

BROADCOM, INC (AVGO)

Information Technology – Semiconductors

November 18, 2024

Stock Rating

SELL

Investment Thesis

We recommend a SELL rating for Broadcom, Inc with a target price range of \$100-115, showcasing a downside of approximately 35% from the current price of \$165. We believe that Broadcom, a significant player in semiconductors, faces headwinds due to rising competition, challenges from its acquisition of VMware, and its exposure to geopolitical risks. While Broadcom has strong growth potential in high-margin markets such as AI and cloud, short-term pressures from acquisition costs, integration risks, and geopolitical tensions are likely to impact its financial performance.

Drivers of Thesis

- Broadcom faces intensifying competition in both the semiconductors and software markets from established players like Nvidia, Qualcomm, and Cisco and has not been gaining market share.
- Broadcom's acquisition of VMware has resulted in substantial costs, including restructuring expenses and potential delays in realizing synergies. We forecast net margin to decrease from 40% in 2023 to 15% in 2024E.
- With 32% of its revenue in 2023 coming from China, Broadcom is heavily impacted by ongoing U.S. and China trade tensions. Increased tariffs, export restrictions, or disruptions in supply chains pose a significant risk.

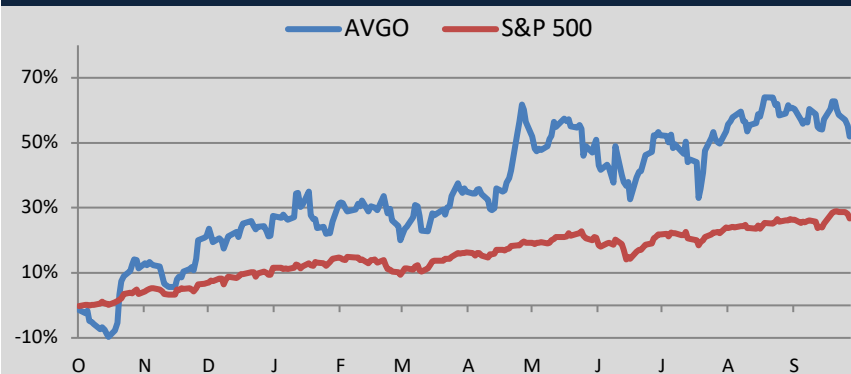
Risks to Thesis

- Increasing demand for infrastructure software segments cloud (16% CAGR) and cybersecurity (14% CAGR) represent potential for high growth areas for Broadcom post the VMware acquisition.
- The semiconductor market is projected to grow at a CAGR of 9%, driven by AI, 5G, and IoT adoption, and Broadcom has demonstrated strong supply chain management and operational efficiency.

Earnings Estimates

Year	2021	2022	2023	2024E	2025E	2026E
EPS	\$1.57	\$2.74	\$3.39	\$1.55	\$3.83	\$5.26
HF est.				\$1.84	\$3.55	\$4.52
Growth	137.2%	74.8%	23.7%	-45.8%	93.1%	27.0%

12 Month Performance



Target Price

\$100 – 115

Henry Fund DCF	\$101
Henry Fund DDM	\$105
Relative Multiple	\$109

Price Data

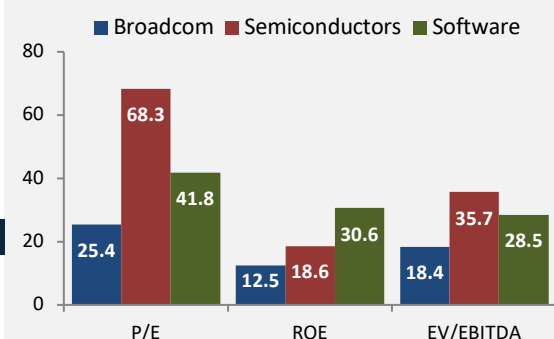
Current Price	\$165
52wk Range	\$90 – 186
Consensus 1yr Target	\$195

Key Statistics

Market Cap (B)	\$772.3
Shares Outstanding (M)	4663
Institutional Ownership	73.9%
Beta	1.40
Dividend Yield	1.28%
Est. 5yr Growth	29.9%
Price/Earnings (TTM)	25.4
Price/Earnings (FY1)	26.88
Price/Sales (TTM)	16.41
Price/Book (mrq)	11.79

Profitability

Operating Margin	31.7%
Profit Margin	10.8%
Return on Assets (TTM)	7.7%
Return on Equity (TTM)	12.5%



Company Description

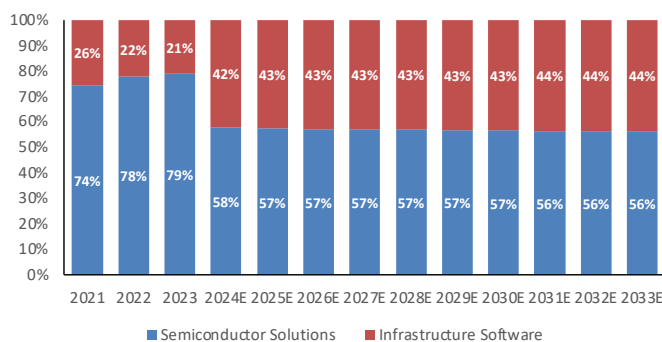
Founded in 1961, Broadcom Inc. is a global leader in semiconductors. Headquartered in San Jose, California, the company specializes in designing and developing advanced chips and software that power data centers, networking, broadband, and wireless communication technologies. Broadcom's product portfolio has expanded from high-performance semiconductors for enterprise storage, networking, and industrial applications, to also include infrastructure software offerings through divisions like VMware and Symantec.

COMPANY DESCRIPTION

Founded in 1961, Broadcom Inc. is a leading designer, developer, and global supplier of a broad range of semiconductor and infrastructure software solutions. Headquartered in San Jose, California, Broadcom specializes in wireless and broadband communication, networking, storage, and industrial solutions, catering to diverse markets including data centers, telecom, and industrial automation. Renowned for its innovation and extensive patent portfolio, Broadcom delivers high-performance products like switches, ASICs, and storage adapters, as well as enterprise software for cybersecurity and data management. Operating in the semiconductor and infrastructure software industry, Broadcom is a dominant player recognized for its strategic acquisitions and strong presence in key technology markets.

Broadcom's total revenue in FY2023 was largely driven by its Semiconductor Solutions segment, which comprised 77% of total revenue, with the remaining 23% from its Infrastructure Software segment. This Semiconductor Solutions segment includes products for networking, broadband, storage, and wireless applications, which cater to industries such as telecommunications, data centers, and industrial automation. Infrastructure Software, on the other hand, focuses on enterprise software for cybersecurity and mainframe and storage management. Over the last few years, the revenue distribution between these segments has remained relatively stable, with Semiconductor Solutions expected to comprise around 56% of total revenue by 2028 as the Infrastructure Software segment grows in significance, reflecting Broadcom's strategy of expanding its software capabilities through acquisitions and product innovation.

Revenue Breakdown by Segment

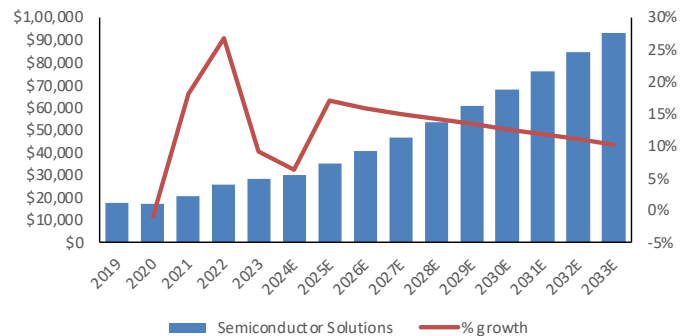


Source: AVGO 10-K, HF estimates

Semiconductor Solutions

Broadcom's Semiconductor Solutions segment has historically been the backbone of its business, encompassing a broad range of advanced products that power data connectivity, storage, and communication technologies across multiple industries. Key offerings include networking solutions like Ethernet switches and routing silicon, enterprise storage products such as PCIe switches and RAID controllers, and wireless communication technologies including RF semiconductors, Wi-Fi, and Bluetooth solutions. Additionally, Broadcom provides broadband access solutions such as DOCSIS cable modems and DSL/PON gateways, as well as industrial and automotive electronics like optocouplers and motion control encoders. These products cater to high-growth areas like data centers, IoT, 5G, and smart manufacturing, making this segment essential to the company's overall success.

Semiconductor Solutions Growth (\$M)



Source: AVGO 10-K, HF estimates

In FY2023, revenue from this segment reached \$28 billion, reflecting steady growth driven by rising demand for AI-driven data centers, 5G infrastructure, and advanced connectivity solutions. Broadcom's strong market position and diversified product portfolio ensure stable, recurring revenue streams. With ongoing trends like cloud adoption, digital transformation, and industrial automation fueling demand for semiconductors, we forecast this segment to grow at a CAGR of 14% over the forecasting horizon.

Networking: Broadcom's networking solutions cater to data centers, service providers, and enterprise networks, offering products like Ethernet switching and routing silicon, custom silicon solutions, and fiber optic components. These solutions support scalable networks capable of handling heavy data traffic and advanced

protocols for efficient connectivity. The segment is crucial in enabling next-generation infrastructure, including 5G and cloud-based networking. We project the networking segment to grow at a 18% CAGR, driven by the increasing adoption of cloud services and 5G deployments.

Enterprise Storage: This segment includes products like PCIe switches, Ethernet NICs, and SAS RAID controllers, enabling reliable data storage and high-speed data transfer in servers and storage systems. Broadcom's solutions are critical for supporting the exponential growth of enterprise data and the shift towards solid-state drives (SSDs). As enterprises continue investing in data center capacity, we estimate a 7% CAGR for this segment, driven by demand for high-performance storage technologies.

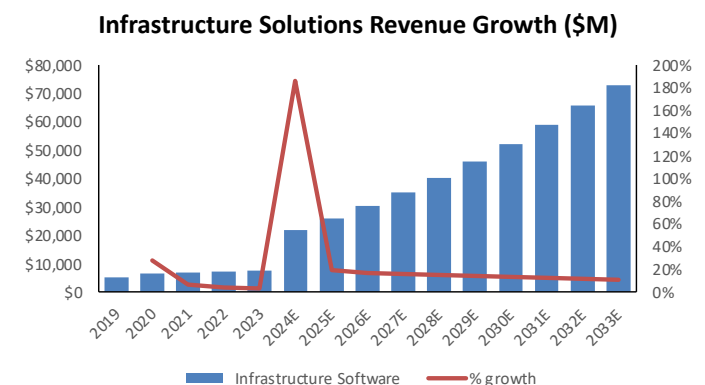
Broadband: Broadcom's broadband solutions encompass STB SoCs, DOCSIS cable modems, and DSL/PON gateways, designed to enable broadband access for consumer and enterprise applications. These products support emerging technologies like G.fast and Wi-Fi 7, enhancing connectivity across various platforms. Given the increasing global demand for high-speed internet, we forecast a 5% CAGR for the broadband segment as broadband infrastructure expands globally.

Wireless Communication: Broadcom offers advanced RF semiconductors, Wi-Fi, and Bluetooth connectivity solutions, supporting mobile device connectivity and IoT applications. The segment's RF filters and custom controllers provide industry-leading performance in cellular and wireless communication. With rising IoT adoption and the rollout of 5G, we project wireless communication to grow at a 6% CAGR, supported by increasing demand for advanced connectivity solutions.

Industrial & Other: This segment addresses markets like factory automation, renewable energy, and automotive electronics, with products such as optocouplers, motion control encoders, and light-emitting diodes. Broadcom's solutions enhance industrial efficiency and automotive safety. As industries digitize and adopt automation technologies, we estimate a 6% CAGR for this segment, driven by growth in smart manufacturing and electrification trends in the automotive sector.

Infrastructure Software

Broadcom's Infrastructure Software segment is a critical growing segment of its business, offering a diverse range of solutions designed to enhance operational efficiency, security, and scalability for enterprises. This segment includes key divisions such as VMware, CA Technologies, Symantec, and Brocade, each addressing distinct but complementary areas in the enterprise software ecosystem. VMware leads with its market-dominating virtualization and cloud management platforms, enabling businesses to manage hybrid cloud environments efficiently. CA Technologies provides IT operations management tools like ValueOps and AIOps, streamlining workflows and driving automation. Symantec delivers comprehensive cybersecurity solutions to protect enterprises against evolving threats, and Brocade specializes in Fibre Channel networking solutions for high-speed and reliable data storage infrastructure.



