ANSYS Inc.(ANSS)

$374.66 (As of 01/08/21)

Price Target (6-12 Months): **$397.00**

Long Term: 6-12 Months	**Zacks Recommendation:** **Neutral**
	(Since: 10/05/20)
	Prior Recommendation: Outperform
Short Term: 1-3 Months	**Zacks Rank:** (1-5) **3-Hold**
	Zacks Style Scores: VGM:F
	Value: F | Growth: D | Momentum: C

Summary

ANSYS is benefiting from healthy growth in recurring revenues as well as strength in aerospace and defense verticals. Further, higher demand across all regions including Asia-Pacific (APAC) is a positive. Moreover, ANSYS' acquisition of Analytical Graphics, which is expected to boost its presence in digital mission engineering space. Also, the company is well positioned to gain from robust adoption of its engineering simulation software in 3D printing and additive manufacturing applications. Nonetheless, COVID-19 crisis-induced weakness in the oil and gas industry is a persistent overhang. Additionally, stiff competition in the computer-aided design (CAD) market along with foreign exchange volatility owing to sizeable international exposure are headwinds. Notably, shares of the company have outperformed the industry in the past one year.
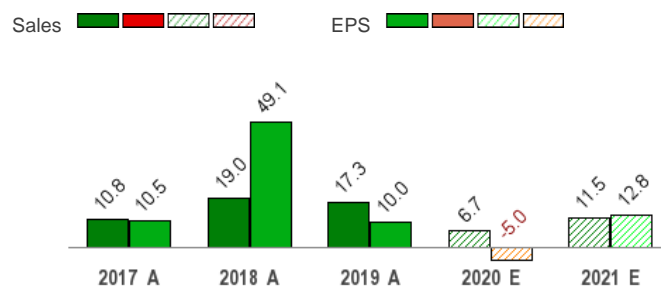
Price, Consensus & Surprise

Source: Zacks Investment Research

Data Overview

52-Week High-Low	**$375.78 - $200.07**
20-Day Average Volume (Shares)	**376,350**
Market Cap	**$32.2 B**
Year-To-Date Price Change	**3.0%**
Beta	**1.23**
Dividend / Dividend Yield	**$0.00 / 0.0%**
Industry	**Computer - Software**
Zacks Industry Rank	**Top 46% (117 out of 253)**
Last EPS Surprise	**7.9%**
Last Sales Surprise	**0.7%**
EPS F1 Estimate 4-Week Change	**0.0%**
Expected Report Date	**02/24/2021**
Earnings ESP	**0.0%**
P/E TTM	**62.7**
P/E F1	**53.1**
PEG F1	**NA**
P/S TTM	**20.8**

Sales and EPS Growth Rates (Y/Y %)

Sales Estimates (millions of $)

	Q1	Q2	Q3	Q4	Annual*
2021	359 E	439 E	416 E	621 E	1,818 E
2020	309 A	390 A	369 A	562 E	1,630 E
2019	320 A	371 A	346 A	492 A	1,528 A

EPS Estimates

	Q1	Q2	Q3	Q4	Annual*
2021	$1.13 E	$1.68 E	$1.52 E	$2.76 E	$7.05 E
2020	$0.83 A	$1.55 A	$1.36 A	$2.51 E	$6.25 E
2019	$1.29 A	$1.61 A	$1.42 A	$2.24 A	$6.58 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 01/08/2021. The reports text is as of 01/11/2021.

Overview

Canonsburg, PA-based ANSYS Inc. develops and globally markets engineering simulation software and services widely used by engineers, designers, researchers and students across a broad spectrum of industries and academia.

ANSYS Workbench, simulation platform is the company's key product. It also provides structural analysis product suite (Explicit Dynamics, Composites), simulation software solutions for Fluids, Electronics, Semiconductors, and Multiphysics.

AIM is a single-window application which integrates structural, fluids and electromagnetics simulation as well as includes all aspects of the simulation workflow. The company's SCADE product suite is a comprehensive solution for embedded software simulation, code production and automated certification.

ANSYS also provides simulation software for 3D modelling, Systems and academics.

