

Apple Inc. (AAPL)

\$130.15 (As of 06/16/21)

Price Target (6-12 Months): **\$150.00**

Long Term: 6-12 Months

Zacks Recommendation:

Outperform

(Since: 04/29/21)

Prior Recommendation: Neutral

Short Term: 1-3 Months

Zacks Rank: (1-5)

2-Buy

Zacks Style Scores:

VGM:C

Value: D

Growth: B

Momentum: D

Summary

Apple is benefiting from continued momentum in the Services segment, driven by App Store, Cloud Services, Music, advertising and AppleCare. Apple's near-term prospects are bright, driven by new iPhones that support 5G, revamped iPad and Mac line-up of devices, healthcare-focused Apple Watch, and an expanding App Store ecosystem. Apple's ability to attract small developers has been a key catalyst. Moreover, Apple devices continue to gain traction among enterprises. Apple's focus on user privacy, as reflected by its latest iOS 15, iPadOS 15, macOS Monterey, and watchOS 8 updates, is a game changer. However, Apple refrained from providing any guidance due to uncertainties triggered by the COVID-19 pandemic. Moreover, increasing scrutiny and legal woes over App Store are headwinds. Shares have underperformed the S&P 500 year to date.

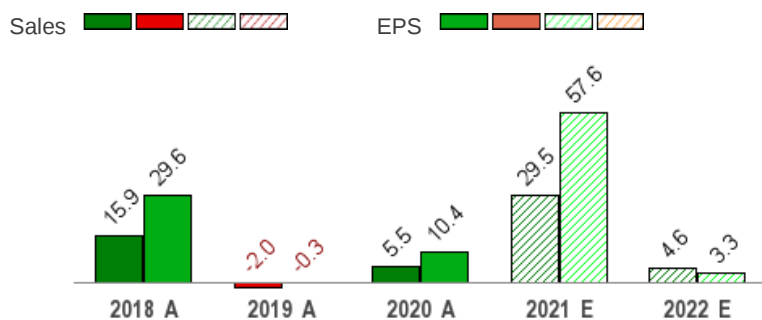
Price, Consensus & Surprise



Data Overview

52-Week High-Low	\$145.09 - \$86.29
20-Day Average Volume (Shares)	68,529,904
Market Cap	\$2,171.9 B
Year-To-Date Price Change	-1.9%
Beta	1.21
Dividend / Dividend Yield	\$0.88 / 0.7%
Industry	Computer - Mini computers
Zacks Industry Rank	Top 10% (26 out of 252)

Sales and EPS Growth Rates (Y/Y %)



Last EPS Surprise	40.0%
Last Sales Surprise	15.4%
EPS F1 Estimate 4-Week Change	1.4%
Expected Report Date	07/29/2021
Earnings ESP	0.0%

Sales Estimates (millions of \$)

	Q1	Q2	Q3	Q4	Annual*
2022	118,468 E	87,799 E	78,015 E	88,669 E	371,914 E
2021	111,439 A	89,584 A	72,745 E	81,992 E	355,548 E
2020	91,819 A	58,313 A	59,685 A	64,698 A	274,515 A

EPS Estimates

	Q1	Q2	Q3	Q4	Annual*
2022	\$1.83 E	\$1.25 E	\$1.08 E	\$1.28 E	\$5.34 E
2021	\$1.68 A	\$1.40 A	\$0.99 E	\$1.14 E	\$5.17 E
2020	\$1.25 A	\$0.64 A	\$0.65 A	\$0.73 A	\$3.28 A

*Quarterly figures may not add up to annual.

P/E TTM	20.4
P/E F1	25.2
PEG F1	2.5
P/S TTM	6.7

The data in the charts and tables, including the Zacks Consensus EPS and sales estimates, is as of 06/16/2021. The report's text and the

analyst-provided price target are as of 06/17/2021.

Overview

Apple's business primarily runs around its flagship iPhone. However, the Services portfolio that includes revenues from cloud services, App store, Apple Music, AppleCare, Apple Pay, and licensing and other services now became the cash cow.

Moreover, non-iPhone devices like Apple Watch and AirPods gained significant traction. In fact, Apple dominates the Wearables and Hearables markets due to the growing adoption of Watch and AirPods. Solid uptake of Apple Watch also helped Apple strengthen its presence in the personal health monitoring space.

