

DELL TECHNOLOGIES, INC. (DELL)

Information Technology – Technology Hardware

September 22, 2024

Investment Thesis

We recommend a BUY rating for Dell Technologies, Inc. (DELL), with a target price range of \$145-155, showcasing an upside of approximately 28% from the current price of \$117.50. We believe that Dell, a pioneer in the technology hardware industry, will benefit from the AI era by gaining leading market share in the expanding AI-optimized server market and AI-powered PC market through its leading technology and strategic partnerships.

Drivers of Thesis

- The global AI server market is expected to grow at a CAGR of 22%, with Dell positioned to capture the highest market share due to Dell's current positioning as a leading major server OEM.
- Dell can capitalize on the forecasted \$73.5 billion AI PC market by 2030. With its leading market share of 43% in computer manufacturing, it is well positioned to capture demand for AI PCs.
- Dell has strong partnerships with leaders in AI such as NVIDIA and AMD to advance its AI servers, as well as Qualcomm and Nokia to enable it to provide the broadest range of technology hardware with AI offerings.

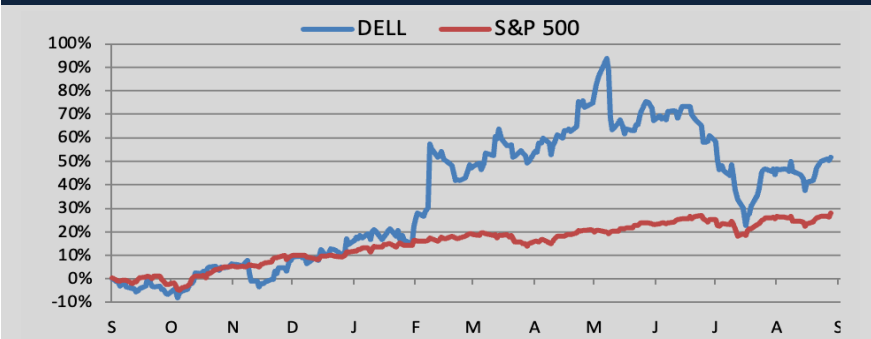
Risks to Thesis

- Dell's margins have decreased from 31% to 23% over the last five years. AI PCs and servers come with high costs and uncertain demand, pressuring forecasted margins further.
- Refresh cycle of PC is uncertain and may not come as soon as expected. Additionally, consumers might not pay high costs to upgrade to AI PCs.
- Macroeconomic factors such as continued high inflation, high interest rates have led to rising input costs and delayed IT spending, lowering margins.

Earnings Estimates

Year	2022	2023	2024	2025E	2026E	2027E
EPS	\$7.30	\$3.33	\$4.46	\$6.71	\$7.45	\$8.41
HF est.				\$6.76	\$7.29	\$8.14
Growth	67.1%	-54.4%	34.0%	51.5%	7.8%	11.6%

12 Month Performance



Stock Rating

BUY

Target Price

\$145 – 155

Henry Fund DCF	\$150
Henry Fund DDM	\$64
Relative Multiple	\$126

Price Data

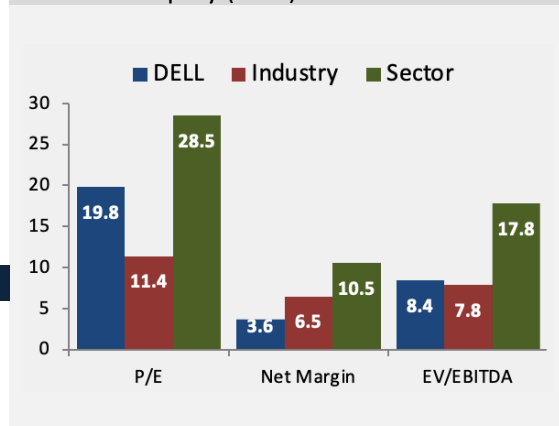
Current Price	\$117
52wk Range	\$64 – 180
Consensus 1yr Target	\$147

Key Statistics

Market Cap (B)	\$80.2
Shares Outstanding (M)	705
Institutional Ownership	67.9%
Beta	1.5
Dividend Yield	1.6%
Est. 5yr Growth	10.9%
Price/Earnings (TTM)	21.6
Price/Earnings (FY1)	19.8
Price/Sales (TTM)	0.9
Price/Book (mrq)	8.4

Profitability

Operating Margin	6.8%
Profit Margin	4.4%
Return on Assets (TTM)	3.7%
Return on Equity (TTM)	3.1%



