

China Technology

Implications of Intel 3Q23: PC recovery, server destocking progress and new platform launches

Intel's 3Q23 results beat prior guidance and market expectations, and it guided an upbeat 4Q23 with a return to sales growth backed by improving PC market and a more competitive product pipeline. 3Q revenue declined 8% YoY to US\$14.2bn (above high-end of guidance) and EPS increased 11% YoY to US\$0.41 (vs. US\$0.2 for guidance), mainly driven by CCG/DCAI strength, better operating leverage and expense discipline. Looking into 4Q23E, mgmt. expected PC momentum to continue and sequential growth of datacentre and AI businesses in 4Q23E. Overall, in view of recent comments from TSMC and UMC, we believe improving PC/server markets will continue to boost sector sentiment into 4Q23E, benefiting PC/server supply chain stocks, such as Lenovo (992 HK), FIT Hon Teng (6088 HK), Luxshare (002475 CH), and Montage (688008 CH).

- **3Q23 results beat; broad strength with margin recovery.** By segment, CCG/DCAI/NEX revenue was down 3%/10%/32% YoY in 3Q23, while IFS/Mobileye sales increased 299%/18% YoY. All business segments achieved QoQ recovery except datacentre business, mainly due to continued PC recovery, edge market bottom-out, better packaging revenue and higher sales of IMS nanofabrication tools. 3Q GPM came in at 45.8%, up 6ppts QoQ /down 0.1ppt YoY, 2.8 ppts above guidance, given stronger revenue, higher product ASPs and operating leverage. Inventory value was down US\$518mn QoQ with inventory days down 7 days QoQ.
- **Upbeat 4Q23E guidance: server inventory destocking on track, eye on new product ramp-up in 4Q23 (5th-Gen Xeon, Meteor Lake).** Mgmt. guided 4Q23E revenue of US\$14.6-15.6bn (+8% YoY at mid-point) and EPS US\$0.44 (+193% YoY), both of which exceeded market expectations. Mgmt. expected continued strength in computing segment (CCG), and QoQ growth in datacentre (DCAI) driven by meaningful progress in server destocking and 4th-Gen Xeon ramp-up. Looking into 4Q23E, we believe new product launches of 5th-Gen Xeon, Emerald Rapids, and Core Ultra processor, Meteor Lake, on Dec. 14 will become market focus for potential share gain from AMD and its ambition on edge AI deployments. We also believe IFS business ramp-up deserves attention with 18A client onboarding progress beyond expectations and strong packaging order flows.
- **Recommend to pay attention to PC/server supply chain opportunities.** Overall, in view of the latest comments from TSMC and UMC, we believe stronger PC recovery and server inventory destocking will be positive to sector sentiment into 4Q23E, benefiting PC/server supply chain names, such as Lenovo (992 HK), FIT Hon Teng (6088 HK), Luxshare (002475 CH), and Montage (688008 CH).

Valuation Table

Name	Ticker	Rating	Mkt Cap (USD mn)	Price (LC)	TP (LC)	P/E (x) FY23E FY24E	P/B (x) FY23E FY24E
Luxshare	002475 CH	Buy	31,258	32.00	47.0	20.6 16.3	2.3 2.0
FIT Hon Teng	6088 HK	Buy	979	1.05	2.1	7.0 5.6	0.4 0.4
Lenovo	992 HK	NR	14,187	9.15	NA	8.5 11.9	2.3 2.2
Intel	INTC US	NR	149,837	35.54	NA	37.6 19.7	1.4 1.3
AMD	AMD US	NR	155,799	96.43	NA	35.0 23.4	2.8 2.7
TSMC	2330 TT	NR	426,086	533.00	NA	16.8 14.2	4.0 3.3
UMC	2303 TT	NR	17,961	46.60	NA	9.8 10.3	1.7 1.6
Montage	688008 CH	NR	7,744	49.79	NA	78.2 37.2	5.5 4.9

