

US AUTOS & INDUSTRIAL TECH

Addressing key debates and our top takeaways post 3Q25 earnings

3Q25 earnings results for our coverage were solid with consensus estimates (FactSet) for 2025 and 2026 moving modestly higher overall. Companies exposed to the datacenter market had the most meaningful upward estimate revisions yet again this quarter (and the bottom-up aggregation of 2026 GS capex estimates for the leading hyperscalers was revised up by 17% over the course of 3Q earnings season). In addition, consensus estimates of companies exposed to the auto and industrial end markets also were generally revised higher due in part to less stringent auto tariffs.

Despite mostly solid results for our broader coverage, stock reactions were mixed, and we think positioning was an important factor this quarter (e.g. the T + 1 moves were more muted than estimate revisions for several datacenter exposed companies including VRT and APH that have been strong YTD performers, while several auto OEMs including GM, F and RIVN had double digit positive T + 1 reactions).

Key questions and debates we've more recently received have been somewhat about demand trends (e.g. what's the state of auto demand, and the outlook for datacenter capex), but increasingly more about how much better than Street consensus estimates do results need to be for datacenter exposed stocks to work, and which stocks will be more defensive in an increasingly volatile trading environment. In autos, October sales were down yoy in the US and in China, and the extent this is policy related/timing or an indication that 2026 will slow is a key debate for investors.

We continue to see more investing opportunities over the next 12 months in our industrial tech (electronics components, EMS, power, and test equipment) than autos coverage. Auto industry volumes are already at historically typical levels (e.g. ~16 mn US SAAR, ~90 mn global production) and we expect auto industry volume growth from here to be muted, so we believe investors should be selective in autos and own stocks with company specific drivers. In addition, there is typically downside risk to auto volumes if macro conditions significantly deteriorate, and while a recession is not the base case view of our economics team, we appreciate that some consumer datapoints have softened. Conversely, we believe the industrial market has more cyclical growth potential ahead post destocking throughout 2024, and also multiple secular opportunities (e.g. datacenter/AI, energy infrastructure,

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robotics and automation). **In light of the now more difficult trading environment for the market especially for datacenter/AI exposed companies, we'd remind investors that stocks of electronics components and test companies (e.g. KEYS, APH, TEL) are typically more defensive than our broader coverage.**

Separately, we're adjusting estimates and/or price targets for a handful of stocks (APH, VRT, FLEX, JBL, TEL, APTV, INVZ, AUR, MBLY) to better reflect factors including datapoints on hyperscale capex, recently completed M&A, and commentary from investor days on margins, plus peer/market multiples.

Key analysis and work in this report includes:

1. How estimates and stocks reacted for each company post results
2. Demand trends for the auto, industrial and datacenter end markets
3. Recent AV and humanoid datapoints
4. Upside / downside and valuation screens

Key charts - coverage snapshot, upside/downside screens, and GS vs. Street estimates

Exhibit 1: Coverage snapshot

CY2026E										
	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	\$12	\$12.96	-7%	\$52,462	9%	8.7x	2.5x	0.2x	4.2x
GM	Buy	\$81	\$71.00	14%	\$68,444	13%	6.2x	3.0x	0.3x	6.7x
TSLA	Neutral	\$400	\$417.78	-4%	\$1,473,092	9%	225.7x	78.7x	13.6x	366.5x
RIVN	Neutral	\$13	\$15.17	-14%	\$18,507	--	--	--	2.6x	--
Median						13%	8.7x	3.0x	1.5x	6.7x
Tier 1 Suppliers										
BWA	Buy	\$54	\$42.88	26%	\$9,284	16%	8.5x	4.5x	0.8x	10.5x
MGA	Sell	\$43	\$48.31	-11%	\$13,614	12%	8.1x	4.3x	0.4x	9.8x
LEA	Neutral	\$107	\$104.88	2%	\$5,629	14%	7.2x	4.3x	0.3x	10.0x
GNTX	Neutral	\$27	\$22.28	21%	\$4,890	17%	11.4x	8.0x	1.8x	12.3x
VC	Buy	\$150	\$101.21	48%	\$2,824	15%	10.7x	4.6x	0.6x	10.9x
APTV	Not Rated		\$74.85		\$16,273	16%	9.0x	6.6x	1.1x	12.3x
Median						16%	8.8x	4.6x	0.7x	10.7x
Components and Systems										
APH	Buy	\$157	\$137.88	14%	\$176,872	29%	34.0x	21.3x	6.6x	40.1x
TEL	Buy	\$289	\$220.23	31%	\$65,629	23%	20.5x	13.6x	3.6x	21.5x
BDC	Buy	\$144	\$112.13	28%	\$4,501	24%	14.6x	11.1x	2.0x	18.0x
ST	Buy	\$45	\$30.94	45%	\$4,507	18%	8.6x	7.8x	1.8x	11.9x
Median						24%	17.5x	12.4x	2.8x	19.8x
Lidar and Autonomy										
AUR	Neutral	\$4	\$3.90	3%	\$7,375	--	--	95.4x	9.2x	--
INVZ	Buy	\$2	\$1.22	64%	\$248	--	--	--	1.5x	--
MBLY	Neutral	\$13	\$11.22	16%	\$9,133	--	--	--	3.8x	21.5x
Median						--	--	--	3.8x	--
EMS										
FLEX	Buy	\$67	\$56.95	18%	\$21,641	20%	20.6x	10.2x	0.8x	24.4x
JBL	Buy	\$238	\$197.15	21%	\$21,537	41%	19.7x	9.4x	0.7x	22.0x
Median						30%	20.2x	9.8x	0.8x	23.2x
Power and Thermal Management										
VRT	Buy	\$182	\$168.91	8%	\$66,032	47%	32.2x	24.1x	5.5x	47.6x
Voice Technology										
CRNC	Neutral	\$11	\$10.75	2%	\$466	--	--	--	2.2x	9.3x
EV Battery										
QS	Sell	\$3	\$11.83	-75%	\$6,965	--	--	--	451.4x	--
Charging Infrastructure										
CHPT	Sell	\$9	\$7.57	19%	\$176	--	--	--	0.6x	--
Coverage Median				15%		12%	11.1x	7.9x	1.8x	12.3x

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

Forward Revenue & EBITDA take 2028 GSe for INVZ

2027 for CHPT; 2028 GSe for QS and 2030e for AUR; all discounted back to 2026

Price as of market close on 11/24

Source: FactSet, Goldman Sachs Global Investment Research

Exhibit 2: Illustrative upside/downside screen

Upside/Downside Scenario									
	Current Price (11/24/2025)	Downside Multiple	NTM EPS (GSe)	Downside Valuation (Downside Multiple on NTM EPS)	Downside %	Upside P/E view	CY2027 EPS (GSe)	Upside Valuation (Upside Multiple on CY27 EPS)	Upside %
Tier 1 Suppliers									
BWA	\$43	7X	\$4.85	\$34	(21%)	10X	\$5.60	\$56	31%
GNTX	\$22	11X	\$1.85	\$20	(9%)	14X	\$2.15	\$30	35%
LEA	\$105	7X	\$13.40	\$94	(11%)	10X	\$15.75	\$158	50%
MGA	\$48	7X	\$6.00	\$42	(13%)	10X	\$6.50	\$65	34%
VC	\$101	10X	\$8.95	\$90	(12%)	15X	\$10.40	\$156	54%
Component Suppliers									
APH	\$138	25X	\$3.85	\$96	(30%)	40X	\$4.40	\$176	28%
BDC	\$112	12X	\$7.60	\$91	(19%)	20X	\$8.25	\$165	47%
ST	\$31	7X	\$3.50	\$25	(21%)	15X	\$3.90	\$59	89%
TEL	\$220	15X	\$10.75	\$161	(27%)	25X	\$12.45	\$311	41%
EMS									
* FLEX	\$57	12X	\$3.35	\$40	(29%)	22X	\$3.85	\$86	49%
* JBL	\$197	12X	\$11.05	\$133	(33%)	22X	\$13.40	\$295	50%
Power & Thermal Management									
VRT	\$169	16X	\$4.75	\$76	(55%)	30X	\$6.75	\$202	20%
* EPS estimates exclude SBC									

