

Cisco Systems(CSCO)

\$39.97 (As of 10/15/20)

Price Target (6-12 Months): **\$42.00**

Long Term: 6-12 Months

Zacks Recommendation:

Neutral

(Since: 08/14/19)

Prior Recommendation: Outperform

Short Term: 1-3 Months

Zacks Rank: (1-5)

4-Sell

Zacks Style Scores:

VGM:B

Value: C

Growth: B

Momentum: C

Summary

Cisco is poised to gain from robust adoption of identity and access, advanced threat and unified threat management security solutions amid high growth in Internet traffic. Ongoing momentum in Webex video conferencing and business productivity offerings on account of COVID-19 induced work-from-home demand environment remains noteworthy. Also, strong demand for Catalyst 9000 family of switches holds promise. Moreover, strength across WiFi 6 products in wireless vertical, is a positive. Notably, shares of Cisco have outperformed the industry in the year-to-date period. However, Cisco is bearing the brunt of weakness in the commercial, service provider and enterprise end markets and coronavirus crisis-led supply chain constraints, which is likely to weigh on revenues. Also, weak demand for servers, and sluggish enterprise IT spending, remain concerns.

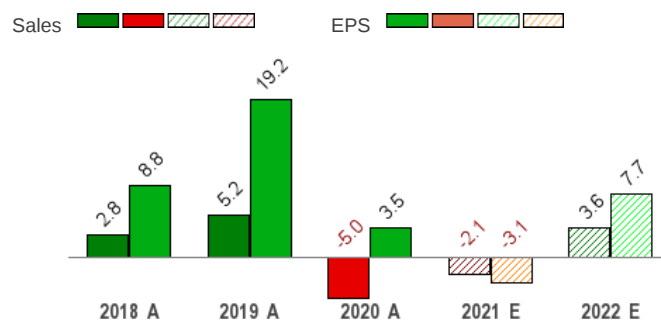
Price, Consensus & Surprise



Data Overview

52-Week High-Low	\$50.28 - \$32.40
20-Day Average Volume (Shares)	23,584,734
Market Cap	\$169.2 B
Year-To-Date Price Change	-16.7%
Beta	0.87
Dividend / Dividend Yield	\$1.44 / 3.6%
Industry	Computer - Networking
Zacks Industry Rank	Bottom 14% (219 out of 254)

Sales and EPS Growth Rates (Y/Y %)



Last EPS Surprise	8.1%
Last Sales Surprise	0.5%
EPS F1 Estimate 4-Week Change	0.0%
Expected Report Date	11/12/2020
Earnings ESP	0.0%
P/E TTM	12.5
P/E F1	12.9
PEG F1	1.8
P/S TTM	3.4

Sales Estimates (millions of \$)

	Q1	Q2	Q3	Q4	Annual*
2022	12,689 E	12,161 E	12,500 E	12,993 E	49,984 E
2021	11,877 E	11,585 E	12,121 E	12,636 E	48,246 E
2020	13,159 A	12,005 A	11,983 A	12,154 A	49,301 A

EPS Estimates

	Q1	Q2	Q3	Q4	Annual*
2022	\$0.83 E	\$0.82 E	\$0.85 E	\$0.89 E	\$3.35 E
2021	\$0.71 E	\$0.74 E	\$0.80 E	\$0.85 E	\$3.11 E
2020	\$0.84 A	\$0.77 A	\$0.79 A	\$0.80 A	\$3.21 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 10/15/2020. The reports text is as of 10/16/2020.

Overview

Headquartered in San Jose, CA and founded in December 1984, Cisco Systems Inc. is an IP-based networking company, which offers other products and services to service providers, companies, commercial users and individuals.

Notably, Cisco is rapidly expanding its presence in network security domain. Security includes products and services preventing unauthorized access to system resources and protecting from worms, spam, viruses and other malware. The Data Center product category includes Cisco Unified Computing System (UCS) and Server Access Virtualization. It also comprises of The Other products segment and Related Services.

The company offers identity and access, advanced threat, and unified threat management solutions. The company has also introduced Secure Remote Worker, which leverages Zero Trust Architecture, combined with robust endpoint security portfolio of AnyConnect, Umbrella, Duo and AMP for Endpoints.

