Momentum: A



Dr. Reddys(RDY)

\$59.17 (As of 02/01/21)

Price Target (6-12 Months): \$64.00

Long Term: 6-12 Months	Zacks Recommendation: (Since: 05/15/20) Prior Recommendation: Outperform	Neutral
Short Term: 1-3 Months	Zacks Rank: (1-5) Zacks Style Scores:	2-Buy VGM:B

Growth: B

Value: C

Summary

In third-quarter fiscal 2021, Dr. Reddy's earnings decreased year-over-year while the sales marked an increase. During the quarter, the company saw healthy growth across its branded markets in Europe while the market demand in India, Russia and other branded markets witnessed sequential improvement, although the demand is yet to fully recover to pre-COVID levels. As of Dec 30, cumulatively, 89 generic filings are pending for approval with the Food and Drug Administration (FDA) (87 abbreviated New Drug Applications [ANDAs] and 2 two new drug applications). Of these 89 ANDAs, 48 are Para IVs and 24 have first-to-file status. Approval of new generics should further bolster the portfolio. However, the bottom-line was impacted by trigger based impairment charge taken on a few acquired products including Nuvaring. Generic competition remains a concern.

Data Overview

52-Week High-Low	\$73.50 - \$33.33
20-Day Average Volume (Shares)	172,656
Market Cap	\$10.2 B
Year-To-Date Price Change	-14.0%
Beta	0.43
Dividend / Dividend Yield	\$0.27 / 0.5%
Industry	Medical - Generic Drugs
Zacks Industry Rank	Bottom 26% (188 out of 253)

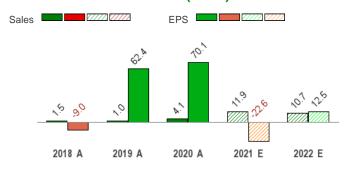
Last EPS Surprise	NA
Last Sales Surprise	NA
EPS F1 Estimate 4-Week Change	4.6%
Expected Report Date	05/19/2021
Earnings ESP	0.0%

P/E TTM	29.2
P/E F1	27.4
PEG F1	NA
P/S TTM	4.0

Price, Consensus & Surprise



Sales and EPS Growth Rates (Y/Y %)



Sales Estimates (millions of \$)

	Q1	Q2	Q3	Q4	Annual*
2022					2,868 E
2021	585 A	666 A	675 A		2,591 E
2020	558 A	680 A	614 A	588 A	2,316 A
EPS Es	stimates				
	Q1	Q2	Q3	Q4	Annual*

	Q1	Q2	Q3	Q4	Annual*
2022					\$2.43 E
2021	\$0.46 A	\$0.62 A	\$0.41 A		\$2.16 E
2020	\$0.58 A	\$0.93 A	\$0.40 A	\$0.61 A	\$2.79 A
*Quarterly	figures may no	t add up to anni	ual.		

The data in the charts and tables, including the Zacks Consensus EPS and sales estimates, is as of 02/01/2021. The report's text and the analyst-provided price target are as of 02/02/2021.

Overview

India-based Dr. Reddy's Laboratories Ltd. is an integrated global pharmaceutical company engaged in providing affordable and innovative medicines since 1984.

The company markets its products in countries like the U.S., the UK, Germany, India, Russia, Venezuela, Romania and South Africa. Dr. Reddy's operates through three segments:

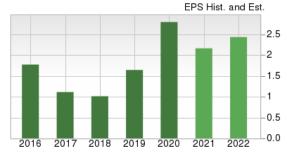
- **Global Generics** This segment consists of branded and unbranded prescription drugs along with over-the-counter (OTC) drugs. It includes the operations of the company's biologics business.
- Pharmaceutical Services & Active Ingredients (PSAI) This segment is composed of active pharmaceutical ingredients (API) and custom pharmaceutical services.
- **Proprietary Products and Others** This segment involves the new chemical entities, the differentiated formulations business and a dermatology specialty business.

