

Virtu Financial, Inc (VIRT)

\$24.45 (As of 12/17/20)

Price Target (6-12 Months): \$26.00

Long Term: 6-12 Months	Zacks Recor	Neutral			
	(Since: 11/19/20)				
	Prior Recommendation: Underperform				
Short Term: 1-3 Months	Zacks Rank:	(1-5)	3-Hold		
	Zacks Style Scores:		VGM:D		
	Value: C	Growth: D	Momentum: D		

Summary

Shares of Virtu Financial have outperformed its industry in a year's time. Its diversified business bodes well for the long haul. The company has been witnessing growth in both customer and non-customer market making businesses. Its Execution Services segment has been gaining from the ITG buyout, which diversified the company's revenues and leveraged its core technology. A strong balance sheet remains a positive for the company. Also, the company continues to deploy capital backed by its financial strength. Its third-quarter earnings beat estimates on higher revenues. However, the company continues to grapple with elevated operating expenses, which has been rising for the past several years. These rising costs have been putting pressure on its margins. The markets, which have regained stability to some extent, do not bode well.

Data Overview

52-Week High-Low	\$28.59 - \$14.94
20-Day Average Volume (Shares)	827,642
Market Cap	\$4.7 B
Year-To-Date Price Change	52.9%
Beta	-0.28
Dividend / Dividend Yield	\$0.96 / 3.9%
Industry	Financial - Miscellaneous Services
Zacks Industry Rank	Bottom 34% (169 out of 255)

Last EPS Surprise	8.0%
Last Sales Surprise	-0.1%
EPS F1 Estimate 4-Week Change	0.0%
Expected Report Date	02/09/2021
Earnings ESP	0.0%
P/E TTM	5.0
P/E F1	4.6
PEG F1	NA
P/S TTM	1.6

Price, Consensus & Surprise



Sales and EPS Growth Rates (Y/Y %)



Sales Estimates (millions of \$)

	Q1	Q2	Q3	Q4	Annual*
2021	356 E	343 E	333 E	329 E	1,362 E
2020	784 A	669 A	362 A	347 E	2,162 E
2019	229 A	239 A	250 A	257 A	975 A

EPS Estimates

	Q1	Q2	Q3	Q4	Annual*
2021	\$0.64 E	\$0.63 E	\$0.56 E	\$0.56 E	\$2.41 E
2020	\$2.05 A	\$1.72 A	\$0.81 A	\$0.77 E	\$5.35 E
2019	\$0.34 A	\$0.16 A	\$0.21 A	\$0.27 A	\$0.96 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 12/17/2020. The reports text is as of 12/18/2020.

Overview

Headquartered in New York, NY, Virtu Financial is a market-leading financial services firm that leverages cutting-edge technology to provide execution services and data, analytics and connectivity products to its clients and deliver liquidity to the global markets. It provides a wide array of offerings in execution, liquidity sourcing, analytics and broker-neutral, multi-dealer platforms in workflow technology. The company was founded in 2008.

Its product suite allows clients to trade on several venues in more than fifty countries and in various asset classes, such as global equities, foreign exchange, futures, fixed income and myriad other commodities.

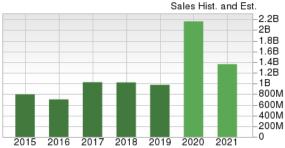
Additionally, Virtu's integrated, multi-asset analytics platform provides a range of pre and post-trade services, data products and compliance tools that helps clients invest, trade and manage risk across global markets. The company interacts with retail brokers, Registered Investment Advisors, private client networks, sell-side brokers and buyside institutions.

The company runs its business through three segments:

Market Making Segment (contributed to 68% of 2019 total revenues): This segment engages in buying and selling securities and other financial instruments. It consists of market making in the cash, futures and options markets across global equities, options, fixed income,

EPS Hist. and Est.

-5.5
-5
-4.5
-4.5
-3.5
-3.5
-2.5
-1.5
-1.5
-1.0.5
-0.0



currencies and commodities. Its cutting-edge technology allows it to provide bids in more than 25000 securities and other financial instruments at above 235 venues in 36 countries across the globe.

Execution Services (32%): The segment provides agency execution services and trading venues, which is involved in transparent trading in global equities, ETFs and fixed income to institutions, banks and broker dealers. The segment provides proprietary technology and infrastructure, workflow technology and trading analytics services to selected third parties.

Corporate: The segment consists of investments in strategic financial services-oriented opportunities and maintains corporate overhead expenses.



