

INTEL CORPORATION (INTC-NASDAQ)

Semiconductors
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Upgrading to Market Perform

RECOMMENDATION

We're upgrading Intel to **Market Perform** from Underperform, closing out our underperform call now that our thesis has played out and the stock has reacted. At its analyst day last week, Intel guided for no free cash flow for the next three years as it plans to invest heavily in an attempt to regain process superiority. The path to that goal is very long and expensive, and the outcome remains uncertain at best. In the meantime, investing now for a potential 2025 recovery likely means investing through an eventual downturn, which remains a big ask for investors. Nonetheless, with the stock now down 30% since our downgrade in early 2021 (vs. a 4% rise in the SOX), and with the bar on cash flow having been reset, we're not confident that the stock would meaningfully underperform further, particularly in an industry downturn scenario.

- Impact on free cash flow now known, and stock has reacted.** As outlined at the recent analyst day ([link](#)), Intel has now set the bar with respect to its free cash flow expectations – INTC does not expect to achieve positive free cash flow for the next three years due to elevated capex as it invests to catch up to competitors at the leading edge. INTC intends to spend \$27B of capex in 2022, resulting in negative FCF in 2022, with capex intensity of ~35% in 2023-2024 driving neutral FCF before improving to 25% in 2025-2026, at which time INTC expects to achieve 20% FCF margin.
- Tough to invest for 2025, since that likely necessitates investing through an industry downturn.** With elevated capex over the next few years, the fear is that the highly cyclical semiconductor market will correct between now and 2025, making it more difficult for INTC to return to positive free cash flow in its stated horizon. Between now and 2025, in addition to execution risk and market share risk, there's also the risk of an industry downturn which would complicate Intel's efforts to maintain neutral free cash flow as it invests. For investors who are confident in the 2025 story, we think such a downturn would present a better opportunity to own the stock. Nonetheless, given the stock's strong underperformance over the last year and a valuation of 13x our C22 estimate, we're not confident that the stock would meaningfully underperform further, particularly in an industry downturn scenario.
- Over the next two years, we expect AMD share gains to continue even if Intel does make roadmap progress.** We think the prevailing bull case on Intel now is that it will finally make some incremental progress on its roadmap, which will arrest and reverse AMD's share gains. We simply don't agree. We think AMD's share (estimated to be 34% in cloud and single-digit percent in enterprise, while client share is ~15%) remains unsustainably low. In the past, customers capped AMD at 20% share even when AMD had competitive product because of a lack of confidence that AMD could deliver. That fear is now gone with TSMC doing the manufacturing, and one could argue that customers have higher confidence in TSMC's roadmap and its ability to deliver. Therefore, we think customers are prepared to give AMD significantly more share even if Intel flawlessly delivers on its roadmap. Whereas in the past INTC had an unassailable lead, we believe the market likely becomes more of a duopoly over time.

FEBRUARY 23, 2022 | 3:00 AM EST
COMPANY COMMENT

Market Perform 3 ↑
old: Underperform 4
Target Price NM

Suitability M/ACC

MARKET DATA

Current Price (Feb-22-22)	\$44.69
Market Cap (mln)	\$183,006
Current Net Debt (mln)	\$10,668
Enterprise Value (mln)	\$193,674
Shares Outstanding (mln)	4,095.0
30-Day Avg. Daily Value (mln)	\$2,041.4
Dividend	\$1.46
Dividend Yield	3.3%
52-Week Range	\$44.51 - \$68.49
BVPS	\$14.76
Long-Term Debt (mln)	\$24,632
Long-Term Debt as % of Cap	11%
Net Cash per Share	NM

KEY FINANCIAL METRICS

	1Q	2Q	3Q	4Q
Non-GAAP EPS (\$, Dec FY)				
2021A	1.39	1.28	1.71	1.09
2022E	0.80	0.85	0.81	0.95
2023E	0.76	0.67	0.67	0.84

	2021A	2022E	2023E
Non-GAAP EPS (\$, Dec FY)	5.47	3.41	2.94
P/E (Non-GAAP)	8.2x	13.1x	15.2x
GAAP EPS (\$, Dec FY)	4.86	3.17	2.70
Revenue (mln) (\$, Dec FY)	74,718	74,609	73,993

