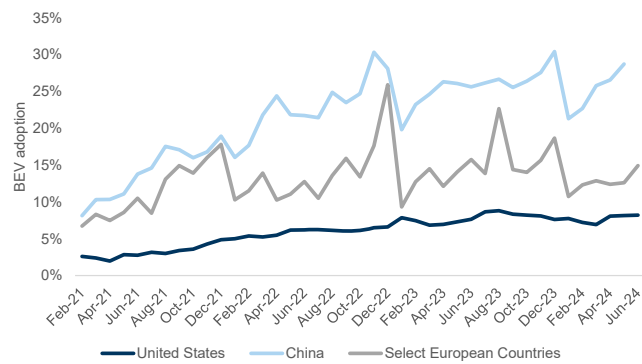
Source: FactSet

### EV sales by region

EV volumes are growing, but the pace has decelerated in 1H2024 especially in the US and Europe. EV sales were up 7% yoy in 2Q24 in the US per data from Motor Intelligence, and down 1% yoy in Europe. Through May, EV sales were up 12% YTD in China.

EV sales as a percent of new vehicles is running at about 7-8% in the US currently per Motor Intelligence, compared to China at >25% and Europe in the 10-20% range.

Exhibit 14: BEV adoption as a percent of new vehicle sales volumes by region

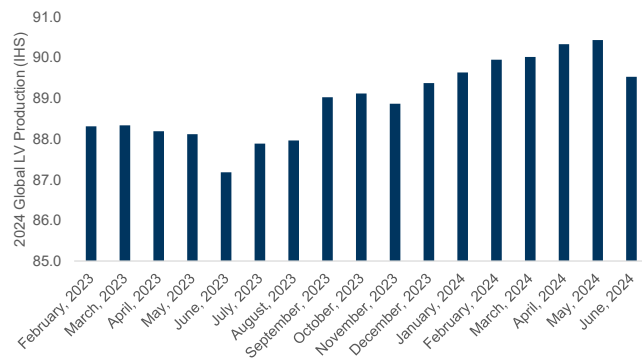


Source: Autodata, Wards, CPCA, ACEA

Auto production forecast recently revised lower by IHS

IHS recently reduced its 2024 production outlook to 89.5 mn, implying a 1% yoy decline. This comes after several months where the forecast had been revised up. The IHS forecast for 2025 implies 2-3% growth.

Exhibit 15: 2024 IHS production estimates had been revised higher the last several months before being revised down in June  
2024 Global LV production



Source: IHS

The auto tier 1s in our coverage assumptions on LVP are below in [Exhibit 15](#), and are generally for flat to slightly lower production in 2024.

## Exhibit 16: Select auto suppliers' LVP updated outlooks vs. IHS June update

Auto suppliers light vehicle production outlook vs. IHS			
Company	CY24 LVP outlook post 1Q24 earnings (YoY)	IHS forecast (YoY; as of June '24)	Δ
<b>Aptiv</b>			
^* North America	0%	+1%	+1 pp
^* Europe	-2%	-4%	-2 pp
^* China	+3%	+1%	-2 pp
^* Global	-1%	-1%	0 pp
<b>BorgWarner</b>			
^* North America	+2%	+1%	-1 pp
^* Europe	-3%	-4%	-1 pp
^* China	+2%	+1%	-1 pp
^* Global	0%	-1%	-1 pp
<b>Lear</b>			
^ North America	+2%	+1%	-1 pp
^ Europe and Africa	-2%	-4%	-2 pp
^ China	+2%	-1%	-3 pp
^ Global	0%	-1%	-1 pp
<b>Magna</b>			
North America	+1%	+1%	0 pp
Europe	0%	-4%	-4 pp
China	-1%	-1%	0 pp
<b>Visteon</b>			
* Global	-2%	-1%	+1 pp
*Adjusted for market exposure			
^Midpoint of outlook			

Source: Company data, Goldman Sachs Global Investment Research, IHS

## Updating Tesla and Rivian estimates post 2Q deliveries

## Tesla

We are raising our estimates for Tesla after better 2Q24 deliveries than we had expected.

On 7/2/24, Tesla reported preliminary 2Q24 vehicle deliveries of about 444k (up 15% qoq and down 5% yoy), and production of about 411k vehicles (down 14% yoy). This compares to 1Q24 deliveries of about 387K and production of about 433K.

Deliveries of about 444k in 2Q24 were about 1% above Visible Alpha Consensus at about 439k, 7% above GSe at 415k, and higher than the 410-430K range we had thought investors were expecting based on intra-quarter datapoints.

Model 3/Y deliveries in the quarter were about 422k (up 14% qoq and down 5% yoy), and other model deliveries (e.g., S/X/Cybertruck) were about 22k (up 27% qoq and up 12% yoy).

Lease mix was 2% of deliveries in 2Q24 (vs. ~2% in 1Q24).

2Q deliveries came in above both our expectation and consensus. We attribute the better volumes to a combination of factors including inventory reduction (with deliveries exceeding production by ~33K units), incentives from Tesla (e.g., 0%/low rate financing in several geographies), and the Model 3 Long Range variant recently re-gaining IRA credit eligibility in the US.

As we wrote in our [7/2 first take](#), we think key debates will shift to:

**1) Vehicle pricing and the automotive non-GAAP gross margin for Tesla.** We believe the reduction in inventory levels is a positive sign for future pricing all else equal, but lower production in 2Q and the cost of 0%/low financing incentives that Tesla utilized are likely to be margin headwinds. Tariffs could also become a headwind later this year (see our [Implications from shareholder meeting and likely higher tariffs](#) note for more details on potential tariffs).

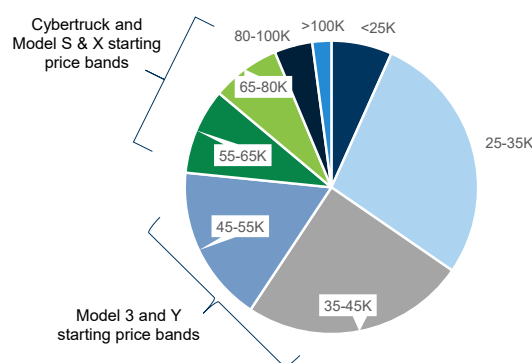
We are modeling a decline in Tesla's non-GAAP automotive gross margin in 2Q24 to 15.3% from 16.4% in 1Q24 and 18.1% in 2Q23. We believe this will be driven by lower production (both qoq and yoy), and the incentive/pricing actions Tesla has used.

**2) The outlook and timing for new lower cost model(s)/variants, and the impact on volume growth.** Tesla had said it plans to begin shipping new lower cost models, and these could come as early as late 2024/2025 per comments on its 1Q24 earnings call. As we wrote in our 6/25 note, given the tight timeframe that Tesla is targeting to introduce new models, and its plan to utilize its existing manufacturing lines, we assume that at least the initial new lower cost models will utilize design elements from Models 3 and/or Y, but with some potential body and/or interior/design changes (e.g., a smaller version of the Model 3 that uses the lower cost powertrain from the third generation platform). A new model could also be a refreshed version of the Model Y. The degree that new features/costs are differentiated enough, and the ensuing impact on growth, is likely to be a key investor debate.

