ADVANCED MICRO DEVICES INC (AMD-O)

Technology Equipment / Semiconductors & Equipment / Semiconductors

Last Close	Avg Daily Vol	52-Week High	Trailing PE	Annual Div	ROE	LTG Forecast	1-Mo Return
96.43 (USD)	**52.9M**	**132.83**	**114.8**	**--**	**0.0%**	**9.0%**	**-1.7%**
2023 October 27 NASDAQ Exchange	Market Cap	52-Week Low	Forward PE	Dividend Yield	Annual Rev	Inst Own	3-Mo Return
	155.8B	**58.03**	**28.9**	**--**	**21.9B**	**74.3%**	**-13.2%**

AVERAGE SCORE

AVERAGE SCORE
6

NEUTRAL OUTLOOK: AMD's current score is relatively in-line with the market.

Score Averages

Semiconductors & Equipment Group:	5.9	Mega Market Cap:	6.9
Technology Equipment Sector:	5.3	S&P 500 Index:	6.7

Average Score Trend (4-Week Moving Avg)
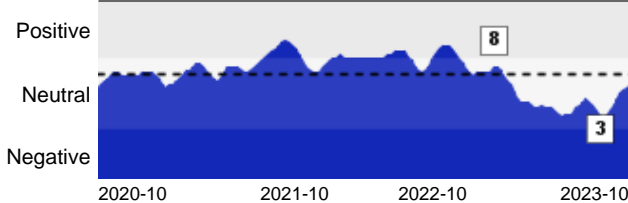
Peers	-6M	-3M	-1M	-1W	Current	1Y Trend
AVGO	9	9	10	9	9	
NVDA	4	5	7	7	7	
AMD	5	5	5	6	6	
INTC	3	6	6	7	6	
TXN	5	7	7	6	5	

HIGHLIGHTS

-

I/B/E/S MEAN

Buy
48 Analysts
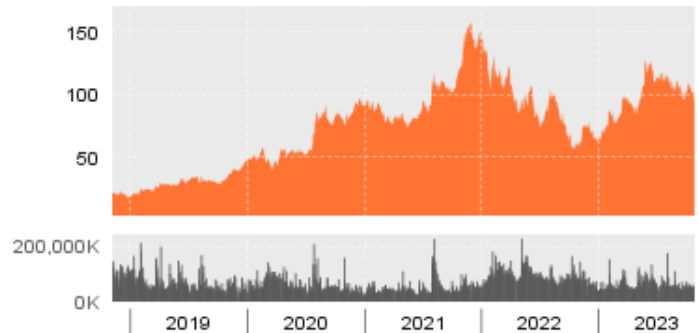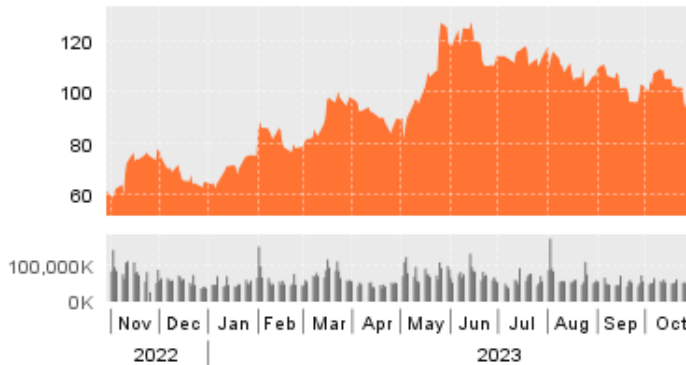
Mean recommendation from all analysts covering the company on a standardized 5-point scale.

Strong Sell	Sell	Hold	Buy	Strong Buy

PRICE AND VOLUME CHARTS

1-Year Return: 64.6%

5-Year Return: 447%

BUSINESS SUMMARY

Advanced Micro Devices, Inc. is a global semiconductor company. The Company operates through four segments: Data Center, Client, Gaming, and Embedded. The Data Center segment includes server central processing units (CPUs) and graphics processing units (GPUs), data processing units (DPUs), field programmable gate arrays (FPGAs) and adaptive system-on-a-chip (SoC) products for data centers. The Client segment includes CPUs, accelerated processing units (APUs) that integrate microprocessors and GPUs (APUs), and chipsets for desktop and notebook personal computers. The Gaming segment includes discrete GPUs, semi-custom SoC products and development services. The Embedded segment, which primarily includes embedded CPUs and GPUs, FPGAs, and adaptive SoC products. The Company's CPUs for desktop platforms include the AMD Ryzen and AMD Athlon series processors. Its mobile APUs include AMD Ryzen and AMD Athlon mobile processors for the commercial and consumer markets.

LSEG DATA & ANALYTICS

## INDICATOR COMPONENTS

AVERAGE SCORE 6

The **AVERAGE SCORE** combines the quantitative analysis of six widely-used investment decision making tools: Earnings, Fundamental, Relative Valuation, Risk, Price Momentum and Insider Trading. A simple average of the underlying component ratings is normally distributed to rank stocks on a 1-10 scale (10 being awarded to the most favorable). These factors may be evaluated differently using alternative methodologies and the importance of individual factors varies across industries, market capitalization and investment styles. Additional criteria should always be used to evaluate a stock.

Component	Score
Earnings	9
Fundamental	7
Relative Valuation	2
Risk	6
Price Momentum	10
Insider Trading	2
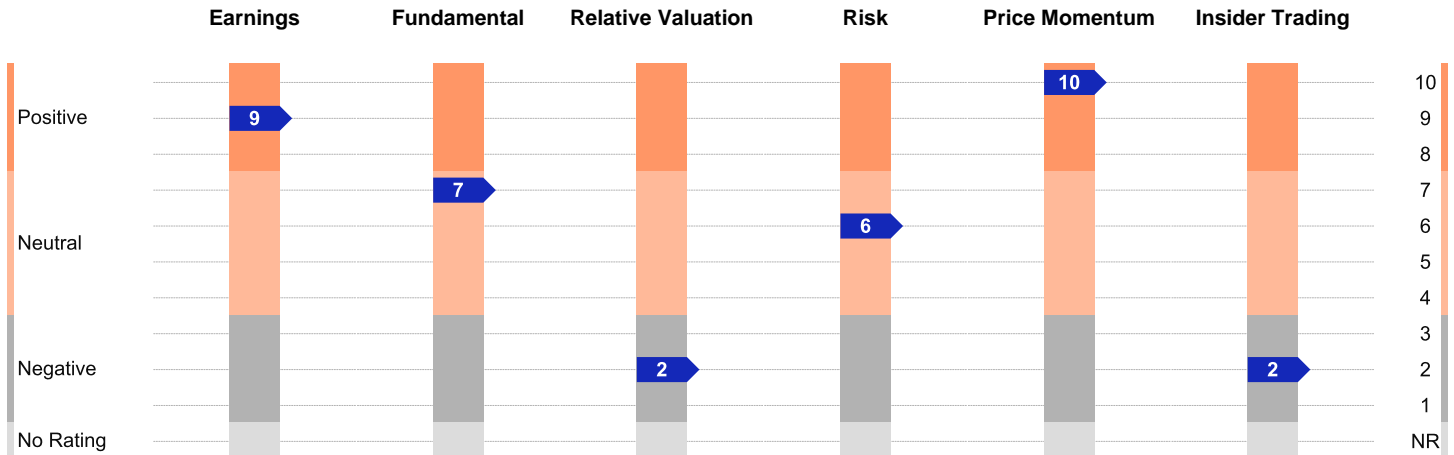
OPTIMIZED SCORE

OPTIMIZED SCORE 8

Historically, companies with an Optimized Score of 8 have tended to moderately outperform the market over the following 12-month period.

verus analytics™

As an alternative approach to equally weighting each of the six factors, independent research firm, Verus Analytics, conducted a backtest to empirically determine an optimal factor blend. Results and weighting vary across four different market capitalization categories. For large/mid cap stocks, Fundamental and Earnings historically provided the most explanatory power among the factors and are weighted heavily in the Optimized Score. Among the small/micro cap universe, Insider Trading joined Fundamental and Earnings as the most significant factors to explain returns.

