

ON Semiconductor (ON)

\$26.04 (As of 10/08/20)

Price Target (6-12 Months): **\$28.00**

Long Term: 6-12 Months

Zacks Recommendation:

Neutral

(Since: 05/14/20)

Prior Recommendation: Underperform

Short Term: 1-3 Months

Zacks Rank: (1-5)

3-Hold

Zacks Style Scores:

VGM:D

Value: C

Growth: D

Momentum: B

Summary

ON Semiconductor is well-positioned to benefit from the solid momentum witnessed in image sensors amid consistent growth in advanced driver-assistance systems ("ADAS") and vehicle electrification domains. Moreover, strong traction for silicon carbide (SiC) and silicon power products driven by growth in electric vehicles (EVs) bodes well. Also, robust growth in 5G infrastructure business favors growth prospects. Investments in the 300mm fab in east Fishkill is expected to boost revenues in the quarters ahead. However, sluggishness in the smartphone vertical and supply chain disruptions due to coronavirus crisis are concerns. Further, weak demand across industrial, automotive and consumer end-markets due to COVID-19 outbreak is an added concern. Markedly, shares of ON Semiconductor have underperformed the industry on a year-to-date basis.

Data Overview

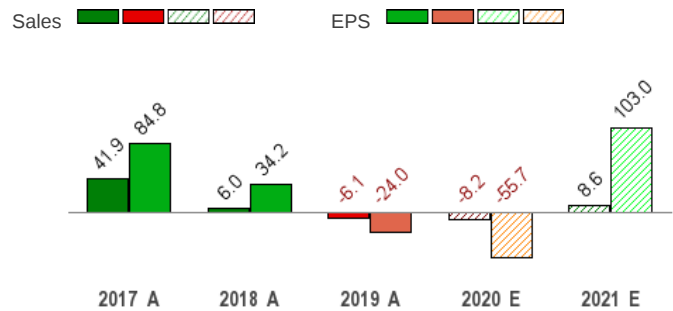
52-Week High-Low	\$26.56 - \$8.17
20-Day Average Volume (Shares)	6,283,472
Market Cap	\$10.7 B
Year-To-Date Price Change	6.8%
Beta	2.14
Dividend / Dividend Yield	\$0.00 / 0.0%
Industry	Semiconductor - Analog and Mixed
Zacks Industry Rank	Bottom 25% (189 out of 252)

Last EPS Surprise	500.0%
Last Sales Surprise	2.6%
EPS F1 Estimate 4-Week Change	0.0%
Expected Report Date	10/26/2020
Earnings ESP	0.0%
P/E TTM	30.6
P/E F1	39.5
PEG F1	5.5
P/S TTM	2.0

Price, Consensus & Surprise



Sales and EPS Growth Rates (Y/Y %)



Sales Estimates (millions of \$)

	Q1	Q2	Q3	Q4	Annual*
2021	1,293 E	1,349 E	1,420 E	1,436 E	5,497 E
2020	1,278 A	1,214 A	1,267 E	1,308 E	5,064 E
2019	1,387 A	1,348 A	1,382 A	1,402 A	5,518 A

EPS Estimates

	Q1	Q2	Q3	Q4	Annual*
2021	\$0.23 E	\$0.30 E	\$0.37 E	\$0.39 E	\$1.34 E
2020	\$0.10 A	\$0.12 A	\$0.19 E	\$0.25 E	\$0.66 E
2019	\$0.43 A	\$0.42 A	\$0.33 A	\$0.30 A	\$1.49 A

*Quarterly figures may not add up to annual.

The data in the charts and tables, including the Zacks Consensus EPS and Sales estimates, is as of 10/08/2020. The reports text is as of 10/09/2020.

Overview

Phoenix, AZ-based ON Semiconductor Corporation is an original equipment manufacturer (OEM) of a broad range of discrete and embedded semiconductor components. The company was spun off from Motorola in Aug 1999 and went public through an IPO in May 2000.

ON Semi's product lines include discretes, such as bipolar transistors, diodes, filters, FETs, rectifiers and thyristors.

ON Semi's acquisition of Fairchild Semiconductor International makes it a leader in the power semiconductor space. Moreover, the company's acquisitions of Cypress Semiconductor's CMOS Image Sensor Business Unit, SANYO Semiconductor, AMI Semiconductor, Analog Devices' power PC controller business, CMD, Catalyst, and SoundDesign gave it new technical capabilities, some custom ASIC products, higher-margin products, exposure to new end markets and greater product breadth.

The power management product line includes AC-DC controllers and regulators, DC-DC converters and regulators, drivers, thermal managers, and voltage controllers, references and supervisors.

The logic product line includes clocking, memory, differential logic and standard logic products.

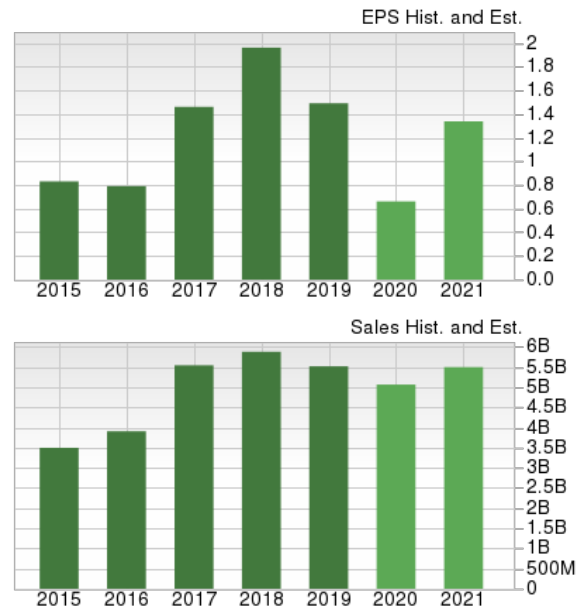
Signal processing products include amplifiers and comparators, analog switches, digital potentiometers, DSP systems and interfaces.