We update our volume estimate for 2024 to 1.811 mn vs. 1.785 mn prior, about in line with visible Alpha consensus at 1.80 mn. Our 2.1 mn volume forecast for 2025 is unchanged, and about in line with Visible Alpha consensus.

To help frame the market opportunity for lower priced models, as we wrote in our [6/25 note](#), our industry discussions suggest that ~15% of the US market is in the \$30-35K price range and ~13% is in the \$35-40K segment, compared to ~12% at \$40-45K and 10% at \$45-50K ([Exhibit 17](#)). Lower cost variants could help Tesla to better address the \$30-\$40K portion of the market in the US.

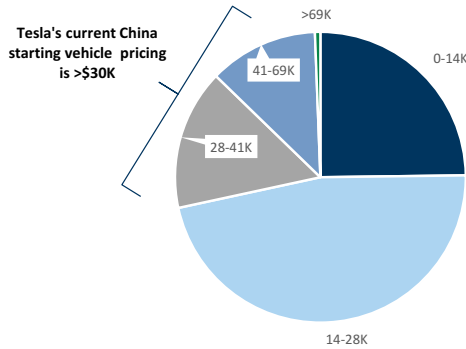
**Exhibit 17: US Light Vehicle volume by price band in 2023**



Source: Goldman Sachs Global Investment Research

In China based on the passenger vehicle data from the CPCA in 2023, 40-50% of vehicles are in the equivalent of the ~\$14-28K USD price band, as shown in [Exhibit 18](#). Tesla could start to compete in this segment with a lower cost model(s).

**Exhibit 18: China passenger vehicle retail pricing by price band 2023 (converted to USD)**

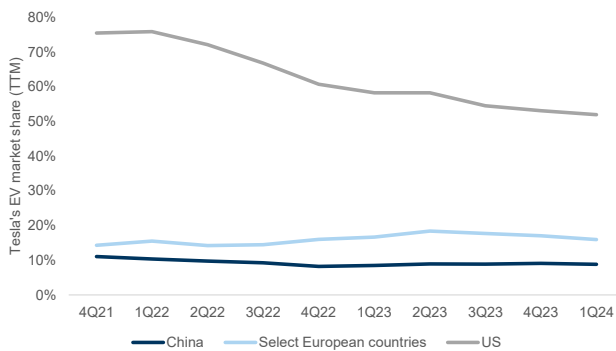


Source: CPCA, Data compiled by Goldman Sachs Global Investment Research

Lower cost and/or new models could have a positive impact on Tesla's market share.

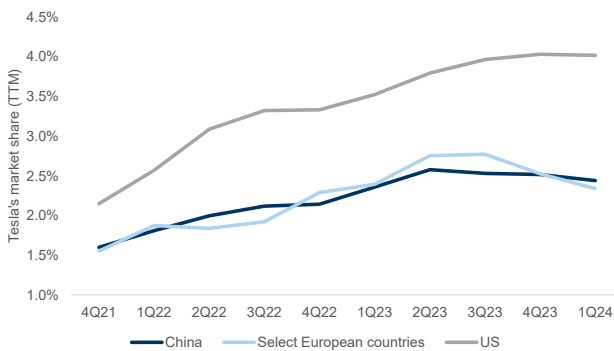
On a trailing twelve months (TTM) basis, Tesla has roughly 50% share of the US EV market (through June), 10-20% share of the EV market in the select European countries (through May), and high-single-digit EV share in China (through May) as shown in [Exhibit 19](#). For the total market, Tesla made up a low- to mid-single-digit percentage of the US market, and a low-single-digit share of the market in Europe and China ([Exhibit 20](#)).

**Exhibit 19: Tesla's EV market share in key regions (TTM)**



Source: MotorIntelligence, CPCA, ACEA, Wards, Goldman Sachs Global Investment Research

**Exhibit 20: Tesla's market share in key regions (TTM)**



Source: MotorIntelligence, CPCA, ACEA, Wards, Goldman Sachs Global Investment Research

**3) Tesla's progress with FSD (full self driving) and the upcoming 8/8 robotaxi event.** The company's new end-to-end neural net approach to FSD development has been a key debate among industry participants, and whether this latest approach will allow Tesla to iterate more quickly and increase its FSD business will be an important driver for the stock, in our view. We continue to view Tesla as a leader in AI and software technology in the auto space, and we see software & services as a potentially meaningful contributor to Tesla's 2030 earnings (as detailed in our reports [Initial framing of robotaxi opportunity](#), and updated FSD scenarios & [Contextualizing Tesla's AI and FSD](#)

opportunities), but we believe it will take Tesla more time to reach an L3 version (situationally eyes off) of FSD.

For robotaxis, as we wrote in our [4/17 note](#), we show the early stage revenue opportunity from robotaxis based on trips per day, total robotaxis deployed, and an assumed revenue per mile of ~\$2-\$2.25 (in line with current market pricing in the US on average for ride sharing) in [Exhibit 21](#). We assumed an average of 9 miles driven per trip (similar to the current rideshare market), and 50-1,000 vehicles deployed (similar to the scale of early AV deployments from Waymo and Baidu).

**Exhibit 21: Annual revenue opportunity (\$ mn) from initial deployment of robotaxis**

Trips per robotaxi per day	Annual revenue in mns from robotaxis				
	Robotaxis in operation				
	50	100	250	500	1,000
5	\$2	\$3	\$9	\$17	\$35
8	\$3	\$6	\$14	\$28	\$56
10	\$3	\$7	\$17	\$35	\$70
12	\$4	\$8	\$21	\$42	\$84
15	\$5	\$10	\$26	\$52	\$105
18	\$6	\$13	\$31	\$63	\$126
20	\$7	\$14	\$35	\$70	\$140

Source: Company data, Goldman Sachs Global Investment Research

As we show in [Exhibit 22](#), revenue from robotaxis could be significant long-term with a range of scenarios around trips per day, average revenue per trip, and number of robotaxis in operation.