PEER ANALYSIS

Currency in USD

Average Score	Ticker	Price (2023-10-27)	1-Mo Return	3-Mo Return	1-Yr Return	Market Cap	Trailing PE	Forward PE	Dividend Yield	Net Margin	LTG Forecast	I/B/E/S Mean	# of Analysts
			PRICE MOMENTUM				**VALUATION**		**FUNDAMENTAL**		**ANALYSTS**		
7	NVDA	405.00	-4.6%	-11.8%	207%	1.0T	97.8	26.8	0.04%	31.6%	78.7%	Buy	53
9	AVGO	838.36	2.6%	-6.2%	84.1%	346.0B	25.8	18.8	2.2%	39.3%	10.8%	Buy	29
6	AMD	96.43	-1.7%	-13.2%	64.6%	155.8B	114.8	28.9	--	-0.1%	9.0%	Buy	48
7	INTC	35.54	2.7%	2.9%	35.3%	149.8B	18.3	24.5	1.4%	-3.1%	5.5%	Hold	44
6	TXN	143.12	-9.5%	-19.5%	-8.7%	130.0B	18.6	22.8	3.6%	39.0%	10.0%	Hold	35
5	QCOM	106.46	-2.5%	-15.4%	-7.2%	118.8B	13.9	12.5	3.0%	22.3%	-11.6%	Buy	35
8	ADI	160.57	-7.1%	-17.8%	14.1%	80.0B	21.8	20.1	2.1%	29.2%	-0.58%	Buy	30
3	MU	65.65	-3.8%	-7.6%	25.7%	72.1B	--	--	0.70%	-37.5%	-2.6%	Buy	36
NR	ARM	49.09	-7.4%	--	--	50.3B	126.7	48.4	--	15.3%	37.2%	Buy	24
8	NXPI	179.13	-8.9%	-19.2%	23.4%	46.2B	16.9	12.6	2.3%	21.1%	7.9%	Buy	28
3	MRVL	47.26	-10.1%	-26.0%	18.0%	40.8B	--	24.3	0.51%	-6.7%	14.2%	Buy	31
6.2	Average	193.33	-4.6%	-13.4%	45.7%	199.1B	50.5	24.0	1.8%	13.7%	14.4%	Buy	35.7

PEER COMPANIES

ADI	Analog Devices Inc	MU	Micron Technology Inc
ARM	Arm Holdings	NVDA	NVIDIA Corp
AVGO	Broadcom Inc	NXPI	NXP Semiconductors
INTC	Intel Corp	QCOM	Qualcomm Inc
MRVL	Marvell Technology Inc	TXN	Texas Instruments Inc

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ADVANCED MICRO DEVICES INC (AMD-O)

Technology Equipment / Semiconductors & Equipment / Semiconductors
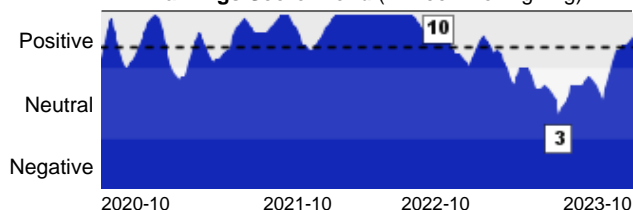
EARNINGS

EARNINGS
9

Currency in USD

POSITIVE OUTLOOK: Strong earnings with recent analyst upgrades or a history of surpassing consensus estimates.

Earnings Score Averages

Semiconductors & Equipment Group:	6.6	Mega Market Cap:	6.8
Technology Equipment Sector:	6.0	S&P 500 Index:	6.2

Earnings Score Trend (4-Week Moving Avg)

Peers	-6M	-3M	-1M	-1W	Current	1Y Trend
INTC	6	10	9	10	10	
NVDA	8	9	10	10	10	
AMD	**7**	**7**	**8**	**9**	**9**	
AVGO	9	9	9	9	8	
TXN	3	6	6	6	2	

EARNINGS INDICATORS

Earnings Surprises (33.3% weight)	Estimate Revisions (33.3% weight)	Recommendation Changes (33.3% weight)
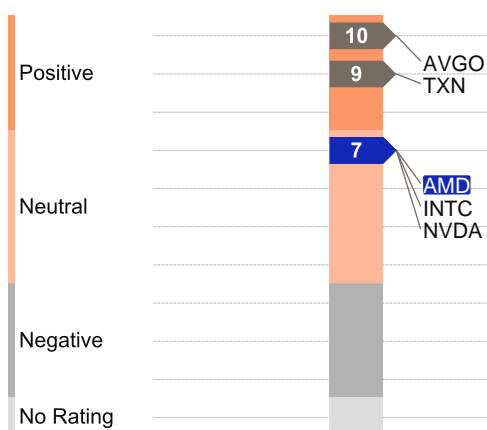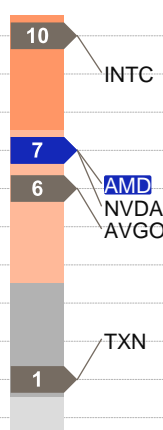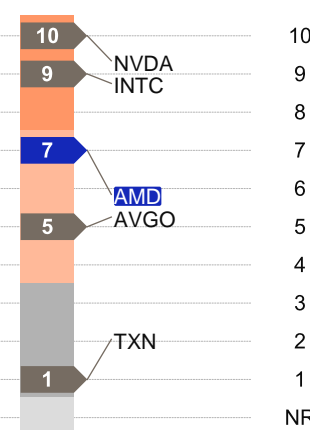
Last 4 Quarters

# Positive Surprises (>2%)	2
# Negative Surprises (<-2%)	1
# In-Line Surprises (within 2%)	1
Avg Surprise	2.3%

Last 4 Weeks

|	
# Up Revisions	1
# Down Revisions	0
Avg Up Revisions	2.1%
Avg Down Revisions	0.00%

Last 120 Days

# Broker Upgrades	2
# Broker Downgrades	1

HIGHLIGHTS

- Advanced Micro Devices Inc currently has an Earnings Rating of 9, which is significantly more bullish than the Semiconductors industry average of 6.6. AMD scores a bullish 7 or greater for all three component ratings.

- AMD's current quarter consensus estimate has remained relatively unchanged over the past 90 days at 0.68. Estimates within its industry have moved an average of 0.0% during the same time period.

- There have been 2 upward and 1 downward broker recommendation changes for Advanced Micro Devices Inc over the past 120 days.