Company Description

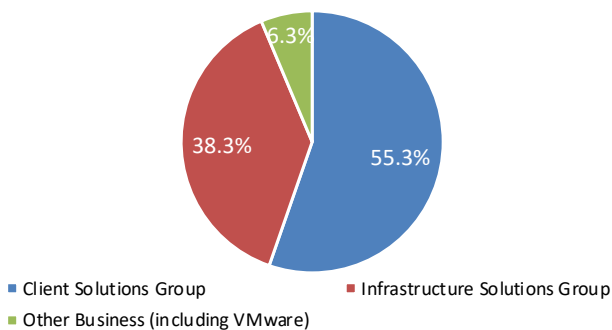
Founded in 1984 in Texas, Dell Technologies, Inc. is a global end-to-end technology provider, with a portfolio of IT hardware, software, and services solutions that serve both traditional infrastructure and emerging multi-cloud technologies that enable commercial and consumer customers to build their digital future. It is best known for its high-quality personal computers and is positioned well to benefit from AI through the expanding AI server and AI PC market.

COMPANY DESCRIPTION

Founded by Michael Dell in 1984, Dell Technologies is a multinational technology company best known for its computer hardware such as high-quality personal computers (PCs) and laptops. Headquartered in Round Rock, Texas, Dell designs, manufactures, and sells a wide range of products in addition to PCs such as enterprise-level IT infrastructure, including servers, data storage solutions, and networking equipment. Operating on a global scale, Dell serves businesses of all sizes, across various industries.

Dell's total revenue in FY2024 was \$88.5 billion, representing a -13.6% year-over-year growth rate. Dell experienced negative revenue growth primarily due to a significant decline in demand for PCs and related hardware. Another contributing factor was the broader macroeconomic slowdown, which affected corporate IT budgets and delayed large infrastructure investments. Dell's primary revenue segments are Client Solutions Group (CSG) and Infrastructure Solutions Group (ISG). Additionally, revenue from VMware, which was spun off in November 2021, is accounted for in Other Businesses.

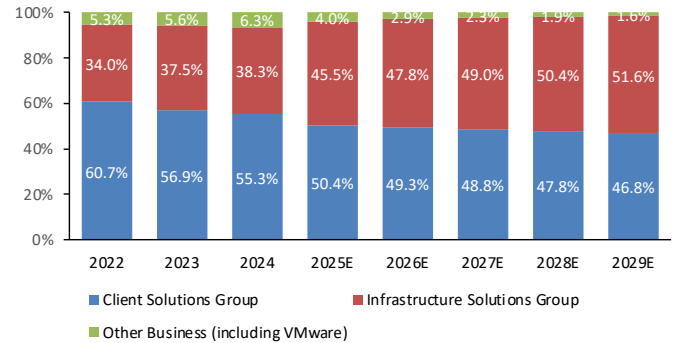
Revenue Breakdown by Segment FY2024 (\$88.43 B)



Source: Dell 10-K, 2020-2024

Dell's revenue distribution over the last five years shows that the CSG segment dominates the company's sales with a substantial 55.3% share in FY2024. ISG contributed 38%, and this split has remained consistent for the past five years. However, over our forecast horizon, we predict that ISG will grow due to the increase in demand for AI servers and Dell's positioning as a leading major server OEM. Over the next five years, we predict that the revenue share contributed by ISG will increase and eventually be higher than CSG.

Revenue Breakdown by Segment

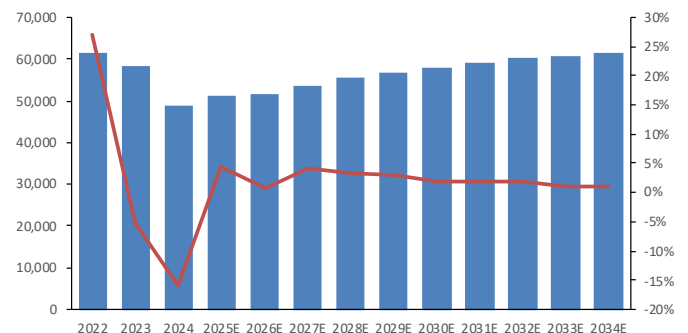


Source: DELL 10-K, HF estimates

Client Solution Group

CSG encompasses sales to commercial and consumer customers, offering hardware products like desktops, workstations, and laptops, monitors and projectors. Additionally, the group includes a range of associated offerings such as software, peripherals, and various services, including customer support, deployment, configuration, and extended warranty options. CSG hardware and services provide the architecture to enable the Internet of Things and connected ecosystems to capture data for analytics and actionable insights for commercial customers.