Upside/Downside Scenario									
	Current Price (11/24/2025)	Downside Multiple	NTM EPS (GSe)	Downside Valuation (Downside Multiple on NTM EPS)	Downside %	Upside Multiple	2027 GSe	Upside Valuation	Upside %
Auto OEMs									
F	\$13	6X	\$1.20	\$7	(44%)	8X	\$1.65	\$13	2%
GM	\$71	5X	\$10.80	\$54	(24%)	8X	\$11.65	\$93	31%
TESLA	\$418	60X	\$2.80	\$168	(60%)	150X	\$3.30	\$495	19%

TESLA uses CY27 EPS including SBC for the downside scenario and CY27 EPS excluding SBC for the upside scenario. EPS ex SBC for JBL, and FLEX, EPS inc SBC for the remainder

Source: Goldman Sachs Global Investment Research

We show our estimates vs. consensus in [Exhibit 3](#).

Exhibit 3: GS vs the Street (FactSet) estimates

	4QCY25E					1QCY26E					CY25E			CY26E		
	YoY Revenues		EPS			YoY Revenues		EPS			EPS			EPS		
	GS	Street	GS	Street	% Diff	GS	Street	GS	Street	% Diff	GS	Street	% Diff	GS	Street	% Diff
Auto OEMs																
F	(14%)	(9%)	\$0.06	\$0.09	(33%)	13%	7%	\$0.34	\$0.30	13%	\$1.02	\$1.05	(3%)	\$1.50	\$1.47	2%
GM	(2%)	(5%)	\$2.23	\$2.18	2%	3%	1%	\$2.65	\$2.64	0%	\$10.35	\$10.28	1%	\$11.50	\$11.64	(1%)
TESLA	4%	(2%)	\$0.53	\$0.45	18%	12%	23%	\$0.29	\$0.42	(31%)	\$1.69	\$1.67	1%	\$2.35	\$2.21	6%
RIVN	(26%)	(27%)	(\$0.63)	(\$0.70)	--	(3%)	11%	(\$0.64)	(\$0.69)	--	(\$2.49)	(\$2.57)	--	(\$2.55)	(\$2.52)	--
Average	(9%)	(11%)			(4%)	7%	11%			(6%)			(0%)			2%
Tier 1 Suppliers																
BWA	1%	1%	\$1.15	\$1.16	(1%)	2%	3%	\$1.14	\$1.22	(7%)	\$4.70	\$4.71	(0%)	\$5.05	\$5.12	(1%)
GNTX	22%	20%	\$0.42	\$0.42	0%	14%	14%	\$0.45	\$0.46	(2%)	\$1.78	\$1.78	0%	\$1.95	\$1.95	0%
LEA	0%	1%	\$2.75	\$2.71	1%	2%	3%	\$3.36	\$3.48	(3%)	\$12.15	\$12.15	0%	\$14.50	\$14.11	3%
MGA	(1%)	(1%)	\$1.80	\$1.76	2%	3%	2%	\$1.16	\$1.20	(3%)	\$5.35	\$5.32	1%	\$5.95	\$5.97	(0%)
VC	(1%)	(3%)	\$2.06	\$2.07	(0%)	0%	1%	\$2.05	\$2.27	(10%)	\$9.00	\$9.12	(1%)	\$9.45	\$9.79	(3%)
APTV	3%	3%	\$1.83	\$1.82	1%	4%	5%	\$1.81	\$1.91	(5%)	\$7.80	\$7.77	0%	\$8.30	\$8.43	(2%)
Average	4%	4%			0%	4%	5%			(5%)			(0%)			(1%)
Components & Systems																
APH	(1%)	(1%)	\$0.91	\$0.92	(1%)	(4%)	(3%)	\$0.79	\$0.85	(7%)	\$3.28	\$3.28	0%	\$4.05	\$4.01	1%
BDC	(0%)	0%	\$1.95	\$1.96	(1%)	(6%)	(6%)	\$1.61	\$1.69	(5%)	\$7.41	\$7.42	(0%)	\$7.70	\$7.78	(1%)
ST	(2%)	(2%)	\$0.86	\$0.86	0%	3%	2%	\$0.83	\$0.83	0%	\$3.40	\$3.40	0%	\$3.60	\$3.64	(1%)
TEL	(5%)	(5%)	\$2.53	\$2.54	(0%)	5%	5%	\$2.66	\$2.63	1%	\$9.74	\$9.26	5%	\$10.90	\$11.04	(1%)
Average	(2%)	(2%)			(0%)	(1%)	(0%)			(3%)			1%			(1%)
Lidar and Autonomy																
AUR	--	--	(\$0.11)	(\$0.12)	--	--	--	(\$0.12)	(\$0.11)	--	(\$0.45)	(\$0.46)	--	(\$0.50)	(\$0.45)	--
INVZ	(2%)	(2%)	(\$0.08)	(\$0.08)	--	(13%)	(10%)	(\$0.08)	(\$0.07)	--	(\$0.32)	(\$0.29)	--	(\$0.30)	(\$0.28)	--
MBLY	(14%)	(14%)	\$0.05	\$0.06	(17%)	6%	6%	\$0.08	\$0.07	14%	\$0.35	\$0.36	(3%)	\$0.35	\$0.42	(17%)
EMS																
FLEX	0%	0%	\$0.79	\$0.78	1%	2%	1%	\$0.85	\$0.85	0%	\$3.03	\$3.02	0%	\$3.48	\$3.41	2%
JBL	(3%)	(3%)	\$2.71	\$2.69	1%	(6%)	(7%)	\$2.35	\$2.37	(1%)	\$10.49	\$10.47	0%	\$11.29	\$11.32	(0%)
Average	(1%)	(1%)			1%	(2%)	(3%)			(0%)			0%			1%
Power & Thermal Management																
VRT	8%	7%	\$1.29	\$1.27	2%	(13%)	(12%)	\$0.82	\$0.92	(11%)	\$4.13	\$4.11	0%	\$5.25	\$5.19	1%
Voice Technology																
CRNC	90%	89%	\$0.34	\$0.19	79%	(45%)	(43%)	\$0.04	(\$0.07)	(157%)	\$0.91	\$0.70	30%	\$0.91	\$0.70	30%
EV Battery																
QS	--	--	(\$0.18)	(\$0.17)	--	--	--	(\$0.18)	(\$0.19)	--	(\$0.77)	(\$0.80)	--	(\$0.75)	(\$0.73)	--
Charging																
CHPT	(3%)	(2%)	(\$1.34)	(\$1.31)	--	15%	7%	(\$1.14)	(\$1.15)	--	(\$5.20)	(\$5.37)	--	(\$4.15)	(\$4.00)	--

* Estimates adjusted to exclude stock based compensation to compare to the Street (TESLA, RIVN, INVZ, LAZR, FLEX, JBL, MBLY, and CHPT)

Source: Goldman Sachs Global Investment Research, FactSet

Stock trading recap

We show T+1 stock performance for the companies in our coverage that reported earnings thus far, and how 3Q and 4QCY/FY guidance compared to consensus (FactSet) expectations going into the print, in the below exhibit.