Headquartered in Cupertino, CA, Apple also designs, manufactures and sells iPad, MacBook and HomePod. These devices are powered by software applications including iOS, macOS, watchOS and tvOS operating systems.

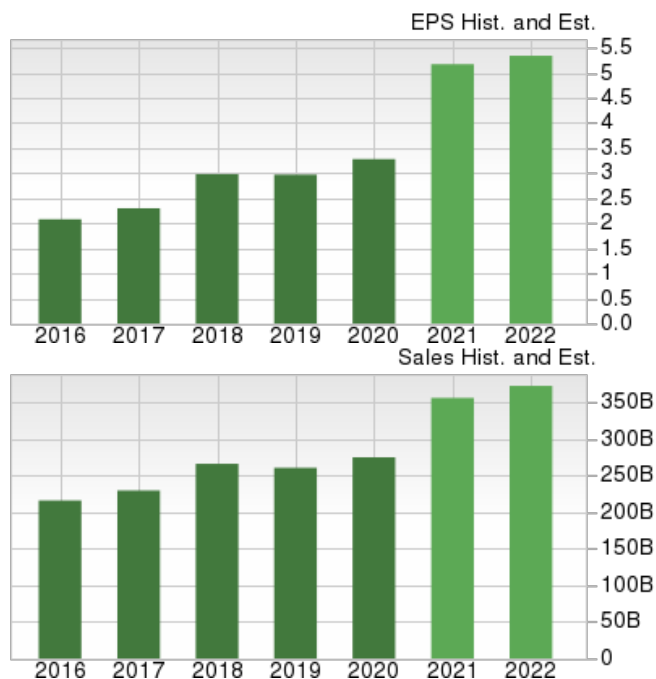
Apple's other services include subscription-based Apple News+, Apple Card, Apple Arcade, new Apple TV app, Apple TV channels and Apple TV+, a new subscription service.

In fiscal 2020, Apple generated \$274.52 billion in total revenues. The company's flagship device iPhone accounted for 50.2% of total revenues. Services, Mac, iPad and Other products category contributed 19.6%, 11.2%, 8.6% and 10.4%, respectively.

Apple primarily reports revenues on a geographic basis, namely the Americas (North & South America), Europe (European countries, India, Middle East and Africa), Greater China (China, Hong Kong & Taiwan), Japan and Rest of Asia Pacific (Australia & other Asian Countries).

In fiscal 2020, Americas, Europe, Greater China, Japan and Rest of Asia-Pacific accounted for 45.4%, 25%, 14.7%, 7.8% and 7.1% of total revenues, respectively.

Apple faces stiff competition from the likes of Samsung, Xiaomi, Oppo, Vivo, Google, Huawei and Motorola in the smartphone market. Lenovo, HP, Dell, Acer and Asus are its primary competitors in the PC market. Other notable competitors are Google & Amazon (smart speakers) and Fitbit & Xiaomi (wearables).



Reasons To Buy:

- ▲ Apple's Services and Wearables businesses are expected to drive top-line growth in fiscal 2021 and beyond. Although Apple's business primarily runs around its flagship iPhone, the Services portfolio has emerged as the company's new cash cow. Apple's endeavors to open up its ecosystem, through partnerships with the likes of Samsung and Amazon, are positive for the Services segment. The subscription-based video streaming, news and gaming services are expected to benefit from Apple's strong installed base. Robust App Store sales coupled with solid adoption of Apple Pay and Apple Music helped Apple double its 2016 Services revenues six months ahead of its targeted 2020-end. Moreover, its wearables and hearables business is expected to be driven by solid demand for Apple Watch and AirPods.
- ▲ Apple currently has more than 660 million paid subscribers across its Services portfolio. The App Store continues to draw the attention of prominent developers from around the world, helping the company offer appealing new apps that drive App Store traffic. Further, growing number of AI-infused apps will attract more subscribers on App Store. Notably, more than 30,000 third-party subscription apps are available on App Store and the largest of them accounts for only 0.25% of Apple's total Services revenues.
- ▲ Apple Pay, designed on the basis of a contactless payment (NFC) technology, has been expanded to several markets. Apple Pay allowed entry to more than 150 stadiums, ballparks, arenas and entertainment venues around the world with contactless tickets. Moreover, users could ride public transport in Shanghai, Beijing, Tokyo, Moscow, London and New York. Users can also access dorms and services of additional universities across the United States through Apple Watch and iPhone. The growing adoption of contactless payment primarily due to coronavirus pandemic bodes well for Apple Pay.
- ▲ Further, Apple Music has more than 60 million paid subscribers. The service offers more than 60 million songs, with world class music experts and taste makers curating thousands of playlists and daily selections in 115 countries. Apple Music's availability on Amazon Echo devices is expected to expand the iPhone maker's footprint against Spotify, which is currently the dominant player in the paid, premium music streaming market. The partnership with Verizon is also noteworthy in this regard. Moreover, the company's partnership with National Basketball Association for an Apple Music playlist that features independent artists from an emerging label, UnitedMasters, is expected to draw new subscribers who are fans of NBA games.
- ▲ Apple is encouraging developers to use artificial intelligence (AI) and machine learning in their apps. The company's Core ML 2 API helps developers recognize faces or animals in photos, and parse the meaning of text. Further, the company is offering Create ML for simple and efficient machine learning training on the Mac, which is built on top of Swift programming language. Notably, Apple has hired former Google head of search and AI, John Giannandrea to lead its restructured AI division that includes the machine learning division, Siri team and the Core ML API team. In addition to all these, acquisition of start-ups like Silk Labs enhances the company's expertise in the domain.
- ▲ Apple's focus on autonomous vehicles and augmented reality/virtual reality (AR/VR) technologies presents growth opportunity in the long haul. These are fast emerging as lucrative business opportunities. To ramp up its efforts, Apple has acquired several smaller firms with expertise in AR hardware, 3D gaming and VR software. These include SensoMotoric, Flyby Media, Emotient, TupleJump, Turi, Metaio, PrimeSense and Lattice Data Inc. In addition, Apple's ARKit is helping third-party developers to work on creating AR experiences for its iOS platform. Furthermore, Apple, with its new offerings, would also be able to leverage the Internet of Things (IoT) market, which is expected to grow exponentially, given the rising demand for connected/automated devices, appliances and automobiles.
- ▲ Apple has a strong balance sheet and generates significant cash flow. As of Mar 27, 2021, cash & marketable securities were \$204.37 billion compared with \$195.57 billion as of Dec 26, 2020. Term debt, as of Mar 27, 2021, was \$116.65 billion, up from \$107.04 billion as of Dec 26, 2020. Apple returned \$23 billion in the reported quarter through dividend payouts (\$3.4 billion) and share repurchases (\$19 billion). These factors make Apple an attractive stock for investors.

Apple is benefiting from momentum in the Services business, strong adoption of Apple Pay and growing Apple Music subscriber base.