Global Generics contributed 79%, PSAI contributed 15% and Proprietary Products and Others contributed 5% and others contributed 1% to total revenues in fiscal 2020.

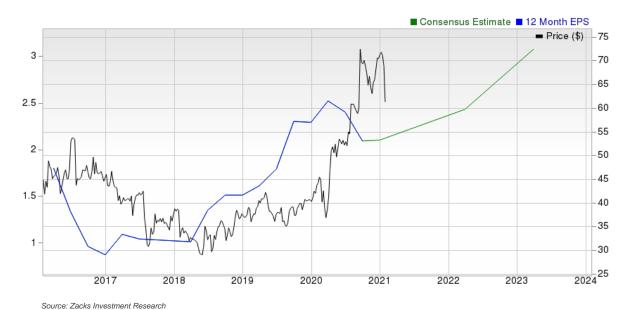
The company has a strategic partnership with Glaxo to market selected products across emerging markets outside India.



As of Dec 30, cumulatively, 89 generic filings are pending for approval with the FDA (87 abbreviated New Drug Applications [ANDAs] and 2 two new drug applications). Of these 89 ANDAs, 48 are Para IVs and 24 have first-to-file status. New product launches, especially complex generics, should help drive the generics business over regular intervals.







Reasons To Buy:

▲ Strong Generic Pipeline: Dr. Reddy's enjoys a strong position in the generics market. As of Dec 31, cumulatively, 89 generic filings are pending approval fromthe FDA (87 abbreviated [ANDAs] and 2 two new drug applications). Of these 89 ANDAs, 48 are Para IVs and 24 have first-to-file status.

The company launched COVID-19 treatment drugs —Avigan (Favipiravir) and remdesivir. It further strengthened its development pipeline for COVID-19 treatment drugs, including the vaccine candidate — Sputnik V.In the third quarter of 2020, the company launched fourproducts in North America, including Cinacalcet tablets, Sapropterin Dihydrochloride tablets and Succinylcholine Chloride injection in the United States and Daptomycin injection in Canada. The company also re-launched aproduct — OTC Famotidine— in the United States.

Dr. Reddy's enjoys a strong position in the generics market. Efforts on strengthening its presence in the biosimilars market have been commendable too.

In September 2020, Dr. Reddy's and Russian Direct Investment Fund (RDIF), Russia's sovereign wealth fund, announced that they have received approval from the Drugs Controller General of India (DCGI) to conduct an adaptive phase II/III human clinical study for Sputnik V vaccine in India. This will be a multicenter and randomized controlled study, which will include safety and immunogenicity data. Earlier in the same month, Dr. Reddy's and RDIF entered into a partnership to conduct clinical trials of the Sputnik V vaccine and its distribution in India. During third quarter of fiscal 2021, the company initiated the phase III study of Sputnik V vaccine in India. The vaccine's efficacy is confirmed at 91.4% based on the data analysis of the final control point of the clinical trials arm in Russia. As part of the partnership, RDIF shall supply 100 million doses of the vaccine to Dr. Reddy's upon regulatory approval in India.

In April 2019, Dr. Reddy's entered a definitive agreement to acquire the yet-to-be-marketed portfolio of 42 non-marketed ANDAs in the United States. The portfolio includes more than 30 generic injectable products. These products will be technology transferred and ready for launch within the next one to two years. The deal is in sync with the company's strategy to strengthen its portfolio in its chosen growth markets. This transaction will help the company expand its injectable products portfolio in the U.S. market and globally.

- ▲ Biosimilars Market to Boost Revenues: Dr. Reddy's is working with Merck Serono to develop and commercialize a portfolio of biosimilar compounds in oncology, primarily focused on MAbs. Dr. Reddy's has already expanded its biosimilars facility in India to meet growing demand in emerging markets. Dr. Reddy's in July 2018 launched Hervycta (Trastuzumab), a biosimilar of Roche's Herceptin in India, indicated for the treatment of HER2-positive cancers (early breast cancer, metastatic breast cancer and metastatic gastric cancer).
- ▲ Strategic Initiatives: The company is undertaking some strategic measures to combat the ongoing challenges. It plans to modernize some of its infrastructure, systematically implement its new quality management system and automate some of the critical manufacturing and quality related processes.

