ADOBE INC (ADBE-O)
Software & IT Services / Software & IT Services / Software

Last Close	Avg Daily Vol	52-Week High	Trailing PE	Annual Div	ROE	LTG Forecast	1-Mo Return
532.06 (USD)	**2.6M**	**574.40**	**47.9**	**--**	**34.0%**	**14.7%**	**4.3%**
2023 October 31 NASDAQ Exchange	Market Cap	52-Week Low	Forward PE	Dividend Yield	Annual Rev	Inst Own	3-Mo Return
	231.3B	**278.23**	**30.6**	**--**	**18.9B**	**85.8%**	**-2.6%**

AVERAGE SCORE

AVERAGE SCORE

8

POSITIVE OUTLOOK: ADBE's current score of 8 places it among the top quartile of stocks scored.

Score Averages

Software & IT Services Group:	**4.8**	Mega Market Cap:	**6.9**
Software & IT Services Sector:	**4.8**	S&P 500 Index:	**6.7**

Average Score Trend (4-Week Moving Avg)
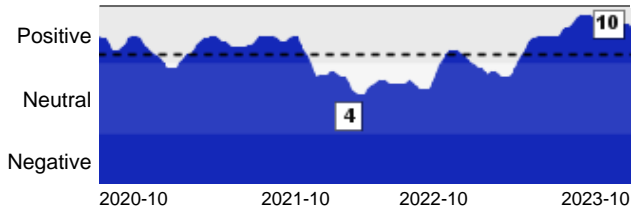
Peers	-6M	-3M	-1M	-1W	Current	1Y Trend
ROP	8	9	8	9	**9**	
ADBE	**8**	**9**	**9**	**9**	**8**	
ADSK	7	8	6	7	**7**	
EA	6	8	6	7	**7**	
WDAY	4	5	6	6	**6**	

HIGHLIGHTS

- The score for Adobe Inc dropped slightly this week from 9 to 8.

- The recent change in the Average Score was primarily due to a decline in the Insider Trading component score.
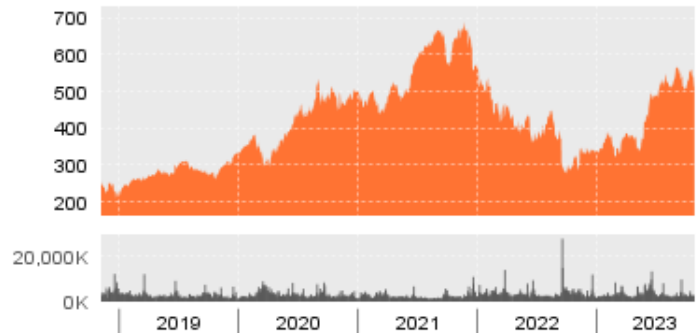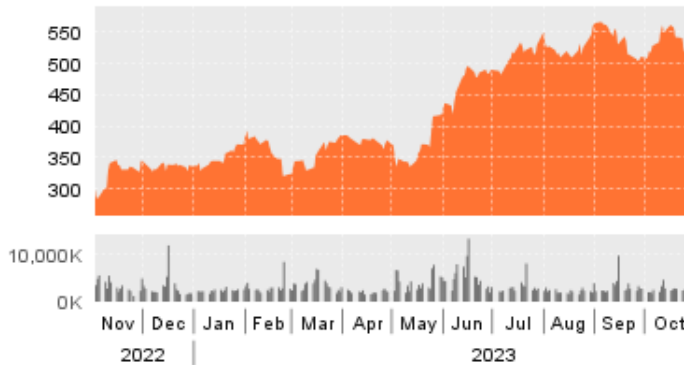
I/B/E/S MEAN

Buy
35 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: 67.1%

5-Year Return: 116.5%

BUSINESS SUMMARY

Adobe Inc., formerly Adobe Systems Incorporated, is a software company. The Company offers products and services used by professionals, marketers, knowledge workers, application developers, enterprises and consumers for creating, managing, measuring, optimizing and engaging with compelling content and experiences. It operates through three segments: Digital Media, Digital Experience and Publishing. Its Digital Media segment provides tools and solutions that enable individuals, small and medium businesses and enterprises to create, publish, promote and monetize their digital content. Its Digital Experience segment provides solutions and services for how digital advertising and marketing are created, managed, executed, measured and optimized. Its Publishing segment addresses market opportunities ranging from the diverse authoring and publishing needs of technical and business publishing to its legacy type and original equipment manufacturer printing businesses.

