SAP SE (SAP)

$114.50 (As of 10/27/20)

Price Target (6-12 Months): **$116.00**

Long Term: 6-12 Months	**Zacks Recommendation:** **Neutral**
	(Since: 03/30/20)
	Prior Recommendation: Outperform
Short Term: 1-3 Months	**Zacks Rank:** (1-5) **3-Hold**
	Zacks Style Scores: VGM:C
	Value: C | Growth: D | Momentum: A

Summary

SAP's Q3 earnings gained from solid contribution from Sapphire Ventures. However, revenues fell on soft uptake of software licenses and support offerings. Also, lingering coronavirus crisis led business impacts dented 2020 view. Nevertheless, high demand for e-commerce, digital supply chain, Qualtrics and cloud platform solutions, limited the decline. SAP is poised to gain from robust uptake of S/4HANA, Fieldglass, and SuccessFactors Employee Central solutions. Further, SAP's alliances with IBM, Microsoft, Accenture and Verizon favor business prospects. However, rise in investments to enhance cloud-based offerings are likely to weigh on margins in near term. Also, coronavirus crisis led reduction in business travel are anticipated to impact Concur revenues. Notably, shares of SAP have underperformed the industry on a year-to-date basis.
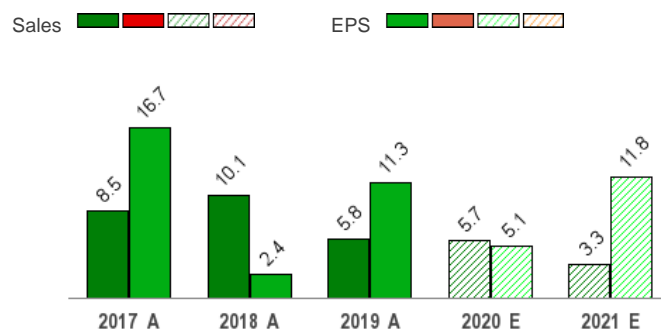
Price, Consensus & Surprise

Source: Zacks Investment Research

Data Overview

52-Week High-Low	**$169.30 - $90.90**
20-Day Average Volume (Shares)	**1,401,772**
Market Cap	**$136.7 B**
Year-To-Date Price Change	**-14.6%**
Beta	**0.98**
Dividend / Dividend Yield	**$1.25 / 1.1%**
Industry	**Computer - Software**
Zacks Industry Rank	**Top 44% (112 out of 254)**
Last EPS Surprise	**28.6%**
Last Sales Surprise	**-5.1%**
EPS F1 Estimate 4-Week Change	**0.0%**
Expected Report Date	**01/26/2021**
Earnings ESP	**0.0%**
P/E TTM	**18.4**
P/E F1	**19.1**
PEG F1	**1.9**
P/S TTM	**4.4**

Sales and EPS Growth Rates (Y/Y %)

Sales Estimates (millions of $)

	Q1	Q2	Q3	Q4	Annual*
2021	7,893 E	8,240 E	8,306 E	9,695 E	33,703 E
2020	7,193 A	7,423 A	7,638 A	9,301 E	32,637 E
2019	6,917 A	7,452 A	7,570 A	8,905 A	30,863 A

EPS Estimates

	Q1	Q2	Q3	Q4	Annual*
2021	$1.33 E	$1.52 E	$1.63 E	$2.34 E	$6.72 E
2020	$0.94 A	$1.29 A	$1.98 A	$2.12 E	$6.01 E
2019	$1.02 A	$1.22 A	$1.45 A	$2.02 A	$5.72 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 10/27/2020. The reports text is as of 10/28/2020.

Overview

Headquartered in Walldorf, Germany, SAP SE is one of the largest independent software vendors in the world and the leading provider of enterprise resource planning (ERP) software. Its solutions are designed to cater to the needs of organizations, ranging from small and medium businesses to large, global enterprises.

The company provides ML, IoT, and advanced analytics technologies which helps customers deriving meaningful insights and decision-making capabilities. The company also provides end-to-end suite of applications and services.

Notably, SAP's SuccessFactors Human Experience management (HXM) solution ended second-quarter 2020 with more than 640 customers.

SuccessFactors Employee Central forms the backbone of the company's Human Experience Management offerings. Robust market traction of these solutions remains a key growth driver for SAP. Moreover, cloud-based S/4HANA adoption reached 14,600 customer count at the end of second-quarter 2020.

