

bluebird bio, Inc.(BLUE)
\$69.14 (As of 06/08/20)

Price Target (6-12 Months): **\$73.00**

Long Term: 6-12 Months

Zacks Recommendation:
Neutral

(Since: 02/18/19)

Prior Recommendation: Underperform

Short Term: 1-3 Months

Zacks Rank: (1-5)

2-Buy

Zacks Style Scores:

VGM:F

Value: F

Growth: F

Momentum: C

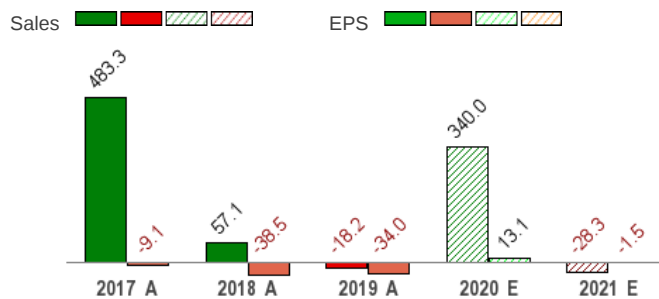
Summary

bluebird beat on earnings and sales in the first quarter of 2020. The company has an impressive pipeline of gene therapies for genetic diseases and cancers. The conditional approval of Zynteglo for patients aged 12 years or above with transfusion-dependent β -thalassemia in Europe is a significant step for the company. Per bluebird, Zynteglo is the first gene therapy approved for this indication. We are also positive about bluebird's collaboration with Regeneron, as this provides the former with funds. The company is developing CART therapies for myeloma in collaboration with Bristol-Myers Squibb and the successful development of the candidates will benefit it in the long run. However, competition is stiffening in this space. Shares of the company have underperformed the industry in the past year.

Price, Consensus & Surprise

Data Overview

52 Week High-Low	\$143.98 - \$38.95
20 Day Average Volume (sh)	1,673,746
Market Cap	\$3.8 B
YTD Price Change	-21.2%
Beta	2.39
Dividend / Div Yld	\$0.00 / 0.0%
Industry	Medical - Biomedical and Genetics
Zacks Industry Rank	Top 13% (32 out of 252)

Sales and EPS Growth Rates (Y/Y %)


Last EPS Surprise	7.6%
Last Sales Surprise	147.3%
EPS F1 Est- 4 week change	22.8%
Expected Report Date	08/06/2020
Earnings ESP	0.0%
P/E TTM	NA
P/E F1	NA
PEG F1	NA
P/S TTM	71.2

Sales Estimates (millions of \$)

	Q1	Q2	Q3	Q4	Annual*
2021	11 E	14 E	26 E	41 E	142 E
2020	22 A	91 E	17 E	44 E	198 E
2019	12 A	13 A	9 A	10 A	45 A

EPS Estimates

	Q1	Q2	Q3	Q4	Annual*
2021	-\$3.65 E	-\$3.71 E	-\$3.46 E	-\$2.43 E	-\$12.62 E
2020	-\$3.64 A	-\$2.10 E	-\$3.55 E	-\$3.31 E	-\$12.43 E
2019	-\$2.99 A	-\$3.55 A	-\$3.73 A	-\$4.04 A	-\$14.31 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 06/08/2020. The reports text is as of 06/09/2020.

Overview

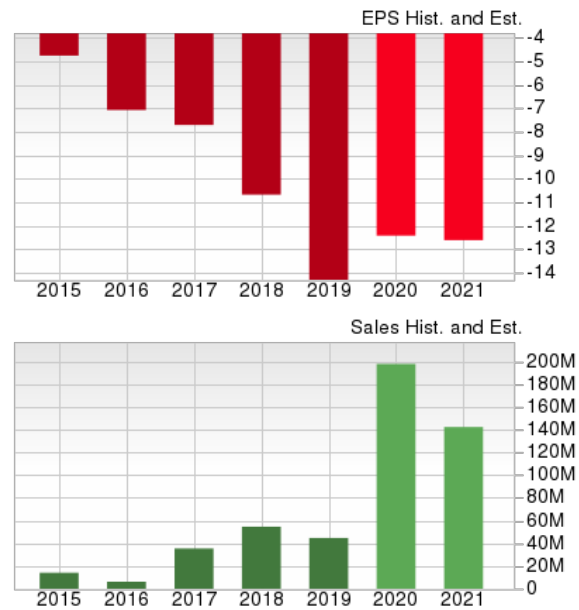
Cambridge, MA based bluebird bio, Inc. is a clinical-stage biotechnology, which is focused on developing gene therapies for severe genetic diseases and cancer. The company has developed a deep pipeline using its lentiviral-based gene therapies, T cell immunotherapy expertise and gene editing capabilities to treat severe genetic diseases and cancer as well.