Source: AVGO 10-K, HF estimates

In 2023, this segment generated \$7 billion in revenue, accounting for approximately 21% of Broadcom's total revenue. However, the strategic acquisition of VMware in late 2023 has significantly enhanced this segment's growth potential. This segment is projected to grow at a robust CAGR of 14% over the next several years, driven by the rising demand for hybrid cloud adoption, IT automation, and enterprise security. By 2028, the Infrastructure Software segment is expected to contribute over 40% of Broadcom's total revenue, marking a strategic shift from its semiconductor-centric business model. This growth underscores Broadcom's pivot toward software and services, leveraging synergies from acquisitions to strengthen its position in high-growth enterprise markets.

VMware: Broadcom's recent acquisition of VMware division delivers market-leading virtualization and cloud infrastructure solutions that enable enterprises to manage private, public, and hybrid cloud environments effectively. Its core offerings include VMware vSphere for server virtualization, VMware Tanzu for modern application development, and VMware NSX for network virtualization. These solutions empower businesses to optimize their IT operations, accelerate application deployment, and improve scalability. As the demand for hybrid cloud environments continues to grow, VMware remains a cornerstone of Broadcom's infrastructure software portfolio, with this segment expected to grow at a CAGR of 17%, driven by increasing cloud adoption and digital transformation efforts.

CA: CA Technologies, now a part of Broadcom, focuses on enterprise software solutions designed to improve operational efficiency and support critical IT processes. Its key offerings include ValueOps, AIOps, and DevOps platforms, which streamline value streams, automate IT operations, and enhance application development and deployment. These solutions provide end-to-end visibility into enterprise workflows, helping organizations optimize performance and reduce costs. With businesses increasingly adopting automation to boost productivity, we expect this segment to grow at a CAGR of 6%, supported by strong demand for AI-driven IT management tools.

Symantec: Broadcom's Symantec division specializes in advanced cybersecurity solutions that protect enterprises from threats across endpoints, networks, and cloud environments. Its product suite includes Endpoint Security, Network Security, and Information Security platforms, designed to safeguard user data, prevent breaches, and ensure compliance with regulatory standards. Symantec's solutions leverage AI and machine learning to deliver proactive threat detection and automated remediation. As cyber threats become more sophisticated, this segment is anticipated to grow at a CAGR of 7%, driven by heightened enterprise spending on cybersecurity.

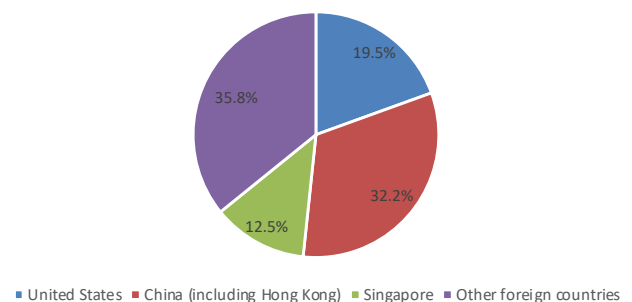
Brocade: Brocade, under Broadcom's infrastructure software umbrella, offers industry-leading Fibre Channel networking solutions for data center storage environments. Its Fibre Channel switches and adapters enable high-speed, reliable data transfers and storage network optimization. These products are critical for

businesses managing large-scale data environments, including mission-critical applications in finance, healthcare, and technology. With the increasing reliance on data-driven operations and cloud storage, the Brocade segment is forecasted to grow at a CAGR of 5%, fueled by continued investment in storage area networks (SANs) and enterprise data infrastructure.

Geographic Business Segments

Operating in over 100 countries, Broadcom Inc. has established itself as a global leader in semiconductor and infrastructure software solutions. With manufacturing facilities and research and development centers across North America, Europe, and Asia, Broadcom offers localized solutions while maintaining a robust global infrastructure. The company divides its revenue into three primary regions: the Americas, Europe, the Middle East, and Africa (EMEA), and Asia-Pacific. In FY2023, approximately 23% of total revenue came from the Americas, with the United States being its largest market. EMEA contributed around 13%, with strong demand from countries such as Germany and the United Kingdom. The Asia-Pacific region accounted for about 64% of the company's revenue, driven by significant contributions from China and other Asian markets. Looking ahead, we anticipate that the Asia-Pacific region will continue to be a significant contributor to Broadcom's revenue, with China remaining a major market. However, given the ongoing trade tensions between the U.S. and China, there is a potential risk to Broadcom's revenue stream from this region. The company may need to diversify its market presence and explore growth opportunities in other regions to mitigate potential risks associated with geopolitical uncertainties.

Revenue Breakdown by Geography FY2023
(\$35.8B)



Source: AVGO 10-K

RECENT DEVELOPMENTS

FY2024 Earnings Announcements

In its fiscal third-quarter 2024 earnings report released on September 5, Broadcom Inc. announced a 47% year-over-year revenue increase to \$13.07 billion, primarily driven by the integration of VMware's operations. Despite this growth, the company reported a net loss of \$1.88 billion, or \$0.40 per share, compared to a net income of \$3.30 billion, or \$0.77 per share, in the same period last year, largely due to a \$4.5 billion non-cash tax provision. Segment-wise, Semiconductor Solutions revenue rose by 5% to \$7.27 billion, while Infrastructure Software revenue surged by 200% to \$5.80 billion, exceeding projections, largely due to the VMware acquisition. Broadcom also increased its annual AI revenue forecast to \$12 billion, driven by growth in Ethernet networking and custom accelerators for AI data centers. For the fiscal fourth quarter, the company anticipates revenues of approximately \$14 billion, slightly below consensus estimates, leading to Broadcom's shares declining by over 3% in extended trading.

VMware Acquisition

In November 2023, Broadcom Inc. completed its acquisition of VMware Inc. in a cash-and-stock transaction valued at \$69 billion, marking one of the largest deals in the technology sector. This strategic move aims to enhance Broadcom's enterprise software portfolio by integrating VMware's expertise in cloud computing and virtualization. Broadcom anticipates significant synergies from this acquisition, targeting approximately \$8.5 billion in pro forma EBITDA within three years post-closing. VMware will offer a rich catalog of services to modernize and optimize cloud and edge environments, including VMware Tanzu to help accelerate deployment of applications, and VMware Software-Defined Edge for Telco and enterprise edges. In November 2024, Broadcom announced that VMware Fusion and VMware Workstation would be made available for free to all users, including commercial, educational, and personal users. This move marks a significant shift from the traditional paid subscription model, aiming to broaden the user base and foster greater adoption of VMware's desktop hypervisor products. By eliminating the cost barrier, Broadcom seeks to enhance its presence in the virtualization market and encourage more widespread use of its software solutions.

Stock Split

In July 2024, Broadcom Inc. implemented a 10-for-1 stock split to enhance stock accessibility for investors and employees. Shareholders of record as of July 11, 2024, received nine additional shares for each share held. This strategic move reduced the share price from over \$1,700 to approximately \$170, making it more affordable for a broader range of investors. The stock split did not alter the company's market capitalization or the value of individual holdings, as the increase in shares was proportionate to the price adjustment. Following the split, Broadcom's stock experienced increased trading volume, indicating heightened investor interest and improved liquidity.

INDUSTRY TRENDS

Broadcom operates in two primary industries: semiconductors and infrastructure software. The global semiconductor market, as shown in the graph, has experienced consistent growth over the decades, reaching an estimated \$580 billion in 2024 and projected to exceed \$750 billion by 2030, reflecting a robust CAGR of 8.73%. This growth is driven by increasing demand for AI-enabled chips, IoT devices, and 5G infrastructure. The graph highlights a sharp revenue uptick post-2020, attributed to advancements in technology and increased semiconductor use across industries like automotive and cloud computing. In the infrastructure software sector, the market is expected to reach \$157.20 billion by 2029, with a more moderate CAGR of 1.38%. Growth in this segment is fueled by the rising adoption of hybrid cloud environments, cybersecurity demands, and AI integration in enterprise operations. Broadcom's strong position in both industries allows it to leverage these growth trends and capitalize on evolving market dynamics.



Source: Statista Market Insights

AI Integration

Broadcom is strategically integrating AI across its semiconductor and infrastructure software divisions to capitalize on the rapidly expanding AI market. The global AI market size was estimated at USD 196.63 billion in 2023 and is projected to grow at a compound annual growth rate (CAGR) of 36.6% from 2024 to 2030. In the semiconductor sector, Broadcom is developing specialized chips designed to handle complex AI computations, enhancing performance and efficiency for AI workloads. The AI semiconductor market alone is expected to reach \$80 billion by 2030, fueled by demand for AI accelerators in data centers and edge computing applications. In infrastructure software, Broadcom is incorporating AI-driven tools to optimize network management, automate predictive maintenance, and enhance operational analytics. The AI-enabled enterprise software market is projected to grow at a CAGR of 35.4% during the same period, highlighting opportunities for Broadcom to expand its role in powering digital transformation. These initiatives position Broadcom as a critical player in advancing AI capabilities across industries, with comprehensive hardware and software solutions tailored to meet evolving customer demands.

Semiconductor Supply Chain

The semiconductor supply chain is undergoing significant transformations, directly impacting Broadcom's strategic operations. Geopolitical tensions, particularly between the U.S. and China, have led to export restrictions and tariffs, complicating access to essential materials and components. Considering that historically more than 30% of Broadcom's revenue has come from China, China's economic slowdown and regulatory changes could further impact demand for Broadcom's products. Additionally, the global semiconductor shortage has disrupted production schedules and increased lead times, affecting the ability to meet customer demand. In response, companies are investing in diversifying their manufacturing bases and enhancing supply chain robustness to mitigate future disruptions. Furthermore, the rapid evolution of software technologies necessitates a skilled workforce, presenting challenges in recruiting and retaining talent proficient in emerging technologies. Addressing these supply chain issues is crucial for Broadcom to maintain operational efficiency and meet market demands.

MARKETS AND COMPETITION

Broadcom operates in the semiconductor and infrastructure software sectors. In semiconductors, it rivals Nvidia in AI accelerators and data center solutions, Intel in networking, processors, and data center markets, and Qualcomm in wireless communication technologies, including 5G and IoT solutions. In infrastructure software, Broadcom faces competition from Cisco Systems in enterprise networking and telecommunications, Oracle in database management and cloud services, and IBM in mainframe computing and storage management. Despite this competition, Broadcom leverages its diversified product portfolio, scale, and strategic acquisitions to sustain its leadership in both markets.

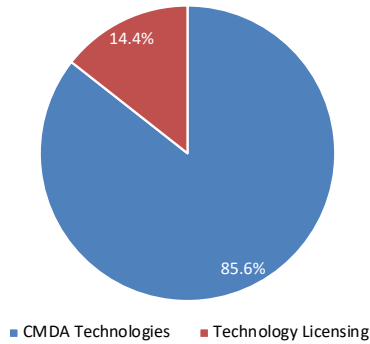
Company	Market Cap (B)	Revenue (B)
Broadcom Inc.	837.0	35.8
Qualcomm Inc.	186.8	38.8
Advanced Micro Devices, Inc.	230.2	22.7
NVIDIA Corporation	3532.2	60.9
IBM Corporation	199.6	61.9
Oracle Corporation	551.4	52.9
Cisco Systems, Inc.	230.9	53.8

Source: FactSet

Qualcomm Inc. (QCOM)

Founded in 1985, Qualcomm is a global leader in wireless technology, directly competing with Broadcom in wireless communication, connectivity solutions, and IoT applications. Qualcomm's CDMA Technologies segment, which generates 85.6% of its revenue, competes with Broadcom in the smartphone, automotive, and IoT chipset markets. Broadcom challenges Qualcomm in Wi-Fi and Bluetooth connectivity solutions, which are key components in mobile and IoT devices. Meanwhile, Qualcomm's Technology Licensing segment, contributing 14.4% of its revenue, leverages its extensive 5G patent portfolio to compete indirectly with Broadcom in wireless standard implementations. As demand for 5G and automotive connectivity accelerates, Qualcomm continues to expand in these segments, posing a challenge to Broadcom's market share in wireless chipsets and connectivity technologies. Despite Broadcom's broader portfolio, Qualcomm's focus on advanced wireless standards and its leadership in mobile communication technologies ensure it remains a strong competitor.

Qualcomm
Revenue Breakdown FY2024 (\$38.8B)

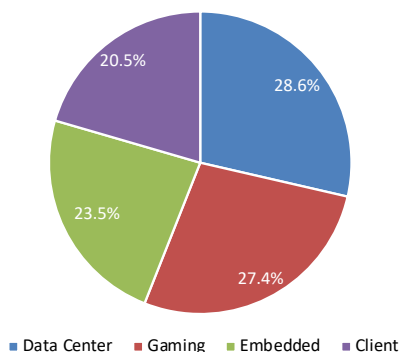


Source: FactSet

Advanced Micro Devices, Inc (AMD)

Founded in 1969, AMD has established itself as a leader in the semiconductor industry, competing with Broadcom in several key areas. Its Data Center segment, which accounts for 28.6% of revenue, positions AMD as a competitor in high-performance computing and enterprise solutions, challenging Broadcom's offerings in cloud infrastructure. The Embedded segment, contributing 23.5%, overlaps with Broadcom in providing custom SoCs for automotive, IoT, and industrial applications. While AMD's Gaming and Client segments primarily focus on GPUs and CPUs for consumer markets, they highlight AMD's strengths in delivering cutting-edge chip performance. Unlike Broadcom's broader portfolio in networking and software, AMD's strategic focus on AI, advanced processors, and workload acceleration solidifies its competitive edge in the semiconductor space. This specialization drives AMD's growth in overlapping markets, particularly in data centers and embedded systems, areas of increasing importance.