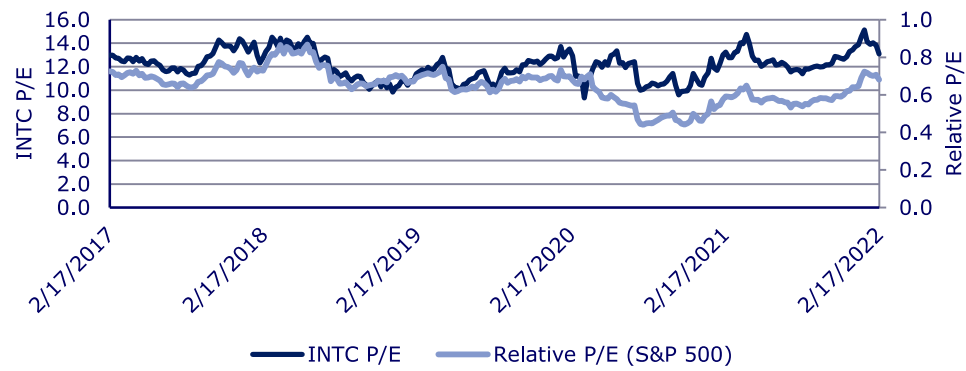
Source: Thomson One, Raymond James & Associates. Quarterly figures may not add to full year due to rounding.
Non-GAAP excludes stock-based compensation and one-time expenses.

Please read domestic and foreign disclosure/risk information beginning on page 6 and Analyst Certification on page 7.

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- **There were however some positives that emerged from the analyst day.** Intel management did outline some favorable elements that helped to better support Intel's goals for process parity by 2024 and superiority by 2025. While we consider the points to be valid, they don't change the fact that the path to these goals is long and expensive, and still carries high execution risk.
- **Potential TSMC N3 delays give Intel some breathing room.** TSMC's latest disclosures note 3nm volume production in 2H22. We note that at the analyst day, INTC was adamant that TSMC is a year late at 3nm, and since INTC is a large customer of TSMC on leading edge (for graphics and FPGA), it has intimate knowledge of TSMC's roadmap. While we expect Intel's statement to be somewhat contentious (though management was very clear about the assertion), there is some plausibility to Intel's assertion, since Apple is widely expected to use the N4 node rather than N3 for iPhone 14 processors in the fall. N4 is a half node rather than a full node migration. If true, that would break Apple's typical two-year process cadence (N5 was used for iPhone 12 and 13). It's also important to note that the high performance TSMC process used by AMD for client and server CPUs typically arrives about a year later than the low power process used by Apple. Intel's assertion is that because of the TSMC roadmap change, Intel has more breathing room with respect to its own roadmap.
- **Granite Rapids pushed out, but moved to I3 node.** One of the notable announcements at the analyst day was an apparent six-month pushout in the launch of Granite Rapids, Intel's next generation server CPU. But while it was pushed out, it was also moved from the I4 process to the I3 process, likely boosting that product's competitiveness. Granite Rapids will be INTC's first server CPU to use EUV technology when it launches in 2024. Management said it made that decision since the I3 node was pulled forward by six months, allowing Granite Rapids to be a more competitive product, albeit six months late. Intel management also asserted that by the time Intel launches Granite Rapids on I3 that AMD would still be on the N5 TSMC node. We think that latter statement will also be highly controversial – but as noted above, if TSMC's N3 roadmap has indeed slipped, it does provide Intel with some breathing room.
- **Increasing foundry prices also provide Intel some breathing room.** Intel's other assertion at the analyst day was that TSMC raised prices very significantly for the N3 node, owing to higher costs. This statement is less controversial than others, since it's clear that manufacturing costs have indeed moved higher. But higher foundry costs force foundry customers such as AMD to raise prices, which creates headroom for Intel's prices, helping it to better absorb the very significant depreciation increase that Intel will experience given elevated capex from 2022-25. Rising prices also help Intel to make its revenue growth targets (mid to high-single digit y/y in 2023-2024; 10-12% y/y in 2025-2026) a bit less aggressive than they otherwise would, since higher price points have never been a part of the CPU business model.
- **INTC appears fairly valued.** INTC appears to be fairly valued based on historical trading averages. INTC is currently trading at ~13x C22 and ~12x C23 consensus EPS forecasts (albeit somewhat higher on our below consensus EPS forecasts at ~13x C22 and ~15x C23), largely consistent with INTC's average 12x multiple over the last 3-year and 5-year periods.

