

Equity Research Report: Advanced Micro Devices, Inc.

Business Overview

Founded in 1969, Advanced Micro Devices, Inc. (AMD) is a global semiconductor company that specializes in manufacturing high-performance computing, graphics, and visualization technologies. A key player in the tech industry, AMD's core strengths lie in its innovative product lines, including CPUs, GPUs, and accelerated processing units for servers, desktops, and embedded devices. With a significant presence in international markets, AMD serves a diverse clientele, including major blue-chip companies, positioning it strongly in terms of market share and competitive advantage.

Market Position

Data Center: AMD's Data Center segment saw a 7% increase in net revenue, primarily driven by higher sales of AMD Instinct GPUs and 4th Gen AMD EPYC CPUs, highlighting the company's competitive edge in high-performance computing solutions. **Client:** The Client segment experienced a 25% decrease in net revenue due to lower sales of Ryzen mobile and desktop processors, indicating challenges in the PC market and inventory adjustments. **Gaming:** AMD's Gaming segment reported a 9% decrease in net revenue, mainly due to lower semi-custom product sales, reflecting fluctuations in the gaming hardware market. **Embedded:** The Embedded segment's net revenue increased by 17%, largely due to the full-year inclusion of embedded product revenue from Xilinx, showcasing AMD's expanded capabilities and market reach in embedded solutions.

Operating Results

The company's cash flow analysis for the latest fiscal year reveals a net cash provided by operating activities of \$1.7 billion, a significant decrease from \$3.6 billion in the prior year, indicating a reduction in core business profitability. Investing activities used \$1.4 billion, primarily for short-term investments and capital expenditures, contrasting with the previous year's \$2 billion inflow, reflecting a shift towards higher capital outlays. Financing activities resulted in a \$1.1 billion outflow, mainly due to stock repurchases, compared to a \$3.3 billion outflow in the prior year, showing a consistent return of capital to shareholders. Despite the decrease in operating cash flow, the company managed its liquidity well, maintaining a robust cash position. However, the reduced operating cash flow and increased capital expenditures signal a need for careful cash management to sustain growth and navigate potential financial challenges.

Financial Metrics

FY (USD mn)	2021	2022	2023	2024	2025
Revenue	16434	23601	22680	25785	34639
Revenue Growth	-30.4%	4.1%	-12.0%	-25.6%	110.8%
Gross Revenue	7929	10603	10460	12725	17152
Gross Margin	0.48	0.45	0.46	0.49	0.5
EBITDA	4166	5534	4149	5258	7275
EBITDA Margin	0.25	0.23	0.18	0.2	0.21
FCF	3521	3565	1667	3041	7709
FCF Conversion	1.11	2.7	1.95	1.85	1.78
ROIC	37.0%	2.1%	0.6%	2.5%	5.4%
EV/EBITDA	42.1	17.91	57.12	38.27	47.85
PE Ratio	56.06	76.6	278.59	123.59	80.54
PB Ratio	23.65	1.85	4.26	3.52	5.54

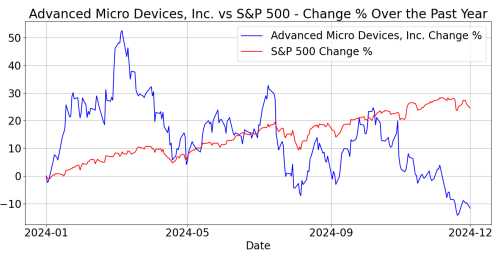
FinRobot

<https://ai4finance.org/>
<https://github.com/AI4Finance-Foundation/FinRobot>
Report date: 2024-12-31

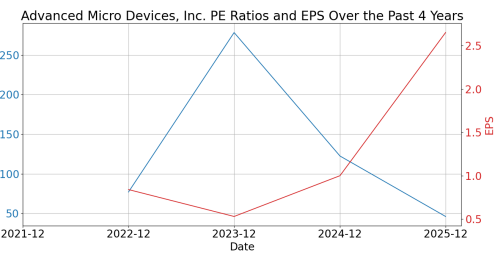
Key data

Rating	buy
Target Price	65.0 - 380.0 (md. 170.0)
6m avg daily vol (USDmn)	41.68
Closing Price (USD)	122.44
Market Cap (USDmn)	195679.80
52 Week Price Range (USD)	121.86 - 208.22
BVPS (USD)	35.54