Notably, ANSYS Cloud combines high-performance computing (HPC) infrastructure and Microsoft Azure platform with ANSYS software. ANSYS 2019 R1 enables engineers in designing more pervasive simulation solutions across multiple industries.

ANSYS unveiled CES EduPack 2019 with an aim to aid educators in teaching fundamental topics.

In 2019, ANSYS reported revenues of $1.516 billion.

The company generates revenues from two sources: Software licenses (46.2% of 2019 revenues) and Maintenance and service (53.8%).

The company derived 45.3% of its revenues from Americas, while the remaining 54.7% came from its foreign operations in 2019.

Direct and indirect revenues contributed 76% and 23%, respectively, to total revenues in 2019.

ANSYS's peers in computer-aided design (CAD) market include Cadence Design Systems, Inc., Autodesk, Inc. and PTC Inc. and Synopsys, Inc.

EPS Hist. and Est.

Sales Hist. and Est.
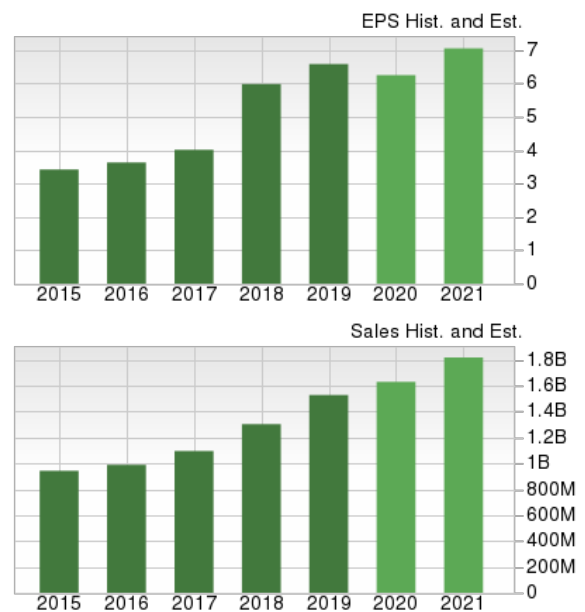
Source: Zacks Investment Research

Reasons To Buy:

▲ ANSYS is a dominant name in the high-end design simulation software market. The company's software solutions are used by most of the well known manufacturing companies. We note that virtual prototyping instead of physical prototyping helps these companies save considerable amount of money. We also note that its robust product portfolio and cross-domain offering will continue to drive customer base going ahead. We also note that it has a diversified customer base, which is evident from the fact that no single customer accounted for more than 5% of revenues in the last three years. Markedly, as of Sep 30, 2020, total deferred revenues and backlog came in at $879.9 million, reflecting an increase of 35% on a year-over-year basis.

Dominant player in the high-end simulation software market, new features of products addressing IoT needs, numerous collaborations & acquisitions expanding product line, favor growth prospects.

▲ We believe that ANSYS has significant growth opportunity from the rising complexity in product design due to rapid adoption of Internet of Things (IoT) in the manufacturing industry. Moreover, growing demand for energy efficient products is also a key catalyst. These are gradually expanding the company's total addressable market (TAM). We note that ANSYS's robust product portfolio is capable in addressing these needs. The company offers simulation solutions for developing next generation 5G product designs, autonomous vehicle, thinner and more reliable mobile and IoT products as well as high-performance chips for advanced driver assistance systems (ADAS). Also, strength in ANSYS Cloud, which combines high-performance computing (HPC) infrastructure and Microsoft Azure platform with ANSYS software, holds promise. It is anticipated to enhance the company's go-to-market strategy. We believe that the new features in the product are a game changer for ANSYS in the simulation software market

▲ The company's collaborations with advanced technology suppliers, hardware vendors, specialized application developers, and CAD, ECAD and PLM providers is a key catalyst in our view. ANSYS' partnership with CAD vendors – Autodesk, PTC and Siemens – enables data transfer among the CAD systems and the company's products ANSYS-Spatial relationship helps in building the geometry modelling software solutions. The company has also teamed up with BMW Group, which will utilize the company's simulation tools to design robust AV technologies. It is also collaborating with Airbus Defence and Space to develop a new solution, which facilitates AI-driven, secure flight controls to design robust autonomous drone flight control solution by 2030. ANSYS partners Amazon Web Services (AWS) in the cloud computing market. We believe that the strong partner network will help the company win customers more frequently, which will eventually drive top-line growth.