Risks

- Apple's fortunes are tied to its most important offering, iPhone. The device plays an important role in expanding the iOS ecosystem. However, Apple's excessive dependence on iPhone is a risk to overall growth. Although iPhone sales have been benefiting from higher average selling price (ASP), premium pricing has been blamed for Apple's declining market share in countries like China and India. Moreover, the smartphone segment is chock-a-block with attractive devices from Samsung, Huawei, Xiaomi, Oppo, and Vivo that are intensifying competition for the company. Moreover, Apple is yet to launch a 5G-supported iPhone, which is a concern.
 - China is an important market for Apple, given the growing number of middle-class customers. However, the waning macroeconomic environment in China and the intensifying competition have dented shipment growth. Moreover, the supply-chain disruption caused by the coronavirus outbreak in China is expected to hurt iPhone's demand and supply globally, at least in the near term.
 - Competition has negatively impacted iPad's growth, with Amazon, HTC, Microsoft, Hewlett-Packard and others flooding the tablet market. iPad demand has severely declined due to increasing availability of large-screen smartphones, in addition to stiff competition from Google Chromebooks and Microsoft Surface. Moreover, Apple faces significant competition in the desktop and portable computer segment from the market leader Lenovo and the likes of Hewlett-Packard, Dell, Acer and Asus. MacBook has failed to become a key product, due to Apple's shortage of innovation in this product line as compared to iPhone and iPad.
 - Although Apple's newer products like Apple Watch and HomePod hold significant promise, they are yet to deliver results good enough to negate decline in iPhone shipment. Apple is facing in the wearables market, due to stiff competition from Xiaomi, Fitbit, Huawei and Samsung. The company is also experiencing low sales of its smart speaker HomePod, owing to its late entry into the market that is currently dominated by the likes of Amazon and Google.
 - Apple is facing increasing regulatory hassles in Europe. The European Commission is opening two antitrust investigations into Apple's App Store and Apple Pay practices over concerns that the company's way of doing business hurts consumers by limiting choice and innovation and keeping prices high. Notably, music-streaming service Spotify has filed a formal complaint against Apple, alleging unfair practice by the iPhone maker to lower competition. The complaint relates to the 30% revenue cut that the company takes from some app providers. Further, *Fortnite* developer Epic Games filed a lawsuit against Apple after the hit game was removed from App Store. Apple stated that the game violated its software-distribution platform guidelines and has countersued Epic Games. Moreover, the Supreme Court has allowed the consumers' antitrust lawsuit against Apple to continue in a lower court. The lawsuit alleges iPhone apps to be expensive. The company is also facing lawsuits in relation to health-monitoring features of Apple Watch.
 - Moreover, Apple is slapped with a record fine of €1.1 billion by French anti-trust regulators for engaging in anti-competitive practices. The regulators alleged that Apple favored Tech Data and Ingram Micro to align prices as well as limit wholesale competition for Apple products in France. The company is also ordered to pay a \$500-million settlement for intentionally inhibiting/restricting the performance of older iPhone models to preserve batteries. Further, the U.S. Supreme Court repealed an appeal by Apple in a decade-long dispute wherein Nevada-based VirnetX is fighting to collect royalties from the company for secure communications technology used in the iPhone, iPad and Mac computers.
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Last Earnings Report

Apple's Q2 Earnings Beat, iPhone Strength Aids Top Line

Apple reported second-quarter fiscal 2021 earnings of \$1.40 per share that beat the Zacks Consensus Estimate by 40% and jumped 118.8% year over year.

Net sales increased 53.6% year over year to \$89.58 billion, which surpassed the Zacks Consensus Estimate by 15.4%.

Services, along with iPhone, iPad, Wearables and Mac, continued its momentum in the quarter under review. Services (18.9% of sales) revenues grew 26.6% from the year-ago quarter to \$16.90 billion.

Product sales (81.1% of sales) surged 61.6% year over year to \$72.68 billion. Non-iPhone revenues (iPad, Mac and Wearables) grew 54.6% on a combined basis.

Strong China & Japan Aid Top-Line Growth

Apple achieved new second-quarter records in each of its five geographic segments.

Americas sales increased 34.7% year over year to \$34.31 billion and accounted for 38.3% of total sales.

Europe generated \$22.26 billion in sales, up 55.8% on a year-over-year basis. The region accounted for 24.9% of total sales.

Greater China sales surged 87.5% from the year-ago quarter to \$17.73 billion, accounting for 19.8% of total sales.

Japan sales soared 48.7% year over year to \$7.74 billion, accounting for 8.6% of total sales.

Rest of the Asia Pacific generated sales of \$7.54 billion, up 94.2% year over year. The region accounted for 8.4% of total sales.

iPhone Sales Increase Y/Y

iPhone sales increased 65.5% from the year-ago quarter to \$47.94 billion and accounted for 53.5% of total sales. The robust year-over-year growth was driven by strong demand for the iPhone 12 family.

Apple quoted a recent survey report from 451 Research which stated that customer satisfaction was more than 99% for the iPhone 12 family in the reported quarter.

Services Momentum Continues

Services maintained momentum in the reported quarter. Apple set an all-time record for the App Store, Cloud Services, Music, video, advertising and payment Services.

Apple TV+, Apple Arcade, Apple News+, Apple Card, Apple Fitness+ and Apple One bundle also contributed to overall growth. These new services continue to add users, content and features.

Apple now has more than 660 million paid subscribers across its Services portfolio, up 40 million sequentially and 145 million year over year.

