



Electronics Supply Chain Weekly Digest

Important Disclosures in the Appendix

A weekly collection of news summaries, survey results and channel insights, and report summaries from Edgewater Research

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DATAPOINT OF THE WEEK: S&P reported Sep Eurozone Flash mfg PMI of 43.4 vs. 43.5 in Aug and Germany flash mfg PMI of 39.8 vs. 39.1 in August signaling continued deterioration in manufacturing activity with a continued sharp fall in new orders, output, first signs of employment cuts and business confidence which dropped to the lowest levels since Nov 2022. S&P reported Sep Flash mfg PMI for the US of 48.9 vs. 47.9 in August reflecting a continued decline in new orders and output, albeit at a more modest pace. S&P noted business confidence in the US slipped to a nine-month-low at the end of 3Q.

Reports published this week:

[Analog Semiconductors Insights – September 2023](#)

Key Takeaways:

1. 3Q shipments through early Sep seen as tracking flat to down low-single digit Q/Q vs. targets of flat.
2. Bookings still seen on a downtrend with pockets of green shoots in China Auto for high-end SKUs and in Mobile.
3. Auto demand in the West seen as weakening M/M with sharp acceleration in pushouts for low and mid-range analog and discrete.
4. Pricing feedback also down ticking with first (modest) cuts to official list prices seen in catalog distribution from TI, STMicro, Analog Devices.
5. China demand still seen as weak and projected to remain so through 1H24 despite green shoots from direct Auto and China Mobile.
6. Inventory progress seen as uneven and slow. European semis seen driving inventory up Q/Q in distis via NCNRs.
7. 4Q Auto demand trending sharply lower on increased order pushouts. Softness projected through 1Q.
8. Auto softness driven by high inventory with UAW potentially creating additional downside risk. Detroit OEMs seen as well positioned for a short strike; urging suppliers to maintain production but tier 1s seen trimming subcons output to ease inventory risk.
9. Demand for high-end MCU/analog seen as incrementally softer but still relatively stable due to ongoing Auto concerns of shortages returning in 2H24. Such concerns are seen mostly fueled by semi mfgs. aiming to alleviate pricing pressure and drive LT orders.
10. Datacenter, Comms, Industrial demand unchanged M/M, projected soft in 2H. PC/CE demand seen as muted through YE.
11. Tier 1 foundries (TSM, Vanguard) seen recently approaching suppliers with price discounts for mature tech in exchange for volume commitments. Feedback unclear if this is a short-term strategy reflecting current weakness in demand or a sign of structurally higher supply outlook contradicting the narrative of shortages reemerging in 2024.

Auto/Transportation

Europe Auto Sales – Light vehicle registrations in Europe increased 20.7% Y/Y in August, a sign of strengthening in Y/Y pace as the prior 5 months saw high teens Y/Y increase. Growth was primarily driven by BEV registrations which increased 102% Y/Y vs. +60% in recent months. The growth of BEV was notably strong in Germany. With the increase BEV penetration increased from mid-teens recently to 21.7% in Aug. PHEV sales increased 8.9% Y/Y, decelerating from the high teens in recent months. HEV sales increased 28%, consistent with recent months, while ICE vehicle sales, which still account for ~50% of sales increased a mere 0.6%.

Euro 7 – European Union countries are debating a compromise that would delay and weaken the planned Euro 7 regulation, which stiffens exhaust emissions limits for non-CO2 pollutants such as carbon monoxide and nitrogen oxide. Eight EU nations — including France and Italy — have opposed tighter rules, arguing that automakers are already under strain to meet the bloc's planned ban on sales of new CO2-emitting cars in 2035 to reduce greenhouse gases. European automakers say Euro 7 — set to come into force from 2025 — is too costly and the environmental gains would be negligible.

EV Chargers – TrendForce estimates EV Charging stations across the world will increase 3x between 2023 and 2026 to 16 million. At the same time, the number of EVs globally is forecasted to be 96M, which means vehicle to charger ratio of 6:1 a significant drop from 10:1 in 2021. Europe is targeting the construction of 17 million chargers by 2030. America has a goal to hit the 500,000 mark by 2026 from the 300,000 currently. With approx. 15M EVs projected in N.A. by then it means vehicle to charger ratio of 32:1. At the same time Europe and China are projected to have ratios of ~9:1 and 4:1 respectively.