The company also offers custom application specific integrated circuits (ASICs), foundry services and memory products.

Customers include OEMs, electronic manufacturing service (EMS) providers and distributors. Top OEM customers include Motorola, Delta, Hewlett-Packard, Samsung, Siemens, Apple, Dell, Nokia, Intel, Sony, Continental Automotive Systems, DaimlerChrysler, Delphi, TRW and Visteon.

Top distributor customers include Arrow, Avnet, EBV Elektronik, Future, Solomon Enterprise and World Peace. Top EMS customers are Flextronics, Jabil and Celestica. In 2019, the company reported revenues of \$5.518 billion. ON Semi generated 14.7% of total revenues in 2019 from the United States.

The company's 10 largest customers contributed around 27% to total revenues in 2019.



Source: Zacks Investment Research

Reasons To Buy:

- ▲ ON Semi is seeing strengthening demand across most end markets as evident from its bookings trends over the last few quarters. The company's backlog grew in each of the last four quarters and since it generates just a fifth of sales from turns, backlog growth is a good indicator of sustained demand. Also, increasing distributor inventories and strong resales is a positive. The design win momentum that the company is seeing also remained encouraging.
- ▲ ON Semi's automotive segment is a strong growth driver for the company. Unit growth, share gains, attractive product offerings, rising content along with decreasing oil prices contribute to revenues. During the fourth quarter, the automotive segment registered a few impressive design wins for ADAS and rear-view cameras with leading OEMs in the Americas, Europe and South Korea. Also, the company is focused on investing in growth areas such as ADAS and wireless charging in the automotive business to broaden its exposure. This will further enhance its performance and help it deliver strong results. Given rising demand, ON Semi launched three new image sensors for ADAS and rear-view applications. Also demand for image sensors, MOSFET's, Smart FET's, led drivers, wireless battery free sensing solution, parking sensor interface and power supply products is strong. The product launches in the automotive end market for next generation automobile designs augur well for the top line.
- ▲ ON Semi is active on the M&A front. The company's acquisitions of Cypress Semiconductor's CMOS Image Sensor Business Unit, SANYO Semiconductor, AMI Semiconductor, Analog Devices' power PC controller business, CMD, Catalyst, and SoundDesign gave it new technical capabilities, some custom ASIC products, higher-margin products, exposure to new end markets and greater product breadth. ON Semi's acquisition of Fairchild Semiconductor International makes it a leader in the power semiconductor space. The deal will help the company diversify across many markets with a planned focus on smartphone, automotive and industrial end markets. ON Semi has also acquired Quantenna Communications (June 2019), which is engaged in providing high performance Wi-Fi solutions. The transaction is anticipated to strengthen the company's connectivity portfolio and enable it to better address Industrial and Automotive end markets.
- ▲ ON Semi has successfully integrated big acquisitions like AMIS in the past, so it shouldn't have trouble with the integration. Management expects Fairchild acquisition to be immediately accretive to non-GAAP earnings and free cash flow. Further gains are expected within a few quarters of close. Annual cost savings of at least \$150 million are expected within 18 months of closing. We believe that ON Semi can drive new socket opportunities by leveraging these acquisitions, thus generating top-line growth.
- ▲ ON Semi has a very well diversified business. The company generates a significant percentage of revenues from each of the computing, consumer, industrial, communications and automotive markets. This mitigates the impact of seasonality typical of any of the markets, resulting in balanced growth through the year. Moreover, this diversity also helps the company to offset any weakness in a market by growth in others.

Improving end markets, acquisitions, product breadth, diversification across end markets and geographies, and the benefits of restructuring actions are positives.

Reasons To Sell:

- ▼ ON Semi has a significant debt burden, but management has been dealing with the difficult situation through consistent repayments and refinancing actions. The acquisition of Fairchild is expected to have added to the company's debt burden. Interest payments will continue to have a significant impact on net earnings. A high debt position increases the risk profile of the business. As of Jul 3, 2020, the company's net debt was \$2.68 billion compared with \$2.751 billion as of Apr 3, 2020. Moreover, total debt to total capital of 59.3% is higher than the industry's figure of 48%. Further, times interest earned currently stands at 0.9X compared with the industry's figure of 3.5X. Thus, the company is required to constantly generate adequate amount of cash flows to meet debt requirements.
- ▼ ON Semi has made several acquisitions in the past, but the two acquisitions that were completed in 2008 were perhaps the most significant. Integration of AMIS continued right up to 2010, even after years from the date the acquisition was completed. SANYO Semiconductor was another difficult acquisition and while it recently turned incremental to earnings, the margin impact may not be positive, given that it is a lagging edge facility. Consistent acquisition of companies is a distraction for management until the integration activities are completed. Moreover, we note that the buyouts negatively impacted the company's balance sheet in the form of high level of goodwill and net intangible assets, which comprised 23% of total assets as of Jul 3.
- ▼ ON Semi faces significant competition in all the served markets. Being a maker of building block components of a general-purpose nature, competition comes from every kind of integrated circuit manufacturer. The automotive market in Japan is particularly competitive, where the company must get designed in at an early stage. This is mainly because Japanese automotive customers prefer local makers that sometimes makes it difficult to operate.
- ▼ ON Semi's restructuring actions will likely have a positive impact on margins over the next year or so. Further, its recent acquisitions have increased its exposure to industrial, automotive and consumer markets that have helped it diversify away from a sluggish computing market. Some of these markets can generate higher margins than the traditional business, which is a positive. The company also stands to benefit from share gains within the computing business, considering the increasing dollar content at Intel's new process architecture. However, the company is considering cutting down utilization, as broader markets are witnessing weaker demand trends. This will invariably lead to poorer fixed cost absorption, thus eroding margins.
- ▼ ON Semi derives significant proportion of revenues from outside the United States (almost 85.3% of total revenues in 2019), subjecting the company to exchange rate volatility. Unfavorable movement in exchange rates of foreign currencies like Hong Kong dollar, euro, pound sterling, and Singapore Dollar, among others, related to the U.S. dollar can adversely impact results and undermine its growth potential to some extent. Further, imposition of tariffs owing to trade war between the United States and China amid coronavirus crisis is anticipated to negatively impact growth prospects. The macroeconomic uncertainty has impacted investors' confidence and is likely to weigh on the company's performance.