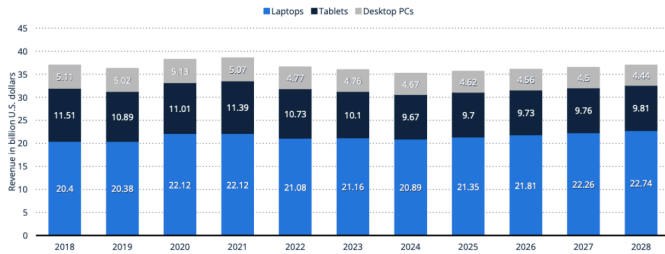
Client Solutions Group Revenue Growth (\$M)



Source: DELL 10-K, HF estimates

CSG revenue for FY2024 was \$48.9 billion, down 16%. Both the commercial and consumer segments had negative double-digit growth, with the consumer segment being affected more, due to the decrease in PC demand. The decline in sales reflects a market correction following the pandemic-driven surge in PC and hardware demand, as remote work and learning normalized.

PC Market Revenue Worldwide



Source: Statista

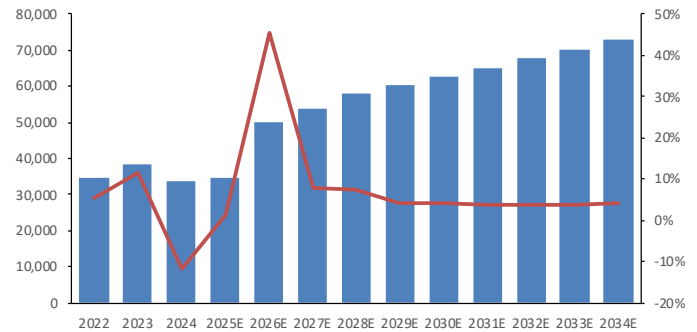
The demand for PCs is declining as the market reaches saturation, with consumers holding onto PCs for longer time due to sufficient performance and newer upgrades not offering significant improvements. There was a surge in PC demand during the COVID-19 pandemic, driven by the need for remote work and online learning; however, this spike has subsided. The rise of smartphones and tablets has further shifted users away from PCs.

Dell anticipates a renewed PC refresh cycle, largely driven by the upcoming expiration of Windows 10. As users will need to transition to newer operating systems, which require upgraded hardware, they will have to replace their older systems. Additionally, the rise of AI-powered PCs is another factor likely to fuel this refresh cycle. These AI-enabled devices, which incorporate advanced machine learning capabilities, will enable more personalized computing experiences, and stimulate a new surge in PC purchases. Therefore, we forecast a 2.7% CAGR for CSG.

Infrastructure Solution Group

The main segments in ISG are servers and networking, and storage. ISG enables customers' digital transformations by offering solutions tailored for AI, machine learning, data analytics, and multicloud environments. It focuses on streamlining IT operations, with solutions designed to run seamlessly in public and private cloud setups, as well as on-premises. ISG's server offerings range from traditional general-purpose high-performance servers to AI-optimized systems, specializing in tasks like model training, fine-tuning, and inferencing. In networking, ISG provides solutions that help businesses modernize infrastructure, enhance user experiences, and boost application performance. Its extensive storage portfolio includes modern storage technologies such as all-flash arrays, scale-out file systems, object platforms, hyper-converged infrastructure, and software-defined storage.

Infrastructure Solutions Group Revenue Growth (\$M)

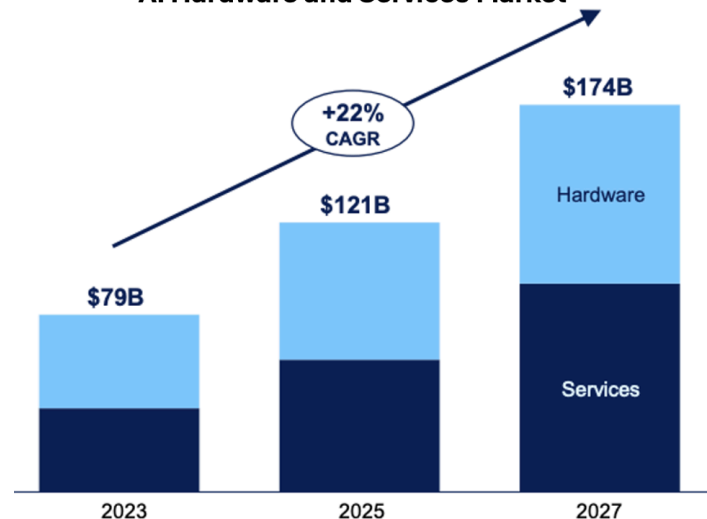


Source: DELL 10-K, HF estimates

ISG also had negative growth in 2024 and revenue fell by 11.7% to \$33.8 billion, with servers and networking falling by 13.6% and storage by 9.4%. However, we expect this segment to be the leading source of revenue over the next couple of years with it growing by 30.3% in FY2025. Most of this growth comes from the servers and networking segment, which is fueled by the large increase in demand for AI servers, and Dell being a leader in the space.