**Exhibit 22: Analysis of the annual revenue opportunity (\$mn) from a larger fleet of robotaxis deployed globally in a range of scenarios**

Annual revenue in mns from robotaxis									
Revenue per trip	Trips per robotaxi per day	Robotaxis in operation							
		5,000	10,000	25,000	50,000	100,000	250,000	500,000	1,000,000
\$5	2	\$18	\$37	\$91	\$183	\$365	\$913	\$1,825	\$3,650
	4	\$37	\$73	\$183	\$365	\$730	\$1,825	\$3,650	\$7,300
	6	\$55	\$110	\$274	\$548	\$1,095	\$2,738	\$5,475	\$10,950
	8	\$73	\$146	\$365	\$730	\$1,460	\$3,650	\$7,300	\$14,600
	10	\$91	\$183	\$456	\$913	\$1,825	\$4,563	\$9,125	\$18,250
	12	\$110	\$219	\$548	\$1,095	\$2,190	\$5,475	\$10,950	\$21,900
	14	\$128	\$256	\$639	\$1,278	\$2,555	\$6,388	\$12,775	\$25,550
\$10	2	\$37	\$73	\$183	\$365	\$730	\$1,825	\$3,650	\$7,300
	4	\$73	\$146	\$365	\$730	\$1,460	\$3,650	\$7,300	\$14,600
	6	\$110	\$219	\$548	\$1,095	\$2,190	\$5,475	\$10,950	\$21,900
	8	\$146	\$292	\$730	\$1,460	\$2,920	\$7,300	\$14,600	\$29,200
	10	\$183	\$365	\$913	\$1,825	\$3,650	\$9,125	\$18,250	\$36,500
	12	\$219	\$438	\$1,095	\$2,190	\$4,380	\$10,950	\$21,900	\$43,800
	14	\$256	\$511	\$1,278	\$2,555	\$5,110	\$12,775	\$25,550	\$51,100
\$15	5	\$137	\$274	\$684	\$1,369	\$2,738	\$6,844	\$13,688	\$27,375
	8	\$219	\$438	\$1,095	\$2,190	\$4,380	\$10,950	\$21,900	\$43,800
	10	\$274	\$548	\$1,369	\$2,738	\$5,475	\$13,688	\$27,375	\$54,750
	12	\$329	\$657	\$1,643	\$3,285	\$6,570	\$16,425	\$32,850	\$65,700
	15	\$411	\$821	\$2,053	\$4,106	\$8,213	\$20,531	\$41,063	\$82,125
	18	\$493	\$986	\$2,464	\$4,928	\$9,855	\$24,638	\$49,275	\$98,550
	20	\$548	\$1,095	\$2,738	\$5,475	\$10,950	\$27,375	\$54,750	\$109,500
\$25	5	\$228	\$456	\$1,141	\$2,281	\$4,563	\$11,406	\$22,813	\$45,625
	8	\$365	\$730	\$1,825	\$3,650	\$7,300	\$18,250	\$36,500	\$73,000
	10	\$456	\$913	\$2,281	\$4,563	\$9,125	\$22,813	\$45,625	\$91,250
	12	\$548	\$1,095	\$2,738	\$5,475	\$10,950	\$27,375	\$54,750	\$109,500
	15	\$684	\$1,369	\$3,422	\$6,844	\$13,688	\$34,219	\$68,438	\$136,875
	18	\$821	\$1,643	\$4,106	\$8,213	\$16,425	\$41,063	\$82,125	\$164,250
	20	\$913	\$1,825	\$4,563	\$9,125	\$18,250	\$45,625	\$91,250	\$182,500
\$35	5	\$319	\$639	\$1,597	\$3,194	\$6,388	\$15,969	\$31,938	\$63,875
	8	\$511	\$1,022	\$2,555	\$5,110	\$10,220	\$25,550	\$51,100	\$102,200
	10	\$639	\$1,278	\$3,194	\$6,388	\$12,775	\$31,938	\$63,875	\$127,750
	12	\$767	\$1,533	\$3,833	\$7,665	\$15,330	\$38,325	\$76,650	\$153,300
	15	\$958	\$1,916	\$4,791	\$9,581	\$19,163	\$47,906	\$95,813	\$191,625
	18	\$1,150	\$2,300	\$5,749	\$11,498	\$22,995	\$57,488	\$114,975	\$229,950
	20	\$1,278	\$2,555	\$6,388	\$12,775	\$25,550	\$63,875	\$127,750	\$255,500

Source: Company data, Goldman Sachs Global Investment Research

**Stock implications**

We maintain our Neutral rating on the stock, and increase our 12-month price target to \$248 from \$175, which is now based on 65X (from 50X, reflecting increased market multiples and with investors likely to be more forward looking on FSD potential) applied to our updated Q5-Q8E EPS estimate. As we have previously written, given that PEG ratios for tech and industrial stocks often range from ~1.25-2X, Tesla would need to grow at a ~20-40% EPS CAGR to warrant a roughly 25-75X P/E target multiple.

We update our 2024 EPS estimate including SBC to \$2.05 from \$1.90, primarily reflecting higher deliveries and our 2025/2026E EPS estimates including SBC remain \$3.20/\$4.45. Our estimates excluding SBC are \$2.55/\$3.75/\$5.00 for 2024/2025/2026.

While we continue to believe that Tesla is well positioned for longer-term growth given its strong position in the EV and clean energy markets (which we attribute to factors including its ability to offer full solutions such as charging, storage, software/FSD and

services, and with a leading cost structure), we expect weaker market conditions to weigh on earnings in the near to intermediate term. We also see valuation as full.

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.

## Rivian

Rivian announced that it delivered about 13.8K vehicles in 2Q24 (up about 1% qoq and up about 9% yoy), slightly above both GSe at 13.2K and the range of 13-13.3k provided at its 6/27/24 investor day. Rivian produced about 9.6K vehicles (down about 31% qoq and down 31% yoy) during the same period at its manufacturing facility in Normal, Illinois, slightly above its guidance at its investor day of 9.1-9.3k. Rivian had downtime for factory upgrades and R1 changes which impacted 2Q production.

Per the press release, Rivian believes it remains on track to reach its 57K 2024 production guidance that it previously provided.

We believe the key debates from here will include: 1) Rivian's ability to execute on the manufacturing ramp post the downtime; 2) demand for the R1 in 2H24/2025; while EV market demand has slowed, Rivian has added leasing availability in more states and recently started production and shipment of a refreshed R1 platform; 3) price-cost management and the company's ability to achieve gross profit profitability in 4Q24.

We slightly increase our 2024 deliveries estimate to 52.3K from 52K reflecting the better 2Q24 deliveries report and maintain our 2025/26 delivery estimates of 85k/124.8k. We maintain our 2024/25/26 EPS estimates including SBC of -\$4.75/-3.70/-2.85. Our EPS estimates excluding SBC for 2024/25/26 are -\$3.85/-2.80/-1.90.

We maintain our Neutral rating on the stock and our 12-month price target of \$14 (based on 1.5X Q5-Q8E revenue). Key upside/downside risks to our view relate to EV adoption/volumes, margins and the competitive landscape, Rivian's high degree of vertical integration, cash burn, and the supply chain.

## Industrial end-market trends - the US ISM PMI is up yoy but down sequentially in recent months

While the US ISM PMI has decreased sequentially in April, May, and June, the index is still up 4%/4%/5% yoy in each of those months respectively. The manufacturing PMI in Europe declined mom from February through April, increased in May before declining again in June. The manufacturing PMI in China was flat mom in June.