Source: Zacks Investment Research

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Reasons To Buy:

- ▲ Share Price Performance: Shares of the company have outperformed the industry in a year's time. Moreover, the company's strong fundamentals are likely to help it continue with its rally in the days ahead.
- ▲ Solid Market Making Segment: This is steadily contributing a lion's share to the company's overall revenues. The segment also witnessed organic growth in its non-customer Market Making business on the back of recently launched Marketing Making strategies in Europe, improvement in exchange traded products block desk and better options capabilities. Market Making segment also benefited from KCG Holdings Inc.'s quantitative market making

Virtu Financial's solid strength in Market Making and Execution Services segments augur well for the long haul. Its capital position also impresses.

strategies. Although revenues from this segment declined 25% year over year in 2019, the same skyrocketed 170.9% in the first nine months of 2020. We expect the segment to continue performing well on the back of growing retail engagement and market volatility.

- ▲ Well-Performing Execution Services Segment: This has been gaining from the ITG buyout, which diversified its revenues along with leveraging its core technology. ITG helps brokers and asset managers reduce the cost of implementing investments via technology-enabled liquidity, execution, analytics and workflow solutions. In the first nine months of 2020, revenues from this segment grew 39.7% year over year on the back of commissions, workflow technology and analytics. We expect the segment to continue performing well given the current market scenario.
- ▲ Capital Deployment: On the back of its financial strength, the company deployed capital in the form of dividends for 21 straight quarters. It has also announced a share repurchase program worth \$100 million. Its dividend yield stands at 4.1%, higher than the industry average of 1.5%. Robust cash flows keep Virtu Financial optimistic about continuing to pay quarterly dividend of 24 cents and also return value to shareholders via buybacks. Its intelligent capital management strategy should instill investors' confidence in the stock.
- ▲ Sale of Match Now: In August, the company completed the sale of Match Now to CBOE Global Markets. MATCHNow, an alternative trading system, is the premier provider of dark liquidity in the Canadian equities market and the company expects it would be able to cater to a wider audience with this deal.
- ▲ Capital Position: The company's balance sheet position also remains a positive. Virtu Financial has already paid down debt worth \$288 in this year. Repayment of debt has enabled the company to successfully reduce the debt by 16.5% from 2019 end to \$1.67 billion as of Sep 30, 2020. Its total debt is 47.5% of capital as of Sep 30, 2020, lower than the industry's average of 58.7%. Its times interest earned at third-quarter end stands at 8.9x, higher than the industry's average of 4.9x. Virtu Financial has plans to use its free cash flow to decrease the term debt. Thus, its financial flexibility is impressive.
- ▲ Higher Return on Equity: The company's high return on equity reflects its efficiency in utilizing shareholder's funds. Its ROE of 52.1%, is higher than the industry average of 18.3%.

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Reasons To Sell:

▼ Increasing Operating Expenses: Steep increase in operating expenses has also been a major concern for the company over the past many years. In 2019 and 2018, the same rose by 38.2% and 29.2% year over year, respectively. In the first nine months of 2020, the same increased 19.3% due to higher brokerage, exchange, clearance fees and payments for order flow, net, communication and data processing, employee compensation and payroll taxes, debt issue cost related to debt refinancing, prepayment and commitment fees, among others. For 2021, the company expects total operating expenses to be \$605-\$645 million. High expenses are likely to put the company's margin under pressure going forward.

Escalating operating expenses and reduced market volatility continue to bother the company.

▼ Decline in Market Volatility to Dent Performance: The company gains traction from market volatility and consequently, the recent coronavirus pandemic benefited its performance. Despite the fact that market volatility still remains above 2019 levels, it has stabilized from the first half of 2020. Virtu Financial's performance is likely to suffer in the days ahead as the markets have started recovering to certain extent. Also, decline in market volatility leads to an uninterrupted financial market, where it there is reduced demand for liquidity, and lesser trading and profit opportunities for Virtu Financial.

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Last Earnings Report

Virtu Financial's Q3 Earnings Beat, Increase Y/Y

Virtu Financial's third-quarter 2020 earnings per share of 81 cents beat the Zacks Consensus Estimate by 8%. Moreover, the bottom line skyrocketed 285.7% year over year.

Revenues of \$362 million increased 44.8% year over year, driven by gain on the sale of MATCHNow as well as heightened levels of volatility, bid-ask spreads and trading volumes across global markets and asset classes due to the COVID-19 pandemic. However, the top line missed the consensus mark by 0.3%.