Despite mostly solid results for our broader coverage, stock reactions were mixed, and we think positioning was an important factor this quarter (e.g. the T + 1 moves were more muted than estimate revisions for several datacenter exposed companies including VRT and APH that have been strong YTD performers, while several auto OEMs including GM, F and RIVN had double digit positive T + 1 reactions).

Exhibit 4: T+1 stock performance for companies in our coverage that reported earnings thus far

Stock	Ticker	T+1 stock performance and CY3Q/guidance relative to consensus					
		Absolute Performance	Relative Performance	CY3Q revenue vs consensus	CY3Q profit vs consensus	CY4Q/FY revenue guide vs consensus	CY4Q/FY profit guide vs consensus
General Motors	GM	15%	15%	8%	24%	N/A	10%
Amphenol	APH	4%	4%	12%	18%	7%	13%
Vertiv	VRT	-2%	-1%	4%	27%	2%	2%
Tesla	TSLA	2%	2%	6%	-11%	N/A	N/A
QuantumScape	QS	8%	7%	N/A	N/A	N/A	N/A
Mobileye	MBLY	-2%	-2%	4%	6%	1%	1%
Visteon	VC	-4%	-5%	-5%	0%	-1%	-2%
Ford	F	12%	11%	7%	28%	N/A	-10%
Gentex	GNTX	-10%	-11%	-2%	-1%	8%	1%
Aurora	AUR	-2%	-2%	N/A	N/A	N/A	N/A
Sensata Technologies	ST	6%	6%	1%	5%	-1%	0%
Flex	FLEX	3%	3%	2%	5%	1%	3%
TE Connectivity	TEL	2%	2%	4%	7%	4%	10%
Aptiv	APTIV	-4%	-3%	2%	20%	-2%	-11%
BorgWarner	BWA	3%	4%	-1%	5%	-1%	1%
Belden	BDC	2%	3%	3%	3%	0%	2%
Magna	MGA	6%	5%	1%	12%	1%	4%
Lear	LEA	1%	1%	0%	3%	0%	-1%
Rivian	RIVN	23%	23%	3%	N/A	N/A	N/A
Innoviz	INVZ	-5%	-5%	27%	N/A	0%	N/A
Cerence	CRNC	28%	29%	10%	166%	N/A	N/A

* 3Q profit refers EBIT for GM, F, GNTX, MGA and LEA, EBITDA for VC and CRNC, EPS for remainder

* 4Q/FY revenue guide refers to CY4Q revenue for APH, VRT, ST, TEL, BDC, and APTV and FY for the remainder

* 4Q/FY profit guide refers to CY4Q EPS for APH, VRT, ST, TEL, BDC, and APTV, FY EBIT for GM, F, MBLY, GNTX, MGA and LEA, FY25 EBITDA for VC, and FY EPS for the remainder

* Guidance related metrics compare against midpoint of the guide. TEL profit guide adjusted to reflect change in non-GAAP reporting

* CRNC guidance vs consensus excluded given the impact of the legal settlement payment on 1QFY26 and FY26 guidance

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

2025 Street consensus EPS estimates for our coverage were revised up by 2% at the median post earnings, and 2026 estimates were revised up by 2% at the median (Exhibit 5). We attribute this to lower tariff impacts for auto OEMs from the expanded tariff offset, robust datacenter capex, and a measured recovery in the industrial end market.

Exhibit 5: 2025 and 2026 EPS estimate changes since 3Q reports and YTD

	Change in consensus EPS estimates			
	2025		2026	
	Since T-1 3Q25 reports	2025 YTD	Since T-1 3Q25 reports	2025 YTD
Auto OEMs				
GM	8.6%	-3.6%	13.4%	5.8%
F	-8.8%	-38.1%	8.2%	-19.2%
TSLA	-4.9%	-50.1%	-9.2%	-48.0%
Tier 1 Suppliers				
BWA	1.4%	3.1%	1.3%	-0.9%
LEA	-0.8%	-8.9%	1.2%	-11.2%
GNTX	0.2%	-14.1%	-0.6%	-14.6%
MGA	2.2%	-10.0%	2.1%	-11.1%
APTIV	2.3%	11.0%	1.7%	2.6%
VC	0.7%	1.5%	0.0%	-5.0%
Electronic Components				
APH	8.1%	51.9%	14.4%	65.2%
* TEL	4.5%	11.1%	11.7%	19.7%
ST	1.3%	0.2%	0.9%	-5.8%
BDC	1.3%	-2.9%	0.1%	-5.9%
Lidar & Autonomy				
MBLY	3.3%	-11.6%	-3.5%	-28.5%
EMS				
* FLEX	3.0%	11.8%	4.7%	9.7%
Test & Measurement				
* KEYS	N/A	1.0%	N/A	-2.8%
Power & Thermal Management				
VRT	7.3%	15.0%	8.2%	16.0%
Voice Technology				
* CRNC	55.1%	397.2%	29.3%	70.9%
Warehouse Automation				
* SYM	N/A	-20.6%	N/A	-31.0%
Median	2.2%	0.2%	1.7%	-5.0%
<i>*Since most recent FY quarterly reports</i>				

Source: FactSet

Despite generally solid results and guidance, at the median the stocks have pulled back modestly since each company reported earnings.

Exhibit 6: Stock performance since 3Q reports and YTD

	Stock Performance			
	Since 3Q25 reports		2025 YTD	
	Absolute	Relative to S&P 500	Absolute	Relative to S&P 500
Auto OEMs				
GM	22.4%	22.9%	33.3%	19.3%
F	5.0%	5.5%	30.9%	16.9%
TSLA	-4.8%	-4.9%	3.5%	-10.5%
RIVN	21.4%	22.3%	14.1%	0.1%
Tier 1 Suppliers				
BWA	0.1%	2.8%	34.9%	20.9%
LEA	1.3%	3.0%	10.7%	-3.3%
GNTX	-15.3%	-14.9%	-22.5%	-36.5%
MGA	8.2%	9.9%	15.6%	1.6%
APTV	-12.7%	-10.0%	23.8%	9.8%
VC	-12.3%	-12.4%	14.1%	0.1%
Electronic Components				
APH	10.8%	11.2%	98.5%	84.5%
* TEL	-6.9%	-4.2%	54.0%	40.0%
ST	0.3%	3.0%	12.9%	-1.1%
BDC	-6.1%	-3.4%	-0.4%	-14.4%
Lidar & Autonomy				
AUR	-25.0%	-22.3%	-38.1%	-52.1%
INVZ	-24.2%	-22.2%	-27.4%	-41.4%
MBLY	-21.6%	-21.7%	-43.7%	-57.7%
EMS				
* FLEX	-11.4%	-8.7%	48.3%	34.3%
Test & Measurement				
* KEYS	N/A	N/A	10.6%	-3.4%
Power & Thermal Management				
VRT	-3.4%	-2.9%	48.7%	34.7%
Voice Technology				
* CRNC	35.7%	34.8%	36.9%	22.9%
Charging Infrastructure				
CHPT	N/A	N/A	-64.6%	-78.6%
Warehouse Automation				
* SYM	N/A	N/A	133.9%	119.9%
EV Battery				
QS	-12.9%	-13.0%	127.9%	113.9%
Median	-4.8%	-3.4%	15.6%	1.6%

