

Bandwidth Inc. (BAND)

\$152.27 (As of 09/03/20)

Price Target (6-12 Months): **\$160.00**

Long Term: 6-12 Months

Zacks Recommendation:

Neutral

(Since: 07/22/20)

Prior Recommendation: Outperform

Short Term: 1-3 Months

Zacks Rank: (1-5)

4-Sell

Zacks Style Scores:

VGM: C

Value: F

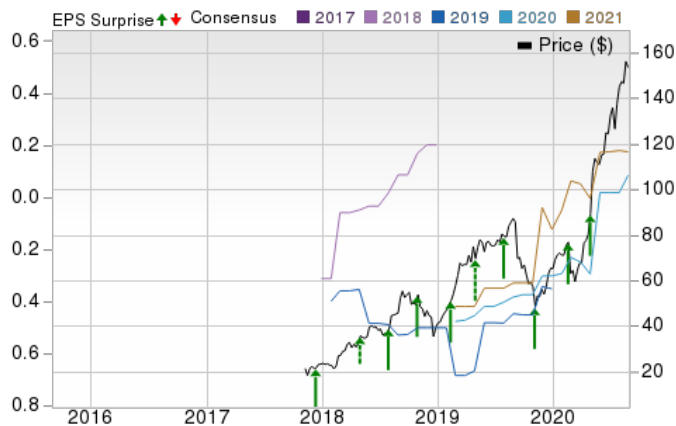
Growth: A

Momentum: C

Summary

Bandwidth is well positioned to benefit from cost-effective operations, accretive customer base and a solid product portfolio. The CPaaS segment is considered to be the key driver of its long-term growth strategy. It is the only API platform provider that owns a Tier 1 network with superior network capacity with a usage-based revenue model. Bandwidth intends to accelerate its international customer base on the back of a dynamic business model. However, the company operates in a highly-competitive environment. Escalated R&D investments weigh on Bandwidth's margins. Dependency on third parties for billing purposes might lead to billing inconsistencies. The adverse economic impact of the COVID-19 pandemic is likely to erode the top line. Further, it faces concentration risks as revenues are focused on a limited number of enterprise customers.

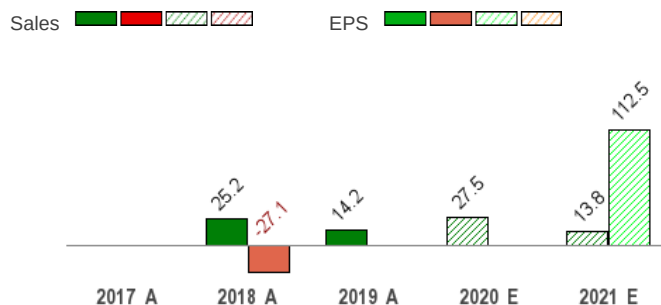
Price, Consensus & Surprise



Data Overview

52-Week High-Low	\$172.33 - \$42.61
20-Day Average Volume (Shares)	284,860
Market Cap	\$3.7 B
Year-To-Date Price Change	137.7%
Beta	0.80
Dividend / Dividend Yield	\$0.00 / 0.0%
Industry	Communication - Infrastructure
Zacks Industry Rank	Bottom 19% (203 out of 251)

Sales and EPS Growth Rates (Y/Y %)



Last EPS Surprise	162.5%
Last Sales Surprise	9.0%
EPS F1 Estimate 4-Week Change	0.0%
Expected Report Date	11/04/2020
Earnings ESP	0.0%
P/E TTM	1,691.9
P/E F1	1,903.4
PEG F1	140.5
P/S TTM	13.7

Sales Estimates (millions of \$)

	Q1	Q2	Q3	Q4	Annual*
2021	78 E	82 E	87 E	90 E	338 E
2020	69 A	77 A	76 E	76 E	297 E
2019	53 A	57 A	60 A	62 A	233 A

EPS Estimates

	Q1	Q2	Q3	Q4	Annual*
2021	-\$0.02 E	\$0.06 E	\$0.07 E	\$0.07 E	\$0.17 E
2020	\$0.04 A	\$0.13 A	-\$0.02 E	-\$0.07 E	\$0.08 E
2019	-\$0.12 A	-\$0.04 A	-\$0.06 A	-\$0.02 A	-\$0.23 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 09/03/2020. The reports text is as of 09/04/2020.