In order to revitalize growth, Dr. Reddy's remains focused on accelerating the development of its complex generics portfolio and also making efforts to ensure that the approvals come in time through appropriate risk management and proactive measures to deal with possible deficiencies.

Zacks Equity Research www.zackspro.com Page 3 of 13

Reasons To Sell:

▼ Pricing pressure on North America business: The company's North America base business is witnessing pricing pressures since the last few quarters due to enhanced channel consolidation and increased competitive pressure on sales of some of its key generic products.

In-fact, the United States' generics industry is facing significant competitive and pricing pressure. The ongoing consolidation of customers in the industry has led to increasing price erosion and decreasing volume. The consolidation in the industry has increased the ability to negotiate lower prices for generic drugs. A sharp decline in generic drug prices is proving to be a major challenge for generic drugmakers as well as drug distributors. Moreover, the FDA is speeding up the approval of generic drugs, which means more competition, increasing price cuts and decreasing volume. The pricing and competitive pressures are expected to continue.

Persisting macroeconomic issues in some territories in emerging markets and negative impact of a depreciating ruble remain a concern. The FDA warning letter for some manufacturing facilities is also a concern.

The implementation of general sales tax (GST) in India is also hurting its topline to an extent.

- ▼ Pipeline Setbacks a Concern: In January 2021, the company announced the termination of the Avigan study conducted in Kuwait, focused on moderate-to-severe COVID patients in a hospital setting. The data from the Kuwait CVD-04-CD-001 study involving moderate-severe COVID-19 hospitalized patients did not show a statistically significant difference for the primary endpoint (i.e. time to sustained hypoxia resolution) for Avigan versus placebo. The subgroup analysis data during the initial interim analysis showed that an antiviral drug, Avigan, may be effective as part of early treatment initiation in COVID-19 patients but not effective in the late-stage hospital treatment for moderate and severe COVID-19 patients.
- ▼ Competition in Generics Segment: The generic market is highly crowded and Dr. Reddy's faces competition from players like Mylan, Teva, Endo and Sandoz among others. Competition is fierce as generic companies strive to be the first to launch a generic version once a brand product loses exclusivity so that they can capture significant market share. Once additional generic companies enter the market, market share, revenues and gross profit typically decline. Therefore, it is very important for generic companies to develop and introduce new products in a timely and cost-effective manner to maintain revenues and gross profit. In addition to competition from other generic players, brand name companies also provide competition by marketing their own generic version (authorized generics) of their brand products.

In December 2019, there was a generic launch and an authorized generic launch for the product, NuvaRing, which has led to a considerable reduction in the valuation of this product for the company.

In January 2021, there was an additional generic launch for the product, Nuvaring, which led to a considerable erosion in the value of this product for Dr. Reddy's and thus impacted profits. Thus, the company took an impairment charge.

Last Earnings Report

Dr. Reddy's Q3 Earnings Decline Y/Y, Sales Increase

Dr. Reddy's reported third-quarter fiscal 2021 earnings of 57 cents (excluding impairment charges) per American Depositary Share ("ADS") compared with 62 cents in the year-ago period.

However, revenues grew 12% year over year to \$675 million.

During the quarter, the company took an additional impairment charge of \$82 million on the intangibles pertaining to other products. In January 2021, there was an additional generic launch for the product, Nuvaring, which led to a considerable erosion in the value of this product for Dr. Reddy's and thus, the company took an impairment charge.

