

## Sony Corporation (SNE)

**\$109.60** (As of 02/24/21)

Price Target (6-12 Months): **\$125.00**

Long Term: 6-12 Months

**Zacks Recommendation:**

**Outperform**

(Since: 02/24/21)

Prior Recommendation: Neutral

Short Term: 1-3 Months

**Zacks Rank:** (1-5)

**1-Strong Buy**

Zacks Style Scores:

VGM: C

Value: B

Growth: D

Momentum: C

### Summary

Sony reported solid third-quarter fiscal 2020 results, wherein the top and the bottom lines beat the respective Zacks Consensus Estimate. The Game & Network Services segment is benefiting from an increase in game software sales and PlayStation Plus subscriptions. Sony launched its next-generation gaming console, PlayStation 5. It is concentrating on the premium segment of the branded products market to maximize growth. It launched a new project for drones in the field of artificial intelligence robotics. Changes were made to Sony Group's organizational structure to boost individual businesses. Measures to realign its business portfolio like making Sony Financial Holdings a wholly owned subsidiary are helping Sony. However, the Pictures business is facing challenges due to theater closings on account of the pandemic.

### Data Overview

52-Week High-Low	<b>\$118.50 - \$50.94</b>
20-Day Average Volume (Shares)	<b>1,142,713</b>
Market Cap	<b>\$133.7 B</b>
Year-To-Date Price Change	<b>8.4%</b>
Beta	<b>0.94</b>
Dividend / Dividend Yield	<b>\$0.41 / 0.4%</b>
Industry	<b>Audio Video Production</b>
Zacks Industry Rank	<b>Top 36% (91 out of 253)</b>

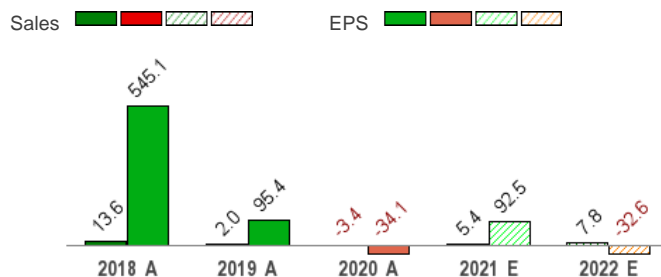
Last EPS Surprise	<b>230.0%</b>
Last Sales Surprise	<b>5.5%</b>
EPS F1 Estimate 4-Week Change	<b>26.8%</b>
Expected Report Date	<b>05/12/2021</b>
Earnings ESP	<b>0.0%</b>

P/E TTM	<b>13.8</b>
P/E F1	<b>13.5</b>
PEG F1	<b>2.3</b>
P/S TTM	<b>1.7</b>

### Price, Consensus & Surprise



### Sales and EPS Growth Rates (Y/Y %)



### Sales Estimates (millions of \$)

	Q1	Q2	Q3	Q4	Annual*
2022					86,332 E
2021	18,307 A	19,915 A	25,822 A	19,455 E	80,116 E
2020	17,522 A	19,784 A	22,659 A	16,057 A	75,991 A

### EPS Estimates

	Q1	Q2	Q3	Q4	Annual*
2022					\$5.50 E
2021	\$1.74 A	\$3.47 A	\$2.64 A	\$0.36 E	\$8.16 E
2020	\$1.08 A	\$1.39 A	\$1.68 A	\$0.09 A	\$4.24 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 02/24/2021. The report's text and the analyst-provided price target are as of 02/25/2021.

