Broadcom (AVGO)

Updated September 7th, 2018 by Jonathan Weber

Key Metrics

Current Price:	$216	**5 Year CAGR Estimate:**	17.9%	**Volatility Percentile:**	77.9%
Fair Value Price:	$268	**5 Year Growth Estimate:**	10.3%	**Momentum Percentile:**	11.5%
% Fair Value:	81%	**5 Year Valuation Multiple Estimate:**	4.4%	**Valuation Percentile:**	83.3%
Dividend Yield:	3.2%	**5 Year Price Target**	$435	**Total Return Percentile:**	93.5%

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 has recently redomiciled to the US and is now headquartered in San Jose, CA. The company was founded in 1961 and is currently valued at $92 billion.

Broadcom reported its most recent quarterly results on September 6. The company earned $4.98 during Q3, a 21% increase from the prior year's level. Broadcom also managed to grow its revenues by 12% year over year. Broadcom has announced that it plans to acquire CA Technologies for $19 billion. The two companies plan to close the acquisition during calendar Q4 of the current year. This acquisition will increase Broadcom's exposure to the software industry.

Growth on a Per-Share Basis

Year	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2023
EPS	$0.35	-$0.09	$1.81	$2.28	$2.77	$2.89	$4.90	$8.98	$11.45	$16.02	***$19.75***	***$32.25***
DPS	-	-	$0.07	$0.40	$0.61	$0.88	$1.23	$1.64	$2.52	$4.81	***$7.00***	***$13.00***
Shares	230M	235M	240M	246M	245M	249M	254M	276M	398M	409M	***436M***	***400M***

Broadcom's profitability has exploded over the last decade. Its earnings per share rose almost fifty-fold during the 2008-2017 time frame. 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. Its planned takeover of CA is another big step.

These acquisitions naturally have impacted Broadcom's growth tremendously, thus what we see in the above table is not Broadcom's organic growth rate. Due to its size Broadcom will not be able to continue to acquire competitors regularly, as regulators are less likely to allow future major acquisitions that would increase Broadcom's market share. By moving towards software with its CA takeover Broadcom has found a way for more inorganic growth, though.

Broadcom's biggest market is wireless communications, 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 (22,000 patents) it is unlikely that Broadcom loses any market share going forward. Earnings growth will further be driven by improving economics of scale and share buybacks – the company has announced a $12 billion buyback program in April 2018, enough to buy back 12% of its stock.

Valuation Analysis

Year	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Now	2023
Avg. P/E	---	---	11.7	13.6	13.0	13.4	14.7	13.9	13.5	14.4	***10.9***	***13.5***
Avg. Yld.	---	---	0.3%	1.3%	1.7%	2.3%	1.7%	1.3%	1.6%	2.1%	***3.2%***	***3.5%***

Broadcom is trading at a quite inexpensive valuation right now, as shares are valued at less than 11 times this year's earnings. Broadcom's shares never were overly expensive, but significant valuation expansion potential exists. On top of that investors benefit from Broadcom's policy of returning up to 50% of free cash flows in the form of dividends. The dividend yield of 3.2% is high relative the broad market, and also high relative to Broadcom's historic yield.

Safety, Quality, Competitive Advantage, & Recession Resiliency

Year	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2023
GP/A	35.0%	28.4%	44.8%	46.9%	40.0%	35.1%	18.1%	33.9%	12.0%	15.7%	*23.0%*	*28.0%*
Debt/A	58.3%	47.2%	30.2%	18.0%	15.5%	15.4%	69.1%	55.2%	56.2%	57.4%	*56.0%*	*52.0%*
Int. Cov.	1.5	0.5	12.9	188	---	---	---	9.1	4.9	5.6	*6.5*	*8.0*
Payout	---	---	3.9%	17.5%	22.0%	30.4%	25.1%	18.3%	22.0%	30.0%	*35.4%*	*40.0%*
Std. Dev.	---	28.1%	27.6%	39.9%	22.5%	24.9%	33.2%	34.6%	19.8%	21.1%	*16.0%*	*18.0%*

