

Facebook, Inc. (FB)

\$185.13 (As of 04/23/20)

Price Target (6-12 Months): **\$194.00**

Long Term: 6-12 Months

Zacks Recommendation:
Neutral

(Since: 04/04/19)

Prior Recommendation: Underperform

Short Term: 1-3 Months

Zacks Rank: (1-5)

3-Hold

Zacks Style Scores:

VGM:C

Value: D

Growth: B

Momentum: F

Summary

Facebook is benefiting from growth in Instagram Stories and Feed, and expanding user base in Asia Pacific. The launch of Facebook View app, Facebook Pay, a simpler and faster Messenger for iOS app and more location control feature for Android users is a positive. Shares have outperformed the industry in the past year. However, Facebook expects ad-sales to be hurt by the coronavirus lockdowns despite a significant spike in traffic. Moreover, increasing limitations in tracking user activity amid the growing privacy-related regulations and changes made in the mobile operating systems and browser platforms by Apple and Google as well as tools like the Off Facebook Activity controls are expected to affect top-line growth. Moreover, a persistent mix shift toward Stories is anticipated to weigh on ARPU.

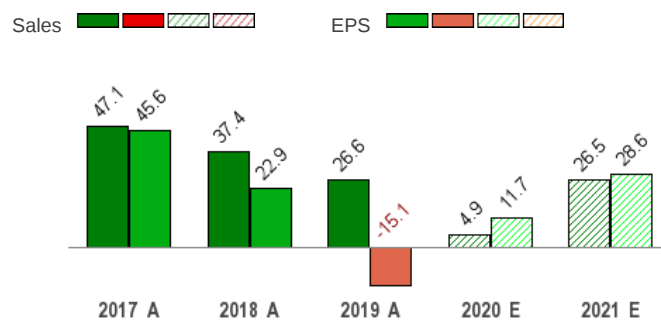
Price, Consensus & Surprise



Data Overview

52 Week High-Low	\$224.20 - \$137.10
20 Day Average Volume (sh)	22,031,400
Market Cap	\$527.7 B
YTD Price Change	-9.8%
Beta	1.06
Dividend / Div Yld	\$0.00 / 0.0%
Industry	Internet - Services
Zacks Industry Rank	Top 16% (40 out of 253)

Sales and EPS Growth Rates (Y/Y %)



Last EPS Surprise	1.6%
Last Sales Surprise	0.9%
EPS F1 Est- 4 week change	-19.0%
Expected Report Date	04/29/2020
Earnings ESP	-0.4%
P/E TTM	28.8
P/E F1	25.8
PEG F1	1.3
P/S TTM	7.5

Sales Estimates (millions of \$)

	Q1	Q2	Q3	Q4	Annual*
2021	21,024 E	23,170 E	23,871 E	27,722 E	93,829 E
2020	17,293 E	16,498 E	18,155 E	23,001 E	74,182 E
2019	15,077 A	16,886 A	17,652 A	21,082 A	70,697 A

EPS Estimates

	Q1	Q2	Q3	Q4	Annual*
2021	\$2.02 E	\$2.04 E	\$2.27 E	\$3.07 E	\$9.23 E
2020	\$1.72 E	\$1.45 E	\$1.72 E	\$2.43 E	\$7.18 E
2019	\$0.85 A	\$0.91 A	\$2.12 A	\$2.56 A	\$6.43 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 04/23/2020. The reports text is as of 04/24/2020.

Overview

Facebook Inc. is the world's largest social media platform. The company's portfolio offering evolved from a single Facebook app to multiple apps like photo and video sharing app Instagram and WhatsApp messaging app owing to acquisitions. Along with in-house developed Messenger, these apps now form Facebook's family of products used by 2.89 billion people on a monthly basis as of Dec 31, 2019.

Facebook uses metrics like daily active users (DAUs) and monthly active users (MAUs) to measure its user base. As of Dec 31, 2019, DAUs and MAUs were 1.66 billion and 2.50 billion, respectively. Newly introduced metric, which is the family daily active people (DAP) that measures daily users of its family of products, was 2.26 billion.