Apple continues to expand its Services offerings with the launch of Apple Pay in Mexico and South Africa. Moreover, Apple Arcade expanded offerings with the addition of new exclusive Arcade originals and two entirely new categories - App Store Greats and Timeless Classics.

iPad & Mac Jump on Strong Demand

iPad sales of \$7.81 billion jumped 78.7% year over year and accounted for 8.7% of total sales.

Mac sales of \$9.10 billion soared 70.1% from the year-ago quarter and accounted for 10.2% of total sales. The year-over-year growth was driven by strong adoption of the new Macs powered by M1 chip.

Apple quoted a recent survey report from 451 Research which stated that overall consumer satisfaction was 94% for iPad and 91% for Mac in the quarter under review.

Wearables' Robust Performance

Wearables, Home and Accessories sales increased 24.7% year over year to \$7.84 billion and accounted for 8.7% of total sales.

Apple Watch's adoption rate continues to grow rapidly. Notably, more than 75% of customers who purchased Apple Watch during the reported quarter were first-time customers.

Quarter Ending 03/2021

Report Date	Apr 28, 2021
Sales Surprise	15.41%
EPS Surprise	40.00%
Quarterly EPS	1.40
Annual EPS (TTM)	4.45

Operating Details

Gross margin expanded 410 bps on a year-over-year basis to 42.5%. Moreover, gross margin increased 270 bps sequentially due to a strong revenue mix, cost savings and favorable foreign exchange.

Products' gross margin expanded 100 bps sequentially to 36.1%. Services' gross margin was 70.1%, up 170 bps sequentially.

Operating expenses rose 11.1% year over year to \$10.58 billion due to higher research & development (R&D), and selling, general & administrative (SG&A) expenses which increased 15.3% and 7.3%, respectively.

Operating margin expanded 870 bps on a year-over-year basis to 30.7%.

Balance Sheet

As of Mar 27, 2021, cash & marketable securities were \$204.37 billion compared with \$195.57 billion as of Dec 26, 2020.

Term debt, as of Mar 27, 2021, was \$116.65 billion, up from \$107.04 billion as of Dec 26, 2020.

Apple returned \$23 billion in the reported quarter through dividend payouts (\$3.4 billion) and share repurchases (\$19 billion).

Moreover, Apple has expanded the existing share-repurchase program with an increase of \$90 billion. The company also raised dividend by 7% to 22 cents per share.

Guidance

Apple did not provide revenue guidance, given the uncertainty around the impact of the coronavirus pandemic. However, management expects revenues to grow double digits year over year but decline sequentially. Supply constraint (primarily iPad and Mac) is expected to hurt second-quarter sales by \$3-\$4 billion.

Gross margin is expected between 41.5% and 42.5% in the March quarter. Operating expenses are expected between \$11.1 billion and \$11.3 billion.

Recent News

On Jun 15, Apple announced the availability of Apple Podcasts Subscriptions for listeners in more than 170 countries and regions on devices running on iOS 14.6, iPadOS 14.6, and macOS 11.4 or later.

On Jun 7, Apple announced a plethora of software updates aimed at improving privacy and providing developers with better tools and technologies to create apps. The company unveiled iOS 15, iPadOS 15, macOS Monterey, and watchOS 8. Apple introduced iCloud+ with new premium features, including iCloud Private Relay, Hide My Email, and expanded HomeKit Secure Video support for its users at no additional cost. For developers, Apple introduced Xcode Cloud, which is its new continuous integration and delivery cloud service.

On Jun 2, Apple announced that its App Store helped developers generate business worth \$643 billion in billings and sales in 2020. Moreover, the company stated that number of small developers has grown by 40% since 2015, and they account for 90% of App Store developers.

On Apr 2, Apple announced that it is expanding its Arcade gaming subscription service by adding more than 30 games and two new categories—Timeless Classics and App Store Greats. Overall, the service now includes more than 180 games.

On Mar 29, Apple announced that its Independent Repair Provider program will soon be available in more than 200 countries, nearly every country where the company's products are sold.

Moreover, Apple announced the release of "The Year Earth Changed," an original documentary special narrated by David Attenborough, on its streaming platform Apple TV+ on Apr 16.

On Mar 16, Apple announced that it has updated Apple Maps with COVID-19 vaccination locations from VaccineFinder, a free, online service developed by Boston Children's Hospital.

