

## Broadcom Inc. (AVGO)

**\$333.64** (As of 08/12/20)

Price Target (6-12 Months): **\$351.00**

Long Term: 6-12 Months

**Zacks Recommendation:**

**Neutral**

(Since: 03/19/19)

Prior Recommendation: Underperform

Short Term: 1-3 Months

**Zacks Rank:** (1-5)

**2-Buy**

Zacks Style Scores:

VGM:C

Value: C

Growth: C

Momentum: F

### Summary

Broadcom is expected to benefit from robust adoption of Wi-Fi 6 in access gateway, and solid uptick of DSL and PON products. Further, synergies from acquisitions of CA and Symantec's enterprise security business are anticipated to bolster the company's presence in infrastructure software vertical. It is also well poised to address the needs of rapidly growing technologies like IoT and 5G, backed by an expanding product portfolio. However, Increasing lead times remains an overhang. The company estimates semiconductor revenues in wireless domain to decline in fiscal third quarter as its "large North American mobile phone customer", likely indicating Apple, delays ramp of next-generation smartphone. Also, a highly leveraged balance sheet adds to the woes. Notably, shares have underperformed the industry on a year-to-date basis.

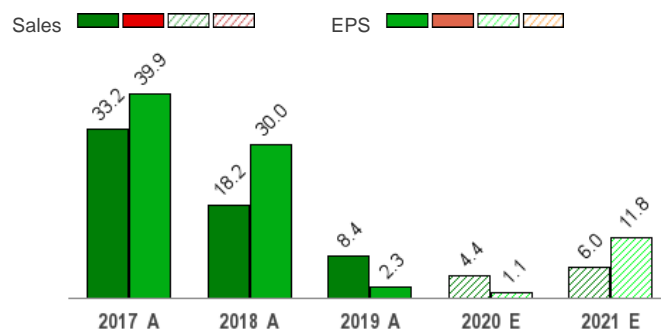
### Price, Consensus & Surprise



### Data Overview

52 Week High-Low	\$335.88 - \$155.67
20 Day Average Volume (sh)	1,740,534
Market Cap	\$134.2 B
YTD Price Change	5.6%
Beta	0.89
Dividend / Div Yld	\$13.00 / 3.9%
Industry	<a href="#">Electronics - Semiconductors</a>
Zacks Industry Rank	Top 21% (52 out of 253)

### Sales and EPS Growth Rates (Y/Y %)



Last EPS Surprise	0.2%
Last Sales Surprise	0.7%
EPS F1 Est- 4 week change	0.0%
Expected Report Date	09/03/2020
Earnings ESP	0.0%
P/E TTM	15.9
P/E F1	15.5
PEG F1	1.3
P/S TTM	5.9

### Sales Estimates (millions of \$)

	Q1	Q2	Q3	Q4	Annual*
2021	6,115 E	6,024 E	6,245 E	6,704 E	24,988 E
2020	5,858 A	5,742 A	5,781 E	6,215 E	23,580 E
2019	5,789 A	5,517 A	5,515 A	5,776 A	22,597 A

### EPS Estimates

	Q1	Q2	Q3	Q4	Annual*
2021	\$5.77 E	\$5.73 E	\$6.04 E	\$6.63 E	\$24.07 E
2020	\$5.25 A	\$5.14 A	\$5.23 E	\$5.86 E	\$21.52 E
2019	\$5.55 A	\$5.21 A	\$5.16 A	\$5.39 A	\$21.29 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 08/12/2020. The reports text is as of 08/13/2020.

## Overview

Broadcom is a premier designer, developer and global supplier of a broad range of semiconductor devices with a focus on complex digital and mixed signal complementary metal oxide semiconductor (CMOS) based devices and analog III-V based products. The company was formed following the completion of the merger of Avago and Broadcom Corporation on Feb 1, 2016. Headquarters are in San Jose, CA.

Broadcom has been aggressively pursuing strategic acquisitions to diversify end markets beyond semiconductors. The company is looking to strengthen presence in the infrastructure software vertical particularly. This strategy is enabling the company to improve the top line. Buyouts of CA and Symantec's enterprise security business remain noteworthy.

