Broadcom Inc. (AVGO)

Updated April 17th, 2019 by Jonathan Weber

Key Metrics

Current Price:	$319	**5 Year CAGR Estimate:**	12.0%	**Volatility Percentile:**	66.1%
Fair Value Price:	$295	**5 Year Growth Estimate:**	10.3%	**Momentum Percentile:**	91.2%
% Fair Value:	108%	**5 Year Valuation Multiple Estimate:**	-1.6%	**Growth Percentile:**	95.0%
Dividend Yield:	3.3%	**5 Year Price Target**	$482	**Valuation Percentile:**	39.9%
Dividend Risk Score:	D	**Retirement Suitability Score:**	D	**Total Return Percentile:**	73.9%

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 $127 billion.

Broadcom reported its first quarter (fiscal 2019) earnings results on March 14. The company generated revenues of $5.79 billion during the quarter, which represents an increase of 8.6% compared to the prior year's quarter. Broadcom reported earnings-per-share of $5.55 for the first quarter, which was a solid increase over the $5.12 that Broadcom generated during the first quarter of fiscal 2018. Broadcom's guidance for fiscal 2019 remains unchanged; the company continues to forecast revenues of $24.5 billion, implying a revenue growth rate of 18%. Operating margins are forecasted at 51%, relatively in line with the margins that Broadcom generated during 2018. The revenue guidance includes the impact of the acquisition of CA Technologies, which closed in late 2018.

Broadcom continued to return large amounts of cash to its owners during the first quarter of fiscal 2019. The company bought back $3.5 billion worth of stock during this quarter alone. In addition, Broadcom paid out dividends totaling $1.1 billion to its owners during the quarter. Broadcom's management forecasts that shareholder returns during 2019 will total roughly $12 billion, which means that buybacks will remain quite meaningful going forward.

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	***$21.89***	***$35.73***
DPS	--	$0.07	$0.40	$0.61	$0.88	$1.23	$1.64	$2.52	$4.81	$7.00	***$10.60***	***$17.00***
Shares	235	240	246	245	249	254	276	398	409	416	***410***	***390***

Broadcom's profitability has exploded over the last decade. Its earnings-per-share rose more than tenfold between 2010 and 2018. This earnings growth was driven by a significant amount of M&A activities, 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 more 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 as well as 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. Thanks to a strong IP portfolio with more than 22,000 patents, it is unlikely that

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Broadcom will lose significant market share going forward. Earnings growth will further be driven by improving economics of scale. Share buybacks could be a tailwind as well, although Broadcom issues a lot of shares to its employees & management, thus it will have to be seen by how much the share count will shrink over the coming years.

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	***14.6***	***13.5***
Avg. Yld.	--	0.3%	1.3%	1.7%	2.3%	1.7%	1.3%	1.6%	2.1%	3.2%	***3.3%***	***3.5%***

Broadcom's shares have risen a lot since we last updated our report, which has made the valuation rise to an above-average level of more than 14 times this year's net profits. We thus believe that multiple compression is more likely over the coming years than further multiple expansion. Broadcom's above-average dividend yield of 3.3% adds significantly to the company's total return potential going forward.

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%	***48.4%***	***47.6%***

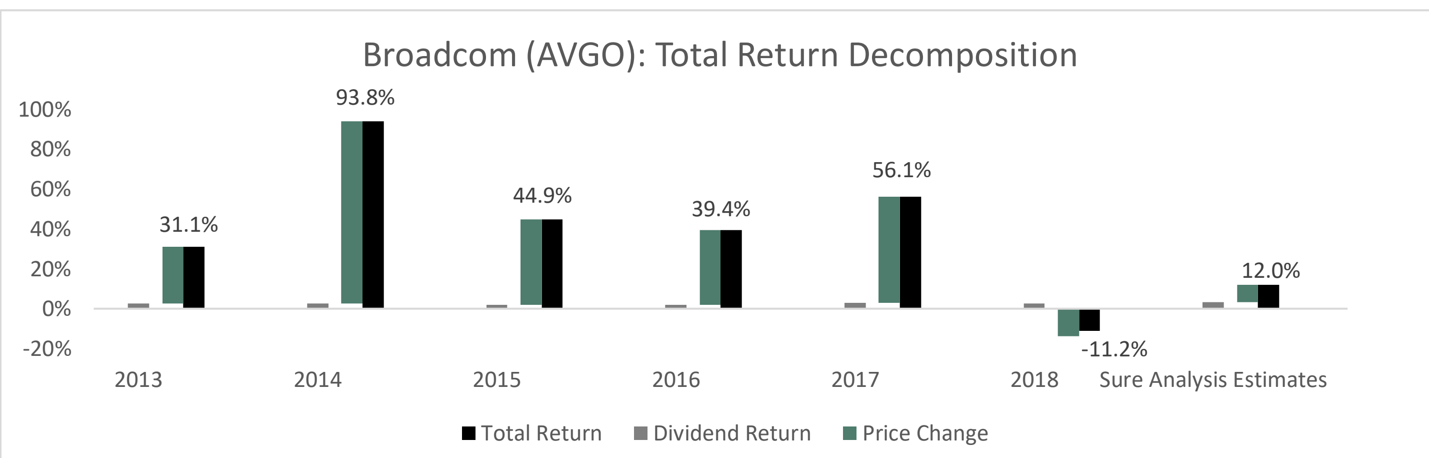
Broadcom's dividend payout ratio has risen considerably over the last couple of years, due to the large dividend increases that Broadcom has offered to its owners. The dividend still looks quite safe, though, as Broadcom pays out less than half of its net profits in the form of dividends.

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 fabless, and due to a lot of diversification across industries and geographically, the company is better positioned to weather future economic downturns. Due to its strong IP portfolio, Broadcom is well positioned in the markets it targets, and market share losses are not very likely.

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 capex, which is why Broadcom has ample cash for dividend payments and acquisitions. Industry tailwinds will allow for compelling growth rates, and despite a slight overvaluation, we rate the stock a buy for its high yield and favorable growth outlook.

Total Return Breakdown by Year



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Disclosure: This analyst has no position in the security discussed in this research report, and no plans to initiate one in the next 72 hours.

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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.