Share Performance



PE & EPS



Risk Assessment

The semiconductor industry is currently experiencing rapid growth, driven by trends such as AI, cloud computing, and the demand for advanced gaming graphics. AMD has strategically responded to these trends by launching leadership products, including 4th Gen AMD EPYC™ processors and AMD Instinct™ accelerators, and by acquiring AI software companies to bolster its AI capabilities. These initiatives demonstrate AMD's adaptability and commitment to addressing the evolving needs of the market. AMD's strategic product launches and acquisitions underscore its proactive approach to leveraging industry trends and challenges, positioning it for continued growth in the dynamic semiconductor industry.

Competitors Analysis

Analyzing the financial metrics for AMD and its competitors NVDA, INTC, and TSM reveals a dynamic competitive landscape in the semiconductor industry over the period from 2020 to 2023. Year 2023 (Year 3) In 2023, AMD's EBITDA Margin showed an improvement to 0.23, indicating a stronger profitability compared to previous years. When compared to its competitors, AMD's EBITDA Margin was lower than TSM's 0.7 and NVDA's 0.42 but higher than INTC's 0.34. This positions AMD in the middle of the pack in terms of profitability. The EV/EBITDA ratio for AMD was 17.91, suggesting a more favorable valuation relative to previous years. Compared to its competitors, AMD was less valued than NVDA (54.72) and TSM (7.01), but more favorably than INTC (6.55), indicating a moderate market valuation. AMD's FCF Conversion rate was the highest at 2.7, showcasing its superior ability to convert earnings into free cash flow compared to its competitors in 2023. This highlights AMD's operational efficiency and cash flow management. The Gross Margin for AMD stood at 0.45, which, while showing a slight decrease from the previous year, remained competitive when compared to INTC's 0.43 but lagged behind NVDA (0.65) and TSM (0.6). AMD's ROIC was 2.1%, which, although an improvement from the previous year, still trailed behind its competitors, especially NVDA (24.6%) and TSM (24.4%). Year 2022 (Year 2) In 2022, AMD's financial performance showed varying trends. The EBITDA Margin decreased to 0.18, and its EV/EBITDA ratio spiked to 57.12, suggesting a higher valuation or expectations despite a decrease in profitability. The FCF Conversion improved to 1.95, indicating better cash flow management. The Gross Margin decreased to 0.46, and the ROIC was notably low at 0.6%, indicating challenges in generating returns on investments. Year 2021 (Year 1) In 2021, AMD's EBITDA Margin slightly decreased to 0.2, and the EV/EBITDA ratio adjusted to 38.27, reflecting a more reasonable valuation. The FCF Conversion remained strong at 1.85, indicating AMD's continued efficiency in generating free cash flow. However, the Gross Margin saw a minor decrease to 0.49, and the ROIC dropped to 2.5%, suggesting some operational challenges. Year 2020 (Year 0) In 2020, AMD started with an EBITDA Margin of 0.21 and an EV/EBITDA ratio of 47.85, indicating a high valuation relative to its EBITDA. The FCF Conversion was at 1.78, showing good cash flow efficiency. The Gross Margin was impressive at 0.5, and the ROIC was at 5.4%, indicating a relatively efficient use of capital in generating returns. Conclusion Over the four years, AMD demonstrated a fluctuating yet improving trend in profitability, valuation, and operational efficiency. While it has not consistently outperformed its competitors in every metric, its steady improvement in FCF Conversion and efforts to maintain a competitive Gross Margin are commendable. The EV/EBITDA ratio's decrease in 2023 suggests a more favorable market valuation, which, combined with the improvements in EBITDA Margin and ROIC, indicates a strengthening financial health. However, AMD's challenge remains in enhancing its profitability and efficiency to match or surpass its competitors, especially NVDA and TSM, which have shown superior performance in these areas. The overall financial health of AMD, based on these metrics, suggests a company on an upward trajectory, albeit with areas requiring focused improvement to enhance its market standing and valuation further.