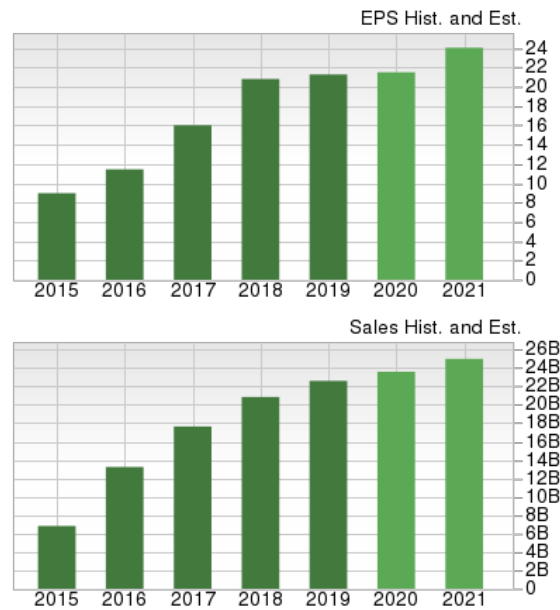
Broadcom reported revenues of \$22.597 billion in fiscal 2019. From first quarter of fiscal 2020, the company clubbed reporting of revenues from Intellectual property licensing with Semiconductor solutions segment. The company has two reporting segments: Semiconductor solutions and Infrastructure software.

Semiconductor solutions manage the data transfer to and from the enterprise, telecom, data center, and embedded networking applications. The company's solutions serve the smartphone market with products that include a broad variety of RF semiconductor devices, connectivity solutions and custom touch controllers.

Moreover, the company offers system-on-chip (SoC) platform solutions for Set-Top-Box. Broadband access solutions offer SoC platform solutions. The company's broad set of Ethernet switching and routing products are optimized for data center implementations, service provider networks, enterprise, and small-and-medium business/Remote-Office Branch-Office (SMB/ROBO) markets.

Infrastructure software solutions involve enterprise, mainframe, and storage area networking solutions, to aid customers to utilize the benefits of automation, resiliency, insights, and security capabilities to manage business processes.

The company faces stiff competition from Intel, Marvell Technology, NVIDIA post Mellanox Technologies buyout, ON Semiconductor post Quantenna Communications buyout, Qorvo, Inc., Qualcomm and Skyworks Solutions to name few.



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## Reasons To Buy:

- ▲ The Semiconductor Industry serves as a driver, enabler and indicator of technological progress. The Internet of Things (IoT) is creating newer avenues and is largely believed to be the next semiconductor growth opportunity with the potential for billions of connected devices. Broadcom's strong relationships with leading OEMs across multiple target markets have helped it to gain key insights into the requirements of customers. This insight has helped the company to be more efficient and productive in better serving the target markets and customers. In addition, the company maintains an efficient global supply chain with a variable, low-cost operating model.
- ▲ Moreover, Broadcom's focus on multiple target markets mitigates operating risks and lessens the exposure to volatility in any single market. Based on its expanding product portfolio, the company is well-positioned to address the needs of rapidly growing technologies like IoT and 5G. We believe that Broadcom's extensive product portfolio, which serves multiple applications within four primary end markets, will help it to gain significant market share going ahead.
- ▲ Acquisitions, over time, have been Broadcom's most favored mode for penetrating unexplored markets. We believe that the company is well poised to benefit from synergies from acquisitions of CA and Symantec's enterprise security business. In fact, CA's strength in enterprise software offerings and substantial customer base is anticipated to enable Broadcom in exploring the infrastructure software market and expanding its TAM. Notably, Symantec's enterprise security business contributed more than \$400 million to revenues in the reported quarter. Further, the acquisition of LSI Corporation helped the company to diversify its existing business line from wired infrastructure, wireless and industrial businesses into the storage chip market. The addition of Brocade enables the company to further penetrate the FC SAN market and garner competitive prowess in the long run. Avago's merger with Broadcom for a total consideration of \$37 billion is arguably the largest of its kind in the semiconductor chip industry and created a behemoth with one of the most diversified communications platforms at combined annual revenues of approximately \$15 billion. Synergistic benefits from the merger is likely to increase profitability through economies of scale and mutual sharing of manufacturing expertise.
- ▲ Broadcom generates significant cash flow that enables it to pay out consistent dividend. The company paid out aggregate cash dividends of \$4.2 billion, \$2.92 billion, \$1.65 billion and \$716 million during fiscal 2019, 2018, 2017 and 2016, respectively. Additionally, Broadcom returned \$1.381 billion in forms of dividends to shareholders during second-quarter fiscal 2020. The company also approved a quarterly cash dividend of \$3.25 per ordinary share. During second-quarter fiscal 2020, Broadcom generated cash flow from operations of \$3.213 billion compared with \$2.322 billion in the previous quarter. Free cash flow during the quarter was \$3.065 billion compared with \$2.214 billion in the prior quarter. Due to strong and relatively stable cash flow, we believe that the dividend payout (0.77) appears sustainable and makes the stock quite attractive.