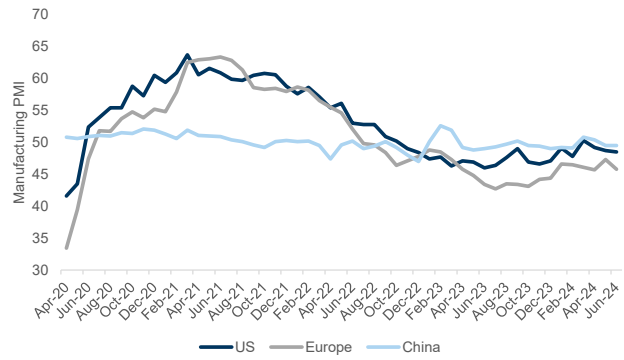


Exhibit 23: US ISM PMI



Source: FactSet

Exhibit 24: Manufacturing PMI in US, China, and Europe



Source: FactSet

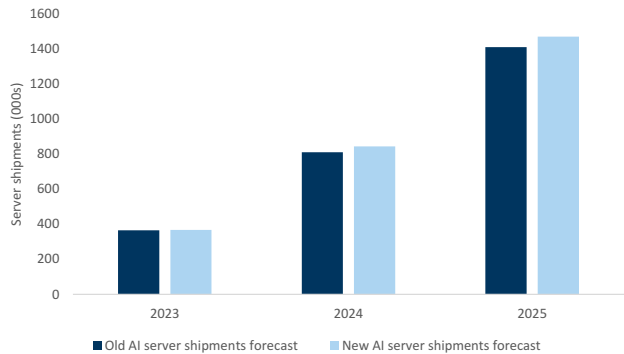
US heavy trucking datapoints show signs of market weakness

As our Americas Machinery and Trucking team wrote in a [4/19](#) note, ACT data for March showed class 8 new truck inventories rising by 3,764 to 77,675 in March, bringing the total 1Q inventory build to 13,572 units (18% of retail sales). New truck inventories at these levels are consistent with production cuts of over 20% in prior cycles. In April and May, inventory declined to 76.9k and 73.7k respectively, but the May inventory level is still up 20% yoy.

Datacenter market remains strong

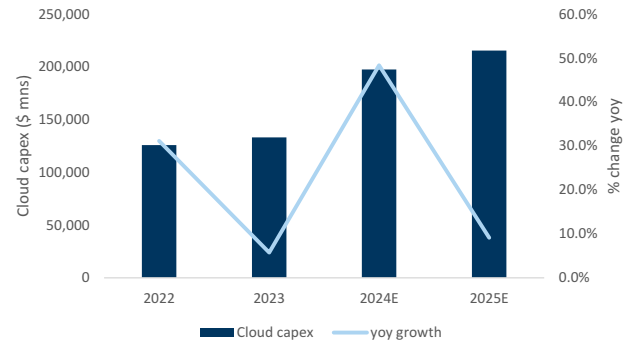
We continue to believe that demand trends in the datacenter market remain strong. As we wrote in our [6/17](#) note, our GS TMT colleagues recently revised their AI server shipment forecast and cloud capex forecasts higher. The new AI server shipment forecast calls for 129% yoy growth in 2024 and 74% in 2025. The current GS cloud capex forecast is for a 48% yoy increase this year ([Exhibit 25](#) and [Exhibit 26](#)). Moreover, 2Q24 AI server shipments were strong [per monthly sales reports](#).

Exhibit 25: GS AI server shipments forecast was revised upward



Source: Company data, Goldman Sachs Global Investment Research

Exhibit 26: GS cloud capex forecast for major US hyperscalers and China



Source: Company data, Goldman Sachs Global Investment Research

We continue to field questions from investors that relate to the sustainability of

datacenter demand and the degree of competition in the market/margins. With high-power AI servers expected to be just 4% of the market in 2024 and Nvidia's Blackwell platform set to begin shipping soon (and potentially supporting a broader set of customers per comments from Nvidia on its last earnings call), we believe that fundamentals should remain strong in the market this year. We provide more specific details by company below:

**Vertiv** - We believe Vertiv is one of the key beneficiaries in our coverage from growing hyperscale investment including for AI, with 35-40% of Vertiv's total revenue tied to hyperscale/co-location datacenter customers. Vertiv's key products include air handlers, in-room cooling, liquid cooling (including CDUs), chillers, heat exchangers, UPS systems, switchgear, and busbars. Vertiv historically estimated that it had mid teens market share in the power market, and >30% in thermal/cooling, although Vertiv has said that it's too early to define market share in liquid cooling.

Vertiv estimates that its revenue opportunity increases to \$3-\$3.5 mn per MW for an AI workload, up from \$2.5-\$3 mn for a traditional compute application. We believe that demand for liquid cooling is one of the drivers of this increase in its addressable market for AI, and Vertiv is planning to increase the capacity of CoolTera (a key historical partner for Vertiv in CDUs that Vertiv acquired in December 2023) by 45X over the course of 2024 (by adding three new plants).

To frame what this means for Vertiv's revenue, we'd note that Vertiv's revenue in 2023 grew by ~\$1.2 bn organically yoy (~\$745 mn from volume and ~\$470 mn from pricing, and partly offset by FX). Given the GS forecast that the number of AI servers shipped should grow yoy by a higher absolute amount in both 2024 and again in 2025, along with the GS hyperscale capex and server cooling market forecasts, plus Vertiv's record backlog, we believe that Vertiv's revenue can sustain very strong growth in 2024-2026. Depending on how well Vertiv executes on the addressable market opportunity, there could be upside (or downside) risk to our estimates.

In fact, Vertiv's order growth increased to about 60% yoy in 1Q24, and its backlog has risen to \$6.3 bn with some of the backlog for 2026 delivery. We believe Vertiv's order/backlog strength further supports our positive view of fundamentals.

**Amphenol** - Amphenol is a provider of high-speed, low-latency connectivity products for AI datacenter applications, and we believe the company is benefiting in particular with cable assembly and connector products that are utilized in generative AI deployments and the fabric approach to processing. We estimate that Amphenol generated ~\$250-\$350 mn of revenue from AI applications in 2023, and that quarterly revenue is currently \$150-\$175 mn (or \$600-\$700 mn annualized). When we consider the potential for the technology needs for more advanced chips and the GS hardware team's server forecast, as well as the current run-rate (and potential for demand to grow in non-AI datacenter applications post the inventory destock in 2023), we believe Amphenol's IT Datacom revenue could grow >\$700 mn yoy in both 2024 and in 2025 and >\$500 mn in 2026.

We also continue to believe that **Flex** and **Jabil** are well positioned to benefit from

AI/datacenter builds, and we believe that each company has >10% of revenue tied to the hyperscale datacenter end market (including power products for Flex and high-speed networking for Jabil). For Flex, the company commented at its last earnings call that the datacenter business (encompassing Cloud in CEC and embedded and critical power in Industrial) has grown at a ~40% CAGR to ~\$3 bn in FY24 (~\$2 bn in Cloud and ~\$1 bn in power) since its last investor day. On a go forward basis, Flex expects the datacenter business to grow at a ~20% FY24-FY29 CAGR, reaching ~\$5.5 bn in FY2027 and ~\$8 bn in FY2029. On margins, Flex noted that both cloud manufacturing services and power product margins are above the corporate average. Additionally, Flex stated that its portfolio of capabilities including manufacturing and critical/embedded power differentiates it from peers and has contributed to business with multiple hyperscale and colocation customers, as well as silicon providers.

