

Broadcom Inc. (AVGO)

\$273.53 (As of 05/18/20)

Price Target (6-12 Months): **\$288.00**

Long Term: 6-12 Months

Zacks Recommendation:

Neutral

(Since: 03/19/19)

Prior Recommendation: Underperform

Short Term: 1-3 Months

Zacks Rank: (1-5)

3-Hold

Zacks Style Scores:

VGM:B

Value: C

Growth: B

Momentum: B

Summary

Broadcom is expected to benefit from the roll out of 5G smartphones in the semiconductor space amid accelerated deployment of 5G. Further, synergies from acquisitions of Brocade, CA and Symantec's enterprise security business are expected to boost Broadcom's presence in infrastructure software vertical, in the days ahead. Broadcom is also well positioned to address the needs of rapidly-growing technologies like IoT and 5G, backed by an expanding product portfolio. Additionally, robust demand for high capacity drives, networking and broadband products also holds promise. However, slowdown in IT spending, as estimated by IDC, remains an overhang. Further, the company withdrew its previous guidance for fiscal 2020, thanks to coronavirus crisis-led uncertainty. Notably, shares have underperformed the industry in the past year.

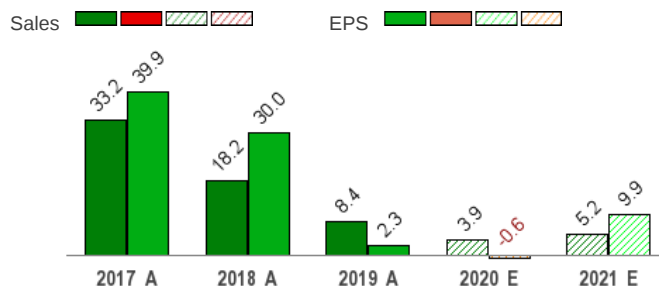
Price, Consensus & Surprise



Data Overview

52 Week High-Low	\$331.58 - \$155.67
20 Day Average Volume (sh)	2,276,182
Market Cap	\$109.4 B
YTD Price Change	-13.5%
Beta	0.93
Dividend / Div Yld	\$13.00 / 4.8%
Industry	Electronics - Semiconductors
Zacks Industry Rank	Top 12% (30 out of 254)

Sales and EPS Growth Rates (Y/Y %)



Last EPS Surprise	0.6%
Last Sales Surprise	-1.1%
EPS F1 Est- 4 week change	0.0%
Expected Report Date	06/04/2020
Earnings ESP	0.0%
P/E TTM	13.0
P/E F1	12.9
PEG F1	1.1
P/S TTM	4.8

Sales Estimates (millions of \$)

	Q1	Q2	Q3	Q4	Annual*
2021	6,042 E	5,953 E	6,124 E	6,486 E	24,702 E
2020	5,858 A	5,701 E	5,812 E	6,112 E	23,478 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	\$5.54 E	\$5.50 E	\$5.73 E	\$6.23 E	\$23.27 E
2020	\$5.25 A	\$5.02 E	\$5.24 E	\$5.66 E	\$21.17 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 05/18/2020. The reports text is as of 05/19/2020.

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.

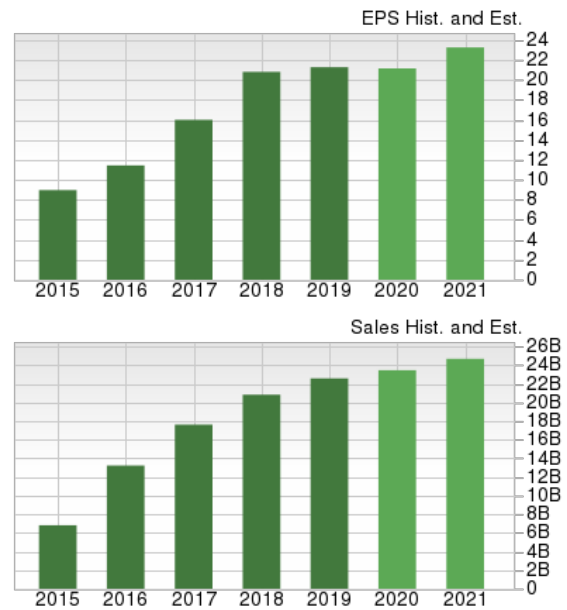
Broadcom reported revenues of \$22.597 billion in fiscal 2019. The company primarily serves two broad target markets: Semiconductor solutions and Infrastructure Software.