Broadcom is a leading player in the semiconductor market based on its expanding product portfolio, multiple target markets, accretive acquisitions and strong cash flow.

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## Reasons To Sell:

- ▼ A significant portion of Broadcom's revenue comes from a handful of customers. Top five direct customers accounted for 30% of the company's top-line in both fiscal 2019. Loss of any of these top five customers can significantly hurt top-line growth. Apple (including sales to the contract manufacturer) contributed more than 20% of revenues in fiscal 2019. Moreover, due to the significant exposure, Broadcom's share price movement depends heavily on Apple's results (primarily on iPhone's performance), which doesn't bode well for the investors. Notably, Broadcom estimates semiconductor revenues in wireless domain to decline in fiscal third quarter as its "large North American mobile phone customer", likely indicating Apple, delays ramp of next-generation smartphone.
- ▼ Broadcom operates in a highly competitive market. The company faces significant competition in most of its operating markets that negatively impacts top-line growth. Pricing pressure also keeps margin under pressure. In the FBAR technology market, the company faces significant competition from Skyworks surface acoustic wave (SAW) filters. Well-established companies like Cavium, Intel are its competitors in the wired infrastructure market. The acquisition of Brocade makes it a direct competitor of Cisco, a well-known name in the FC SAN market. We expect intensifying competition to keep profitability under pressure at least in the near-term.
- ▼ Broadcom's frequent acquisitions have escalated integration risks. Moreover, we note that the large acquisitions negatively impacted the company's balance sheet in the form of high level of goodwill and intangible assets, which totaled \$63.37 billion or 77.7% of total assets as of May 3, 2020.
- ▼ Acquisitions have also negatively impacted Broadcom's balance sheet, as high indebtedness adds to the risk of investing in the company. As of May 3, 2020, net debt position was \$36.66 billion compared with \$38.27 billion as of Feb 2, 2020. Nevertheless, total debt to total capital of 65.7% is higher than the prior-quarter figure of 64.7%. Further, times interest earned currently stands at 2.2X, down from the prior-quarter figure of 2.5X. Although the company generates significant cash flow, the high debt level can jeopardize its ability to pursue accretive acquisitions and sustain dividend payout.

Customer concentration, intensifying competition, integration risks due to frequent acquisitions and leverage balance sheet are key headwinds.

## Last Earnings Report

### Broadcom Q2 Earnings & Revenues Beat Estimates

Broadcom reported second-quarter fiscal 2020 non-GAAP earnings of \$5.14 per share, which surpassed the Zacks Consensus Estimate by 0.2%. However, the figure declined 1.3% from the year-ago quarter's reported quarter.

Net revenues came in at \$5.742 billion, up 4% from the year-ago quarter's tally. Moreover, the top line beat the Zacks Consensus Estimate of \$5.701 billion.