AMD
Revenue Breakdown FY2023 (\$22.7B)

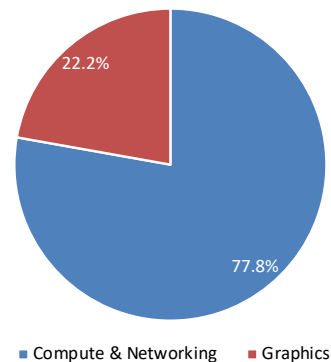


Source: FactSet

NVIDIA Corporation (NVDA)

Founded in 1993, Nvidia has emerged as a dominant force in the semiconductor industry, competing with Broadcom in compute and networking solutions. 77.8% of Nvidia's revenue came from the Compute & Networking segment, which overlaps with Broadcom in areas like AI accelerators, data center solutions, and high-performance computing. The Graphics segment, underscores Nvidia's leadership in GPUs for gaming, visualization, and AI workloads. Nvidia's focus on AI-driven computing and its partnerships with major cloud providers position it as a significant competitor to Broadcom, particularly in the data center and AI hardware markets. While Broadcom benefits from its diversified portfolio, Nvidia's stronghold in GPUs and compute-intensive applications continues to drive its growth, making it a formidable rival in compute and networking technologies.

NVIDIA
Revenue Breakdown FY2024 (\$60.9B)

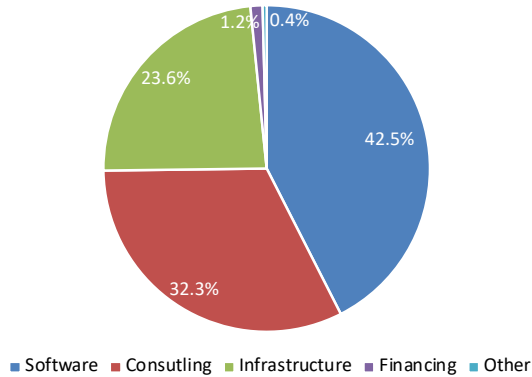


Source: FactSet

IBM Corporation (IBM)

IBM stands as a significant competitor to Broadcom in infrastructure and software solutions. In FY2023, 42.5% of IBM's revenue came from its Software segment, driven by hybrid cloud platforms and AI-powered analytics, which overlap with Broadcom's infrastructure software offerings. Its Consulting segment focuses on helping enterprises deploy and optimize IT systems, indirectly competing with Broadcom in software integration and enterprise support. Additionally, IBM's Infrastructure segment (23.6%) places it in direct competition with Broadcom in areas like mainframes and storage management. As IBM advances its hybrid cloud and AI strategies, it solidifies its position in the enterprise market.

IBM
Revenue Breakdown FY2023 (\$61.9B)

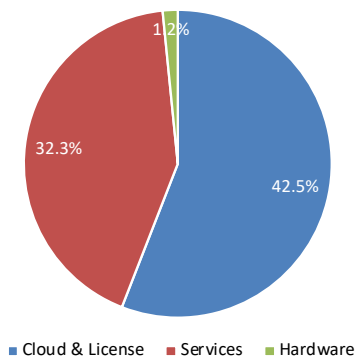


Source: FactSet

Oracle Corporation (ORCL)

Established in 1977, Oracle is a leader in enterprise software and cloud services, presenting strong competition to Broadcom in infrastructure software and data management. In FY2024, Oracle derived 42.5% of its revenue from its Cloud & License segment, reflecting its dominance in cloud infrastructure and database solutions, areas where it competes with Broadcom's software offerings for enterprise IT. Its Services segment, contributing 32.3%, focuses on consulting and support, which complements its cloud strategy and enhances its competitive positioning against Broadcom in integrated enterprise solutions. While its Hardware segment, representing 1.2% of revenue, plays a smaller role, it still overlaps with Broadcom in providing integrated hardware-software solutions for data centers. Oracle's emphasis on expanding its cloud services and database capabilities makes it a formidable rival in enterprise markets.

Oracle
Revenue Breakdown FY2024 (\$52.9B)

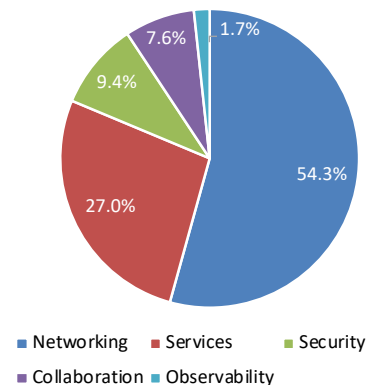


Source: FactSet

Cisco Systems, Inc (CSCO)

Founded in 1984, Cisco Systems is a global leader in networking and communication technology, competing with Broadcom in enterprise networking and infrastructure solutions. In FY2024, 54.3% of Cisco's revenue came from its Networking segment, where it directly competes with Broadcom in switches, routers, and network optimization products. Its Services segment, contributing 27% of revenue, emphasizes consulting, support, and managed services, areas that complement its hardware offerings and overlap with Broadcom's enterprise solutions. Cisco's Security segment, accounting for 9.4% of revenue, represents another competitive area, as both companies provide solutions to secure enterprise IT infrastructure. While its Collaboration (7.6%) and Observability (1.7%) segments cater to different aspects of enterprise needs, they highlight Cisco's broader ecosystem approach. Cisco's continued innovation in networking, particularly in cloud and edge infrastructure, positions it as a strong competitor to Broadcom.

Cisco Systems
Revenue Breakdown FY2024 (\$53.8B)



Source: FactSet

Profitability and Ratio Analysis

Company	Oper. Margin	Net Margin	Capex to Sales	ROA (%)
Broadcom Inc.	45.94	39.31	1.26	19.28
Qualcomm Inc.	26.31	25.95	2.67	19.04
Advanced Micro Devices, Inc.	2.76	3.77	2.41	1.26
NVIDIA Corporation	54.12	48.85	1.75	55.67
IBM Corporation	16.98	12.15	2.93	5.73
Oracle Corporation	30.34	19.76	12.96	7.6
Cisco Systems, Inc.	24.15	19.18	1.25	9.12

Source: FactSet

Excluding Nvidia, which leads the peer group with an exceptional net margin of 48.85% and an ROA of 35.67% due to its dominance in AI-driven semiconductors, Broadcom stands out with the highest operating margin of 45.94% and net margin of 39.31%. These figures highlight Broadcom's superior profitability compared to competitors like Qualcomm and Cisco Systems, reflecting its strong pricing power and operational efficiency. With an ROA of 19.28%, Broadcom also leads its peers in asset utilization efficiency, excluding Nvidia, outperforming companies such as IBM and Oracle. Additionally, Broadcom's capex to sales ratio of 1.26%, the lowest in the group, underscores its capital-light model, which enhances cash flow but could limit scalability in infrastructure expansion. Despite this, Broadcom's financial performance positions it as a leader in profitability and asset efficiency within its competitive landscape.

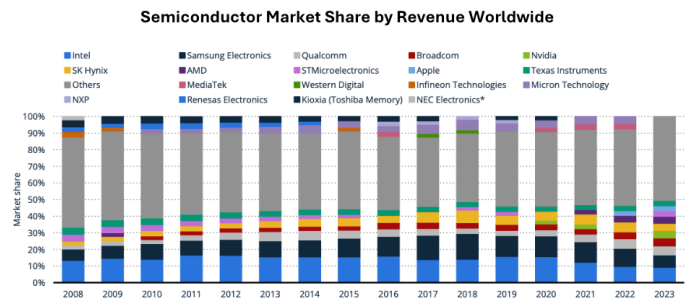
Company	EV/EBITDA	P/E	Div Yield (%)
Broadcom Inc.	18.42	25.42	2.19
Qualcomm Inc.	16.01	18.96	1.94
Advanced Micro Devices, Inc.	56.41	280.51	0.00
NVIDIA Corporation	43.54	51.14	0.03
IBM Corporation	13.17	20.1	4.05
Oracle Corporation	18.33	31.61	1.37
Cisco Systems, Inc.	13.35	18.85	3.3

Source: FactSet

Broadcom's P/E ratio of 25.42 is relatively moderate compared to its peers, sitting between Qualcomm's lower ratio of 18.96 and Nvidia's elevated 51.14. This valuation reflects Broadcom's robust position in both the semiconductor and infrastructure software markets while maintaining market confidence in its ability to deliver steady growth. However, it is worth noting that Nvidia's higher P/E ratio highlights heightened market expectations driven by its dominance in AI-related products. Broadcom's EV/EBITDA ratio of 18.42 further supports its position as a balanced investment option, reflecting solid earnings relative to enterprise value. Additionally, Broadcom offers a competitive dividend yield of 2.19%, higher than Oracle's 1.37% but lower than IBM's 4.05%, indicating a focus on rewarding shareholders while balancing reinvestment in growth initiatives. Unlike some peers with extreme valuations like AMD (P/E of 280.51), Broadcom's valuation metrics suggest it is positioned as a stable and attractive choice in the sector, blending growth potential with consistent profitability.

Semiconductor Market

Broadcom has consistently maintained a strong position in the global semiconductor market, as shown by its steady market share (4-5%) among key industry players over the last ten years. The semiconductor industry is highly fragmented, with no single player dominating a significant portion of the market, reflecting intense competition among companies like Intel, Samsung, Nvidia, and others. Looking ahead, Broadcom's market share is expected to grow modestly, driven by its strategic investments in AI-centric semiconductors and its recent acquisition of VMware, which strengthens its ability to provide integrated hardware and software solutions. While the market is highly concentrated among the top players, Broadcom's focus on innovation and expanding its presence in high-growth areas like AI and data centers positions it for incremental growth.

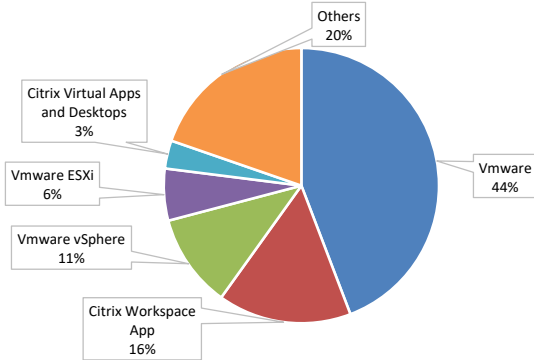


Source: Statista

Virtualization Platform Technologies Market

Virtualization platform technologies enable enterprises to create and manage virtual environments, improving resource efficiency and scalability across cloud and on-premise infrastructures. VMware leads the global market with a commanding 46% share, reflecting its dominance through products like vSphere and ESXi. VMware also has VMware vSphere at 11%, and VMware ESXi at 6%, showcasing VMware's breadth of offerings. Citrix Workspace App and Citrix Virtual Apps and Desktops, accounting for a combined 19%, are offerings from Citrix Systems, known for its focus on application virtualization and remote desktop solutions. Meanwhile, 20% of the market is held by smaller players and alternative solutions, highlighting some fragmentation. VMware's strong market presence is driven by its ability to provide robust solutions for hybrid and private cloud environments, positioning it as a key enabler of enterprise digital transformation.

Virtualization Platform Technologies Global Market Share 2024



Source: Statista

ESG Analysis

Broadcom's ESG risk rating of 19.20, the highest among its peers, highlights potential vulnerabilities in its environmental, social, and governance practices. While still categorized as "low risk" on an absolute scale, the score indicates that Broadcom faces higher exposure to ESG-related challenges compared to competitors like Qualcomm, Nvidia, and Cisco. This elevated risk may stem from issues such as the environmental impact of its semiconductor manufacturing processes, supply chain transparency, and workforce diversity initiatives, areas where industry leaders have implemented more robust strategies. Broadcom has committed to reducing its Scope 1 and Scope 2 greenhouse gas emissions by 38% by 2030 from its 2021 baseline, aligning with the UN Paris Agreement and the Science Based Targets initiative. Broadcom's relatively higher ESG risk could pose challenges in attracting ESG-conscious investors and stakeholders, particularly as regulatory frameworks and investor scrutiny around sustainability intensify.