China – China xEV sales are on track to hit another record high for a second consecutive month in September, says China Passenger Car Association (CPCA). Sep retail xEV sales are projected to reach 750k units, up 22% Y/Y and 4.7% from Aug. According to preliminary projections overall pass car

sales in China are expected to be up 3% M/M and Y/Y to 1.98M. CPCA said that while the market did not wane in September it should be noted that consumers are once again in a wait-and-see mood with a tendency to delay purchases as discounts and price wars continue.

Ford – Ford reached a last-minute deal to avoid a walkout at its Canadian operations late on Tuesday. Unifor, which represents about 5,600 Canadian auto workers, was threatening to go on strike at all three of Ford's plants in the country if a deal was not reached by 11:59 p.m. on Tuesday.

LM Manufacturing – A joint venture between LAN Manufacturing and Magna said on Wednesday it will temporarily furlough 650 workers that produce seats for the Ford Bronco due to the impact of UAW strike.

Tesla – Saudi Arabia is in talks with Tesla about setting up a manufacturing facility there, as part of an ambitious push by the kingdom to secure metals needed for electric vehicles and help diversify its economy away from oil, reports WSJ.

Vinfast – Vietnamese EV maker VinFast plans to ship its first EVs to Europe this year after receiving regulatory approval, its CEO told Reuters on Thursday. Under the plan, about 3,000 of its VF8 crossovers would be delivered to France, Germany and the Netherlands in the fourth quarter of this year from VinFast's factory in northern Vietnam.

UK EVs – The transition to electric cars in Britain will be hindered by any confusion over climate policy, the auto industry's trade body said on Wednesday, following reports that the government was planning to delay a 2030 ban on new petrol car sales, says the Society of Motor Manufacturers UK.

N.A. Used Car prices – Wholesale used-vehicle prices (on a mix-, mileage-, and seasonally adjusted basis) increased 1.5% from August in the first 15 days of September. The midmonth Manheim Used Vehicle Value Index rose to 215.4, which was down 3.5% from the full month of September 2022.

Toyota – Toyota will speed up production of EV of its Toyota and luxury Lexus brands, the Nikkei reported on Friday.

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According to the report, Toyota is aiming to produce more than 600,000 vehicles in 2025. In 2022 Toyota sold fewer than 25,000 EVs including Lexus.

UAW – The UAW announced plans to increase pressure on GM and Stellantis but spare Ford from additional walkouts based on progress it has made in contract talks. UAW says Ford has agreed to reinstate the cost-of-living adjustment (COLA) that was eliminated in 2009. For Stellantis and GM, the new wave includes UAW workers walking out at 38 parts distribution centers across 20 states.

UAW – Stellantis, GM, and Ford furloughed employees across its operations in N.A. this week as a result of the stopped production flow from the UAW strike.

UAW – Leaked messages from an aide of UAW president Shawn Fain highlight the union's strategy against OEMs is to inflict "reputational damage and operational chaos" underscoring hardball tactics. The Detroit 3 OEMs called the tactics bad-faith bargaining. The fallout could further undermine trust at the bargaining table.

UAW – The United Auto Workers (UAW) union said on Wednesday that 190 workers went on strike at Mercedes-tier 1 supplier ZF's plant in Alabama, demanding higher pay and better healthcare benefits. ZF said the plant in Tuscaloosa would continue to operate while the talks with the union are ongoing.

Industrial/Aerospace

Boeing – Boeing increased its 20-year forecast for new plane deliveries to China citing economic growth and increasing demand for domestic travel. Boeing said Chinese airlines would need 8,560 new commercial planes through 2042, up from 8,485 in its previous forecast last year.

Datacenter

Cisco – Cisco announced its intent to acquire cybersecurity and observability software company Splunk for \$28B cash.

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Semiconductors

Broadcom – Google executives had discussed dropping Broadcom as a supplier of its AI TPU chips in 2027 according to a report by the Information. Google plans to design the chip internally and outsource production to foundries. The deliberation by Google appears tied to the price of the TPU Chips, adds the report. Google has also been working on replacing Broadcom and Marvell as the supplier of ethernet switch chips.

GlobalFoundries – GlobalFoundries has secured a new 10-year from the US DoD for aerospace and defense applications with an annual award of \$17.3M this month and an overall 10-year ceiling of \$3.1B.

Nordic Semi – Nordic cuts its CY3Q sales outlook to \$135-\$140M from \$145-\$165M prior citing continued softness in demand across core markets and no signs of improvement. Nordic states that visibility for the rest of the year also remains limited.