Quarter Ending **04/2020**

Report Date	Jun 04, 2020
Sales Surprise	<b>0.72%</b>
EPS Surprise	<b>0.19%</b>
Quarterly EPS	<b>4.16</b>
Annual EPS (TTM)	<b>20.94</b>

### Segmental Revenues

Beginning first-quarter fiscal 2020, the company clubbed reporting of revenues from Intellectual property licensing with Semiconductor solutions segment. The company now reports in two reporting segments — Semiconductor solutions and Infrastructure software.

**Semiconductor solutions'** revenues (70% of total net revenues) totaled \$4.027 billion, down 2% from the year-ago quarter's level. The downside was due to coronavirus-induced supply chain constraints and product cycle delay across wireless vertical. Moreover, increasing lead times is a headwind. Nonetheless, robust demand for high capacity drives, networking, and broadband products, limited the decline to a certain extent.

The company witnessed strength in networking end market driven by uptick in demand for latest Tomahawk 3 and Trident 3 switch products across cloud customers. In network routing, growing clout of Jericho 2 across telco customers was noteworthy. The company is also optimistic regarding rise in demand for latest deep learning inference chips across cloud customers.

Markedly, during the reported quarter, Baidu adopted Broadcom's Stingray Ethernet-based adapter, 100G SmartNIC, to boost server performance and utilization of its cloud platform.

Solid demand from CSPs or cloud service providers for the company's PCI Express switches was driven by the need to accelerate complex AI applications, with solid state memory capabilities. In industrial domain, management noted recovery in resales.

**Infrastructure software** revenues (30%) increased 21% year over year to \$1.715 billion. The company is benefiting from synergies from acquisitions of CA and Symantec's enterprise security business.

Notably, Symantec's enterprise security business contributed more than \$400 million to revenues in the reported quarter.

### Operating Details

Non-GAAP gross margin expanded 100 basis points (bps) on a year-over-year basis to 73%. The increase can be attributed to improving mix of infrastructure software sales.

Total operating expenses on a non-GAAP basis increased 14% year over year to \$1.165 billion. As a percentage of net revenues, the figure expanded 180 bps to 20.3%.

Consequently, non-GAAP operating margin contracted 70 bps from the year-ago quarter's figure to 53%, due to costs pertaining to Symantec acquisition.

Adjusted EBITDA (excluding \$147 million of depreciation) came in at \$3.209 billion, representing 55.9% of net revenues in the fiscal second quarter.

### Balance Sheet & Cash Flow

As of May 3, 2020, cash & cash equivalents were \$9.207 billion compared with \$6.444 billion reported as of Feb 2, 2020.

As of May 3, long-term debt (including current portion) was \$45.863 billion compared with \$44.718 billion as of Feb 2.

Broadcom generated cash flow from operations of \$3.213 billion compared with \$2.322 billion in the previous quarter. Capital expenditure totaled \$148 million compared with the last reported quarter's figure of \$108 million. Free cash flow during the quarter was \$3.065 billion compared with \$2.214 billion in the prior quarter.

During the reported quarter, Broadcom returned \$1.381 billion in form of dividends to shareholders during the fiscal second quarter.

### Guidance

For third-quarter fiscal 2020, the company anticipates revenues of \$5.75 billion (+/- \$150 million). Adjusted EBITDA is anticipated at \$3.22 billion (+/- \$75 million) in the fiscal third quarter.

## Recent News

On Aug 10, Broadcom announced the completion of its offer to exchange outstanding unregistered senior notes originally issued in private placements, and registered under the Securities Act of 1933, as amended. The offer included senior notes categorized in 13 slots, slated to mature in 2021 through 2032.

On Jul 7, Broadcom inked a definitive agreement to sell its IoT business to Synaptics Incorporated for \$250 million. Per the agreement, Synaptics will also gain manufacturing rights to Broadcom's wireless IoT products and certain rights to its Wi-Fi, Bluetooth and GPS/GNSS products.

On Jun 16, Broadcom unveiled decision-making framework — BizOps — to facilitate planning, and operational intelligence based on Automation.ai platform in a bid to aid enterprises accelerate digital transformation initiatives.