PRICE TARGET

The chart indicates where analysts predict the stock price will be within the next 12 months, as compared to the current price.
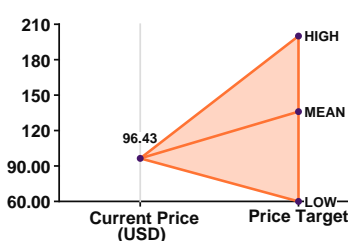
12-Month Price Target

|	
Mean (USD)	136.00
High	200.00
Low	60.00
Target vs. Current	41.0%
# of Analysts	39

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EARNINGS PER SHARE

Earnings per share (EPS) is calculated by dividing a company's earnings by the number of shares outstanding. Analysts tend to interpret a pattern of increasing earnings as a sign of strength and flat or falling earnings as a sign of weakness.

The charts provide a comparison between a company's actual and estimated EPS, including the high and low forecasts.
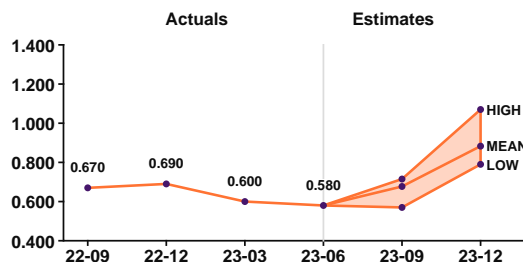
Quarterly	23-09	23-12
Mean	0.677	0.883
High	0.715	1.070
Low	0.570	0.790
# of Analysts	31	30
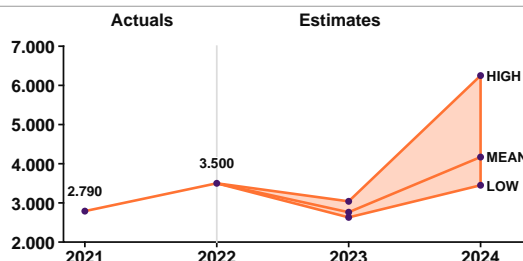
Annual	2023	2024
Mean	2.762	4.170
High	3.040	6.250
Low	2.630	3.450
# of Analysts	37	36

MEAN ESTIMATE TREND

	Q 23-09	Q 23-12	Y 2023	Y 2024	Price Target
Current	0.677	0.883	2.762	4.170	136.00
30 Days Ago	0.676	0.884	2.757	4.152	139.00
90 Days Ago	0.676	0.884	2.758	4.146	134.00
% Change (90 Days)	0.10%	-0.10%	0.10%	0.60%	1.5%

Current Fiscal Year End: 23-12
Next Expected Report Date: 2023-10-31

ANALYST RECOMMENDATIONS

I/B/E/S Mean: **Buy** (48 Analysts)

Strong Buy	15
Buy	20
Hold	12
Sell	1
Strong Sell	0

EARNINGS SURPRISES

Comparing a company's actual earnings to the mean expectation of analysts results in a difference referred to as a 'positive' or 'negative' surprise. Research has shown that when a company reports a surprise, it is often followed by more of the same surprise type.

Surprise Summary (Last 12 Quarters)

Surprise Type	Amount	Percent
Positive Quarters (> 2%)	9	75.0%
Negative Quarters (< -2%)	1	8.3%
In-Line Quarters (within 2%)	2	16.7%

Surprise Detail (Last 6 Periods)

Surprise Type	Announce Date	Period End Date	Actual EPS	Mean EPS	Surprise (%)
In-Line	2023-08-01	2023-06-30	0.580	0.571	1.6%
Positive	2023-05-02	2023-03-31	0.600	0.564	6.4%
Positive	2023-01-31	2022-12-31	0.690	0.668	3.3%
Negative	2022-11-01	2022-09-30	0.670	0.685	-2.2%
In-Line	2022-08-02	2022-06-30	1.050	1.033	1.6%
Positive	2022-05-03	2022-03-31	1.130	0.910	24.2%

ANNUAL REVENUE

A pattern of increasing sales in conjunction with a rising EPS may influence a buy recommendation, while flat or falling sales and faltering earnings may explain a sell recommendation. A rising EPS with flat or falling sales may result from increased cost efficiency and margins, rather than market expansion. This chart shows the sales forecast trend of all analysts and the highest and lowest projections for the current and next fiscal year.
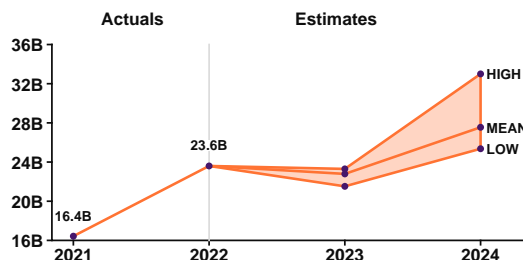
	2023	2024
Mean	22.8B	27.6B
High	23.3B	33.0B
Low	21.5B	25.4B
Forecasted Growth	-3.4%	16.7%
# of Analysts	40	40

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ADVANCED MICRO DEVICES INC (AMD-O)

Technology Equipment / Semiconductors & Equipment / Semiconductors

FUNDAMENTAL

FUND-AMENTAL 7

NEUTRAL OUTLOOK: Fundamentals relatively in-line with the market.
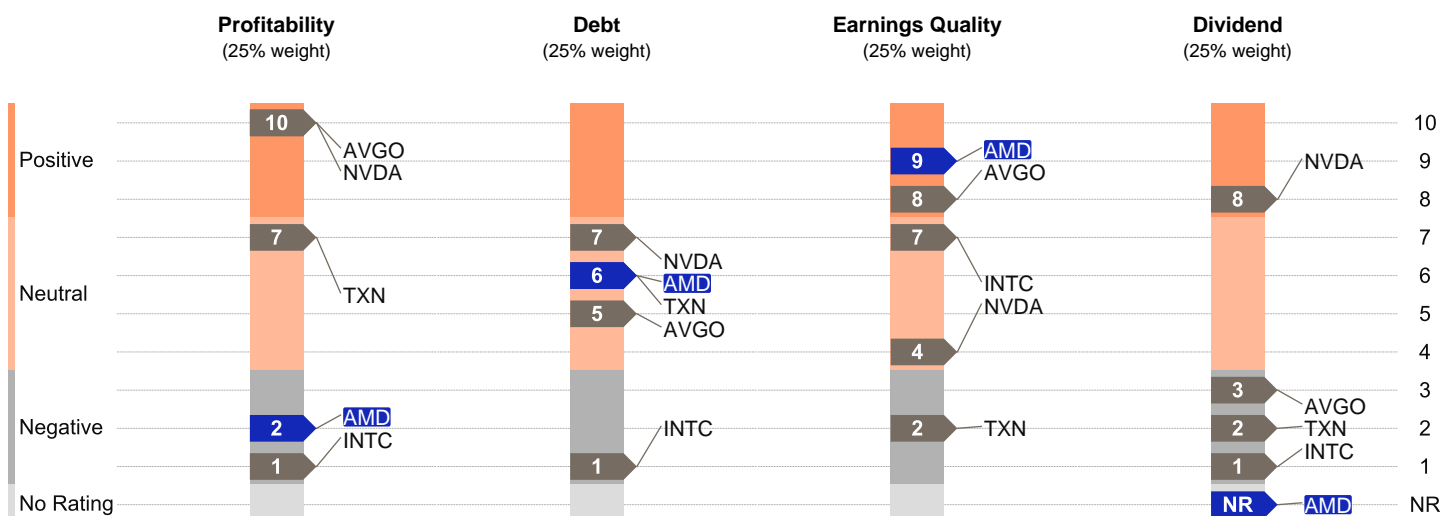
Fundamental Score Averages