Quarter Ending	12/2020		
Report Date	Jan 29, 2021		
Sales Surprise	NA		
EPS Surprise	NA		
Quarterly EPS	0.41		
Annual EPS (TTM)	2.10		

Quarter in Detail

Dr. Reddy's reported revenues under three segments — Global Generics, Pharmaceutical Services & Active Ingredients ("PSAI"), and Proprietary Products and Others.

Global Generics revenues were INR 40.8 billion, up 13% year over year, in the fiscal third quarter. The growth was led by contributions from new product launches and integration of the acquired business from Wockhardt in India.

The company launched fourproducts in North America, including Cinacalcet tablets, Sapropterin Dihydrochloride tablets and Succinylcholine Chloride injection in the United States and Daptomycin injection in Canada. The company also re-launched a product — OTC Famotidine— in the United States.

PSAI revenues were INR 7.1 billion, up 1% from the year-ago quarter.

Revenues in the Proprietary Products segment came in at INR 1.5billion, up 53% year over year.

Research and development expenses were up 33.7% year over year to \$56 million. The company is also undertaking the development of a few projects pertaining to COVID-related drugs.

Selling, general and administrative expenses were \$197 million, up14% year over yeardue to certain one-off expenses last year, which were partly offset by incremental costs post the integration of the acquired divisions from Wockhardt, in 2020.

As of Dec 31, cumulatively, 89 generic filings are pending approval from the FDA (87 abbreviated [ANDAs] and 2 two new drug applications). Of these 89 ANDAs, 48 are Para IVs and 24 have first-to-file status.

Recent News

Dr. Reddy's Launches Vigabatrin Tablets in the U.S. Market-Feb 2

Dr. Reddy's announced the launch of Vigabatrin tablets USP, 500 mg, a therapeutic equivalent generic version of Sabril (vigabatrin) tablets, USP, approved by the FDA.

The product has been designated as a Competitive Generic Therapy (CGT) by the FDA. With a CGT designation, the company has a 180-day CGT exclusivity to market this product.

Ends Kuwait Study on Avigan for COVID-Jan 18

Dr. Reddy's announced the termination of the Avigan study conducted in Kuwait, focused on moderate-to-severe COVID patients in a hospital setting. The study is being conducted in partnership with Global Response Aid FZCO (GRA).

The data from the Kuwait CVD-04-CD-001 study involving moderate-severe COVID-19 hospitalized patients did not show a statistically significant difference for the primary endpoint (i.e. time to sustained hypoxia resolution) for Aviganversus placebo. The subgroup analysis of the low-risk study cohort (n=181) showed a 3-day earlier discharge in the Avigan group compared to the placebo group. The subgroup analysis data during the initial interim

analysis showed that an antiviral drug, Avigan, may be effective as part of early treatment initiation in COVID-19 patients but not effective in the late-stage hospital treatment for moderate and severe COVID-19 patients. The full data analysis on 353 subjects would be available by the end of February 2021.

Dr. Reddy's to Begin Phase III Study on Sputnik Vaccine-Jan 15

Dr. Reddy's announced that it has received approval from the Drugs Control General of India (DCGI) to conduct a phase III studyon Russia's Sputnik V vaccine for the treatment of COVID-19 in India. The company expects to begin the study this month. The placebo-controlled study will be conducted in 1500 patients in India.

In September 2020, Dr. Reddy's partnered with the Russian Direct Investment Fund (RDIF), the company which is marketing the Sputnik V vaccine, to conduct clinical studies on the vaccineand for its distribution rights in India.

Sputnik V was developed by Moscow's Gamaleya National Research Institute of Epidemiology and Microbiology and registered as the world's first vaccine against COVID-19.

The phase III study was recommended after the Data and Safety Monitoring Board (DSMB) reviewed the safety data from the phase II study of the vaccine. No safety concerns were identified and the phase II study met the primary endpoints of safety.