On Jun 4, Broadcom announced a quarterly dividend of \$3.25 per share. The quarterly dividend is payable on Jun 30 to shareholders as on Jun 22.

On Jun 3, Broadcom announced the expiration and settlement of its private exchange offers of certain outstanding notes for new notes. Following the final settlement, the aggregate principal amount of existing August 2022, October 2022, January 2024 and October 2024 Notes outstanding will be \$283,351,000, \$692,841,000, \$1,352,128,000 and \$1,044,409,000; respectively.

On May 28, Broadcom expanded partnership with HCL Technologies. Per the terms, HCL will now be able to expand portfolio with Symantec Enterprise Division (SED) consulting services, which was part of Broadcom's enterprise security offerings.

## Valuation

Broadcom shares are up 5.6% in the year-to-date period and 17.6% over the trailing 12-month period. Stocks in the Zacks sub-industry and the Zacks Computer & Technology sector are up 24.3% and 18% in the year-to-date period, respectively. Over the past year, the Zacks sub-industry and sector are up 51.4% and 31.9%, respectively.

The S&P 500 index is up 3.3% in the year-to-date period and 14.1% in the past year.

The stock is currently trading at 14.19X forward 12-month earnings, which compares to 17.18X for the Zacks sub-industry, 26.27X for the Zacks sector and 22.6X for the S&P 500 index.

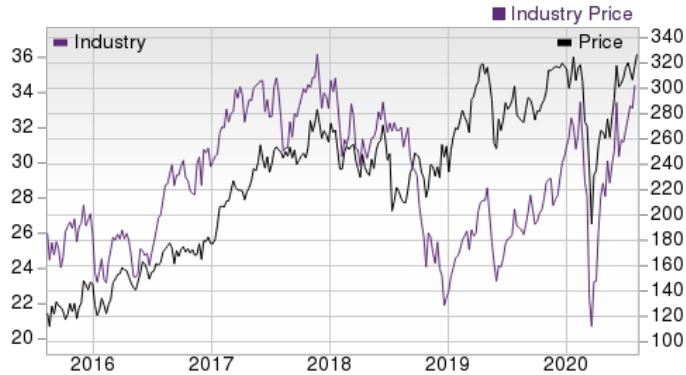
Over the past five years, the stock has traded as high as 18.66X and as low as 8.37X, with a 5-year median of 14.93X. Our Neutral recommendation indicates that the stock will perform in line with the market. Our \$351 price target reflects 14.93X forward 12-month earnings.

The table below shows summary valuation data for AVGO

Valuation Multiples - AVGO					
		Stock	Sub-Industry	Sector	S&P 500
P/E F12M	Current	14.19	17.18	26.27	22.6
	5-Year High	18.66	28.43	26.31	22.62
	5-Year Low	8.37	5.64	16.72	15.25
	5-Year Median	14.93	11.27	19.61	17.58
P/S F12M	Current	5.44	7.77	4.07	3.65
	5-Year High	6.01	7.77	4.07	3.65
	5-Year Low	2.27	4.68	2.32	2.53
	5-Year Median	4.69	5.74	3.14	3.05
EV/EBITDA TTM	Current	11.52	25.85	13.36	12.55
	5-Year High	27	26.22	13.51	12.84
	5-Year Low	7.22	11.45	7.59	8.24
	5-Year Median	10.64	18.72	10.91	10.9

As of 08/12/2020

## Industry Analysis Zacks Industry Rank: Top 21% (52 out of 253)



## Top Peers

Company (Ticker)	Rec	Rank
Analog Devices, Inc. (ADI)	Outperform	2
Advanced Micro Devices, Inc. (AMD)	Outperform	3
Texas Instruments Incorporated (TXN)	Outperform	1
Cisco Systems, Inc. (CSCO)	Neutral	2
Intel Corporation (INTC)	Neutral	3
Microchip Technology Incorporated (MCHP)	Neutral	3
Marvell Technology Group Ltd. (MRVL)	Neutral	3
NVIDIA Corporation (NVDA)	Neutral	3