*Since most recent FY quarterly reports

Source: FactSet

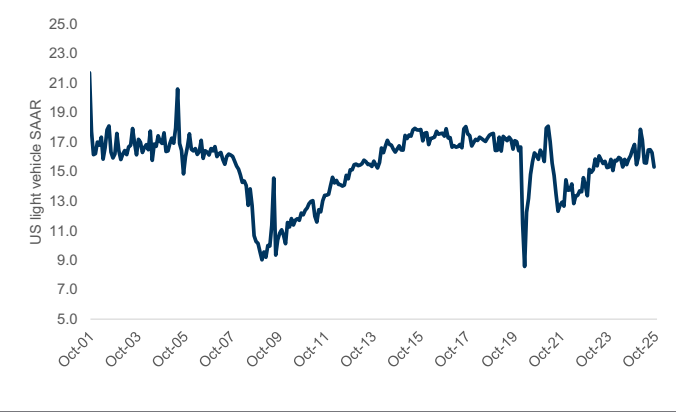
Autos: Demand trajectory into 2026, and supply chain, in focus

Auto demand moderated in October but has been solid YTD

US auto sales have grown low to mid single digits YTD through October with SAAR

averaging ~16.22 mn (up 3% yoy), with 3Q overall averaging 16.4 mn (up 4% yoy). SAAR in October was 15.3 mn per Wards, while August and September SAAR was in the low to mid 16 mn range.

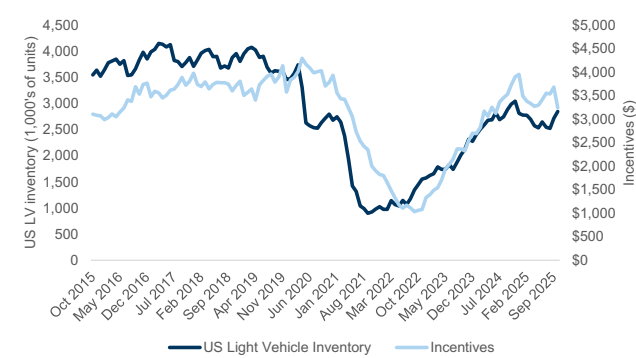
Exhibit 7: US light vehicle SAAR



Source: Wards

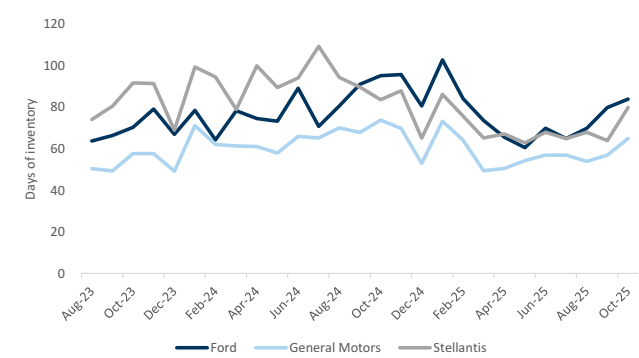
Inventory levels for both the US industry overall and for the Detroit 3 modestly increased in October but remains somewhat below longer-term averages. (Exhibit 8 and Exhibit 9).

Exhibit 8: US light vehicles inventory and incentives



Source: Motor Intelligence

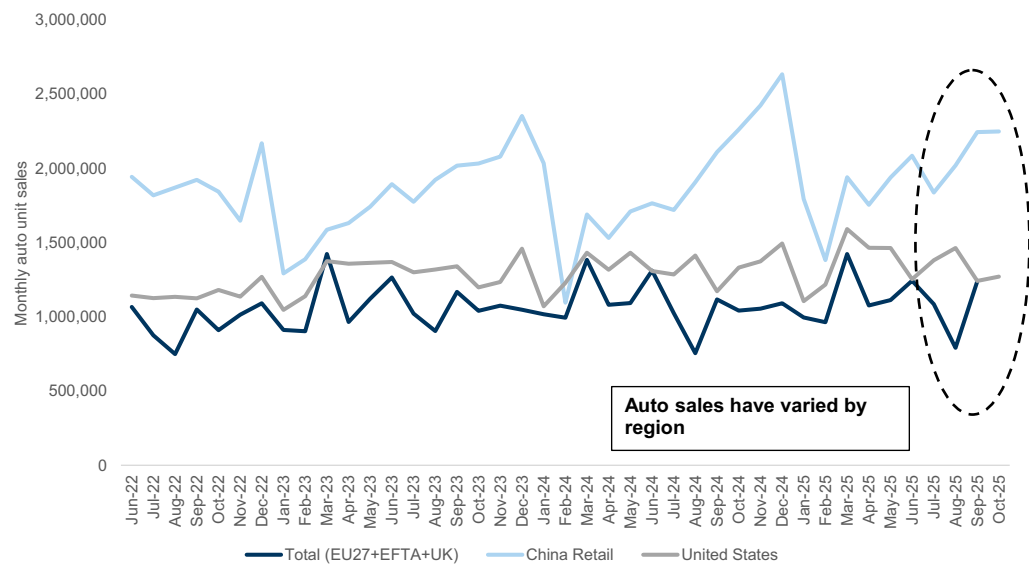
Exhibit 9: Days of inventory for GM, Ford, and Stellantis



Source: Motor Intelligence

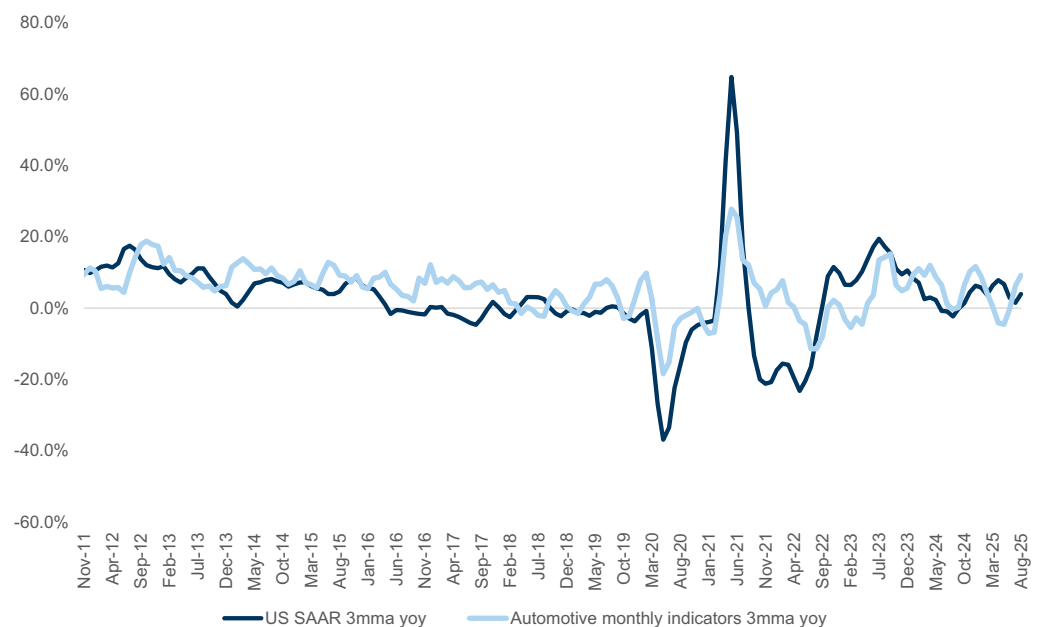
Globally, auto sales were up 7% yoy in Europe (per ACEA) and 6% in China (per the CPCA) in 3Q. In the month of October, passenger vehicle sales in China declined slightly yoy, while sales in key European regions modestly rose yoy.