Besides, the company also offers collaborative commerce capabilities (Ariba), flexible workforce management (Fieldglass) and expense processing (Concur) under its Intelligent Spend Platform.
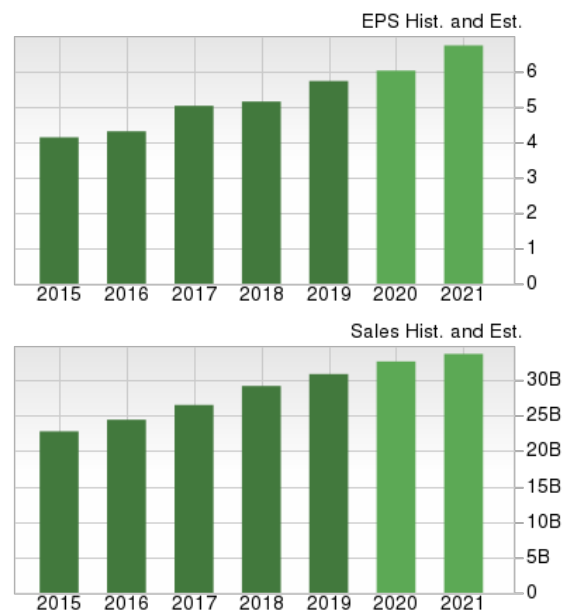
SAP reported revenues of €27.553 billion in fiscal 2019. Total revenues, on non-IFRS basis, came in at €27.634 billion.

Cloud and Software (83.6% of total 2019 revenues): Software revenue represents fees earned from the sale or license of software to customers. Cloud revenues relate to contracts, which permit the customer to use specific SAP-hosted software functions during the contract period, and which impose significant contractual penalty if the customer cancels the contract or permanently uses the software on their own systems.

Services (16.4%): Services revenues comprise primarily of consulting and other service revenues. The company generates most of its consulting revenues from the implementation of its software products. Other service revenues consist mainly of revenues from the messaging services acquired from Sybase as well as training revenues from educational services to customers and partners on the use of the company's software products and related topics.

Source: Zacks Investment Research

Reasons To Buy:

▲ SAP has established dominance over three of the most critical client demand areas, namely, efficient customer engagement, human experience management (HXM) and interconnected commerce network, which in turn, support growth. The company follows an open ecosystem strategy, which enables it to better leverage its innovation capacity by extending it to partners as well. This drives better customer value, based on respective domain expertise. The SAP partner ecosystem is a collaborative, innovative and interactive network of partners, customers and individuals. Backed by the company's extensive global relationships, customers have a wide range of providers and resources to choose from for software-related services and support.

▲ SAP provides collaborative commerce capabilities (Ariba), flexible workforce management (Fieldglass) and expense processing (Concur) under its Intelligent Spend Platform. Approximately $4.1 trillion in global commerce is transacted annually through this platform across more than 180 countries. The company remains focused on leveraging this huge network to enhance collaboration both within and among the companies. Momentum witnessed by Ariba and Fieldglass remains noteworthy. Strategic actions to reinforce its thriving business network are likely to accelerate the company's growth momentum.

▲ SAP's new class of solutions that power the next generation of business applications – SAP HANA (High-Performance Analytic Appliance) – has been driving growth since its introduction. Moreover, the company's latest offering from the SAP HANA family, S/4HANA, has established itself as a "mission critical control center" for businesses pursuing digital transformation. SAP expects demand for S/4 HANA to surge, as SAP Cloud powered by HANA is the only 'real-time digital data offering' that helps in modernizing client operations. In the third quarter, S/4HANA adoption improved 20% year over year to around 15,100 customers. This apart, the company constantly upgrades its existing products and launches new ones to gain customers. The company introduces regular advances to SAP S/4HANA Cloud to attract more clients. In fact, Gartner predicts software-as-a-service (SaaS) revenues to hit $151.1 billion in 2022 from $85.7 billion in 2018 at a CAGR of 15.2%. SAP is making concerted efforts to make the most of it.

▲ Moreover, SAP has been primarily concentrating on expanding its cloud business to become one of the leading players in the category. Further, it has a competitive edge over its cloud competitors as its processes are designed to be industry-specific and can be customized to meet corresponding business requirements. The company's HXM applications are gradually gaining extreme popularity among international organizations. SuccessFactors Employee Central, which forms the backbone of the company's Human Capital Management offerings, have been increasingly helping clients manage both permanent and temporary workforce. Notably, SAP SuccessFactors HXM (or human experience management) solutions ended the third quarter with more than 775 customers. Additionally, the company is well poised against its key HCM peers, even in markets outside the United States.