Headquartered in Menlo Park, CA, Facebook generated revenues worth \$70.70 billion in 2019. Advertisement accounted for 98.5% of revenues. Marketers buy ads that can appear on multiple platforms including Facebook, Instagram, Messenger and third-party applications and websites.

Facebook, thanks to its huge user base gained a significant market share in the advertising space wherein it faces tough competition from Google, Twitter, Amazon and Snapchat-parent Snap.

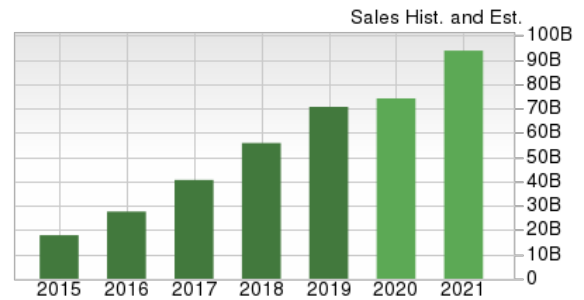
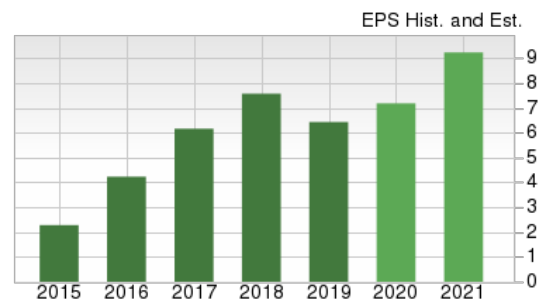
Facebook also faces significant competition from the likes of Apple (messaging), YouTube (advertising and video), Bytedance (social media) and Tencent (messaging and social media).

Facebook core app enables people to connect, share, discover and communicate with one other on mobile devices and personal computers. User engagement on core Facebook platform is fostered by News Feed that displays an algorithmically-ranked series of stories and advertisements customized for each user.

Instagram is a community for sharing photos, videos and messages, enabling people to discover interests that they care about. People can express themselves through photos, videos and private messaging via Instagram Feed and Stories.

Messenger helps people to connect with friends, family, groups and businesses across platforms and devices. WhatsApp is a simple, reliable and secure messaging application, used by people and businesses around the world to communicate in a private way.

Facebook also offers virtual reality (VR) products through its Oculus division.



Reasons To Buy:

- ▲ Facebook has witnessed significant traction in online and mobile advertising spending. Mobile ad revenues are growing rapidly primarily due to the fact that mobile ads have far more ad recall value than other mediums. Since marketers are moving to mobile to target customers, Facebook is enthusiastically monetizing this shift.
- ▲ Facebook intends to capture the opportunity presented by ever-increasing video viewing on social media platforms. Online video is the most lucrative component of digital advertising. As video ads generate more revenues than its photo and text based substitutes, Facebook is trying to incorporate more and more video-oriented content to bring in more ad dollars. The company launched Watch, a dedicated tab for video viewing, to achieve its goal.
- ▲ Instagram has emerged as an important cash cow for Facebook after introducing its ad platform to worldwide advertisers. To attract more advertisers (over 3 million and counting), Facebook has unveiled tools to promote posts and evaluate business performance directly on Instagram. Moreover, the Facebook is also looking for ways to monetize Instagram Stories, and adding the Checkout feature to the platform is a step toward that direction. The feature allows Instagram users to browse and purchase products from 23 top brands in the United States, all within Facebook's app. Further, solid adoption of the Explore tab, which is used by more than 50% of Instagram users every month, increases the platform's monetization opportunities. Recently, the company started placing ads on the Explore tab that is expected to drive the top line.
- ▲ Messenger and WhatsApp are the other extremely prized possessions. Facebook is aggressively working on monetizing the opportunities presented by its subsidiaries. The company is pretty excited as it opened the Messenger app, which has more than 1 billion users, to developers for creating chatbots that would enable businesses to extend customer service and other transactions. Facebook is rewriting the app from scratch to make it the fastest and most secure major messaging platform in the world. It is also working to bring end-to-end encryption and ephemerality to boost user experience.
- ▲ Ephemerality and end-to-end encryption are also driving popularity of WhatsApp. Per the company, WhatsApp Status is the most popular ephemeral Stories product in the world. Facebook continues to promote WhatsApp business as a private way of interaction between businesses and customers. Rapid adoption of WhatsApp Business by small and mid-sized businesses is noteworthy. The company is building new tools like product catalogs that entrepreneurs can use for free to attract prospective customers. Moreover, increased communication enhances chances of Facebook penetrating the lucrative payments market. The company continues to test the payments feature on WhatsApp in India and intend to launch the same in other countries soon.
- ▲ Oculus will fuel the company's ambitious AR/VR efforts. At its Oculus Developer conference held in October last year, Facebook announced another \$250 million investment to develop VR content ecosystem. Earlier this year, it had launched its VR headset, Rift. In the second quarter, the company launched Oculus Quest, its first all-in-one headset with no wires and full freedom of movement. AI and AR/VR technology are fast emerging as lucrative business opportunities. Plus, Facebook said it will be spending over \$3 billion in the next 10 years on VR.
- ▲ Facebook is considered to have pioneered the concept of social networking, which is why it enjoys a first mover's advantage in this market. However, as developed regions mature, Facebook has taken measures to drive penetration in emerging markets of South East Asia, Latin America and Africa. Of all places, India deserves special mention in terms of user growth. The world's second largest populated country offers tremendous potential for the company. With China off the radar, India can prove to be a terrific growth engine for Facebook. This is primarily due to a burgeoning well-educated middle class, increasing spending power and rapid adoption of smartphones in the country.
- ▲ Facebook has a strong balance sheet and generates significant cash flow, which makes it an attractive stock for investors. The company has cash and cash equivalents of \$54.86 billion at the end of fourth-quarter 2019. Free cash flow amounted to \$4.84 billion. The company continues to invest in developing its platform and products. We believe that its ability to generate strong cash flows will help it to make further investments in product development and acquisitions in the future.

Facebook benefits from increasing mobile ad revenues, growing adoption of Stories by advertisers across Instagram, core Facebook app and Messenger, and initiatives to improve security.

Reasons To Sell:

- ▼ Facebook maintains a cautious stance on revenue growth. The company's focus on Stories, which generates lower revenues than News Feed, is expected to hurt top-line growth, at least in the near term. Moreover, as the company continues to ramp up investments on products (Video, AR/VR and AI) as well as security, costs are already on the rise. Facebook is already on a hiring spree, especially engineers and people involved in maintaining safety and security. This is expected to hurt profitability.
- ▼ Facebook currently faces stiff competition from other big and small social media players. Although the company has started distributing ads on other websites, we believe that Google continues to have a significant competitive edge, owing to its scale and diversified product offerings. YouTube, Snapchat and Pinterest offer tough competition as far as user growth is concerned. Moreover, Amazon's ad business is growing rapidly. Intensifying competition for ad dollar is a major concern for the company.
- ▼ As Facebook hosts a huge amount of personal data, it has been under constant scrutiny from privacy groups and federal agencies. This huge database is its primary asset for attracting advertisers. As a result, the company has been criticized for allegedly selling personal data to advertisers in order to boost its top line. Facebook also finds itself increasingly at loggerheads with authorities across different countries like Israel, who accuse the social media giant of repeatedly failing to co-operate with them on extremely sensitive matters. Moreover, CEO Mark Zuckerberg was summoned by the Congress to testify the post the data scandal involving data analytics firm Cambridge Analytica, which gained inappropriate access data of more than 87 million Facebook users. The data fiasco sparked broader concerns about data privacy and security which led to increased scrutiny over data security and a relatively heavy regulatory pressure from all corners.
- ▼ Moreover, Facebook is facing increased legal woes. Although it successfully settled the FTC inquiry, it now has to pay a penalty of \$5 billion. Notably, the company is being investigated by International Trade Commission (ITC) for violation of antitrust principles. Moreover, it is also facing antitrust investigation from FTC. Additionally, Facebook's attempts to successfully self-regulate itself were also put under the scanner by Bits of Freedom, a Dutch digital rights organization, which claimed that it has failed to prevent political meddling. Furthermore, the company received significant backlash post the announcement of blockchain-based cryptocurrency, Libra, on Jun 18. These are major concerns for the company, at least in the near term.
- ▼ Although Facebook has significant growth opportunities in the emerging countries of South-East Asia and Africa, low internet penetration in these regions may negatively affect its expansion. Further, while the company can be accessed from Hong Kong, its usage has been restricted in mainland China due to excessive government regulations and censorship. This limits its growth opportunities in the Asian region (Facebook's fastest growing user base in terms of geography). The company is experiencing better growth in international markets than in the U.S. However, average revenue per user (ARPU) is significantly low in these regions compared with the U.S.
- ▼ Facebook will likely be impacted because of the uncertainties relating to Brexit, given the fact that it will have to re-define everything from tax to data flow and privacy regulations for its operation in the U.K. Moreover, the company has its EU headquarters in Ireland, through which, it was getting certain tax benefits. Now due to Brexit, Facebook will have to chalk out a way to avoid paying higher taxes. It might also result in it having to relocate its headquarters (and some other facilities as well) in order to continue getting the benefits of the EU bloc.

Stiff competition for ad dollars, a plethora of controversies over the company's treatment of user data and increasing regulations related to user privacy are key concerns.

Last Earnings Report

Facebook Q4 Results Benefit From Solid User Growth

Facebook reported fourth-quarter 2019 earnings of \$2.56 per share that beat the Zacks Consensus Estimate by 1.6% and increased 7.3% year over year.

Revenues of \$21.08 billion comfortably surpassed the Zacks Consensus Estimate by 0.9% and rose 24.6% year over year. At constant currency (cc), revenues rallied 26%.

Monthly active users (MAUs) were 2.498 billion, up 7.7% year over year. Daily Active Users (DAUs) were 1.657 billion, on average, increasing 8.8% year over year and representing 66% of MAUs.

Family Daily Active People (DAP), defined as a registered and logged-in user who visited at least one of the Family products (Facebook, Instagram, Messenger, and/or WhatsApp) on a given day, was 2.26 billion compared with 2.03 billion in the year-ago quarter.

Family Monthly Active People (MAP) was 2.89 billion compared with 2.64 billion in the year-ago quarter.

User Base Expands in Q4

Asia-Pacific DAUs increased 11.1% year over year to 641 million, driven by growth in India, Indonesia and the Philippines.

DAUs in the Rest of the World (RoW), Europe and the United States & Canada grew 11.3%, 4.3% and 2.2% to 532 million, 294 million and 190 million, respectively.

MAUs in Asia-Pacific, RoW, Europe and the United States & Canada grew 9.6%, 8.9%, 3.4% and 2.5% to 1.04 billion, 817 million, 394 million and 248 million, respectively.

Additionally, Facebook estimates that more than 140 million businesses, mostly small businesses, are using its services on a monthly basis.

Revenue Details

Geographically, the Asia-Pacific was the strongest region, with revenue year-over-year growth of 32.8%, followed by RoW's 27.9%, Europe's 24.3% and the United States & Canada's 21.5%.

Advertising revenues rose 32.8% year over year (32% at cc) to \$20.74 billion. Asia-Pacific and RoW were the strongest regions, increasing 32.8% and 27.9%, respectively. Advertising revenues in the United States & Canada and Europe grew 21.5% and 24.1%, respectively.