Overview

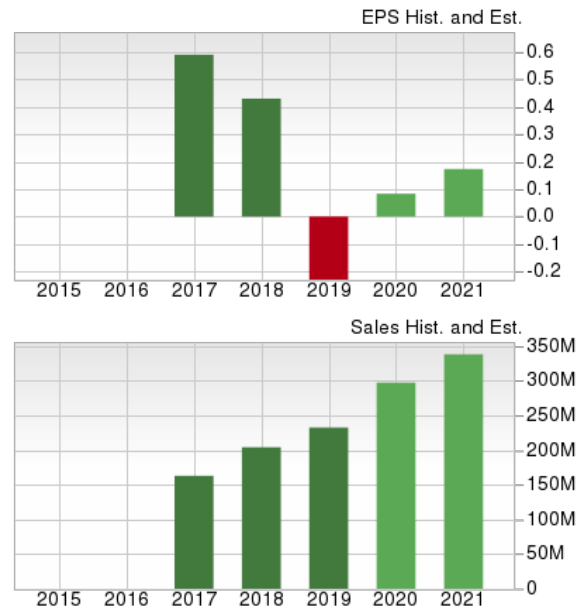
Headquartered in Raleigh, NC, Bandwidth operates as a Communications Platform as a Service (CPaaS) provider, offering avant-garde software application programming interfaces for voice and messaging services. It is the only API platform provider that owns a Tier 1 network with enhanced network capacity, primarily catering to business enterprises. With 8,800 on-net rate centers, it delivers unparalleled network quality and proactively monitors network operations 24/7 to resolve quality issues, capitalizing on an efficient cost structure for seamless connectivity and speed-to-market.

With an experience of two decades, Bandwidth is the sole CPaaS provider in the industry with a diversified customer base ranging from communications service providers to small and medium sized businesses. Technology companies like Microsoft, Cisco and Google leverages Bandwidth's API to embed voice, messaging and 911 access into software and applications. This helps the company to accelerate its top-line growth. It has its data centers in Los Angeles, CA; Raleigh, NC; Dallas, TX and Atlanta, GA. Although it does not directly serve any residential customers, Bandwidth provides a significant competitive advantage to business enterprises by deploying real-time communications solutions with greater scalability.

Bandwidth classifies its reporting segments into CPaaS (87.4% of total revenues in second-quarter 2020) and Other (12.6%).

CPaaS: This segment leverages cloud-based software platform for superior communications services. With a significant presence in the United States, CPaaS revenues are primarily derived from voice usage and messaging services. The segment is well poised to benefit from increasing demand of UCaaS services and Meeting Solutions.

Other: This segment derives revenues primarily from legacy services and indirect revenues. The company recently implemented the A2P messaging surcharges, which are expected to improve Bandwidth's indirect revenues in the near future. It includes costs such as Internet connectivity expense, regulatory fees, leased circuit costs paid to third-party providers as well as hardware and software maintenance fees.



Source: Zacks Investment Research

Reasons To Buy:

- ▲ As a leading provider of a cloud-based communications platform, Bandwidth benefits from cost-effective operations. The company capitalizes on a variety of marketing channels to promote its products and services. This reinforces pricing flexibility and provides a significant competitive advantage to build a capital-efficient and customized networking infrastructure. Bandwidth follows a usage-based revenue model that enables it to simultaneously augment its top-line growth and increase subscriber base. Bandwidth generates a majority of its revenues from the CPaaS segment operating in the United States. The company believes that its evolving portfolio and accretive customer base are the cornerstones of long-term growth across a diverse set of markets.
- ▲ One of the primary assets of Bandwidth is the 911 communications services and Internet Protocol voice network which provide multiple benefits to the enterprise customers. Backed by an avant-garde software platform, the company monitors and resolves any network-related issues on a real-time basis. Bandwidth enables enterprises to rapidly scale communications functionalities to a vast range of applications and devices with its easy-to-use software APIs. It supports high user volumes without affecting deliverability and eliminates performance degradation in a cost-effective manner. Bandwidth's reduced capital expenditure requirements and lower marginal costs enable it to minimize total cost to customers. Continuous innovation on CPaaS offerings allows enterprise customers to have direct access to Bandwidth's comprehensive suite of products and services that cater to the networking requirements of large-scale Internet companies and cloud service providers based in the United States.
- ▲ Equipped with a dynamic business model, the company has been keen on developing its international offerings. It is undertaking the necessary steps to pursue international expansion opportunities, thereby strengthening its enterprise customer base overseas. Bandwidth established two data centers in Frankfurt and London in 2019 and has been permitted to operate in 13 European countries, which includes 11 members of the European Union, the United Kingdom and Switzerland. With an aim to fortify its communications platform, acquisitions and strategic investments in businesses and technology are believed to be the preferred modes for enhancing profitability in the long run.
- ▲ As of Jun 30, 2020, Bandwidth had \$523 million in cash and equivalents with \$273 million of long-term debt compared with the respective tallies of \$518 million and \$268 million at the end of the previous quarter. The company currently has a debt-to-capital ratio of 0.47 compared with 0.95 of the sub-industry. The times interest earned (TIE) ratio is 6.9 compared with -1.1 of the sub-industry. It is to be seen whether Bandwidth can maintain the momentum in the coming days amid disruptions stemming from the COVID-19 crisis.