Despite an increase in traditional server demand and strong order growth for AI servers, there was a decrease in revenue of this segment as a significant portion of the orders went into backlog, meaning the orders were not fulfilled in the reported period. However, Dell is turning things around and has shipped \$3.1 billion worth of AI servers in their most recent quarter, and their current backlog is at \$3.8 billion.

AI Hardware and Services Market



Source: DELL Performance Review FY2024

The AI hardware and services market is expected to grow from \$79 billion in 2023 to \$174 billion by 2027, with a CAGR of 22%. Dell's PowerEdge AI-optimized servers are well-positioned to meet the growing demand for AI infrastructure. The company's strong partnerships, such as with NVIDIA, further enhance its ability to deliver high-performance AI computing. With the market's growth spanning both hardware and services, Dell is poised to capture a considerable share of this rapidly expanding segment. Due to the following reasons, we forecast a 8.7% CAGR for our forecasting horizon for the ISG segment.

Other Businesses

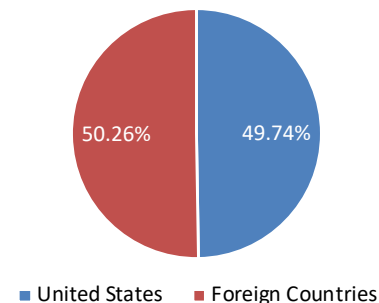
Revenue in the Other Businesses segment primarily consists of the resale of standalone offerings of VMware LLC, and SecureWorks Corporation. After Dell spun off VMware in November 2021, it continued to sell VMware's products through a reseller agreement known as the Commercial Framework Agreement (CFA). However, after VMware was acquired by Broadcom in November 2023, Broadcom decided to change how it sells VMware's products. As a result, Dell decided to end its reseller agreement. Dell gave Broadcom official notice in January that it would terminate the CFA, and the agreement ended on March 25, 2024. Therefore, we expect this segment to not have any significant revenue during our forecasting horizon. SecureWorks operates as a subsidiary of Dell, offering global cybersecurity services to protect organizations' IT infrastructure from cyber threats. Although SecureWorks functions independently, it benefits from its relationship with Dell, gaining access to Dell's extensive customer base and infrastructure, while Dell strengthens its cybersecurity offerings through SecureWorks' specialized expertise.

Geographic Business Segments

Operating on a global scale, Dell's business footprint includes operations in more than 170 countries, manufacturing in 25 locations, more than 40 distribution and configuration centers and more than 1,800 service centers worldwide. Dell manages a world-class supply chain at a significant scale with the ability to remain agile in a variety of environments. The revenue of Dell is divided into two geographic segments: United States and Foreign Countries. Both segments had an approximately 50% split of total revenue in FY2024. It is important to note that the net revenue from any single foreign country did not constitute more than 10% of the total.

Currently, 60% of CSG and 50% of ISG is generated by sales to customers in the Americas, with the remaining portion derived from sales to customers in EMEA and APJ. Historically, US has been the biggest contributor, and we predict that Dell has the most potential to grow in the US due to the large existing customer base and being the pioneer for demand of AI servers. Additionally, we expect the second fastest growth in India due to its expanding economy and increasing expenditure on AI servers and technological hardware. However, we predict a decline in growth in other Asian countries such as China and Japan, which are currently the second and third largest revenue contributors, due to strong competition and existing trade tensions. The geographic split has been constant over the last five years, and we expect it to remain similar over the forecasting horizon.

Revenue Breakdown by Geography FY2024
(\$88.43 B)

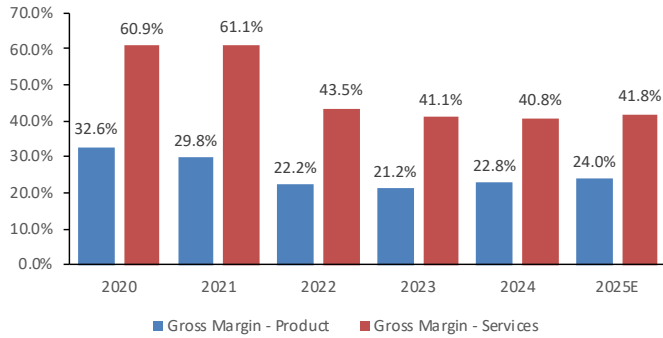


Source: DELL 10-K

Cost Structure Analysis

Dell's cost margins have been decreasing due to declining demand for PCs, which make up a significant portion of its revenue. Over the last five years, gross margins have decreased from 31% to 23%; however, net margins have remained strong. Lower sales have reduced economies of scale, pressuring margins. Dell's higher-margin segment ISG provided some margin relief but could not fully offset the decline in CSG. Even in ISG, we expect lower margins as AI-servers have a lower margin than traditional servers due to the high costs. Additionally, rising input costs over the last couple of years due to inflation have further strained profitability. Dell has addressed these pressures through cost optimizations and strategic layoffs. We forecast margins for both products (24%) and services (42%) to be the average of the last three years, and remain constant over the forecasting horizon.