Finally, although **TE Connectivity's** AI revenue exposure is somewhat smaller at ~\$60 mn per quarter currently (1-2% of quarterly revenue), the company expects its revenue to grow from about \$200 mn in FY24 to \$400 mn in FY25 (and reach ~\$1 bn a few years after that).

## GS vs. Street

We show our estimates vs. the street for companies in our coverage below.

Exhibit 27: GS vs. Street table

	2QCY24E						3QCY24E						CY24E						CY25E					
	YoY Revenues			EPS			YoY Revenues			EPS			Revenue			EPS			Revenue			EPS		
Auto OEMs	GS	Street	GS	Street	% Diff	GS	Street	GS	Street	% Diff	GS	Street	% Diff	GS	Street	% Diff	GS	Street	% Diff	GS	Street	% Diff		
F	9%	7%	\$0.67	\$0.67	0%	1%	2%	\$0.46	\$0.43	7%	\$182.689	\$180.099	1%	\$2.15	\$1.95	10%	\$188.314	\$182.503	3%	\$2.30	\$1.94	19%		
GM	(1%)	1%	\$2.69	\$2.67	1%	(0%)	1%	\$2.30	\$2.29	0%	\$175.379	\$175.404	(0%)	\$9.85	\$9.44	4%	\$180.690	\$177.723	2%	\$10.15	\$9.53	7%		
TSLS	4%	(4%)	\$0.62	\$0.60	3%	16%	9%	\$0.69	\$0.66	5%	\$103.312	\$98.475	5%	\$2.55	\$2.40	6%	\$121.617	\$116.640	4%	\$3.75	\$3.33	13%		
RVLN	13%	(9%)	(\$1.19)	(\$1.24)	--	(23%)	(9%)	(\$0.79)	(\$0.96)	--	\$4.873	\$4.858	0%	(\$3.85)	(\$4.23)	--	\$7.485	\$6.684	12%	(\$2.80)	(\$2.79)	--		
Average	6%	(1%)			1%	(2%)	6%			4%			2%						8%			13%		
Tier 1 Suppliers	GS	Street	GS	Street	% Diff	GS	Street	GS	Street	% Diff	GS	Street	% Diff	GS	Street	% Diff	GS	Street	% Diff	GS	Street	% Diff		
BWA	(9%)	1%	\$1.00	\$1.01	(1%)	1%	3%	\$0.98	\$1.01	(3%)	\$14.706	\$14.784	(0%)	\$4.05	\$4.08	(1%)	\$15.651	\$15.720	(0%)	\$4.50	\$4.61	(2%)		
GNTX	5%	7%	\$0.51	\$0.52	(2%)	10%	12%	\$0.54	\$0.55	(2%)	\$2.500	\$2.504	(0%)	\$2.10	\$2.12	(1%)	\$2.713	\$2.704	0%	\$2.35	\$2.44	(4%)		
LEA	0%	2%	\$3.53	\$3.42	3%	2%	3%	\$3.40	\$3.45	(1%)	\$23.839	\$24.250	(2%)	\$13.70	\$14.03	(2%)	\$25.160	\$25.231	(0%)	\$17.25	\$17.41	(1%)		
MGA	(3%)	1%	\$1.37	\$1.49	(8%)	(1%)	1%	\$1.46	\$1.53	(5%)	\$43.001	\$43.455	(1%)	\$5.50	\$5.65	(3%)	\$44.722	\$45.193	(1%)	\$6.45	\$6.75	(4%)		
VC	3%	4%	\$1.97	\$2.02	(2%)	1%	3%	\$2.15	\$2.32	(7%)	\$4.017	\$4.066	(1%)	\$8.15	\$8.36	(3%)	\$4.347	\$4.419	(2%)	\$10.25	\$10.30	(0%)		
AFTV	1%	3%	\$1.49	\$1.43	4%	5%	7%	\$1.72	\$1.64	5%	\$26.949	\$21.138	(1%)	\$6.20	\$6.07	2%	\$22.337	\$22.588	(1%)	\$7.75	\$7.75	0%		
Average	1%	3%			(1%)	3%	5%			(2%)			(1%)			(1%)			(1%)			(2%)		
Ticker	QoQ Revenue			EPS			QoQ Revenue			EPS			Revenue			EPS			Revenue			EPS		
Components & Systems	GS	Street	GS	Street	% Diff	GS	Street	GS	Street	% Diff	GS	Street	% Diff	GS	Street	% Diff	GS	Street	% Diff	GS	Street	% Diff		
APH	5%	4%	\$0.41	\$0.41	0%	7%	9%	\$0.43	\$0.44	(2%)	\$14.062	\$14.117	(0%)	\$1.70	\$1.72	(1%)	\$15.786	\$15.737	0%	\$2.00	\$1.97	2%		
BDC	7%	7%	\$1.37	\$1.37	0%	13%	7%	\$1.67	\$1.60	4%	\$2.419	\$2.363	2%	\$6.10	\$5.93	3%	\$2.755	\$2.622	5%	\$7.90	\$7.37	7%		
ST	3%	3%	\$0.93	\$0.93	0%	(3%)	(1%)	\$0.90	\$0.94	(4%)	\$4.065	\$4.122	(1%)	\$3.70	\$3.73	(1%)	\$4.334	\$4.353	(0%)	\$4.20	\$4.21	(0%)		
TEL	2%	1%	\$1.87	\$1.86	1%	(0%)	3%	\$1.87	\$1.93	(3%)	\$16.131	\$16.222	(1%)	\$7.67	\$7.71	(1%)	\$17.226	\$17.327	(1%)	\$8.60	\$8.62	(0%)		
Average	4%	4%			0%	4%	5%			(1%)			0%			0%			1%			2%		
Lidar and Autonomy	GS	Street	GS	Street	% Diff	GS	Street	GS	Street	% Diff	GS	Street	% Diff	GS	Street	% Diff	GS	Street	% Diff	GS	Street	% Diff		
AUR	--	--	(\$0.12)	(\$0.13)	--	--	--	(\$0.13)	(\$0.13)	--	\$0	\$1	(83%)	(\$0.50)	(\$0.57)	--	\$13	\$18	(28%)	(\$0.50)	(\$0.52)	--		
MBLY	73%	78%	\$0.08	\$0.08	0%	40%	33%	\$0.20	\$0.16	25%	\$1.846	\$1.894	(3%)	\$0.45	\$0.39	15%	\$2.367	\$2.632	(9%)	\$0.75	\$0.78	(4%)		
EMS	GS	Street	GS	Street	% Diff	GS	Street	GS	Street	% Diff	GS	Street	% Diff	GS	Street	% Diff	GS	Street	% Diff	GS	Street	% Diff		
FLEX	(4%)	(4%)	\$0.44	\$0.41	7%	6%	6%	\$0.57	\$0.55	4%	\$24.969	\$25.089	(0%)	\$2.24	\$2.22	1%	\$26.672	\$26.986	(1%)	\$2.73	\$3.04	(10%)		
JBL	(2%)	(2%)	\$2.23	\$2.24	(0%)	(2%)	0%	\$2.15	\$1.98	9%	\$26.693	\$26.829	(1%)	\$7.95	\$7.79	2%	\$27.616	\$28.343	(2%)	\$9.03	\$9.32	(3%)		
Average	(3%)	(3%)			3%	2%	3%			6%			(0%)			1%			(2%)			(7%)		
Test & Measurement	GS	Street	GS	Street	% Diff	GS	Street	GS	Street	% Diff	GS	Street	% Diff	GS	Street	% Diff	GS	Street	% Diff	GS	Street	% Diff		
KEYS	(2%)	(2%)	\$1.34	\$1.35	(1%)	4%	5%	\$1.53	\$1.56	(2%)	\$4.950	\$4.975	(1%)	\$6.07	\$6.11	(1%)	\$5.247	\$5.309	(1%)	\$7.23	\$7.18	1%		
Power & Thermal Management	GS	Street	GS	Street	% Diff	GS	Street	GS	Street	% Diff	GS	Street	% Diff	GS	Street	% Diff	GS	Street	% Diff	GS	Street	% Diff		
VRT	18%	18%	\$0.57	\$0.57	0%	4%	2%	\$0.64	\$0.63	2%	\$7.709	\$7.682	0%	\$2.41	\$2.38	1%	\$8.972	\$8.654	4%	\$3.30	\$3.08	7%		
Voice Technology	GS	Street	GS	Street	% Diff	GS	Street	GS	Street	% Diff	GS	Street	% Diff	GS	Street	% Diff	GS	Street	% Diff	GS	Street	% Diff		
CRNC	2%	1%	\$0.06	\$0.03	100%	(27%)	(27%)	(\$0.34)	(\$0.35)	--	\$306	\$306	0%	\$0.53	\$0.55	(4%)	\$251	\$256	(2%)	(\$0.32)	(\$0.09)	--		
EV Battery	GS	Street	GS	Street	% Diff	GS	Street	GS	Street	% Diff	GS	Street	% Diff	GS	Street	% Diff	GS	Street	% Diff	GS	Street	% Diff		
GS	--	--	(\$0.24)	(\$0.23)	--	--	--	(\$0.25)	(\$0.23)	--	\$0	\$0	--	(\$0.95)	(\$0.93)	--	\$0	\$5	--	(\$1.10)	(\$0.96)	--		
Charging	GS	Street	GS	Street	% Diff	GS	Street	GS	Street	% Diff	GS	Street	% Diff	GS	Street	% Diff	GS	Street	% Diff	GS	Street	% Diff		
CHPT	9%	7%	(\$0.09)	(\$0.10)	--	31%	19%	(\$0.05)	(\$0.07)	--	\$551	\$526	5%	(\$0.32)	(\$0.35)	--	\$712	\$671	6%	(\$0.12)	(\$0.17)	--		
Warehouse Automation	GS	Street	GS	Street	% Diff	GS	Street	GS	Street	% Diff	GS	Street	% Diff	GS	Street	% Diff	GS	Street	% Diff	GS	Street	% Diff		
SYM	9%	9%	\$0.06	\$0.06	--	7%	11%	\$0.06	\$0.07	(14%)	\$1.909	\$1.957	(2%)	\$0.29	\$0.29	0%	\$2.596	\$2.761	(6%)	\$0.38	\$0.62	(39%)		