▲ SAP generates solid cash flow, which provides management the opportunity to invest in product innovations, acquisitions and business development. At the same time, the company has historically returned significant cash through dividends. In third-quarter 2020, the company generated €1.321 billion of operating cash compared with €788 million in the second quarter. Free cash flow came in at €1.052 billion compared with previous quarter's €540 million. Moreover, ss of Sep 30, 2020, SAP had cash and cash equivalents of €7.434 billion compared with €6.205 billion as of Jun 30, 2020. Increasing cash flow levels and cash balance indicate that the company is making investments in the right direction. The company's ability to generate solid free cash flow is expected to help it sustain current dividend payout (0.27) level at least in the near term.

> SAP's dominance in providing efficient customer engagement, human capital management and interconnected commerce network support its growth.

Reasons To Sell:

▼ SAP faces stiff competition as it operates in the IT services industry. The company competes with large IT service providers with greater resources, such as IBM and Oracle. The software market being highly dynamic, SAP faces competition from both large and small farms in the market. Hence, the company has to invest in new technological developments from time to time to maintain its position in the software market. This increases research and development and related expenses, which sometimes weigh on its financials. Moreover, this makes the company vulnerable to risks of pricing pressure and loss of market share, which in turn, can adversely impact its financial position, profit, and cash flow. This apart, the ongoing trend to invest more in cloud solutions exposes SAP to risks of losing existing "on-premise customers", which can adversely impact its top-line performance, especially in the short run. Continued investment in a standardized converged HANA-based cloud platform and expenses incurred for new technologies resulted in a revenue mix-shift effect between its cloud and on-premise business.

▼ Currently, Concur — used to process travel and expenses — continues to be a dampener for SAP, owing to coronavirus crisis induced shelter-in-place guidelines and limited travel. Notably, Concur revenues fell 14% (down 10% at cc) to €357 million, in the third quarter. Despite robust uptake of its digital transformation solutions, the fear of second wave and re-imposition of lockdowns in some regions, and macroeconomic weakness have muted demand recovery. Adjusting for the same, the company was compelled to issue guidance update. Citing the same, management does not anticipate "a meaningful recovery in SAP Concur business travel-related revenues for the remainder of the year 2020." This is a significant headwind in our view.

▼ Long sale cycles for the products, complexity of individual license transactions, changes in customer budgets and a strong correlation between software and service revenues compound the problem of revenue fluctuation for SAP. Trade war between the United States and China and imposition of tariffs, as well as the postponement of business owing to the coronavirus outbreak remain an overhang on SAP's software licenses revenues. These apart, certain business models of SAP are highly dependent on a working cyberspace, which means that any breach in cybersecurity can lead to severe repercussions for the company's reputation as well as result in a considerable amount of expenditure for settling legal claims. Notably, management expects software licenses revenues to "continue to trend lower from 2020 levels" on account of accelerated cloud transition.

> Integration risks from acquisitions and increasing investments to enhance cloud-based offerings remain headwinds.

Last Earnings Report

SAP Q3 Earnings Improve Y/Y, COVID-19 Dims View

SAP SE reported third-quarter 2020 non-IFRS earnings of €1.70 per share ($1.99), which improved 31% from the year-ago quarter. The improvement can be attributed to solid contribution from Sapphire Ventures.

On IFRS basis, the company reported earnings of €1.32 ($1.54) per share, up 26% year over year.

Total revenues, on a non-IFRS basis, came in at €6.535 billion ($7.637 billion), down 4% year over year and flat at constant currency (cc).

Revenues amounted to €6.535 billion ($7.637 billion) on IFRS basis, down 4% year over year.

Current cloud backlog — a key indicator of go-to market success in cloud business — increased 10% (16% at cc) year over year to €6.60 billion.

Cloud Results

On a non-IFRS basis, Cloud and software business (84.8% of total revenues) reported revenues of €5.544 billion, down 2% year over year (up 2% at cc).

Cloud revenues were €1.984 billion, up 10% year over year on a non-IFRS basis (up 14% at cc).

However, software licenses & support revenues of €3.559 billion plunged 7% year over year (down 4% at cc). Software licenses revenues of €714 million were down 23% (down 19% at cc) year over year.

Cloud revenues — related to Software as a Service (SaaS)/Platform as a Service (PaaS) — climbed 13% at cc to €1.852 billion. Cloud revenues — related to Infrastructure as a Service (IaaS) — rallied 24% year over year at cc to €217 million.

Services business (15.2% of total revenues) reported revenues of €992 million, down 15% from the year-ago quarter (down 11% at cc).