LSEG DATA & ANALYTICS

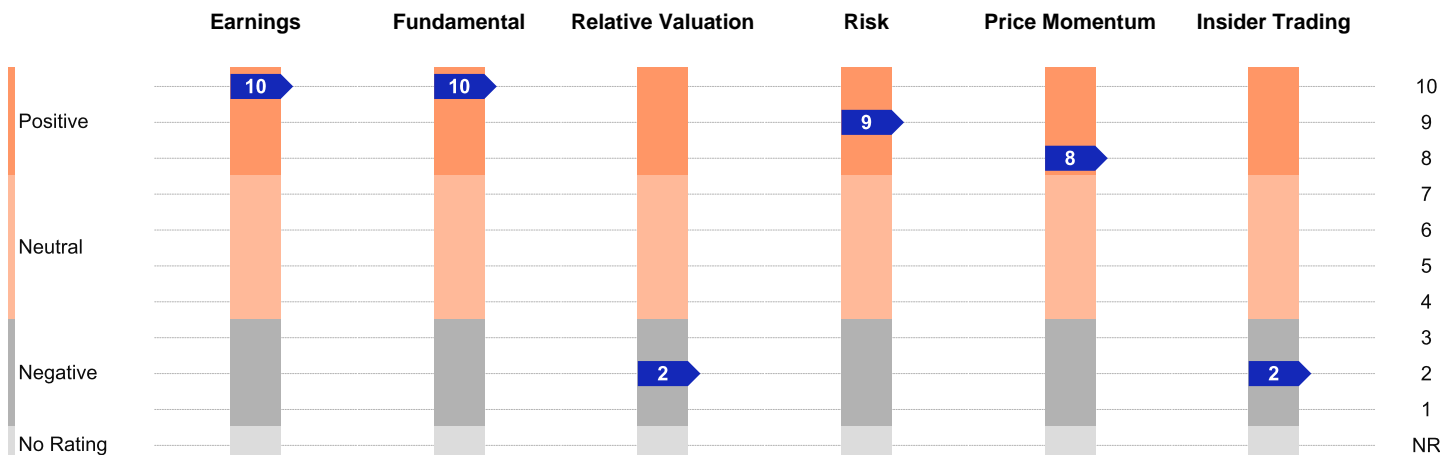## INDICATOR COMPONENTS

AVERAGE SCORE 8

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.

Chart of Indicator Components (scale from No Rating/NR to 10, with Positive, Neutral, Negative, No Rating bands):
- Earnings: 10
- Fundamental: 10
- Relative Valuation: 2
- Risk: 9
- Price Momentum: 8
- Insider Trading: 2

OPTIMIZED SCORE

OPTIMIZED SCORE 10

Historically, companies with an Optimized Score of 10 have tended to significantly 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 (2023-10-31)	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**		
8	ADBE	532.06	4.3%	-2.6%	67.1%	231.3B	47.9	30.6	--	27.1%	14.7%	Buy	35
9	ROP	488.57	0.89%	-0.91%	17.9%	50.7B	17.8	27.5	0.56%	48.8%	10.5%	Buy	17
6	WDAY	211.71	-1.5%	-10.7%	35.9%	42.4B	--	35.4	--	-1.8%	29.4%	Buy	38
7	ADSK	197.63	-4.5%	-6.8%	-7.8%	41.7B	48.9	24.9	--	16.8%	14.9%	Buy	27
7	EA	123.79	2.8%	-9.2%	-1.7%	33.2B	38.3	18.8	0.61%	11.8%	9.3%	Buy	28
5	DDOG	81.47	-10.6%	-30.2%	1.2%	24.4B	--	57.3	--	-4.4%	32.0%	Buy	37
6	ANSS	278.26	-6.5%	-18.7%	25.8%	23.5B	46.4	31.0	--	24.1%	11.1%	Buy	17
5	PTC	140.42	-0.89%	-3.7%	19.2%	16.2B	54.6	29.5	--	14.9%	11.3%	Buy	19
6	GRAB	3.07	-13.3%	-19.8%	18.1%	11.5B	--	--	--	-55.2%	--	Buy	22
5	APP	36.44	-8.8%	16.1%	114.9%	10.0B	607.3	32.3	--	0.7%	--	Buy	21
6	DBX	26.30	-3.4%	-2.4%	20.9%	6.9B	17.7	13.5	--	21.6%	14.6%	Hold	11
6.4	Average	192.70	-3.8%	-8.1%	28.3%	44.7B	109.9	30.1	0.59%	9.5%	16.4%	Buy	24.7

PEER COMPANIES

ADSK	Autodesk Inc		EA	Electronic Arts Inc
ANSS	ANSYS Inc		GRAB	Grab Holdings
APP	Applovin Corp		PTC	PTC Inc
DBX	Dropbox Inc		ROP	Roper Technologies Inc
DDOG	Datadog Inc		WDAY	Workday Inc

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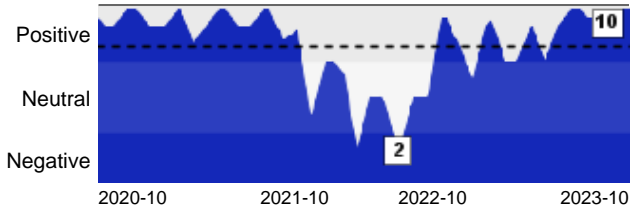
EARNINGS

Currency in USD

EARNINGS 10

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

Earnings Score Averages

Software & IT Services Group:	6.4	Mega Market Cap:	6.8
Software & IT Services Sector:	6.4	S&P 500 Index:	6.2

Earnings Score Trend (4-Week Moving Avg)

Peers	-6M	-3M	-1M	-1W	Current	1Y Trend
ADBE	7	9	10	10	10	
ROP	9	10	10	10	10	
WDAY	5	7	10	10	10	
EA	6	8	7	9	9	
ADSK	8	7	5	5	5	

EARNINGS INDICATORS

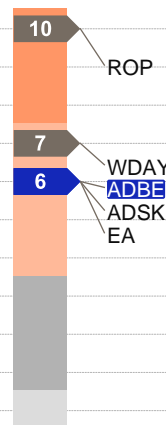**Earnings Surprises**
(33.3% weight)
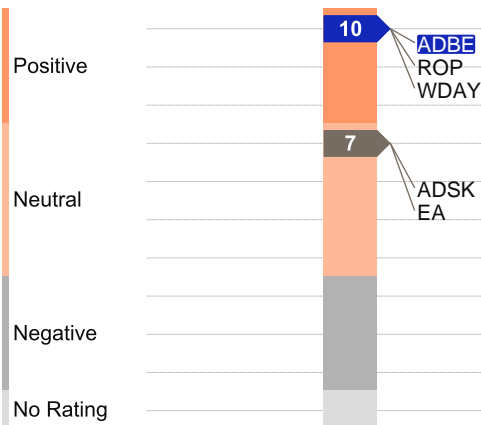
Estimate Revisions
(33.3% weight)

