Broadcom Inc. (AVGO)

Updated January 19th, 2020 by Jonathan Weber

Key Metrics

Current Price:	$309	**5 Year CAGR Estimate:**	12.3%	**Market Cap:**	$123B
Fair Value Price:	$302	**5 Year Growth Estimate:**	9.0%	**Ex-Dividend Date:**	03/20/20[1]
% Fair Value:	102%	**5 Year Valuation Multiple Estimate:**	-0.5%	**Dividend Payment Date:**	03/31/20[2]
Dividend Yield:	4.2%	**5 Year Price Target**	$464	**Years Of Dividend Growth:**	9
Dividend Risk Score:	C	**Retirement Suitability Score:**	C	**Last Dividend Increase:**	22.6%

Overview & Current Events

Broadcom designs, develops and sells semiconductors under the following business units: Wired infrastructure, wireless communication, enterprise storage and industrial. Its offerings include data center chips, factory automation, energy systems and power generation, broadband access, and home connectivity. Broadcom is a fabless semiconductor company, which means that the products it designs are manufactured by other companies (so-called foundries). Broadcom domiciled to the US a couple of years ago and is now headquartered in San Jose, CA. The company was founded in 1961 and currently trades with a market capitalization of $123 billion.

Broadcom reported its fourth quarter (fiscal 2019) earnings results on December 12. The company generated revenues of $5.78 billion during the quarter, which represents an increase of 6.3% compared to the prior year's quarter.

Broadcom reported earnings-per-share of $5.39 for the fourth quarter, which was slightly less than the $5.85 that Broadcom earned during the previous year's quarter. During all of 2019 Broadcom earned $21.29 per share, slightly up from the previous year. The company forecasts revenues of $25 billion for fiscal 2020, implying a revenue growth rate in the high-single-digits versus 2019. On top of that, Broadcom also forecasts that its EBITDA will come in around $13.75 billion during the current fiscal year, which would result in an EBITDA margin of roughly 55% during 2020. Broadcom continued its track record of outstanding shareholder returns, raising its dividend by more than 22% in December, which brings its dividend yield above 4% once again.

Growth on a Per-Share Basis

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2025
EPS	$1.81	$2.28	$2.77	$2.89	$4.90	$8.98	$11.45	$16.02	$20.82	$21.29	***$23.20***	***$35.70***
DPS	$0.07	$0.40	$0.61	$0.88	$1.23	$1.64	$2.52	$4.81	$7.00	$10.60	***$13.00***	***$20.80***
Shares[3]	240	246	245	249	254	276	398	409	416	416	***410***	***400***

Broadcom's profitability has exploded over the last decade. Indeed, its earnings-per-share rose more than tenfold between 2010 and 2019. This earnings growth was driven by a significant amount of M&A, the most important one being the merger between Broadcom and Avago Technologies. Broadcom has since made several other major takeovers, including its acquisition of Brocade for $6 billion that closed in late 2017, and its takeover of CA that closed in late 2018. These acquisitions naturally have impacted Broadcom's growth tremendously, so what we see in the above table is not purely the result of Broadcom's organic growth rate. By moving towards acquisitions in the software industry with its CA takeover, Broadcom has found a new way of generating inorganic growth.

Broadcom's biggest market is wireless communication, where the company owns a strong connectivity portfolio that includes advanced LTE, Bluetooth 5.x, Wi-Fi, GNSS (GPS, Galileo, etc.), and so on. Broadcom is also well positioned in the enterprise storage market, where it provides switching and other connectivity solutions and storage products such as SSD controllers. These markets will continue to grow, and even without any major acquisitions, Broadcom's revenues

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[1] Estimated date
[2] Estimated date
[3] In Millions

should continue to grow as well. The combination of acquisitions and organic growth should result in solid revenue growth and increasing tailwinds from improving economics of scale.

Valuation Analysis

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Now	2025
Avg. P/E	11.7	13.6	13.0	13.4	14.7	13.9	13.5	14.4	10.6	13.8	***13.3***	***13.0***
Avg. Yld.	0.3%	1.3%	1.7%	2.3%	1.7%	1.3%	1.6%	2.1%	3.2%	3.6%	***4.2%***	***4.5%***

Broadcom's shares have performed well in the recent past, but its profits continue to grow as well, which is why they don't look overly expensive. Shares are trading just above our fair value estimate, based on this year's expected net profits. We believe that Broadcom's valuation will not change a lot going forward. Broadcom's above-average dividend yield of 4.2% adds significantly to the company's total return potential.

Safety, Quality, Competitive Advantage, & Recession Resiliency

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2025
Payout	3.9%	17.5%	22.0%	30.4%	25.1%	18.3%	22.0%	30.0%	33.6%	49.8%	***56.0%***	***58.4%***