SAP provides collaborative commerce capabilities (Ariba), flexible workforce management (Fieldglass), and effortless travel and expense processing (Concur) under its Intelligent Spend Platform. Approximately $4.1 trillion in global commerce is transacted annually through this platform across more than 180 countries.

The company has four reportable segments — Applications, Technology & Support (AT&S), Concur, Qualtrics and Services.

Notably, AT&S revenues declined 2% (up 2% at cc) to €5.172 billion. Concur revenues fell 14% (down 10% at cc) to €357 million. Revenues were impacted by lower pay-as-you-go transactional revenues due to coronavirus crisis led reduction in business travel.

Qualtrics segment revenues surged 22% (up 28% at cc) to €169 million. Revenues in the Services segment declined 16% (down 13% at cc) to €753 million on a year-over-year basis.

Expanding Clientele Remains Noteworthy

S/4HANA adoption rallied 20% year over year to around 15,100 customers. In the reported quarter, net new customers comprised 45% of additional S/4HANA customers.

S/4HANA clientele continues to expand with the addition of Naturgy, Lenovo, Æon, and Shanghai Land (Group) Co, among others.

Notably, an increasing number of companies have begun deploying S/4HANA solution in part or entirely in the cloud. Markedly, companies such as Rabobank, Iugu and Basic-Fit selected SAP S/4HANA Cloud. Moreover, Korea Gas Corporation and Sharks Sports & Entertainment are live on SAP S/4HANA Cloud.

Schwarz Produktion adopted SAP Digital Supply Chain solutions in a bid to boost business with highly automated capabilities.

SAP SuccessFactors HXM solutions ended the reported quarter with more than 775 customers. Notable deal wins in the reported quarter include Kmart Australia, Rappi, Bahrain Airport Services, Garney Holding Company, and Catholic Education Diocese of Parramatta.

SAP Customer Experience (CX) solutions were selected by Jiangsu Xingda Steel Tyre Cord Co, Swisscom AG, Barilla, Saudi Ports Authority and Renault Brazil, in the reported quarter, while Konica Energizer Brands and Minolta Business Solutions went live.

SAP's business technology platform comprises SAP HANA, SAP Data Warehouse Cloud, SAP Cloud Platform, SAP Analytics Cloud, SAP Intelligent Robotic Process Automation and SAP Data Intelligence solutions. In the reported quarter, SAP's business technology platform and analytics cloud solutions were adopted by Hewlett Packard Enterprise (HPE), Alpina Productos Alimenticios S.A, Uniper, and the City of Munich.

Additionally, Rumo Logistica, Petrobras, Siemens Gamesa, VELUX Group, and Britvic Soft Drinks Ltd, opted for the company's Ariba solutions in the reported quarter. SAP's Fieldglass solutions were adopted by Algar Telecom in the third quarter.

Further, Concur was adopted by Uber Technologies (UBER), Bridgestone, Keio University and Sysmex Europe, while Qualtrics solutions were

Quarter Ending	09/2020
Report Date	Oct 25, 2020
Sales Surprise	-5.10%
EPS Surprise	28.57%
Quarterly EPS	1.98
Annual EPS (TTM)	6.23

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

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selected by Lululemon Athletica (LULU), Transamerica Life Insurance Company, Yamaha Motor Corporation, Telefónica Mexico, Standard Chartered Bank, among others, in the reported quarter.

EMEA Witnesses Robust Cloud Growth

Europe, Middle East & Africa (EMEA) Cloud revenues improved 24% at cc to €670 million. Cloud & software revenues increased 3% at cc to €2.492 billion. The top line was driven by strong cloud revenues in the Netherlands, Germany, and Switzerland. Moreover, SAP witnessed robust software license revenue growth in Russia, Switzerland and Spain.

Asia Pacific & Japan (APJ) Cloud revenues jumped 19% at cc to €260 million. Cloud & software were up 4% at cc to €919 million. Management noted solid cloud revenues contribution from particularly, Japan, Singapore and South Korea. Notably, Japan, India and Australia delivered strong performance in software licenses revenues in the third quarter.

Americas' Cloud revenues improved 9% at cc to €1.139 billion. Cloud & software revenues of €2.36 billion were flat at cc. Brazil, Mexico and Canada delivered strong performance in cloud revenues in the third quarter. Further, solid adoption of software license solutions across Brazil, Mexico and Canada drove growth.

Margin Details

Non-IFRS gross margin of 73.7% expanded 140 basis points (bps) from the year-ago quarter's figure.

SAP reported a non-IFRS operating expense of €4.47 billion, down 5% from the year-ago quarter's level (down 2% at cc).