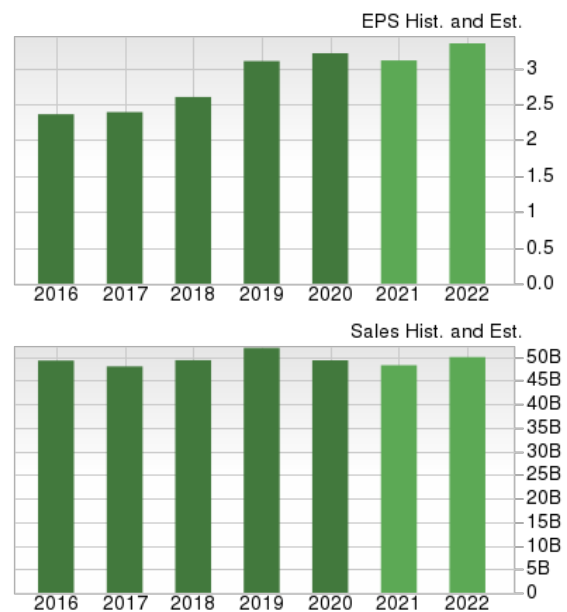
Cisco also offers Next-Generation Network (NGN) Routers, that transport data, voice and video information from one IP network to another. Collaboration products integrate voice, video, data and mobile applications on fixed and mobile networks. Key products are Unified Communications and Cisco TelePresence Systems products.

Wireless technology includes networking products: wireless LAN controllers, wireless integrated switches and routers, wireless management software, wireless LAN clients and client software, bridges, antennas and accessories.

Total revenue was \$49.3 billion in fiscal 2020. Product and Services segments contributed 73% and 27%, respectively, to total revenues in fiscal 2020. Cisco has realigned its Product reporting segment into four distinct categories – infrastructure platform, applications, security, and other products.

The Americas, EMEA and APJC generated 59.4%, 25.7% and 14.9% of total revenues in fiscal 2020, respectively.

The company competes in the networking and communications equipment markets with companies like Amazon Web Services, Check Point Software Technologies, Dell, F5 Networks, FireEye, Fortinet, IBM, Hewlett-Packard Enterprise Company, Juniper Networks and Microsoft Corporation, to name few.



Source: Zacks Investment Research

Reasons To Buy:

- ▲ Cisco is the largest player in the networking space. The company has a strong presence in the router and switch market. It also retained a leadership position in WLAN and Ethernet switching. Moreover, expansion into relatively under-penetrated markets is expected to drive growth.
- ▲ Cisco has pioneered a network system, which has been referred to as the Unified Computing System (UCS). This blade server system based on x86 architecture is transforming data centers. The system lowers the cost of ownership by making the entire data center more network-centric, significantly reducing the number of computers/servers required. The UCS is intended to simplify the operation of the data center, improving its flexibility and scalability. For this purpose, the company has tied up with Accenture, BMC, EMC, Intel, Microsoft, NetApp, Novell, Oracle and VMware. Notably, UCS adoption is expected to increase owing to the inherent cost advantage and the growing number of data centers across the world. This is working in Cisco's favor. UCS remains a major factor to Cisco's future success as the company builds its Next Generation Data Center stack.
- ▲ Cisco has inked strategic alliances with most of major technology companies globally. These partnerships have increased access to new technology, helped in developing innovative products, facilitated joint sales & marketing programs, and expanded total addressable market (TAM). The company has strategic partnerships with Apple, IBM, Microsoft, Viacom, Telenor, Google and Alibaba, which are expected to aid the company in enhancing business opportunities. We believe partnerships will help Cisco in winning new customers in the long haul. Further, Cisco's integration with Microsoft Azure Virtual WAN and Office 365, and deepening partnership with Amazon cloud arm Amazon Web Services, and Alphabet's Google Cloud has prepared it to deliver highly secure end-to-end connectivity and better application performance. These partnerships with hyperscalers are likely to help Cisco sell more of its SD-WAN solutions as customers shift more applications to the cloud.
- ▲ Cisco's focus on wireless carriers has increased of late, as evidenced by acquisitions such as Intucell, BroadHop, Cognitive Security, Cariden, ClearAccess and Ubiquis. With data demand exploding, the wireless carrier segment has grown in importance. Mobile carriers in the U.S. are increasingly looking to make their networks more spectrum-efficient and put their network resources to use without having to materially increase capex expenditure. Also, the proliferation of smartphones has caused mobile data traffic to grow exponentially and the advent of high-speed LTE networks is likely to accelerate that growth. Therefore, networking solutions that allow carriers to manage traffic efficiently are to become increasingly important in the coming years. Cisco intends to tap this market by adding network management solutions to its product portfolio and broadening its relationship with carriers. The increased carrier focus might help Cisco to gain share in the edge routing segment, where its competitors, Juniper and Alcatel Lucent, have substantial market share. Moreover, these acquisitions have diversified Cisco's revenue source. Increasing recurring nature of the top line is a major growth factor.
- ▲ In order to counter the threat of SDN, Cisco has devised a strategy of its own, which it is referring to as Application Centric Infrastructure (ACI). ACI is a comprehensive approach that ties together physical and virtual compute, network and storage by leveraging centralized policies and orchestration. ACI is made up of new hardware in the Nexus 9000 portfolio and software in the shape of an updated NX-OS operating system along with the Application Policy Infrastructure Controller (APIC). The solution streamlines operational processes and reduces operating expenses for power, cooling and cabling. This reduces the total cost of ownership by 75% when compared with software-only network virtualization. The technology ensures the infrastructure is focused on the application. Catalyst and Nexus 9000 Series switches deliver high scalability, performance and energy in a compact form factor and are ideal for data center aggregation- and access-layer deployments in enterprise, service provider, and cloud networks. It is quite encouraging to see that Cisco's ACI technology is gaining significant traction with customers.
- ▲ Management execution has been good despite the coronavirus-induced crisis scenario. The company had solid net-cash balance of \$14.8 billion as of Jul 25, 2020, compared with \$12.5 billion as of Apr 25, 2020. This provides them the flexibility required to pursue any growth strategy, whether by way of acquisitions or otherwise. Notably, total debt to total capital of 23.4% is lower than the prior quarter's figure of 30.1%. Moreover, times interest earned is 24.9X compared with prior quarter's 18X.
- ▲ We believe efforts to reward shareholders through share buybacks and dividend payments deserve a special mention. Moreover, cash from operations in the fourth fiscal quarter was \$3.6 billion. Further, free cash flow was \$3.9 billion. The strong cash flows help Cisco to continue shareholder friendly initiatives of share buybacks and dividends. Notably, lower number of outstanding shares helps the bottom line. In fiscal 2020, Cisco returned \$8.6 billion to shareholders through \$2.6 billion of share repurchases and \$6 billion in dividends. The company has \$10.8 billion remaining under its current share buyback program with no termination date. The company's ability to generate solid free cash flow is also expected to help it sustain current dividend payout (0.49) level at least in the near term.

Order growth in new markets of the company remain encouraging and we are positive about the company's market position, innovative prowess, product range, growth initiatives and dividend payouts.

Reasons To Sell:

- ▼ Cisco continues to acquire a large number of companies. While this improves revenue opportunities, it increases integration risks. Moreover, we also note that the large acquisitions negatively impact the balance sheet in the form of high level of goodwill and net intangible assets, which totalled \$35.3 billion or 37.3% of total assets, as of Jul 25, 2020.
 - ▼ Cisco has been forced to offer discounts and deals in response to actions by peers due to stiff competition from Arista Networks, Juniper, HPE and Huawei, in Ethernet switch and router market. Cisco's competitors are revamping their product lines with faster and power-efficient products. Although the edge business remains strong, the competitive pressure at the core remains intense and is likely to hurt profitability.
 - ▼ One of the primary markets that Cisco serves is federal, state and local governments. Therefore, the company is widely exposed to the stringent budget activities of the U.S. government, which remains a major concern.
 - ▼ Moreover, Cisco generates significant portion of revenues from outside the United States (40.6% of total revenues in fiscal 2020), subjecting the company to exchange rate volatility. Unfavorable movement in exchange rates of foreign currencies like renminbi, euro, pound sterling, Costa Rican colon, and yen related to the U.S. dollar can adversely impact results and undermine its growth potential to some extent.
 - ▼ Weakness in service provider business and reduction in enterprise IT spending amid coronavirus crisis-led economic downturn, is a headwind. Moreover, imposition of tariffs owing to trade war between the United States and China is anticipated to affect growth prospects. The uncertainty in business visibility has impacted investors' confidence and is likely to remain an overhang on the company's performance.
 - ▼ We note that the stock currently has a trailing 12-month Price/Book (P/B) ratio of 4.46X, which compares unfavorably to some extent with what the industry saw over the last year. Hence, valuation looks slightly stretched from P/B perspective.
-

Cisco is facing integration risks as well as stiff competition from smaller players.