INTC Historical Forward P/E



Source: Factset and Raymond James Research

INTC Long-Term Target Model					
	2022	2023	2024	2025	2026
Revenue (\$B)	\$76.0	\$80.6	\$86.2	\$95.7	\$106.2
% change y/y	2%	6%	7%	11%	11%
Gross Margin	52%	52%	52%	56%	56%
Operating Margin	23%	23%	23%	30%	30%
Capex Intensity (net)	36%	35%	35%	25%	25%
FCF	(\$1.5)	\$0.0	\$0.0	\$19.1	\$21.2
FCF %	-2%	0%	0%	20%	20%

Source: Intel and Raymond James Research

Intel Income Statement - Raymond James

(Dollars in millions, except per share data)

Non-GAAP Model

Model Updated 1/26/22	2020A	Mar Q1A	Jun Q2A	Sep Q3A	Dec Q4A	2021A	Mar Q1E	Jun Q2E	Sep Q3E	Dec Q4E	2022E	Mar Q1E	Jun Q2E	Sep Q3E	Dec Q4E	2023E
Revenue	77,867	18,566	18,533	18,087	19,532	74,718	18,302	18,270	18,300	19,738	74,609	18,400	17,756	17,982	19,856	73,993
% Change q/q		-7.1%	-0.2%	-2.4%	8.0%		-6.3%	-0.2%	0.2%	7.9%		-6.8%	-3.5%	1.3%	10.4%	
% Change y/y	8.2%	-6.4%	-6.1%	-1.3%	-2.2%	-4.0%	-1.4%	-1.4%	1.2%	1.1%	-0.1%	0.5%	-2.8%	-1.7%	0.6%	-0.8%
Cost of sales	33,044	7,717	7,557	7,635	8,706	31,615	8,785	8,769	8,876	9,612	36,042	9,016	8,700	8,811	9,729	36,257
% Total Revenue	42.4%	41.6%	40.8%	42.2%	44.6%	42.3%	48.0%	48.0%	48.5%	48.7%	48.3%	49.0%	49.0%	49.0%	49.0%	49.0%
Gross Profit	44,823	10,849	10,976	10,452	10,826	43,103	9,517	9,500	9,425	10,126	38,567	9,384	9,055	9,171	10,126	37,736
Non-GAAP Gross Margin %	57.6%	58.4%	59.2%	57.8%	55.4%	57.7%	52.0%	52.0%	51.5%	51.3%	51.7%	51.0%	51.0%	51.0%	51.0%	51.0%
Research & Development	13,456	3,477	3,573	3,629	3,885	14,564	3,800	3,600	3,650	3,700	14,750	3,800	3,900	4,000	4,100	15,800
% Total Revenue	17.3%	18.7%	19.3%	20.1%	19.9%	19.5%	20.8%	19.7%	19.9%	18.7%	19.8%	20.7%	22.0%	22.2%	20.6%	21.4%
Marketing, General & Administrative	6,075	1,276	1,547	1,621	1,890	6,334	1,900	1,850	1,900	1,900	7,550	1,950	1,975	2,000	2,025	7,950
% Total Revenue	7.8%	6.9%	8.3%	9.0%	9.7%	8.5%	10.4%	10.1%	10.4%	9.6%	10.1%	10.6%	11.1%	11.1%	10.2%	10.7%
Total Operating Expense	19,531	4,753	5,120	5,250	5,775	20,898	5,700	5,450	5,550	5,600	22,300	5,750	5,875	6,000	6,125	23,750
% Total Revenue	25.1%	25.6%	27.6%	29.0%	29.6%	28.0%	31.1%	29.8%	30.3%	28.4%	29.9%	31.3%	33.1%	33.4%	30.8%	32.1%
% Change q/q		-11.3%	7.7%	2.5%	10.0%		-1.3%	-4.4%	1.8%	0.9%		2.7%	2.2%	2.1%	2.1%	
% Change y/y	0.1%	-0.3%	7.8%	12.8%	7.8%	7.0%	19.9%	6.4%	5.7%	-3.0%	6.7%	0.9%	7.8%	8.1%	9.4%	6.5%
Amort of acq-related intang/restructur	56	75	75	42	29	221	75	75	75	75	300	75	75	75	75	300