Gross Margins for Products and Services



Source: DELL 10-K, HF estimates

Debt Maturity Analysis

As of FY2024, Dell has \$26.2 billion in total debt including long-term debt and the current portion as shown in the table. We think that this is a substantial amount and might be a risk to consider. Dell has a quick ratio of 0.67x, current ratio of 0.74x, and generated \$8.7 billion in operating cash flows. A substantial portion of this cash flow is used to make interest and other debt payments, which reduces funds available for other purposes such as working capital, capital expenditures, and potential acquisitions. However, Dell is working on reducing its core debt and leverage ratio over time. In FY2020, Dell had a core leverage of 3.2x with \$37.8 billion in debt. By FY2022, Dell made significant strides by cutting its debt nearly in half to \$16.5 billion and maintaining 1.8x leverage. By FY2024, Dell reached its target leverage ratio of 1.5x. This reduction showcases Dell's focus on deleveraging its balance sheet. Dell is unlikely to face significant challenges paying off near-term debt with its operating cash flow, but its tight liquidity ratios may require selective refinancing to maintain flexibility. Additionally, Dell's BB+ debt rating by S&P is below its peers like Apple (AA+), HP Inc. (BBB+) and Cisco (AA-), reflecting higher perceived risk due to its leverage.

Five-Year Debt Maturity Schedule

Fiscal Year	Payment (\$M)
2025	6988
2026	3158
2027	6136
2028	1124
2029	1307
Thereafter	7509
Total	\$26,222

Source: DELL 10-K

RECENT DEVELOPMENTS

FY2025 Earnings Announcements

For FY2025, Dell Technologies has released earnings for both Q1 and Q2, beating expectations for both quarters. These earnings reports are in line with our forecasts.

Q1 FY2025: On May 30, 2024, Dell reported EPS of \$1.04, surpassing consensus of \$1.00. Additionally, Dell's revenue came in at \$22.2 billion, exceeding the forecasted \$21.7 billion. This represented a 6% year-over-year revenue growth, driven largely by strong performance in ISG, which saw a 22% increase in revenue due to heightened demand for AI-optimized servers and networking solutions, leading to record revenue of the segment, up 42%. CSG experienced softer demand due to declining consumer and commercial PC sales, with revenue being flat year-over-year, and commercial revenue up 3%.

Q2 FY2025: On August 29, 2024, Dell posted revenue of \$25.0 billion, exceeding the \$24.1 billion estimate. EPS came in at \$1.89, also beating the \$1.49 forecast. ISG was up a massive 38% year over year, with another record revenue for the servers and networking segment of \$7.7 billion, up 80%. CSG revenue was down 4% year over year, with commercial client revenue flat.

Entry into S&P 500

Dell will join the S&P 500 on 23 September 2024, marking a major milestone for the company after it was removed in 2013 when Michael Dell took the company private in a \$24.4 billion leveraged buyout. This move was aimed at allowing Dell to restructure outside of public market pressures and shift its focus to high-growth areas like enterprise IT, cloud infrastructure, and hybrid solutions. Dell returned to the public markets in 2018 via a reverse merger with VMware but took time to regain the necessary market presence and financial stability for S&P 500 inclusion. The company's return to the index underscores the company's successful transformation over the past decade and is driven by its strong performance in enterprise IT, cloud computing, and AI, along with its diversified revenue streams, which make it less reliant on consumer demand. This re-entry signals increased investor confidence and is expected to boost trading volume as index funds add Dell to their portfolios, providing greater liquidity and stock price stability.

Partnerships in AI

Dell AI Factory: One of Dell's most prominent recent AI partnerships is with NVIDIA, which is central to Dell's strategy for AI servers and infrastructure. In early 2024, Dell announced the AI Factory in collaboration with NVIDIA, offering an integrated solution that combines Dell's infrastructure and services with NVIDIA's advanced AI hardware and software, such as the Tensor Core GPUs and Spectrum-X networking fabric. This partnership is designed to accelerate AI deployment for enterprises by providing solutions for AI model training and deployment. Dell has also introduced the PowerEdge server, featuring eight NVIDIA GPUs, optimized for large language models and high-performance AI tasks with improved energy efficiency using liquid cooling.