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Exhibit 10: Auto sales by region have varied

Source: Motor Intelligence, ACEA, CPCA

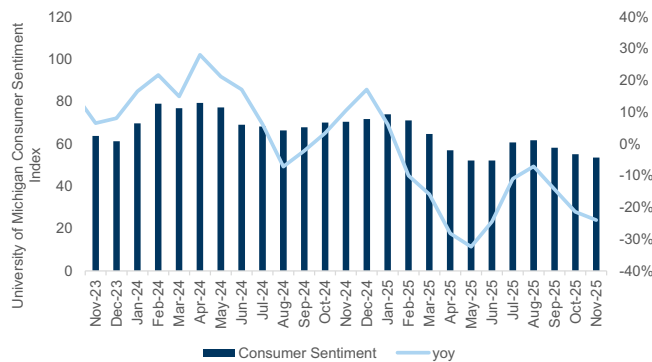
We expect the US auto market to be flattish in 2026. One reason is based on our auto leading indicators (ALI) analysis, which tracks key inputs that correlate with new car vehicle buying such as consumer sentiment, Google Search traffic, and housing starts ([Exhibit 11](#)). ALI data was relatively strong over the summer, although some more recent datapoints (e.g. consumer sentiment) have softened. We'd note that housing start data has not recently been available due to the US government shutdown.

Exhibit 11: US SAAR vs. Auto monthly indicators

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

One of the key inputs of our ALI analysis, consumer confidence, has recently weakened ([Exhibit 12](#)).

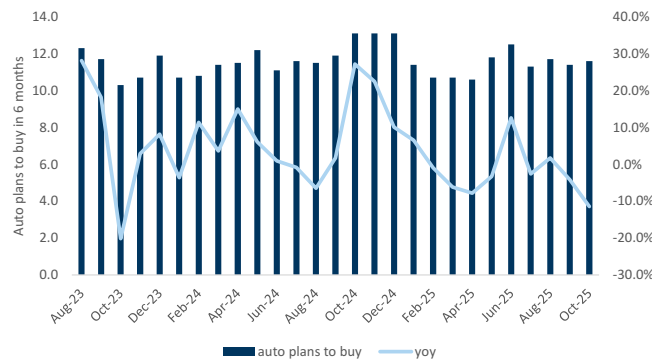
Exhibit 12: Consumer confidence has decreased yoy the last 6 months, and recent data has declined mom as well



Source: University of Michigan

Auto plans to buy have similarly declined yoy in recent months, though remain more stable on a mom basis ([Exhibit 13](#)).

Exhibit 13: Auto plans to buy have been declining yoy in recent months



Source: St. Louis Federal Reserve, Goldman Sachs Global Investment Research

Auto tier 1s we cover generally expect to undergrow the market this year, in part driven by supply chain and customer-specific impacts

While auto production YTD was better than most auto tier 1s initially expected driven by solid end demand and more limited tariffs than initially proposed, suppliers generally still expect some moderation in 4Q driven by seasonality and/or the effect of supply chain and customer-specific impacts. We highlight what tier 1s in our coverage assumed for 2025 LVP post 3Q25 earnings reports, and how this compares to the November outlook from S&P Global Mobility (IHS) in [Exhibit 14](#). Growth over market expectations remain mixed, with Magna, Lear, and Aptiv guiding to implicit growth under their weighted markets, BorgWarner expecting growth in line with its weighted market, and Visteon expecting low single digit growth over market (weighted for its customers).

Exhibit 14: Tier 1 LVP assumptions vs IHS

Auto suppliers light vehicle production outlook vs. IHS			
Company	CY25 LVP outlook post 3Q25 earnings (YoY)	IHS forecast (YoY; as of Nov '25)	Δ
Aptiv			
^ North America	-3%	-2%	-1 pp
^ Europe	-2%	-2%	0 pp
^ China	7%	8%	-1 pp
^* Global	0%	3%	-3 pp
BorgWarner			
^* North America	-2%	-2%	0 pp
^* Europe	-2%	-2%	0 pp
^* China	7%	8%	-1 pp
^* Global	2%	3%	-1 pp
Lear			
^ North America	-2%	-2%	0 pp
^ Europe and Africa	-2%	-2%	0 pp
^ China	6%	8%	-2 pp
^* Global	0%	3%	-3 pp
Magna			
* North America	-3%	-2%	-1 pp
* Europe	-1%	-2%	+1 pp
* China	3%	8%	-5 pp
*Adjusted for market exposure			
^Midpoint of outlook			

Source: Company data, S&P Global Mobility (IHS)

Supply chain and customer exposure considerations a focus

Importantly, we think that the extent that auto tier 1 suppliers can outgrow the market (GoM) will continue to be a key focus item coming out of earnings season and into 2026. One challenge for suppliers with respect to outgrowth has been that several new models with new features, including EVs, have been delayed. Another challenge has been customer exposure (e.g. more sales to western OEMs on average that on net are losing share to the Chinese OEMs) that has limited outgrowth vs. the auto market overall. In addition, some Western customers have specific challenges in 2025 such as with the cyberattack on JLR and the Novelis aluminum plant fire. Finally, we think there could be some minor effect from the Nexperia export controls on 4Q auto production (although shipments have resumed). We detail impacts from these supply chain and customer challenges below.

Recall that the Novelis aluminum plant fire impacted Ford, and to a lesser extent Stellantis. Ford specifically noted it expects to lose 90-100k units of F-150 production in 2025, though it expects to make up 50k+ of this in 2026. Although there was a subsequent fire at that plant in November, Ford commented in a press release that shipments have resumed and it reiterated its 2025 guidance.

On Nexperia, Novelis and JLR, several tier 1 suppliers spoke to challenges in 2H25. Aptiv expects an ~\$80 mn revenue headwind from Novelis and JLR downtime impacts in 4Q, BorgWarner assumed a 60 bps yoy headwind to full year revenues from supply challenges in general, Magna reflected its expectation for the impacts in its FY25 guidance, and Lear embedded a ~\$255 mn headwind to revenue and \$71 mn for EBIT to FY25 from the JLR downtime. Visteon also noted at an industry conference that it had assumed a smaller headwind from Novelis in its guidance than what Ford eventually detailed, and given the sizing of the issue from Ford, Visteon expects an incremental ~\$10 mn headwind to its guidance (recall the company had initially assumed a \$5-\$15 mn headwind from the fire).

EV and hybrid sales by region

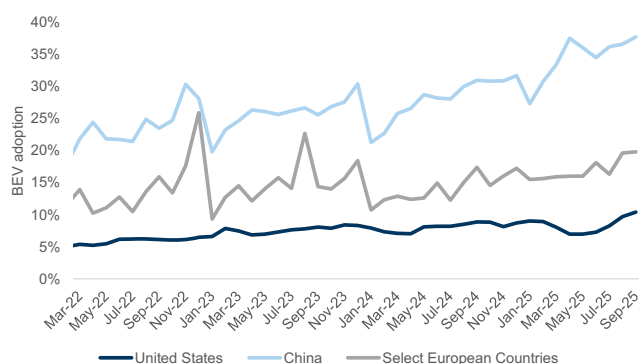
EV growth has varied by region.

EV sales were up 27% yoy in 3Q and are up 7% YTD through October in the US per data from Motor Intelligence. Hybrid sales in the US were up 24% in 3Q and are up 33% YTD, and PHEV sales were up 12% in 3Q and are down 2% YTD. However, EV mix as a percent of new sales declined to 6% in October from 12% in September as IRA credits expired.

In Europe, EV sales were up 27% in 3Q and are up 25% YTD through September, with PHEV sales up 57% in 3Q and up 32% YTD. In China PHEV sales were up 6% in 3Q and are up 20% YTD through September, with BEVs up 41%/up 45% over the same timeframe.