Non-GAAP Operating Income	25,292	6,096	5,856	5,202	5,051	22,205	3,817	4,050	3,875	4,526	16,267	3,634	3,180	3,171	4,001	13,986
Operating Margin %	32.5%	32.8%	31.6%	28.8%	25.9%	29.7%	20.9%	22.2%	21.2%	22.9%	21.8%	19.7%	17.9%	17.6%	20.2%	18.9%
Interest & other	-504	503	61	1,823	-11	2,376	50	50	50	50	200	50	50	50	50	200
Gains (losses) on Equity	2,030	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Income before taxes	26,818	6,599	5,917	7,025	5,040	24,581	3,867	4,100	3,925	4,576	16,467	3,684	3,230	3,221	4,051	14,186
% Total Revenue	34.4%	35.5%	31.9%	38.8%	25.8%	32.9%	21.1%	22.4%	21.4%	23.2%	22.1%	20.0%	18.2%	17.9%	20.4%	19.2%
Taxes	4,388	904	703	28	589	2,224	580	615	589	686	2,470	553	485	483	608	2,128
Tax rate	16.4%	13.7%	11.9%	0.4%	11.7%	9.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%
Non-GAAP Net Income	22,430	5,695	5,214	6,997	4,451	22,357	3,287	3,485	3,336	3,889	13,997	3,131	2,746	2,738	3,444	12,058
% Total Revenue	28.8%	30.7%	28.1%	38.7%	22.8%	29.9%	18.0%	19.1%	18.2%	19.7%	18.8%	17.0%	15.5%	15.2%	17.3%	16.3%
Non-GAAP EPS (ex SBC as of 2022)	\$5.30	\$1.39	\$1.28	\$1.71	\$1.09	\$5.47	\$0.80	\$0.85	\$0.81	\$0.95	\$3.41	\$0.76	\$0.67	\$0.67	\$0.84	\$2.94
% Change q/q		-8.3%	-8.2%	34.1%	-36.5%		-26.2%	6.0%	-4.3%	16.6%		-19.5%	-12.3%	-0.3%	25.8%	
% Change y/y	8.5%	-3.8%	3.6%	54.2%	-28.3%	3.1%	-42.3%	-33.4%	-52.5%	-12.7%	-37.5%	-4.7%	-21.2%	-17.9%	-11.5%	-13.9%
Non-GAAP Adjustments	1,531	2,334	153	174	-172	2,489	250	250	250	250	1,000	250	250	250	250	1,000
GAAP Net Income	20,899	3,361	5,061	6,823	4,623	19,868	3,037	3,235	3,086	3,639	12,997	2,881	2,496	2,488	3,194	11,058
% Total Revenue																
GAAP EPS	\$4.94	\$0.82	\$1.24	\$1.67	\$1.13	\$4.86	\$0.74	\$0.79	\$0.75	\$0.89	\$3.17	\$0.70	\$0.61	\$0.61	\$0.78	\$2.70
Diluted common shares (millions)	4,232	4,096	4,084	4,086	4,095	4,090	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100
FREE CASH FLOW																
Net income	22,430	5,695	5,214	6,997	4,451	22,357	3,287	3,485	3,336	3,889	13,997	3,131	2,746	2,738	3,444	12,058
Depreciation	10,482	2,454	2,408	2,495	2,596	9,953	2,500	2,550	2,700	2,700	10,450	3,000	3,000	3,000	3,000	12,000
Stock-comp	1,854	425	619	543	449	2,036	449	449	449	449	1,796	449	449	449	449	1,796
Capex	-14,259	-3,972	-3,602	-4,005	30,312	18,733	-6,700	-6,700	-7,000	-7,000	-27,400	-7,000	-7,000	-8,000	-8,000	-30,000
FCF	20,507	4,602	4,639	6,030	37,808	53,079	-913	-665	-964	-411	-2,953	-869	-1,254	-2,262	-1,556	-5,942