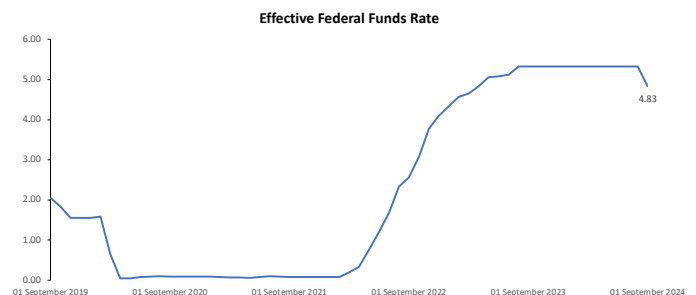
Source: Bloomberg

ECONOMIC OUTLOOK

Macroeconomic conditions such as rising interest rates, inflation, and slower economic growth are crucial to Broadcom's business. Higher borrowing costs have made financing more expensive, particularly as it continues to invest in expanding its AI. Additionally, cautious spending by enterprises due to economic uncertainty has led to delayed software investments. Despite these challenges, Broadcom's recurring revenue has helped cushion the impact, but it remains vulnerable to shifts in corporate IT spending as companies reassess budgets.

Interest Rates

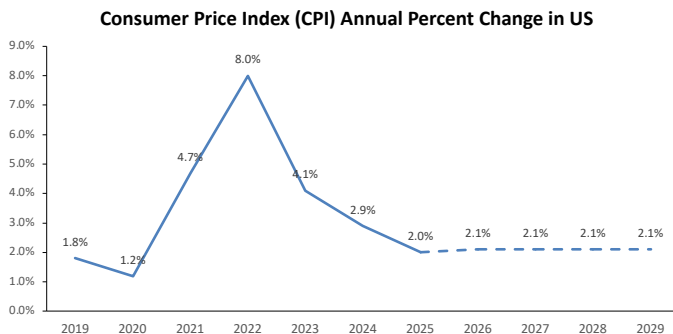
In 2024, the Federal Reserve has focused on balancing inflation control with economic stability. After a series of aggressive rate hikes to combat inflation, the Fed shifted its approach in September, cutting interest rates by 50 basis points, bringing the federal funds rate down to a range of 4.75-5.00%. In November, the Fed further reduced rates by 25 basis points. High interest rates had previously created challenges for the semiconductor and infrastructure software industries, as rising borrowing costs constrained large-scale investments. The reduction in interest rates is expected to positively impact Broadcom's strategic initiatives, especially in R&D. Lower borrowing costs will enable Broadcom to finance growth more efficiently, ensuring continued investment in cutting-edge technologies like AI-driven semiconductors and enterprise software solutions. Looking ahead, we predict the Fed to reduce interest rates by an additional 100 basis points in 2025, creating more favorable financing conditions that could enhance Broadcom's long-term growth trajectory and profitability.



Source: Board of Governors of the Federal Reserve System

Inflation

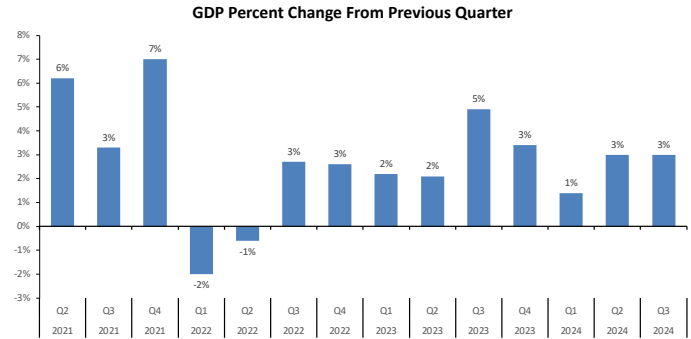
As of November 2024, inflation has significantly cooled, with the Consumer Price Index (CPI) falling to 2.6%. This is a dramatic improvement from the 9.1% inflation peak in 2022, reflecting the effects of the Fed's aggressive interest rate hikes over the past two years. Looking ahead, we expect inflation to continue its downward trend and reach the target 2% level, aided by the Fed's recent rate cuts and further potential easing expected in the coming months. Higher input costs for raw materials and manufacturing have squeezed margins, particularly in the semiconductor segment, while rising labor costs have impacted overall operational expenses. However, inflation has also driven demand for Broadcom's AI-driven technologies and automation solutions, as businesses prioritize efficiency and cost reduction. As inflation continues to stabilize, Broadcom is well-positioned to benefit from sustained demand for its innovative solutions while managing cost pressures. The combination of easing inflation and the Fed's rate adjustments could provide a more favorable backdrop for Broadcom's long-term growth.



Source: International Monetary Fund

Real GDP

The U.S. economy has maintained steady growth, with real GDP expanding at an annualized rate of 3.2% in the third quarter, reflecting robust consumer spending and resilient business investments. Looking ahead, we expect GDP growth to moderate slightly in 2025, settling in the range of 2.0%-2.5%, as the effects of previous monetary tightening fully materialize. This environment, characterized by steady but slower growth, is likely to support enterprise investment in critical technology areas such as AI infrastructure, hybrid cloud solutions, and cybersecurity, which are core to Broadcom's offerings.

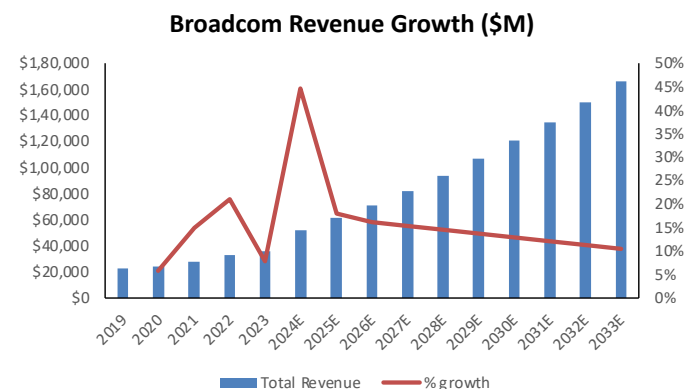


Source: US Bureau of Economic Analysis

VALUATION

Revenue Growth

Based on the growth of the various segments of Broadcom's diverse revenue streams, we forecast total revenue to grow at a CAGR of 14% over the next ten years. We predict that Infrastructure Software is going to be the main driver of growth, with revenue from VMware growing at high double digit growth rates. The revenue growth estimates for FY2025 and FY2026 are in line with consensus. We predict FY2025 revenue to be \$52 billion.



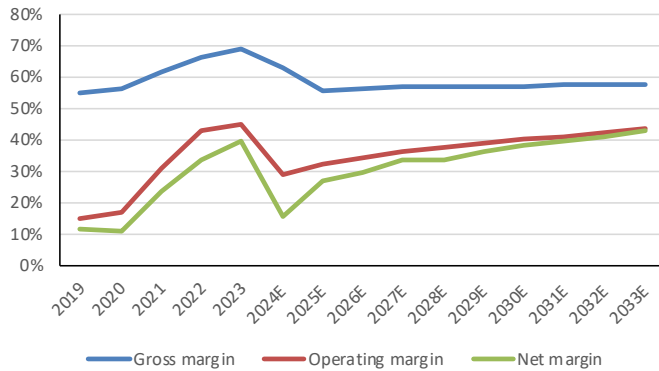
Source: AVGO 10-K, HF estimates

Cost Structure Analysis

Broadcom's margins have steadily increased over recent years, showcasing its robust profitability and efficient operations the semiconductor segment. In FY2023, gross margin reached a strong 69%, while net margin climbed to 40%, reflecting the company's focus on high-margin products. However, in 2024, we anticipate a temporary

decline in these margins due to the significant costs associated with the VMware acquisition and restructuring efforts, including integration expenses and scaling operations. Despite this short-term dip, Broadcom's margins are expected to recover as the company realizes synergies from the acquisition, optimizes operations, and leverages its expanded software portfolio. Over time, we project gross and operating margins to return to their historically high levels, driven by economies of scale.

Broadcom Margins



Source: AVGO 10-K, HF estimates

Broadcom has spent an average of 18% of its revenue on research and development, and 6% on general and administrative. We predict that these would remain approximately close to that average for our forecast horizon. Additionally, we assume capital expenditure to be the average of the last five years in FY2024. Thereafter, we assume that it will be grow by the inflation rate which is assumed to be 2.0%. We assume a depreciation rate of 22% and amortization and restructuring expenses according to the 10-K. There are significant restructuring expenses in FY2024 due to acquiring VMware.

Debt Maturity Analysis

As of FY2023, Broadcom has \$40.8 billion in total debt including long-term debt and the current portion as shown in the table. We consider this a substantial amount and a risk to consider. In FY2023, Broadcom had a current ratio of 2.8x, showcasing its ability to cover its current liabilities using current assets. It also generated \$17.6 billion in operating cash flows, demonstrating the company's capability to manage its debt. However, Broadcom's bond rating is also BBB by S&P, which is lower than most of its peers.

Five-Year Debt Maturity Schedule

Fiscal Year	Payment (\$M)
2025	1,563
2026	495
2027	1,652
2028	3,137
2029	2,545
Thereafter	31,323
Total	\$40,815

Source: AVGO 10-K

Dividend and Share Repurchases

In September 2024, Broadcom declared a quarterly dividend of \$0.53 per share following its ten-for-one stock split earlier in the year, representing an annualized dividend of \$2.12 per share. This dividend provides a yield of approximately 2.2%, reflecting Broadcom's commitment to delivering consistent shareholder returns. In addition to dividends, Broadcom has been actively returning capital to shareholders through share repurchase programs. Over the past few years, the company has authorized significant buybacks, including a \$10 billion repurchase program, highlighting its focus on enhancing shareholder value. This combination of a solid dividend yield and consistent share repurchases positions Broadcom as a reliable income-generating stock, appealing to institutional investors seeking stable returns. Furthermore, Broadcom's steady capital return programs, even during periods of high acquisition activity, signal its strong financial discipline and ability to balance growth with shareholder rewards.

WACC Assumptions

We calculated the Weighted Average Cost of Capital (WACC) for Broadcom to be 10.80%. This is above the 9.84% estimated by consensus due to varying assumptions. To estimate the cost of equity, we used CAPM and the following assumptions:

Risk-free rate: The risk-free rate is assumed to be 4.31%, which is the 10-year US Treasury bond yield as of November 18, 2024.

Beta: The beta is assumed to be 1.40, which is the 3-year adjusted beta from FactSet.

Equity risk premium: The Henry Fund consensus estimate for the equity risk premium is 5.00%.

Pre-tax cost of debt: We assumed a pre-tax cost of debt of 5.32%, the yield to maturity of Broadcom's 10-year corporate bond according to Bloomberg. We used the book value of the debt as a proxy for the market value of debt in our calculations.

Tax rate: The marginal tax rate used for the forecast horizon is 3.7%, which is the marginal tax rate in FY2023. The low effective tax rate is primarily due to tax incentives provided by countries hosting semiconductor operations, as well as R&D tax credits and benefits from managing intellectual property in low-tax jurisdictions.

Discounted Cash Flow / Economic Profit

The Discounted Cash Flow (DCF) and Economic Profit (EP) models estimated a share price of \$101, representing a 39% downside from the current stock price of \$165. The consensus price target is \$193 which represents a 16.5% premium. This is due to analysts factoring in extremely high long term growth rate of 16%, whereas we assume Broadcom's revenue to grow at 5% in the long run. Additionally, the difference in WACC assumptions have led to a big difference in the target price. We use this model to make our recommendation as we believe that it best represents Broadcom's value by incorporating specific growth rates for each revenue segment.

Dividend Discount Model (DDM)

The DDM estimated a target price of \$105, representing a downside of 36%. However, this model is not the best indicator of Broadcom's value as it focuses solely on dividends, ignoring other key shareholder returns such as reinvested earnings and strategic growth initiatives. Furthermore, the DDM assumes constant dividend growth, which may not align with Broadcom's real-world financial strategy or acquisitions like VMware that drive long-term value.

Relative Valuation Model

We considered P/E and PEG as relative valuation multiples. Our relative P/E model gave a price of \$109, representing a 34% upside and our PEG valuation model estimated a price of \$232, a 40% upside from the current price. Our model took into account Qualcomm, AMD, and NVIDIA from the semiconductor industry and IBM, Oracle, and Cisco from the infrastructure software industry. Since Broadcom has diversified revenue streams, it competes

with different companies in various segments and this model's limitation is that it is hard to include all competitors since each specialises in different segments. It is important to note that the model is the PEG model does overestimate the value of Broadcom due to the high growth rates of semiconductor companies such as NVIDIA and AMD. Therefore, we are considerate while using this model in our recommendation.