The pipeline for severe genetic diseases, include Zynteglo product candidate for the treatment of transfusion-dependent β -thalassemia (TDT) and severe sickle cell disease (SCD), and Lenti-D product candidate for the treatment of cerebral adrenoleukodystrophy (CALD). Zynteglo (formerly LentiGlobin) was recently approved in Europe for TDT, making it the first gene therapy approved for this indication. The gene therapy has gained a lot of attention of late. The objective of the therapy is to correct the underlying genetic defect, which is the cause of the disease, rather than offering treatments that only address the symptoms. The gene therapy has a huge advantage over other therapies, especially for diseases like SCD and cancer, which have no cure.

The oncology programs are focused on developing novel T cell-based immunotherapies, including chimeric antigen receptor (CAR) and T cell receptor (TCR) T cell therapies. The oncology pipeline includes CAR T cell product candidates — bb2121 and bb21217 — for the treatment of multiple myeloma. The company is co-developing and co-promoting bb2121 in the United States with Celgene which is now acquired by Bristol Myers. Bristol Myers also owns the development and commercialization rights for bb2121 product candidate in the United States, while bluebird has an option to elect to co-develop and co-promote bb21217 within the United States.

With no approved products in its kitty, the company does not generate any revenues from the sale of products. However, the company derived revenues from collaboration arrangements, out-licensing arrangements including royalties on net sales of products to licensees or sublicensees, research fees, and grant revenues.

Revenues in 2019 came in at \$44.7 million, down 18.2% year over year.



Reasons To Buy:

- ▲ **Potential of Gene Therapy:** The gene therapy has gained a lot of attention of late. The objective of the therapy is to correct the underlying genetic defect, which is the cause of the disease, rather than offering treatments that only address the symptoms. The gene therapy has a huge advantage over other therapies, especially for diseases like SCD and cancer, which have no cure.

The company acquired Washington based Preigenen, a privately-held biotechnology company in June 2014, thereby obtaining rights to Preigenen's gene editing technology platform and cell-signaling technology. bluebird has integrated these technologies and research team, and expanded its research efforts. The company is focused on utilizing homing endonuclease and megaTAL gene editing technologies in a variety of potential applications and disease areas, including for oncology and hematology.

bluebird's efforts to develop its pipeline is impressive. The collaboration with Bristol-Myers is a big positive for the company.

- ▲ **Zynteglo Products Hold Promise:** bluebird's efforts to develop its pipeline is impressive. The company is developing its Zynteglo product candidate for different genotypes of TDT, and SCD. The company is currently conducting five clinical studies for its Zynteglo product candidate: first, a phase I/II study (Northstar Study (HGB-204)) in the United States, Australia, and Thailand for the treatment of subjects with TDT; second, a multi-site, international, phase III study (Northstar-2 Study (HGB-207)) for the treatment of patients with TDT and non- α/α genotypes; third, a multi-site, international, phase III study (Northstar 3 Study (HGB-212)) for the treatment of subjects with TDT and a α/α genotype; fourth, a single-center phase I/II study in France for the treatment of subjects with TDT or severe SCD (HGB-205); and finally, a multi-site phase I study in the United States for the treatment of subjects with severe SCD (HGB-206). The company presented positive new data from Northstar (HGB-204) and Northstar-2 (HGB-207) studies. In December 2019, bluebird announced new data from ongoing studies of LentiGlobin gene therapy for β -thalassemia in pediatric, adolescent and adult patients who have TDT, including results from the phase III Northstar-3 (HGB-212) study in patients with a α/α genotype or IVS-I-110 mutation, and the phase III Northstar-2 (HGB-207) study in patients who do not have a α/α genotype. The company also announced new data from its ongoing phase I/II HGB-206 study.