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. RF semiconductor solutions include film bulk acoustic resonator (FBAR) filters that allow smartphones to function more efficiently in congested RF spectrum. 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. Broadcom provides a diverse range of products for the general industrial and automotive 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 in 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.

From first quarter of fiscal 2020, the company clubbed reporting of revenues from Intellectual property licensing with Semiconductor solutions segment. The company now has two reporting segments: Semiconductor solutions and Infrastructure software.



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. The company outsources a majority of its manufacturing operations, assembly and test capabilities, as well as some of its corporate infrastructure functions. Broadcom also aims to minimize capital expenditures by focusing on internal manufacturing capacities, leveraging innovative materials and processes to protect intellectual property rights while outsourcing standard CMOS processes. These enable the company to maintain sustainable revenue growth and expand margins.
- ▲ 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.
- ▲ 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, research and development costs and adjustment of staffing expenses.
- ▲ Acquisitions, over time, have been Broadcom's most favored mode for penetrating unexplored markets. We believe that the company is well positioned to benefit from synergies from the CA buyout. In fact, CA's strength in enterprise software offerings and substantial customer base is anticipated to enable Broadcom to explore the infrastructure software market and expand its TAM. Moreover, management is banking on contribution from the acquisition of Symantec's enterprise security business in fiscal 2020. 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 strategic move was aimed at augmenting its revenues, as the industry braces for more consolidation amid a challenging macroeconomic environment. Leveraging on economies of scale, Broadcom is expected to benefit from rapid increases in data center IP (Internet protocol) and mobile data traffic, to emerge as the undisputed leader in the enterprise storage market. In addition to cost synergies from a combined resource pool as the cost of designing and building semiconductors rises, the acquisition is likely to improve the operating margin of the combined company, creating greater scale to further drive innovation into the datacenter. The addition of Brocade enables the company to further penetrate the FC SAN market and garner competitive prowess in the long run.
- ▲ 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 \$1.372 billion in forms of dividends to shareholders during first-quarter fiscal 2020. The company also approved a quarterly cash dividend of \$3.25 per ordinary share. Notably, Broadcom generated cash flow from operations of \$2.322 billion and free cash flow was \$2.214 billion during the first quarter of fiscal 2020. 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.

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.
- ▼ 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 \$64.94 billion or 80.2% of total assets as of Feb 2, 2020.
- ▼ Acquisitions have also negatively impacted Broadcom's balance sheet, as high indebtedness adds to the risk of investing in the company. As of Feb 2, 2020, net debt position was \$38.274 billion compared with \$27.743 billion as of Nov 3, 2019. Moreover, total debt to total capital of 64.7% is higher than the prior quarter's figure of 56.8%. Although the company generates significant cash flow, the high debt level can jeopardize its ability to sustain dividend payout, and pursue accretive acquisitions.

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

Last Earnings Report

Broadcom Q1 Earnings Top Estimates, Revenues Lag

Broadcom reported first-quarter fiscal 2020 non-GAAP earnings of \$5.25 per share surpassing the Zacks Consensus Estimate by 0.57%. However, the figure declined 5.4% from the year-ago reported quarter.

Net revenues came in at \$5.858 billion, up 1% from the year-ago quarter. However, the top line missed the Zacks Consensus Estimate of \$5.925 billion.

Quarter Ending **01/2020**

Report Date	Mar 12, 2020
Sales Surprise	-1.14%
EPS Surprise	0.57%
Quarterly EPS	5.25
Annual EPS (TTM)	21.01

Segmental Revenues

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

Semiconductor solutions' revenues (72% of total net revenues) totaled \$4.191 billion, down 4% from the year-ago quarter owing to soft demand of wireless products. Nonetheless, robust demand for high capacity drives, networking, and broadband products, offset the decline.

Infrastructure software revenues (28%) improved 19% year over year to \$1.667 billion. The company is benefiting from synergies from acquisitions of Brocade, CA and Symantec's enterprise security business.

Markedly, on Nov 4, 2019, Broadcom concluded the acquisition of Symantec's enterprise security business. The buyout is expected to aid the company in expanding presence in infrastructure software space. Notably, the first-quarter results exclude Symantec's Managed Security Services business, which the company is divesting to Accenture.

Notably, CA and Symantec's enterprise security business contributed \$880 million and \$400 million to revenues in the reported quarter.