The significant debt position, integration risks from acquisitions, rising spend on restructuring initiatives and ever-increasing competition remain major headwinds.

Last Earnings Report

ON Semiconductor Q2 Earnings Top Estimates

ON Semiconductor Corporation reported second-quarter 2020 non-GAAP earnings of 12 cents per share, which comfortably surpassed the Zacks Consensus Estimate of 2 cents. However, the figure declined 71% from the year-ago quarter's level.

Revenues of \$1.214 billion declined 10% on a year-over-year basis. The slowdown in macroeconomic activity across the world due to COVID-19 induced lockdowns caused the plunge.

ON Semiconductor intends to expand margins by streamlining its manufacturing footprint and accelerate the timeline for production with investments in the 300mm fab in east Fishkill. In the second quarter, the company initiated its first 300mm wafer production at East Fishkill lab. Moreover, it is considering potential sale of its six-inch fab located in Niigata, Japan.

Top-Line Details

Business Units Metrics:

ON Semiconductor has three business units — Power Solutions Group (revenues of \$618 million), Analog Solutions Group (revenues of \$427 million) and Image Sensor Group (revenues of \$168 million).

End-Market Metrics:

Automotive (27% of revenues) end-market revenues were \$327 million, down 26% year over year. The decline was caused by closure of automotive factories globally due to COVID-19.

However, management noted that both U.S. and European markets have begun to recover slowly. The recovery is anticipated to continue throughout the year.

Markedly, the company holds a competitive edge over its peers when it comes to delivering a comprehensive image sensor solution for autonomous driving applications and ADAS. In the second quarter, the company bagged a major design win for its surround vision applications.

Moreover, the company continues to witness strong traction for its IGBT modules, silicon carbide (SiC) and silicon power products driven by growth in electric vehicles ("EVs"). Growing clout of the company's solutions are expected to instill investors' optimism regarding the stock in the upcoming days.

Industrial/Medical/Mil-Aero (29%) end-market revenues declined 3% year over year to \$348 million due to coronavirus crisis-induced sluggishness in industrial activity and supply chain disruptions.

Nevertheless, management noted strong traction for SiC products utilized in industrial power applications.

Moreover, the company is gearing up for its first industrial IoT connectivity product in a year's timeframe. Synergies from Quantenna acquisition are enabling the company to launch the product with robust Wi-Fi technology capabilities.

Communications (21%) end-market revenues increased 3% year over year to \$255 million owing to robust growth in the 5G infrastructure business.

Computing (13%) end-market revenues increased 14% year over year to \$158 million, courtesy of strong client and server business.

Consumer (10%) end-market revenues came in at \$126 million. The figure declined 22% from the year-ago quarter's level, primarily due to softness in consumer electronics stemming from COVID-19.

Margins in Detail

Non-GAAP gross margin of 30.8% contracted 630 basis points (bps) on a year-over-year basis. Per management, the decline was caused by lower revenues and additional costs due to COVID-19.

Non-GAAP operating expenses dropped 1.2% from the year-ago quarter's figure to \$284.6 million, due to restructuring and cost containment measures.

Non-GAAP operating margin contracted 830 bps on a year-over-year basis to 7.4%, owing to lower gross margin.

Balance Sheet & Cash Flow

As of July 3, 2020, ON Semiconductor had cash and cash equivalents of \$2.06 billion, compared with \$1.982 billion as of April 3, 2020.

In the second quarter, the company had total debt (including current portion) of \$4.74 billion, compared with \$4.733 billion in the last reported quarter.

During the reported quarter, cash from operations came in at \$154.5 million compared with the prior-quarter's figure of \$166 million.

Free cash flow came in at \$81.2 million compared with \$33.7 million in the previous quarter.

Quarter Ending	06/2020
Report Date	Aug 08, 2020
Sales Surprise	2.58%
EPS Surprise	500.00%
Quarterly EPS	0.12
Annual EPS (TTM)	0.85

Guidance

For third-quarter 2020, ON Semiconductor projects revenues in the range of \$1.20-\$1.33 billion.

Management expects revenues from Automotive end-market to increase sequentially in the third quarter, driven by uptick in global automotive production.

Revenues from Industrial end-market are anticipated to decline on a quarter-over-quarter basis. Meanwhile, Communications end-market revenues are anticipated to decline sequentially in the third quarter. Revenues from Computing end-market is expected to increase on strength in client and server verticals. Consumer end-markets revenues is expected to increase in the third quarter due to seasonality.

For the third quarter, non-GAAP gross margin is projected in the range of 32-34%. Non-GAAP operating expenses are expected in the range of \$277-\$293 million.

Recent News

On Oct 7, ON Semiconductor unveiled the AR0234CS 2.3 Mp CMOS image sensor that will find usage in augmented/virtual reality (AR/VR) and mixed-reality applications along with barcode scanners and machine vision cameras.

On Sep 23, ON Semiconductor announced that SUBARU CORPORATION will be utilizing image sensing technology for enhancing the camera-based Advanced Driver Assistance Systems for usage in the next-generation EyeSight Driver Assist platform.