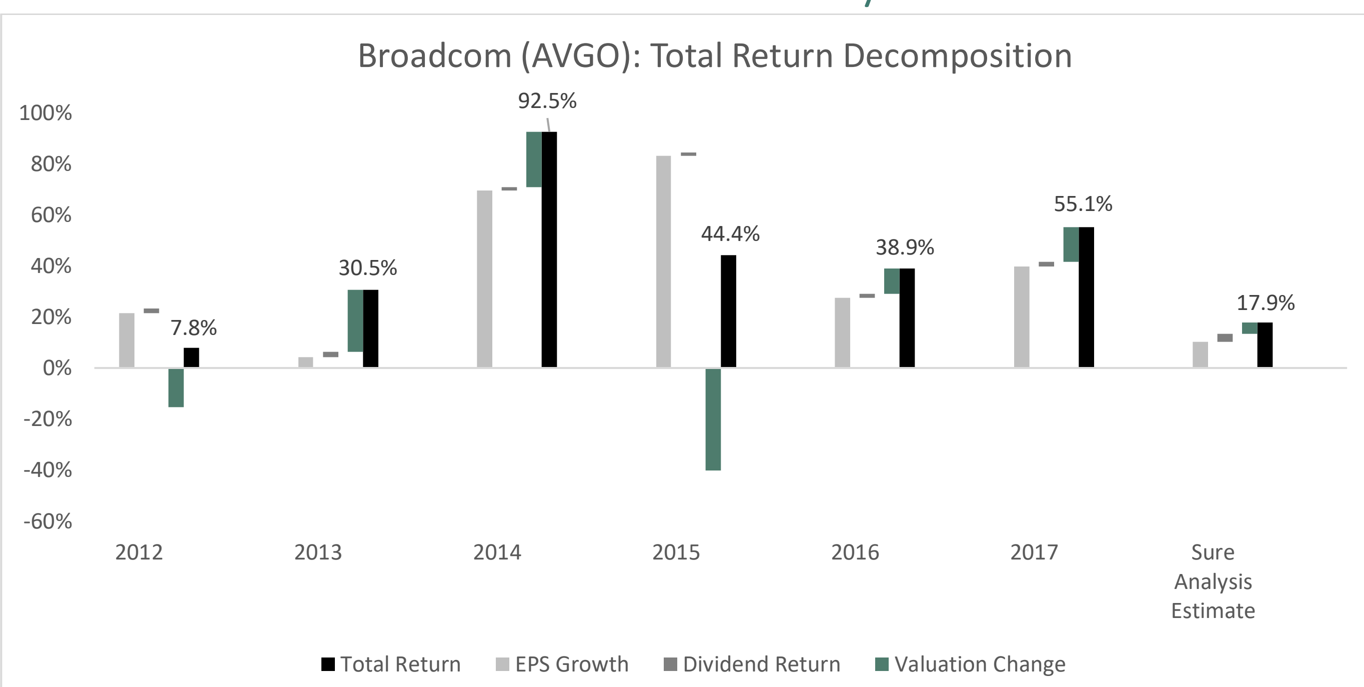
The above table can be quite confusing due to the moves in the ratios we see here, but most of them can be explained by Broadcom's M&A activities. Big takeovers led to sizeable increases in Broadcom's asset base, which resulted in steep drops in Broadcom's gross profits to assets ratio. In recent years Broadcom's interest expenses rose significantly as the company's leverage increased. The company is, however, not overleveraged at all. Broadcom could easily lower its debt levels by shifting its cash flows from acquisitions towards paying down debt.

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 operates 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 overly likely.

Final Thoughts & Recommendation

Broadcom's growth was driven by M&A in the past. The organic growth outlook nevertheless is not bad at all, as the company targets attractive market and as stock buybacks drive earnings per share further. The low valuation and compelling dividend yield are positives for Broadcom's total returns, and shares earn a buy rating at current prices.

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.