Operating Details

Non-GAAP gross margin expanded 160 bps on a year-over-year basis to 73%. The increase can be attributed to improving mix of semiconductor sales and synergies from acquisitions of CA and Symantec's enterprise security business in infrastructure software vertical.

Total operating expenses on a non-GAAP basis increased 10.4% year over year to \$1.193 billion. As a percentage of net revenues, the figure expanded 170 bps to 20.4%.

Consequently, non-GAAP operating margin contracted 10 bps from the year-ago quarter to 52.6%.

Adjusted EBITDA (excluding \$146 million of depreciation) came in at \$3.265 billion, representing 55.7% of net revenues in the fiscal first quarter.

Balance Sheet & Cash Flow

As of Feb 2, 2020, cash & cash equivalents were \$6.444 billion, compared with \$5.055 billion reported as of Nov 3, 2019.

As of Feb 2, 2020, long-term debt (including current portion) was \$44.718 billion compared with \$32.798 billion as of Nov 3, 2019.

Broadcom generated cash flow from operations of \$2.322 billion compared with \$2.479 billion in the previous quarter. Capital expenditure totaled \$108 million, compared with the last reported quarter's \$96 million. Free cash flow during the quarter was \$2.214 billion compared with \$2.383 billion in the prior quarter.

During the reported quarter, Broadcom returned \$1.372 billion in form of dividends to shareholders during the fiscal first quarter.

Guidance

Broadcom withdrew prior outlook for fiscal 2020 citing uncertainty owing to the coronavirus crisis. Management hasn't witnessed "a meaningful impact on bookings" but visibility of spending from cloud and data center customers is unclear.

Nevertheless, the company continues to expect to pay down \$4 billion of debt in fiscal 2020. Cash dividend pay outs are anticipated at \$5.5 billion.

For second-quarter fiscal 2020, the company anticipates revenues of \$5.7 billion (+/- \$150 million). Adjusted EBITDA is anticipated at \$3.135 billion in the fiscal second quarter.

Recent News

On May 19, Broadcom rolled out DX NetOps to solve complex network congestion, on the back of Broadcom Silicon, AI-powered operations monitoring and analytics solution.

On Apr 28, Broadcom announced the launch of its Emulex Fibre Channel Host Bus Adapters (HBAs) that will provide full support for VMware ESXi 7.0.

On Mar 31, Broadcom announced that its Stingray SmartNIC adapter has been selected by Baidu to power its cloud services.

On Mar 16, Broadcom announced that IDC placed it in the leader's quadrant in project and portfolio management space, in its latest reports titled "Worldwide IT Project and Portfolio Management 2019–2020 Vendor Assessment" and "IDC MarketScape: Worldwide Agile Project and Portfolio Management Vendor Assessment."

On Mar 12, the company announced a quarterly dividend of \$3.25 per share. The quarterly dividend is payable on Mar 31, 2020, to shareholders as on Mar 23, 2020.

Valuation

Broadcom shares are down 13.5% in the year-to-date period and up 0.4% over the trailing 12-month period. Stocks in the Zacks sub-industry and the Zacks Computer & Technology sector are down 8% and 0.9% in the year-to-date period, respectively. Over the past year, the Zacks sub-industry and the sector are up 22.9% and 14.2%, respectively.

The S&P 500 index is down 10.9% in the year-to-date period and up 0.8% in the past year.

The stock is currently trading at 12.26X forward 12-month earnings, which compares to 14.19X for the Zacks sub-industry, 23.31X for the Zacks sector and 20.83X 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 \$288 price target reflects 12.91X 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	12.26	14.19	23.31	20.83
	5-Year High	18.66	28.43	23.31	20.87
	5-Year Low	8.37	5.64	16.71	15.23
	5-Year Median	14.93	11.27	19.26	17.49
P/S F12M	Current	4.53	6.36	3.54	3.24
	5-Year High	6.01	6.54	3.59	3.44
	5-Year Low	2.27	4.68	2.32	2.53
	5-Year Median	4.67	5.72	3.1	3.01
EV/EBITDA TTM	Current	10.12	20.47	11.39	10.57
	5-Year High	27	24.93	12.71	12.86
	5-Year Low	7.22	11.45	7.56	8.26
	5-Year Median	10.65	18.28	10.68	10.78

As of 05/18/2020

Industry Analysis Zacks Industry Rank: Top 12% (30 out of 254)