Sputnik V meets the Primary Endpoint in Phase II Study-Jan 11

Dr. Reddy's announced that the independent Data and Safety Monitoring Board (DSMB) reviewed the safety data from the phase II study of the Sputnik V vaccine and recommended the phase III recruitment and continue the clinical trial without any modifications. The phase II study of Sputnik V was conducted on 100 subjects as part of the randomized, placebo-controlled study in India. The DSMB concluded that no safety concerns were identified and the study has met the primary endpoints of safety. Further, the safety data have been submitted to the Drugs Controller General of India (DCGI) for review and approval to continue phase III studies.

Launch of Febuxostat Tablets in the U.S. Market-Jan 11

Dr. Reddy's announced the launch of Febuxostat Tablets, a therapeutic equivalent generic version of Uloric (Febuxostat) Tablets approved by the FDA

Dr. Reddy's, Global Response Aid, and Appili Therapeutics File an Application for Reegonus for COVID-19-Dec 22

Dr. Reddy's , Appili Therapeutics and Global Response Aid FZCO announced that Dr. Reddy's Canada has filed an application on behalf of the consortium for Reegonus (favipiravir) Tablets for the acute treatment of mild to moderate COVID-19 adult patients under Health Canada's Interim Order Respecting the Importation, Sale and Advertising of Drugs for Use in Relation to COVID-19. Reegonus is also known as Avigan tablets developed by FUJIFILM Toyama Chemical Co., Ltd.

Dr. Reddy's and RDIF Commence Studies for Sputnik V vaccine in India-Dec 1

Dr. Reddy's and Russian Direct Investment Fund (RDIF) announced that they have commenced adaptive phase II/III studies for Sputnik V vaccine in India after receiving the necessary clearance from the Central Drugs Laboratory, Kasauli, India. This will be a multicenter and randomized controlled study, which will include safety and immunogenicity study.

Recently, RDIF announced the second interim analysis of clinical trial data, which showed 91.4% efficacy for the vaccine on day 28 after the first dose; vaccine efficacy over 95% 42 days after the first dose.

Valuation

Dr. Reddy's shares are down 17.0% in the year-to-date period and up 34.2% over the trailing 12-month period. Stocks in the Zacks sub-industry are up 2.4% and in the Zacks Medical sector are up 4.1%, in the year-to-date period. Over the past year, the Zacks sub-industry is up 15.7% and

the sector is up 8.1%.

The S&P 500 index is up 0.70% in the year-to-date period and up 17.9% in the past year.

The stock is currently trading at 24.78X forward 12-month earnings per share, which compares to 11.96X for the Zacks sub-industry, 22.84X for the Zacks sector and 22.23X for the S&P 500 index.

Over the past five years, the stock has traded as high as 35.05X and as low as 16.19X, with a 5-year median of 21.85X. Our Neutral recommendation indicates that the stock will perform in line with the market. Our \$64.00 price target reflects 25.97x forward 12-month earnings per share.

The table below shows summary valuation data for RDY.

	Valuation	Multip	les - RDY		
		Stock	Sub-Industry	Sector	S&P 500
	Current	24.78	11.96	22.84	22.23
P/E F12M	5-Year High	35.05	12.4	22.86	23.8
	5-Year Low	16.19	5.57	15.9	15.3
	5-Year Median	21.85	8.73	19.13	17.83
	Current	3.46	1.13	2.85	4.4
P/S F12M	5-Year High	4.55	1.77	3.17	4.4
	5-Year Low	1.79	0.75	2.26	3.2
	5-Year Median	2.7	1.04	2.84	3.68
	Current	4.36	2.21	4.52	6.45
P/B TTM	5-Year High	5.6	2.45	5.11	6.58
	5-Year Low	2.43	0.6	3.02	3.73
	5-Year Median	3.39	1.3	4.36	4.95

As of 02/01/2021

Source: Zacks Investment Research

Zacks Equity Research www.zackspro.com Page 7 of 13

Industry Analysis Zacks Industry Rank: Bottom 26% (188 out of 253)

■ Industry Price ■ Price 75 Industry 400 70 65 60 -55 300 -50 45 40 35 200 30 2021²⁵ 2017 2018 2019 2020