Recommendation Changes
(33.3% weight)
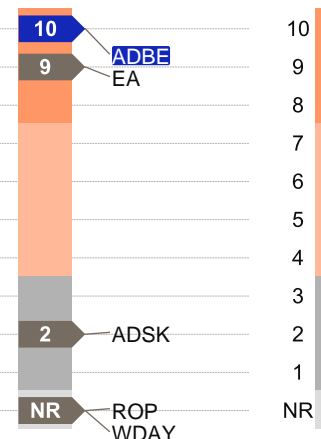
Last 4 Quarters	
# Positive Surprises (>2%)	4
# Negative Surprises (<-2%)	0
# In-Line Surprises (within 2%)	0
Avg Surprise	3.0%

Last 4 Weeks	
# Up Revisions	0
# Down Revisions	1
Avg Up Revisions	0.00%
Avg Down Revisions	-2.9%

Last 120 Days	
# Broker Upgrades	5
# Broker Downgrades	0

HIGHLIGHTS

- Adobe Inc currently has an Earnings Rating of 10, which is significantly more bullish than the Software industry average of 6.8. ADBE scores a bullish 7 or greater for two of three component ratings.

- Over the past 90 days, the consensus price target for ADBE has increased notably from 547.00 to 611.00, a gain of 11.7%.

- Over the past 4 quarters, the company has reported 4 positive, 0 negative, and 0 in-line surprises. The average surprise for this time period has been 3.0%. Most recently on 2023-09-14, the company reported quarterly earnings of 4.09 per share, a positive surprise of 2.8% above the consensus of 3.98.

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)	611.00
High	660.00
Low	428.00
Target vs. Current	14.8%
# of Analysts	28

LSEG DATA & ANALYTICS

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.
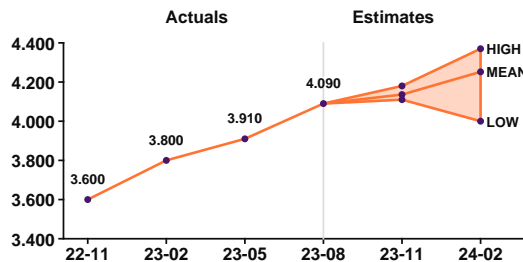
Quarterly	23-11	24-02
Mean	4.136	4.252
High	4.180	4.370
Low	4.110	4.000
# of Analysts	26	23
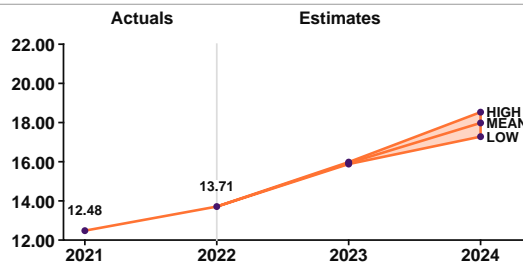
Annual	2023	2024
Mean	15.930	17.980
High	15.980	18.530
Low	15.880	17.280
# of Analysts	29	30

MEAN ESTIMATE TREND

	Q 23-11	Q 24-02	Y 2023	Y 2024	Price Target
Current	4.136	4.252	15.930	17.980	611.00
30 Days Ago	4.136	4.251	15.930	17.970	604.00
90 Days Ago	4.057	4.235	15.730	17.790	547.00
% Change (90 Days)	1.9%	0.40%	1.3%	1.1%	11.7%

Current Fiscal Year End: 23-11
Next Expected Report Date: 2023-12-13

ANALYST RECOMMENDATIONS

I/B/E/S Mean: **Buy** (35 Analysts)

Strong Buy	11
Buy	15
Hold	9
Sell	0
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%)	8	66.7%
Negative Quarters (< -2%)	0	--
In-Line Quarters (within 2%)	4	33.3%

Surprise Detail (Last 6 Periods)

Surprise Type	Announce Date	Period End Date	Actual EPS	Mean EPS	Surprise (%)
Positive	2023-09-14	2023-08-31	4.090	3.979	2.8%
Positive	2023-06-15	2023-05-31	3.910	3.787	3.2%
Positive	2023-03-15	2023-02-28	3.800	3.680	3.3%
Positive	2022-12-15	2022-11-30	3.600	3.503	2.8%
In-Line	2022-09-15	2022-08-31	3.400	3.334	2.0%
In-Line	2022-06-16	2022-05-31	3.350	3.309	1.2%

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.
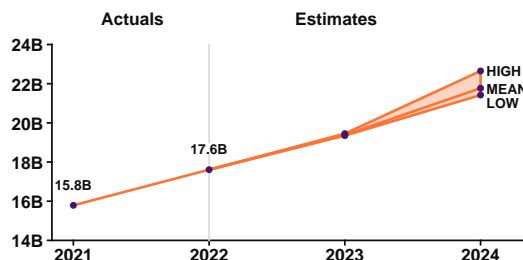
	2023	2024
Mean	19.4B	21.8B
High	19.5B	22.7B
Low	19.4B	21.4B
Forecasted Growth	10.1%	23.6%
# of Analysts	30	30