Industry Comparison Industry: Electronics - Semiconductors				Industry Peers		
	AVGO	X Industry	S&P 500	ADI	AMD	CSCO
Zacks Recommendation (Long Term)	Neutral	-	-	Outperform	Outperform	Neutral
Zacks Rank (Short Term)	2	-	-	2	3	2
VGM Score	C	-	-	D	B	C
Market Cap	134.19 B	944.63 M	23.75 B	43.92 B	96.99 B	203.09 B
# of Analysts	5	2	14	12	10	6
Dividend Yield	3.90%	0.00%	1.68%	2.08%	0.00%	2.99%
Value Score	C	-	-	C	D	C
Cash/Price	0.07	0.18	0.07	0.02	0.02	0.14
EV/EBITDA	17.94	6.11	13.35	19.11	126.93	10.74
PEG Ratio	1.28	1.72	2.98	1.92	1.64	2.84
Price/Book (P/B)	5.60	2.58	3.20	3.79	29.35	5.69
Price/Cash Flow (P/CF)	9.82	15.00	12.97	16.06	108.61	13.98
P/E (F1)	15.50	21.97	22.17	25.64	74.93	15.34
Price/Sales (P/S)	5.86	2.82	2.54	7.92	12.68	4.12
Earnings Yield	6.45%	2.55%	4.31%	3.90%	1.33%	6.53%
Debt/Equity	1.88	0.16	0.77	0.44	0.15	0.32
Cash Flow (\$/share)	33.97	0.57	6.94	7.42	0.76	3.44
Growth Score	C	-	-	D	A	C
Hist. EPS Growth (3-5 yrs)	22.21%	3.53%	10.41%	16.81%	80.17%	9.03%
Proj. EPS Growth (F1/F0)	1.08%	7.98%	-6.32%	-9.72%	72.27%	-2.28%
Curr. Cash Flow Growth	8.07%	-3.50%	5.22%	-9.88%	44.79%	6.95%
Hist. Cash Flow Growth (3-5 yrs)	48.32%	10.34%	8.55%	24.75%	27.24%	3.53%
Current Ratio	2.15	3.30	1.33	1.30	2.10	1.59
Debt/Capital	65.31%	13.53%	44.59%	30.73%	12.91%	24.49%
Net Margin	10.97%	2.01%	10.13%	20.05%	7.96%	22.75%
Return on Equity	32.00%	3.22%	14.59%	14.51%	28.66%	35.42%
Sales/Assets	0.31	0.63	0.51	0.26	1.29	0.54
Proj. Sales Growth (F1/F0)	4.35%	0.39%	-1.40%	-8.29%	32.03%	0.08%
Momentum Score	F	-	-	D	A	D
Daily Price Chg	2.97%	0.45%	0.67%	2.28%	7.45%	1.93%
1 Week Price Chg	2.90%	1.90%	2.30%	1.28%	9.58%	0.70%
4 Week Price Chg	6.33%	3.49%	4.87%	1.12%	49.28%	3.66%
12 Week Price Chg	19.72%	24.05%	13.54%	4.06%	46.50%	5.85%
52 Week Price Chg	22.86%	33.30%	6.06%	8.08%	173.18%	-4.96%
20 Day Average Volume	1,740,534	261,478	2,006,991	3,584,463	85,860,592	17,226,372
(F1) EPS Est 1 week change	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
(F1) EPS Est 4 week change	0.00%	0.00%	1.95%	3.59%	10.51%	0.00%
(F1) EPS Est 12 week change	1.53%	1.86%	2.72%	7.52%	10.51%	0.18%
(Q1) EPS Est Mthly Chg	0.00%	0.00%	0.84%	6.87%	16.78%	0.00%



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## Zacks Stock Rating System

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

### Zacks Recommendation

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

### Zacks Rank

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

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### 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	C
Momentum Score	F
VGM Score	C

As an investor, you want to buy stocks with the highest probability of success. That means buying stocks with a Zacks Recommendation of Outperform, which also has a Style Score of an A or a B.

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