AI-enabled PCs: Dell recently expanded its partnerships with Qualcomm to power its latest line of AI-enhanced PCs. The collaboration integrates Qualcomm's processors into Dell's PCs, offering breakthrough performance in AI-driven tasks. These AI-powered PCs feature neural processing units capable of performing 45 trillion operations per second, enhancing battery life and efficiency for tasks. This partnership allows Dell to deliver powerful, AI-driven experiences directly on devices, without relying heavily on cloud services, further streamlining user workflows. This enables Dell to have the broadest portfolio of commercial AI laptops and mobile workstations, which feature built-in AI acceleration with the addition of the neural processing unit.

Geopolitical factors

Geopolitical factors influence Dell's operations, through technology sales bans to China and supply chain disruptions. US export controls have constrained Dell's ability to market high-performance computing products in China and limited sourcing of specific components from Chinese manufacturers, leading to potential production delays and increased costs. The global semiconductor shortage that began around 2020 further exacerbated these challenges, impacting Dell's server and PC sales due to supply constraints. In response, Dell digitized its supply chain to enhance demand planning and operational agility, allowing the company to better navigate supply and demand fluctuations. Dell has reported that the PC supply chain had largely returned to normal; however, the server market continued to face challenges due to lingering chip shortages.

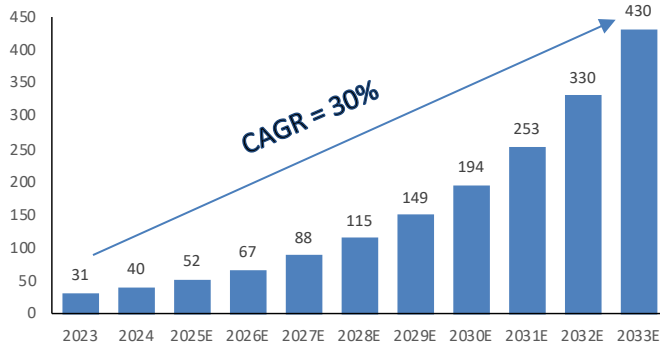
INDUSTRY TRENDS

In the past couple of years, the technology hardware industry has faced significant challenges. After a surge in demand during the pandemic, particularly for PCs, the market experienced a sharp slowdown in 2023. Factors like rising inflation, higher interest rates, and decreased consumer spending contributed to lower demand, with many consumers opting for services like travel over purchasing new technology hardware. Additionally, global supply chain issues and geopolitical tensions have disrupted production and delivery. However, the outlook for the industry from 2024 onward is cautiously optimistic. We predict a modest recovery, driven by increasing investments in cloud computing, and AI-driven infrastructure. AI-related investments are expected to continue growing, fueling demand for high-performance computing (HPC) and data storage solutions. Moreover, while consumer electronics may see slower growth, enterprise-level hardware and innovations will lead the industry's next phase of growth.

AI-Optimized Servers

AI servers are high-performance systems designed to meet the growing demand for AI and machine learning workloads. Equipped with advanced GPUs or TPUs, these servers can process large datasets and run complex AI models efficiently. Their importance is rapidly increasing as industries adopt AI for applications like natural language processing, computer vision, and generative AI, which require immense computational power. The market for AI servers is projected to grow from \$38 billion in 2023 to \$430 billion by 2033, driven by the surge in AI and cloud-based solutions that rely on these powerful servers for scalability and efficiency. Dell has made significant strides in the AI server market with its PowerEdge XE9680 and other models that are specifically designed for AI workloads. These servers support AI accelerators like the NVIDIA H100 Tensor Core GPUs, enabling enterprises to scale their AI capabilities. In 2024, Dell announced expanded support for AMD Instinct MI300X accelerators in its AI-optimized servers, further positioning itself as a key player in the growing AI infrastructure space. Major companies like Tesla and Nvidia are switching from Super Micro to Dell. Nvidia CEO Jensen Huang said, "Nobody is better at building end-to-end systems of very large scale for the enterprise than Dell."

Global AI Server Market Size (\$B)



Source: Statista

AI-Powered PCs

AI-powered PCs are becoming a major focus in the computing landscape as they integrate advanced AI capabilities directly into personal computing devices. These PCs are equipped with neural processing units or AI accelerators that enable real-time processing of AI tasks like voice recognition, enhanced security, and smarter resource allocation. The market for AI-enabled PCs is expected to grow significantly to \$73.5 billion by 2030 as more industries and consumers seek smarter, more efficient devices for analytics, real-time collaboration, and personalized computing experiences. Dell is making moves in the AI-powered PC market with its XPS line, which integrates neural processing units for enhanced AI-driven functionality. In early 2024, Dell announced that these AI-powered PCs would come with features like AI-based performance tuning, smart cooling systems, and enhanced security through AI-optimized biometric authentication. These advancements are aimed at boosting productivity and user experience by allowing the PC to learn from user habits and adjust performance.