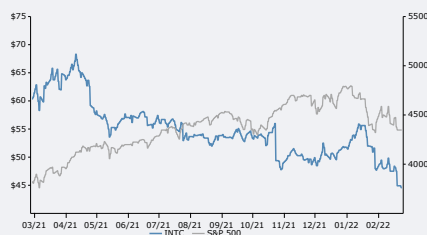
Intel Corporation - Revenue By Segment

\$ in millions	2020A	1Q21A	2Q21A	3Q21A	4Q21A	2021A	1Q22E	2Q22E	3Q22E	4Q22E	2022E	1Q23E	2Q23E	3Q23E	4Q23E	2023E
Client Computing Group *	40,057	10,605	10,109	9,664	10,133	40,511	9,300	8,937	9,154	9,608	36,999	8,560	7,812	8,259	8,667	33,297
% of total	51.4%	57.1%	54.5%	53.4%	51.9%	54.2%	50.8%	48.9%	50.0%	48.7%	49.6%	46.5%	44.0%	45.9%	43.7%	45.0%
% y/y	7.8%	8.5%	6.5%	-1.9%	-7.4%	1.1%	-12.3%	-11.6%	-5.3%	-5.2%	-8.7%	-8.0%	-12.6%	-9.8%	-9.8%	-10.0%
% q/q		-3.1%	-4.7%	-4.4%	4.9%		-8.2%	-3.9%	2.4%	5.0%		-10.9%	-8.7%	5.7%	4.9%	
Operating Income	15,129	4,120	3,760	3,317	3,475	14,672										
OM %	37.8%	38.8%	37.2%	34.3%	34.3%	36.2%										
Data Center Group *	26,103	5,564	6,455	6,496	7,306	25,821	6,783	7,101	6,858	7,776	28,518	7,335	7,445	7,166	8,550	30,496
% of total	33.5%	30.0%	34.8%	35.9%	37.4%	34.6%	37.1%	38.9%	37.5%	39.4%	38.2%	39.9%	41.9%	39.9%	43.1%	41.2%
% y/y	11.2%	-20.4%	-9.3%	10.0%	20.0%	-1.1%	21.9%	10.0%	5.6%	6.4%	10.4%	8.1%	4.9%	4.5%	9.9%	6.9%
% q/q		-8.6%	16.0%	0.6%	12.5%		-7.2%	4.7%	-3.4%	13.4%		-5.7%	1.5%	-3.7%	19.3%	
Operating Income	10,571	1,273	1,941	2,057	1,726	6,997										
OM %	40.5%	22.9%	30.1%	31.7%	23.6%	27.1%										
IoT Group	3,007	914	984	1,042	1,058	3,998	1,051	1,132	1,198	1,217	4,598	1,104	1,188	1,258	1,278	4,828
% of total	3.9%	4.9%	5.3%	5.8%	5.4%	5.4%	5.7%	6.2%	6.5%	6.2%	6.2%	6.0%	6.7%	7.0%	6.4%	6.5%
% y/y	-21.3%	3.5%	46.9%	53.9%	36.2%	33.0%	15.0%	15.0%	15.0%	15.0%	15.0%	5.0%	5.0%	5.0%	5.0%	5.0%
% q/q		17.6%	7.7%	5.9%	1.5%		-0.7%	7.7%	5.9%	1.5%		-9.3%	7.7%	5.9%	1.5%	
Operating Income	497	212	287	276	270	1,045										
OM %	16.5%	23.2%	29.2%	26.5%	25.5%	26.1%										
Non-Volatile Memory	5,358	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% of total	6.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
% y/y	22.8%	0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%	
% q/q																
Operating Income	361	171	402	442	354	1,369										
OM %	6.7%															
Programmable Solutions	1,853	486	486	478	484	1,934	559	559	550	557	2,224	615	615	605	612	2,447
% of total	2.4%	2.6%	2.6%	2.6%	2.5%	2.6%	3.1%	3.1%	3.0%	2.8%	3.0%	3.3%	3.5%	3.4%	3.1%	3.3%
% y/y		-6.4%	-3.0%	16.3%	14.7%		15.0%	15.0%	15.0%	15.0%		10.0%	10.0%	10.0%	10.0%	
% q/q		15.2%	0.0%	-1.6%	1.3%		15.5%	0.0%	-1.6%	1.3%		10.5%	0.0%	-1.6%	1.3%	
Operating Income	260	88	82	76	51	297										
OM %	14.0%	18.1%	16.9%	15.9%	10.5%	15.4%										
Mobileye	967	377	327	326	356	1,386	509	441	440	481	1,871	687	596	594	649	2,526
% of total	1.2%	2.0%	1.8%	1.8%	1.8%	1.9%	2.8%	2.4%	2.4%	2.4%	2.5%	3.7%	3.4%	3.3%	3.3%	3.4%
% y/y	10.0%	48.4%	124.0%	39.3%	6.9%	43.3%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%
% q/q		13.2%	-13.3%	-0.3%	9.2%			-13.3%	-0.3%	9.2%			-13.3%	-0.3%	9.2%	
Operating Income	241	147	109	105	99	110										
OM %	24.9%	39.0%	33.3%	32.2%	27.8%	7.9%										
All Other	522	620	172	81	195	1,068	100	100	100	100	400	100	100	100	100	400
% of total	0.7%	3.3%	0.9%	0.4%	1.0%	1.4%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.6%	0.6%	0.5%	0.5%
% y/y	80.6%	839.4%	23.7%	-23.6%	-7.6%	104.6%	-83.9%	-41.9%	23.5%	-48.7%	-62.5%	0.0%	0.0%	0.0%	0.0%	0.0%
% q/q		193.8%	-72.3%	-52.9%	140.7%		-48.7%	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%	
Operating Income	-3,381	-2,317	-1,035	-1,046	-986	-5,384										
OM %	-647.7%	-373.7%	-601.7%	-1291.4%	-505.6%	-504.1%										
TOTAL REVENUE	77,867	18,566	18,533	18,087	19,532	74,718	18,302	18,270	18,300	19,738	74,609	18,400	17,756	17,982	19,856	73,993
TOTAL OPERATING INCOME	23,678	3,694	5,546	5,227	4,989											
Operating Margin %	30.4%	19.9%	29.9%	28.9%	25.5%	0.0%										