In June 2019, the European Commission (EC) granted conditional marketing authorization to Zynteglo (autologous CD34+ cells encoding β A-T87Q-globin gene) in patients aged 12 years or older with transfusion-dependent β -thalassemia (TDT), who do not have a α/α genotype and for whom hematopoietic stem cell (HSC) transplantation is appropriate but a human leukocyte antigen (HLA)-matched related HSC donor is not available. The candidate is expected to treat the first commercial patient in early 2020. In January 2020, the company launched Zynteglo in Germany.

bluebird initiated its rolling Biologics License Application (BLA) submission of LentiGlobin for β -thalassemia for approval in the United States. The company is currently planning to complete the BLA submission in second-half 2020.

The company is also developing its Lenti-D product candidate for CALD, a rare, hereditary neurological disorder, which can be often fatal. A multi-site, international phase II/III study, Starbeam Study (ALD-102), is ongoing for the same, with updated date expected by 2020-end. An observational study of subjects with CALD, treated by allogeneic hematopoietic stem-cell transplant referred to as the ALD-103 study, is also being conducted. The company expects to submit a Biologics License Application (BLA) to the FDA and a Marketing Authorization Application (MAA) to the European Medicines Agency for Lenti-D in patients with cerebral adrenoleukodystrophy by the end of 2020.

The company also initiated a phase III HGB-210 study of LentiGlobin in patients with SCD. The company expects to initiate a phase III HGB-210 study of LentiGlobin for SCD in patients with a history of vaso-occlusive crises in first-half 2020. It also expects to initiate a phase III HGB-211 study of LentiGlobin for SCD in patients at risk of stroke in 2020.

On fourth-quarter call, bluebird announced plans to launch HGB-211, the company's second phase III study of LentiGlobin for SCD. HGB-211 is in addition to the company's previously announced phase III study (HGB-210) and is intended to support potential approval of LentiGlobin for SCD in pediatric patients at elevated stroke risk. HGB-211 is expected to begin enrolling patients in 2020.

The FDA granted Breakthrough Therapy designation to Lenti-D for the treatment of patients with CALD which should expedite the development and review of the therapy. Lenti-D also enjoys orphan drug status in the United States and Europe. It was also granted Rare Pediatric Disease designation by the FDA for the treatment of adrenoleukodystrophy (ALD).

- ▲ **Collaboration With Bristol-Myers Squibb a Big Positive:** bluebird's collaboration agreement with Bristol Myers is a big positive for the company, given the latter's expertise in the biotech space. Most importantly, the agreement provides bluebird with funds as upfront payments. In 2013, both the companies entered into a collaboration agreement, whereby Bristol Myers will discover, develop and commercialize potentially disease-altering gene therapies in oncology. The collaboration is primarily focused on applying gene therapy technology to genetically modify a patient's own T cells, known as chimeric antigen receptor or CAR T cells, to target and destroy cancer cells. Both the companies also entered into a licensing deal, whereby bluebird obtained a sublicense to certain intellectual property from Bristol Myers, originating under Bristol Myers' license from Baylor College of Medicine, for use in the collaboration. Per the terms, bluebird obtained an upfront payment of \$75.0 million.

The collaboration agreement was amended in June 2015. Per the amended terms, both the companies have narrowed the focus of the collaboration exclusively to anti- B-cell maturation antigen (BCMA) product candidates for a new three-year term ending in June 2018. bluebird received an upfront, one-time, non-refundable, non-creditable payment of \$25.0 million upon the amendment.