Non-IFRS operating profit of €2.069 billion declined 1% on a year-over-year basis (up 4% at cc).

Non-IFRS operating margin of 31.7% expanded 110 bps on a year-over-year basis. At cc, the figure came in at 31.9%, expanding 130 bps.

Balance Sheet & Cash Flow

As of Sep 30, 2020, SAP had cash and cash equivalents of €7.434 billion compared with €6.205 billion as of Jun 30, 2020.

The company generated €1.321 billion of operating cash in the reported quarter compared with €788 million in the second quarter.

Free cash flow came in at €1.052 billion compared with previous quarter's €540 million.

2020 Outlook

The company updated 2020 guidance with regard to lingering coronavirus woes.

For 2020, SAP now anticipates non-IFRS cloud revenues in the range of €8-€8.2 billion, compared with earlier guided range of €8.3-€8.7 billion.

Markedly, SAP had reaffirmed full-year 2020 outlook, on Apr 8, 2020, in anticipation that reopening of economies and easing down of lockdowns would fuel business recovery in third and fourth quarters.

However, despite robust uptake of its digital transformation solutions, the fear of second wave and re-imposition of lockdowns in some regions, and macroeconomic weakness have muted demand recovery. Adjusting for the same, the company was compelled to issue guidance update.

Citing the above, management does not anticipate "a meaningful recovery in SAP Concur business travel-related revenues for the remainder of the year 2020." Also, management expects software licenses revenues to "continue to trend lower from 2020 levels" on account of accelerated cloud transition.

Non-IFRS cloud and software revenues are now anticipated between €23.1 billion and €23.6 billion, compared with the previously guided range of €23.4 billion to €24 billion.

Non-IFRS total revenues are now projected in the range of €27.2-€27.8 billion, compared with earlier guided range of €27.8-€28.5 billion.

Notably, the company now anticipates non-IFRS operating profit between €8.1 billion and €8.5 billion compared with earlier guided range of €8.1-€8.7 billion.

Operating cash flow is now expected to be approximately €6 billion, compared with prior expected figure of above €5 billion. Free cash flow is anticipated to be above €4.5 billion, which was previously envisioned at approximately €4 billion.

Recent News

On Oct 22, SAP expanded its industry-specific cloud solutions portfolio with platforms for three new industries: professional services, retail, and industrial machinery and components (or IM&C).

On Oct 14, SAP unveiled SAP Customer Data Platform to enable organizations boost customer experience across the spectrum.

On Oct 14, SAP announced that IDP Education deployed SAP Ariba and SAP Concur solutions to boost operational efficiency and lower costs.

On Oct 6, SAP announced that its SuccessFactors Employee Central solutions, which are part of human experience management (HXM) solutions now boasts of more than 4,000 customers.

On Oct 6, SAP announced that TAFE NSW deployed SAP Ariba solutions to modernize and upgrade its procurement process.

On Oct 1, SAP announced the acquisition of Emarsys to augment its offerings under the SAP Customer Experience (CX) portfolio. The acquisition, subject to customary and regulatory approval, is projected to conclude in the fourth quarter of 2020.

On Sep 24, SAP announced that Terumo Americas Holding, an affiliate of Terumo Corp deployed SAP S/4HANA, SAP Ariba and other SAP solutions to accelerate digital transformation. Terumo Corp is a manufacturer of medical devices and is based in Japan.

On Sep 1, SAP announced that Europe-based wind power operator, ERG has deployed SAP Ariba solutions in a bid to digitalize and unify procurement operations.

Valuation

Shares of SAP are down 14.5% in the year-to-date period and 13% over the trailing 12-month period. Stocks in the Zacks sub-industry and the Zacks Computer & Technology sector are up 29.6% and 25.4% in the year-to-date period, respectively. Over the past year, the Zacks sub-industry and sector are up 39.3% and 35.3%, respectively.

The S&P 500 index is up 5.2% in the year-to-date period and 11.8% in the past year.

The stock is currently trading at 22.71X forward 12-month earnings compared with 32X for the Zacks sub-industry, 26.61X for the Zacks sector and 21.75X for the S&P 500 index.

Over the past five years, the stock has traded as high as 30.67X and as low as 17.38X, with a five-year median of 24.1X. Our Neutral recommendation indicates that the stock will perform in line with the market. Our $116 price target reflects 23.01X forward 12-month earnings.