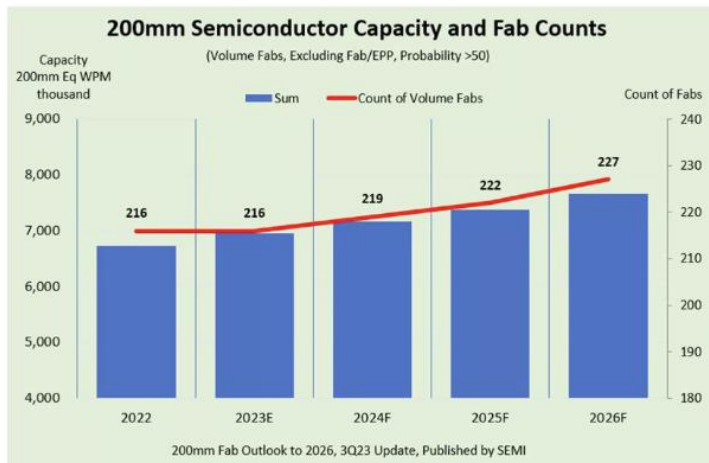
Intel – At Intel Innovation Day, CFO Zinsner said that although Intel has seen improvement in data center demand over the past two quarters, it will take several more quarters to get inventory levels into a good state. CFO Zinsner added that the digestion is tracking behind expectations.

Kioxia/WDC – Kioxia plans to submit commitment letters in October for \$14B in loans to help fund the merger with WDC's flash business which is still under discussion, according to a report by Bloomberg. Under the terms of the deal the report states that WDC will hold 50.5% of the combined company, while the remaining 49.5% will be held by Kioxia.

Semi Capacity – Global 200mm fab capacity is projected to increase 14% from 2023 to 2026 says SEMI. The industry is expected to add 12 new 200mm fabs during this time reaching 7.7 million wafers per month capacity from 6.75 million in 2026. Most of the growth is seen driven by capacity for automotive and power semis which are forecasted to increase 34% from 2023 to 2026, implying 10.25% annual CAGR, with MCU/MPUs ranking second with



21% increase in capacity in the same period, or 6.56% annual compounded growth. Accounting for most of the 200mm fab capacity are 80nm to 350nm technology nodes. Growth of 80nm to 130nm node capacity is forecast to expand by 10%, while 131nm to 350nm technology nodes are expected to register an 18% expansion from 2023 to 2026. Southeast Asia is projected to lead 200mm capacity growth with a 32% increase during the report period. China is expected to rank second with 22% growth.



Semi Equipment – Korean media Daily quoted industry sources indicating that China's self-sufficiency in semiconductor equipment has exceeded 40%, doubling within two years, with the localization rate of equipment for PVD and oxidation over 50%. According to SEMI, China's localization ratio of semiconductor equipment was 21%, which increased to 35% in 2022.

SMIC – Semiconductor Manufacturing International Corp. (SMIC) is likely to, in the next few years, again defy the U.S. government by manufacturing chips with feature sizes as small as 5 nm, industry insiders told EE Times.

Qualcomm – According to reports from DigiTimes and Nikkei Asia, Qualcomm is preparing for a large-scale layoff at its Chian and Taiwan. Qualcomm is planning to significantly reduce staff at its Shanghai R&D center while slashing hundreds of staff in Taiwan ranging from chip testing to quality assurance and engineering.

TSMC – TSMC and Arizona authorities are talking about adding advanced chip packaging capacity to the company's plants in the state, Gov. Katie Hobbs said in Taipei on Tuesday. Reports from Asia note most of the semi packaging supply chain is located in Asia so a facility in the US will not be cost-effective and economical.

Toshiba – Toshiba said on Thursday that a \$14 billion tender offer from private equity firm Japan Industrial Partners (JIP) had ended in success - a deal which paves the way for the embattled industrial conglomerate to go private. The JIP-led consortium saw 78.65% of Toshiba shares tendered, giving the group a majority of more than two-thirds which would be enough to squeeze out remaining shareholders.

US CHIPS Act – The U.S. Commerce Department on Friday is issuing final rules to prevent semiconductor manufacturing subsidies from being used by China and other countries deemed to pose American national security concerns. The regulation is the final hurdle before the Biden administration can begin awarding \$39 billion in subsidies for semiconductor production. The landmark "Chips and Science" law provides \$52.7 billion for U.S. semiconductor production, research and workforce development.

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APPENDIX

We Nik Todorov, Dennis Reed, and Sean Muir hereby certify that the views expressed in this research report accurately reflect our personal views about any or all of the subject securities referred to in this research report. We 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 research report. The analyst(s) responsible for the preparation of this report have no ownership stake in this company. Edgewater Research Company provides no investment banking services on this or any company

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