Bristol Myers is responsible for development and related funding of bb2121, after the substantial completion of the on-going trial. Thereafter, in March 2018, bluebird elected to co-develop and co-promote bb2121 within the United States. bluebird will have an equal share in all profits and losses, relating to developing, commercializing and manufacturing bb2121 within the country. The company may receive up to \$70.0 million in development milestone payments for the first approved indication along with tiered royalty payments.

bluebird amended its existing co-promotion/co-development agreement with Bristol-Myers Squibb to enable the companies to focus their efforts on efficient commercialization of ide cel in the United States. The companies will continue to share profits and losses equally in the

United States. Under the terms of the amended agreement, Bristol-Myers will buy out its obligations to pay bluebird future ex-U.S. milestone and royalty payments for ide-cel and bb21217, the companies' second BCMA-directed CAR T immunotherapy, for a one-time upfront payment of \$200 million.

- ▲ **Anti - BCMA Candidates Hold Potential:** The two anti-BCMA candidates, bb2121 and bb21217, hold promise. bb2121 is the lead candidate in this program. The company is conducting a multi-site phase I study in the United States on bb2121, for the treatment of subjects with relapsed/refractory multiple myeloma (CRB-401). The FDA has granted Breakthrough Therapy designation and the EMA has granted PRIME eligibility to bb2121 for relapsed/refractory multiple myeloma.

In November 2018, bluebird and Bristol Myers completed enrollment for the KarMMA pivotal study of ide-cel (bb2121), the lead investigational anti-BCMA CAR T cell therapy candidate, to treat patients with relapsed/refractory multiple myeloma. The open-label, single-arm, multi-center phase II study is evaluating the efficacy and safety of bb2121 in patients with relapsed/refractory multiple myeloma. In December 2019, Bristol-Myers Squibb and bluebird announced positive top-line results from the pivotal KarMMA study of ide-cel in relapsed and refractory multiple myeloma. The BLA for ide-cel for the treatment of adult patients with multiple myeloma has been submitted to the FDA.

bluebird and partner Bristol Myers announced the completion of enrollment in the KarMMA pivotal study on the companies' lead investigational anti-B-cell maturation antigen (BCMA) chimeric antigen receptor (CAR) T cell therapy candidate, bb2121 for patients with relapsed and refractory multiple myeloma. KarMMA is a phase II study evaluating the efficacy and safety of bb2121 in patients with relapsed and refractory multiple myeloma.

The company also initiated a phase I study on bb21217, the second anti-BCMA product candidate in September 2017. Bristol Myers has exercised its option to obtain an exclusive worldwide license to develop and commercialize bb21217. Hence, bluebird plans to exercise its option to co-develop and co-promote bb21217 within the United States. The candidate also enjoys orphan drug status in the United States. The dose escalation part of its phase I study-CRB-402 is complete, and the dose expansion part is ongoing.

- ▲ **Collaborations With Other Big Pharma Companies Bode Well:** Apart from Bristol-Myers, bluebird has collaborations with other big companies as well, which provide it with funds as upfront payments. In April 2017, the company entered into a license agreement with GlaxoSmithKline Intellectual Property Development Limited, whereby Glaxo licensed certain patent rights of the company, related to lentiviral vector technology to develop and commercialize gene therapies for two rare genetic diseases — Wiscott-Aldrich syndrome and metachromatic leukodystrophy. In exchange, the company received an upfront payment and is entitled to milestone payments as well. Concurrently, the company also entered into a license agreement with Novartis Pharma, whereby the latter licensed certain patent rights of bluebird, related to lentiviral vector technology to develop and commercialize CAR T therapies for oncology, including Novartis' approved CAR-T therapy, Kymriah, in lieu of an upfront payment and potential milestone payments. Regeneron will also make a \$100 million investment in the company's common stock at a price of \$238.10 per share. Both companies have collaborated on applying their respective technology platforms to the discovery, development and commercialization of novel immune cell therapies for cancer. Regeneron will leverage its VelociSuite platform technologies for the discovery and characterization of fully human antibodies as well as T cell receptors (TCRs) directed against tumor-specific proteins and peptides while bluebird bio will contribute its field-leading expertise in gene transfer and cell therapy. Regeneron and bluebird have jointly selected six initial targets and will equally share the costs of research and development up to the point of submitting an Investigational New Drug (IND) application. Both companies might select additional targets over the five-year research collaboration term. When an IND is submitted for a potential cell therapy product, Regeneron will have the right to opt-in to a co-development/co-commercialization arrangement for certain collaboration targets, with 50/50 cost and profit sharing. If Regeneron decides not to opt-in, it will be entitled to receive payments and royalties from bluebird bio on any potential resulting products.

