

China Technology

Implications of AMD 3Q23: PC recovery, smooth ramp-up of MI300 Series and AI PC opportunities

AMD's 3Q23 results were largely in line with market expectations, despite its weaker 4Q23 guidance on gaming slowdown. 3Q revenue increased 4% YoY /8% QoQ to US\$5.8bn driven by record sales of server CPU and strong Ryzen processor sales. GPM improved 1ppt YoY to 51% and EPS increased 4% YoY to US\$0.7, mainly driven by strong client segment and better product mix. Looking into 4Q23E, mgmt. expected client segment and data centre business to grow strongly, while weakness in gaming/embedded segments will persist into FY24E. Overall, in view of recent comments from Intel, TSMC and UMC, we believe improving PC/datacentre markets and AI PC related platform launch in Dec 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), FII (601138 CH) and Montage (688008 CH).

- **3Q23 mostly in line with strength in client business.** By segment, client revenue was up 42% YoY in 3Q23, while data centre/gaming/embedded sales dropped 1%/8%/5% YoY. Client business delivered 46% QoQ growth due to an improving PC market and Ryzen 7000 Series sales. Mgmt. also attributed strong client business to the normalization of PC inventory level and demand returning to seasonal patterns. Data center business jumped 21% QoQ due to strong sales of EPYC processors from both cloud and enterprise customers, while gaming and embedded still suffered from soft demand and inventory corrections. 3Q GPM came in at 51%, up 1ppt YoY, backed by stronger client business revenue and better product mix.
- **4Q23E guidance slightly missed on slower gaming/embedded; positive on strong ramp-up of MI300 series.** Mgmt. guided 4Q23E revenue of US\$5.8-6.4bn (+9% YoY at mid-point) and GPM of 51.5%, both of which were slightly below market expectations. Mgmt. expected continued strength in client/data center business with strong double-digit YoY growth, while gaming/embedded segments could decrease double-digit YoY due to soft demand. Mgmt. is positive on the progress of client validation of MI300A/MI300X accelerators. Instinct MI300A shipment started in early Oct, and instinct MI300X GPU accelerators is on track to be shipped to cloud and OEM customers in the coming weeks. Mgmt. targets 4Q23/FY24 data center GPU revenue of US\$400mn/US\$2bn.
- **Recommend to pay attention to PC/server supply chain opportunities, eye on AI PC new applications and platform launch in Dec.** Overall, we believe stronger PC recovery and server inventory destocking will be positive to sector sentiment into 4Q23E, benefiting PC/server supply chain, such as Lenovo (992 HK), FIT Hon Teng (6088 HK), Luxshare (002475 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	31,489	32.24	44.9	20.2 16.0	2.3 2.0
FIT Hon Teng	6088 HK	Buy	969	1.04	2.1	6.9 5.6	0.4 0.4
Lenovo	992 HK	NR	13,859	8.94	NA	8.3 11.7	2.2 2.2
FII	601138 CH	NR	39,445	14.53	NA	12.0 10.0	2.0 1.8
Intel	INTC US	NR	154,980	36.76	NA	38.7 19.7	1.5 1.4
AMD	AMD US	NR	171,657	106.22	NA	39.7 27.7	3.1 3.1
TSMC	2330 TT	NR	421,543	528.00	NA	16.7 14.0	3.9 3.3
UMC	2303 TT	NR	18,092	47.00	NA	9.9 10.5	1.7 1.6