Source: Company data, CMBIGM estimates

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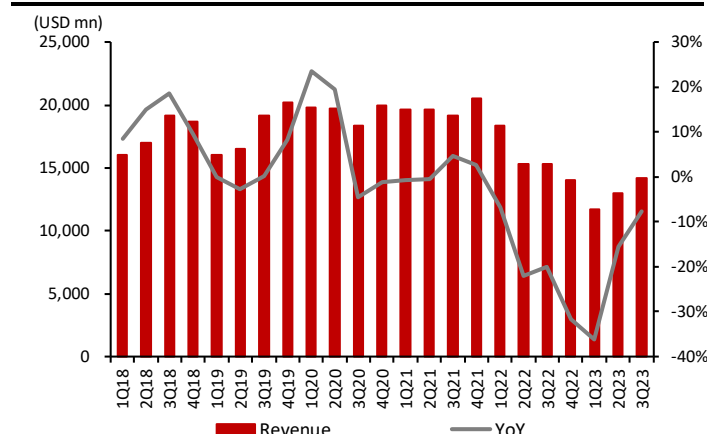
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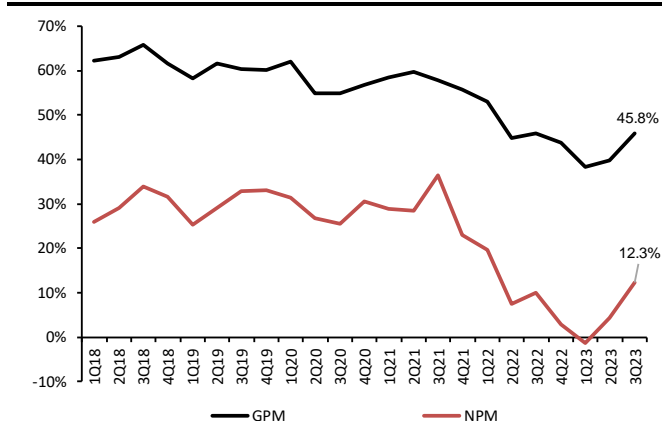
Figure 1: Intel's 3Q23 results review

Intel (INTC US) Non-GAAP			Actual			Consensus	
US\$ mn	FY3Q22	FY2Q23	FY3Q23	YoY (%)	QoQ (%)	FY3Q23E	Diff (%)
Revenue	15,338	12,949	14,158	-8%	9%	13,542	5%
Gross Profit	6,535	4,638	6,018	-8%	30%	5,831	3%
Net Profit	1,526	1,328	1,739	14%	31%	911	91%
EPS (cent US\$)	0.37	0.13	0.41	11%	215%	0.21	91%
GPM	45.9%	39.8%	45.8%	-0.1 ppt	6 ppt	43.1%	2.7 ppt
NPM	9.9%	4.2%	12.3%	2.3 ppt	8.1 ppt	6.7%	5.6 ppt
Revenue by Segment							
Client Computing (CCG)	8,128	6,780	7,867	-3%	16%	7,354	7%
Datacenter and AI (DCAI)	4,255	4,004	3,814	-10%	-5%	3,941	-3%
Network and Edge (NEX)	2,133	1,364	1,450	-32%	6%	1,372	6%
Mobileye	450	454	530	18%	17%	487	9%
Intel Foundry Services (IFS)	78	232	311	299%	34%	254	22%
All Other	294	115	186	-37%	62%	122	53%

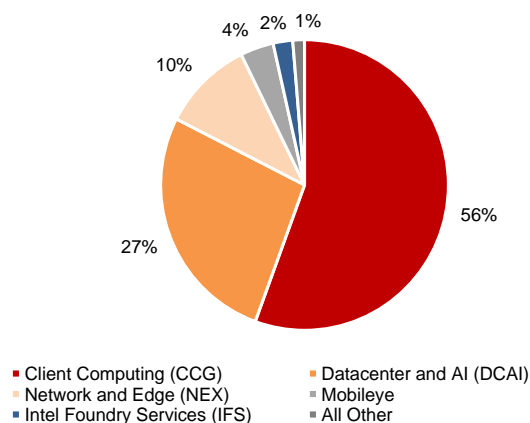
Source: Bloomberg, CMBIGM estimates

Figure 2: Intel's revenue trend and YoY growth

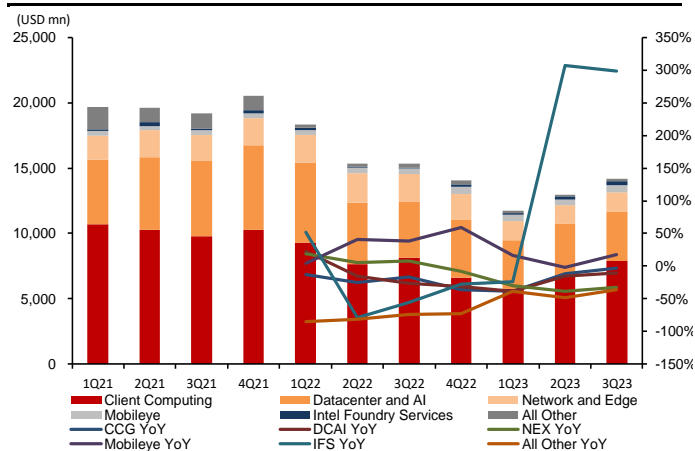
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Figure 3: Intel's GPM and NPM trends (Non-GAAP)

Source: Bloomberg, CMBIGM estimates

Figure 4: Intel's revenue by segment (3Q23)

Source: Bloomberg, CMBIGM estimates

Figure 5: Intel's segmental revenue and YoY growth

Source: Bloomberg, CMBIGM estimates

Key Takeaways of Intel (INTC US, NR) 3Q23 results:

- Revenue US\$14.2 bn, -8% YoY, US\$0.3bn above high-end of previous guidance and beat market expectations with broad-based strength across all segments.
- GPM 45.8%, down 0.1ppt YoY, 2.8 ppts better than previous guidance given strong revenue.
- EPS US\$0.41, +11% YoY, beating guidance by US\$0.21 due to revenue strength, higher ASPs, strong operating leverage and expense discipline.
- Net inventory was down US\$518mn QoQ, and DOI down 7 days.
- CAPEX US\$4.9bn, result in an adj. positive free cash flow of US\$950mn.