Sensitivity Analysis

		COGS % of Revenue (Infrastructure Software Revenue) 2024E						
CV Growth of NOPLAT	101.16	14.32%	19.32%	24.32%	29.32%	29.32%	29.32%	29.32%
	3.50%	92.61	89.98	87.35	84.72	84.72	84.72	84.72
	4.00%	97.63	94.88	92.14	89.40	89.40	89.40	89.40
	4.50%	103.44	100.56	97.69	94.81	94.81	94.81	94.81
	5.00%	110.25	107.22	104.19	101.16	101.16	101.16	101.16
	5.50%	118.35	115.13	111.92	108.70	108.70	108.70	108.70
	6.00%	128.13	124.69	121.25	117.82	117.82	117.82	117.82
	6.50%	140.19	136.47	132.76	129.05	129.05	129.05	129.05

Source: HF estimates

The sensitivity analysis for the DCF model highlights how critical assumptions such as CV growth of NOPLAT and cost of goods sold percentage of revenue for the infrastructure software segment significantly impact the valuation. We currently assume CV growth of NOPLAT to be to be 5%. However, analysts consider way higher growth rates, which elevate the price to approximately \$160. Additionally, we assume a large change in cost of goods sold as a percentage of revenue for the infrastructure segment due to restructuring and merger costs from 2023 to 2024. We assume this to be 29% for 2024, whereas it was 8% in 2023, and thereafter assume this to be the average of the last five years. If we assume the average of the last five years for 2024 as well, the price increases to \$113 approximately. Therefore, we believe these two assumptions are critical for our model.

KEYS TO MONITOR

In assessing Broadcom's potential for future growth, we have to monitor the following:

Integration of VMware: Following the completion of VMware's acquisition in 2023, Broadcom's ability to effectively integrate VMware's operations and realize anticipated synergies is crucial. VMware's hybrid cloud and virtualization solutions present significant growth opportunities; however, successful execution will depend on managing integration costs and delivering enhanced customer value.

Market share: Broadcom faces increasing competition in the semiconductor and infrastructure software markets from companies like Nvidia and Cisco. Maintaining and expanding its market share will require continuous innovation in high-growth areas such as AI and 5G, as well as leveraging its Infrastructure Software portfolio to attract more enterprise customers.

Macroeconomic and Geopolitical factors: Broadcom's growth is sensitive to macroeconomic conditions and geopolitical risks. With China being the largest revenue segment, ongoing U.S.-China trade tensions pose significant risks to supply chains and revenue stability. The recent election of President Donald Trump, who has proposed imposing tariffs as high as 60% on Chinese goods, could exacerbate these tensions and impact Broadcom's operations. However, potential easing of interest rates and improving global economic conditions may mitigate some pressures, enhancing the outlook for IT spending and semiconductor demand. Broadcom will need to navigate these external risks while optimizing operations to sustain growth..

Summary

We use the DCF, DDM, and Relative P/E models to make our final recommendation as they considers Broadcom's diversified business. We recommend a SELL rating for Broadcom, with a target price range of \$100-115, showcasing a downside of approximately 35%. Due to strong competition, high restructuring costs, pressured margins in the short term, and geopolitical risks, we think Broadcom is expected to underperform.

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Broadcom Inc.
Sensitivity Tables

Cost of Equity	Pre-tax Cost of Debt							
	101.16	2.32%	3.32%	4.32%	5.32%	6.32%	7.32%	8.32%
	9.81%	157.17	153.41	149.78	146.28	142.90	139.63	136.48
	10.31%	137.27	134.20	131.24	128.37	125.59	122.90	120.29
	10.81%	120.99	118.44	115.97	113.58	111.25	108.99	106.79
	11.31%	107.42	105.28	103.19	101.16	99.18	97.25	95.38
	11.81%	95.96	94.12	92.33	90.59	88.89	87.23	85.61
	12.31%	86.15	84.56	83.01	81.49	80.01	78.57	77.16
	12.81%	77.66	76.27	74.91	73.59	72.29	71.02	69.77

Beta	SGA % of Revenue 2024E							
	101.16	2.84%	3.84%	4.84%	5.84%	6.84%	7.84%	8.84%
	1.10	159.99	155.42	150.85	146.28	141.70	137.13	132.56
	1.20	140.72	136.60	132.49	128.37	124.25	120.13	116.02
	1.30	124.80	121.06	117.32	113.58	109.84	106.09	102.35
	1.40	111.43	108.01	104.58	101.16	97.73	94.31	90.89
	1.50	100.05	96.90	93.75	90.59	87.44	84.28	81.13
	1.60	90.26	87.34	84.42	81.49	78.57	75.65	72.73
	1.70	81.75	79.03	76.31	73.59	70.87	68.14	65.42

Risk-Free Rate	R&D % of revenue 2024E							
	101.16	14.75%	15.75%	16.75%	17.75%	18.75%	19.75%	20.75%
	2.81%	159.99	155.42	150.85	146.28	141.70	137.13	132.56
	3.31%	140.72	136.60	132.49	128.37	124.25	120.13	116.02
	3.81%	124.80	121.06	117.32	113.58	109.84	106.09	102.35
	4.31%	111.43	108.01	104.58	101.16	97.73	94.31	90.89
	4.81%	100.05	96.90	93.75	90.59	87.44	84.28	81.13
	5.31%	90.26	87.34	84.42	81.49	78.57	75.65	72.73
	5.81%	81.75	79.03	76.31	73.59	70.87	68.14	65.42

CV Growth of NOP/LAT	COGS % of Revenue (Infrastructure Software Revenue) 2024E							
	101.16	14.32%	19.32%	24.32%	29.32%	29.32%	29.32%	29.32%
	3.50%	92.61	89.98	87.35	84.72	84.72	84.72	84.72
	4.00%	97.63	94.88	92.14	89.40	89.40	89.40	89.40
	4.50%	103.44	100.56	97.69	94.81	94.81	94.81	94.81
	5.00%	110.25	107.22	104.19	101.16	101.16	101.16	101.16
	5.50%	118.35	115.13	111.92	108.70	108.70	108.70	108.70
	6.00%	128.13	124.69	121.25	117.82	117.82	117.82	117.82
	6.50%	140.19	136.47	132.76	129.05	129.05	129.05	129.05

WACC	Normal Cash % of Revenue							
	101.16	19.37%	20.37%	21.37%	22.37%	23.37%	24.37%	25.37%
	9.30%	153.67	153.23	152.79	152.34	151.90	151.45	151.01
	9.80%	132.92	132.50	132.08	131.67	131.25	130.83	130.41
	10.30%	116.13	115.74	115.34	114.95	114.55	114.15	113.76
	10.80%	102.29	101.91	101.53	101.16	100.78	100.40	100.03
	11.30%	90.69	90.32	89.96	89.60	89.24	88.88	88.52
	11.80%	80.83	80.48	80.14	79.79	79.44	79.09	78.75
	12.30%	72.36	72.02	71.69	71.35	71.02	70.68	70.35

Equity Risk Premium	Effective Tax Rate							
	101.16	0.70%	1.70%	2.70%	3.70%	4.70%	5.70%	6.70%
	4.25%	136.35	134.24	132.12	130.00	127.88	125.75	123.62
	4.50%	125.11	123.13	121.15	119.17	117.19	115.20	113.21
	4.75%	115.20	113.34	111.49	109.63	107.77	105.90	104.03
	5.00%	106.40	104.65	102.91	101.16	99.41	97.65	95.89
	5.25%	98.54	96.89	95.24	93.59	91.94	90.28	88.62
	5.50%	91.47	89.92	88.36	86.79	85.23	83.66	82.09
	5.75%	85.09	83.62	82.14	80.65	79.17	77.69	76.20

Broadcom Inc.
Revenue Decomposition

Fiscal Years Ending Nov. 3rd	2019	2020	2021	2022	2023	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E
Revenue by Business Segment															
Semiconductor Solutions	17441	17267	20383	25818	28182	29959	35043	40569	46647	53265	60401	68010	76034	85153	95525
% growth		-1.0%	18.0%	26.7%	9.2%	6.3%	17.0%	15.8%	15.0%	14.2%	13.4%	12.6%	11.8%	12.0%	12.2%
Networking	0	0	6666	8900	10800	15489	20217	24260	28870	34066	39858	46235	53170	61146	70318
% growth				33.5%	21.3%	43.4%	30.5%	20.0%	19.0%	18.0%	17.0%	16.0%	15.0%	15.0%	15.0%
Enterprise Storage	0	0	2655	4040	4500	3517	3819	4201	4579	4945	5291	5609	5889	6184	6493
% growth				52.1%	11.4%	-21.8%	8.6%	10.0%	9.0%	8.0%	7.0%	6.0%	5.0%	5.0%	5.0%
Broadband	0	0	3386	4111	4500	2795	2684	2953	3219	3476	3719	3943	4140	4347	4564
% growth				21.4%	9.5%	-37.9%	-4.0%	10.0%	9.0%	8.0%	7.0%	6.0%	5.0%	5.0%	5.0%
Wireless Communication	0	0	6802	7400	7300	7336	7504	8254	8997	9717	10397	11021	11572	12150	12758
% growth				8.8%	-1.4%	0.5%	2.3%	10.0%	9.0%	8.0%	7.0%	6.0%	5.0%	5.0%	5.0%
Industrial & Other	0	0	874	975	961	821	819	901	982	1061	1135	1203	1263	1326	1393
% growth				11.5%	-1.4%	-14.6%	-0.2%	10.0%	9.0%	8.0%	7.0%	6.0%	5.0%	5.0%	5.0%
Infrastructure Software	5156	6621	7067	7385	7637	21823	26033	30349	35135	40390	46103	52244	56814	61809	67268
% growth		28.4%	6.7%	4.5%	3.4%	185.8%	19.3%	16.6%	15.8%	15.0%	14.1%	13.3%	8.7%	8.8%	8.8%
VMware	0	0	0	0	0	12650	17122	20546	24450	28851	33755	39156	43072	47379	52117
% growth							35.3%	20.0%	19.0%	18.0%	17.0%	16.0%	10.0%	10.0%	10.0%
CA	0	0	0	0	0	5163	4968	5464	5956	6433	6883	7296	7661	8044	8446
% growth							-3.8%	10.0%	9.0%	8.0%	7.0%	6.0%	5.0%	5.0%	5.0%
Symantec	0	0	0	0	0	2112	2161	2378	2592	2799	2995	3175	3333	3500	3675
% growth							2.3%	10.0%	9.0%	8.0%	7.0%	6.0%	5.0%	5.0%	5.0%
Brocade	0	0	0	0	0	1898	1782	1960	2137	2308	2469	2618	2748	2886	3030
% growth							-6.1%	10.0%	9.0%	8.0%	7.0%	6.0%	5.0%	5.0%	5.0%
Total Revenue	22597	23888	27450	33203	35819	51782	61076	70918	81781	93656	106503	120255	132849	146962	162794
% growth		5.7%	14.9%	21.0%	7.9%	44.6%	17.9%	16.1%	15.3%	14.5%	13.7%	12.9%	10.5%	10.6%	10.8%
Revenue by Geographic Segment															
United States	4235	4778	5285	5915	6975	9868	11639	13515	15585	17848	20296	22917	25317	28006	31023
% growth		12.8%	10.6%	11.9%	17.9%	41.5%	17.9%	16.1%	15.3%	14.5%	13.7%	12.9%	10.5%	10.6%	10.8%
China (including Hong Kong)	8056	7808	9752	11637	11533	17721	20901	24269	27987	32051	36447	41153	45463	50293	55711
% growth		-3.1%	24.9%	19.3%	-0.9%	53.7%	17.9%	16.1%	15.3%	14.5%	13.7%	12.9%	10.5%	10.6%	10.8%
Singapore	2507	0	2754	4003	4479	4732	5581	6480	7473	8558	9732	10988	12139	13429	14875
% growth		-100.0%	-	45.4%	11.9%	5.6%	17.9%	16.1%	15.3%	14.5%	13.7%	12.9%	10.5%	10.6%	10.8%
Other foreign countries	7799	11302	9659	11648	12832	19462	22955	26654	30737	35199	40028	45196	49930	55234	61184
% growth		44.9%	-14.5%	20.6%	10.2%	51.7%	17.9%	16.1%	15.3%	14.5%	13.7%	12.9%	10.5%	10.6%	10.8%
Total	22597	23888	27450	33203	35819	51782	61076	70918	81781	93656	106503	120255	132849	146962	162794
% growth		5.7%	14.9%	21.0%	7.9%	44.6%	17.9%	16.1%	15.3%	14.5%	13.7%	12.9%	10.5%	10.6%	10.8%
Percentage of Total															
Semiconductor Solutions	77.2%	72.3%	74.3%	77.8%	78.7%	57.9%	57.4%	57.2%	57.0%	56.9%	56.7%	56.6%	57.2%	57.9%	58.7%
Infrastructure Software	22.8%	27.7%	25.7%	22.2%	21.3%	42.1%	42.6%	42.8%	43.0%	43.1%	43.3%	43.4%	42.8%	42.1%	41.3%
Total Revenue	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
United States	18.7%	20.0%	19.3%	17.8%	19.5%	19.1%	19.1%	19.1%	19.1%	19.1%	19.1%	19.1%	19.1%	19.1%	19.1%
China (including Hong Kong)	35.7%	32.7%	35.5%	35.0%	32.2%	34.2%	34.2%	34.2%	34.2%	34.2%	34.2%	34.2%	34.2%	34.2%	34.2%
Singapore	11.1%	0.0%	10.0%	12.1%	12.5%	9.1%	9.1%	9.1%	9.1%	9.1%	9.1%	9.1%	9.1%	9.1%	9.1%
Other foreign countries	34.5%	47.3%	35.2%	35.1%	35.8%	37.6%	37.6%	37.6%	37.6%	37.6%	37.6%	37.6%	37.6%	37.6%	37.6%
Total Revenue	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Broadcom Inc.
Income Statement