On Mar 15, Apple announced that its Wolfwalkers and Greyhound earned Academy Award nominations for Best Animated Feature and Best Sound, respectively.

On Mar 8, Apple unveiled a multiyear programming partnership with women's rights activist and youngest Nobel laureate Malala Yousafzai.

Valuation

Apple shares are down 1.9% in the year-to-date period but up 48% over the trailing 12-month period. Stocks in the Zacks sub-industry are down 1.2%, while the same in the Zacks Computer & Technology sector are up 15.5% in the year-to-date period. Over the past year, the Zacks sub-industry and the sector are up 49% and 47.3%, respectively.

The S&P 500 index is up 13.8% in the year-to-date period and 38.4% in the past year.

The stock is currently trading at 24.59X forward 12-month earnings, which compares to 23.62X for the Zacks sub-industry, 27.54X for the Zacks sector and 21.82X for the S&P 500 index.

Over the past five years, the stock has traded as high as 36.06X and as low as 10.43X, with a 5-year median of 15.61X. Our Outperform recommendation indicates that the stock will perform better than the market. Our \$150 price target reflects 28.28X forward 12-month earnings.

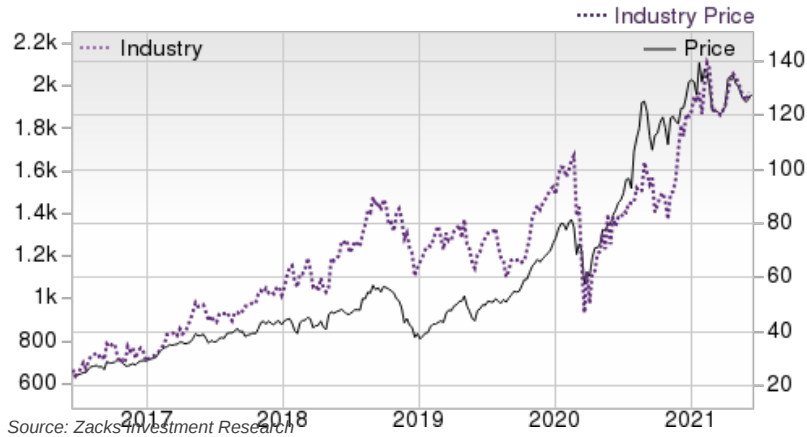
The table below shows summary valuation data for AAPL

Valuation Multiples - AAPL					
		Stock	Sub-Industry	Sector	S&P 500
P/E F12M	Current	24.59	23.62	27.54	21.82
	5-Year High	36.06	32.32	28.35	23.83
	5-Year Low	10.43	10.66	16.99	15.31
	5-Year Median	15.61	15.48	20.24	18.05
P/S F12M	Current	5.92	5.58	4.91	4.72
	5-Year High	7.41	6.79	4.91	4.74
	5-Year Low	2.22	2.22	2.81	3.21
	5-Year Median	3.45	3.28	3.53	3.72
EV/EBITDA TTM	Current	22.28	21.12	16.5	17.44
	5-Year High	30.33	28.4	17.18/	17.74
	5-Year Low	6.74	6.48	9.07	9.63
	5-Year Median	12.63	12.13	12.48	13.47

As of 06/16/2021

Source: Zacks Investment Research

Industry Analysis Zacks Industry Rank: Top 10% (26 out of 252)



Top Peers

Company (Ticker)	Rec	Rank
Amazon.com, Inc. (AMZN)	Outperform	3
Alphabet Inc. (GOOGL)	Outperform	1
Microsoft Corporation (MSFT)	Outperform	3
Dell Technologies Inc. (DELL)	Neutral	3
Garmin Ltd. (GRMN)	Neutral	3
HP Inc. (HPQ)	Neutral	3
Lenovo Group Ltd. (LNVGY)	Neutral	2
Spotify Technology SA (SPOT)	Neutral	3