The table below shows summary valuation data for SAP

Valuation Multiples - SAP		Stock	Sub-Industry	Sector	S&P 500
P/E F12M	Current	22.71	32	26.61	21.75
	5-Year High	30.67	35.41	28	23.47
	5-Year Low	17.38	19.26	16.95	15.27
	5-Year Median	24.1	25.54	19.95	17.68
P/S F12M	Current	5.15	7.46	4.18	4.03
	5-Year High	6.13	8.23	4.48	4.31
	5-Year Low	3.4	4.26	2.77	3.18
	5-Year Median	4.56	5.85	3.44	3.67
EV/Sales TTM	Current	5.99	8.49	4.93	3.88
	5-Year High	6.73	9.44	5.22	4.14
	5-Year Low	3.91	3.66	2.85	2.61
	5-Year Median	4.89	5.89	3.83	3.56

As of 10/27/2020   *Source: Zacks Investment Research*

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Industry Analysis Zacks Industry Rank: Top 44% (112 out of 254)

Source: Zacks Investment Research

Top Peers

Company (Ticker)	Rec	Rank
Adobe Systems Incorporated (**ADBE**)	Neutral	3
salesforce.com, inc. (**CRM**)	Neutral	3
International Business Machines Corporation (**IBM**)	Neutral	4
Microsoft Corporation (**MSFT**)	Neutral	2
Oracle Corporation (**ORCL**)	Neutral	2
SVMK Inc. (**SVMK**)	Neutral	3
VMware, Inc. (**VMW**)	Neutral	3
Workday, Inc. (**WDAY**)	Neutral	3

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

Industry Comparison Industry: Computer - Software / Industry Peers

	SAP	X Industry	S&P 500	CRM	MSFT	ORCL
Zacks Recommendation (Long Term)	Neutral	-	-	Neutral	Neutral	Neutral
Zacks Rank (Short Term)	3	-	-	3	2	2
VGM Score	C	-	-	C	C	C
Market Cap	136.67 B	1.72 B	23.55 B	227.77 B	1,612.77 B	171.86 B
# of Analysts	6	4	13	14	14	12
Dividend Yield	1.09%	0.00%	1.68%	0.00%	0.96%	1.68%
Value Score	C	-	-	D	D	B
Cash/Price	0.05	0.08	0.07	0.04	0.08	0.23
EV/EBITDA	18.25	18.85	13.09	59.50	22.45	11.59
PEG F1	1.88	2.53	2.67	4.27	2.68	1.51
P/B	4.27	6.02	3.35	5.93	13.64	16.95
P/CF	19.81	22.94	12.78	57.22	28.27	12.20
P/E F1	19.05	33.17	20.70	66.87	33.51	13.57
P/S TTM	4.39	4.38	2.55	11.75	10.96	4.38
Earnings Yield	5.25%	2.98%	4.54%	1.49%	2.98%	7.36%
Debt/Equity	0.50	0.13	0.70	0.07	0.50	6.68
Cash Flow ($/share)	5.78	1.26	6.92	4.37	7.54	4.68
Growth Score	D	-	-	C	B	D
Historical EPS Growth (3-5 Years)	8.37%	10.02%	10.10%	97.45%	19.44%	10.02%
Projected EPS Growth (F1/F0)	5.13%	11.66%	-1.78%	25.18%	10.48%	9.22%
Current Cash Flow Growth	-1.75%	0.87%	5.49%	36.39%	17.66%	-2.42%
Historical Cash Flow Growth (3-5 Years)	3.01%	8.51%	8.50%	40.05%	10.19%	-0.39%
Current Ratio	1.05	1.56	1.37	1.15	2.52	2.66
Debt/Capital	33.28%	23.10%	42.02%	6.50%	33.49%	86.99%
Net Margin	17.59%	6.57%	10.41%	12.21%	32.28%	26.13%
Return on Equity	17.50%	10.54%	14.92%	3.99%	41.55%	85.71%
Sales/Assets	0.46	0.59	0.50	0.36	0.51	0.37
Projected Sales Growth (F1/F0)	5.81%	1.96%	-0.46%	21.48%	8.60%	1.96%
Momentum Score	A	-	-	B	D	B
Daily Price Change	-0.45%	0.00%	-1.23%	3.44%	1.51%	-0.71%
1-Week Price Change	-3.51%	-1.10%	0.01%	-3.11%	-1.56%	-0.65%
4-Week Price Change	-26.87%	0.00%	1.76%	1.15%	2.89%	-4.02%
12-Week Price Change	-28.55%	-0.37%	1.86%	24.27%	-0.02%	1.93%
52-Week Price Change	-13.09%	13.21%	-0.11%	61.39%	49.30%	4.16%
20-Day Average Volume (Shares)	1,401,772	85,547	1,803,058	4,286,944	27,294,758	9,035,919
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%	0.28%	0.00%	-0.42%	0.53%
EPS F1 Estimate 12-Week Change	0.00%	2.22%	3.06%	69.41%	-0.35%	4.80%
EPS Q1 Estimate Monthly Change	0.00%	0.00%	0.12%	0.00%	0.05%	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.