MARKETS AND COMPETITION

Dell faces significant competition in the technology hardware and IT services industry, from companies like HP, Cisco, and Apple. These competitors challenge Dell in areas such as personal computing, enterprise IT solutions, cloud infrastructure, and networking. Additionally, Dell competes with Super Micro, and HPE in the server market, especially in HPC and AI-optimized servers. Dell has a higher market capitalization and more revenue than most competitors, except Cisco and Apple, which have expertise in many different fields in which Dell does not participate.

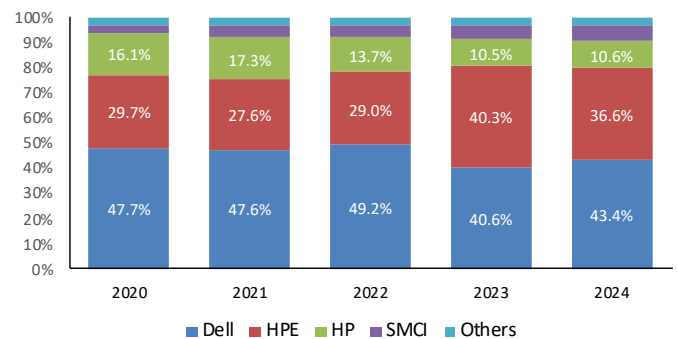
Company	Market Cap (B)	Revenue (B)
Dell Technologies, Inc	90.4	88.5
HP Inc.	34.6	53.4
Hewlett Packard Enterprise	25.7	29.1
Super Micro Computer, Inc.	28.8	14.9
Cisco Systems, Inc.	207.4	53.8
Apple Inc.	3507.5	383.3

Source: FactSet

Market Share

Dell currently leads in the computer manufacturing industry in the U.S. with 43% market share, followed by HPE, HP, and Super Micro. However, over the last five years, Dell has been losing market share to other big competitors. We predict that Dell will maintain market share around 45% over the next couple of years.

Computer Manufacturing US Market Share

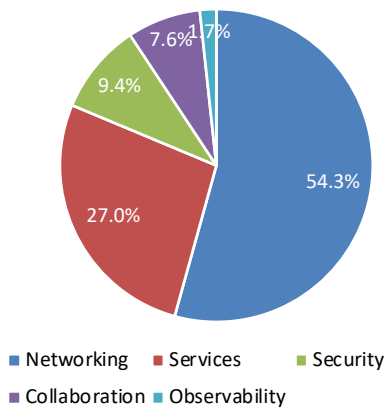


Source: IBISWorld

Cisco Systems, Inc (CSCO)

Cisco, founded in 1984 and headquartered in San Jose, California, is a global leader in networking hardware and IT solutions. Competing with Dell in the enterprise IT space, Cisco's Unified Computing System servers and Nexus networking solutions challenge Dell's PowerEdge servers and Dell EMC storage products. Cisco has a strong foothold in cybersecurity through its Cisco Secure portfolio, which rivals Dell's security offerings for enterprise customers. Cisco's Catalyst and Meraki products also compete with Dell in cloud networking and hybrid IT environments, while both companies expand into AI infrastructure and cloud-native applications. With its dominance in networking and security, Cisco remains a key competitor to Dell in the broader enterprise IT market.

Cisco Systems
Revenue Breakdown FY2024 (\$53.8B)

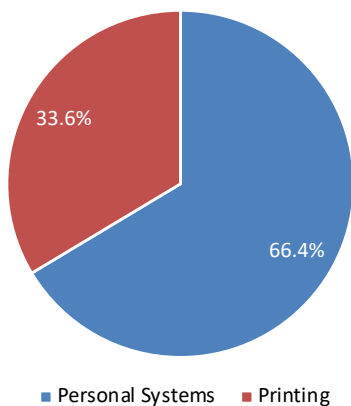


Source: FactSet

HP Inc. (HPQ)

Founded in 1939 by Bill Hewlett and Dave Packard in Palo Alto, California, HP is a leading global provider of personal computers, printers, and related accessories for both consumers and businesses. HP competes directly with Dell in the PC market, particularly with its EliteBook and Spectre series, which rival Dell's XPS and Latitude lines. The companies also compete in high-performance computing, where HP's ZBook workstations go head-to-head with Dell's Precision series. HP has significant advantage in the printing market, where Dell no longer operates. Additionally, HP has expanded into services like Device-as-a-Service and security solutions to further challenge Dell in enterprise IT.