Ad impressions served rose 31%, driven by ads on Instagram Stories and Feed, and Facebook News Feed.

Facebook witnessed strong non-video feed engagement in the United States and Canada on the core Facebook app. In other regions, management saw good strength in video.

Additionally, management stated that more than 50% of accounts on Instagram are using Explore every month. Notably, beginning the third quarter, ads were available to 100% of advertisers.

However, average price per ad decreased 5% from the year-ago quarter due to an unfavorable mix shift toward Stories ads and geographies, where the monetization rate is low.

Average Revenue per User (ARPU) growth was strongest in the Asia-Pacific, increasing 20.6% year over year, followed by Europe's 20.3%. ARPU in the United States & Canada and RoW grew 18.8% and 17.5%, respectively. Worldwide ARPU rose 15.6% to \$8.52.

Payments and other fees improved 26.3% year over year to \$346 million. The growth was primarily driven by higher sales of Oculus Quest.

Operating Details

In the reported quarter, costs and expenses soared 35.3% year over year to \$12.22 billion.

Marketing & sales expenses grew 22.7% from the year-ago quarter to \$3.03 billion. General & administrative expenses surged 87.4% year over year to \$1.83 billion. Also, research & development expenses rose 38.7% to \$3.88 billion.

The significant growth in general & administrative expenses was primarily due to the charges related to a \$550-million settlement Facebook reached this month in connection with the Illinois Biometric Information Privacy Act litigation.

Notably, Facebook's employee base was 45K at the end of the fourth quarter. The company currently has more than 1,000 engineers working on privacy-related projects.

Operating income of \$8.86 billion grew 13.3% year over year. Operating margin contracted 420 basis points (bps) on a year-over-year basis to 42%.

Balance Sheet & Cash Flow

As of Dec 31, 2019, cash & cash equivalents and marketable securities were \$54.86 billion compared with \$52.27 billion as of Sep 30, 2019.

Quarter Ending 12/2019

Report Date	Jan 29, 2020
Sales Surprise	0.91%
EPS Surprise	1.59%
Quarterly EPS	2.56
Annual EPS (TTM)	6.44

Capital expenditures were \$4.24 billion, driven by ongoing investments in data centers, servers, network infrastructure and office facilities.

In 2019, the company opened data centers in Nebraska, New Mexico and Denmark supported by 100% renewable energy.

Free cash flow was \$4.84 billion compared with \$5.63 billion in the previous quarter.

Facebook bought back shares worth almost \$1.3 billion in the reported quarter. The company also announced a \$10-billion increase in its stock repurchase authorization program.

Guidance

Facebook expects the first-quarter revenue growth rate to decline a low-to-mid-single-digit percentage on a sequential basis due to ad targeting related headwinds, a maturing business and increasing impact from global privacy regulations.

The company stated that it is facing difficulties to utilize signals from user activity on third-party websites and services due to regulatory initiatives like GDPR and CCPA.

Additionally, changes made by Apple and Alphabet's Google in their products (mobile operating systems and browser platforms) are limiting Facebook's ability to track the user activity trend.

Further, the company's own initiatives like the Off Facebook Activity controls have become a headwind.

Moreover, 2020 total expenses are expected between \$54 billion and \$59 billion. The company plans to continue spending over infrastructure, research & development and AR/VR initiatives.

Capital expenditures are expected to be \$17-\$19 billion due to investments in data centers, servers, office facilities and network infrastructure.

Facebook remains on track to achieve its 2020 goal of supporting global operations with 100% renewable energy and lowering operational carbon emissions by 75% from 2017 levels.

Recent News

On Apr 22, Facebook announced the expansion of Messenger Kids to more than 70 new countries around the world.

On Apr 7, Facebook announced that it is expanding Data for Good program that grants researchers access to data about user movement patterns in an effort to understand the spread of coronavirus.

On Apr 3, Facebook announced that it has launched the very first standalone Messenger app for desktop, available for Microsoft Windows and Apple's macOS.