Semiconductors & Equipment Group:	**5.7**	Mega Market Cap:	**6.3**
Technology Equipment Sector:	**5.3**	S&P 500 Index:	**6.1**

Fundamental Score Trend
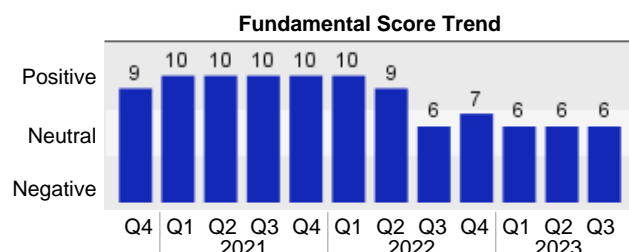
Peers	Q4 2022	Q1 2023	Q2 2023	Q3 2023	Current	3Y Trend
NVDA	7	7	8	8	**9**	
AVGO	9	8	8	8	**8**	
AMD	7	6	6	6	**7**	
TXN	6	5	5	5	**4**	
INTC	1	1	1	1	**1**	

FUNDAMENTAL INDICATORS

Profitability (25% weight)	Debt (25% weight)	Earnings Quality (25% weight)	Dividend (25% weight)
10 — AVGO, NVDA; 7 — TXN; 2 — AMD; 1 — INTC	7 — NVDA; 6 — AMD; 5 — TXN, AVGO; 1 — INTC	9 — AMD; 8 — AVGO; 7 — INTC, NVDA; 4; 2 — TXN	NVDA — 9; 8; 3 — AVGO; 2 — TXN; 1 — INTC; NR — AMD

Revenue Growth	1.4%	Current Ratio	2.2	Oper. Cash Yield	9688%	Dividend Growth	--
For year over year ending 2023-07		For interim period ending 2023-07		For latest 12 months ending --		For year over year ending --	
Gross Margin	33.7%	**Debt-to-Capital**	4.3%	**Accruals**	-15.3%	**Dividend Payout**	--
For latest 12 months ending 2023-07		For annual period ending 2022-12		For latest 12 months ending 2022-12		For latest 12 months ending --	
Return On Equity	0.0%	**Interest Funding**	2.9%	**Days Sales In Inv.**	95.7	**Dividend Coverage**	--
For interim period ending 2023-07		For interim period ending 2023-07		For annual period ending 2022-12		For annual period ending --	
Net Margin	-0.1%	**Interest Coverage**	0.9	**Days Sales In Rec.**	52.8	**Current Div. Yield**	--
For latest 12 months ending 2023-07		For interim period ending 2023-07		For annual period ending 2022-12		For latest 12 months ending --	

HIGHLIGHTS

- Advanced Micro Devices Inc currently has a Fundamental Rating of 7. The average Fundamental Rating for its Semiconductors industry is 5.4 and the S&P 500 index average is 6.1.

- The company's revenue growth has been higher than its industry average for each of the past five years.

- The company's interest coverage has been higher than its industry average for each of the past five years.

- The company's days sales in inventory has been lower than its industry average for each of the past five years.

- Advanced Micro Devices Inc does not currently pay a dividend. Of 81 firms within the Semiconductors industry, it is among the 59 companies without a dividend.

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RELATIVE VALUATION

RELATIVE VALUATION 2

NEGATIVE OUTLOOK: Multiples significantly above the market or the stock's historic norms.

Relative Valuation Score Averages

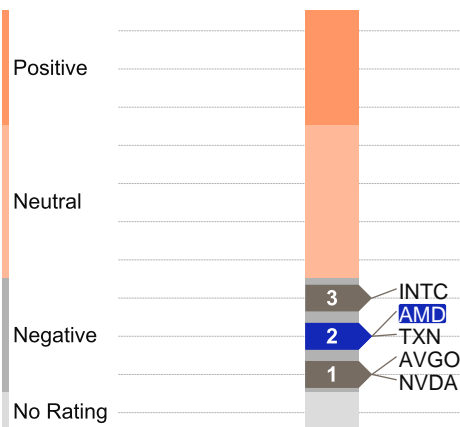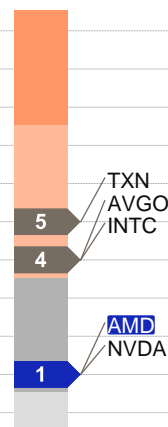|			
Semiconductors & Equipment Group:	**4.3**	Mega Market Cap:	**3.9**
Technology Equipment Sector:	**5.3**	S&P 500 Index:	**4.7**

Relative Valuation Score Trend (4-Week Moving Avg)
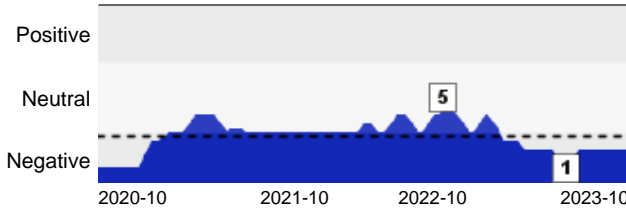
Peers	-6M	-3M	-1M	-1W	Current	1Y Trend
AVGO	4	3	3	3	3	
INTC	4	3	3	3	3	
TXN	3	3	3	3	3	
AMD	**2**	**2**	**2**	**2**	**2**	
NVDA	1	1	2	2	2	

RELATIVE VALUATION INDICATORS

Price to Sales
(33.3% weight)

Trailing PE
(33.3% weight)

Forward PE
(33.3% weight)
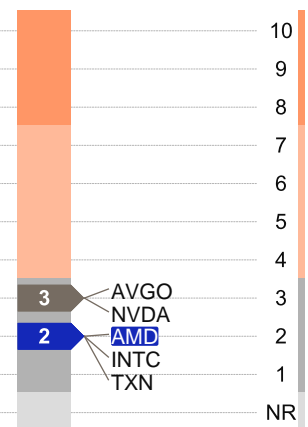
| Price to Sales	7.2	Trailing PE	114.8	Forward PE	28.9
5-Yr Average	7.9	5-Yr Average	71.9	5-Yr Average	36.8
Rel. to 5-Yr Avg.	9% Discount	Rel. to 5-Yr Avg.	60% Premium	Rel. to 5-Yr Avg.	21% Discount
S&P 500 Index	2.2	S&P 500 Index	22.4	S&P 500 Index	17.9
Rel. to S&P 500	>100% Premium	Rel. to S&P 500	>100% Premium	Rel. to S&P 500	61% Premium

HIGHLIGHTS

- Advanced Micro Devices Inc currently has a Relative Valuation Rating of 2 which is significantly below the S&P 500 index average rating of 4.7.

- AMD is currently valued at a premium to the S&P 500 index based on Trailing P/E, Forward P/E, and Forward PEG.

- Based on Forward PEG, AMD currently trades at a 1% Premium to its Semiconductors industry peers. On average, the company has traded at a 9% Discount over the past five years.

- Based on Trailing P/E, AMD currently trades at a >100% Premium to its Semiconductors industry peers. On average, the company has traded at a >100% Premium over the past five years.

- AMD's current Forward P/E of 28.9 represents a 37% Premium to its Semiconductors industry average.