In November 2019, bluebird bio and Forty Seven entered into a research collaboration to pursue clinical proof-of-concept for Forty Seven's novel antibody-based conditioning regimen, FSI-174 (anti-ckIT antibody) plus magrolimab (anti-CD47 antibody), with bluebird's ex vivo lentiviral vector hematopoietic stem cell (LVV HSC) gene therapy platform. Per the agreement, bluebird bio will provide its ex vivo LVV HSC gene therapy platform and Forty Seven will contribute its innovative antibody-based conditioning regimen for the collaboration.

In October 2019, bluebird bio and Novo Nordisk announced a research collaboration to jointly develop next-generation vivo genome editing treatments for genetic diseases, including hemophilia. During the three-year research collaboration, bluebird and Novo Nordisk will focus on identifying a development gene therapy candidate with the ambition of offering people with hemophilia A a lifetime free of factor replacement therapy.

Reasons To Sell:

▼ **Share Price Performance:** bluebird's shares have underperformed the industry in the past year.

▼ **Intense Competition:** The company faces potential competition from many larger and better-funded pharmaceutical and biotechnology companies. Chronic blood transfusions are the current standard of care in the β -thalassemia market but iron chelation therapy is often required by these patients. Novartis and ApoPharma Inc. provide the leading iron chelation therapy and are striving to further innovate the existing therapies. Moreover, Acceleron Pharma, Inc., in collaboration with Bristol Myers, has developed Reblozyl (luspatercept-aamt) which received approval by the FDA in November 2019, for the treatment of anemia (lack of red blood cells) in adult patients with beta thalassemia who require regular red blood cell (RBC) transfusions. For sickle cell disease, Emmaus Life Sciences, Inc. recently received FDA approval for Endari (L-glutamine) and has launched the same. In November 2019, Novartis received approval for Adakveo (crizanlizumab) to reduce the frequency of vaso-occlusive crises (VOCs), or pain crises, in adult and pediatric patients aged 16 years and older with SCD. In the relapsed/refractory multiple myeloma space, an anti-BCMA CAR T cell therapy is currently in a single-center phase I study by the University of Pennsylvania, in collaboration with Novartis. Gilead Sciences and Bristol Myers also have such candidates in their pipeline.

bluebird is highly dependent on its partners for funding requirements. R&D spend is expected to increase significantly.

▼ **Dependence on Partners and Funding Requirement:** The company is highly dependent on Bristol Myers for the development of its candidates. Termination of the agreement with Bristol Myers will have a negative impact on the company's growth prospects. Moreover, R&D spend is expected to increase significantly as it advances its pipeline candidates to late-stage studies.

▼ **Pipeline Candidates Still Far from Commercialization:** Although the company is progressing well with its pipeline, there is still a lot of time for most of the candidates to get regulatory approval. Unfavorable outcome from any of the development programs could adversely affect the company's prospects as well as the stock.

Last Earnings Report

bluebird Q1 Earnings and Revenues Beat

bluebird reported a loss of \$3.64 per share in first-quarter 2020, narrower than the Zacks Consensus Estimate of a loss of \$3.94 but wider than the year-ago quarter's loss of \$2.99.

Revenues of \$21.8 million easily beat the Zacks Consensus Estimate of \$9 million. The figure was up from \$12.5 million in the year-ago quarter.

Quarter in Detail

R&D expenses increased to \$154.1 million from \$122.6 million a year ago due to costs incurred by the company to advance and expand the pipeline.

Selling, general and administrative (SG&A) expenses of \$73.2 million were up from \$60.3 million in the year-ago quarter to support its operations, overall growth of the pipeline, and commercial-readiness activities.

Pipeline Development

bluebird announced general agreement with the FDA that the clinical data package required to support the BLA submission for LentiGlobin for sickle cell disease (SCD) will be based on data from a portion of patients in the HGB-206 study Group ,who have already been treated. The planned submission will be based on an analysis using complete resolution of severe vaso-occlusive events (VOEs) as the primary endpoint and at least 18 months of follow-up post drug product infusion. Globin response will be used as a key secondary endpoint. The company anticipates additional guidance from the FDA regarding the commercial manufacturing process, including suspension lentiviral vector. The company is planning to seek an accelerated approval and expects to submit the BLA in the second half of 2021.