Source: Company data, CMBIGM estimates

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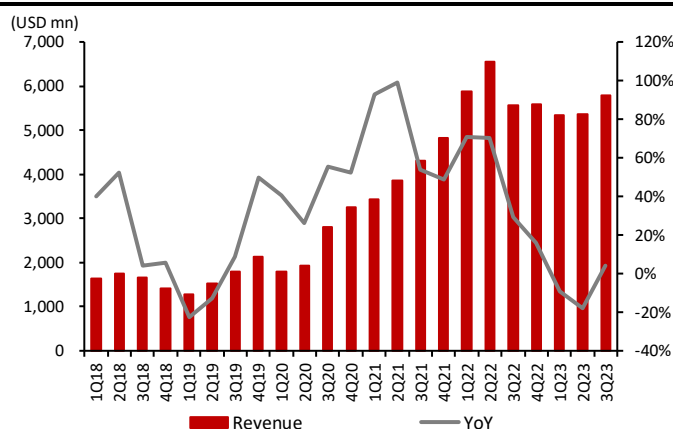
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7. Global SPE 2Q23 Wrap: China demand remains resilient; Awaiting upcycle after 2023 slowdown - 18 Sep 2023 ([link](#))
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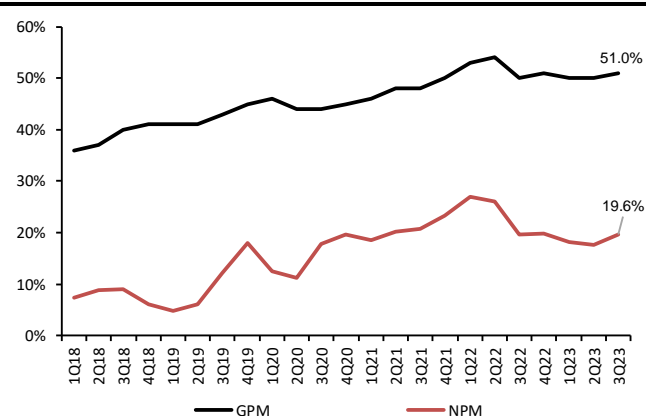
Figure 1: AMD's 3Q23 results review

AMD (AMD US) Non-GAAP				Actual		Consensus	
US\$ mn	FY3Q22	FY2Q23	FY3Q23	YoY (%)	QoQ (%)	FY3Q23E	Diff (%)
Revenue	5,565	5,359	5,800	4%	8%	5,704	2%
Gross Profit	2,776	2,665	2,963	7%	11%	2,909	2%
Net Profit	1,095	948	1,135	4%	20%	1,100	3%
EPS (cent US\$)	0.67	0.58	0.70	4%	21%	0.68	4%
GPM	49.9%	49.7%	51.0%	1.0 ppt	1.3 ppt	51.0%	0.1 ppt
NPM	19.7%	17.7%	19.6%	-0.1 ppt	1.9 ppt	19.3%	0.3 ppt
Revenue by Segment							
Data Center	1,609	1,321	1,598	-1%	21%	1,624	-2%
Client	1,022	998	1,453	42%	46%	1,233	18%
Gaming	1,631	1,581	1,506	-8%	-5%	1,532	-2%
Embedded	1,303	1,459	1,243	-5%	-15%	1,321	-6%

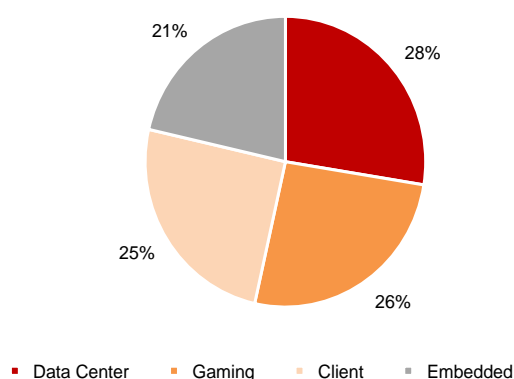
Source: Bloomberg, CMBIGM estimates

Figure 2: AMD's revenue trend and YoY growth

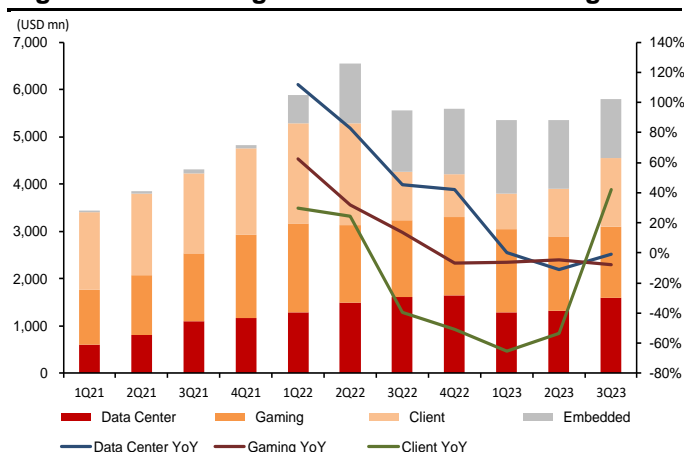
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Figure 3: AMD's GPM and NPM trends (non-GAAP)