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PRICE TO SALES

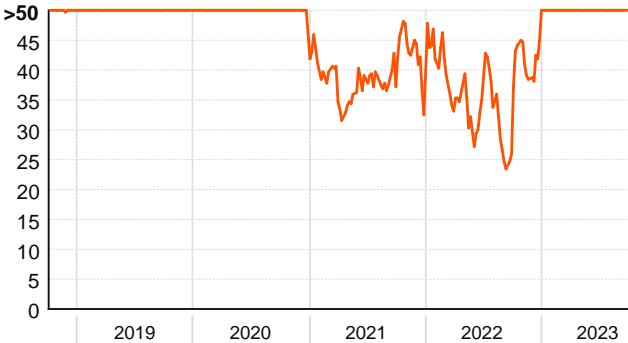The most recent week's close price divided by the revenue per share.

Price to Sales: 7.2
5-Year Average: 7.9
S&P 500 Index Average: 2.2
Semiconductors Industry Average: 6.6
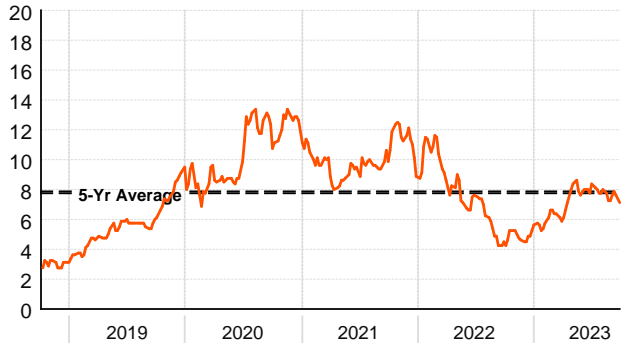
TRAILING PE

The most recent week's close price divided by the sum of the four most recently reported quarterly earnings.
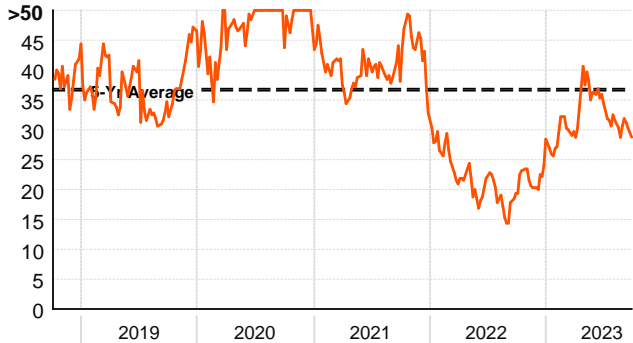
Trailing PE: 114.8
5-Year Average: 71.9
S&P 500 Index Average: 22.4
Semiconductors Industry Average: 35.7

FORWARD PE

The most recent week's close price divided by the sum of the four upcoming quarterly consensus estimates.
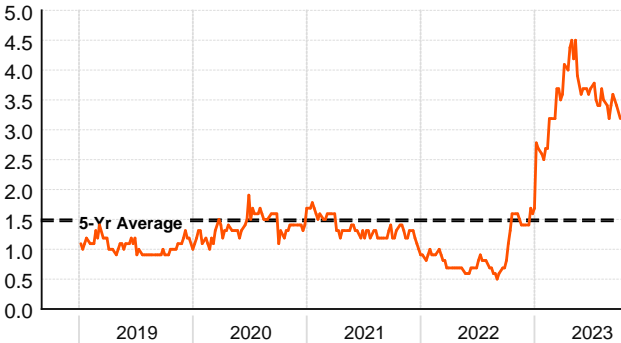
Forward PE: 28.9
5-Year Average: 36.8
S&P 500 Index Average: 17.9
Semiconductors Industry Average: 21.1

FORWARD PEG

The Forward P/E divided by the five-year forecasted growth rate.

Forward PEG: 3.2
5-Year Average: 1.5
S&P 500 Index Average: 1.7
Semiconductors Industry Average: 3.2

LSEG DATA & ANALYTICS

ADVANCED MICRO DEVICES INC (AMD-O)

Technology Equipment / Semiconductors & Equipment / Semiconductors

RISK

RISK

6

NEUTRAL OUTLOOK: Moderate risk (medium volatility).

Risk Score Averages

Semiconductors & Equipment Group:	**5.5**	Mega Market Cap:	**9.1**
Technology Equipment Sector:	**5.0**	S&P 500 Index:	**8.7**

Risk Score Trend (4-Week Moving Avg)
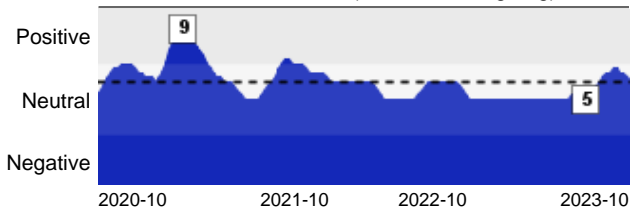
Peers	-6M	-3M	-1M	-1W	Current	1Y Trend
TXN	10	10	10	9	**10**	
AVGO	10	7	8	8	**8**	
AMD	5	5	7	6	**6**	
INTC	7	6	7	7	**6**	
NVDA	6	6	6	6	**6**	

RISK INDICATORS

Magnitude of Returns (25% weight)	Volatility (25% weight)	Beta (1-year) (25% weight)	Correlation (25% weight)
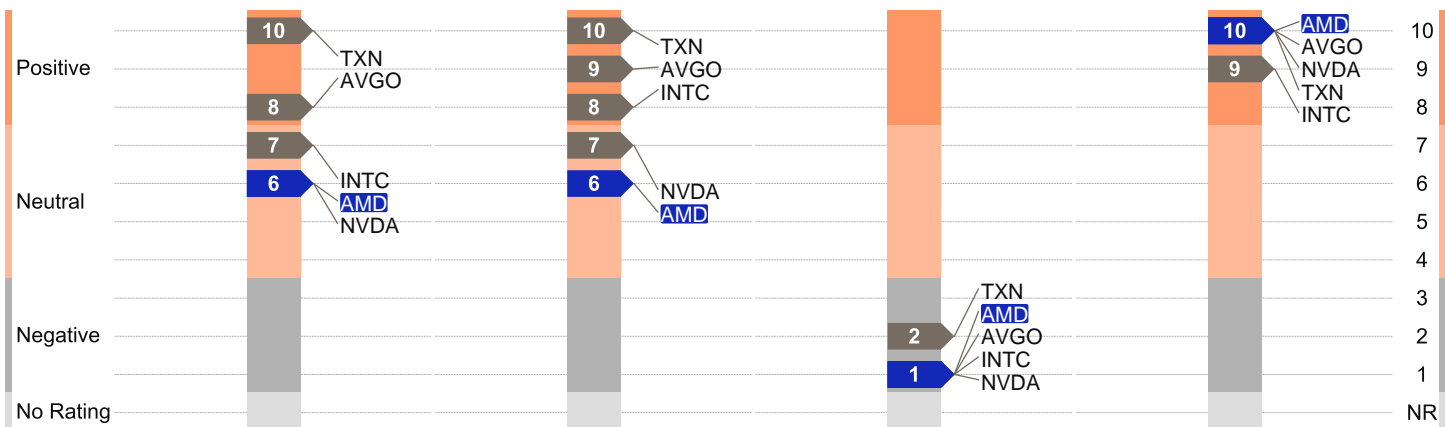
Daily Returns (Last 90 Days)		**Standard Deviation**		**Beta vs. S&P 500**	2.03	**Correlation vs. S&P 500**	
Best	4.8%	Last 90 Days	2.65	Positive Days Only	1.95	Last 90 Days	70%
Worst	-7.0%	Last 60 Months	16.95	Negative Days Only	1.48	Last 60 Months	60%
Monthly Returns (Last 60 Months)		**Intra-Day Swing** (Last 90 Days)		**Beta vs. Group**	1.32	**Correlation vs. Group**	
Best	47.2%	Average	3.8%	Positive Days Only	1.71	Last 90 Days	80%
Worst	-41.1%	Largest	11.1%	Negative Days Only	1.51	Last 60 Months	70%

