



Broadcom Stock Pitch

GMU SMIF



Firm Overview & Business Model

- Broadcom is a semiconductor and software infrastructure firm
- Its semiconductor devices are used in telecom, smartphones, data center servers, storage systems, and enterprise networking
- Its software infrastructure segment is focused on the development and security of critical mission infrastructure

Business Model

- ~30% of revenue is from their software infrastructure segment which consists of 3 firms
 - Brocade Communications
 - CA Technologies
 - **Symantec – Largest enterprise cybersecurity firm in the US**
 - **Purchased for \$10.7bn at a P/S multiple of 4.3**
 - **Fortinet, Symantec's closest public peer, trades at a P/S multiple of ~12**

Financial Ratios (Liquidity, Solvency, etc.)

Financial statement analysis for firm: historical				
	Historical period			
	2017	2018	2019	2020
	Liquidity			
Current ratio	6.26	3.90	1.44	1.87
Quick ratio	5.68	3.41	1.31	1.71
	Solvency			
Times interest earned (from EBIT)	6.56	10.68	3.22	2.47
	Leverage			
Debt to assets ratio	0.32	0.35	0.49	0.54
	Efficiency			
Asset turnover	0.32	0.42	0.33	0.31
Receivables days	53.87	58.21	52.64	35.10
Inventory days	80.11	58.43	47.45	56.17
Payables days	61.17	42.16	46.42	46.81
Working capital funding gap	72.81	74.48	53.67	44.45
	Profitability			
Operating profit margin	15.25%	26.32%	19.17%	17.79%
Net profit margin	10.15%	60.58%	12.11%	12.40%
Return on assets	3.29%	25.20%	4.05%	3.90%
Return on invested capital based on a 27% tax rate	4.82%	9.07%	5.47%	4.78%

- Low times interest earned is due to high amortization charges related to in-process R&D projects from Broadcom's recent acquisitions
- These amortization charges also have a negative impact on profitability measures, but these charges are not considered cash losses

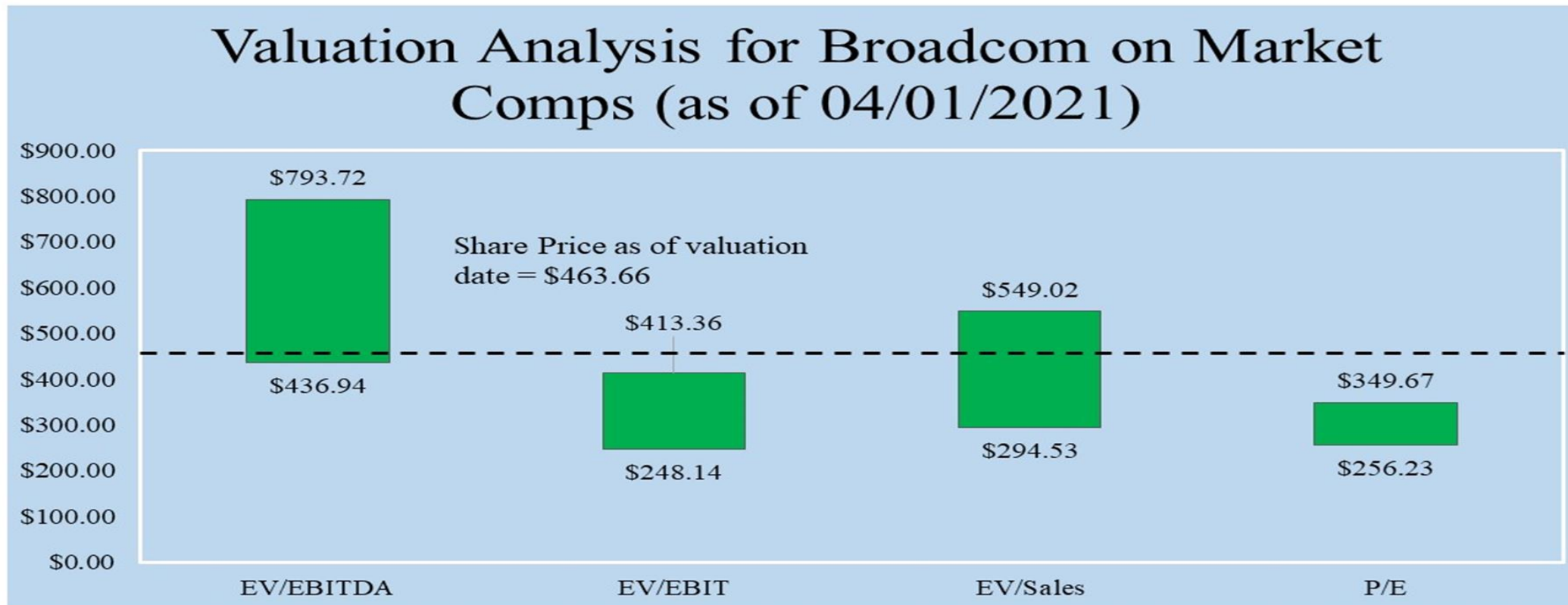
Valuation Metrics (P/E, P/B, etc.)

Broadcom Valuation Metrics

Forward P/E	P/B	P/S	EV/EBITDA	EV/EBIT	EV/Sales
17.97	N/A	7.8	18.3	41.1	9.0

- Broadcom's forward P/E has only ever been lower in November of 2012, when global semiconductor demand was declining sharply

Market Peer Comparison Analysis



Competitive Advantages

- Broadcom's high levered FCF (\$11.88 billion in fiscal year 2020) enables them to allocate more funds to R&D projects
 - Critical for Semiconductor firms to have adequate R&D spending
- Strategic acquisitions of software infrastructure firms have led to superior profitability margins compared to semiconductor peers
- Excellent customer relations with largest customers, such as Apple

Growth Opportunities

Semiconductor Segment

- President Biden's proposed infrastructure plan
 - \$50 billion allocated towards domestic semiconductor manufacturing and research
- Taiwan Semiconductor Manufacturing spending over \$100 billion to increase manufacturing capacity of semiconductor chip solutions
 - Broadcom is a customer of Taiwan Semiconductor Manufacturing, which manufactures Broadcom's semiconductor devices
- If followed through on, these measures will ensure Broadcom will have access to domestic manufacturers and meet the growing demands of semiconductor chip solutions in the future

Software Segment

- Modernizing cybersecurity infrastructure for critical assets of the U.S. Government in response to cyberattacks from nation state sponsored hackers and independent hackers
 - High probability of increased cybersecurity spending from government and government affiliated customers

Potential Risks

- Top 5 customers account for 30% of total revenue
 - Maintains excellent customer relations but still a risk due to competitive industry
- Capital Structure is concerning
 - Debt-to-equity ratio of 1.72 compared to Mergent Online peer average of 0.40
 - Severe decline in semiconductor demand could lead to financial hardship
- Lagging ESG score due to a failure to retain human capital
 - Broadcom does not operate in as many innovative areas compared to competitors such as Nvidia and AMD



SUMMARY

We believe that Broadcom is a Buy

- Broadcom trades at a historically low forward earnings multiple despite having significantly more upside than it did in the past
- The semiconductor segment has the tailwind of strong semiconductor demand and will benefit from 5G expansion due to its exposure to smartphone devices
- Its software infrastructure segment resulted in the firm having superior margins
- The Symantec segment is undervalued when applying a peer multiple

End of the Presentation