Quarter Ending **03/2020**

Report Date	May 11, 2020
Sales Surprise	147.26%
EPS Surprise	7.61%
Quarterly EPS	-3.64
Annual EPS (TTM)	-14.96

Recent News

Regulatory Update on IdecabtageneVicleucel- May 13

bluebird and partner Bristol-Myers announced that the companies received a Refusal to File letter from the FDA regarding the Biologics License Application (BLA) for idecabtagenevicleucel (ide-cel; bb2121) for patients with heavily pre-treated relapsed and refractory multiple myeloma, which was submitted in March 2020.

Upon preliminary review, the FDA determined that the Chemistry, Manufacturing and Control (CMC) module of the BLA requires further detail to complete the review. No additional clinical or non-clinical data have been requested or are required. Parftner Bristol-Myers is planning to resubmit the BLA no later than the end of July 2020.

Amended BCMA CAR-T Collaboration Agreement- May 11

bluebird announced that it has amended its existing co-promotion/co-development agreement with Bristol-Myers to enable the companies to focus their efforts on efficient commercialization of idecabtagenevicleucel (ide-cel; bb2121) in the United States.

Under the terms of the amended agreement, Bristol-Myers will buy out its obligations to pay bluebird bio future ex-U.S. milestone and royalty payments for ide-cel and bb21217, the companies' second BCMA-directed CAR T immunotherapy, for a one-time upfront payment of \$200 million. bluebird is currently in the process of building out and qualifying its wholly-owned manufacturing facility in Durham, North Carolina, for the production of lentiviral vector (LVV) to support the United States commercial market for ide-cel and for bluebird's pipeline. Over time, BMS will assume responsibility for manufacturing of LVV outside the United States.

Submit BLA for Myeloma Drug to FDA - Mar 31

bluebird bio and Bristol-Myers submitted a biologics license application (BLA) to the FDA for their lead investigational BCMA-targeted chimeric antigen receptor (CAR) T-cell therapy candidate, idecabtagenevicleucel. The companies are seeking approval of the candidate for the treatment of adult patients with multiple myeloma (MM), having received minimum three prior therapies — an immunomodulatory agent, a proteasome inhibitor and an anti-CD38 antibody.

Valuation

bluebird's shares are down 21.2% in the year-to-date period and down 41.6% over the trailing 12-month period. Stocks in the Zacks sub-industry are up 7.8% and stocks in the Zacks Medical sector are up 0.2% in the year-to-date period. Over the past year, the Zacks sub-industry is up 13.3% and the sector is up 3.3%.

The S&P 500 index is up 0.2% in the year-to-date period and up 11.8% in the past year.

The stock is currently trading at 3.43X trailing 12-month book per share, which compares to 4.32X for the Zacks sub-industry, 4.32X for the Zacks sector and 4.41X for the S&P 500 index.

Over the past five years, the stock has traded as high as 12.86X and as low as 1.66X, with a 5-year median of 3.72X. Our Neutral recommendation indicates that the stock will perform in-line with the market. Our \$73.00 price target reflects 3.27X trailing 12-month book per share.

Industry Analysis Zacks Industry Rank: Top 13% (32 out of 252)



Top Peers

Company (Ticker)	Rec	Rank
Bellicum Pharmaceuticals, Inc. (BLCM)	Outperform	1
Amgen Inc. (AMGN)	Neutral	3
BristolMyers Squibb Company (BMY)	Neutral	2
CRISPR Therapeutics AG (CRSP)	Neutral	3
Gilead Sciences, Inc. (GILD)	Neutral	2
Novartis AG (NVS)	Neutral	3
Sangamo Therapeutics, Inc. (SGMO)	Neutral	3
Accelaron Pharma Inc. (XLRN)	Neutral	3