Value Score	C
Growth Score	D
Momentum Score	A
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.

Disclosures

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

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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 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 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.

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

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

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

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

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

Periods:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

P/TB Ratio: The price-to-tangible-book value ratio is calculated as a the per share market value of a company divided by the value of its tangible assets (total assets – liabilities – preferred stocks – intangible assets) per share. Tangible book value is the same thing as book value except it excludes the value of intangible assets to get a step closer to the baseline value of the company.

P/CF Ratio: The price-to-cash flow ratio measures a company's per share market price relative to its trailing-12-month (TTM) operating cash flow per share. This metric is used to determine whether a company is undervalued or overvalued relative to another stock, industry or sector. And like the P/E ratio, a lower number is typically considered better from the value perspective.

One of the reasons why P/CF ratio is often preferred over P/E ratio is the fact that operating cash flow adds back non-cash expenses such as depreciation and amortization to net income. This feature helps valuing stocks that have positive cash flow but are not profitable because of large noncash charges.

P/FCF Ratio: The price-to-free cash flow ratio is an extension of P/CF ratio, which uses trailing-12-month (TTM) free cash flow per share instead of operating cash flow per share. This metric is considered a more exact measure than P/CF ratio, as free cash flow subtracts capital expenditures (CAPEX) from a company's total operating cash flow, thereby reflecting the actual cash flow available for funding activities that generate additional revenues.

Earnings Yield: The earnings yield is calculated as current fiscal year (F1) EPS estimate divided by the company's current share price. The ratio, which is the inverse of the P/E ratio, measures the anticipated yield (or return) from earnings for each dollar invested in a stock today.

For example, earnings yield for a stock, which is trading at $35 and expected to earn $3 per share in the current fiscal year (F1), would be 0.0857 (3/35 = 0.0857) or 8.57%. In other words, for $1 invested in the stock today, the yield from earnings is anticipated to be 8.57 cents.

Investors most commonly compare the earnings yield of a stock to that of a broad market index (such as the S&P 500) and prevailing interest rates, such as the current 10-year Treasury yield. Since bonds and stocks compete for investors' dollars, stock investors typically demand a higher yield for the extra risk they assume compared to investors of U.S. Treasury-backed securities that offer virtually risk-free returns. This additional return is referred to as the risk premium.

Debt/Equity Ratio: The debt-to-equity ratio is calculated as a company's total liabilities divided by its shareholder equity. This metric is used to gauge a company's financial leverage. In other words, it is a measure of the degree to which a company is financing its operations through debt versus its own funds. The higher the ratio, the higher the risk for shareholders.

However, this ratio is difficult to compare across industry groups where ideal amounts of debt vary. Some businesses are more capital intensive than others and typically require higher debt to finance their operations. So, a company's debt-to-equity ratio should be compared with other companies in the same industry.

Cash Flow ($/share): Cash flow per share is calculated as operating cash flow (after-tax earnings + depreciation + other non-cash charges) divided by common shares outstanding. It is used by many investors as a measure of a company's financial strength. Since cash flow per share takes into consideration a company's ability to generate cash by adding back non-cash expenses, it is regarded by some as a more accurate measure of a company's financial situation than earnings per share, which could be artificially deflated.

Current Ratio: The current ratio or liquidity ratio is a company's current assets divided by its current liabilities. It measures a company's ability to pay short-term obligations. A current ratio that is in line with the industry average or slightly higher is generally considered acceptable. A current ratio that is lower than the industry average would indicate a higher risk of distress or default. A higher number is usually better. However, a very high current ratio compared to the industry average could be an indication of inefficient use of assets by management.

Debt/Capital Ratio: Debt-to-capital ratio is a company's total debt (interest-bearing debt + both short- and long-term liabilities) divided its total capital (interest-bearing debt + shareholders' equity). It is a measure of a company's financial leverage. All else being equal, the higher the debt-to-capital ratio, the riskier the stock.

However, this ratio can vary widely from industry to industry, the ideal amount of required debt being different. Some businesses are more capital intensive than others and typically require higher debt to finance their operations. So, a company's debt-to-capital ratio should be compared with the same for its industry.

