Broadcom Inc. (AVGO)

Updated September 25th, 2019 by Jonathan Weber

Key Metrics

Current Price:	$273	**5 Year CAGR Estimate:**	12.7%	**Volatility Percentile:**	74.1%
Fair Value Price:	$277	**5 Year Growth Estimate:**	9.0%	**Momentum Percentile:**	70.1%
% Fair Value:	98%	**5 Year Valuation Multiple Estimate:**	0.3%	**Growth Percentile:**	88.9%
Dividend Yield:	3.8%	**5 Year Price Target**	$426	**Valuation Percentile:**	62.4%
Dividend Risk Score:	C	**Retirement Suitability Score:**	C	**Total Return Percentile:**	86.4%

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 recently redomiciled to the US and is now headquartered in San Jose, CA. The company was founded in 1961 and currently trades with a market capitalization of $109 billion.

Broadcom reported its third quarter (fiscal 2019) earnings results on September 12. The company generated revenues of $5.52 billion during the quarter, which represents an increase of 9.1% compared to the prior year's quarter. Broadcom reported earnings-per-share of $5.16 for the third quarter, which was an unspectacular 4% increase over the $4.98 that Broadcom generated during the third quarter of fiscal 2018. Broadcom's guidance for fiscal 2019 has been reiterated, despite the fact that Broadcom cautions against a possible global economic slowdown. The company forecasts revenues of $22.5 billion, implying a revenue growth rate of 8% versus 2018. Operating margins are forecasted at 52.5%. The revenue guidance includes the impact of the acquisition of CA Technologies, which closed in late 2018. During the third quarter Broadcom generated operating cash flows of $2.4 billion, while free cash flows totaled $2.3 billion during the quarter. Broadcom has returned significant portions of that, more than $2 billion, via dividends and stock buybacks.

Growth on a Per-Share Basis

Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2024
EPS	-$0.09	$1.81	$2.28	$2.77	$2.89	$4.90	$8.98	$11.45	$16.02	$20.82	***$21.32***	***$32.80***
DPS	---	$0.07	$0.40	$0.61	$0.88	$1.23	$1.64	$2.52	$4.81	$7.00	***$10.60***	***$17.00***
Shares[1]	235	240	246	245	249	254	276	398	409	416	***410***	***390***

Broadcom's profitability has exploded over the last decade. Indeed, its earnings-per-share rose more than tenfold between 2010 and 2018. 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 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 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, while buybacks positively impact growth as well.

[1] In Millions

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Valuation Analysis

Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Now	2024
Avg. P/E	---	11.7	13.6	13.0	13.4	14.7	13.9	13.5	14.4	10.6	***12.8***	***13.0***
Avg. Yld.	---	0.3%	1.3%	1.7%	2.3%	1.7%	1.3%	1.6%	2.1%	3.2%	***3.8%***	***4.0%***

After hitting new all-time highs earlier in 2019, shares have been declining over the last couple of months, which is why they are not looking as expensive as they were earlier this year. Shares are now trading below our fair value estimate, based on this year's expected net profits. We believe that Broadcom's valuation will increase slightly going forward. Broadcom's above-average dividend yield of 3.8% adds significantly to the company's total return potential.

Safety, Quality, Competitive Advantage, & Recession Resiliency

Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2024
Payout	---	3.9%	17.5%	22.0%	30.4%	25.1%	18.3%	22.0%	30.0%	33.6%	***49.7%***	***51.8%***