<i>Fiscal Years Ending Nov. 3rd</i>	2019	2020	2021	2022	2023	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E
Total net revenue	22597	23888	27450	33203	35819	51782	61076	70918	81781	93656	106503	120255	132849	146962	162794
Semiconductor solutions revenue	18117	17435	20383	25818	28182	29959	35043	40569	46647	53265	60401	68010	76034	85153	95525
Infrastructure software revenue	4480	6453	7076	7385	7637	21823	26033	30349	35135	40390	46103	52244	56814	61809	67268
Total cost of revenue	10114	10372	10606	11108	11129	19108	27136	30907	35360	40214	45592	51394	56709	62665	69346
Cost of products sold	5639	5322	6016	7100	8134	8840	18021	20925	24130	27634	31424	35482	39198	43362	48033
Cost of subscriptions & services	515	626	607	627	636	6398	7727	8972	10347	11849	13475	15215	16808	18593	20596
Depreciation expense	569	570	539	529	502	478	470	466	465	466	469	473	479	486	493
Amortization of acquisition-related intangible assets	3314	3819	3427	2847	1853	2392	685	348	222	69	28	28	28	28	28
Restructuring charges	77	35	17	5	4	1000	232	196	196	196	196	196	196	196	196
Gross margin	12483	13516	16844	22095	24690	32674	33941	40011	46422	53442	60911	68861	76140	84297	93447
Research & development expense	4696	4968	4854	4919	5253	9191	10229	11168	12061	12876	13577	14128	14279	14326	14242
Selling, general & administrative expense	1709	1935	1347	1382	1592	3022	2953	3429	3954	4529	5150	5815	6424	7106	7872
Amortization of acquisition-related intangible assets	1898	2401	1976	1512	1394	2392	685	348	222	69	28	28	28	28	28
Restructuring and other charges	736	198	148	57	244	3000	389	682	682	682	682	682	682	682	682
Operating income (loss)	3444	4014	8519	14225	16207	15070	19684	24383	29502	35287	41474	48208	54727	62154	70624
Interest expense	1444	1777	1885	1737	1622	3630	3197	3218	2060	3094	2966	2915	2839	3037	3029
Other income (expense), net	226	206	131	-54	512	607	689	568	888	366	1672	2176	2871	3664	4824
Income (loss) from continuing operations before income taxes	2226	2443	6765	12434	15097	12047	17176	21733	28329	32558	40180	47470	54759	62781	72418
Provision for (benefit from) income taxes	-510	-518	29	939	1015	3946	636	804	1048	1205	1487	1756	2026	2323	2679
Net income (loss)	2724	2960	6736	11495	14082	8101	16541	20929	27281	31353	38693	45713	52733	60459	69739
Dividends on preferred stock	29	297	299	272	0	0	0	0	0	0	0	0	0	0	0
Net income (loss) attributable to common stock	2695	2663	6437	11223	14082	8101	16541	20929	27281	31353	38693	45713	52733	60459	69739
Weighted average shares outstanding - basic	3980	4020	4100	4090	4150	4401	4653	4634	4617	4602	4589	4576	4565	4555	4547
Year end shares outstanding	3980	4070	4130	4180	4140	4663	4643	4625	4609	4595	4582	4571	4560	4551	4542
Earnings per share - basic	0.68	0.66	1.57	2.74	3.39	1.84	3.55	4.52	5.91	6.81	8.43	9.99	11.55	13.27	15.34
Cash dividends declared & paid per share	1.06	1.3	1.44	1.64	1.84	1.08	2.08	2.64	3.45	3.98	4.93	5.84	6.75	7.76	8.97

Broadcom Inc.
Balance Sheet

Fiscal Years Ending Nov. 3rd	2019	2020	2021	2022	2023	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E
Cash & cash equivalents	5055	7618	12163	12416	14189	16095	13277	20741	8543	39063	50835	67075	85615	112708	140013
Trade accounts receivable, net	3259	2297	2071	2958	3154	5105	6022	6992	8063	9234	10501	11856	13098	14490	16050
Inventory	874	1003	1297	1925	1898	2474	2918	3388	3907	4474	5088	5745	6347	7021	7778
Other current assets - miscellaneous	427	590	516	341	1606	2322	2738	3180	3667	4199	4775	5392	5956	6589	7299
Total current assets	9917	11895	16586	18504	20847	25996	24955	34301	24180	56971	71199	90069	111017	140808	171141
Total property, plant & equipment	4896	5331	5544	5827	6178	6621	7072	7533	8003	8482	8971	9470	9979	10497	11027
Less: accumulated depreciation & amortization	2331	2822	3196	3604	4024	4502	4973	5439	5904	6370	6839	7312	7792	8277	8770
Property, plant & equipment, net	2565	2509	2348	2223	2154	2119	2100	2094	2099	2112	2132	2157	2187	2220	2256
Goodwill	36714	43447	43450	43614	43653	95000	95000	95000	95000	95000	95000	95000	95000	95000	95000
Intangible assets, net	17554	16782	11374	7111	3867	30000	28630	27934	27490	27352	27296	27239	27183	27126	27070
ROU assets - operating leases	0	589	588	517	463	455	451	450	451	454	458	464	470	477	485
Other long-term assets	743	711	1224	1280	1877	1957	2041	2128	2220	2315	2414	2517	2625	2737	2854
Total assets	67493	75933	75570	73249	72861	155527	153177	161908	151440	184204	198499	217446	238482	268369	298806
Accounts payable	855	836	1086	998	1210	1785	2105	2444	2819	3228	3671	4145	4579	5065	5611
Employee compensation & benefits	641	877	1066	1202	935	1746	2059	2391	2757	3157	3591	4054	4479	4955	5488
Current portion of long-term debt	2787	827	290	440	1608	2424	2859	3320	3829	4384	4986	5630	6219	6880	7621
Other current liabilities	2616	3831	3839	4412	3652	6927	7559	8777	10122	11591	13181	14883	16442	18189	20148
Total current liabilities	6899	6371	6281	7052	7405	12881	14583	16932	19526	22361	25429	28712	31719	35089	38869
Long-term debt	30011	40235	39440	39075	37621	65809	57227	57176	34898	53778	50770	49155	47150	50213	49322
Other long-term liabilities	5613	5426	4860	4413	3847	7204	8497	9866	11377	13029	14817	16730	18482	20445	22648
Total liabilities	42523	52032	50581	50540	48873	85894	80307	83975	65802	89168	91015	94597	97351	105747	110839
Preferred stock dividend obligation	29	27	27	0	0	0	0	0	0	0	0	0	0	0	0
Common stock and additional paid in capital	25081	23982	24330	21159	21099	67313	67313	67313	67313	67313	67313	67313	67313	67313	67313
Treasury stock at cost	0	0	0	0	0	-3652	-7304	-10955	-14607	-18259	-21911	-25563	-29214	-32866	-36518
Retained earnings (accumulated deficit)	0	0	748	1604	2682	5765	12654	21369	32726	45774	61874	80891	102825	127968	156966
Accumulated other comprehensive income	-140	-108	-116	-54	207	207	207	207	207	207	207	207	207	207	207
Total stockholders' equity	24941	23874	24962	22709	23988	69633	72871	77934	85639	95035	107483	122849	141130	162621	187968

Broadcom Inc.
Historical Cash Flow Statement

Fiscal Years Ending Nov. 3rd	2019	2020	2021	2022	2023
Net income (loss)	2724	2960	6736	11495	14082
Amortization of intangible & right-of-use assets	5239	6335	5502	4455	3333
Depreciation	569	570	539	529	502
Stock-based compensation	2185	1976	1704	1533	2171
Deferred taxes & other non-cash taxes	-934	-1142	-809	-34	-501
Loss on debt extinguishment	-	169	198	100	0
Non-cash interest expense	90	108	96	129	132
Other	-132	-52	-75	183	9
Trade accounts receivable, net	486	981	210	-870	-187
Inventory	250	-31	-294	-627	27
Accounts payable	-42	-3	243	-79	209
Employee compensation & benefits	-294	217	186	136	-279
Other current assets & current liabilities	-283	331	-177	222	-628
Other long-term assets & long-term liabilities	-301	-402	-295	-436	-785
Net cash flows from operating activities	9697	12061	13764	16736	18085
Acquisitions of businesses, net of cash acquired	-16033	-10872	-8	-246	-53
Proceeds from sales of businesses	957	218	45	0	0
Purchases of property, plant & equipment	-432	-463	-443	-424	-452
Purchases of investments	-5	0	0	-200	-346
Sales of investments	957	218	169	200	228
Other cash flows from investing activities	-2	-4	-12	3	-66
Net cash flows from investing activities	-15422	-11109	-245	-667	-689
Proceeds from long-term borrowings	28793	27802	9904	1935	0
Payments on debt obligations	-16800	-18814	-11495	-2361	-403
Other borrowings, net	1241	-1285	0	0	0
Payments of dividends	-4235	-5534	-6212	-7032	-7645
Repurchases of common stock - repurchase program	-5435	0	0	-7000	-5824
Shares repurchased for tax withholdings on vesting of equity awards	-972	-765	-1299	-1455	-1861
Issuance of preferred stock, net	3679	0	0	0	0
Issuance of common stock	253	276	170	114	122
Other cash flows from financing activities	-36	-69	-42	-17	-12
Net cash flows from financing activities	6488	1611	-8974	-15816	-15623
Net change in cash & cash equivalents	763	2563	4545	253	1773
Cash & cash equivalents at beginning of period	4292	5055	7618	12163	12416
Cash & cash equivalents at end of period	5055	7618	12163	12416	14189
Cash paid for interest	1287	1408	1565	1386	1503
Cash paid for income taxes	741	501	775	908	1782

Broadcom Inc.
Forecasted Cash Flow Statement

Fiscal Years Ending Nov. 3rd	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E
Cash at beginning of period	14189	16095	13277	20741	8543	39063	50835	67075	85615	112708
Changes in Operating Activities										
Net Income	8101	16541	20929	27281	31353	38693	45713	52733	60459	69739
Depreciation expense	478	470	466	465	466	469	473	479	486	493
Trade accounts receivable, net	-1951	-916	-970	-1071	-1171	-1267	-1356	-1242	-1391	-1561
Inventory	-576	-444	-470	-519	-567	-614	-657	-602	-674	-756
Other current assets - miscellaneous	-716	-417	-441	-487	-532	-576	-617	-565	-633	-710
Accounts payable	575	320	339	374	409	443	474	434	486	546
Employee compensation & benefits	811	313	332	366	400	433	464	425	476	534
Other current liabilities	3275	632	1218	1345	1470	1590	1702	1559	1747	1959
Net cash from operating activities	9997	16500	21403	27754	31828	39172	46197	53221	60955	70243
Changes in Investing Activities										
Total property, plant & equipment	-443	-452	-461	-470	-479	-489	-499	-509	-519	-529
Goodwill	-51347	0	0	0	0	0	0	0	0	0
Intangible assets, net	-26133	1370	696	444	138	56	56	56	56	56
Other long-term assets	-80	-84	-87	-91	-95	-99	-103	-108	-112	-117
ROU assets - operating leases	8	4	1	-1	-3	-4	-5	-6	-7	-8
Net cash from investing activities	-77996	839	149	-118	-439	-536	-551	-566	-582	-598
Changes in Financing Activities										
Current portion of long-term debt	816	435	461	509	556	601	644	590	661	741
Other long-term liabilities	3357	1293	1369	1511	1652	1787	1913	1752	1963	2202
Long-term debt	28188	-8582	-51	-22278	18880	-3008	-1614	-2005	3063	-891
Common stock	46214	0	0	0	0	0	0	0	0	0
Share repurchases	-3652	-3652	-3652	-3652	-3652	-3652	-3652	-3652	-3652	-3652
Dividends paid	-5019	-9651	-12214	-15925	-18305	-22593	-26696	-30799	-35316	-40741
Net cash from financing activities	69905	-20157	-14087	-39835	-869	-26864	-29405	-34115	-33280	-42340
Change in cash	1906	-2818	7464	-12198	30520	11772	16240	18540	27092	27306
Cash at end of period	16095	13277	20741	8543	39063	50835	67075	85615	112708	140013

Broadcom Inc.