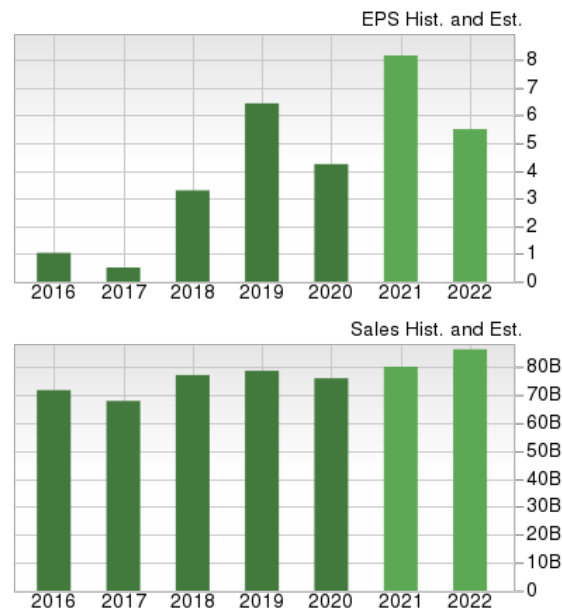
## Overview

Headquartered in Tokyo, Japan, Sony Corporation designs, manufactures and sells several consumer and industrial electronic equipment. The company's product roster comprises of audio and video equipment, televisions, displays, semiconductors, electronic components, gaming consoles, computers and computer peripherals and telecommunication equipment. Additionally, Sony is active in production, acquisition and distribution of motion pictures as well as television programming, along with the operation of television and digital networks. Further, the company has presence in the music and image-based software markets globally.

In addition, Sony operates several financial services businesses that include banking operations and life and non-life insurance operations, both of which are managed by its Japanese subsidiaries. Sony Financial Group mainly focuses on developing products and services that incorporate technology to respond effectively to social or environmental changes across all its businesses. Markedly, Sony Bank offers mortgage loans and foreign-currency deposits to consumers via online services. Also, the company has an advertising agency and a network services business in Japan.

In the first quarter of fiscal 2016, Sony realigned its business, which primarily involved repositioning of operations related to its All Other segment.

The company currently has six reportable segments – Game & Network Services (G&NS) (accounting for 33% of total operating revenues in third-quarter fiscal 2020); Music (9.9%); Pictures (7.1%); Electronics Products & Solutions (EP&S) (24.2%); Imaging & Sensing Solutions (I&SS) (9.9%); and Financial Services (15.9%).



Source: Zacks Investment Research

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## Reasons To Buy:

- ▲ Sony raised the forecast for consolidated results for the fiscal year ending Mar 31, 2021. The Game & Network Services segment is benefiting from an increase in game software sales and PlayStation Plus subscriptions. The company launched its next-generation gaming console, PlayStation 5 (PS5). With a powerful 8-core AMD Zen 2 processor, 10.3 teraflops of graphics power, gorgeous 4K visuals and an immersive end-user experience, the PS5 promises some of the best performance ever witnessed in a gaming console. Moreover, Sony has been strengthening its business segments through accretive acquisitions and joint ventures. Sony Semiconductor Solutions has collaborated with Microsoft to create solutions that make AI (artificial intelligence)-powered smart cameras and video analytics easier to access for their mutual customers. Sony expects the Music segment to benefit from healthy streaming revenues, strong performance of the mobile gaming application Fate/Grand Order and impact from the consolidation of EMI Music Publishing.
- ▲ Measures to realign its business portfolio like making Sony Financial Holdings a wholly owned subsidiary are helping the company. In recent years, Sony achieved sales growth in the Imaging & Sensing Solutions (formerly Semiconductors) and Music segments. It enhanced profitability in the Electronics Products & Solutions segment and secured a stable profit contribution from the Financial Services segment. Music sales are likely to be driven by strong visual media and platform sales as well as recorded music sales. Going forward, the company expects demand for image sensors for mobile products to grow, which in turn will drive Semiconductors sales.
- ▲ Sony is concentrating on the premium segment of the branded products market to maximize growth. It introduced a music experience, 360 Reality Audio, to make listeners feel as if they are immersed in sound from all directions. This was delivered by the company's object-based spatial audio technology. It is working with major music labels, music distribution services to provide technology for building a musical ecosystem around 360 Reality Audio. Sony is also working to promote this music experience to music creators, artists and music fans, with an aim to build an entirely new world of music entertainment. Furthermore, the company announced that it is going to shift its consumer electronics business' European headquarters from the United Kingdom to the Netherlands, to ensure continuity of operations on account of Brexit-related disruptions. It had set up a new company in the Netherlands, which would be combined with its U.K. based Sony Europe.
- ▲ Sony has undertaken a series of concerted efforts to attain a leaner organizational structure. The company announced several changes to the Sony Group's organizational structure to boost individual businesses and leverage the diversity of its business portfolio. Effective Apr 1, 2021, the current Sony Corporation will change its name to Sony Group Corporation. Sony Electronics Corporation, which currently operates the electronics business that is the origin of Sony's business, will acquire the name Sony Corporation. Of the Sony Group's core businesses, Game & Network Services, Music, Pictures and Financial Services have established executive structures. The electronics businesses, including Imaging & Sensing Solutions, will establish optimal executive structures for each business.
- ▲ As of Dec 31, 2020, the company had \$44,631 million in cash and cash equivalents with \$7,078 million of long-term debt compared with the respective tallies of \$41,593 million and \$7,009 million at the end of the previous quarter. Sony has a debt-to-capital ratio of 0.29 compared with 0.29 of the industry. The times interest earned (TIE) ratio has improved steadily over the past few quarters to 115.8 at present, compared with 112.6 of the industry. This indicates that the company is in a position to meet its debt obligations. It is to be seen whether Sony can sustain the momentum in the coming days amid disruptions stemming from the pandemic.