▲ Aggressive acquisition strategy has played a pivotal part in developing the company's business in the last few years. Recently, ANSYS announced the buyout of Analytical Graphics, Inc for $700 million in cash (67%) and stock (33%) deal. Analytical Graphics is engaged in providing analysis and simulation solutions for defense and aerospace verticals including critical missions like satellite launches. Post the conclusion of the buyout in the fourth quarter of 2020, the deal is expected to add $75-$85 million to the top line (non-GAAP) in 2021. Prior to this, ANSYS had concluded acquisition of Dynardo, engaged in providing simulation-based process integration and design optimization (PIDO) technology. The buyout is expected to aid ANSYS deliver comprehensive suite of PIDO-based robust design solutions. The company has also acquired Livermore Software Technology Corporation (LSTC), in a bid to strengthen its explicit dynamics suite and finite element analysis capabilities. These along with Granta Design, SpaceClaim Corp (3D modelling technology provider), Reaction Design (chemistry simulation software provider) and Evolutionary Engineering (cloud-based composite analysis and optimization technology provider) acquisitions have enabled the company to offer new and innovative products. We anticipate ANSYS to pursue tuck-in acquisitions, which will further expand product portfolio in the long term.

▲ Management execution has been good in recent times. As of Sep 30, 2020, cash and short-term investments of $845 million (the United States comprised 59%) compared with $745 million (the United States comprised 54%) as of Jun 30, 2020. As of Sep 30, 2020, the company has an unsecured term loan with an outstanding principal balance of $425 million. Notably, the debt agreement currently requires no principal payments until 2024. This provides them the flexibility required to pursue any growth strategy, whether by way of acquisitions or otherwise. Moreover, total debt to total capital of 10.6% is much lower than the industry's figure of 42.7%. Further, times interest earned is 37.8X compared with the industry's figure of 16.5X. Also, cash from operations in the third quarter was $94.5 million. The strong cash flow balance indicates that ANSYS is making investments in the right direction.

Past performance is no guarantee of future results. Please see important disclosures and definitions at the end of this report.

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Reasons To Sell:

▼ ANSYS generates a significant portion (56% in 2019) of revenues from the International market. In 2019, fluctuations in the exchange rates of foreign currencies against the U.S. Dollar negatively impacted revenues by $24.2 million. Adverse foreign currency exchange rates are expected to impede revenue growth in the near term owing to the strengthening of the U.S. dollar compared with the Euro and other foreign currencies, which is a significant concern.

▼ Moreover, Europe continues to remain a major headwind for ANSYS. The company has taken steps to improve sales execution by changing senior sales leadership. The company is focusing on sharpening its go-to-market strategy. However, uncertainty related to Brexit and overall macro-weakness in the region will continue to hurt top-line growth in the near term.

▼ ANSYS faces stiff competition in the computer-aided design (CAD) market from Cadence Design Systems (as it recently ventured into the market with 3D Solver offering), Autodesk, PTC and Synopsys, to mention a few. New entrants are likely to pose a threat to the company's market share. This might compel the company resort to competitive pricing to maintain and capture further market share.

▼ Frequent acquisitions have escalated integration risks for ANSYS. Moreover, we also note that the frequent acquisitions negatively impact the company's balance sheet in the form of high level of goodwill and intangible assets, which totaled approximately $2.97 billion or 61.2% of total assets as of Sep 30, 2020.

▼ Moreover, the company is trading at premium in terms of Price/Earnings (P/E). ANSYS currently has a trailing 12-month P/E ratio of 78.05X. This level compares unfavorably with what the industry witnessed in the last year. Additionally, the ratio is higher than the average level of 61.3X and is near the high end of the valuation range in this period. Consequently, the valuation looks slightly stretched from P/E perspective.