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

Industry Comparison Industry: Computer - Mini Computers				Industry Peers		
	AAPL	X Industry	S&P 500	HPQ	LNVGY	MSFT
Zacks Recommendation (Long Term)	Outperform	-	-	Neutral	Neutral	Outperform
Zacks Rank (Short Term)	2	-	-	3	2	3
VGM Score	C	-	-	A	A	B
Market Cap	2,171.90 B	24.33 B	29.96 B	34.87 B	13.79 B	1,938.48 B
# of Analysts	11	5	12	6	2	11
Dividend Yield	0.68%	0.99%	1.3%	2.67%	1.31%	0.87%
Value Score	D	-	-	A	A	C
Cash/Price	0.03	0.07	0.05	0.09	0.23	0.06
EV/EBITDA	28.29	6.72	17.13	8.55	4.88	27.23
PEG F1	2.45	1.15	2.12	0.97	1.15	2.55
P/B	31.40	7.57	4.17	NA	3.82	14.41
P/CF	32.32	9.91	17.46	9.91	6.16	34.13
P/E F1	25.17	17.15	21.27	8.29	9.13	33.01
P/S TTM	6.67	3.38	3.46	0.57	0.23	12.12
Earnings Yield	3.97%	7.46%	4.62%	12.06%	10.96%	3.03%
Debt/Equity	1.57	0.46	0.66	-1.46	0.91	0.37
Cash Flow (\$/share)	4.03	3.32	6.83	2.93	3.72	7.54
Growth Score	B	-	-	C	A	B
Historical EPS Growth (3-5 Years)	14.59%	14.59%	9.44%	10.52%	18.01%	22.33%
Projected EPS Growth (F1/F0)	57.73%	59.72%	21.49%	53.51%	41.01%	35.39%
Current Cash Flow Growth	0.98%	-1.08%	0.86%	-3.13%	36.92%	17.66%
Historical Cash Flow Growth (3-5 Years)	1.15%	1.15%	7.28%	-17.70%	29.58%	10.19%
Current Ratio	1.14	1.00	1.39	0.72	0.85	2.29
Debt/Capital	61.10%	47.75%	41.51%	NA	47.75%	27.10%
Net Margin	23.45%	4.00%	11.95%	6.05%	1.94%	35.02%
Return on Equity	111.80%	12.29%	16.48%	-143.70%	29.08%	43.75%
Sales/Assets	0.98	1.33	0.51	1.77	1.67	0.53
Projected Sales Growth (F1/F0)	29.52%	9.16%	9.41%	11.79%	6.53%	16.08%
Momentum Score	D	-	-	A	C	A
Daily Price Change	0.39%	-0.17%	-0.54%	-1.89%	-0.72%	-0.38%
1-Week Price Change	1.16%	-1.02%	0.10%	-1.80%	-1.47%	2.83%
4-Week Price Change	4.38%	-1.08%	2.62%	-8.71%	-6.55%	5.87%
12-Week Price Change	8.38%	3.61%	8.60%	-1.16%	-7.38%	9.31%
52-Week Price Change	48.07%	91.33%	35.66%	72.59%	110.07%	32.51%
20-Day Average Volume (Shares)	68,529,904	8,242,542	1,734,994	11,855,463	30,795	20,395,290
EPS F1 Estimate 1-Week Change	0.00%	0.00%	0.00%	0.00%	0.00%	0.01%
EPS F1 Estimate 4-Week Change	1.36%	3.15%	0.05%	4.95%	13.57%	0.01%
EPS F1 Estimate 12-Week Change	15.48%	14.53%	3.39%	7.31%	13.57%	4.56%

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

EPS Q1 Estimate Monthly Change	1.97%	:	1.97%	0.00%	:	9.21%	NA	0.04%
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	D
Growth Score	B
Momentum Score	D
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

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Glossary of Terms and Definitions

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

proportionate to its market value.

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

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

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

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

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

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

Periods:

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

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

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

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

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

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

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

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

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

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

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

EV/CF Ratio: The enterprise value-to-cash flow ratio is calculated as a company's enterprise value (market capitalization + value of total long-

term debt + book value of preferred shares - cash and marketable securities) divided by the trailing-12-month (TTM) operating cash flow. It's a measure of how long it would take to buy the entire business if you were able to use all the company's operating cash flow.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

However, this ratio can vary widely from industry to industry, the ideal amount of required debt being different. Some businesses are more capital

intensive than others and typically require higher debt to finance their operations. So, a company's debt-to-capital ratio should be compared with the same for its industry.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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