Sony's Game & Network Services segment is benefiting from an increase in game software sales and PlayStation Plus subscriptions. The company launched its next-generation gaming console, PlayStation 5.

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## Risks

- In the third quarter of fiscal 2020, sales in the Pictures segment tumbled 19% year over year to ¥191.1 billion. The decline was a result of significant decrease in theatrical revenues due to theater closings on account of the COVID-19 pandemic, lower advertising revenues for media networks and fall in revenues because of fewer deliveries of TV shows due to production shutdowns. Also, sales in the Imaging & Sensing Solutions segment were down 10.4% year over year to ¥266.9 billion due to a decrease in sales of image sensors for digital cameras.
  - Sony's physical facilities and information systems are susceptible to damage caused by catastrophic disasters, outages, malfeasance, or cyber-attacks. The company faced several cyber-attacks, leading to increased customer dissatisfaction over the past years. It came to management's notice that certain former executives and employees of Sony Field Company were involved in embezzlement. After a preliminary assessment, management estimated incurring ¥900 million in damages due to this wrongful conduct.
  - The company has a strong international presence with majority of revenues coming from emerging markets. It has been suffering from an adverse impact of foreign currency fluctuations. Fluctuations in foreign exchange rates, particularly those of yen, the U.S. dollar and euro impact Sony's financials as it has significant exposure to these currencies, both in terms of sales and production costs. As many segments of the company have concentrated operations in specific regions, the currency impact differs from segment to segment. This is expected to hurt its consolidated sales. Currency headwinds are expected to inflate the price of key components, thus restricting growth of the Electronics Products & Solutions (EP&S) business. We believe that currency headwinds along with the decline of certain business lines will remain a drag on the company's overall performance.
  - Sony faces intense competition in each of its product lines including television, gaming platform and smartphone around the world. Failure to create new products that are in sync with customer demand may reduce sales of the company's products. Each of these markets witnesses stiff price wars, continuous product innovations and changing customer preferences, which puts pressure on Sony to come up with better products to retain competitiveness. Although Sony's business restructuring initiatives pave way for enhancement of profitability and shareholder value in the long run, these increase restructuring charges in the near term. Hence, the company needs to be cautious as these charges, if increase significantly, can weigh on its financials.
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## Last Earnings Report

### Sony Surpasses Q3 Earnings Estimates, Raises View

Sony reported solid third-quarter fiscal 2020 results, wherein the top and the bottom lines beat the respective Zacks Consensus Estimate driven by strong holiday sales of gaming console and robust performance by the music business.

#### Net Income

Sony's GAAP net income surged 62% year over year to ¥371.9 billion or ¥297.35 per share (\$3,558.7 million or \$2.84 per share), primarily attributable to an income tax benefit of ¥225.8 billion. Adjusted net income came in at ¥343.9 billion compared with ¥216.2 billion in the year-ago quarter. Adjusted earnings per share in the reported quarter were ¥274.9 (\$2.63), which comfortably beat the Zacks Consensus Estimate of 80 cents.