> Declining perpetual up front revenues, uncertainty over Brexit adverse foreign currency exchange volatility, and integration risks from buyouts, are likely to weigh on ANSYS' financial performance.

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Last Earnings Report

ANSYS Earnings and Revenues Top Estimates in Q3

Quarter Ending	09/2020
Report Date	Nov 04, 2020
Sales Surprise	0.68%
EPS Surprise	7.94%
Quarterly EPS	1.36
Annual EPS (TTM)	5.98

ANSYS reported third-quarter 2020 non-GAAP earnings of $1.36 per share, which beat the Zacks Consensus Estimate by 7.9%. However, the bottom line declined 4.2% year over year.

Non-GAAP revenues of $369.1 million surpassed the Zacks Consensus Estimate by 0.7%. The figure increased 7% (up 5% at constant currency or cc) from the year-ago quarter's levels.

Continued momentum in recurring revenues, strength in aerospace and defense verticals along with growth in all the regions especially Asia-Pacific drove the top line. Notably, revenue from Japan and South Korea improved in double digits in the Asia-Pacific region.

Deferred revenues and backlog were $879.9 million, up 35% on a year-over-year basis.

The company also announced that it will acquire Analytical Graphics, Inc for $700 million in cash (67%) and stock (33%) deal. Analytical Graphics provides analytical software solutions that are used by companies engaged in aerospace and defense verticals among others.

Also, ANSYS Startup Program is now supporting twice the number of startups than it did two years back across multiple sectors in over 44 countries.

Top-Line Details

Lease licenses revenues (21.4% of non-GAAP revenues) improved 9.7% at cc to $79.1 million. Perpetual licenses revenues (17%) fell 6.8% year over year at cc to $62.7 million.

Maintenance revenues (58%) increased 8.3% at cc to $214 million but Service revenues (3.6%) declined 3% year over year, at cc, to $13.4 million.

Direct and indirect channels contributed 74.8% and 25.2%, respectively, to non-GAAP revenues. ACV improved 5% year over year (up 3.4% at cc) to $305.3 million.

On a geographic basis, non-GAAP revenues from Americas, EMEA (comprising Germany, the UK and other EMEA) and the Asia-Pacific (Japan and Other Asia-Pacific) contributed 44%, 29% and 27% to non-GAAP revenues, respectively.

Notably, at cc, non-GAAP revenues from Americas improved 6.2% to $162.5 million, while revenues from EMEA and the Asia-Pacific increased 1.9% and 7.4% year over year to $107 million and $99.7 million, respectively.

The deal wins in aerospace and defense verticals across North America and EMEA boosted growth. The strength in high-tech and semiconductor sectors with growing clout in the automotive sector led to increases in revenues from the APAC region.

Meanwhile, the coronavirus crisis-induced weakness in the oil and gas industry and low oil prices continue to plague the global energy markets, which is overhang for ANSYS.

Despite this, during the quarter, the company made a seven-figure sale to a notable energy company, which is a testament to the strength in its solutions.

Operating Details

Non-GAAP gross margin contracted 90 basis points (bps) on a year-over-year basis to 89.2%.

Total operating expenses increased 13.2% year over year to $223.5 million due to higher research and development as well as selling, general and administrative expenses.

Non-GAAP operating margin contracted 350 bps on a year-over-year basis to 39.8%.

Balance Sheet & Cash Flow

As of Sep 30, 2020, cash and short-term investments of $845.2 million (the United States comprised 59%) compared with $745 million (the United States comprised 54%) as of Jun 30, 2020.

As of Sep 30, 2020, the company has an unsecured term loan with an outstanding principal balance of $425 million. Notably, the debt agreement currently requires no principal payments through 2024.

The company generated cash from operations of $94.5 million for the third quarter compared with $131.6 million in the prior quarter.

The company did not repurchase shares in the third quarter. As of Sep 30, 2020, it had 2.8 million shares remaining under the share buyback program.

Guidance

ANSYS expects non-GAAP earnings in the range of $2.36-$2.67 per share for fourth-quarter 2020.