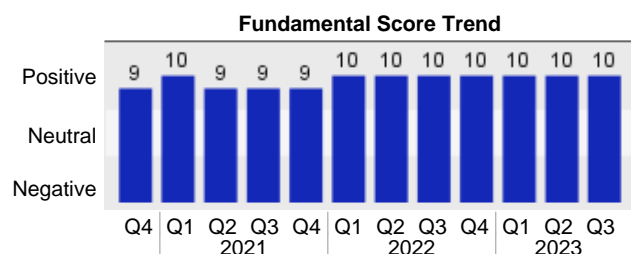**LSEG** DATA & ANALYTICS

FUNDAMENTAL

FUND-AMENTAL 10

POSITIVE OUTLOOK: Strong fundamentals such as high profit margins, low debt levels, or growing dividends.
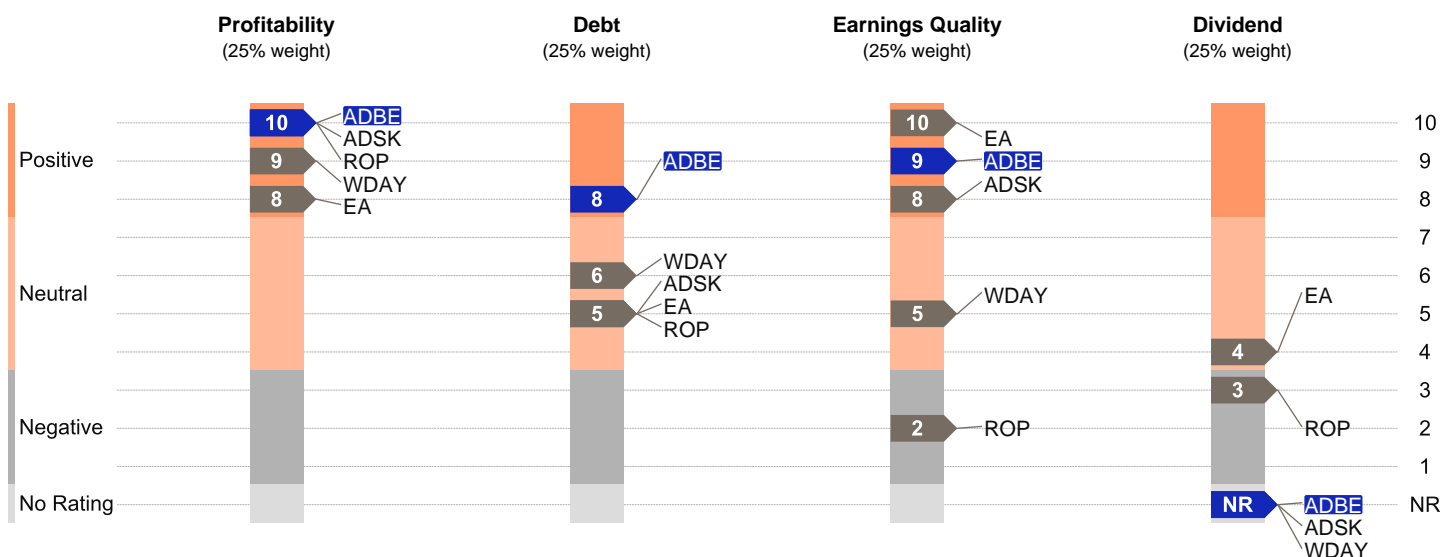
Fundamental Score Averages

Software & IT Services Group:	**5.5**	Mega Market Cap:	**6.3**
Software & IT Services Sector:	**5.5**	S&P 500 Index:	**6.1**

Fundamental Score Trend

Scores: 9, 10, 9, 9, 9, 10, 10, 10, 10, 10, 10, 10 (Q4 2021 — Q3 2023)

Peers	Q4 2022	Q1 2023	Q2 2023	Q3 2023	Current	3Y Trend
ADBE	**10**	**10**	**10**	**10**	**10**	
ADSK	10	9	9	7	**10**	
EA	9	10	9	8	**8**	
WDAY	5	7	7	7	**8**	
ROP	4	4	4	4	**5**	

FUNDAMENTAL INDICATORS

Profitability (25% weight)
- ADBE 10
- ADSK
- ROP 9
- WDAY
- EA 8

Debt (25% weight)
- ADBE 8
- WDAY 6
- ADSK
- EA 5
- ROP

Earnings Quality (25% weight)
- EA 10
- ADBE 9
- ADSK 8
- WDAY 5
- ROP 2

Dividend (25% weight)
- EA
- 4
- 3
- ROP
- ADBE NR
- ADSK
- WDAY

Revenue Growth	9.9%	**Current Ratio**	1.2	**Oper. Cash Yield**	56.8%	**Dividend Growth**	--
For year over year ending 2023-09		For interim period ending 2023-09		For latest 12 months ending --		For year over year ending --	
Gross Margin	87.0%	**Debt-to-Capital**	20.5%	**Accruals**	-19.9%	**Dividend Payout**	--
For latest 12 months ending 2023-09		For annual period ending 2022-12		For latest 12 months ending 2022-12		For latest 12 months ending --	
Return On Equity	34.0%	**Interest Funding**	1.4%	**Days Sales In Inv.**	--	**Dividend Coverage**	--
For interim period ending 2023-09		For interim period ending 2023-09		For annual period ending --		For annual period ending --	
Net Margin	27.1%	**Interest Coverage**	65.6	**Days Sales In Rec.**	40.9	**Current Div. Yield**	--
For latest 12 months ending 2023-09		For interim period ending 2023-09		For annual period ending 2022-12		For latest 12 months ending --	

HIGHLIGHTS

- Adobe Inc currently has a Fundamental Rating of 10, which is significantly more bullish than the Software industry average of 5.7.
- The company's gross margin has been higher than its industry average for each of the past five years.
- The company's debt-to-capital has been higher than its industry average for each of the past five years.