On Aug 19, ON Semiconductor announced the pricing of 3.875% Senior Notes slated to mature in 2028 worth \$700 million. The sale will close on Aug 21 subject to closing conditions.

On Aug 8, ON Semiconductor announced that it is considering to sell its manufacturing facility located in Niigata, Japan.

On Jul 20, ON Semiconductor unveiled a SiC module for solar inverter applications, which was chosen by Delta for its M70A three-phase PV string inverter portfolio.

On Jul 6, ON Semiconductor announced that its high-power insulated-gate bipolar transistors (IGBTs) and diodes have been selected by Danfoss to power inverter traction modules for the electric vehicles market.

On Jun 23, ON Semiconductor unveiled a Bluetooth Low Energy mesh networking solution based on its RSL10 System-in-Package (RSL10 SIP). The solution is optimized for building automation, smart home, industrial IoT, remote environment monitoring and asset tracking applications.

On Jun 8, ON Semiconductor announced that its board of directors has adopted a short-term stockholder rights plan designed to protect stockholder interests by ensuring that no person or group can gain control of the company through the open-market accumulation of shares.

Valuation

ON Semiconductor shares are up 6.8% in the year-to-date period and 44.2% in the trailing 12-month period. Stocks in the Zacks sub-industry and the Zacks Computer & Technology sector is up 10.6% and 25% in the year-to-date period. In the past year, the Zacks sub-industry and sector are up 26.6% and 39.5%, respectively.

The S&P 500 index is up 7.2% in the year-to-date period, and 17.6% in the past year.

The stock is currently trading at 21.93X forward 12-month earnings compared with 25.25X for the Zacks sub-industry, 26.75X for the Zacks sector and 22.52X for the S&P 500 index.

In the past five years, the stock has traded as high as 24.28X and as low as 6.48X, with a five-year median of 11.45X. Our Neutral recommendation indicates that the stock will perform in line with the market. Our \$28 price target reflects 23.58X forward 12-month earnings.

The table below shows summary valuation data for ON

Valuation Multiples -ON					
		Stock	Sub-Industry	Sector	S&P 500
P/E F12M	Current	21.93	25.25	26.75	22.52
	5-Year High	24.28	27.04	28	23.47
	5-Year Low	6.48	13.42	16.95	15.27
	5-Year Median	11.45	18.33	19.95	17.7
P/S F12M	Current	1.98	5.19	4.19	4.14
	5-Year High	2	5.19	4.48	4.3
	5-Year Low	0.62	2.81	2.77	3.18
	5-Year Median	1.31	3.78	3.44	3.67
EV/Sales TTM	Current	2.4	6.08	4.92	3.97
	5-Year High	2.4	6.08	5.22	4.15
	5-Year Low	0.9	3.41	2.85	2.61
	5-Year Median	1.86	4.47	3.82	3.57

As of 10/08/2020

Source: Zacks Investment Research

Industry Analysis Zacks Industry Rank: Bottom 25% (189 out of 252)



Top Peers

Company (Ticker)	Rec	Rank
Silicon Laboratories, Inc. (SLAB)	Outperform	2
Analog Devices, Inc. (ADI)	Neutral	3
Microchip Technology Incorporated (MCHP)	Neutral	3
Monolithic Power Systems, Inc. (MPWR)	Neutral	3
MagnaChip Semiconductor Corporation (MX)	Neutral	3
Maxim Integrated Products, Inc. (MXIM)	Neutral	3
NXP Semiconductors N.V. (NXPI)	Neutral	3
Semtech Corporation (SMTC)	Underperform	5

The positions listed should not be deemed a recommendation to buy, hold or sell.

Industry Comparison Industry: Semiconductor - Analog And Mixed				Industry Peers		
	ON	X Industry	S&P 500	ADI	AVGO	DIOD
Zacks Recommendation (Long Term)	Neutral	-	-	Neutral	Neutral	Neutral
Zacks Rank (Short Term)	3	-	-	3	3	3
VGM Score	D	-	-	C	B	D
Market Cap	10.70 B	8.36 B	24.20 B	44.43 B	151.01 B	3.24 B
# of Analysts	10	9	14	12	13	2
Dividend Yield	0.00%	0.00%	1.6%	2.06%	3.48%	0.00%
Value Score	C	-	-	D	C	C
Cash/Price	0.22	0.09	0.07	0.03	0.06	0.17
EV/EBITDA	12.28	21.34	13.53	19.19	19.56	9.53
PEG F1	5.69	2.51	2.90	2.51	1.34	NA
P/B	3.28	5.28	3.54	3.77	6.41	2.68
P/CF	8.76	22.30	13.37	16.21	10.99	12.21
P/E F1	40.55	34.46	21.94	25.15	16.93	29.81
P/S TTM	2.03	5.96	2.66	8.05	6.51	2.71
Earnings Yield	2.53%	2.90%	4.31%	3.97%	5.91%	3.36%
Debt/Equity	1.24	0.74	0.70	0.44	1.83	0.24
Cash Flow (\$/share)	2.97	2.82	6.92	7.42	33.97	5.12
Growth Score	D	-	-	C	A	C
Historical EPS Growth (3-5 Years)	16.44%	11.10%	10.45%	14.29%	20.01%	41.28%
Projected EPS Growth (F1/F0)	-55.64%	8.16%	-3.01%	-7.09%	3.57%	-28.01%
Current Cash Flow Growth	-10.63%	-10.25%	5.47%	-9.88%	8.07%	15.35%
Historical Cash Flow Growth (3-5 Years)	14.73%	22.53%	8.50%	24.75%	48.32%	12.13%
Current Ratio	2.35	2.54	1.35	1.47	2.04	3.46
Debt/Capital	55.38%	42.20%	42.90%	30.40%	64.73%	19.10%
Net Margin	-0.37%	3.58%	10.28%	20.14%	10.70%	10.59%
Return on Equity	10.85%	10.54%	14.79%	14.80%	32.44%	11.14%
Sales/Assets	0.59	0.50	0.51	0.26	0.30	0.70
Projected Sales Growth (F1/F0)	-8.22%	2.54%	-0.62%	-7.86%	5.57%	-6.96%
Momentum Score	B	-	-	B	B	F
Daily Price Change	11.52%	1.76%	1.28%	1.41%	1.80%	2.24%
1-Week Price Change	9.52%	2.28%	2.13%	0.47%	0.01%	13.70%
4-Week Price Change	21.00%	10.74%	4.49%	5.31%	4.55%	30.02%
12-Week Price Change	22.02%	4.69%	6.74%	3.76%	19.91%	21.31%
52-Week Price Change	44.19%	25.62%	6.65%	10.97%	36.03%	55.99%
20-Day Average Volume (Shares)	6,283,472	693,708	2,121,744	3,063,921	1,875,375	322,529
EPS F1 Estimate 1-Week Change	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
EPS F1 Estimate 4-Week Change	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
EPS F1 Estimate 12-Week Change	23.87%	15.55%	3.47%	11.91%	3.88%	-1.18%
EPS Q1 Estimate Monthly Change	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Source: Zacks Investment Research