Non-GAAP revenues are anticipated between $542.3 million and $582.3 million (mid-point of $562.3 million).

Management projects non-GAAP operating margin in the range of 47.5-49.5%.

For 2020, ANSYS has raised guidance. The company now expects non-GAAP revenues of $1.61-$1.65 billion (mid-point of $1.63 billion) compared with the prior range of $1.57-$1.645 billion (mid-point of $1.61 billion).

Non-GAAP earnings are now envisioned in the range of $6.09-$6.40 per share compared with the prior range of 5.75-$6.35 per share.

ACV is now anticipated between $1.555 billion and $1.59 billion compared with the prior range of $1.52-$1.585 billion.

Management now expects non-GAAP operating margin in the range of 41-42%. Previously, the operating margin was guided in the range of 40-42%.

The company continues to anticipate operating cash flow for 2020 between $435 million and $475 million.

Recent News

On Jan 11, ANSYS announced that Navantia will be utilizing its digital transformation solutions to innovate design development of next-generation navy ships and boost production efficiency, reduce costs and accelerate time to market.

On Dec 10, ANSYS announced that XRby will be utilizing its optical design simulation software to innovate design development of limited edition luxury wristwatches.

On Nov 19, ANSYS in collaboration with PTC, unveiled Creo Ansys Simulation solution. It is integrated with its high-fidelity solvers, and PTC's Creo computer-aided design (CAD) software, in a bid to aid users to simulate design outcomes with a high degree of accuracy, reduce costs and accelerate time to market.

On Nov 2, ANSYS announced that NASCAR will be utilizing its simulation workflow designed in association with D2H Advanced Technologies to boost performance of stock cars.

On Oct 29, ANSYS partnered with Microsoft to incorporate its simulation solutions with the latter's Azure platform, high performance computing and IoT services. This will enable engineers to slash time to market for a product.

On Oct 6, ANSYS announced collaboration with EOS, in a bid to deliver an enhanced, elevated user experience with the development of advanced additive manufacturing (AM) parts.

On Oct 6, ANSYS announced its SPDM platform and physics-based digital twins are being utilized by Cummins' engineers to speed digital transformation.

Valuation

ANSYS' shares are up 26.7% in the past six-month period and 41.9% in the trailing 12-month period. Stocks in the Zacks sub-industry and the Zacks Computer & Technology sector are up 9.7% and 26% in the past six-month period, respectively. Over the past year, the Zacks sub-industry and the sector are up 30.7% and 36.5%, respectively.

The S&P 500 index is up 21.9% in the past six-month period and 18.2% in the past year.

The stock is currently trading at 63.25X forward 12-month earnings compared with 32.46X for the Zacks sub-industry, 28.84X for the Zacks sector and 23.38X for the S&P 500 index.

In the past five years, the stock has traded as high as 63.25X and as low as 23.39X with a five-year median of 35.9X. Our Neutral recommendation indicates that the stock will perform in line with the market. Our $397 price target reflects 67.02X forward 12-month earnings.

The table below shows summary valuation data for ANSS

Valuation Multiples - ANSS		Stock	Sub-Industry	Sector	S&P 500
P/E F12M	Current	63.25	32.46	28.84	23.38
	5-Year High	63.25	35.41	28.84	23.79
	5-Year Low	23.39	19.26	16.94	15.3
	5-Year Median	35.9	25.96	19.93	17.83
P/S F12M	Current	17.65	8.76	4.89	4.56
	5-Year High	17.65	8.76	4.89	4.56
	5-Year Low	6.87	4.26	2.77	3.2
	5-Year Median	10.72	6.06	3.47	3.68
EV/Sales TTM	Current	20.57	8.67	5.49	4.54
	5-Year High	20.57	9.44	5.49	4.54
	5-Year Low	6.65	3.66	2.85	2.62
	5-Year Median	11.12	6.04	3.9	3.59

As of 01/08/2021   Source: Zacks Investment Research

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Industry Analysis Zacks Industry Rank: Top 46% (117 out of 253)