- The company's operating cash yield has been lower than its industry average for each of the past five years.
- Adobe Inc does not currently pay a dividend. Of 292 firms within the Software industry, it is among the 267 companies without a dividend.

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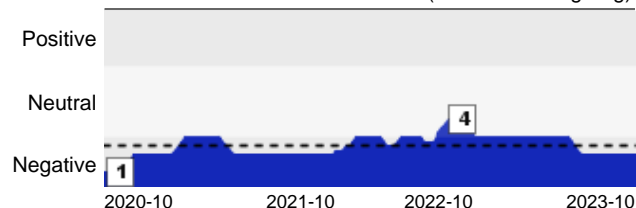
RELATIVE VALUATION

RELATIVE VALUATION

2

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

Relative Valuation Score Averages

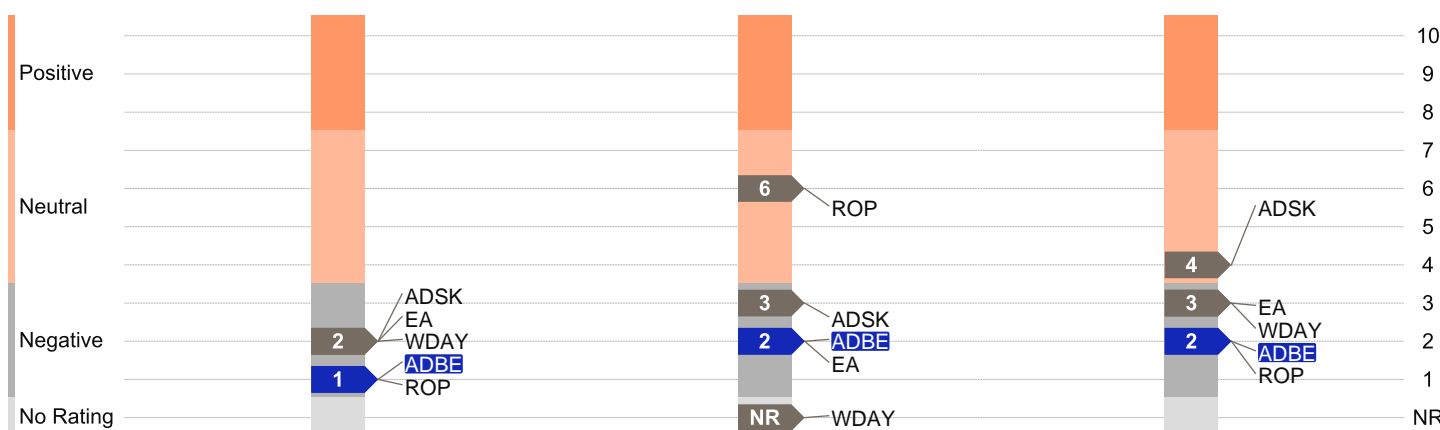|			
Software & IT Services Group:	5.3	Mega Market Cap:	3.9
Software & IT Services Sector:	5.3	S&P 500 Index:	4.7

Relative Valuation Score Trend (4-Week Moving Avg)

Peers	-6M	-3M	-1M	-1W	Current	1Y Trend
ADSK	3	3	3	3	3	
EA	3	3	3	3	3	
ROP	3	3	3	3	3	
ADBE	3	2	2	2	2	
WDAY	3	2	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		Trailing PE		Forward PE	
Price to Sales	12.6	Trailing PE	47.9	Forward PE	30.6
5-Yr Average	14.3	5-Yr Average	47.9	5-Yr Average	34.4
Rel. to 5-Yr Avg.	12% Discount	Rel. to 5-Yr Avg.	0.1% Premium	Rel. to 5-Yr Avg.	11% Discount
S&P 500 Index	2.2	S&P 500 Index	22.8	S&P 500 Index	18.3
Rel. to S&P 500	>100% Premium	Rel. to S&P 500	>100% Premium	Rel. to S&P 500	68% Premium

HIGHLIGHTS

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

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

- ADBE's Forward PEG of 2.1 represents a 4% Premium to its 5-year average of 2.0.

- ADBE's Trailing P/E of 47.9 represents a 0.1% Premium to its 5-year average of 47.9.

- ADBE's Forward P/E of 30.6 represents a 11% Discount to its 5-year average of 34.4.

LSEG DATA & ANALYTICS

PRICE TO SALES

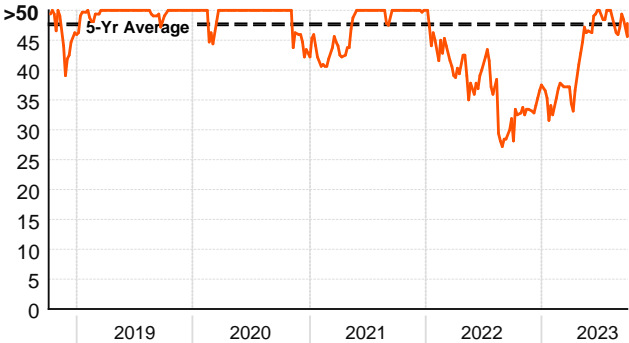The most recent week's close price divided by the revenue per share.