Bandwidth's cost-effective operations, accretive customer base and higher CPaaS revenues make it poised to generate positive cash flow for long-term growth.

Reasons To Sell:

- ▼ Bandwidth operates in a highly competitive environment, wherein it is required to maintain profitable relationships with other companies to have a strong foothold in the global market. The principal competitive factors in the market include credibility with enterprises, ease of integration, platform scalability, product features, and security and performance with utmost reliability. Also, some of the competitors have more established customer relationships with greater recognition. As a result, they enjoy sufficient operating flexibility to respond to evolving technological changes and bundle competing products and services at little or no incremental cost. Currently, Bandwidth operates in the United States with limited services in Canada whereas its competitors have already developed solutions that are available internationally as well as domestically. This has impaired the growth potential of the company to some extent.
- ▼ As the market for some of Bandwidth's platform and services are new and unproven, the company is susceptible to several risks. For instance, the utilization of software APIs by developers to integrate communications functionality into applications is still relatively new and organizations may not recognize the need for such services and platform. As a result, the company is required to focus on educating enterprise customers about the benefits of its services to expand its functionality and introduce new technologies to increase market acceptance. This often increases operating costs and strains margins. Bandwidth's pricing and billing systems are complex to develop and challenging to implement. It is heavily dependent on third parties to avail key software and services required for billing purposes, which can further lead to billing inconsistencies. Moreover, it faces high concentration risks as revenues are concentrated in a limited number of enterprise customers.
- ▼ Efforts to build resilient infrastructure facilities to withstand natural catastrophes such as hurricanes and floods add to operating costs. In addition, latent tension between the United States and China relating to trade restrictions imposed on the sale of communication equipment to Chinese firms and the origin of the coronavirus pandemic has dented the industry's credibility and will likely lead to a loss of business. An adverse economic impact from the coronavirus pandemic is likely to dent the company's revenues. The Communication Infrastructure industry, of which Bandwidth is a subset, might not be able to tide over the potential broader challenges in the near term. Hence, it may not be a good idea to bet on this space at the moment.

High customer concentration, dependency on third-parties and intense competition are major headwinds for Bandwidth's operations. The faulty pricing model is likely to hurt its margins in the near future.

Last Earnings Report

Bandwidth's Q2 Earnings & Revenues Surpass Estimates

Bandwidth reported impressive second-quarter 2020 results, with the top and the bottom line surpassing the Zacks Consensus Estimate. Higher CPaaS revenues and accretive subscriber base backed by strong business model bolstered Bandwidth's financial performance.

Bottom Line

On an adjusted basis, quarterly net income was \$3.1 million or 13 cents per share against net loss of \$0.9 million or a loss of 4 cents per share in the year-ago quarter. The year-over-year improvement can be primarily attributed to adjustments due to income tax expenses in the reported quarter. The bottom line beat the consensus estimate by 13 cents.

On a GAAP basis, net loss in the June quarter came in at \$20.6 million or a loss of 86 cents per share against net income of \$3.5 million or 14 cents per share in the prior-year quarter. The drastic year-over-year decline was caused by higher operating expenses.

Revenues

Quarterly revenues came in at \$76.8 million compared with \$56.8 million in the year-ago quarter. The 35.2% year-over-year increase was primarily due to higher CPaaS revenues. The top line surpassed the consensus estimate of \$70 million.