#### Revenues

Quarterly consolidated operating revenues improved 9.5% year over year to ¥2,696.5 billion (\$25,802.8 million) driven by a strong performance by Game & Network Services (G&NS) and Music segments, slightly offset by lower sales in Pictures and Imaging & Sensing Solutions (I&SS) segments. The top line surpassed the consensus estimate of \$24,488 million.

#### Segment Results

**G&NS** sales grew 39.7% year over year to ¥883.2 billion, driven by an increase in game software sales as well as solid hardware sales led by the tremendous customer response of the PlayStation 5 (PS5) gaming console launch. The segment's operating income improved to ¥80.2 billion from ¥53.5 billion owing to rise in software sales and higher profit margins of PS4 hardware.

**Music** sales increased 21.9% year over year to ¥264.5 billion due to higher sales for Visual Media and Platform, higher streaming revenues from recorded music and solid performance of mobile game applications. The segment's operating income was ¥59.7 billion, up from ¥36.2 billion in the prior-year quarter due to higher sales.

**Pictures** sales tumbled 19% year over year to ¥191.1 billion. This was a result of a significant decrease in theatrical revenues due to theater closings on account of the COVID-19 pandemic and fall in revenues owing to lower home entertainment and television licensing sales. The segment's operating income improved to ¥22.2 billion from ¥5.4 billion in the prior-year quarter due to lower marketing costs.

**Electronics Products & Solutions (EP&S)** sales remained almost flat at ¥649 billion as increase in sales of televisions due to higher value product mix was offset by decrease in unit sales of smartphones. The segment's operating income was ¥105.8 billion compared with ¥80.3 billion in the year-ago quarter, thanks to improvement in the product mix.

**I&SS** sales were down 10.4% year over year to ¥266.9 billion due to decrease in sales of image sensors for digital cameras. The segment's operating income was ¥50.4 billion compared with ¥75.2 billion in the prior-year quarter. This was due to lower sales, increase in R&D expenses, and higher depreciation and amortization charges.

**Financial Services** sales were up 4.4% year over year to ¥425.3 billion due to higher revenues from Sony Life. The segment's operating income was ¥46.6 billion compared with ¥32.6 billion in the year-ago quarter led by improvement in foreign exchange gains and losses in U.S. dollar-denominated insurance. All Other sales remained almost flat at ¥72.5 billion. Operating income was ¥8.1 billion compared with ¥20.7 billion in the prior-year quarter.

#### Cash Flow & Liquidity

In the first nine months of fiscal 2020, Sony generated ¥1,087.5 billion of net cash from operating activities compared with ¥834.1 billion in the prior fiscal period. As of Dec 31, 2020, the Japan-based company had ¥1,878 billion (\$18,201.6 million) in cash and cash equivalents with ¥737.3 billion (\$7,145.9 million) of long-term debt.

#### FY20 Outlook Raised

Sony has revised its forecast for consolidated results for the fiscal year ending Mar 31, 2021. It now expects operating revenues of ¥8,800 billion, up from the earlier forecasted figure (announced in October 2020) of ¥8,500 billion. This is due to higher-than-expected sales in the all the segments (except Pictures) driven by surging demand for video games, music and movies and immense popularity of PS5 gaming console amid COVID-19 induced lockdown and travel restrictions.

Operating income is estimated to be ¥940 billion, up from the previous expectation of ¥700 billion. This is due to expected increases in operating income in all the segments. Net income is projected to be ¥1,085 billion, up from the previous expectation of ¥800 billion.

*Conversion rate used:*

¥1 = \$0.009569 (period average from Oct 1, 2020 to Dec 31, 2020)

¥1 = \$0.009692 (as of Dec 31, 2020)

Quarter Ending	12/2020
Report Date	Feb 03, 2021
Sales Surprise	5.45%
EPS Surprise	230.00%
Quarterly EPS	2.64
Annual EPS (TTM)	7.94

## Recent News

On Jan 12, 2021, Sony unveiled the 'Airpeak' aircraft as part of its drone project in the field of AI (artificial intelligence) robotics. The company launched the Airpeak brand to further develop drone technology. Initially, Sony will launch a new business targeted for professional photography and video production in the spring of 2021. The payload of the drone can be equipped with an Alpha mirrorless camera to capture high quality, full-frame aerial photography and video. This innovative product will contribute to the world of entertainment while pursuing new possibilities for creativity. Sony is engaged in co-creation activities leading up to the launch of Airpeak for valuable feedback from professional drone users. The drones are also likely to improve the efficiency of various industries with the highest levels of safety and reliability standards. The development reflects Sony's focus on 3R technologies (Reality, Real-time and Remote) in the drone area. Through this initiative, the company aims to contribute to the evolution of drones and generate value within this growing market.