\* Estimates adjusted to exclude stock based compensation to compare to the Street (TSLA, RVLN, KEYS, CRNC, MBL, CHPT)

Source: Goldman Sachs Global Investment Research, FactSet

We also show typical (5 year median) qoq 2Q, 3Q, and 4Q seasonality for select companies in our coverage vs Street consensus in [Exhibit 28](#).

**Exhibit 28: Historical seasonality vs consensus expectations for 2Q, 3Q, and 4Q24**

Ticker	2Q24 Consensus	2Q 5- year Median	2Q24 Consensus vs Median	3Q24 Consensus	3Q 5- year Median	3Q24 Consensus vs Median	4Q24 Consensus	4Q 5-year Median	4Q24 Consensus vs Median
F	12.1%	-3.7%	15.8%	-6.8%	-2.0%	-4.8%	3.3%	5.6%	-2.2%
APTV	9.1%	-2.9%	12.0%	2.1%	-1.7%	3.8%	-0.5%	1.0%	-1.5%
VC	9.6%	-0.5%	10.2%	2.3%	3.4%	-1.1%	1.6%	3.7%	-2.1%
GNTX	5.8%	-1.0%	6.8%	2.9%	1.9%	1.0%	0.8%	2.3%	-1.5%
BWA	3.3%	-3.0%	6.3%	0.0%	-1.3%	1.3%	-0.2%	2.7%	-2.9%
MGA	0.7%	-4.4%	5.1%	-2.8%	-2.7%	-0.1%	-0.8%	3.2%	-4.1%
LEA	2.0%	-3.0%	5.0%	-2.5%	-3.6%	1.2%	3.6%	2.5%	1.1%
VRT	18.0%	14.0%	3.9%	2.2%	0.5%	1.7%	8.2%	11.7%	-3.5%
TEL	1.1%	-0.7%	1.8%	2.7%	0.9%	1.7%	-1.7%	-4.0%	2.3%
GM	4.6%	3.4%	1.2%	-1.4%	-1.4%	0.0%	-0.6%	2.9%	-3.5%
ST	3.1%	4.6%	-1.5%	-0.7%	-3.8%	3.2%	1.5%	-0.4%	1.9%
APH	3.6%	6.3%	-2.7%	9.3%	5.0%	4.3%	3.4%	4.0%	-0.6%
FLEX	-4.3%	-0.8%	-3.5%	6.5%	0.6%	5.9%	7.0%	6.1%	0.9%
KEYS	-1.8%	1.9%	-3.6%	5.0%	3.9%	1.2%	-1.4%	-3.4%	2.0%

Source: Company data, Goldman Sachs Global Investment Research, FactSet

## Adjusting estimates and price targets for LEA, APTV, VC, MGA, BWA, MBLV, and TEL to reflect industry trends, and BDC on recent deal

We are lowering estimates for LEA, APTV, VC, MGA, MBLV, and TEL to better reflect slower transportation market trends, including for EVs. Conversely, we raise estimates on BWA given its ability to benefit from hybrid/ICE shipments with better margins. For MBLV, we also believe the ramp of its shipments for advanced products in 2025/2026 could be affected by tariffs on Chinese exports.

On 7/1, Belden announced that it completed the previously announced transaction of Precision Optical. Precision Optical provides optical transceivers and PON solutions and will sit within the Enterprise Solutions segment of Belden.