Segment Results

CPaaS revenues rose 39.8% to \$67.1 million from \$48 million in the year-ago quarter. Accounting 87.4% of total revenues, the improvement was primarily bolstered by higher demand for work-from-home connectivity solutions amid coronavirus-induced lockdown. Backed by a robust business model, the segment witnessed 29.5% surge in CPaaS customers during the reported quarter. Markedly, the dollar-based net retention rate was 133% compared with 113% in the prior-year quarter.

Adjusted CPaaS gross profit came in at \$32.1 million from \$ 23.1 million in the year-ago quarter with respective margins of 48%. Notably, Bandwidth ended the quarter with 1,900 active CPaaS customers.

Contributing 12.6% to total revenues, Other revenues increased 10.2% to \$9.7 million from \$8.8 million in the year-ago quarter.

Other Details

Total operating expenses were \$35 million compared with \$30.5 million in the prior-year quarter, primarily due to higher R&D and general & administrative expenses. Operating loss improved to \$0.3 million from a loss of \$3.8 million. Adjusted gross profit in the quarter improved 31.2% to \$37.1 million from \$28.2 million in the prior-year quarter with respective margins of 48% and 50%. Adjusted EBITDA totaled \$5.5 million compared with \$0.02 million in the year-ago quarter.

Cash Flow & Liquidity

In the first six months of 2020, Bandwidth utilized \$0.3 million of net cash in operating activities compared with utilization of \$5.4 million in the year-ago period. The company witnessed a negative free cash flow of \$9.4 million in the first half of the year compared with a negative \$14.9 million in the prior-year period. As of Jun 30, the company had \$291 million in cash and equivalents with total current liabilities of \$48.7 million.

Q3 & 2020 Guidance

Bandwidth provided the outlook for third-quarter and full-year 2020. For the third quarter, revenues are expected in the range of \$76-\$76.5 million. Adjusted EPS is anticipated to be a loss of 3 cents per share to a loss of 1 cent per share. CPaaS revenues are projected to be in the band of \$67.1-\$67.6 million.

For 2020, revenues are anticipated to be in the range of \$296.8-\$298.3 million. Adjusted EPS is anticipated to be in the range of 5 cents per share to 11 cents per share. CPaaS revenues are projected to be in the band of \$260.3-\$261.8 million.

Quarter Ending	06/2020
Report Date	Jul 30, 2020
Sales Surprise	9.02%
EPS Surprise	162.50%
Quarterly EPS	0.13
Annual EPS (TTM)	0.09

Recent News

On Aug 18, 2020, Bandwidth announced that it has partnered with North Carolina State University's research study of robocalling campaigns.

On Aug 4, Bandwidth announced that it has partnered with Comcast for the delivery of authenticated calls between their networks with adherence to the Secure Telephone Identity Revisited (STIR) and Signature-based Handling of Asserted Information Using toKENs (SHAKEN) framework.

Valuation

Bandwidth shares are up 71.9% over the trailing 12-month period. Stocks in the Zacks sub-industry are up 52.2% over the past year, and stocks in the Zacks Computer and Technology sector are up 35.8% in the same period.

The S&P 500 Index is up 15.9% in the past year.

The stock is currently trading at 11.76X trailing 12-month book value, which compares to 11.72X for the Zacks sub-industry, 5.74X for the Zacks sector and 4.66X for the S&P 500 Index.

Over the past two years, the stock has traded as high as 12.77X and as low as 4.13X, with a 2-year median of 6.73X. Our Neutral recommendation indicates that the stock will perform in line with the market. Our \$160 price target reflects 13.61X trailing 12-month book value.

The table below shows summary valuation data for BAND

Valuation Multiples - BAND					
		Stock	Sub-Industry	Sector	S&P 500
P/B TTM	Current	11.76	11.72	5.74	4.66
	2-Year High	12.77	11.72	5.96	4.76
	2-Year Low	4.13	1.75	3.59	3.03
	2-Year Median	6.73	2.65	4.7	4.02
P/S F12M	Current	11.32	0.65	4.65	4.4
	2-Year High	12.31	1.11	4.65	4.4
	2-Year Low	3.04	0.33	2.62	2.76
	2-Year Median	6.12	0.48	3.21	3.17
EV/Sales F12M	Current	9.81	1.64	4.46	3.48
	2-Year High	10.05	2.63	4.46	3.5
	2-Year Low	2.74	1.1	2.74	2.33
	2-Year Median	5.12	1.45	3.38	3.01

As of 09/03/2020

Industry Analysis Zacks Industry Rank: Bottom 19% (203 out of 251)