Zacks Stock Rating System

We offer two rating systems that take into account investors' holding horizons: Zacks Rank and Zacks Recommendation. Each provides valuable insights into the future profitability of the stock and can be used separately or in combination with each other depending on your investment style.

Zacks Recommendation

The Zacks Recommendation aims to predict performance over the next 6 to 12 months. The foundation for the quantitatively determined Zacks Recommendation is trends in the company's estimate revisions and earnings outlook. The Zacks Recommendation is broken down into 3 Levels; Outperform, Neutral and Underperform. Unlike many Wall Street firms, we maintain a balance between the number of Outperform and Neutral recommendations. Our team of 70 analysts are fully versed in the benefits of earnings estimate revisions and how that is harnessed through the Zacks quantitative rating system. But we have given our analysts the ability to override the Zacks Recommendation for the 1200 stocks that they follow. The reason for the analyst over-rides is that there are often factors such as valuation, industry conditions and management effectiveness that a trained investment professional can spot better than a quantitative model.

Zacks Rank

The Zacks Rank is our short-term rating system that is most effective over the one- to three-month holding horizon. The underlying driver for the quantitatively-determined Zacks Rank is the same as the Zacks Recommendation, and reflects trends in earnings estimate revisions.

Zacks Style Scores

The Zacks Style Score is as a complementary indicator to the Zacks rating system, giving investors a way to focus on the highest rated stocks that best fit their own stock picking preferences.

Academic research has proven that stocks with the best Value, Growth and Momentum characteristics outperform the market. The Zacks Style Scores rate stocks on each of these individual styles and assigns a rating of A, B, C, D and F. We also produce the VGM Score (V for Value, G for Growth and M for Momentum), which combines the weighted average of the individual Style Scores into one score. This is perfectly suited for those who want their stocks to have the best scores across the board.

Value Score	C
Growth Score	D
Momentum Score	B
VGM Score	D

As an investor, you want to buy stocks with the highest probability of success. That means buying stocks with a Zacks Recommendation of Outperform, which also has a Style Score of an A or a B.

Disclosures

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Returns quoted represent past performance which is no guarantee of future results. Investment returns and principal value will fluctuate so that when shares are redeemed, they may be worth more or less than their original cost. Current performance may be higher or lower than the performance shown.

Investing involves risk; principal loss is possible. There is no guarantee that companies that can issue dividends will declare, continue to pay or increase dividends.

Glossary of Terms and Definitions

52-Week High-Low: The range of the highest and lowest prices at which a stock has traded during the past year. This range is determined based on the stock's daily closing price which may differ from the intra-day high or low. Many investors use it as a technical indicator to determine a stock's current value and future price movement. The idea here is that if price breaks out from the 52-week range, in either direction, the momentum may continue in the same direction.

20-Day Average Volume (Shares): The average number of shares of a company traded in a day over the last 20 days. It is a direct indication of a security's overall liquidity. The higher the average daily trading volume, the easier it is to enter or exit the stock at a desired price with more buyers and sellers being available.

Daily Price Change: This is the percentage difference between a trading day's closing price and the prior trading day's closing price. This item is updated at 9 p.m. EST each day.

1-Week Price Change: This is the percentage change in a stock's closing price over the last 5 trading days. This change reflects the collective buying and selling sentiment over the 1-week period.

A strong weekly price increase for the stock, especially when accompanied by increased volume, is an indication of it gaining momentum.

4-Week Price Change: This is the percentage change in a stock's closing price over the last 20 trading days or past 4 weeks. This is a medium-term price change metric and an indication of the stock gaining momentum.

12-Week Price Change: This is the percentage change of a stock's closing price over the last 60 trading days or past 12 weeks. Similar to 4-week price change, this is a medium-term price change metric. It shows whether a stock has been enjoying strong investor demand, or if it has been in consolidation, or distress over this period.

52-Week Price Change: This is the percentage change in a stock's closing price over the last 260 trading days or past 52 weeks. This long-term price change metric is a good reference point for investors. Some investors seek stocks with the best percentage price change over the last 52 weeks, expecting the momentum to continue.

Market Cap: The number of outstanding common shares of a company times its latest price per share. This figure represents a company's size, which indicates various characteristics, including price stability and risk, in which investors could be interested.