Source: Zacks Investment Research

Top Peers

Company (Ticker)	Rec F	Rank
Amgen Inc. (AMGN)	Neutral	3
Bausch Health Cos Inc. (BHC)	Neutral	3
Endo International plc (ENDP)	Neutral	3
GlaxoSmithKline plc (GSK)	Neutral	3
Novartis AG (NVS)	Neutral	3
Pfizer Inc. (PFE)	Neutral	3
Sanofi (SNY)	Neutral	3
Teva Pharmaceutical Industries Ltd. (TEVA)	Underperform	4

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

			hold or	r sell.			
Industry Comparison Industry: Medical - Generic Drugs				Industry Peers			
	RDY	X Industry	S&P 500	NVS	PFE	TEVA	
Zacks Recommendation (Long Term)	Neutral	-	-	Neutral	Neutral	Underperforn	
Zacks Rank (Short Term)	2	-	-	3	3	4	
VGM Score	В	-	-	В	С	A	
Market Cap	10.16 B	245.69 M	26.43 B	207.06 B	199.55 B	12.87 E	
# of Analysts	2	4	13	5	4	1	
Dividend Yield	0.45%	0.00%	1.47%	2.22%	4.35%	0.00%	
Value Score	С	-	-	В	Α	Α	
Cash/Price	0.03	0.21	0.06	0.06	0.11	0.1	
EV/EBITDA	22.88	-2.08	14.74	13.04	9.58	76.16	
PEG F1	NA	0.69	2.38	2.04	2.33	0.80	
P/B	4.52	3.48	3.59	3.65	3.05	1.2	
P/CF	15.60	6.05	14.94	10.65	8.71	3.0	
P/E F1	28.38	11.90	19.57	13.94	11.35	4.4	
P/S TTM	4.04	2.41	2.86	4.26	4.10	0.7	
Earnings Yield	3.52%	-5.92%	4.98%	7.17%	8.80%	22.33%	
Debt/Equity	0.04	0.00	0.68	0.46	0.76	2.2	
Cash Flow (\$/share)	3.79	-0.29	6.83	8.43	4.11	3.89	
Growth Score	В	-	-	D	D	С	
Historical EPS Growth (3-5 Years)	20.12%	10.83%	9.46%	4.32%	6.54%	-19.46%	
Projected EPS Growth (F1/F0)	-22.58%	4.86%	12.64%	12.83%	36.79%	5.05%	
Current Cash Flow Growth	40.31%	2.22%	4.97%	7.83%	-6.57%	-9.67%	
Historical Cash Flow Growth (3-5 Years)	5.28%	6.59%	8.19%	2.26%	2.54%	-6.21%	
Current Ratio	1.72	2.86	1.38	0.90	1.40	1.0	
Debt/Capital	3.89%	0.00%	41.49%	31.67%	43.19%	68.94%	
Net Margin	11.34%	-49.57%	10.61%	16.59%	17.85%	-24.17%	
Return on Equity	16.28%	-25.79%	15.23%	24.36%	24.88%	19.32%	
Sales/Assets	0.77	0.40	0.50	0.38	0.28	0.3	
Projected Sales Growth (F1/F0)	6.40%	10.17%	5.74%	10.14%	31.32%	0.73%	
Momentum Score	Α	-	-	Α	D	C	
Daily Price Change	-3.44%	1.29%	1.27%	-0.78%	-0.28%	1.95%	
1-Week Price Change	-10.97%	-5.10%	-4.02%	-6.64%	-1.78%	-6.14%	
4-Week Price Change	-16.92%	6.96%	1.41%	-4.89%	-2.74%	16.15%	
12-Week Price Change	-8.12%	25.17%	5.46%	6.95%	-8.67%	24.20%	
52-Week Price Change	34.17%	-1.73%	8.48%	-4.76%	-4.56%	7.71%	
20-Day Average Volume (Shares)	172,656	392,610	2,080,548	2,179,198	34,458,416	10,185,87	
EPS F1 Estimate 1-Week Change	0.00%	0.00%	0.00%	-0.58%	4.81%	0.00%	
EPS F1 Estimate 4-Week Change	4.60%	0.00%	0.30%	0.03%	-1.53%	0.00%	
EPS F1 Estimate 12-Week Change	4.60%	0.56%	1.44%	1.60%	11.32%	0.89%	
EPS Q1 Estimate Monthly Change	NA%	0.00%	0.12%	NA	-8.33%	0.00%	