EV sales as a percent of new vehicles sold are running in the 7-8% range YTD in the US, though stepped down to ~6% for the month of October post the IRA credit expiration, per Motor Intelligence, compared to China in the 35% range and Europe in the mid to high teens range.

Exhibit 15: BEV adoption by region



Source: CPCA, Wind, MotorIntelligence, BEA, ACEA

We expect US EV volumes to be flattish in 2026 (and more 2H weighted), as headwinds from the IRA credit expiration are offset by new model launches such as the Rivian R2 and potential introduction of the Model Y L from Tesla.

Policy: Tariffs and potential changes to emissions rules create puts and takes for OEMs from here

Recall that the US tax reconciliation bill (OBBA) lowered the fine for corporate average fuel economy violations to \$0, and that the President signed a bill earlier in the year that revoked California's ability to set stricter emissions rules (and several states had adopted parts or all of California's standards previously). Moreover, the EPA is considering repealing the 2009 Greenhouse Gas Endangerment Finding, which would lead to the removal of GHG regulations for vehicles, though the EPA noted it intends to retain criteria for pollutants and air standards (e.g. NOx).

Both GM and Ford expect new emissions rules in the US to allow them to purchase fewer emissions credits and be able to better optimize mix next year. Conversely, Tesla expects reduced sales of regulatory credits going forward, but Tesla did enter into new contracts in 3Q, and we expect international markets especially Europe to remain a source of

regulatory credit revenue for the company. Rivian is not currently expecting to recognize any significant regulatory credit revenue going forward.

While tariffs are a headwind for US auto OEMs, the degree of burden has been declining. Recall the President extended the 3.75% of MSRP offset for vehicles assembled in the US through April 2030, expanded the use of the offset to a wider pool of parts, and also now provides offsets for US made engines. As a result, with its 3Q call GM lowered its gross tariff expectation to \$3.5-\$4.5 bn from \$4-\$5 bn prior and the company expects to mitigate ~35% of this (from at least 30% prior). Ford now assumes a 2025 net tariff cost of ~\$1 bn (from \$2 bn prior), which implies a net tailwind from tariffs in 4Q, we think as it can now recognize more credits including some for costs incurred in 2Q/3Q. Importantly, going into 2026, both Ford and GM believe tariff costs can be similar in 2025, with benefits from offsetting actions (e.g. pricing, footprint actions, cost reductions) offset by the full year impact of tariffs (vs. about three quarters in 2025). For GM, the trade deal with Korea is also a positive, as about half of GM's tariff exposure has been related to Korea tariffs.

Autonomy: Robotaxis and humanoids continue to develop

AV news was very active again in 3Q. Tesla plans to launch its ridehail service with robotaxi technology in 8-10 metros by the end of the year (including upcoming launches in Las Vegas, Phoenix, Dallas, Houston, and Miami) and is targeting to have the safety observer out by year-end in Austin. There was also a wave of AV announcements or updates including from Waymo, Lyft, and Uber. In addition, Aurora highlighted that it started operations on one-way of its El Paso to Fort Worth lane and is expecting to expand to Phoenix and the round-trip route soon.

For Tesla specifically, we believe the end-of-year target for having the observer out in Austin will be key to watch, and also its ability to be fully driverless in other locations. We also highlight a list of select Uber, Lyft, and Waymo robotaxi announcements and key partners/collaborators in [Exhibit 16](#).

We expect the US rideshare AV market to reach ~\$7 bn in 2030, as detailed in our [June 2025 AV deep dive](#).

Exhibit 16: Uber, Lyft, and Waymo robotaxi announcements

Company	Announcement date	Location(s)	Driverless Launch Date	Details/Launch Plans	Collaborators
Uber	Jul-25	First deployments expected in Asia and the Middle East	Late 2025	Announced a multi-year strategic partnership to deploy thousands of Baidu's Apollo Go AVs on the Uber platform across multiple global markets outside of the U.S. and mainland China.	Baidu (Apollo Go)
	Oct-25	US & International	2027	Collaboration to deploy an L4 autonomous fleet, including vehicles made by Stellantis, on the Uber network.	Nvidia, Stellantis
	Nov-25	Arlington, Dallas, Dubai, London, Los Angeles, Munich, San Francisco	2026-2027	Announced or reiterated plans to bring driverless rides to these cities, among others, on the Uber Network.	N/A
Lyft	Sep-25	Atlanta	N/A	Started pilot operations of May Mobility AVs in Atlanta. Standby operators would be present in the vehicle to take over if necessary, and answer rider questions.	May Mobility
	Sep-25	Nashville	2026	Partnership announced to bring AV rides in 2026. Lyft will provide fleet management services.	Waymo
	Oct-25	Europe, Middle East, US	Late 2026-2027	Collaboration to purchase Tensor Robocars for its own fleet, and eventually onboard personally-owned Robocars directly onto the Lyft network.	Tensor
Waymo	Aug-25	New York City	N/A	Received a permit to start testing autonomous vehicles with a driver behind the wheel. New York state law does not currently allow for driverless AVs.	N/A
	Sep-25	San Francisco	N/A	Received a permit to start testing AVs at San Francisco airport. Deployment will be over three phases, starting with a trained specialist behind the wheel.	N/A
	Sep-25	Nashville	2026	Partnership announced to bring AV rides in 2026. Lyft will provide fleet management services.	Lyft
	Oct-25	London	2026	Announced plans to launch autonomous rides in 2026.	N/A
	Nov-25	San Diego, Las Vegas	2026	Announced plans to launch autonomous rides in 2026.	N/A
	Nov-25	Detroit, Tampa, New Orleans, Minneapolis	N/A	Announced plans to start testing/mapping the city for future autonomous rides.	N/A
	Nov-25	Los Angeles, San Francisco, Phoenix	Launched Nov-25	Robotaxi rides that use freeways will be offered on the Waymo platform.	N/A
	Nov-25	Miami, Dallas, Houston, San Antonio, Orlando	2026	Removed safety operator in Miami and started offering autonomous trip to employees, aims to do the same for the other cities in the coming weeks and launch in 2026.	N/A

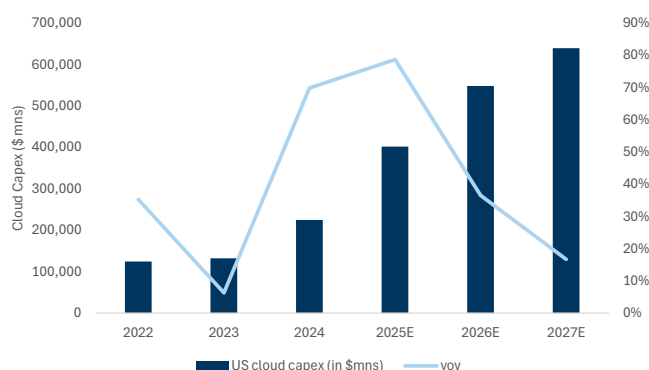
Source: Company data, Data compiled by Goldman Sachs Global Investment Research

On humanoids, Tesla plans to begin production of Optimus Gen 3 in 2026, and added at its November shareholder meeting that it hopes to start Gen 4 in 2027 and Gen 5 the year after that. Recall Tesla commented on its 3Q call that it expects to unveil Optimus V3 in 1Q26. The company also noted that it plans to build a 1 mn unit per year production line for Optimus in Fremont, and it expects to build a 10 mn unit per year line in Texas. Long-term, Tesla's CEO commented that the company hopes to make a hundred million or even a billion robots per year. Recall that Tesla's management has previously noted that it believes it can get to >1 mn annual units per year for Optimus by the end of the decade. Separately, we recently hosted an investor call with Sanctuary AI, and Sanctuary's management believes that while widespread deployment of humanoids is still 2-3 years away, targeted use cases could deploy sooner. Both Tesla and Sanctuary AI spoke to dexterity being one key challenge to solve.