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Net Margin: Net margin is calculated as net income divided by sales. It shows how much of each dollar in sales generated by a company translates into profit. For example, if a company's net margin is 15%, its net income is 15 cents for every $1 of sales it makes.

A change in margin can reflect either a change in business conditions, or a company's cost controls, or both. If a company's expenses are growing faster than sales, its net margin will decline. However, different net margin rates are considered good for different industries, so it's better to compare net margin rates of companies in the same industry group.

Return on Equity: Return on equity (ROE) is calculated as trailing-12-month net income divided by trailing-12-month average shareholder equity (including reinvested earnings). This metric is considered a measure of how effectively management is using a company's assets to generate profits. For example, if a company's ROE is 10%, it creates 10 cents profits for every $1 shareholder equity, which is basically the company's assets minus debt. A company's ROE deemed good or bad depends on what's normal for its peers or industry group.

Sales/Assets Ratio: The sales-to-assets ratio or asset utilization ratio or asset turnover ratio is calculated as a company's annual sales divided by average assets (average of assets at the beginning of the year and at the year's end). This metric helps investors understand how effectively a company is using its assets to generate sales. For example, a sales-to-assets ratio of 2.5 indicates that the company generated $2.50 in sales for every $1 of assets on its books.

The higher the sales-to-assets ratio, the better the company is performing. However, similar to many other ratios, the asset turnover ratio tends to be higher for companies in certain industries/sectors than in others. So, a company's sales-to-assets ratio should be compared with the same for its industry/sector.

Historical EPS Growth (3-5 Years): This is the average annual (trailing-12-month) EPS growth rate over the last 3-5 years. This metric helps investors see how a company's EPS has grown from a long-term perspective.

Note: There are many factors that can influence short-term numbers — a recession will reduce this number, while a recovery will inflate it. The longterm perspective helps smooth out short-term events.

Projected EPS Growth (F1/F0): This is the estimated EPS growth rate for the current financial year. It is calculated as the consensus estimate for the current fiscal year (F1) divided by the reported EPS for the last completed fiscal year (F0).

Current Cash Flow Growth: It measures the latest year-over-year change in operating cash flow. Cash flow growth tells an investor how quickly a company is generating inflows of cash from operations. A positive change in the cash flow is desired and shows that more 'cash' is coming in than going out.

Historical Cash Flow Growth (3-5 Years): This is the annualized change in cash flow over the last 3-5 years. The change in a longer period helps put the current reading into proper perspective. By looking at the rate, rather than the actual dollar value, the comparison across the industry and peers becomes easier.

Projected Sales Growth (F1/F0): This metric looks at the estimated sales growth for the current year. It is calculated as sales estimate for the current fiscal year (F1) divided by the reported sales for the last completed fiscal year (F0).

Like EPS growth, a higher rate is better for sales growth. A look at a company's projected sales growth instantly tells you what the outlook is for their products and services. However, different sales growth rates are considered good for different industries, so it's better to compare sales growth rates of companies in the same industry group.

EPS F1 Estimate 1-Week Change: The percentage change in the Zacks Consensus EPS estimate for the current fiscal year over the past week. The change in a company's consensus EPS estimate (or earnings estimate revision) has proven to be strongly correlated with the near-term price movement of its shares. It is an integral part of the Zacks Rank.

If a stock's consensus EPS estimate is $1.10 now versus $1.00 a week ago, that will be reflected as a 10% upward revision. If, on the other hand, it went from $1.00 to 90 cents, that would be a 10% downward revision.

EPS F1 Estimate 4-Week Change: The percentage change in the Zacks Consensus EPS estimate for the current fiscal year over the past four weeks.

A stock's earnings estimate revision in a 1-week period is important. But it's more meaningful to look at the longer-term revision. And, of course, the 4-week change helps put the 1-week change into proper perspective.

EPS F1 Estimate 12-Week Change: The percentage change in the Zacks Consensus EPS estimate for the current fiscal year over the past 12 weeks.

This metric essentially shows how the consensus EPS estimate has changed over a period longer than 1 week or 4 weeks.

EPS Q1 Estimate Monthly Change: The percentage change in the Zacks Consensus EPS estimate for the current fiscal quarter over the past four weeks.

While the revision in consensus EPS estimate for the current fiscal year is strongly correlated with the near-term price movement of its shares, the estimate revision for the current fiscal quarter is an important metric as well, especially over the short term, and particularly as a stock approaches its earnings date. If a stock's Q1 EPS estimate decreases ahead of its earnings release, it's usually a negative sign, whereas an increase is a positive sign.

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