Price to Sales: 12.6
5-Year Average: 14.3
S&P 500 Index Average: 2.2
Software Industry Average: 8.2
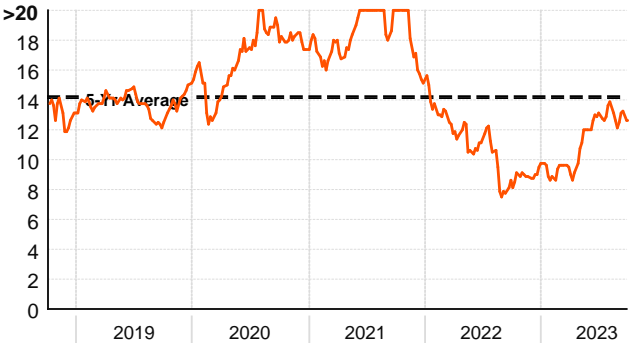
TRAILING PE

The most recent week's close price divided by the sum of the four most recently reported quarterly earnings.
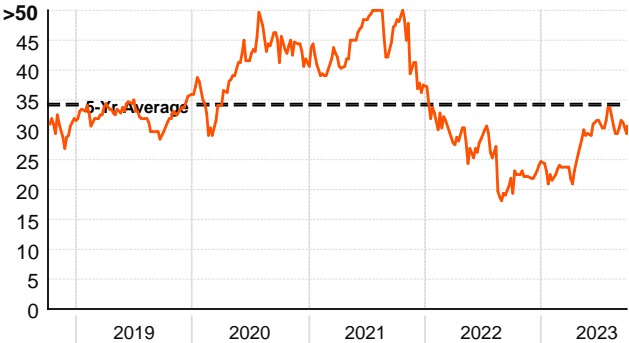
Trailing PE: 47.9
5-Year Average: 47.9
S&P 500 Index Average: 22.8
Software Industry Average: 54.5

FORWARD PE

The most recent week's close price divided by the sum of the four upcoming quarterly consensus estimates.
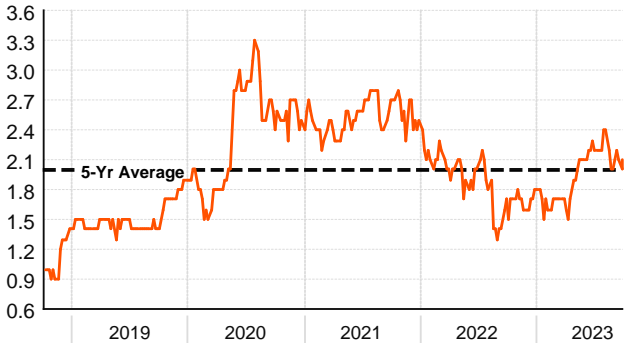
Forward PE: 30.6
5-Year Average: 34.4
S&P 500 Index Average: 18.3
Software Industry Average: 30.3

FORWARD PEG

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

Forward PEG: 2.1
5-Year Average: 2.0
S&P 500 Index Average: 1.7
Software Industry Average: 1.4

LSEG DATA & ANALYTICS

RISK

RISK 9

POSITIVE OUTLOOK: Consistent return patterns (low volatility).

Risk Score Averages

Software & IT Services Group:	4.6	Mega Market Cap:	9.1
Software & IT Services Sector:	4.6	S&P 500 Index:	8.7

Risk Score Trend (4-Week Moving Avg)
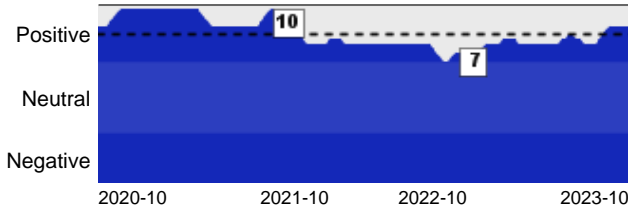
Peers	-6M	-3M	-1M	-1W	Current	1Y Trend
EA	9	10	10	10	10	
ROP	10	10	10	10	10	
ADBE	**8**	**8**	**9**	**9**	**9**	
ADSK	7	9	9	9	9	
WDAY	8	7	7	7	7	