* segment details are Raymond James estimates

COMPANY DESCRIPTION

Intel Corporation, headquartered in Santa Clara, California, is the world's largest manufacturer of semiconductor devices. The company provides computing solutions for the datacenter, PC, automotive, and memory markets, as well as communications and networking components.



Company Citations

Company Name	Ticker	Exchange	Closing Price	RJ Rating	RJ Entity
Advanced Micro Devices, Inc.	AMD	NASDAQ	\$115.65	MO2	Raymond James & Associates

Prices are as of the most recent close on the indicated exchange. See Disclosure section for rating definitions. Stocks that do not trade on a U.S. national exchange may not be registered for sale in all U.S. states. NC=not covered.

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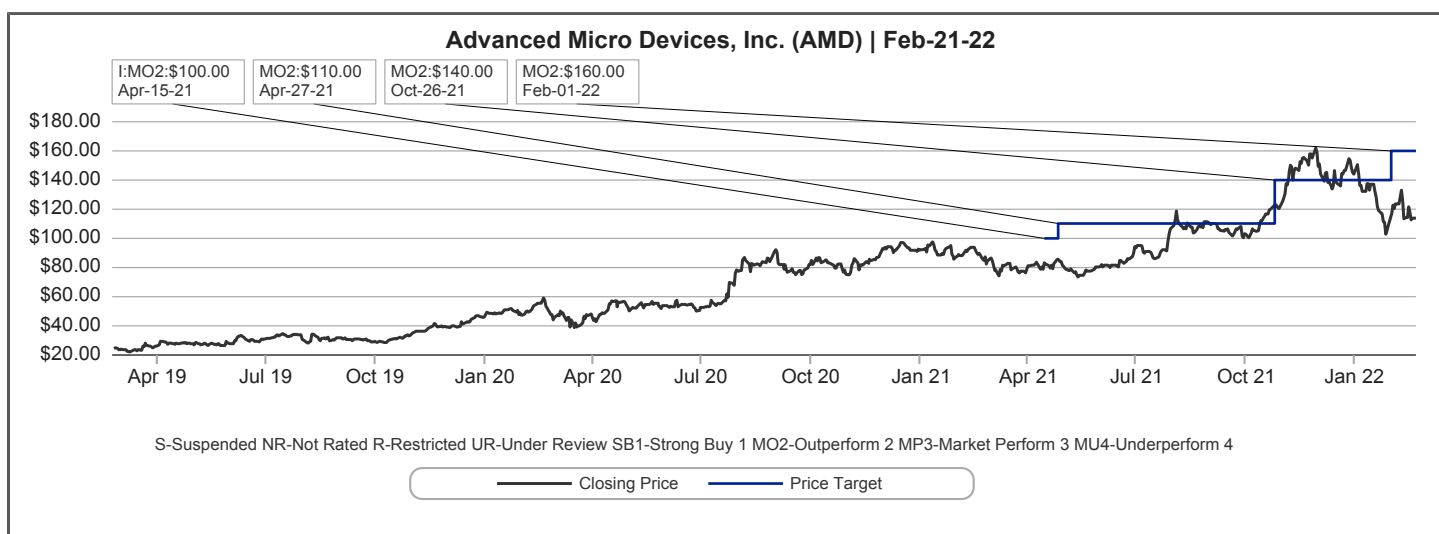
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Advanced Micro Devices, Inc.

Our valuation methodology for AMD is based on a P/E multiple comparison to its historical forward P/E range.

Intel Corporation

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Company Specific Risk Factors

Advanced Micro Devices, Inc.

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Intel Corporation

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Underperform (Sell)	19	2%	2	1%	4	21%	0	0%
Total Number of Companies	936	100%	258	100%	228		69	

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