Common Size Income Statement

Fiscal Years Ending Nov. 3rd	2019	2020	2021	2022	2023	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E
Total net revenue	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Semiconductor solutions revenue	80.17%	72.99%	74.26%	77.76%	78.68%	57.86%	57.38%	57.21%	57.04%	56.87%	56.71%	56.56%	57.23%	57.94%	58.68%
Infrastructure software revenue	19.83%	27.01%	25.78%	22.24%	21.32%	42.14%	42.62%	42.79%	42.96%	43.13%	43.29%	43.44%	42.77%	42.06%	41.32%
Total cost of revenue	44.76%	43.42%	38.64%	33.45%	31.07%	36.90%	44.43%	43.58%	43.24%	42.94%	42.81%	42.74%	42.69%	42.64%	42.60%
Cost of products sold	24.95%	22.28%	21.92%	21.38%	22.71%	17.07%	29.51%	29.51%	29.51%	29.51%	29.51%	29.51%	29.51%	29.51%	29.51%
Cost of subscriptions & services	2.28%	2.62%	2.21%	1.89%	1.78%	12.36%	12.65%	12.65%	12.65%	12.65%	12.65%	12.65%	12.65%	12.65%	12.65%
Depreciation expense	2.52%	2.39%	1.96%	1.59%	1.40%	0.92%	0.77%	0.66%	0.57%	0.50%	0.44%	0.39%	0.36%	0.33%	0.30%
Amortization of acquisition-related intangible assets	14.67%	15.99%	12.48%	8.57%	5.17%	4.62%	1.12%	0.49%	0.27%	0.07%	0.03%	0.02%	0.02%	0.02%	0.02%
Restructuring charges	0.34%	0.15%	0.06%	0.02%	0.01%	1.93%	0.38%	0.28%	0.24%	0.21%	0.18%	0.16%	0.15%	0.13%	0.12%
Gross margin	55.24%	56.58%	61.36%	66.55%	68.93%	63.10%	55.57%	56.42%	56.76%	57.06%	57.19%	57.26%	57.31%	57.36%	57.40%
Research & development expense	20.78%	20.80%	17.68%	14.81%	14.67%	17.75%	16.75%	15.75%	14.75%	13.75%	12.75%	11.75%	10.75%	9.75%	8.75%
Selling, general & administrative expense	7.56%	8.10%	4.91%	4.16%	4.44%	5.84%	4.84%	4.84%	4.84%	4.84%	4.84%	4.84%	4.84%	4.84%	4.84%
Amortization of acquisition-related intangible assets	8.40%	10.05%	7.20%	4.55%	3.89%	4.62%	1.12%	0.49%	0.27%	0.07%	0.03%	0.02%	0.02%	0.02%	0.02%
Restructuring and other charges	3.26%	0.83%	0.54%	0.17%	0.68%	5.79%	0.64%	0.96%	0.83%	0.73%	0.64%	0.57%	0.51%	0.46%	0.42%
Operating margin	15.24%	16.80%	31.03%	42.84%	45.25%	29.10%	32.23%	34.38%	36.07%	37.68%	38.94%	40.09%	41.20%	42.29%	43.38%
Interest expense	6.39%	7.44%	6.87%	5.23%	4.53%	7.01%	5.23%	4.54%	2.52%	3.30%	2.79%	2.42%	2.14%	2.07%	1.86%
Other income (expense), net	1.00%	0.86%	0.48%	-0.16%	1.43%	1.17%	1.13%	0.80%	1.09%	0.39%	1.57%	1.81%	2.16%	2.49%	2.96%
Income (loss) from continuing operations	9.85%	10.23%	24.64%	37.45%	42.15%	23.27%	28.12%	30.65%	34.64%	34.76%	37.73%	39.47%	41.22%	42.72%	44.48%
Provision for (benefit from) income tax	-2.26%	-2.17%	0.11%	2.83%	2.83%	7.62%	1.04%	1.13%	1.28%	1.29%	1.40%	1.46%	1.53%	1.58%	1.65%
Net income (loss)	12.05%	12.39%	24.54%	34.62%	39.31%	15.65%	27.08%	29.51%	33.36%	33.48%	36.33%	38.01%	39.69%	41.14%	42.84%
Dividends on preferred stock	0.13%	1.24%	1.09%	0.82%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Net margin	11.93%	11.15%	23.45%	33.80%	39.31%	15.65%	27.08%	29.51%	33.36%	33.48%	36.33%	38.01%	39.69%	41.14%	42.84%

Broadcom Inc.
Common Size Balance Sheet

Fiscal Years Ending Nov. 3rd	2019	2020	2021	2022	2023	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E
Cash & cash equivalents	22.37%	33.71%	53.83%	54.95%	62.79%	71.23%	58.76%	91.79%	37.81%	172.87%	224.96%	296.83%	378.88%	498.77%	619.61%
Trade accounts receivable, net	14.42%	9.62%	7.54%	8.91%	8.81%	9.86%	9.86%	9.86%	9.86%	9.86%	9.86%	9.86%	9.86%	9.86%	9.86%
Inventory	3.87%	4.20%	4.72%	5.80%	5.30%	4.78%	4.78%	4.78%	4.78%	4.78%	4.78%	4.78%	4.78%	4.78%	4.78%
Other current assets - miscellaneous	1.89%	2.47%	1.88%	1.03%	4.48%	4.48%	4.48%	4.48%	4.48%	4.48%	4.48%	4.48%	4.48%	4.48%	4.48%
Total current assets	43.89%	49.79%	60.42%	55.73%	58.20%	50.20%	40.86%	48.37%	29.57%	60.83%	66.85%	74.90%	83.57%	95.81%	105.13%
Total property, plant & equipment	21.67%	22.32%	20.20%	17.55%	17.25%	12.79%	11.58%	10.62%	9.79%	9.06%	8.42%	7.87%	7.51%	7.14%	6.77%
Less: accumulated depreciation & amortization	10.32%	11.81%	11.64%	10.85%	11.23%	8.69%	8.14%	7.67%	7.22%	6.80%	6.42%	6.08%	5.86%	5.63%	5.39%
Property, plant & equipment, net	11.35%	10.50%	8.55%	6.70%	6.01%	4.09%	3.44%	2.95%	2.57%	2.26%	2.00%	1.79%	1.65%	1.51%	1.39%
Goodwill	162.47%	181.88%	158.29%	131.36%	121.87%	183.46%	155.54%	133.96%	116.16%	101.44%	89.20%	79.00%	71.51%	64.64%	58.36%
Intangible assets, net	77.68%	70.25%	41.44%	21.42%	10.80%	57.93%	46.88%	39.39%	33.61%	29.20%	25.63%	22.65%	20.46%	18.46%	16.63%
Other long-term assets	3.29%	2.98%	4.46%	3.86%	5.24%	3.78%	3.34%	3.00%	2.71%	2.47%	2.27%	2.09%	1.98%	1.86%	1.75%
Total assets	298.68%	317.87%	275.30%	220.61%	203.41%	300.35%	250.80%	228.30%	185.18%	196.68%	186.38%	180.82%	179.51%	182.61%	183.55%
Accounts payable	3.78%	3.50%	3.96%	3.01%	3.38%	3.45%	3.45%	3.45%	3.45%	3.45%	3.45%	3.45%	3.45%	3.45%	3.45%
Employee compensation & benefits	2.84%	3.67%	3.88%	3.62%	2.61%	3.37%	3.37%	3.37%	3.37%	3.37%	3.37%	3.37%	3.37%	3.37%	3.37%
Current portion of long-term debt	12.33%	3.46%	1.06%	1.33%	4.49%	4.68%	4.68%	4.68%	4.68%	4.68%	4.68%	4.68%	4.68%	4.68%	4.68%
Other current liabilities	11.58%	16.04%	13.99%	13.29%	10.20%	13.38%	12.38%	12.38%	12.38%	12.38%	12.38%	12.38%	12.38%	12.38%	12.38%
Total current liabilities	30.53%	26.67%	22.88%	21.24%	20.67%	24.88%	23.88%	23.88%	23.88%	23.88%	23.88%	23.88%	23.88%	23.88%	23.88%
Long-term debt	132.81%	168.43%	143.68%	117.69%	105.03%	127.09%	93.70%	80.62%	42.67%	57.42%	47.67%	40.88%	35.49%	34.17%	30.30%
Other long-term liabilities	24.84%	22.71%	17.70%	13.29%	10.74%	13.91%	13.91%	13.91%	13.91%	13.91%	13.91%	13.91%	13.91%	13.91%	13.91%
Total liabilities	188.18%	217.82%	184.27%	152.22%	136.44%	165.88%	131.49%	118.41%	80.46%	95.21%	85.46%	78.66%	73.28%	71.96%	68.09%
Preferred stock dividend obligation	0.13%	0.11%	0.10%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Additional paid in capital	110.99%	100.39%	88.63%	63.73%	58.90%	129.99%	110.21%	94.92%	82.31%	71.87%	63.20%	55.98%	50.67%	45.80%	41.35%
Retained earnings (accumulated deficit)	0.00%	0.00%	2.72%	4.83%	7.49%	11.13%	20.72%	30.13%	40.02%	48.88%	58.10%	67.27%	77.40%	87.08%	96.42%
Accumulated other comprehensive income	-0.62%	-0.45%	-0.42%	-0.16%	0.58%	0.40%	0.34%	0.29%	0.25%	0.22%	0.19%	0.17%	0.16%	0.14%	0.13%
Total stockholders' equity	110.37%	105.65%	110.47%	100.50%	106.16%	308.15%	322.48%	344.89%	378.98%	420.57%	475.65%	543.65%	624.55%	719.66%	831.83%

Broadcom Inc.
Value Driver Estimation

Fiscal Years Ending Nov. 3rd	2019	2020	2021	2022	2023	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E
NOPLAT:															
Total net revenue	22597	23888	27450	33203	35819	51782	61076	70918	81781	93656	106503	120255	132849	146962	162794
Less: Total cost of revenue	10114	10372	10606	11108	11129	19108	27136	30907	35360	40214	45592	51394	56709	62665	69346
Less: Research & development expense	4696	4968	4854	4919	5253	9191	10229	11168	12061	12876	13577	14128	14279	14326	14242
Less: Selling, general & administrative expense	1709	1935	1347	1382	1592	3022	2953	3429	3954	4529	5150	5815	6424	7106	7872
Less: Amortization of acquisition-related intangible	1898	2401	1976	1512	1394	2392	685	348	222	69	28	28	28	28	28
Plus: Implied interest on operating leases	0	31	31	28	25	24	24	24	24	24	24	25	25	25	26
EBITDA	4180	4243	8698	14310	16476	18094	20097	25089	30208	35992	42180	48915	55434	62862	71331
Implied Marginal Tax Rate	-36.10%	-31.20%	-2.60%	2.10%	3.70%	3.70%	3.70%	3.70%	3.70%	3.70%	3.70%	3.70%	3.70%	3.70%	3.70%
Adjusted Taxes															
Provision for (benefit from) income taxes	-510	-518	29	939	1015	3946	636	804	1048	1205	1487	1756	2026	2323	2679
Plus: Tax shield on operating lease interest	0	-10	-1	1	1	1	1	1	1	1	1	1	1	1	1
Plus: Tax shield on interest expense	-521	-554	-49	36	60	134	118	119	76	114	110	108	105	112	112
Less: Tax on other income (expense), net	-82	-64	-3	-1	19	22	25	21	33	14	62	81	106	136	178
Total adjusted taxes	-950	-1018	-17	977	1057	4058	729	903	1092	1306	1535	1785	2026	2301	2614
Net deferred taxes	934	1142	809	34	501	-508	-670	-875	-1143	-1451	-1831	-2280	-2798	-3392	-4077
Change in deferred tax liabilities	208	-333	-775	467		-1009	-162	-206	-268	-308	-380	-449	-518	-594	-685
NOPLAT	5130	5469	8383	12557	15886	13027	19206	23981	28847	34378	40265	46681	52890	59967	68032
Invested Capital (IC):															
Plus: Normal cash	5055	5344	6141	7428	8013	11584	13663	15864	18295	20951	23825	26901	29719	32876	36417
Plus: Trade accounts receivable, net	3259	2297	2071	2958	3154	5105	6022	6992	8063	9234	10501	11856	13098	14490	16050
Plus: Inventories	874	1003	1297	1925	1898	2474	2918	3388	3907	4474	5088	5745	6347	7021	7778
Plus: Other current assets	427	590	516	341	1606	2322	2738	3180	3667	4199	4775	5392	5956	6589	7299
Less: Accounts payable	855	836	1086	998	1210	1785	2105	2444	2819	3228	3671	4145	4579	5065	5611
Less: Employee compensation & benefits	641	877	1066	1202	935	1746	2059	2391	2757	3157	3591	4054	4479	4955	5488
Less: Other current liabilities	2616	3831	3839	4412	3652	6927	7559	8777	10122	11591	13181	14883	16442	18189	20148
Net operating working capital	5503	3690	4034	6040	8874	11028	13618	15812	18234	20882	23746	26812	29620	32767	36297
Plus: Property & equipment, net	2565	2509	2348	2223	2154	2119	2100	2094	2099	2112	2132	2157	2187	2220	2256
Plus: Goodwill	36714	43447	43450	43614	43653	95000	95000	95000	95000	95000	95000	95000	95000	95000	95000
Plus: Intangible assets, net	17554	16782	11374	7111	3867	30000	28630	27934	27490	27352	27296	27239	27183	27126	27070
Plus: Other long-term assets	743	711	1224	1280	1877	1957	2041	2128	2220	2315	2414	2517	2625	2737	2854
Less: Other long-term liabilities	5613	5426	4860	4413	3847	7204	8497	9866	11377	13029	14817	16730	18482	20445	22648
Plus: PV of operating leases	0	589	588	517	463	455	451	450	451	454	458	464	470	477	485
Invested Capital	57466	62302	58158	56372	57041	133355	133343	133553	134117	135085	136229	137460	138603	139882	141315
Free Cash Flow (FCF):															
NOPLAT	5130	5469	8383	12557	15886	13027	19206	23981	28847	34378	40265	46681	52890	59967	68032
Change in IC		4836	-4144	-1786	669	76314	-12	210	564	969	1144	1231	1143	1280	1432
FCF	633	12527	14343	15216		-63287	19217	23771	28284	33409	39121	45451	51747	58688	66600
Return on Invested Capital (ROIC):															
NOPLAT	5130	5469	8383	12557	15886	13027	19206	23981	28847	34378	40265	46681	52890	59967	68032
Beginning IC		57466	62302	58158	56372	57041	133355	133343	133553	134117	135085	136229	137460	138603	139882
ROIC	9.52%	13.45%	21.59%	28.18%		22.84%	14.40%	17.98%	21.60%	25.63%	29.81%	34.27%	38.48%	43.27%	48.64%
Economic Profit (EP):															
Beginning IC		57466	62302	58158	56372	57041	133355	133343	133553	134117	135085	136229	137460	138603	139882
x (ROIC - WACC)	-10.80%	-1.29%	2.65%	10.79%	17.38%	12.03%	3.60%	7.18%	10.80%	14.83%	19.00%	23.46%	27.67%	32.46%	37.83%
EP	-740	1651	6273	9795		6864	4797	9573	14417	19887	25669	31962	38038	44991	52918