Year-To-Date Price Change: Change in a stock's daily closing price in the period of time beginning the first day of the current calendar year through to the previous trading day.

of Analysts: Number of EPS estimates used in calculating the current-quarter consensus. These estimates come from the brokerage analysts tracking this stock. However, the number of such analysts tracking this stock may not match the number of estimates, as all brokerage analysts may not come up with an estimate or provide it to us.

Beta: A measure of risk commonly used to compare the volatility of a stock to the overall market. The S&P 500 Index is the base for calculating beta and carries a value of 1. A stock with beta below 1 is less risky than the market as a whole. And a stock with beta above 1 is riskier.

Dividend: The portion of earnings a company is expected to distribute to its common shareholders in the next 12 months for each share they own. Dividends are usually paid quarterly. Dividend payments reflect positively on a company and help maintain investors' trust. Investors typically find dividend-paying stocks appealing because the dividend adds to any market price appreciation to result in higher return on investment (ROI). Moreover, a steady or increasing dividend payment provides investors a cushion in a down market.

Dividend Yield: The ratio of a company's annual dividend to its share price. The annual dividend used in the ratio is calculated based on the most recent dividend paid by the company. Dividend yield is an estimate of the dividend-only return from a stock in the next 12 months. Since dividend itself doesn't change frequently, dividend yield usually changes with a stock's price movement. As a result, often an unusually high dividend yield is a result of weak stock price.

S&P 500 Index: The Standard & Poor's 500 (S&P 500) Index is an unmanaged group of securities considered to be representative of the stock market in general. It is a market-capitalization-weighted index of stocks of the 500 largest U.S. companies. Each stock's weight in the index is proportionate to its market value.

Industry: One of the 250+ groups that Zacks classifies all stocks into based on the nature of business. These groups are termed as expanded (aka "X") industries and map to their respective (economic) sectors; Zacks has 16 sectors.

Zacks Industry Rank: The Zacks Industry Rank is determined by calculating the average Zacks Rank for all stocks in the industry and then assigning an ordinal rank to it. For example, an industry with an average Zacks Rank of 1.6 is better than an industry with an average Zacks Rank of 2.3. So, the industry with the better average Zacks Rank would get a better Zacks Industry Rank. If an industry has the best average Zacks Rank, it would be considered the top industry (1 out of 250+), which would place it at the top 1% of Zacks-ranked industries. Studies have shown that roughly half of a stock's price movement can be attributed to the industry group it belongs to. In fact, the top 50% of Zacks-ranked industries outperforms the bottom 50% by a factor of more than 2 to 1.

Last EPS Surprise: The percentage deviation of a company's last reported earnings per share from the Zacks Consensus Estimate. Companies with a positive earnings surprise are more likely to surprise again in the future (or miss again if they recently missed).

Last Sales Surprise: The percentage deviation of a company's last reported sales from the Zacks Consensus Estimate.

Expected Report Date: This is an estimated date of a company's next earnings release. The information originated or gathered by Zacks Investment Research from its information providers or publicly available sources is the basis of this estimate.

Earnings ESP: The Zacks Earnings ESP compares the Most Accurate Estimate to the Zacks Consensus Estimate for the yet-to-be reported quarter. The Most Accurate Estimate is the most recent version of the Zacks Consensus EPS Estimate. The idea here is that analysts revising their estimates closer to an earnings release have the latest information, which could potentially be more accurate than what they and others contributing to the consensus had predicted earlier. Thus, a positive or negative Earnings ESP reading theoretically indicates the likely deviation of the actual earnings from the consensus estimate. However, the model's predictive power is significant for positive ESP readings only. A positive Earnings ESP is a strong predictor of an earnings beat, particularly when combined with a Zacks Rank #1 (Strong Buy), #2 (Buy) or #3 (Hold). Our research shows that stocks with this combination produce a positive surprise nearly 70% of the time.

Periods:

TTM: Trailing 12 months. Using TTM figures is an effective way of analyzing the most-recent financial data in an annualized format that helps neutralize the effects of seasonality and other quarter-to-quarter variation.

F1: Current fiscal year. This period is used to analyze the estimates for the ongoing full fiscal year.

F2: Next fiscal year. This period is used to analyze the estimates for the next full fiscal year.

F12M: Forward 12 months. Using F12M figures is an effective way of analyzing the near-term (the following four unreported quarters) estimates in an annualized manner. Instead of typically representing estimates for the full fiscal year, which may not represent the nitty-gritty of each quarter, F12M figures suggest an all-inclusive annualized estimate for the following four quarters. The annualization helps neutralize the potential effects of seasonality and other quarter-to-quarter variations.

P/E Ratio: The price-to-earnings ratio measures a company's current market price per share relative to its earnings per share (EPS). Usually, the trailing-12-month (TTM) EPS, current-fiscal-year (F1) EPS estimate, or forward-12-month (F12M) EPS estimate is used as the denominator. In essence, this ratio shows what the market is willing to pay today for each dollar of EPS. In other words, this ratio gives a sense of what the relative value of the company is at the already reported level of earnings or at a future level of earnings.

It is one of the most widely-used multiples for determining the value of a company and helps comparing its valuation with that of a competitor, the industry group or a benchmark.

PEG Ratio: The price/earnings to growth ratio is a stock's P/E ratio using current fiscal year (F1) EPS estimate divided by its expected EPS growth rate over the coming 3 to 5 years. This ratio essentially determines a stock's value by factoring in the company's expected earnings growth and is thus believed to provide a more complete picture than just the P/E ratio, particularly for faster-growing companies.

P/S Ratio: The price-to-sales ratio is calculated as a company's current price per share divided by trailing 12 months (TTM) sales or revenues per share. This ratio shows what the market is willing to pay today for each dollar of TTM sales per share. The P/S ratio is at times the only valuation metric when the company has yet to become profitable.