Per a Reuters report on Apr 2, Facebook has initiated a program in Italy to track the accuracy of coronavirus information circulated on its WhatsApp messaging platform.

On Mar 24, Facebook posted a statement that total messaging surged more than 50% in countries most affected by the coronavirus in the past month. The company has also witnessed increased traffic in its feed and stories products. Moreover, voice and video calling also more than doubled on Messenger and WhatsApp in places bearing the brunt of the coronavirus pandemic.

However, Facebook doesn't expect this traffic surge to benefit its top line as it doesn't monetize a number of these services. In fact, its ad-sales is expected to take a hit due to measures like lockdowns and mass quarantines imposed on a number of countries to break the chain of the viral spread.

On Mar 3, Facebook announced Dark Mode for WhatsApp.

On Mar 2, Facebook announced the launch of a faster, smaller and simpler Messenger on iOS. The app upgrade will load twice as fast as the previous version of Messenger on iOS and will be one-fourth of its original size.

On Feb 20, Facebook announced that it is introducing a background location control on Facebook for Android that improves user privacy.

Per a Reuters article dated Feb 18, Facebook is facing a tax trial in a San Francisco court against Internal Revenue Service, as the latter alleged that the world's largest social media company owes more than \$9 billion linked to its decision to shift profits to Ireland.

On Feb 12, Facebook announced that WhatsApp currently has more than 2 billion users globally.

Valuation

Facebook shares decreased 9.9% in the year-to-date period and 4.2% over the trailing 12-month period. Stocks in the Zacks sub-industry and the Zacks Computer & Technology sector are down 6.1% and 6.9% in the year-to-date period, respectively. Over the past year, the Zacks sub-industry is down 16.1%, while the sector is up 0.2%.

The S&P 500 Index is down 13.2% in the year-to-date period and 4.8% in the past year.

The stock is currently trading at 18.92X forward 12-month earnings, which compares to 27.25X for the Zacks sub-industry, 21.44X for the Zacks sector and 19.31X for the S&P 500 index.

Over the past five years, the stock has traded as high as 59.82X and as low as 15.18X, with a 5-year median of 27.69X. Our Neutral recommendation indicates that the stock will perform in-line with the market. Our \$194 price target reflects 19.84X forward 12-month earnings.

The table below shows summary valuation data for FB

Valuation Multiples - FB					
		Stock	Sub-Industry	Sector	S&P 500
P/E F12M	Current	18.92	27.25	21.44	19.31
	5-Year High	59.82	43.46	21.91	19.34
	5-Year Low	15.18	22	16.71	15.19
	5-Year Median	27.69	35.13	19.21	17.45
P/S F12M	Current	5.82	5.73	3.32	3.14
	5-Year High	13.71	14.07	3.59	3.44
	5-Year Low	4.68	5.02	2.32	2.54
	5-Year Median	9.84	9.66	3.09	3.01
EV/Sales TTM	Current	6.82	5.31	3.74	2.78
	5-Year High	18.25	13.4	4.44	3.46
	5-Year Low	5.25	4.24	2.58	2.16
	5-Year Median	12.56	9.38	3.56	2.83

As of 04/23/2020

Industry Analysis Zacks Industry Rank: Top 16% (40 out of 253)



Top Peers

Company (Ticker)	Rec	Rank
Electronic Arts Inc. (EA)	Outperform	2
Amazon.com, Inc. (AMZN)	Neutral	3
Activision Blizzard, Inc. (ATVI)	Neutral	3
Baidu, Inc. (BIDU)	Neutral	2
Microsoft Corporation (MSFT)	Neutral	3
Netflix, Inc. (NFLX)	Neutral	2
Take-Two Interactive Software, Inc. (TTWO)	Neutral	3
Twitter, Inc. (TWTR)	Neutral	3