Datacenter: strength continues, growth in 2026 and beyond a focus

The datacenter market remained robust in 3Q. A bottom-up aggregation of the GS capex estimates for the key hyperscale companies was revised higher during 3Q earnings season, with the aggregate for 2025 now 6% higher and the aggregate for 2026 now 17% higher. Comments from major CSPs during 3Q reports were also positive, commenting on tight supply/demand and/or raising capex (e.g. Microsoft, Meta, AWS). Our analysts now expect 79% yoy growth in 2025 and 36% in 2026.

Exhibit 17: Our GS colleagues expect 79% and 36% yoy growth in hyperscale capex in 2025 and 2026, respectively



Source: Goldman Sachs Global Investment Research

Several of the companies in our coverage also reported strong 3Q results related to datacenter/AI demand. Specifically, Amphenol's total orders grew 38% yoy and 11% sequentially, and Vertiv's orders increased organically by about 60% yoy and 20% sequentially. Amphenol's IT datacom segment sales (where it reports its datacenter business) were up 128% yoy organically, and Amphenol guided 4Q IT datacom segments sales to be up slightly sequentially. TE commented it generated >\$900 mn in revenue from AI-related applications in FY25 and expects this to grow by at least \$600 mn in FY26, as it continues to see strong market trends. On non GPU-specific cloud revenue, TE commented it more than doubled sales to >\$500 mn in FY25 and sees further momentum ahead. Flex continues to expect at least 35% yoy growth in datacenter revenue this year and attributed datacenter strength as a key reason behind its increased FY26 guidance.

We also attended the Super Compute conference in November, and met with companies including Vertiv and Jabil. Our key takeaways from the conference overall included: 1) Demand is strong - Companies cited good backlog coverage, and bookings for delivery that can extend into 2027 and in some cases even 2028. 2) Pre-fabbed solutions - Several companies commented on the benefits and increasing shift toward pre-fabbed solutions, which can shorten installation times from weeks to as little as one day. 3) Services remain key - Several companies emphasized the importance of services especially for liquid cooling.

We believe it will be key to monitor the returns and profit pools that CSPs can address with AI-related capex to understand the long-term sustainability of this demand, but we currently expect strong growth to continue in this market next year. Supply of datacenter capacity relative to demand will also be important to monitor as it relates to timing of project deployments with Coreweave noting the industry remains supply constrained, and it stated that temporary delays at a third party datacenter developer are a headwind in 4Q.

Industrials: Measured cyclical recovery continues, with pockets of secular strength

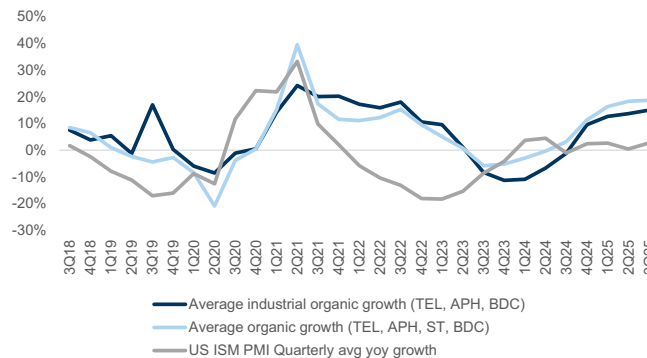
During 3Q earnings reports, TE, Belden, and Sensata highlighted strength in energy

applications related to grid hardening and aerospace and defense, as well as factory automation, though more consumer-exposed applications like appliances and HVAC remain weaker. Sensata noted softer demand for clean energy/renewables applications, though TE pointed to some demand from utility-scale renewables. Flex commented it expects renewables to be soft but stabilizing this fiscal year but commented it saw growth in the quarter for core industrial. Belden also highlighted positive trends in Europe and China as well as in discrete manufacturing and mass transit applications. On broadband and wireless, Belden noted some near-term moderation in broadband though it continues to expect benefits over the medium term from BEAD funding.

Taken together, sales trends into the industrial end market have shown improvement for TE, Belden, Amphenol, and Sensata.

We show organic growth in the industrial end market for key electronics components companies, and the ISM index, in [Exhibit 18](#).

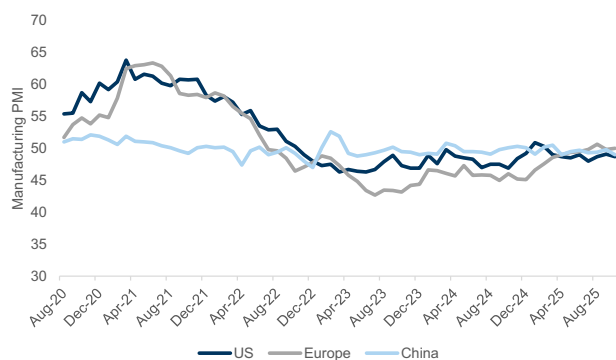
Exhibit 18: Organic growth for industrial-exposed companies in our coverage vs. the US ISM PMI quarterly avg yoy growth



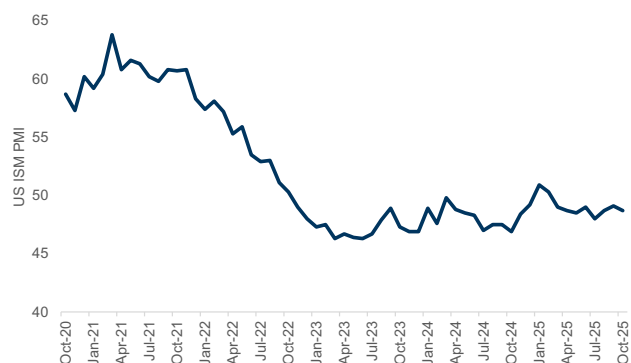
Average organic growth for 4Q24+ does not include ST (company did not disclose this information), but ST is included for previous quarters

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

PMIs globally have been near the 50 level, but have fluctuated. Since February, PMI data has largely moderated sequentially in the US, and we think this could limit the rate of recovery. Importantly though, we believe the yoy growth in the ISM index is more important than the overall level, and we'd note that the October 2025 reading of 48.7 was still up modestly from the 46.9 reading in October 2024, and PMIs in the US have grown yoy since June.

Exhibit 19: Manufacturing PMI in US, China, and Europe

Source: FactSet

Exhibit 20: US ISM PMI

Source: FactSet

Price target and estimate changes, and key risks

Separately, we're modestly adjusting estimates and/or price targets for a handful of stocks (APH, VRT, FLEX, JBL, TEL, APTV, INVZ, AUR, MBL) to better reflect factors including datapoints on hyperscale capex, recently completed M&A (specifically Amphenol closed its Trexon deal), and commentary from investor days on margins (for TE and Aptiv), plus the change in peer/market valuations (especially for AI/AV exposed companies).

We show updated price targets in [Exhibit 21](#) and updated estimates in [Exhibit 23](#).