## Exhibit 29: Old vs new GS estimates for 2024-26

	Revenues (mns)								
	2024 Old	2024 New	Δ%	2025 Old	2025 New	Δ%	2026 Old	2026 New	Δ%
<i>Auto OEMs</i>									
TSLA	\$99,846	\$103,312	3.5%	\$121,388	\$121,617	0.2%	\$142,950	\$143,270	0.2%
RIVN	\$4,843	\$4,873	0.6%	\$7,484	\$7,485	0.0%	\$10,682	\$10,683	0.0%
<i>Tier 1 Suppliers</i>									
BWA	\$14,718	\$14,706	-0.1%	\$15,776	\$15,651	-0.8%	\$16,447	\$16,397	-0.3%
MGA	\$43,336	\$43,001	-0.8%	\$45,531	\$44,722	-1.8%	\$47,958	\$47,105	-1.8%
LEA	\$24,391	\$23,839	-2.3%	\$25,530	\$25,160	-1.5%	\$26,918	\$26,417	-1.9%
VC	\$4,089	\$4,017	-1.8%	\$4,496	\$4,347	-3.3%	\$4,937	\$4,790	-3.0%
APTV	\$21,155	\$20,949	-1.0%	\$22,734	\$22,337	-1.7%	\$24,357	\$23,803	-2.3%
<i>Components and Systems</i>									
TEL	\$15,944	\$15,875	-0.4%	\$17,242	\$17,028	-1.2%	\$18,207	\$18,006	-1.1%
BDC	\$2,349	\$2,419	3.0%	\$2,603	\$2,755	5.8%	\$2,693	\$2,859	6.2%
<i>Autonomy</i>									
MBLY	\$1,878	\$1,846	-1.7%	\$2,630	\$2,387	-9.2%	\$3,639	\$2,822	-22.4%
	EPS								
	2024 Old	2024 New	Δ%	2025 Old	2025 New	Δ%	2026 Old	2026 New	Δ%
<i>Auto OEMs</i>									
TSLA	\$1.90	\$2.05	7.8%	\$3.20	\$3.20	--	\$4.45	\$4.45	--
RIVN	(\$4.75)	(\$4.75)	--	(\$3.70)	(\$3.70)	--	(\$2.85)	(\$2.85)	--
<i>Tier 1 Suppliers</i>									
BWA	\$4.05	\$4.05	--	\$4.35	\$4.50	3.6%	\$4.90	\$5.00	2.1%
MGA	\$5.65	\$5.50	-2.7%	\$6.85	\$6.45	-5.8%	\$8.25	\$7.85	-4.9%
LEA	\$14.85	\$13.70	-7.7%	\$18.25	\$17.25	-5.5%	\$22.75	\$21.50	-5.5%
VC	\$8.50	\$8.15	-4.2%	\$10.75	\$10.25	-4.7%	\$13.00	\$12.25	-5.8%
APTV	\$6.35	\$6.20	-2.3%	\$8.05	\$7.75	-3.8%	\$9.25	\$8.75	-5.4%
<i>Components and Systems</i>									
TEL	\$7.50	\$7.45	-0.7%	\$8.60	\$8.40	-2.3%	\$9.50	\$9.30	-2.0%
BDC	\$6.00	\$6.10	1.6%	\$7.75	\$7.90	1.9%	\$8.45	\$8.70	2.9%
<i>Autonomy</i>									
MBLY	\$0.10	\$0.10	--	\$0.55	\$0.40	-27.9%	\$1.00	\$0.55	-45.0%

TE uses FY24/25/26 for 2024/25/26 respectively

Source: Goldman Sachs Global Investment Research

## Exhibit 30: Updated price targets

Autos & Industrial Technology Price Target Changes						
NEW				OLD		
Auto Tier 1 Suppliers						
	Target Multiple	Norm. EPS	Price Target	Target Multiple	Norm. EPS	Price Target
APTV	13X	\$7.75	\$101	15X	\$7.85	\$118
LEA	9X	\$17.25	\$155	9X	\$18.25	\$164
MGA	7X	\$6.45	\$45	7X	\$6.85	\$48
VC	13X	\$10.25	\$133	15X	\$10.75	\$161
BWA	8X	\$4.50	\$36	8X	\$4.45	\$36
Components & Connectors						
	Target Multiple	Norm. EPS	Price Target	Target Multiple	Norm. EPS	Price Target
TEL	21X	\$8.75	\$184	21X	\$8.85	\$186
BDC	13X	\$8.15	\$106	13X	\$8.00	\$104

Our 12 month price target for MG.TO moves to C\$61 from C\$66 based on the current FX rate

Source: Goldman Sachs Global Investment Research

**Symbotic:** We maintain our Neutral rating on SYM shares. We lower our 12-month price target to \$40 from \$46, with valuations of peers including AutoStore and Ocado recently compressing. Specifically our price target is based on: 1) 90% weight of our base case

valuation of \$40 from \$46 prior using 38X (from 45X reflecting market multiples) applied to our FY26 EBITDA forecast discounted back; 2) 5% weight of our bull case valuation of \$58 from \$63 prior now using 45X (from 50X prior reflecting market multiples) applied to a bull case view for FY26 EBITDA (that is 25% above our base case discounted back) and 3) 5% weight of our bear case valuation of \$21 from \$24 prior now using 25X (from 30X prior reflecting market multiples) applied to a bear case view for FY26 EBITDA (that is 25% below our base case estimate discounted back).

Key upside/downside risks to our view relate to 1) Customer concentration — The majority of Symbotic's backlog is from two customers (Walmart & GreenBox), so any changes for these customers on the pace of build-outs could significantly impact Symbotic's financial results positively or negatively; 2) Acceleration or delay in Symbotic's ability to manufacture necessary components and install its systems at customers — Symbotic currently only has a small number of completed system installations but its backlog includes installations of hundreds of its systems with rapid growth in installations over the next several years. If Symbotic is able to manufacture/install these systems faster or slower than we anticipate, this could positively or negatively impact the company's results; 3) An increase in industry competition — Currently Symbotic believes that there are few viable complete system alternatives to its product in the market, but if industry competition increases over time it could impact the company's pricing/market share; 4) A potential acceleration/downturn in investment into warehouse automation technologies — An increase or decrease in warehouse operators investment in warehouse automation technology could positively or negatively impact Symbotic (these systems require upfront investment but also have a strong ROI).

**Cerence:** We maintain our Neutral rating on CRNC shares. We lower our 12-month price target to \$3 from \$6 prior using 1X from 1.5X prior reflecting lower peer multiples applied to our unchanged Q5-Q8 revenue estimate. Key upside/downside risks to our view relate to: 1) the industry and macro environment (e.g., auto production), 2) competition, including from big tech voice AI solutions, 3) content per vehicle, including the potential for ASP degradation (due to competition/customer negotiations) as well as content uplift (from the introduction of new products/features), 4) inventory of fixed license revenue, 5) its mature contract with Toyota, and 6) the ability to expand product features and into new markets (e.g., elevators, two-wheelers, fitness).

**Mobileye:** We maintain our 2024 EPS estimate including SBC of \$0.10 and lower our estimates for 2025/2026 to \$0.40/\$0.55 from \$0.55/\$1.00 prior primarily reflecting lower revenue due to tariffs on China EV exports and a more measured assumption on EV sell through more generally of the vehicles Mobileye is designed in on. Mobileye commented at a June investor conference that there is some volume uncertainty over the next few years for its more advanced products given that vehicle model launches that Mobileye's products are designed into are in some cases still several months to years away. Our FY24/25/26 EPS estimates (ex. SBC) are \$0.45/\$0.75/\$0.90.