Industry Comparison Industry: Internet - Services				Industry Peers		
	FB	X Industry	S&P 500	BIDU	MSFT	TWTR
Zacks Recommendation (Long Term)	Neutral	-	-	Neutral	Neutral	Neutral
Zacks Rank (Short Term)	3	-	-	2	3	3
VGM Score	C	-	-	A	C	F
Market Cap	527.70 B	640.13 M	19.03 B	34.53 B	1,303.83 B	21.86 B
# of Analysts	12	3	14	3	14	9
Dividend Yield	0.00%	0.00%	2.23%	0.00%	1.19%	0.00%
Value Score	D	-	-	A	D	D
Cash/Price	0.11	0.19	0.05	0.58	0.10	0.32
EV/EBITDA	15.79	3.68	11.66	6.94	21.36	16.56
PEG Ratio	1.28	2.82	2.20	1.50	2.40	1.59
Price/Book (P/B)	5.22	2.15	2.56	1.40	11.84	2.48
Price/Cash Flow (P/CF)	21.79	15.31	10.31	7.46	26.98	10.11
P/E (F1)	25.78	27.86	17.77	13.49	30.87	47.49
Price/Sales (P/S)	7.46	2.23	1.97	2.23	9.71	6.32
Earnings Yield	3.88%	1.15%	5.48%	7.41%	3.24%	2.12%
Debt/Equity	0.09	0.09	0.72	0.34	0.64	0.36
Cash Flow (\$/share)	8.49	0.12	7.01	13.39	6.35	2.76
Growth Score	B	-	-	B	B	D
Hist. EPS Growth (3-5 yrs)	53.35%	24.26%	10.92%	6.60%	17.68%	NA
Proj. EPS Growth (F1/F0)	11.65%	1.14%	-5.06%	-1.07%	16.92%	-75.25%
Curr. Cash Flow Growth	-8.33%	9.55%	5.92%	-9.22%	19.70%	123.58%
Hist. Cash Flow Growth (3-5 yrs)	38.21%	20.51%	8.55%	10.85%	11.99%	55.36%
Current Ratio	4.40	1.59	1.23	2.89	2.80	9.15
Debt/Capital	8.61%	9.66%	43.90%	25.67%	39.05%	26.38%
Net Margin	26.15%	-5.94%	11.32%	2.07%	33.02%	42.37%
Return on Equity	19.97%	-3.84%	16.60%	7.44%	40.41%	4.87%
Sales/Assets	0.58	0.62	0.55	0.35	0.48	0.29
Proj. Sales Growth (F1/F0)	4.93%	2.17%	-0.78%	5.99%	11.64%	-3.33%
Momentum Score	F	-	-	F	B	F
Daily Price Chg	1.56%	0.00%	0.15%	-1.87%	-1.21%	-2.04%
1 Week Price Chg	2.31%	3.25%	0.42%	6.06%	8.15%	-3.85%
4 Week Price Chg	13.34%	7.22%	4.04%	-1.93%	9.81%	5.49%
12 Week Price Chg	-11.65%	-16.06%	-21.19%	-20.59%	-0.79%	-16.14%
52 Week Price Chg	-4.21%	-28.05%	-15.14%	-40.54%	32.73%	-27.60%
20 Day Average Volume	22,031,400	142,296	2,802,273	3,928,560	48,807,216	20,772,520
(F1) EPS Est 1 week change	-4.56%	0.00%	-0.10%	0.00%	-0.23%	-17.33%
(F1) EPS Est 4 week change	-19.05%	-0.18%	-6.64%	-5.97%	-1.33%	-44.84%
(F1) EPS Est 12 week change	-21.67%	-15.32%	-11.78%	-13.45%	3.65%	-46.32%
(Q1) EPS Est Mthly Chg	-26.71%	-1.72%	-10.38%	-15.60%	-3.26%	-95.83%

Zacks Stock Rating System

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

Zacks Recommendation

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

Zacks Rank

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

Zacks Style Scores

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

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

Value Score	D
Growth Score	B
Momentum Score	F
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

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.