HIGHLIGHTS

- Advanced Micro Devices Inc currently has a Risk Rating of 6, which is significantly below the S&P 500 index average rating of 8.7.
- On days when the market is up, AMD shares tends to outperform the S&P 500 index. However, on days when the market is down, the shares generally decrease by more than the index.
- In both short-term and long-term periods, AMD has shown high correlation (>= 0.4) with the S&P 500 index. Thus, this stock would provide only low levels of diversification to a portfolio similar to the broader market.
- Over the last 90 days, AMD shares have been more volatile than the overall market, as the stock's daily price fluctuations have exceeded that of 95% of S&P 500 index firms.

RISK ANALYSIS

	Last 90 Days					Last 60 Months	
Peers	Best Daily Return	Worst Daily Return	# Days Up	# Days Down	Largest Intra-Day Swing	Best Monthly Return	Worst Monthly Return
AMD	4.8%	-7.0%	32	33	11.1%	47.2%	-41.1%
AVGO	4.8%	-5.5%	32	33	6.7%	29.0%	-21.0%
INTC	9.3%	-5.1%	36	29	5.8%	31.1%	-20.2%
NVDA	8.5%	-4.8%	33	32	8.0%	36.3%	-35.3%
TXN	2.6%	-3.5%	28	37	3.9%	17.1%	-13.5%
S&P 500	**1.5%**	**-1.6%**	**27**	**37**	**2.4%**	**12.7%**	**-12.5%**

LSEG DATA & ANALYTICS

ADVANCED MICRO DEVICES INC (AMD-O)

Technology Equipment / Semiconductors & Equipment / Semiconductors
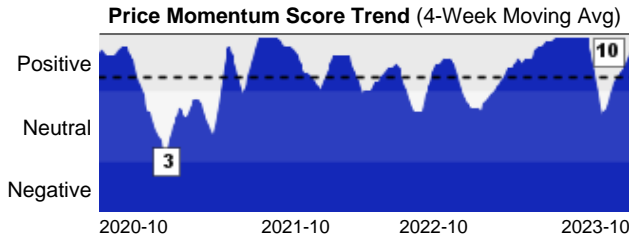
PRICE MOMENTUM

PRICE MOMENTUM 10

Currency in USD

POSITIVE OUTLOOK: Strong recent price performance or entering historically favorable seasonal period.

Price Momentum Score Averages

Semiconductors & Equipment Group:	**7.9**	Mega Market Cap:	**7.4**
Technology Equipment Sector:	**5.9**	S&P 500 Index:	**6.8**

Price Momentum Score Trend (4-Week Moving Avg)

Peers	-6M	-3M	-1M	-1W	Current	1Y Trend
AMD	**9**	**10**	**8**	**10**	**10**	
AVGO	9	10	10	10	10	
NVDA	9	10	10	10	10	
INTC	3	6	8	9	8	
TXN	8	10	8	8	8	

PRICE MOMENTUM INDICATORS

Relative Strength
(50% weight)

Seasonality
(50% weight)

Relative Strength Indicator (Scale from 1 to 100)

	AMD	Industry Avg
Last 10 Days	37	34
Last 50 Days	46	43
Last 200 Days	49	47

Average Monthly Return (Last 10 Years)

	Oct	Nov	Dec
Company Avg	-3.4%	16.5%	2.3%
Industry Avg	-0.10%	6.4%	0.81%
Industry Rank	103 of 128	12 of 128	34 of 128

PRICE PERFORMANCE

Daily close prices are used to calculate the performance of the stock as compared to a relevant index over five time periods.

Legend: ■ AMD   ■ NASDAQ 100
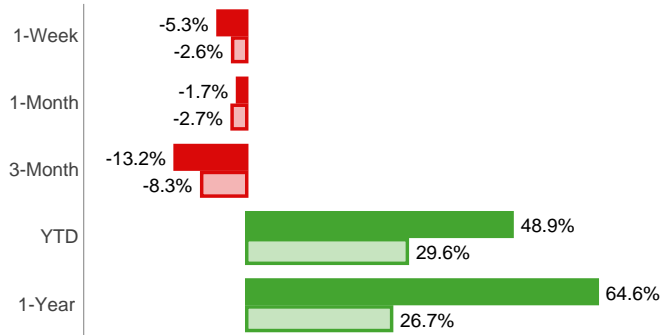
	AMD	NASDAQ 100
Close Price (2023-10-27)	96.43	14,180
52-Week High	132.83	15,841
52-Week Low	58.03	10,679

- The Price Momentum Rating for Advanced Micro Devices Inc is at its 3-year high of 10.
- On 2023-10-27, AMD closed at 96.43, 27.4% below its 52-week high and 66.2% above its 52-week low.
- AMD shares are currently trading 6.9% below their 50-day moving average of 103.63, and 4.3% below their 200-day moving average of 100.78.

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INSIDER TRADING

INSIDER TRADING

2

Currency in USD

NEGATIVE OUTLOOK: Recent or longer-term trend of selling by company insiders.

Insider Trading Score Averages

Semiconductors & Equipment Group:	4.1	Mega Market Cap:	3.8
Technology Equipment Sector:	4.6	S&P 500 Index:	4.3

Insider Trading Score Trend (4-Week Moving Avg)
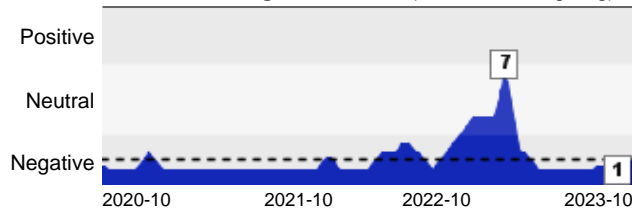
Peers	-6M	-3M	-1M	-1W	Current	1Y Trend
AVGO	3	5	9	7	7	
INTC	7	8	9	7	7	
TXN	4	4	5	5	5	
AMD	1	1	1	2	2	
NVDA	4	1	1	1	1	

INSIDER TRADING INDICATORS

Short-Term Insider (70% weight)

Long-Term Insider (30% weight)
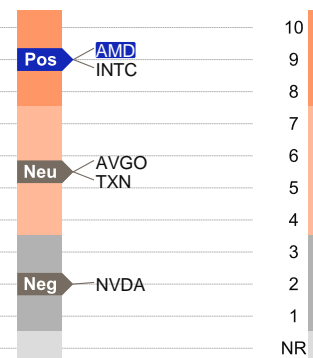
Most Recent Buys and Sells (Last 90 Days)

Insider Name	Role	Tran Date	Tran Type	Shares
Su, Lisa T	CEO	2023-09-12	S	75,000
Grasby, Paul Darren	O	2023-08-30	S	14,942
Su, Lisa T	CEO	2023-08-15	S	75,000

Insider Summary (Last 6 Months)

Total Shares Acquired	1,735,964
Total Shares Disposed	1,237,453
Net Shares	498,511
Sector Average	-105,846

HIGHLIGHTS

- Advanced Micro Devices Inc currently has an Insider Trading Rating of 2, which is significantly more bearish than both the Semiconductors industry average of 4.05 and the Semiconductors & Equipment industry group average of 4.08.