Quarter Ending	09/2020		
Report Date	Nov 06, 2020		
Sales Surprise	-0.07%		
EPS Surprise	8.00%		
Quarterly EPS	0.81		
Annual EPS (TTM)	4.85		

Quarterly Operational Update

Adjusted trading income of the company surged 45% to \$362.3 million year over year. In the quarter under review, adjusted EBITDA jumped 139.5% to \$248.7 million.

Total operating expenses jumped 3.9% year over year to \$403 million. This increase was owing to higher brokerage, exchange, clearance fees and payments for order flow.

Segmental Update

Adjusted net trading income from the Marketing Making segment rose 81.5% year over year to \$257 million in the quarter under review. In this segment, adjusted net trading income from Global Equities rose 106.4% year over year to \$211 million while the same from Global FICC, Options and Other climbed 16% year over year to \$45.6 million. Adjusted net trading income from Execution Services decreased 2.8% year over year to \$105 million.

Dividend Update

The company's board of directors declared a quarterly cash dividend of 24 cents per share to be paid out on Dec 15, 2020 to shareholders of record as of Dec 1.

Financial Update

As of Sep 30, 2020, the company had total assets worth \$9.4 billion, down 1.7% from the level at 2019 end. It exited the quarter with total equity of \$1.8 billion, up 47% from the level on Dec 31, 2019. The company exited the third quarter with \$567.7 million of cash and cash equivalents, down 22.5% from the 2019-end level.

In the quarter under review, long-term borrowings dropped 14.6% to \$1.6 billion from the level at 2019 end.

Recent News

Virtu Financial Adds Rule 606 Reporting Aggregation Tool — Dec 4, 2020

Virtu Financial introduced SEC Rule 606 Reporting Aggregation service, which enables US buy-side subscribers to analyse the routing and execution practices. They are now able to analyse data from brokers through a single access point, which is way more feasible and convenient.

This addition helps compare performances with intuitive visualizations of brokers. It consists of measures like fees and rebates by venue, routing choices, spread capture, et al.

Virtu Financial's FI ACE to Offer Liquidity Management — Nov 10, 2020

Virtu Financial expanded its multi-asset transaction cost model offering with the introduction of Fixed Income Agency Cost Estimator (FI ACE). The cost estimates calculated by FI ACE is given after accessing the collective proprietary trade information contained in Virtu Financial's Global Peer database for Fixed Income (GPFI). Apart from liquidity and risk management capabilities, the new tool can even be utilized for assigning liquidity score for individual bonds, which paves the way for building up a cost-effective portfolio.

Virtu Financial Adds Enhancements to FX Products & Services — Oct 20, 2020

Virtu Financial announced that it has enhanced its broker-neutral FX offering in a bid to offer a one-stop solution for buy-side clients in the FX market. The company has been a reliable workflow provider in the FX market based on its scale, credibility and varied client base combined with its FX expertise, market leading workflow technology and trade analytics.

Valuation

Virtu Financial's shares are up 4% over the past six months and 49% over the trailing 12-month period. Stocks in the Zacks sub-industry and the Zacks Finance sector are down 10.3% and up 19% over the past six months, respectively. Over the past year, the Zacks sub-industry and sector are down 22.7% and 4.1%, respectively.

The S&P 500 index is up 19.3% over the past six months and 16% in the past year.

The stock is currently trading at 9.72x forward 12-month earnings, which compares to 14.41x for the Zacks sub-industry, 17x for the Zacks sector and 22.68x for the S&P 500 index.

Over the past five years, the stock has traded as high as 44.14x and as low as 5.4x, with a 5-year median of 14.01x. Our Neutral recommendation indicates that the stock will perform in line with the market. Our \$26 price target reflects 10.36x forward earnings.

The table below shows summary valuation data for VIRT

Valuation Multiples - VIRT						
		Stock	Sub-Industry	Sector	S&P 500	
	Current	9.72	14.41	17	22.68	
P/E F12M	5-Year High	44.14	14.58	17	23.47	
	5-Year Low	5.4	8.81	11.6	15.27	
	5-Year Median	14.01	11.52	14.45	17.77	
	Current	2.62	4.56	2.79	6.27	
P/B TTM	5-Year High	6.43	5.17	2.93	6.28	
	5-Year Low	2.14	1.26	1.74	3.75	
	5-Year Median	3.33	2.05	2.57	4.92	
	Current	3.4	3.65	7.06	4.28	
P/S F12M	5-Year High	6.2	3.72	7.06	4.29	
	5-Year Low	2.26	1.06	5.01	3.18	
	5-Year Median	3.65	1.32	6.1	3.68	