On Dec 9, 2020, Sony Pictures Entertainment and AT&T announced that Funimation Global Group has inked a deal to acquire 100% of the equity interest in Ellation Holdings, a subsidiary of AT&T, which operates the anime business Crunchyroll. The total purchase price of this deal is \$1.175 billion. Funimation is a joint venture between Sony Pictures Entertainment (a wholly owned subsidiary of Sony) and Sony Music Entertainment Japan's subsidiary, Aniplex. Founded in 2006, Crunchyroll is part of WarnerMedia's Otter Media division that offers a direct-to-customer service. It caters to more than 3 million users for its subscription video-on-demand content. About 90 million registered users across more than 200 countries access its advertising-based video on demand, manga content, mobile games and events merchandise. The buyout will allow Sony to expand its content library by including Japanese anime movies and TV shows. The combination of Crunchyroll and Funimation is expected to provide the opportunity to broaden distribution for the content partners and expand fan-focused offerings. The transaction, which is subject to regulatory approvals, is not expected to have a significant impact on Sony's forecast for its consolidated results for the fiscal year ending Mar 31, 2021.

## Valuation

Sony's shares are up 71.5% in the trailing 12-month period, and up 35.1% in the past six months. Stocks in the Zacks sub-industry are up 69.7% in the past year, and up 37.8% in the past six months. Stocks in the Zacks Consumer Discretionary sector are up 33.6% in the past year, and up 24.3% in the past six months.

The S&P 500 Index is up 26.7% in the past year, and up 12.3% in the past six months.

The stock is currently trading at 1.56X forward 12-month sales, which compares to 1.2X for the Zacks sub-industry, 3.01X for the Zacks sector and 4.53X for the S&P 500 Index.

Over the past five years, the stock has traded as high as 1.7X and as low as 0.08X, with a 5-year median of 0.78X. Our Outperform recommendation indicates that the stock will perform better than the market. Our \$125 price target reflects 80.13X forward 12-month sales.

The table below shows summary valuation data for SNE

Valuation Multiples - SNE					
		Stock	Sub-Industry	Sector	S&P 500
P/S F12M	Current	1.56	1.2	3.01	4.53
	5-Year High	1.7	1.2	3.01	4.53
	5-Year Low	0.08	0.13	1.7	3.21
	5-Year Median	0.78	0.67	2.49	3.68
P/B TTM	Current	2.56	1.99	4.09	6.87
	5-Year High	2.73	2.12	4.85	6.97
	5-Year Low	1	1.03	2.25	3.84
	5-Year Median	1.73	1.54	4.13	4.97
P/EBITDA TTM	Current	11.1	9.12	11.92	19.34
	5-Year High	11.82	11.14	16.22	19.4
	5-Year Low	5.21	4.71	6.27	10.03
	5-Year Median	7.4	6.53	10.46	14.06

As of 02/24/2021

Source: Zacks Investment Research

## Industry Analysis Zacks Industry Rank: Top 36% (91 out of 253)



Source: Zacks Investment Research

## Top Peers

Company (Ticker)	Rec	Rank
Dolby Laboratories (DLB)	Neutral	3
GoPro, Inc. (GPRO)	Neutral	3
Turtle Beach Corporation (HEAR)	Neutral	3
Panasonic Corp. (PCRFY)	Neutral	2
Sharp Corp. (SHCAY)	Neutral	3
Sonos, Inc. (SONO)	Neutral	3
Toshiba Corp. (TOSYY)	Neutral	4
Technicolor SA (TCLRY)	Underperform	4