Cash/Price Ratio: The cash-to-price ratio or Cash Yield is calculated as cash and marketable securities per share divided by the company's current share price. Like the earnings yield, which shows the anticipated yield (or return) on a stock from earnings for each dollar invested, the cash yield does the same, with cash being the source of return instead of earnings. For example, a cash/price ratio of 0.08 suggests a return of 8% or 8 cents for every \$1 investment.

EV/EBITDA Ratio: The EV/EBITDA ratio, also known as Enterprise Multiple, is calculated as a company's enterprise value (market capitalization + value of total long-term debt + book value of preferred shares - cash and marketable securities) divided by EBITDA (earnings before interest, taxes, depreciation and amortization). Usually, trailing-12-month (TTM) or forward-12-month (F12M) EBITDA is used as the denominator.

EV/Sales Ratio: The enterprise value-to-sales ratio is calculated as a company's enterprise value (market capitalization + value of total long-term debt + book value of preferred shares - cash and marketable securities) divided by annual sales. It is an expansion of the P/S valuation, which uses market value instead of enterprise value. The EV/Sales ratio is perceived as more accurate than P/S, in part, because the market capitalization does not take a company's debt into account when valuing it.

EV/CF Ratio: The enterprise value-to-cash flow ratio is calculated as a company's enterprise value (market capitalization + value of total long-term debt + book value of preferred shares - cash and marketable securities) divided by the trailing-12-month (TTM) operating cash flow. It's a measure of how long it would take to buy the entire business if you were able to use all the company's operating cash flow.

The EV/CF ratio is perceived as more accurate than the P/CF ratio, in part, because the market price does not take a company's debt into account when valuing it.

EV/FCF Ratio: The enterprise value-to-free cash flow metric compares a company's enterprise value to its trailing-12-month (TTM) free cash flow (FCF). This metric is very similar to the EV/CF ratio, but is considered a more exact measure owing to the fact that it uses free cash flow, which subtracts capital expenditures (CAPEX) from a company's total operating cash flow, thereby reflecting the actual cash flow available for funding growth activities and payments to shareholders.

P/EBITDA Ratio: The P/EBITDA ratio is calculated as a company's per share market value divided by EBITDA (earnings before interest, taxes, depreciation, and amortization). This metric is very similar to the EV/EBITDA ratio, but is considered a little less exact measure as it uses market price, which does not take a company's debt into account. However, since EBITDA is often considered a proxy for cash income, the metric is used as a measure of what the market is willing to pay today for each dollar of the company's cash profitability in the trailing 12 months (TTM) or forward 12 months (F12M).

P/B Ratio: The price-to-book ratio is calculated as a company's current price per share divided by its book value (total assets – liabilities – preferred stocks) per share. In short, the book value is how much a company is worth. In other words, it reflects the total value of a company's assets that its common shareholders would receive if it were to be liquidated. So, the P/B ratio indicates whether you're paying higher or lower than what would remain if the company went bankrupt immediately. Investors typically use this metric to determine how a company's stock price stacks up to its intrinsic value.

P/TB Ratio: The price-to-tangible-book value ratio is calculated as the per share market value of a company divided by the value of its tangible assets (total assets – liabilities – preferred stocks – intangible assets) per share. Tangible book value is the same thing as book value except it excludes the value of intangible assets to get a step closer to the baseline value of the company.

P/CF Ratio: The price-to-cash flow ratio measures a company's per share market price relative to its trailing-12-month (TTM) operating cash flow per share. This metric is used to determine whether a company is undervalued or overvalued relative to another stock, industry or sector. And like the P/E ratio, a lower number is typically considered better from the value perspective.

One of the reasons why P/CF ratio is often preferred over P/E ratio is the fact that operating cash flow adds back non-cash expenses such as depreciation and amortization to net income. This feature helps valuing stocks that have positive cash flow but are not profitable because of large noncash charges.

P/FCF Ratio: The price-to-free cash flow ratio is an extension of P/CF ratio, which uses trailing-12-month (TTM) free cash flow per share instead of operating cash flow per share. This metric is considered a more exact measure than P/CF ratio, as free cash flow subtracts capital expenditures (CAPEX) from a company's total operating cash flow, thereby reflecting the actual cash flow available for funding activities that generate additional revenues.

Earnings Yield: The earnings yield is calculated as current fiscal year (F1) EPS estimate divided by the company's current share price. The ratio, which is the inverse of the P/E ratio, measures the anticipated yield (or return) from earnings for each dollar invested in a stock today.

For example, earnings yield for a stock, which is trading at \$35 and expected to earn \$3 per share in the current fiscal year (F1), would be 0.0857 ($3/35 = 0.0857$) or 8.57%. In other words, for \$1 invested in the stock today, the yield from earnings is anticipated to be 8.57 cents.

Investors most commonly compare the earnings yield of a stock to that of a broad market index (such as the S&P 500) and prevailing interest rates, such as the current 10-year Treasury yield. Since bonds and stocks compete for investors' dollars, stock investors typically demand a higher yield for the extra risk they assume compared to investors of U.S. Treasury-backed securities that offer virtually risk-free returns. This additional return is referred to as the risk premium.

Debt/Equity Ratio: The debt-to-equity ratio is calculated as a company's total liabilities divided by its shareholder equity. This metric is used to gauge a company's financial leverage. In other words, it is a measure of the degree to which a company is financing its operations through debt versus its own funds. The higher the ratio, the higher the risk for shareholders.

However, this ratio is difficult to compare across industry groups where ideal amounts of debt vary. Some businesses are more capital intensive than others and typically require higher debt to finance their operations. So, a company's debt-to-equity ratio should be compared with other companies in the same industry.