RISK INDICATORS

Magnitude of Returns (25% weight) — ROP 10, ADBE 9, ADSK, EA 8, WDAY 7

Volatility (25% weight) — EA/ROP 10, ADBE 9, ADSK, WDAY 8

Beta (1-year) (25% weight) — 7 (EA/ROP), 4, ADBE/ADSK/WDAY 1

Correlation (25% weight) — ADBE 10, ADSK, EA, ROP, WDAY
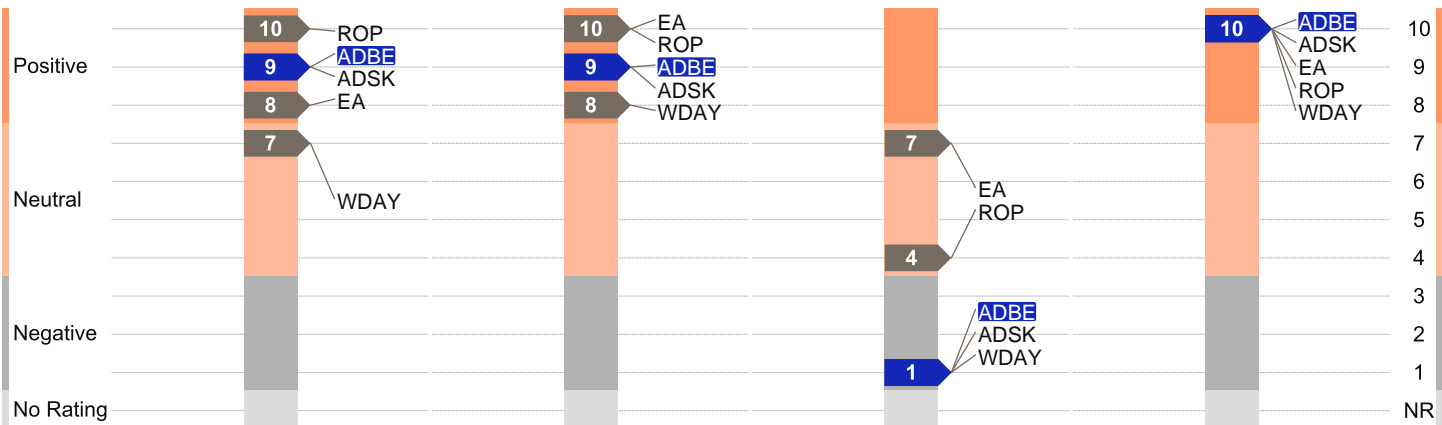
Daily Returns (Last 90 Days)		**Standard Deviation**		**Beta vs. S&P 500**	1.68	**Correlation vs. S&P 500**
Best	3.7%	Last 90 Days	1.83	Positive Days Only	1.69	Last 90 Days	74%
Worst	-4.2%	Last 60 Months	9.77	Negative Days Only	1.46	Last 60 Months	74%
Monthly Returns (Last 60 Months)		**Intra-Day Swing** (Last 90 Days)		**Beta vs. Group**	0.91	**Correlation vs. Group**
Best	19.0%	Average	2.4%	Positive Days Only	0.93	Last 90 Days	63%
Worst	-26.3%	Largest	5.6%	Negative Days Only	0.99	Last 60 Months	60%

HIGHLIGHTS

- Adobe Inc currently has a Risk Rating of 9 while the S&P 500 index has an average rating of 8.7.
- On days when the market is up, ADBE 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, ADBE 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, ADBE shares have been more volatile than the overall market, as the stock's daily price fluctuations have exceeded that of 77% 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
ADBE	3.7%	-4.2%	31	34	5.6%	19.0%	-26.3%
ADSK	3.5%	-3.2%	31	34	4.8%	24.3%	-20.0%
EA	2.8%	-7.2%	31	34	3.7%	17.5%	-24.5%
ROP	1.9%	-1.9%	32	33	5.5%	15.6%	-11.3%
WDAY	5.4%	-8.5%	35	30	6.0%	32.5%	-24.8%
S&P 500	**1.5%**	**-1.6%**	**27**	**37**	**2.4%**	**12.7%**	**-12.5%**

LSEG DATA & ANALYTICS

ADOBE INC (ADBE-O)
Software & IT Services / Software & IT Services / Software
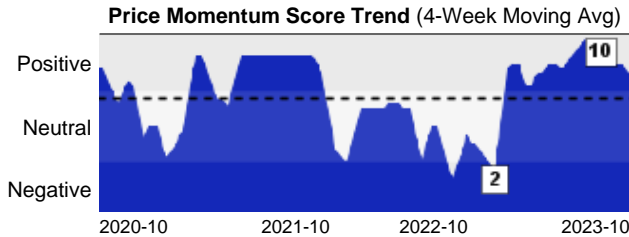
PRICE MOMENTUM

PRICE MOMENTUM
8

Currency in USD

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

Price Momentum Score Averages

Software & IT Services Group: **5.0**	Mega Market Cap: **7.4**	
Software & IT Services Sector: **5.0**	S&P 500 Index: **6.8**	

Price Momentum Score Trend (4-Week Moving Avg)

Positive · Neutral · Negative

2020-10   2021-10   2022-10   2023-10

Peers	-6M	-3M	-1M	-1W	Current	1Y Trend
ADBE	**8**	**10**	**8**	**8**	**8**	
ADSK	7	9	7	8	8	
ROP	9	8	8	8	8	
WDAY	8	9	6	6	6	
EA	9	8	4	5	5	

PRICE MOMENTUM INDICATORS

Relative Strength
(50% weight)

Positive
- 10 ADBE
- 9 ROP
- EA
- 8 WDAY
- 7 ADSK

Neutral

Negative

No Rating

Seasonality
(50% weight)

- 7 — ADSK
- 6 ADBE
- 5 ROP
- 3 EA / WDAY

10 · 9 · 8 · 7 · 6 · 5 · 4 · 3 · 2 · 1 · NR

Relative Strength Indicator (Scale from 1 to 100)

	ADBE	Industry Avg
Last 10 Days	50	36
Last 50 Days	53	44
Last 200 Days	52	47

Average Monthly Return (Last 10 Years)

	Nov	Dec	Jan
Company Avg	4.8%	-1.0%	2.4%
Industry Avg	3.9%	-0.86%	3.7%
Industry Rank	58 of 128	100 of 128	31 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.