Exhibit 21: Updated price targets for APH, FLEX, JBL, TEL, MBL, and VRT

Autos & Industrial Technology Price Target Changes							
NEW				OLD			
Electronic Components							
	Target Multiple	Norm. EPS	Price Target		Target Multiple	Norm. EPS	Price Target
TEL	24X	\$12.05	\$289		25X	\$11.55	\$289
APH	36X	\$4.35	\$157		38X	\$4.05	\$154
EMS							
	Target Multiple	PT Methodology	Price Target		Target Multiple	PT Methodology	Price Target
FLEX	20X	Q5-Q8 EPS	\$67		22X	Q5-Q8 EPS	\$73
JBL	20X	Q5-Q8 EPS	\$238		22X	Q5-Q8 EPS	\$252
Autonomy							
	Target Multiple	PT Methodology	Price Target		Target Multiple	PT Methodology	Price Target
MBLY	20X	Q5-Q8 EBITDA	\$13		25X	Q5-Q8 EBITDA	\$16
Power & Thermal Management							
	Target Multiple	PT Methodology	Price Target		Target Multiple	PT Methodology	Price Target
VRT	21X	Q5-Q8 EBITDA	\$182		22X	Q5-Q8 EBITDA	\$182

Source: Goldman Sachs Global Investment Research

Exhibit 22: Updated price targets for INVZ and AUR

	New					Old				
	Price Target	Target Multiples			Discounted Period	Price Target	Target Multiples			Discounted Period
	Blended	Bear	Base	Bull		Blended	Bear	Base	Bull	
Innoviz	\$2.00	2X	3X	4X	CY2028	\$2.50	3X	4X	5X	CY2028
Aurora	\$4.00	5X	7X	10X	CY2030	\$6.00	6X	10X	14X	CY2030

Source: Goldman Sachs Global Investment Research

Exhibit 23: New vs old estimates for APH, FLEX, JBL, TEL, APTV, and VRT

	FY2026						FY2027					
	Old revenue	New revenue	% change	Old EPS	New EPS	% change	Old revenue	New revenue	% change	Old EPS	New EPS	% change
Auto Tier 1 Suppliers												
APTV	\$21,052	\$21,052	0%	\$8.15	\$8.30	2%	\$22,056	\$22,056	0%	\$8.90	\$9.10	2%
Electronic Components												
TEL	\$18,991	\$18,991	0%	\$10.75	\$10.75	0%	\$19,857	\$20,378	3%	\$11.55	\$12.05	4%
APH	\$26,650	\$27,346	3%	\$3.95	\$4.05	3%	\$27,836	\$29,502	6%	\$4.10	\$4.40	7%
Power & Thermal Management												
VRT	\$11,988	\$12,289	3%	\$5.10	\$5.25	3%	\$13,954	\$14,483	4%	\$6.45	\$6.75	5%
	FY2027						FY2028					
	Old revenue	New revenue	% change	Old EPS	New EPS	% change	Old revenue	New revenue	% change	Old EPS	New EPS	% change
EMS												
FLEX	\$29,462	\$29,749	1%	\$3.55	\$3.60	1%	\$31,078	\$31,355	1%	\$3.85	\$3.90	1%
JBL	\$33,663	\$34,845	4%	\$12.55	\$13.00	4%	\$35,820	\$37,521	5%	\$13.75	\$14.40	5%

Source: Goldman Sachs Global Investment Research

Exhibit 24: Key risks

Company	Ticker	GS Rating	Current Price	Price Target	PT Methodology	Key upside/downside risks
Auto OEMs						
Tesla	TSLA	Neutral	\$417.78	\$400	Q5-Q8 EPS	EV adoption, margins, market share, the auto cycle, operational execution, key person risk, products/capabilities like FSD/4680, tariffs
General Motors	GM	Buy	\$71.00	\$81	Norm. EPS	The auto cycle, market share, margins, FCF, the ability to pivot to growth areas such as EVs and Aves, ability to grow software & services, tariffs
Ford	F	Neutral	\$12.96	\$12	Norm. EPS	The auto cycle, market share, margins, the ability to pivot to growth areas such as hybrids/EVs and AVs, ability to grow software & services, tariffs
Rivian	RIVN	Neutral	\$15.17	\$13	Q5-Q8 Sales	Pre-orders/sales volumes, production ramp, market share, margins, software/services mix, the auto cycle, EV adoption, tariffs
Tier 1 Suppliers						
BorgWarner	BWA	Buy	\$42.88	\$54	Norm. EPS	Revenue growth and long-term profitability, including exposure to EVs and profits from ICE related products, market share, tariff impact, and the auto cycle
Genlex	GNTX	Neutral	\$22.28	\$27	Norm. EPS	Revenue growth (such as better attach rates of high-end products or growth outside of auto), margins, multiple expansion, the auto cycle, and tariffs
Lear	LEA	Neutral	\$104.88	\$107	Norm. EPS	The auto cycle, Lear outgrowing/undergrowing underlying auto production, market share, tariffs and margins
Magna	MGA	Sell	\$48.31	\$43	Norm. EPS	The auto cycle, market share, ability to outgrow production and capitalize on secular growth themes, capital allocation, FCF, tariffs
Visteon	VC	Buy	\$101.21	\$150	Norm. EPS	The auto cycle, Visteon outgrowing/undergrowing the underlying auto production, market share, margins, and tariffs
Apivv	APTV	Not Rated	\$74.85		Norm. EPS	
Electronic Components						
Amphenol	APH	Buy	\$137.88	\$157	Norm. EPS	Sales and end market trends, margins, capital allocation, broader macro environment
TE Connectivity	TEL	Buy	\$220.23	\$289	Norm. EPS	Revenue growth and end market demand, margins, M&A, broader macro environment
Belden	BDC	Buy	\$112.13	\$144	Norm. EPS	Industrial/macro trends, margins, leverage, M&A, tariffs
Genstat	ST	Buy	\$30.94	\$45	Norm. EPS	Auto and trucking trends, content opportunities in electrification, supply/demand trends in industrial, appliance & HVAC, and aerospace, margins, and leverage/FC
Autonomy						
Aurora	AUR	Neutral	#Calc	\$4.00	2030 Sales (Discounted)	Time to market, industry pricing per mile, ability to expand geographic reach and scale more broadly
Innoviz	INVZ	Buy	#Calc	\$2.00	2028 Sales (Discounted)	Lidar adoption and ASPs, margins, market share, M&A, balance sheet
Mobileye	MBLY	Neutral	\$11.22	\$13	Q5-Q8 EBITDA	ADAS/AV adoption, competition, geopolitics, market share, supply constraints and supplier/partner readiness
EMS						
Flex	FLEX	Buy	\$56.95	\$67	Q5-Q8 EPS	Macro demand, growth in key end markets (such as datacenter and auto), ability to expand margins, geopolitical uncertainty, and FCF
Jabil	JBL	Buy	\$197.15	\$238	Q5-Q8 EPS	Revenue growth (including due to macro factors, market share, and program mix), ability to expand margins, geopolitical uncertainty and FCF
Power and Thermal Management						
Verivv	VRT	Buy	\$168.91	\$182	Q5-Q8 EBITDA	Revenue growth and mix, market share, margins, execution
Voice Technology						
Cerence	CRNC	Neutral	#Calc	\$11.00	Q5-Q8 Sales	Industry and macro environment, competition, margins, natural ASP degradation
EV Battery						
QuantumScape	QS	Sell	#Calc	\$3.00	2028 Sales (Discounted)	Ability to hit its targeted battery specs and ramp production, technological breakthroughs in today's lithium-ion batteries
Charging Infrastructure						
ChargePoint	CHPT	Sell	#Calc	\$9.00	2027 Sales (Discounted)	EV adoption/driver charging habits, margins, market share, European expansion, ASPs

*Our 12-month PT for MG.TO listed in Canada is 60 CAD

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

Source: Goldman Sachs Global Investment Research

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Disclosure Appendix

Reg AC

We, Mark Delaney, CFA, Will Bryant, Aman Gupta and Ayush Ghose, 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 universe of rated stocks) 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.

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