Last Earnings Report

Cisco Q4 Earnings & Revenues Beat Estimates

Cisco Systems reported fourth-quarter fiscal 2020 non-GAAP earnings of 80 cents per share that beat the Zacks Consensus Estimate by 8.1%. However, the bottom line declined 4% year over year.

Revenues declined 9% year over year to \$12.15 billion but surpassed the consensus mark by 0.5%. The decline can be attributed to coronavirus crisis-induced weakness in the enterprise and commercial markets.

Quarter Ending 07/2020

Report Date	Aug 12, 2020
Sales Surprise	0.50%
EPS Surprise	8.11%
Quarterly EPS	0.80
Annual EPS (TTM)	3.20

Quarter in Detail

Region-wise, the Americas, the EMEA and the APJC revenues decreased 12%, 6% and 7% year over year to \$7.19 billion, \$3.11 billion and \$1.86 billion, respectively. Americas, EMEA and APJC contributed 59.1%, 25.6% and 15.3%, respectively, to total revenues.

Service revenues (27.3% of total revenues) remained flat at \$3.32 billion, driven by growth in software and solution services. Software subscriptions represent 78% of Cisco's software revenues, up 8% year over year.

Product revenues (72.7% of total revenues) declined 13% on a year-over-year basis to \$8.83 billion.

Total product orders were down 10% on a year-over-year basis. In terms of customer segments, product orders for public sector was down 1%. Commercial, enterprise and service provider revenues were down 23%, 7% and 5%, respectively.

Region-wise, Americas, EMEA and APJC product orders decreased 11%, 6% and 13%, respectively, on a year-over-year basis. Product orders across total emerging markets declined 19%, while the BRICs plus Mexico fell 26%.

Breakup of Product Revenues

Infrastructure Platforms (75% of Product revenues) comprise Switching, NGN routing, Wireless and Data Center solutions. Revenues fell 16% year over year to \$6.63 billion. The segment was severely impacted by coronavirus crisis-induced softness in the commercial and enterprise markets, which led to declines across routing, switching, data center, and wireless verticals.

However, Cisco witnessed strong demand for Catalyst 9000 family of switches, which improved in double digits. The company also gained from ramping up WiFi 6 products. Data Center revenues decreased owing to DRAM price declines and weak demand environment.

Applications (15.4% of Product revenues) consist of the Collaboration portfolio of Unified Communications (UC), Conferencing and TelePresence, IoT, and application software businesses such as AppDynamics and Jasper. Revenues decreased 9% year over year to \$1.36 billion due to a decline in Unified Communications and TP end points, partially offset by double-digit growth in Webex, and solid uptake of AppDynamics and IoT software.

Notably, robust of Webex video conferencing and business productivity offerings amid the COVID-19 induced work-from-home demand environment mitigated the decline. Management stated that it anticipates the momentum to continue and is witnessing the transformation of free trials into paid subscriptions, which is a positive.

Security (9.2% of Product revenues) revenues improved 10% to \$814 million. The upside can be attributed to solid demand witnessed by identity and access, advanced threat, and unified threat management solutions amid high growth in Internet traffic.

Cisco witnessed strong demand for cloud-based solutions, including Duo and Umbrella. The company's differentiated end-to-end approach across the network, cloud and endpoints has helped it expand clientele. The company is witnessing momentum in latest SecureX offering — a comprehensive cloud-based security platform — to strengthen enterprise security infrastructure with unified visibility, automation and security capabilities across network endpoints, applications, and the cloud.

The company also introduced Secure Remote Worker, which leverages Zero Trust Architecture, combined with robust endpoint security portfolio of AnyConnect, Umbrella, Duo and AMP for Endpoints.

Other Products (0.4% of Product revenues) contains service provider video, cloud and system management, and various emerging technology offerings. Revenues slumped 17% to \$35 million.

Operating Details

Non-GAAP gross margin contracted 50 basis points (bps) from the year-ago quarter to 65%. On a non-GAAP basis, product gross margin contracted 150 bps to 63.2, while service gross margin expanded 190 bps to 69.8%.

Non-GAAP operating expenses were \$4.41 billion, down 9% year over year. As a percentage of revenues, operating expenses contracted 80 bps to 32%.

Non-GAAP operating margin expanded 40 bps year over year to 33%.

Balance Sheet and Cash Flow

As of Jul 25, 2020, Cisco's cash & cash equivalents and investments balance were \$29.4 billion, compared with \$28.6 billion as of Apr 25, 2020.