We continue to believe that Mobileye is well-positioned for additional wins with its more advanced solutions (e.g. its hands-free but eyes-on product SuperVision, and eyes-off product Chauffeur), given Mobileye's strong perception capability, data access, and

ability to provide low power solutions that are scalable (e.g. the technology for its L2+ SuperVision product is a key building block for Chauffeur).

We maintain our Buy rating on MBLY shares. We lower our 12-month price target to \$32 from \$40 prior now using a 30X multiple (from 32X prior reflecting lower market multiples) applied to our updated Q5-Q8 EBITDA estimate (ex. SBC). Key downside risks to our Buy thesis include: 1) Market share as the industry is extremely competitive with key players including Qualcomm, Nvidia, and in house tech; 2) China/geopolitical risks given significant business restrictions and geopolitical tensions between the US and China, there is the risk that new policies could limit the amount of business that Mobileye could do in China; 3) Mobileye's driving policy depends in part on the upkeep of its HD maps and these maps are crowdsourced from participating OEMs' vehicles. If OEMs were to no longer share this data with Mobileye, or if there were other new challenges around data privacy and/or storage, it could be a risk; 4) AV launch timing and performance; 5) Supply constraints and supplier/partner readiness; 6) Macroeconomic risk on auto demand.

## Risk/reward screen and key risks

For illustrative purposes, we show an upside/downside scenario analysis for select companies in our coverage below.

**Exhibit 31: Upside/downside scenarios for select companies in our coverage**

	Upside/Downside Scenario								
	Current Price (7/9/2024)	Downside Multiple (NTM P/E)	NTM EPS (G\$e)	Downside Valuation (Downside Multiple on NTM)	Downside %	Upside Multiple (NTM P/E)	FY2026 EPS (G\$e)	Upside Valuation (Upside Multiple on FY26 EPS)	Upside %
Tier-1 Suppliers									
BWA	\$32	6X	\$4.15	\$25	(21%)	12X	\$5.00	\$60	90%
GNTX	\$33	12X	\$2.25	\$27	(19%)	18X	\$2.50	\$45	35%
LEA	\$114	6X	\$15.15	\$91	(20%)	10X	\$21.50	\$215	88%
MGA	\$43	6X	\$6.00	\$36	(16%)	10X	\$7.85	\$78	84%
VC	\$103	8X	\$9.10	\$73	(30%)	15X	\$12.25	\$184	78%
APTV	\$69	8X	\$7.10	\$57	(18%)	15X	\$8.75	\$131	90%
Component Suppliers									
APH	\$69	19X	\$1.85	\$35	(49%)	40X	\$2.20	\$88	28%
BDC	\$90	9X	\$7.30	\$66	(27%)	16X	\$8.70	\$139	54%
ST	\$39	8X	\$4.00	\$32	(17%)	13X	\$4.80	\$62	62%
TEL	\$150	14X	\$8.05	\$113	(25%)	25X	\$9.30	\$233	55%
EMS									
* FLEX	\$29	9X	\$2.55	\$23	(22%)	17X	\$2.75	\$47	60%
* JBL	\$110	9X	\$8.50	\$77	(30%)	17X	\$10.15	\$173	57%
Test & Measurement									
* KEYS	\$136	15X	\$6.60	\$99	(27%)	25X	\$8.50	\$212	56%
Power & Thermal Management									
VRT	\$93	20X	\$2.75	\$55	(41%)	35X	\$4.15	\$145	57%
* EPS estimates exclude SBC.									

\* EPS estimates exclude SBC

Upside/Downside Scenario									
	Current Price (7/9/2024)	Downside Multiple	NTM GSe	Downside Valuation	Downside %	Upside Multiple	2026 GSe	Upside Valuation	Upside %
Auto OEMs		Downside NTM P/E	NTM EPS	Downside Multiple on NTM		Upside P/E View	2026 EPS	Upside Multiple on 2026 EPS	
F	\$13	4X	\$2.25	\$9	(30%)	7X	\$2.60	\$18	41%
GM	\$46	4X	\$9.35	\$37	(19%)	7X	\$10.75	\$75	63%
TSLA	\$262	30X	~\$2.50-\$3.10	~\$75-\$95	~(75%)-(65%)	65-70X	~\$4.45-\$5.00	~\$290-\$350	~10-35%

TSLA shows range for EPS including and excluding SBC

Source: FactSet, Goldman Sachs Global Investment Research

We show our updated price targets and key risks for the companies in our coverage that we made estimate and price changes for in this note.

Exhibit 32: Price targets and key risks

Company	Ticker	GS Rating	Current Price	Price Target	PT Methodology	Key upside/downside risks
Auto OEMs						
Tesla	TSLA	Neutral	\$262.33	\$248	Q5-Q8 EPS	EV adoption, margins, market share, the auto cycle, operational execution, key person risk
Rivian	RIVN	Neutral	\$15.71	\$14	Q5-Q8 Sales	Pre-orders/sales volumes, production ramp, market share, margins, software/services mix, the auto cycle, and EV adoption
Tier 1 Suppliers						
BorgWarner	BWA	Neutral	\$31.66	\$36	Norm. EPS	Revenue growth including ability to outgrow market due to EV portfolio, diesel exposure, the auto cycle, margins, and market share
Lear	LEA	Buy	\$114.16	\$155	Norm. EPS	The auto cycle, ability to benefit from increasing EV industry mix, margins, market share
Magna	MGA	Neutral	\$42.75	\$45	Norm. EPS	The auto cycle, market share, ability to outgrow production and capitalize on secular growth themes, capital allocation, and FCF
Visteon	VC	Buy	\$103.47	\$133	Norm. EPS	Ability to capitalize on EVs and AVs, margins, revenue, market share, general macroeconomic risk, multiple expansion/contraction
Aptiv	APTIV	Buy	\$69.08	\$101	Norm. EPS	Ability to grow CPV, the auto cycle, market share, margins, debt
Electronic Components						
TE Connectivity	TEL	Buy	\$149.76	\$184	Norm. EPS	Revenue growth and auto demand, margins, and M&A
Belden	BDC	Buy	\$90.33	\$106	Norm. EPS	Industrial/macro trends, margins, leverage, and M&A
Autonomy						
Mobileye	MBLY	Buy	\$26.68	\$32	Q5-Q8 EBITDA	ADAS/AV adoption, competition, geopolitics, market share, supply constraints and supplier/partner readiness
Voice Technology						
Cerence	CRNC	Neutral	\$2.93	\$3	Q5-Q8 Sales	Industry and macro environment, competition, margins, natural ASP degradation, mature contract with Toyota
Warehouse Automation						
Symbolic	SYM	Neutral	\$38.04	\$40	FY2026 EBITDA (Discounted)	Customer concentration, industry competition, warehouse automation investment trends, revenue growth

\*Our 12-month PT for MG.TO listed in Canada is 61 CAD

Source: FactSet, Goldman Sachs Global Investment Research



# 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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**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.

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