- Executives at Advanced Micro Devices Inc have not purchased or sold any shares thus far this quarter. Over the past five years, the average purchase and sell totals for Q4 have been $0 and $34,015,922 respectively.

MONTHLY BUYS AND SELLS

Excludes derivative and option exercises
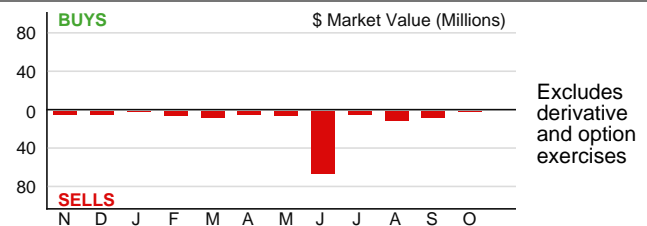
TOP INSTITUTIONAL HOLDERS

Institution Name	Inst. Type	% O/S	Shares Held	Reported Date
The Vanguard Group Inc	Inv Mgmt	8.6%	138M	2023-06-30
BlackRock Institutional	Inv Mgmt	4.9%	78.8M	2023-06-30
State Street Global	Inv Mgmt	4.0%	65.2M	2023-06-30
Fidelity Management	Inv Mgmt	3.1%	49.4M	2023-06-30
T. Rowe Price Associates	Inv Mgmt	2.4%	38.2M	2023-06-30

Updated daily as of 2023-10-28

TOP EXECUTIVE HOLDERS

Insider Name	Role	Direct Shares	Value	Reported Date
Su, Lisa T	CEO	3.36M	341M	2023-09-14
Papermaster, Mark D	CT	1.57M	159M	2023-08-16
Wolin, Harry A	GC	1.43M	145M	2023-08-28
Kumar, Devinder	O	0.56M	56.4M	2023-03-16
Huynh, Jack M	O	0.41M	42.1M	2023-08-16

Updated monthly as of 2023-09-17

LSEG DATA & ANALYTICS

DETAILED STOCK REPORT TIPS

The Stock Report from LSEG is a comprehensive, company-specific analysis that includes a proprietary Stock Rating along with underlying component indicators and supportive data elements. The report is updated daily, although some of the data elements and the ratings are updated weekly.

Average Score

The Stock Reports Plus Average Score combines a quantitative analysis of six widely-used investment decision making tools - Earnings, Fundamental, Relative Valuation, Risk, Price Momentum, and Insider Trading. First, a simple average of the six underlying component ratings is calculated. Then, a normal distribution is used to rank each stock across the market on a scale of 1 to 10, with 10 being most favorable. A score of 8 to 10 is considered positive, 4 to 7 is neutral, and 1 to 3 is negative. These six factors may be evaluated differently using alternative methodologies, and the importance of individual factors varies across groups, market capitalization and investment styles. Additional criteria should always be used to evaluate a stock.

A company must have sufficient data available for at least four of the six component indicators in order to receive an overall Average Score. Approximately 85% of the stocks within the coverage universe meet the criteria to generate a score.

Optimized Score

As an alternative to the Average Score, the Stock Report includes an Optimized Score generated by independent research firm Verus Analytics. It uses the same six component ratings, but rather than equally weighting each of the factors, the weighting varies by market capitalization of the underlying security based on backtesting research. These scores are also updated weekly and distributed normally on a 1 to 10 scale, with 10 being best. The variable size is assigned monthly by ranking the market capitalization and assigning the appropriate category as follows:

> Large - Top 5.55%
> Mid - Next 13.87%
> Small - Next 34.68%
> Micro - Remaining 45.9%

Indicator Components

The six indicators that comprise the stock rating are displayed. Like the stock rating, the component rating scale is 1 to 10, with 10 being best. A company will receive an 'NR' for No Rating if the required data elements or criteria are not met. A detailed section for each component is included in the report.

Indicator Trends

Within each component section, historical score trends are displayed, typically using a 4-week moving average over a timeframe of the past three years. The dotted orange line indicates the average of the scores over those three years. The most recent occurrences of the best and worst scores are also displayed on the chart in grey boxes to put the current score into historical context.

Next to the trend chart for the company, current score averages are included, along with peer company comparisons of values from 6 months ago, 3 months ago, 1 month ago, the most recent value from 1 week ago, and the current score. The four closest industry peers are presented based on similar market capitalization.

Peer Analysis

- The Refinitiv Business Classification (TRBC) schema is used for industry comparisons. It is designed to track and display the primary business of a corporation by grouping together correlated companies that offer products and services into similar end markets. The system includes 10 Economic Sectors, 28 Business Sectors, 54 Industry Groups, and 136 Industries.
- The Peer Analysis section of the report compares the company to its ten closest peers. The peers are selected from the industry based on similar market capitalization. The peer listing may have fewer than ten companies if there are fewer than ten companies classified within that industry.

Highlights

The automated text-generation system from LSEG creates highlights summarizing the most noteworthy data. The bullets will vary by company and will change from week to week as different criteria are met.

Earnings

The Earnings Rating is based on a combination of three factors: earnings surprises, estimate revisions, and recommendation changes. Each factor is equally weighted. Then, equal deciles are used to rank each stock across the market on a scale of 1 to 10, with 10 being most favorable. A stock needs to have at least two of the three earnings factors in order to receive a score.

- Earnings Surprises - The number of positive and negative surprises within the last 4 quarters.
- Estimate Revisions - The number of up and down revisions and the average percentage change of those revisions within a 4 week period.
- Recommendation Changes - The number of broker upgrades and downgrades in the last 120 days.

Price Target

The price target is based on the predictions of analysts covering the stock and shows the high, low and mean price expected within the next 12 months.

Earnings Per Share

The quarterly and annual earnings per share are presented when available, along with the mean, high and low. Quarterly data is displayed for the past 4 quarters (actual) and the next 2 quarters (estimated). Annual data is displayed for the past 2 years (actual) and the next 2 years (estimated).

Mean Estimate Trend

The mean estimates show how the consensus has changed over the past 30 days and 90 days for the upcoming two quarters and two years. The percentage change is calculated for the company as a means for comparison by measuring the difference between the current consensus estimate and that of 90 days ago.

Analyst Recommendations

The I/B/E/S Mean is the average recommendation of all analysts covering the stock, as provided by I/B/E/S, the Institutional Brokers Estimate System, from LSEG. The recommendations are presented on a five-point standardized scale: strong buy, buy, hold, sell, and strong sell.

Earnings Surprises

- The surprise summary includes the total number of quarters (and percentage) in the past 12 quarters in which earnings surprises were positive, negative, or in-line. In order to be recognized as a positive or negative surprise, the percent must be greater than 2% above or 2% below the consensus, respectively.
- The surprise detail section includes a listing of the company's quarterly earnings reported for the most recent 6 quarters. The consensus analyst estimate is provided to determine if the actual earnings report represented a positive surprise, negative surprise, or in-line result.