Total debt (short-term plus long-term), as of Jul 25, was \$14.6 billion compared with \$16.1 billion, as of Apr 25.

Operating cash flow was \$3.8 billion compared with \$4.2 billion reported in the prior quarter.

In the fiscal fourth quarter, Cisco returned \$1.5 billion to shareholders through dividends. The company did not repurchase any shares during the reported quarter. Notably, the company has \$10.8 billion remaining under its current share buyback program with no termination date.

Remaining performance obligations (RPO) at the end of fiscal 2020 were \$28.4 billion, up 12%. The metric represents total committed non-cancelable future revenues.

Q1 Guidance

For first-quarter fiscal 2021, revenues are expected to decline 9-11% on a year-over-year basis.

Non-GAAP earnings are anticipated between 69 cents and 71 cents per share.

Notably, non-GAAP gross margin is expected in the range of 64-65%, while operating margin is anticipated between 30% and 31% for the quarter.

Recent News

On Oct 8, Cisco announced partnership with Qwilt and Digital Alpha (DA), to roll out a new as-a-service offering based on Open Caching, with BT as the flagship customer, in a bid to enhance commercial Content Delivery Network (CDN) market.

On Oct 8, Cisco announced that it was joining forces with Verizon Communications to provide sports fans with enriched in-stadium experiences as crowd entertainment slowly picks up pace. Cisco will combine Verizon's 5G Ultra Wideband network and 5G mobile edge computing (MEC) capabilities with its Sports and Entertainment solutions' portfolio to boost fan experience on site.

On Sep 9, Cisco announced a quarterly dividend of 36 cents per share. The quarterly dividend is payable on Oct 21 to shareholders as on Oct 2.

On Aug 7, Cisco announced the completion of ThousandEyes acquisition. On May 28, the company had declared its plans to acquire the San Francisco, CA-based startup. The deal will enable Cisco to address the growing demand for software solutions that can help enterprises deal with the uncertainty and chaos stemming from COVID-19 outbreak-induced dependence on the Internet and accelerated cloud adoption.

On Jul 22, Cisco and Acacia released a joint statement on the status of pending acquisition of Acacia by Cisco. Cisco and Acacia expect the acquisition to receive regulatory clearance from ongoing regulatory review being led by the State Administration for Market Regulation of the People's Republic of China ("SAMR").

On Jul 7, Cisco received the "2020 Global Market Leadership Award" from Frost & Sullivan for leading the global network access control (NAC) market in 2019 with a share of 33.4%. Notably, Cisco's NAC revenue growth outperformed the market and earned it 0.85 basis points (bps) of market share.

On Jul 6, Cisco announced the launch of a new financial program to help small and medium enterprises (SMEs) in Malaysia. SMEs in the country will be able to purchase all Cisco products at 0% interest, no upfront costs, and at a fixed 3-year monthly payment term.

Valuation

Cisco shares are down 16.2% in the year-to-date period and 14.6% in the trailing 12-month period. Stocks in the Zacks sub-industry are down 16.5%, while the same in the Zacks Computer & Technology sector are up 28.2%, in the year-to-date period. In the past year, the Zacks sub-industry is down 14.7%, while the sector is up 40%.

The S&P 500 index is up 8.2% in the year-to-date period and 16.4% in the past year.

The stock is currently trading at 14X forward 12-month earnings, which compares to 14.03X for the Zacks sub-industry, 27.4X for the Zacks sector and 22.57X for the S&P 500 index.

Over the past five years, the stock has traded as high as 19.8X and as low as 10.48X, with a five-year median of 15.28X. Our Neutral recommendation indicates that the stock will perform in line with the market. Our \$42 price target reflects 13.04X forward 12-month earnings.

The table below shows summary valuation data for CSCO

Valuation Multiples - CSCO					
		Stock	Sub-Industry	Sector	S&P 500
P/E F12M	Current	14	14.03	27.4	22.57
	5-Year High	19.8	19.16	28	23.47
	5-Year Low	10.48	11.24	16.95	15.27
	5-Year Median	15.28	15.49	19.95	17.7
P/S F12M	Current	3.48	3.18	4.29	4.17
	5-Year High	5.19	4.27	4.48	4.31
	5-Year Low	2.28	2.35	2.77	3.18
	5-Year Median	3.69	3.31	3.44	3.67
EV/Sales TTM	Current	3.07	2.73	5.04	4.02
	5-Year High	4.48	4.02	5.22	4.16
	5-Year Low	1.5	1.45	2.85	2.61
	5-Year Median	3.13	2.88	3.82	3.57