Source: Zacks Investment Research

Top Peers

Company (Ticker)	Rec	Rank
Autodesk, Inc. (ADSK)	Neutral	3
Blackbaud, Inc. (BLKB)	Neutral	3
Cadence Design Systems, Inc. (CDNS)	Neutral	3
Pegasystems Inc. (PEGA)	Neutral	3
Synopsys, Inc. (SNPS)	Neutral	3
Verint Systems Inc. (VRNT)	Neutral	2
Nuance Communications, Inc. (NUAN)	Underperform	5
PTC Inc. (PTC)	Underperform	3

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

Industry Comparison Industry: Computer - Software

	ANSS	X Industry	S&P 500	Industry Peers ADSK	CDNS	SNPS
Zacks Recommendation (Long Term)	Neutral	-	-	Neutral	Neutral	Neutral
Zacks Rank (Short Term)	3	-	-	3	3	3
VGM Score	F	-	-	C	D	C
Market Cap	32.18 B	2.43 B	27.18 B	70.33 B	37.99 B	40.22 B
# of Analysts	5	4	13	9	6	6
Dividend Yield	0.00%	0.00%	1.41%	0.00%	0.00%	0.00%
Value Score	F	-	-	F	D	D
Cash/Price	0.03	0.08	0.06	0.02	0.03	0.03
EV/EBITDA	52.49	22.94	14.99	149.59	59.57	42.98
PEG F1	NA	2.98	2.65	2.32	3.06	3.57
P/B	8.95	7.08	3.77	1,012.06	15.86	8.12
P/CF	57.12	25.62	14.38	152.27	34.25	42.63
P/E F1	52.75	33.58	20.76	81.20	47.23	41.05
P/S TTM	20.84	4.98	2.97	19.27	15.06	10.91
Earnings Yield	1.88%	2.69%	4.68%	1.23%	2.11%	2.44%
Debt/Equity	0.12	0.13	0.70	23.62	0.14	0.02
Cash Flow ($/share)	6.56	1.18	6.93	2.10	3.98	6.16
Growth Score	D	-	-	A	C	B
Historical EPS Growth (3-5 Years)	13.68%	10.79%	9.71%	NA	39.62%	22.91%
Projected EPS Growth (F1/F0)	12.85%	13.88%	12.21%	41.18%	6.72%	15.35%
Current Cash Flow Growth	8.84%	3.27%	5.22%	280.74%	138.95%	17.41%
Historical Cash Flow Growth (3-5 Years)	7.79%	8.71%	8.33%	8.91%	24.55%	9.51%
Current Ratio	2.60	1.57	1.38	0.83	1.55	1.19
Debt/Capital	10.56%	21.51%	41.97%	95.94%	12.64%	2.01%
Net Margin	24.88%	7.25%	10.40%	11.74%	42.68%	18.03%
Return on Equity	12.09%	12.39%	15.20%	-1,423.72%	48.31%	14.81%
Sales/Assets	0.33	0.59	0.50	0.62	0.66	0.49
Projected Sales Growth (F1/F0)	11.56%	5.75%	5.91%	14.85%	5.31%	9.04%
Momentum Score	C	-	-	D	B	C
Daily Price Change	2.64%	0.00%	0.10%	1.48%	-0.63%	1.53%
1-Week Price Change	-0.10%	0.00%	1.16%	1.31%	1.81%	1.15%
4-Week Price Change	12.16%	8.15%	3.65%	13.76%	15.96%	12.23%
12-Week Price Change	6.53%	12.67%	13.64%	26.91%	17.45%	15.25%
52-Week Price Change	43.31%	21.86%	8.59%	66.64%	85.65%	76.77%
20-Day Average Volume (Shares)	376,350	123,064	1,694,173	1,081,011	1,366,371	654,298
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%	0.08%	0.00%	0.00%	0.00%
EPS F1 Estimate 12-Week Change	0.80%	1.07%	2.45%	4.21%	5.90%	2.44%
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	F
Growth Score	D
Momentum Score	C
VGM Score	F

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 mediumterm 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 mostrecent 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.

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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 a 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.

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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.