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

Industry Comparison Industry: Audio Video Production				Industry Peers		
	SNE	X Industry	S&P 500	PCRFY	SHCAY	TOSYY
Zacks Recommendation (Long Term)	Outperform	-	-	Neutral	Neutral	Neutral
Zacks Rank (Short Term)	1	-	-	2	3	4
VGM Score	C	-	-	A	A	D
Market Cap	133.73 B	185.68 M	27.72 B	33.73 B	10.03 B	21.47 B
# of Analysts	4	3	13	3	2	1
Dividend Yield	0.37%	0.00%	1.45%	1.16%	0.00%	0.82%
Value Score	B	-	-	A	A	B
Cash/Price	0.32	0.15	0.06	0.42	0.20	0.23
EV/EBITDA	8.52	-2.41	15.30	4.43	12.01	63.51
PEG F1	2.30	1.94	2.37	5.87	NA	NA
P/B	2.56	3.45	3.89	1.44	3.45	2.15
P/CF	14.55	14.55	15.89	6.13	9.66	NA
P/E F1	13.45	22.06	21.11	22.06	22.48	17.70
P/S TTM	1.67	1.51	3.19	0.45	0.47	0.75
Earnings Yield	7.44%	4.45%	4.65%	4.51%	4.45%	5.65%
Debt/Equity	0.14	0.01	0.66	0.39	1.74	0.54
Cash Flow (\$/share)	7.53	-0.02	6.64	2.24	0.49	-0.15
Growth Score	D	-	-	B	A	D
Historical EPS Growth (3-5 Years)	80.14%	6.38%	9.34%	5.77%	NA	NA
Projected EPS Growth (F1/F0)	92.33%	28.87%	13.95%	-29.96%	50.00%	196.88%
Current Cash Flow Growth	-21.35%	-24.95%	1.21%	4.92%	-24.95%	-124.26%
Historical Cash Flow Growth (3-5 Years)	33.38%	5.98%	7.62%	5.98%	26.13%	NA
Current Ratio	0.94	1.58	1.38	1.32	1.28	1.64
Debt/Capital	12.06%	12.06%	41.22%	27.84%	63.46%	34.99%
Net Margin	12.70%	1.54%	10.59%	2.23%	0.72%	2.51%
Return on Equity	20.83%	8.34%	14.82%	7.88%	10.04%	8.80%
Sales/Assets	0.35	1.07	0.51	1.26	1.23	0.90
Projected Sales Growth (F1/F0)	5.39%	5.39%	6.82%	-6.13%	10.53%	-1.54%
Momentum Score	C	-	-	C	A	F
Daily Price Change	-2.52%	0.00%	1.31%	1.10%	-5.98%	-1.26%
1-Week Price Change	1.77%	-3.29%	-0.16%	-3.29%	-9.49%	-4.47%
4-Week Price Change	12.99%	11.88%	6.83%	-0.43%	-10.61%	1.57%
12-Week Price Change	18.33%	44.08%	9.51%	23.76%	43.90%	13.99%
52-Week Price Change	71.41%	84.73%	18.76%	35.53%	55.52%	18.42%
20-Day Average Volume (Shares)	1,142,713	364,108	2,013,595	364,108	20,360	10,508
EPS F1 Estimate 1-Week Change	-0.18%	0.00%	0.00%	0.00%	0.00%	0.00%
EPS F1 Estimate 4-Week Change	26.83%	2.78%	0.62%	42.75%	0.00%	-31.62%
EPS F1 Estimate 12-Week Change	42.32%	2.78%	1.91%	73.15%	16.67%	-27.91%
EPS Q1 Estimate Monthly Change	-14.29%	5.32%	0.15%	NA	NA	NA

Source: Zacks Investment Research



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## 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.

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### 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	<b>B</b>
Growth Score	<b>D</b>
Momentum Score	<b>C</b>
VGM Score	<b>C</b>

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.

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## Disclosures

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ZIR uses the following rating system for the securities it covers. **Outperform-** ZIR expects that the subject company will outperform the broader U.S. equities markets over the next six to twelve months. **Neutral-** ZIR expects that the company will perform in line with the broader U.S. equities markets over the next six to twelve months. **Underperform-** ZIR expects the company will underperform the broader U.S. equities markets over the next six to twelve months.

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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.

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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.

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**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.