Industry Comparison Industry: Medical - Biomedical And Genetics				Industry Peers		
	BLUE	X Industry	S&P 500	AMGN	NVS	SGMO
Zacks Recommendation (Long Term)	Neutral	-	-	Neutral	Neutral	Neutral
Zacks Rank (Short Term)	2	-	-	3	3	3
VGM Score	F	-	-	B	A	D
Market Cap	3.85 B	241.05 M	23.56 B	132.80 B	196.07 B	1.53 B
# of Analysts	13	3	14	14	5	4
Dividend Yield	0.00%	0.00%	1.8%	2.84%	2.34%	0.00%
Value Score	F	-	-	B	B	F
Cash/Price	0.23	0.23	0.06	0.06	0.03	0.23
EV/EBITDA	-4.03	-4.05	13.19	12.25	13.90	-13.41
PEG Ratio	NA	1.92	3.18	1.92	1.89	NA
Price/Book (P/B)	3.43	4.35	3.19	14.00	3.85	3.20
Price/Cash Flow (P/CF)	NA	14.16	12.52	11.94	10.98	NA
P/E (F1)	NA	28.64	23.31	14.49	15.20	NA
Price/Sales (P/S)	71.17	15.79	2.51	5.54	4.03	14.25
Earnings Yield	-17.98%	-13.16%	4.15%	6.90%	6.58%	-1.10%
Debt/Equity	0.16	0.02	0.76	3.16	0.50	0.10
Cash Flow (\$/share)	-13.96	-1.06	7.01	18.91	7.80	-0.78
Growth Score	F	-	-	C	B	C
Hist. EPS Growth (3-5 yrs)	NA%	16.29%	10.87%	10.16%	1.77%	NA
Proj. EPS Growth (F1/F0)	13.15%	9.52%	-10.76%	5.13%	7.56%	85.59%
Curr. Cash Flow Growth	43.40%	13.92%	5.48%	-2.47%	4.27%	25.74%
Hist. Cash Flow Growth (3-5 yrs)	NA%	7.77%	8.55%	5.06%	7.11%	NA
Current Ratio	5.25	5.17	1.29	1.59	0.74	5.98
Debt/Capital	13.84%	4.34%	44.75%	75.98%	33.33%	9.25%
Net Margin	-1,531.04%	-203.29%	10.59%	32.03%	24.97%	-89.31%
Return on Equity	-60.05%	-63.33%	16.26%	90.75%	24.39%	-22.68%
Sales/Assets	0.03	0.19	0.55	0.40	0.41	0.17
Proj. Sales Growth (F1/F0)	342.55%	0.00%	-2.62%	8.32%	4.76%	57.57%
Momentum Score	C	-	-	A	A	D
Daily Price Chg	-2.59%	1.68%	1.55%	0.04%	-0.26%	-1.00%
1 Week Price Chg	11.55%	0.00%	7.51%	-1.75%	-1.76%	-1.88%
4 Week Price Chg	14.79%	4.51%	15.61%	-7.00%	-1.06%	19.98%
12 Week Price Chg	71.18%	57.75%	38.10%	19.65%	17.13%	115.25%
52 Week Price Chg	-41.56%	0.50%	3.66%	28.57%	-2.89%	15.89%
20 Day Average Volume	1,673,746	331,673	2,648,536	2,904,476	1,752,541	2,185,822
(F1) EPS Est 1 week change	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
(F1) EPS Est 4 week change	22.76%	0.00%	0.00%	0.01%	0.00%	-308.33%
(F1) EPS Est 12 week change	20.51%	0.75%	-15.97%	0.22%	-1.81%	61.23%
(Q1) EPS Est Mthly Chg	48.18%	0.00%	0.00%	-0.16%	0.00%	932.35%

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 have an excellent balance between the number of Outperform and Neutral recommendations. Our team of 70 analysts are fully versed in the benefits of earnings estimate revisions and how that is harnessed through the Zacks quantitative rating system. But we have given our analysts the ability to override the Zacks Recommendation for the 1200 stocks that they follow. The reason for the analyst over-rides is that there are often factors such as valuation, industry conditions and management effectiveness that a trained investment professional can spot better than a quantitative model.

Zacks Rank

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

Zacks Style Scores

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

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

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

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

Disclosures

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