As of 12/17/2020

Source: Zacks Investment Research

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Industry Analysis Zacks Industry Rank: Bottom 34% (169 out of 255)

■ Industry Price 90 - Industry Price -30

Source: Zacks Investment Research

Top Peers

Company (Ticker)	Rec	Rank
TCG BDC, Inc. (CGBD)	Neutral	3
Houlihan Lokey, Inc. (HLI)	Neutral	3
Intercorp Financial Services Inc. (IFS)	Neutral	3
MoneyGram International Inc. (MGI)	Neutral	3
Oaktree Specialty Lending Corp. (OCSL)	Neutral	3
PRA Group, Inc. (PRAA)	Neutral	4
R1 RCM Inc. (RCM)	Neutral	3
XP Inc. (XP)	Neutral	4

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

Industry Comparison Industry: Financial - Miscellaneous Services			Industry Peers			
	VIRT	X Industry	S&P 500	IFS	MGI	XF
Zacks Recommendation (Long Term)	Neutral	-	-	Neutral	Neutral	Neutra
Zacks Rank (Short Term)	3	-	-	3	3	4
VGM Score	D	-	-	С	А	D
Market Cap	4.73 B	432.83 M	26.46 B	3.48 B	522.85 M	22.70 E
# of Analysts	4	2	14	2	4	3
Dividend Yield	3.93%	0.00%	1.49%	0.00%	0.00%	0.00%
Value Score	С	-	-	D	Α	F
Cash/Price	0.45	0.30	0.06	1.46	0.39	0.01
EV/EBITDA	18.85	6.55	14.51	0.79	8.94	52.18
PEG F1	NA	2.97	2.83	8.28	NA	NA
P/B	2.62	1.19	3.61	1.47	NA	14.06
P/CF	13.97	10.06	13.93	6.71	3.63	80.57
P/E F1	4.63	16.32	22.22	37.18	33.15	58.20
P/S TTM	1.59	2.10	2.79	2.47	0.43	NA
Earnings Yield	21.88%	4.98%	4.29%	2.69%	3.05%	1.73%
Debt/Equity	0.91	0.42	0.70	0.92	-2.99	0.10
Cash Flow (\$/share)	1.75	0.62	6.94	4.54	1.99	0.51
Growth Score	D	-	-	С	В	В
Historical EPS Growth (3-5 Years)	36.11%	9.63%	9.69%	NA	-29.57%	NA
Projected EPS Growth (F1/F0)	457.29%	-0.63%	1.21%	-79.03%	625.00%	41.33%
Current Cash Flow Growth	-30.73%	5.56%	5.22%	35.74%	-23.44%	NA
Historical Cash Flow Growth (3-5 Years)	8.56%	9.89%	8.33%	NA	-6.21%	NA
Current Ratio	0.75	1.28	1.38	1.26	0.04	1.70
Debt/Capital	47.53%	32.87%	42.00%	48.01%	NA	8.93%
Net Margin	17.49%	8.93%	10.44%	8.64%	-2.23%	NA
Return on Equity	52.12%	8.22%	14.99%	16.98%	-1.48%	NA
Sales/Assets	0.29	0.17	0.50	0.06	0.29	NA
Projected Sales Growth (F1/F0)	121.86%	0.00%	0.35%	-4.36%	-5.20%	26.21%
Momentum Score	D	-	-	Α	C	D
Daily Price Change	3.30%	0.05%	0.62%	-2.34%	6.19%	2.65%
1-Week Price Change	-1.67%	0.00%	-1.29%	-0.96%	-12.73%	-6.99%
4-Week Price Change	8.43%	5.19%	3.50%	19.57%	2.71%	1.31%
12-Week Price Change	10.53%	29.84%	19.48%	30.92%	167.04%	-3.36%
52-Week Price Change	48.45%	0.00%	6.72%	NA	214.85%	8.92%
20-Day Average Volume (Shares)	827,642	151,682	1,976,201	128,503	2,844,863	2,495,041
EPS F1 Estimate 1-Week Change	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
EPS F1 Estimate 4-Week Change	0.00%	0.00%	0.00%	2.50%	0.00%	0.24%
EPS F1 Estimate 12-Week Change	-2.40%	7.74%	3.94%	82.22%	671.43%	22.54%
EPS Q1 Estimate Monthly Change	0.00%	0.00%	0.00%	17.92%	0.00%	-0.81%

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.

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.



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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Additional Disclosure

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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 4week 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 longterm 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.

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

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 longterm 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.

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

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.

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