Cash Flow (\$/share): Cash flow per share is calculated as operating cash flow (after-tax earnings + depreciation + other non-cash charges) divided by common shares outstanding. It is used by many investors as a measure of a company's financial strength. Since cash flow per share takes into consideration a company's ability to generate cash by adding back non-cash expenses, it is regarded by some as a more accurate measure of a company's financial situation than earnings per share, which could be artificially deflated.

Current Ratio: The current ratio or liquidity ratio is a company's current assets divided by its current liabilities. It measures a company's ability to pay short-term obligations. A current ratio that is in line with the industry average or slightly higher is generally considered acceptable. A current ratio that is lower than the industry average would indicate a higher risk of distress or default. A higher number is usually better. However, a very high current ratio compared to the industry average could be an indication of inefficient use of assets by management.

Debt/Capital Ratio: Debt-to-capital ratio is a company's total debt (interest-bearing debt + both short- and long-term liabilities) divided its total capital (interest-bearing debt + shareholders' equity). It is a measure of a company's financial leverage. All else being equal, the higher the debt-to-capital ratio, the riskier the stock.

However, this ratio can vary widely from industry to industry, the ideal amount of required debt being different. Some businesses are more capital intensive than others and typically require higher debt to finance their operations. So, a company's debt-to-capital ratio should be compared with the same for its industry.

Net Margin: Net margin is calculated as net income divided by sales. It shows how much of each dollar in sales generated by a company translates into profit. For example, if a company's net margin is 15%, its net income is 15 cents for every \$1 of sales it makes.

A change in margin can reflect either a change in business conditions, or a company's cost controls, or both. If a company's expenses are growing faster than sales, its net margin will decline. However, different net margin rates are considered good for different industries, so it's better to compare net margin rates of companies in the same industry group.

Return on Equity: Return on equity (ROE) is calculated as trailing-12-month net income divided by trailing-12-month average shareholder equity (including reinvested earnings). This metric is considered a measure of how effectively management is using a company's assets to generate profits. For example, if a company's ROE is 10%, it creates 10 cents profits for every \$1 shareholder equity, which is basically the company's assets minus debt. A company's ROE deemed good or bad depends on what's normal for its peers or industry group.

Sales/Assets Ratio: The sales-to-assets ratio or asset utilization ratio or asset turnover ratio is calculated as a company's annual sales divided by average assets (average of assets at the beginning of the year and at the year's end). This metric helps investors understand how effectively a company is using its assets to generate sales. For example, a sales-to-assets ratio of 2.5 indicates that the company generated \$2.50 in sales for every \$1 of assets on its books.

The higher the sales-to-assets ratio, the better the company is performing. However, similar to many other ratios, the asset turnover ratio tends to be higher for companies in certain industries/sectors than in others. So, a company's sales-to-assets ratio should be compared with the same for its industry/sector.

Historical EPS Growth (3-5 Years): This is the average annual (trailing-12-month) EPS growth rate over the last 3-5 years. This metric helps investors see how a company's EPS has grown from a long-term perspective.

Note: There are many factors that can influence short-term numbers — a recession will reduce this number, while a recovery will inflate it. The longterm perspective helps smooth out short-term events.

Projected EPS Growth (F1/F0): This is the estimated EPS growth rate for the current financial year. It is calculated as the consensus estimate for the current fiscal year (F1) divided by the reported EPS for the last completed fiscal year (F0).

Current Cash Flow Growth: It measures the latest year-over-year change in operating cash flow. Cash flow growth tells an investor how quickly a company is generating inflows of cash from operations. A positive change in the cash flow is desired and shows that more 'cash' is coming in than going out.

Historical Cash Flow Growth (3-5 Years): This is the annualized change in cash flow over the last 3-5 years. The change in a longer period helps put the current reading into proper perspective. By looking at the rate, rather than the actual dollar value, the comparison across the industry and peers becomes easier.

Projected Sales Growth (F1/F0): This metric looks at the estimated sales growth for the current year. It is calculated as sales estimate for the current fiscal year (F1) divided by the reported sales for the last completed fiscal year (F0).

Like EPS growth, a higher rate is better for sales growth. A look at a company's projected sales growth instantly tells you what the outlook is for their products and services. However, different sales growth rates are considered good for different industries, so it's better to compare sales growth rates of companies in the same industry group.

EPS F1 Estimate 1-Week Change: The percentage change in the Zacks Consensus EPS estimate for the current fiscal year over the past week. The change in a company's consensus EPS estimate (or earnings estimate revision) has proven to be strongly correlated with the near-term price movement of its shares. It is an integral part of the Zacks Rank.

If a stock's consensus EPS estimate is \$1.10 now versus \$1.00 a week ago, that will be reflected as a 10% upward revision. If, on the other hand, it went from \$1.00 to 90 cents, that would be a 10% downward revision.

EPS F1 Estimate 4-Week Change: The percentage change in the Zacks Consensus EPS estimate for the current fiscal year over the past four weeks.

A stock's earnings estimate revision in a 1-week period is important. But it's more meaningful to look at the longer-term revision. And, of course, the 4-week change helps put the 1-week change into proper perspective.

EPS F1 Estimate 12-Week Change: The percentage change in the Zacks Consensus EPS estimate for the current fiscal year over the past 12 weeks.

This metric essentially shows how the consensus EPS estimate has changed over a period longer than 1 week or 4 weeks.

EPS Q1 Estimate Monthly Change: The percentage change in the Zacks Consensus EPS estimate for the current fiscal quarter over the past four weeks.

While the revision in consensus EPS estimate for the current fiscal year is strongly correlated with the near-term price movement of its shares, the estimate revision for the current fiscal quarter is an important metric as well, especially over the short term, and particularly as a stock approaches its earnings date. If a stock's Q1 EPS estimate decreases ahead of its earnings release, it's usually a negative sign, whereas an increase is a positive sign.