Source: Zacks Investment Research

Zacks Stock Rating System

We offer two rating systems that take into account investors' holding horizons: Zacks Rank and Zacks Recommendation. Each provides valuable insights into the future profitability of the stock and can be used separately or in combination with each other depending on your investment style.

Zacks Recommendation

The Zacks Recommendation aims to predict performance over the next 6 to 12 months. The foundation for the quantitatively determined Zacks Recommendation is trends in the company's estimate revisions and earnings outlook. The Zacks Recommendation is broken down into 3 Levels; Outperform, Neutral and Underperform. Unlike many Wall Street firms, we maintain a balance between the number of Outperform and Neutral recommendations. Our team of 70 analysts are fully versed in the benefits of earnings estimate revisions and how that is harnessed through the Zacks quantitative rating system. But we have given our analysts the ability to override the Zacks Recommendation for the 1200 stocks that they follow. The reason for the analyst over-rides is that there are often factors such as valuation, industry conditions and management effectiveness that a trained investment professional can spot better than a quantitative model.

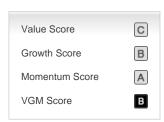
Zacks Rank

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

Zacks Style Scores

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

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



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

This report contains independent commentary to be used for informational purposes only. The analysts contributing to this report do not hold any shares of this stock. The analysts contributing to this report do not serve on the board of the company that issued this stock. The EPS and revenue forecasts are the Zacks Consensus estimates, unless indicated otherwise on the reports first page. Additionally, the analysts contributing to this report certify that the views expressed herein accurately reflect the analysts personal views as to the subject securities and issuers. ZIR certifies that no part of the analysts compensation was, is, or will be, directly or indirectly, related to the specific recommendation or views expressed by the analyst in the report.

Additional information on the securities mentioned in this report is available upon request. This report is based on data obtained from sources we believe to be reliable, but is not guaranteed as to accuracy and does not purport to be complete. Any opinions expressed herein are subject to change.

ZIR is not an investment advisor and the report should not be construed as advice designed to meet the particular investment needs of any investor. Prior to making any investment decision, you are advised to consult with your broker, investment advisor, or other appropriate tax or financial professional to determine the suitability of any investment. This report and others like it are published regularly and not in response to episodic market activity or events affecting the securities industry.

This report is not to be construed as an offer or the solicitation of an offer to buy or sell the securities herein mentioned. ZIR or its officers, employees or customers may have a position long or short in the securities mentioned and buy or sell the securities from time to time. ZIR is not a broker-dealer. ZIR may enter into arms-length agreements with broker-dealers to provide this research to their clients. Zacks and its staff are not involved in investment banking activities for the stock issuer covered in this report.

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

No part of this report can be reprinted, republished or transmitted electronically without the prior written authorization of ZIR.

Zacks Equity Research www.zackspro.com Page 9 of 13

Additional Disclosure

This material represents an assessment of the market and economic environment at a specific point in time and is not intended to be a forecast of future events, or a guarantee of future results. Forward-looking statements are subject to certain risks and uncertainties. Any statements that refer to expectations, projections or characterizations of future events or circumstances, including any underlying assumptions, are forwardlooking statements. Actual results, performance, or achievements may differ materially from those expressed or implied.

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.

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.

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.

Zacks Equity Research www.zackspro.com Page 12 of 13

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.