Top Peers

Company (Ticker)	Rec	Rank
Analog Devices, Inc. (ADI)	Neutral	3
Advanced Micro Devices, Inc. (AMD)	Neutral	3
Cisco Systems, Inc. (CSCO)	Neutral	3
Intel Corporation (INTC)	Neutral	3
Microchip Technology Incorporated (MCHP)	Neutral	4
Marvell Technology Group Ltd. (MRVL)	Neutral	3
NVIDIA Corporation (NVDA)	Neutral	2
Texas Instruments Incorporated (TXN)	Neutral	3

Industry Comparison Industry: Electronics - Semiconductors				Industry Peers		
	AVGO	X Industry	S&P 500	ADI	AMD	CSCO
Zacks Recommendation (Long Term)	Neutral	-	-	Neutral	Neutral	Neutral
Zacks Rank (Short Term)	3	-	-	3	3	3
VGM Score	B	-	-	D	D	A
Market Cap	109.35 B	777.48 M	20.09 B	39.89 B	63.94 B	191.09 B
# of Analysts	12	2	14	12	11	12
Dividend Yield	4.75%	0.00%	2.1%	2.29%	0.00%	3.20%
Value Score	C	-	-	D	F	B
Cash/Price	0.06	0.23	0.07	0.02	0.02	0.15
EV/EBITDA	15.33	5.39	12.13	17.41	83.61	10.05
PEG Ratio	1.06	2.24	2.72	2.01	2.24	2.65
Price/Book (P/B)	4.49	2.17	2.75	3.41	21.05	5.35
Price/Cash Flow (P/CF)	8.05	11.80	10.86	14.60	71.77	13.10
P/E (F1)	12.88	22.38	20.10	25.09	53.95	14.33
Price/Sales (P/S)	4.82	2.36	2.05	6.93	8.82	3.78
Earnings Yield	7.74%	1.70%	4.77%	3.99%	1.85%	6.97%
Debt/Equity	1.74	0.11	0.76	0.41	0.16	0.32
Cash Flow (\$/share)	33.97	0.57	7.01	7.42	0.76	3.44
Growth Score	B	-	-	D	B	B
Hist. EPS Growth (3-5 yrs)	25.01%	3.16%	10.87%	19.53%	NA	9.03%
Proj. EPS Growth (F1/F0)	-0.58%	1.88%	-10.31%	-16.17%	58.09%	1.45%
Curr. Cash Flow Growth	8.07%	-4.50%	5.51%	-9.88%	44.79%	6.95%
Hist. Cash Flow Growth (3-5 yrs)	48.32%	9.69%	8.55%	24.75%	27.24%	3.53%
Current Ratio	1.56	3.48	1.28	1.08	2.21	1.59
Debt/Capital	63.52%	13.42%	44.46%	28.87%	13.84%	24.49%
Net Margin	11.64%	1.51%	10.59%	21.06%	6.72%	21.32%
Return on Equity	32.46%	3.12%	16.29%	15.38%	28.28%	36.47%
Sales/Assets	0.31	0.66	0.55	0.27	1.30	0.54
Proj. Sales Growth (F1/F0)	3.90%	0.00%	-2.49%	-10.13%	24.70%	-5.13%
Momentum Score	B	-	-	C	C	A
Daily Price Chg	5.04%	3.87%	5.21%	6.42%	0.72%	1.78%
1 Week Price Chg	-5.32%	-5.51%	-4.56%	-7.31%	1.90%	2.98%
4 Week Price Chg	5.90%	6.63%	4.12%	7.36%	-4.18%	5.92%
12 Week Price Chg	-6.20%	-6.20%	-16.39%	-7.69%	11.14%	2.41%
52 Week Price Chg	0.34%	7.11%	-5.84%	11.12%	104.61%	-19.55%
20 Day Average Volume	2,276,182	258,342	2,651,378	2,343,151	68,311,568	23,375,172
(F1) EPS Est 1 week change	0.00%	0.00%	0.00%	-0.04%	0.00%	4.15%
(F1) EPS Est 4 week change	0.00%	0.00%	-4.48%	-0.04%	-8.79%	4.15%
(F1) EPS Est 12 week change	-9.71%	-18.09%	-16.39%	-9.28%	-12.23%	-3.36%
(Q1) EPS Est Mthly Chg	0.00%	0.00%	-9.90%	-0.37%	-29.59%	8.36%

Zacks Stock Rating System

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

Zacks Recommendation

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

Zacks Rank

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

Zacks Style Scores

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

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

Value Score	C
Growth Score	B
Momentum Score	B
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.

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