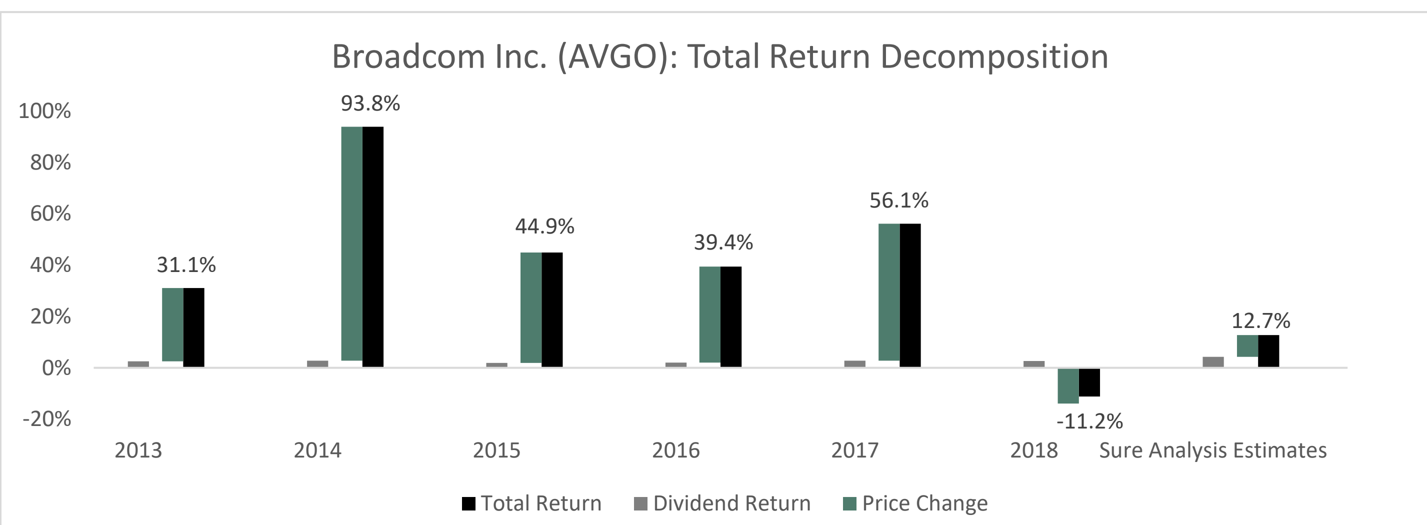
Broadcom's dividend payout ratio has risen considerably over the last couple of years, due to the large dividend increases that Broadcom has offered to its owners. Between 2010 and 2018, Broadcom increased its dividend by an incredible factor of 100. Broadcom's dividend still looks quite safe, though, as Broadcom pays out less than 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 very 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 slightly undervalued, and we rate the stock a buy for its high yield and compelling total return outlook.

Total Return Breakdown by Year



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Income Statement Metrics

Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Revenue	1484	2093	2336	2364	2520	4269	6824	13240	17636	20848
Gross Profit	560	966	1147	1142	1198	1877	3553	5940	8509	10733
Gross Margin	37.7%	46.2%	49.1%	48.3%	47.5%	44.0%	52.1%	44.9%	48.2%	51.5%
SG&A Exp.	223	196	220	199	222	407	486	806	787	1056
D&A Exp.	160	159	157	155	187	625	962	3042	4737	4081
Operating Profit	71	469	588	587	554	578	1769	587	2666	5368
Operating Margin	4.8%	22.4%	25.2%	24.8%	22.0%	13.5%	25.9%	4.4%	15.1%	25.7%
Net Profit	-44	415	552	563	552	263	1364	-1739	1692	12259
Net Margin	-3.0%	19.8%	23.6%	23.8%	21.9%	6.2%	20.0%	-13.1%	9.6%	58.8%
Free Cash Flow	81	431	614	452	486	766	1725	2688	5482	8245
Income Tax	8	-9	9	22	16	33	76	642	35	-8084

Balance Sheet Metrics

Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Total Assets	1970	2157	2446	2862	3415	10491	10515	49966	54418	50124
Cash & Equivalents	472	561	829	1084	985	1604	1822	3097	11204	4292
Accounts Receivable	186	285	328	341	418	782	1019	2181	2448	3325
Inventories	162	189	194	194	285	519	524	1400	1447	1124
Goodwill & Int. Ass.	818	745	676	602	883	5213	4951	39800	35538	37675
Total Liabilities	930	652	440	443	529	7248	5801	28090	31232	23467
Accounts Payable	154	198	221	248	278	515	617	1261	1105	811
Long-Term Debt	594	230	0	0	0	5509	3872	13642	17548	17493
Shareholder's Equity	1040	1505	2006	2419	2886	3243	4714	18892	20285	26657
D/E Ratio	0.57	0.15	0.00	0.00	0.00	1.70	0.82	0.72	0.87	0.66

Profitability & Per Share Metrics

Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Return on Assets	-2.3%	20.1%	24.0%	21.2%	17.6%	3.8%	13.0%	-5.8%	3.2%	23.5%
Return on Equity	-4.8%	32.6%	31.4%	25.4%	20.8%	8.6%	34.3%	-14.7%	8.6%	52.2%
ROIC	-2.8%	24.6%	29.5%	25.4%	20.8%	4.5%	15.7%	-7.9%	4.4%	28.9%
Shares Out.	235	240	246	245	249	254	276	398	409	416
Revenue/Share	6.78	8.51	9.27	9.46	10.00	15.99	24.28	34.57	41.89	48.37
FCF/Share	0.37	1.75	2.44	1.81	1.93	2.87	6.14	7.02	13.02	19.13

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