Source: Bloomberg, CMBIGM estimates

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

Source: Bloomberg, CMBIGM estimates

Figure 5: AMD's segmental revenue and YoY growth

Source: Bloomberg, CMBIGM estimates

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

3Q23 earnings summary:

- Revenue: US\$5.8bn, +4% YoY/+8% QoQ, driven by **record sales in server CPU and strong Ryzen processor sales**.
- GPM: up 1ppt YoY to 51% (non-GAAP) driven by strong client segment and better product mix.
- Diluted EPS: US\$0.7, vs US\$0.67 last year (non-GAAP).

Data center:

- **3Q revenue:** US\$1.6bn, **flat YoY/+21% QoQ**, due to solid demand from 3rd/4th gen EPYC processor family and thus recorded server processor quarterly revenue.
 - Server CPU: revenue share gain in 3Q, with 50% QoQ growth from 4th gen EPYC CPU.
- **Cloud:** EPYC CPU revenue grew by strong double-digit QoQ as hyperscalers expanded deployments of EPYC processors for public stances.
 - ~100 new AMD powered cloud instances launched in 3Q23 from Amazon, Google, Microsoft, Oracle and Tencent.
- **Enterprise:** Demand remained soft, rev up double-digit QoQ. Multiple design wins with automotive, aerospace, financial service and other sectors.
- **EPYC processor:** 4th Gen EPYC processor Siena delivered high efficiency and performance for intelligent edge and telco.
 - Dell, Lenovo, Supermicro, etc launched new platforms that are based on AMD's new EPYC processor.
- **MI300A/MI300X accelerators:** Validation progressing well. Instinct MI300A shipment started in early Oct to support El Capitan supercomputer, and on track to ship instinct MI300X GPU accelerators to cloud and OEM customers in the coming weeks.
- **ROCm software:** Great progress on performance and features in 3Q23. Fully integrated to PyTorch intensive flow ecosystem. Hugging face models are now regularly updated.

Client segment:

- **3Q revenue:** US\$1.5bn, **+42% YoY/+46% QoQ**, driven by Ryzen processors, improving PC market and Ryzen 7000 Series.
- **PC market inventory level: Normalized** and demand began returning to seasonal patterns.
- **Latest client CPU powered by Zen 4 core:** Rev more than doubled QoQ with strong demand for Ryzen 7000 Series notebook/desktops.
- **Commercial:** Dell, HPE and Lenovo announced expanded sets of workstations powered by Threadripper PRO processors. Multi-year Ryzen AI roadmap on top of Windows ecosystem to enable **new-gen AI PC**.

Gaming segment:

- **3Q revenue:** US\$1.5bn, **-8% YoY/-5% QoQ**, as lower semi-custom was partially offset by strong Radeon GPUs. Overall revenue for this console generation tracking higher than prior-gen based on strong demand for Microsoft and Sony consoles.
- **Gaming graphics:** revenue grew YoY/QoQ due to increasing demand in the channel.

Embedded segment:

- **Revenue:** US\$1.2bn, **-5% YoY/-15% QoQ**, due to lower sales to communication market. Embedded segment declined 15% QoQ, due to inventory correction in several end-markets.
- **Guidance:** **Expect to decline QoQ** given inventory destocking through 1H24.

4Q23 outlook:

- **Revenue:** USD6.1bn +/-US\$300mn, up ~9% YoY/5% QoQ.
- **YoY Growth:** Data center and client segments to grow by strong double digits. Gaming segment to decline. Embedded segment to decline due to softening demand.
- **QoQ Growth:** Data center to grow by strong double digits. Client segment to increase. Gaming/Embedded to decline by double-digit percentages.
- **Non-GAAP GPM:** ~51.5%.
- **Next couple of quarters:** Strong growth in data center driven by both EPYC and Instinct processors, partially offset by softening demand in embedded business and lower semi-custom revenue.
- **Data center GPU revenue: Target ~US\$400mn in 4Q23 and US\$2bn+ in 2024.**
 - MI300 will be the fastest product to ramp up to a billion dollars in sales in AMD's history. More details at AMD December AI event.

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