Source: Zacks Investment Research

Top Peers

Company (Ticker)	Rec	Rank
Acacia Communications, Inc. (ACIA)	Outperform	2
Calix, Inc (CALX)	Outperform	2
EXFO Inc (EXFO)	Outperform	2
ADTRAN, Inc. (ADTN)	Neutral	2
Arista Networks, Inc. (ANET)	Neutral	3
pdvWireless, Inc. (ATEX)	Neutral	4
CommScope Holding Company, Inc. (COMM)	Neutral	4
Juniper Networks, Inc. (JNPR)	Neutral	3

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

Industry Comparison Industry: Communication - Infrastructure				Industry Peers		
	BAND	X Industry	S&P 500	ADTN	CALX	COMM
Zacks Recommendation (Long Term)	Neutral	-	-	Neutral	Outperform	Neutral
Zacks Rank (Short Term)	4	-	-	2	2	4
VGM Score	C	-	-	C	B	A
Market Cap	3.68 B	498.76 M	23.52 B	498.76 M	1.12 B	2.04 B
# of Analysts	6	3	14	3	3	5
Dividend Yield	0.00%	0.00%	1.62%	3.46%	0.00%	0.00%
Value Score	F	-	-	C	D	A
Cash/Price	0.14	0.16	0.07	0.15	0.04	0.40
EV/EBITDA	-782.13	-10.07	13.12	-63.61	-205.48	40.72
PEG F1	131.14	65.33	2.97	NA	NA	2.87
P/B	11.76	3.30	3.20	1.37	7.03	6.80
P/CF	1,183.87	21.94	12.72	29.44	454.41	1.70
P/E F1	1,827.24	78.60	21.67	120.00	37.20	7.74
P/S TTM	13.74	1.05	2.49	1.05	2.46	0.23
Earnings Yield	0.05%	0.87%	4.40%	0.87%	2.71%	12.93%
Debt/Equity	0.87	0.08	0.70	0.00	0.08	33.18
Cash Flow (\$/share)	0.13	0.06	6.93	0.35	0.04	6.09
Growth Score	A	-	-	D	A	B
Historical EPS Growth (3-5 Years)	NA%	-6.25%	10.41%	-11.15%	NA	-6.25%
Projected EPS Growth (F1/F0)	136.23%	47.21%	-4.75%	-13.33%	761.12%	-37.77%
Current Cash Flow Growth	-75.39%	-13.00%	5.22%	-355.40%	-129.31%	53.52%
Historical Cash Flow Growth (3-5 Years)	NA%	-8.30%	8.49%	-23.50%	-38.82%	11.92%
Current Ratio	11.85	2.20	1.35	2.94	1.35	1.75
Debt/Capital	46.58%	16.72%	42.95%	0.00%	7.54%	97.34%
Net Margin	-9.21%	-10.70%	10.25%	-14.37%	-3.08%	-12.19%
Return on Equity	-1.42%	-2.38%	14.59%	-3.33%	1.81%	33.85%
Sales/Assets	0.54	0.75	0.50	0.88	1.42	0.61
Projected Sales Growth (F1/F0)	27.87%	0.00%	-1.42%	-5.27%	14.05%	1.88%
Momentum Score	C	-	-	A	B	A
Daily Price Change	-6.95%	-6.82%	-2.14%	-9.09%	-11.18%	-5.47%
1-Week Price Change	-1.65%	0.00%	2.59%	-3.03%	10.99%	0.77%
4-Week Price Change	-0.01%	-5.16%	2.25%	-14.26%	-14.16%	-6.41%
12-Week Price Change	30.00%	5.82%	11.04%	1.41%	52.42%	9.28%
52-Week Price Change	71.86%	0.00%	2.01%	-2.16%	221.40%	-4.69%
20-Day Average Volume (Shares)	284,860	284,860	1,827,096	235,898	1,056,728	2,808,474
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%	111.90%	0.00%	23.46%
EPS F1 Estimate 12-Week Change	9.04%	9.04%	3.89%	111.90%	2,175.00%	-13.30%
EPS Q1 Estimate Monthly Change	0.00%	0.00%	0.00%	200.00%	0.00%	-9.57%

Source: Zacks Investment Research

Zacks Style Scores

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

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

Value Score	F
Growth Score	A
Momentum Score	C
VGM Score	C

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

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

Glossary of Terms and Definitions

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Periods:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

P/TB Ratio: The price-to-tangible-book value ratio is calculated as 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.

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.