Broadcom Inc.*Weighted Average Cost of Capital (WACC) Estimation***Cost of Equity:**

Risk-Free Rate	4.31%
Beta	1.40
Equity Risk Premium	5.00%
Cost of Equity	11.31%

ASSUMPTIONS:*10-year Treasury Bond**Average of 2, 3, 4, and 5-year weekly beta**Henry Fund consensus estimate***Cost of Debt:**

Risk-Free Rate	4.31%
Implied Default Premium	1.01%
Pre-Tax Cost of Debt	5.32%
Marginal Tax Rate	4%
After-Tax Cost of Debt	5.12%

*10-year Treasury Bond**YTM on company's 10-year corporate bond from Bloomberg***Market Value of Common Equity:**

Total Shares Outstanding	4663
Current Stock Price	\$165.67
MV of Equity	7,72,512.15

MV Weights

91.83%

Market Value of Debt:

Current Portion of LTD	2424
Long-Term Debt	65809
PV of Operating Leases	455
MV of Total Debt	68,688.53

8.17%

Market Value of the Firm**8,41,200.68**

100.00%

Estimated WACC

10.80%

Broadcom Inc.*Discounted Cash Flow (DCF) and Economic Profit (EP) Valuation Models*

Key Inputs:

CV Growth of NOPLAT	5.00%
CV Year ROIC	48.64%
WACC	10.80%
Cost of Equity	11.31%

<i>Fiscal Years Ending Nov. 3rd</i>	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E
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DCF Model:

Free Cash Flow (FCF)	-63287.0	19217.4	23770.8	28283.5	33409.4	39120.7	45450.7	51747.2	58687.6	66600.1
Continuing Value (CV)										1051507.9
PV of FCF	-57115.8	15652.3	17473.0	18762.9	20002.1	21137.6	22163.1	22772.9	23308.7	417623.5

Value of Operating Assets:	521780.3
Non-Operating Adjustments	
Plus: Excess Cash	4511.3
Less: Current portion of long term del	-2424.2
Less: Long term debt	-65809.0
Less: PV of operating leases	-455.4
Value of Equity	457603.0
Shares Outstanding	4663.0
Intrinsic Value of Last FYE	\$ 98.14
Implied Price as of Today	\$ 101.16

EP Model:

Economic Profit (EP)	6864.0	4796.8	9573.1	14417.2	19886.9	25669.0	31961.9	38038.1	44991.4	52918.1
Continuing Value (CV)										911625.5
PV of EP	6194.7	3906.9	7036.8	9564.2	11906.2	13869.4	15585.5	16739.8	17869.1	362066.9

Total PV of EP	464739.5
Invested Capital (last FYE)	57040.8
Value of Operating Assets:	521780.3
Non-Operating Adjustments	
Plus: Excess Cash	4511.3
Less: Current portion of long term del	-2424.2
Less: Long term debt	-65809.0
Less: PV of operating leases	-455.4
Value of Equity	457603.0
Shares Outstanding	4663.0
Intrinsic Value of Last FYE	\$ 98.14
Implied Price as of Today	\$ 101.16

Broadcom Inc.

Dividend Discount Model (DDM) or Fundamental P/E Valuation Model

<i>Fiscal Years Ending</i>	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E
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EPS	\$	1.84	\$	3.55	\$	4.52	\$	5.91	\$	6.81	\$	8.43	\$	9.99	\$	11.55	\$	13.27	\$	15.34
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Key Assumptions

CV growth of EPS	5.00%
CV Year ROE	42.88%
Cost of Equity	11.31%

Future Cash Flows

P/E Multiple (CV Year)										14.00
EPS (CV Year)										\$ 15.34
Future Stock Price										\$ 214.74
Dividends Per Share	1.08	2.08	2.64	3.45	3.98	4.93	5.84	6.75	7.76	
Discounted Cash Flows	0.97	1.68	1.91	2.25	2.33	2.59	2.76	2.87	2.96	81.87

Intrinsic Value as of Last FYE	\$ 102.19
Implied Price as of Today	\$ 105.33

Broadcom Inc.

Relative Valuation Models

Ticker	Company	Price	EPS 2024E	EPS 2025E	P/E 24	P/E 25	Est. 5yr EPS gr.	PEG 24	PEG 25
QCOM	Qualcomm Inc	\$172.91	\$8.97	\$9.78	19.28	17.68	12.6	1.53	1.40
AMD	Advanced Micro Devices, Inc.	\$149.82	\$1.38	\$3.03	108.57	49.45	32.7	3.32	1.51
NVDA	NVIDIA Corporation	\$148.88	\$1.19	\$2.73	125.11	54.53	57.4	2.18	0.95
IBM	International Business Machines Corporation	\$213.69	\$7.20	\$9.33	29.68	22.90	3.8	7.81	6.03
ORCL	Oracle Corporation	\$186.37	\$3.71	\$4.63	50.23	40.25	11.5	4.35	3.49
CSCO	Cisco Systems, Inc.	\$58.08	\$2.54	\$2.16	22.87	26.89	3.7	6.16	7.25
Average					59.29	35.28		4.22	3.44

AVGO	Broadcom Inc.	\$165.67	\$1.84	\$3.55	90.0	46.6	29.9	3.0	1.6
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Implied Relative Value:

P/E (EPS24)	\$ 109.13
P/E (EPS25)	\$ 125.43
PEG (EPS24)	\$ 232.66
PEG (EPS25)	\$ 365.57

Broadcom Inc.
Key Management Ratios

Fiscal Years Ending Nov. 3rd	2019	2020	2021	2022	2023	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E
Liquidity Ratios:															
Current Ratio (CA/CL)	1.44	1.87	2.64	2.62	2.82	2.02	1.71	2.03	1.24	2.55	2.80	3.14	3.50	4.01	4.40
Quick Ratio ((CA-Inv)/CL)	1.31	1.71	2.43	2.35	2.56	1.83	1.51	1.83	1.04	2.35	2.60	2.94	3.30	3.81	4.20
Cash Ratio (Cash + Mkt. Sec)/CL)															
Asset-Management Ratios:															
Asset Turnover (Net Sales/Avg. Total Assets)		0.33	0.36	0.45	0.49	0.45	0.40	0.45	0.52	0.56	0.56	0.58	0.58	0.58	0.57
Inventory Turnover (COGS/Avg. Inv)		11.05	9.22	6.90	5.82	8.74	10.07	9.80	9.69	9.60	9.54	9.49	9.38	9.38	9.37
Accounts Recievable Turnover (Sales/Avg. AR)		8.60	12.57	13.20	11.72	12.54	10.98	10.90	10.86	10.83	10.79	10.76	10.65	10.65	10.66
Financial Leverage Ratios:															
Debt-to-Equity Ratio (ST debt+LT debt/TSE)	1.32	1.72	1.59	1.74	1.64	0.98	0.82	0.78	0.45	0.61	0.52	0.45	0.38	0.35	0.30
Debt-to-Asset Ratio (ST debt+LT debt/Assets)	0.49	0.54	0.53	0.54	0.54	0.44	0.39	0.37	0.26	0.32	0.28	0.25	0.22	0.21	0.19
Financial Leverage Ratio (Total Assets/ TSE)	2.71	3.18	3.03	3.23	3.04	2.23	2.10	2.08	1.77	1.94	1.85	1.77	1.69	1.65	1.59
Profitability Ratios:															
Return on Equity (NI/Beg TSE)		10.68%	26.96%	44.96%	62.01%	33.77%	23.75%	28.72%	35.01%	36.61%	40.71%	42.53%	42.93%	42.84%	42.88%
Return on Assets (NI/Total Assets)		3.71%	8.50%	15.08%	19.28%	7.09%	10.72%	13.28%	17.41%	18.68%	20.22%	21.98%	23.13%	23.86%	24.59%
Gross Profit Margin (Gross Profit/Sales)	55.24%	56.58%	61.36%	66.55%	68.93%	63.10%	55.57%	56.42%	56.76%	57.06%	57.19%	57.26%	57.31%	57.36%	57.40%
Operating Profit Margin (Oper. Profit/Sales)	15.24%	16.80%	31.03%	42.84%	45.25%	29.10%	32.23%	34.38%	36.07%	37.68%	38.94%	40.09%	41.20%	42.29%	43.38%
Net Profit Margin (Net Income/Sales)	11.93%	11.15%	23.45%	33.80%	39.31%	15.65%	27.08%	29.51%	33.36%	33.48%	36.33%	38.01%	39.69%	41.14%	42.84%
Payout Policy Ratios:															
Dividend Payout Ratio (Dividend/EPS)	156.57%	196.37%	91.72%	59.77%	54.23%	58.47%	58.47%	58.47%	58.47%	58.47%	58.47%	58.47%	58.47%	58.47%	58.47%
Retention Ratio (1-(Dividend/EPS))	-56.57%	-96.37%	8.28%	40.23%	45.77%	41.53%	41.53%	41.53%	41.53%	41.53%	41.53%	41.53%	41.53%	41.53%	41.53%
Total Payout Ratio ((Dividends + Repurchases)/NI)	358.81%	207.81%	96.50%	125.03%	95.65%	107.02%	80.43%	75.81%	71.76%	70.03%	67.83%	66.39%	65.33%	64.45%	63.66%

Broadcom Inc.

Effects of Share Repurchases on Common Stock Account and Number of Shares Outstanding

Cost of Equity: 11.31%

Current Stock Price: \$165.67

<i>Fiscal Years Ending Nov. 3rd</i>	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E
Share Repurchases (\$)	3,652	3,652	3,652	3,652	3,652	3,652	3,652	3,652	3,652	3,652
Expected Price of Repurchased Shares:	\$ 165.67	\$ 184.41	\$ 205.26	\$ 228.48	\$ 254.32	\$ 283.08	\$ 315.10	\$ 350.74	\$ 390.41	\$ 434.56
Number of Shares Repurchased:	22	20	18	16	14	13	12	10	9	8
Shares Outstanding (beginning of the year)	4,140	4,118	4,098	4,080	4,064	4,050	4,037	4,026	4,015	4,006
Less: Shares Repurchased in Treasury	22	20	18	16	14	13	12	10	9	8
Shares Outstanding (end of the year)	4,118	4,098	4,080	4,064	4,050	4,037	4,026	4,015	4,006	3,997