Fundamental

The Fundamental Rating is based on a combination of four factors: profitability, debt, earnings quality, and dividend. Companies that do not pay a dividend are not penalized. Each factor is equally weighted. Then, equal deciles are used to rank each stock across the market on a scale of 1 to 10, with 10 being most favorable. A stock needs to have at least two of the four fundamental factors present for a given fiscal quarter in order to receive a score.

Profitability

- Revenue Growth: (Net Sales - Previous Net Sales) / Previous Net Sales
- Gross Margin: Gross Profit / Net Sales
- Return on Equity: Net Income / Total Equity
- Net Margin: Net Profit / Net Sales

Debt

- Current Ratio: Current Assets / Current Liabilities
- Debt-to-Capital: Total Debt / Total Capital
- Interest Funding: (Interest Expense on Debt + Preferred Cash Dividends) / Funds from Operations
- Interest Coverage: Earnings before Interest and Taxes / (Interest Expense on Debt + Preferred Cash Dividends)

Earnings Quality

- Operating Cash Yield: (Operating Cash Flow - Net Income) / Net Income
- Accruals: (Net Income - Operating Cash Flow - Investing Cash Flow) / Average Net Operating Assets
- Days Sales in Inventory: 365 / (Cost of Goods Sold / Inventory)
- Days Sales in Receivables: 365 / (Net Sales / Receivables)

Dividend

The company must have a current dividend yield.

- Dividend Growth Rate: (Dividends per Share - Previous Dividends per Share) / Previous Dividends per Share
- Dividend Funding: Dividends / Operating Cash Flow
- Dividend Coverage: (Pre-Tax Income + Interest Expense) / (Interest Expense + Dividends)
- Dividend Yield: Annual Dividends per Share / Current Market Price per Share

Indicator Trend

The fundamental indicator trend displays quarterly scores over the past three years. The best and worst scores over that timeframe can be easily determined from the values shown on the chart for each quarter.

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Relative Valuation

The Relative Valuation Rating is based on a combination of three factors: Price to Sales, Trailing P/E, and Forward P/E. Each factor is equally weighted. After the individual factors are combined, equal deciles are used to rank each stock across the market on a scale of 1 to 10, with 10 being most favorable. These common valuation metrics are evaluated against the overall market, the index, and the company's own historic 5-year averages. A stock needs to have at least one of the three relative valuation factors in order to receive a score.

- Price to Sales: Close Price / (Sales for 4 Quarters / Shares Outstanding)
- Trailing P/E: Close Price / Most Recent 4 Quarters of Earnings
- Forward P/E: Close Price/ Upcoming 4 Quarters of Earnings

Valuation Averages

Negative values are excluded when calculating the averages. A maximum value of 100 is placed on Trailing P/E and Forward P/E, a maximum value of 5 is placed on Forward PEG, and a maximum value of 20 is placed on Price to Sales when calculating the averages. Higher values are rounded down to the maximum for the averages.

Valuation Multiples

The valuation multiples provide the Trailing P/E, Forward P/E, Forward PEG, and Price to Sales for the company and the S&P 500 index average. In addition, a comparison of the current company's values to its 5-year average and an industry average are presented. A discount occurs when the company's ratio is valued more favorably (lower) than that to which it is compared.

Risk

The Risk Rating displays stocks on a scale of 1 to 10 with 10 being awarded to the least risky stocks. It is derived by looking at a series of long-term (5-year) and short-term (90-day) stock performance measures including volatility, magnitude of returns, beta, and correlation. Each factor is equally weighted. Then, equal deciles are used to rank each stock across the market. A stock needs to have at least two of the four risk factors in order to receive a score.

- Magnitude of Returns - The best / worst daily returns in the past 90 days and the best / worst monthly returns in the past 60 months.
- Volatility - The standard deviation of the stock price over the last 90 days and last 60 months, along with the average and largest intra-day stock swing.
- Beta - Measures the tendency of a security's returns to respond to swings in the market, based on the beta of the company versus the relevant index.
- Correlation - Determines how closely the returns of the stock and the relevant index move together, measured over the last 90 days and last 60 months.

Risk Analysis

Price analysis for the company and the S&P 500 is provided over two time periods. Daily analysis is provided for the last 90 days, whereas monthly statistics are used for the last 60 months.

Price Momentum

The Price Momentum Rating is based on a combination of two technical performance factors: relative strength and seasonality. The factors are equally weighted. Equal deciles are then used to rank each stock across the market on a scale of 1 to 10, with 10 being most favorable. A stock needs to have data for the relative strength factor in order to receive a score.

- Relative Strength - The relative strength of the company for the last 10 days, 50 days, and 200 days on a scale of 1 to 100.
- Seasonality - The average monthly return (price performance) for the current month and next 2 months for the company and industry, over the past 10 years. A lower industry rank indicates a higher return.

Price Performance

Daily close prices are used to calculate the price performance of the stock. The performance of the S&P 500 is also displayed as a means of comparison.

Insider Trading

The Insider Trading Rating is based on short-term (70% weight) and long-term (30% weight) legal insider trading behavior. After the weightings are considered to combine individual factors, a function similar to a normal distribution is used to rank each stock across the market on a scale of 1 to 10, with 10 being most favorable. A stock needs to have at least one of the two insider trading factors in order to receive a score.

- Short-Term Insider - Uses insider buy and sell transactions within the past 90 days. This factor is based on the quantitative insider trading model from LSEG that considers the insider's role, consensus, number of shares, market capitalization of the company, and the historic stock performance following trades by the given insider.
- Long-Term Insider - Looks at buying, selling and option exercise decisions over the past six months relative to other stocks within the same business sector. The net shares are presented alongside the business sector average as a means of comparison.

Monthly Buys and Sells

The total market value of open-market buying and selling is displayed by month in the chart for easy comparison. Transactions by trusts and corporations are excluded, along with buys greater than $10 million and sales greater than $50 million. Transactions for the exercise of derivatives and option exercises are excluded from the totals.

Institutional Holders

The top five institutional holders of the company are listed in descending order, based on their total share holdings. Possible values for the institution type include Brokerage, Funds, Inv Mgmt, or Strategic.

Executive Holders

The top five executive insiders of the company are listed in descending order, based on their total direct common share holdings (options are not considered). Indirect holdings are excluded, as the owner may not actually have investment discretion over these shares. This table is updated monthly. Insiders who have not filed any transactions or holdings over the past two years are excluded as this may indicate that the individual is no longer associated with the company. Additionally, direct shares held must be greater than 1,000 to be considered.

Insider Roles

These role codes may appear in the data for recent insider buys and sells or top executive holders:

AF - Affiliate	IA - Investment Advisor
AI - Affiliate of Advisor	MC - Member of Committee
B - Beneficial Owner	MD - Managing Director
C - Controller	O - Officer
CB - Chairman	OB - Officer / Beneficial Owner
CEO - Chief Executive Officer	OD - Officer / Director
CFO - Chief Financial Officer	OE - Other Executive
CI - Chief Investment Officer	OS - Officer of Subsidiary
CO - Chief Operating Officer	OT - Officer / Treasurer
CT - Chief Technology Officer	OX - Divisional Officer
D - Director	P - President
DO - Director / Beneficial Owner	R - Retired
DS - Indirect Shareholder	S - Secretary
EC - Member of Exec Committee	SH - Shareholder
EVP - Exec Vice President	SVP - Senior Vice President
FO - Former	T - Trustee
GC - General Counsel	UT - Unknown
GP - General Partner	VC - Vice Chairman
H - Officer / Director / Owner	VP - Vice President

DISCLAIMER

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