By segment:

- ✓ **CCG (Client Computing Group) revenue US\$7.9bn, -3% YoY/ +16% QoQ, beat expectations for 3 consecutive quarters, given healthy customer inventory levels.**
 - ✧ Customer completed inventory burn in 1H23, thus leading to solid QoQ growth potential that will continue into 4Q23. Full-year 2023 PC demand expectation stick to 270mn units, in-line with guidance given in 1Q23. Windows 10 end of service to be the near-term tailwind, and Intel remains positive that PC TAM will return to 300mn units.
 - ✧ **Core Ultra** will be launched together with 5th-Gen Xeon on 14th Dec, which features chiplet design enabled by Foveros 3D packaging and neural processing units.
 - ✧ **Arrow Lake and Lunar Lake** will be released in 2024, and followed by **Panther Lake** in 2025, which is now ready to enter lab in 1Q24 on Intel 18A.
 - ✧ CCG operating profits doubled QoQ to US\$ 2.1bn on higher revenue, sell-through of reversed inventory and stronger ASPs.
- ✓ **DCAI (Data center and AI Group) revenue US\$ 3.8bn, -10% YoY/-5% QoQ.**
 - ✧ In 3Q23, DCAI returned to profitability and contributed operating profits of US\$71mn, margin improved on better ASPs, reduced factory under usage charges and continued expense spending discipline.
 - ✧ In 3Q23, Intel shipped 1mn 4th-Gen Xeon units and is on track to surpass 2mn units next month. **Over 1/3 of 4th-Gen Xeon shipments directly related to AI applications.** Continue to see excellent progress with Xeon roadmap of 5th-Gen Xeon processor **Emerald Rapids** in production and ramping to customers, which will officially launch on 14th Dec 2023. **Sierra Forest** is on track for 1H24 release with customers well into the validation process.
 - ✧ Some shifts in wallet share between CPU and accelerators over the last several quarters, as well as inventory burn in the server market. Intel witnessed server inventory level normalizing in 4Q23, which will drive modest sequential TAM growth.
 - ✧ **Gaudi accelerator** is expected to further capture growing momentum of the accelerator market in 2024. Intel has doubled its pipeline over the past 90 days given strong customers' demand on accelerator portfolio and Gaudi.
 - ✧ **Gaudi 3** is on track and now in packaging, well expected to launch in the next year. And **Falcon Shores** will bring the GPU and Gaudi capabilities into a single product.
 - ✧ PSG revenue declined mid-teens QoQ, due the fact that FPGA business is entering a period of inventory burn after a booming and tight supply period. We expect PSG to decline in 4Q23 and continue to be depressed for the next few quarters.

- ✧ Will begin to operate PSG as a standalone business beginning 1 Jan 2024. And Intel now pursues private investments and ultimately an IPO for the PSG business.
- ✓ **NEX (Network and Edge Group) revenue US\$1.5bn, -32% YoY/ +6% QoQ, beat forecasts.**
 - ✧ Edge markets showed signs of recovery in 3Q23, and witnessed continued signs of stabilization into 4Q23. NEX is also expected to benefit from the AI momentum with OpenVINO and software tool chains development.
- ✓ **IFS (Intel Foundry Service) revenue US\$ 311mn, +299 YoY/ +34% QoQ on higher packaging revenue and higher sales of IMS Nanofabrication tools.**
 - ✧ IFS operating loss was US\$86mn, as ramping factory and operating expenses offset by stronger revenue.
 - ✧ Following IMS received investments from Bain Capital in June, Intel sells 10% of the IMS business to TSMC. This, combined with Mobileye IPO, unlocked more than US\$30bn of value.
 - ✧ Remained on-track for 'five year four nodes' plan. Along with Intel 7, Intel 4, the company's first node using EUV technology, is now in high-volume manufacturing. Intel also achieved a critical milestone on Intel 18A with the release of the 0.9 PDK.
- ✓ **Mobileye revenue US\$ 530mn, up 18% YoY/17% QoQ.**

4Q23 earnings outlook:

- **4Q23 outlook:** Revenue to be in the range of US\$14.6bn to US\$15.6bn, GPM 46.5%, EPS US\$0.44, all above street consensus, committed to deliver the sequential revenue growth throughout the year.
- **4Q23 by segment:**
 - ✧ Intel expected CCG to grow due to return of historical purchasing cycles since its channel checks, partner feedback, healthy inventory levels and higher ASPs.
 - ✧ Intel expected sequential growth in DCAI, with Xeon's strength offset by a decline in PSG.
 - ✧ Intel expected continued recovery in edge markets to roughly offset persistent network weakness.

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