As of 10/15/2020

Source: Zacks Investment Research

Industry Analysis Zacks Industry Rank: Bottom 14% (219 out of 254)



Source: Zacks Investment Research

Top Peers

Company (Ticker)	Rec	Rank
Amazon.com, Inc. (AMZN)	Neutral	4
Check Point Software Technologies Ltd. (CHKP)	Neutral	3
F5 Networks, Inc. (FFIV)	Neutral	4
Juniper Networks, Inc. (JNPR)	Neutral	3
Microsoft Corporation (MSFT)	Neutral	3
NVIDIA Corporation (NVDA)	Neutral	3
Palo Alto Networks, Inc. (PANW)	Neutral	4
VMware, Inc. (VMW)	Neutral	3

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

Industry Comparison Industry: Computer - Networking				Industry Peers		
	CSCO	X Industry	S&P 500	AMZN	JNPR	VMW
Zacks Recommendation (Long Term)	Neutral	-	-	Neutral	Neutral	Neutral
Zacks Rank (Short Term)	4	-	-	4	3	3
VGM Score	B	-	-	B	D	C
Market Cap	169.21 B	192.31 M	23.94 B	1,672.30 B	7.46 B	64.36 B
# of Analysts	12	3	14	17	8	11
Dividend Yield	3.60%	0.00%	1.59%	0.00%	3.56%	0.00%
Value Score	C	-	-	D	B	C
Cash/Price	0.17	0.21	0.07	0.04	0.25	0.07
EV/EBITDA	9.25	10.85	13.69	43.73	11.73	26.27
PEG F1	1.84	2.48	2.85	3.50	1.82	1.57
P/B	4.46	1.71	3.52	22.68	1.67	8.14
P/CF	11.90	14.89	13.34	49.79	11.90	22.93
P/E F1	12.91	15.16	22.31	105.61	14.60	23.08
P/S TTM	3.43	1.87	2.66	5.20	1.69	5.78
Earnings Yield	7.78%	4.73%	4.34%	0.95%	6.84%	4.33%
Debt/Equity	0.31	0.14	0.70	0.45	0.39	0.63
Cash Flow (\$/share)	3.36	0.44	6.93	67.05	1.89	6.68
Growth Score	B	-	-	A	D	C
Historical EPS Growth (3-5 Years)	9.17%	-7.83%	10.41%	97.34%	-7.06%	13.02%
Projected EPS Growth (F1/F0)	-3.14%	26.50%	-2.95%	37.39%	-10.40%	6.38%
Current Cash Flow Growth	-2.66%	19.07%	5.54%	31.33%	-8.77%	0.87%
Historical Cash Flow Growth (3-5 Years)	2.34%	17.48%	8.51%	49.26%	-15.41%	13.69%
Current Ratio	1.72	2.21	1.35	1.18	1.88	0.88
Debt/Capital	23.39%	12.42%	42.91%	31.00%	27.81%	38.66%
Net Margin	22.75%	-6.38%	10.28%	4.10%	7.89%	15.94%
Return on Equity	34.75%	-3.44%	14.79%	20.47%	8.71%	27.92%
Sales/Assets	0.53	0.90	0.51	1.42	0.51	0.42
Projected Sales Growth (F1/F0)	-2.14%	0.00%	-0.53%	31.96%	-1.13%	13.45%
Momentum Score	C	-	-	D	D	C
Daily Price Change	0.20%	0.30%	0.41%	-0.75%	0.00%	-1.59%
1-Week Price Change	4.13%	1.38%	4.06%	5.17%	6.29%	5.97%
4-Week Price Change	-0.99%	5.57%	2.68%	10.97%	-3.27%	8.34%
12-Week Price Change	-15.69%	-0.64%	5.78%	11.79%	-8.16%	7.78%
52-Week Price Change	-15.01%	11.56%	3.83%	86.78%	-6.21%	0.72%
20-Day Average Volume (Shares)	23,584,734	18,079	2,066,999	5,369,007	3,058,194	967,457
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%	0.04%	-0.53%	0.00%	0.00%
EPS F1 Estimate 12-Week Change	-0.80%	6.62%	3.55%	56.68%	1.99%	16.26%
EPS Q1 Estimate Monthly Change	0.00%	0.00%	0.00%	-1.80%	0.00%	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	B
Momentum Score	C
VGM Score	B

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.

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 forward-looking 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 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.