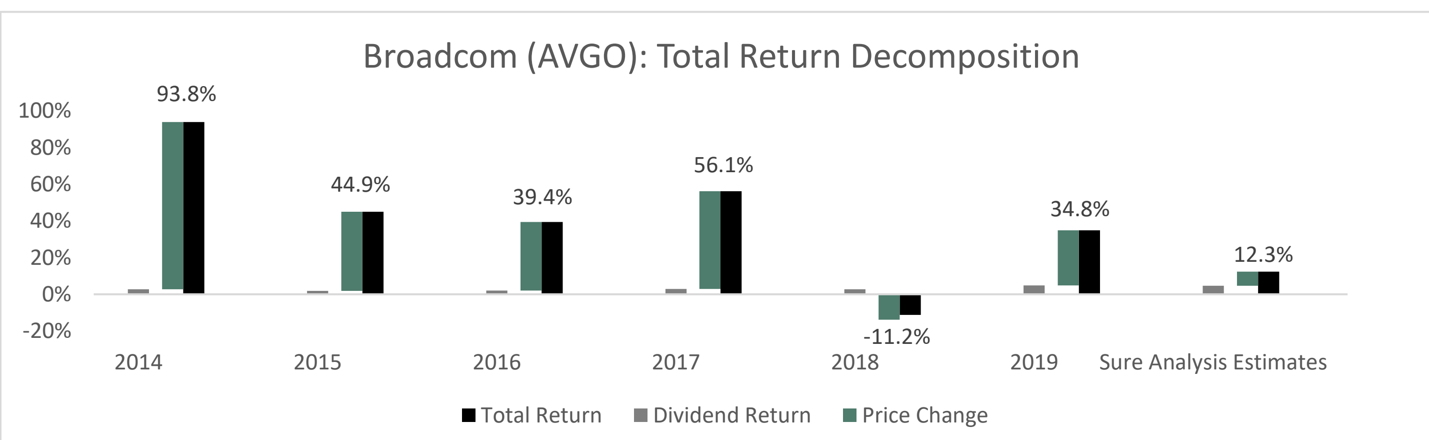
Broadcom's dividend payout ratio has risen considerably over the last couple of years, due to the large dividend increases that Broadcom has offered to its owners. Between 2010 and 2019, Broadcom increased its dividend by an incredible factor of more than 100. Broadcom's dividend still looks quite safe, though, as Broadcom pays out roughly half of its net profits in the form of dividends.

Broadcom did not remain profitable during the last financial crisis, but the company was much smaller and less diversified back then. Due to low fixed costs, as Broadcom is operating a fabless business, and due to a lot of diversification across industries and across geographic markets, the company is better positioned to weather future economic downturns. Due to its strong IP portfolio with more than 22,000 patents, Broadcom is well positioned in the markets it targets, and meaningful market share losses seem unlikely.

Final Thoughts & Recommendation

Broadcom is one of the largest semiconductor companies in the world. The company's fabless model results in high cash flows and low capital expenditures, which is why Broadcom has ample cash flows for dividend payments and acquisitions. Industry tailwinds should allow for solid earnings growth rates going forward. Broadcom's shares look marginally overvalued, but due to the strong forecasted returns, we still rate them a buy.

Total Return Breakdown by Year



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Income Statement Metrics

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Revenue	2,093	2,336	2,364	2,520	4,269	6,824	13,240	17,636	20,848	22,597
Gross Profit	966	1,147	1,142	1,198	1,877	3,553	5,940	8,509	10,733	12,483
Gross Margin	46.2%	49.1%	48.3%	47.5%	44.0%	52.1%	44.9%	48.2%	51.5%	55.2%
SG&A Exp.	196	220	199	222	407	486	806	789	1,056	1,709
D&A Exp.	159	157	155	187	625	962	3,042	4,737	4,081	5,808
Operating Profit	469	588	587	554	578	1,769	587	2,654	5,368	4,180
Operating Margin	22.4%	25.2%	24.8%	22.0%	13.5%	25.9%	4.4%	15.0%	25.7%	18.5%
Net Profit	415	552	563	552	263	1,364	(1,739)	1,692	12,259	2,695
Net Margin	19.8%	23.6%	23.8%	21.9%	6.2%	20.0%	-13.1%	9.6%	58.8%	11.9%
Free Cash Flow	431	614	452	486	766	1,725	2,688	5,482	8,245	9,265
Income Tax	(9)	9	22	16	33	76	642	35	(8,084)	(510)

Balance Sheet Metrics

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Assets	2,157	2,446	2,862	3,415	10,491	10,515	49,966	54,418	50,124	67,493
Cash & Equivalents	561	829	1,084	985	1,604	1,822	3,097	11,204	4,292	5,055
Accounts Receivable	285	328	341	418	782	1,019	2,181	2,448	3,325	3,259
Inventories	189	194	194	285	519	524	1,400	1,447	1,124	874
Goodwill & Int. Ass.	745	676	602	883	5,213	4,951	39,800	35,538	37,675	54,268
Total Liabilities	652	440	443	529	7,248	5,801	28,090	31,232	23,467	42,552
Accounts Payable	198	221	248	278	515	617	1,261	1,105	811	855
Long-Term Debt	230	-	-	-	5,509	3,872	13,642	17,548	17,493	32,798
Shareholder’s Equity	1,505	2,006	2,419	2,886	3,243	4,714	18,892	20,285	26,657	24,941
D/E Ratio	0.15	-	-	-	1.70	0.82	0.72	0.87	0.66	1.32

Profitability & Per Share Metrics

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Return on Assets	20.1%	24.0%	21.2%	17.6%	3.8%	13.0%	-5.8%	3.2%	23.5%	4.6%
Return on Equity	32.6%	31.4%	25.4%	20.8%	8.6%	34.3%	-14.7%	8.6%	52.2%	10.4%
ROIC	24.6%	29.5%	25.4%	20.8%	4.5%	15.7%	-7.9%	4.4%	28.9%	5.3%
Shares Out.	240	246	245	249	254	276	398	409	416	416
Revenue/Share	8.51	9.27	9.46	10.00	15.99	24.28	34.57	41.89	48.37	53.93
FCF/Share	1.75	2.44	1.81	1.93	2.87	6.14	7.02	13.02	19.13	22.11

Note: All figures in millions of U.S. Dollars unless per share or indicated otherwise.