■ ADBE
▣ NASDAQ 100

	ADBE	
1-Week	-1.4%	
	-2.3%	
1-Month	4.3%	
	-2.1%	
3-Month	-2.6%	
	-8.6%	
YTD	58.1%	
	31.7%	
1-Year	67.1%	
	26.3%	
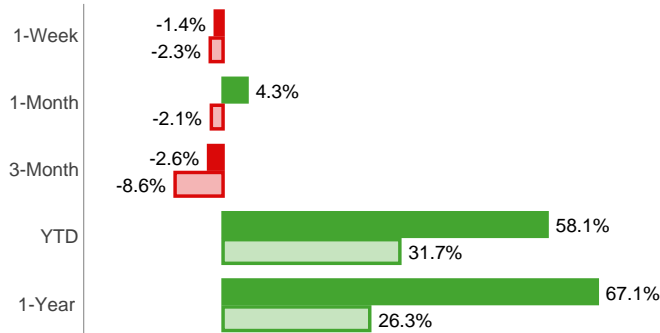
	ADBE	NASDAQ 100
Close Price (2023-10-31)	532.06	14,410
52-Week High	574.40	15,841
52-Week Low	278.23	10,679

- Adobe Inc has a Price Momentum Rating of 8, which is significantly higher than the Software industry average rating of 5.6.
- On 2023-10-31, ADBE closed at 532.06, 7.4% below its 52-week high and 91.2% above its 52-week low.
- ADBE shares are currently trading 0.70% below their 50-day moving average of 535.77, and 19.1% above their 200-day moving average of 446.78.

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INSIDER TRADING

INSIDER TRADING **2**
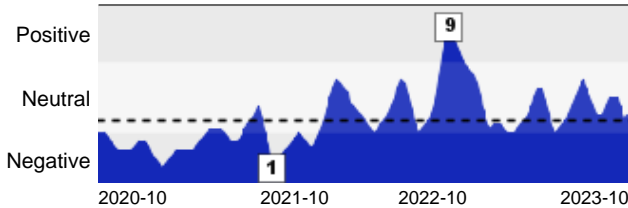
Currency in USD

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

Insider Trading Score Averages

Software & IT Services Group: **3.7**	Mega Market Cap: **3.8**
Software & IT Services Sector: **3.7**	S&P 500 Index: **4.3**

Insider Trading Score Trend (4-Week Moving Avg)

Peers	-6M	-3M	-1M	-1W	Current	1Y Trend
ROP	5	6	4	6	**6**	
ADSK	3	3	2	3	**3**	
EA	2	4	3	3	**3**	
ADBE	4	4	4	5	**2**	
WDAY	2	1	2	1	**1**	

INSIDER TRADING INDICATORS

Short-Term Insider
(70% weight)

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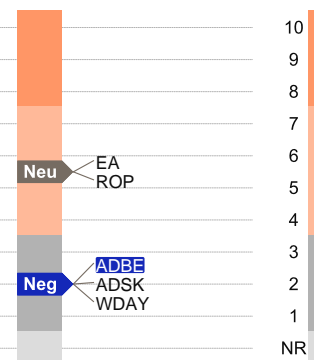
Most Recent Buys and Sells (Last 90 Days)

Insider Name	Role	Tran Date	Tran Type	Shares
Belsky, Scott	O	2023-10-24 - 2023-10-25	S	2,755
Garfield, Mark S	O	2023-10-25	S	116
Garfield, Mark S	O	2023-10-16	S	96

Insider Summary (Last 6 Months)

Total Shares Acquired	49,917
Total Shares Disposed	75,041
Net Shares	-25,124
Sector Average	1,750

HIGHLIGHTS

- Over the past week, there has been a significant decline in the Insider Trading Rating for Adobe Inc from 5 to 2.

- Adobe Inc currently has an Insider Trading Rating of 2, while the Software industry average is 3.44.

- Executives at Adobe 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 $4,070,217 respectively.

MONTHLY BUYS AND SELLS

$ Market Value (Millions)

Excludes derivative and option exercises
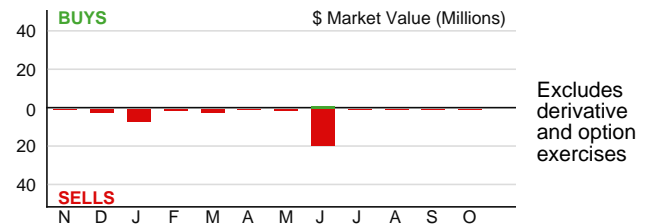
TOP INSTITUTIONAL HOLDERS

Institution Name	Inst. Type	% O/S	Shares Held	Reported Date
The Vanguard Group Inc	Inv Mgmt	8.7%	39.5M	2023-06-30
BlackRock Institutional	Inv Mgmt	5.1%	23.2M	2023-06-30
State Street Global	Inv Mgmt	4.1%	18.9M	2023-06-30
Fidelity Management	Inv Mgmt	2.2%	9.86M	2023-06-30
Geode Capital Management	Inv Mgmt	2.1%	9.76M	2023-06-30

Updated daily as of 2023-10-31

TOP EXECUTIVE HOLDERS

Insider Name	Role	Direct Shares	Value	Reported Date
Parasnis, Abhay	O	45,364	24.0M	2022-01-24
Banse, Amy L	D	32,699	17.3M	2023-06-22
Calderoni, Frank A	D	30,348	16.1M	2023-04-20
Desmond, Laura	D	30,266	16.0M	2023-04-20
Chakravarthy, Anil	O	27,090	14.3M	2023-07-24

Updated monthly as of 2023-09-17

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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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