HP
Revenue Breakdown FY2023 (\$53.7B)

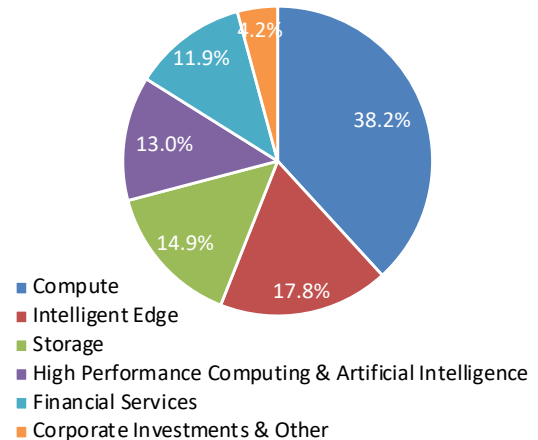


Source: FactSet

Hewlett Packard Enterprise (HPE)

HPE was founded in 2015 as a spin-off from the original HP company and is headquartered in Houston, Texas. HPE focuses on enterprise IT solutions, offering a broad range of products and services such as servers, storage, networking, and cloud computing infrastructure. Unlike HP, which focuses on personal computing, HPE directly competes with Dell in the enterprise space, through its ProLiant servers and Aruba networking solutions, which rival Dell's PowerEdge servers and Dell EMC storage offerings. HPE also competes in hybrid cloud and edge computing, areas where Dell's ISG is a key competitor. Both companies aim to lead the market in data center infrastructure, IT management, and AI-driven workloads. HPE's GreenLake service, which offers cloud services on a consumption-based model, is a significant competitor to Dell's Apex as they both expand their presence in hybrid IT environments and cloud infrastructure.

Hewlett Packard Enterprise
Revenue Breakdown FY2023 (\$29.1B)



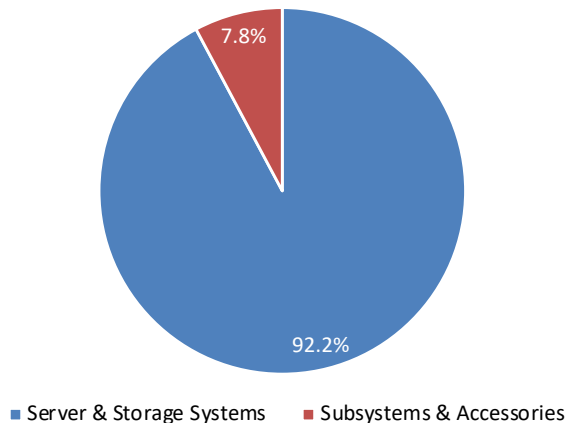
Source: FactSet

Super Micro Computer (SMCI)

Super Micro, founded in 1993 and headquartered in San Jose, California, specializes in high-performance computing, storage, and networking solutions. The company is a prominent player in the server market, offering advanced products for data centers, cloud computing, AI, and enterprise IT infrastructure. One of the leading OEMs driving the AI server market alongside Dell, SMCI is facing significant challenges after a report in August 2024 exposed alleged accounting manipulation,

undisclosed related-party transactions, and sanctions evasion. This scandal led to an 18% drop in SMCI's stock value and the delay of its FY2024 annual report. These developments raise questions about SMCI's governance and reliability, which could weaken its position as a key player in AI server infrastructure. For Dell, this represents an opportunity to strengthen its market share in AI-optimized servers, as SMCI's reputation suffers and investor confidence declines.

**Super Micro Computer
Revenue Breakdown FY2023 (\$7.1B)**

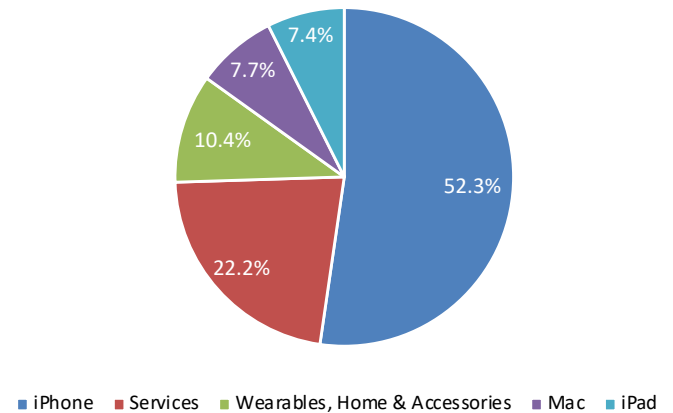


Source: FactSet

Apple, Inc. (AAPL)

Apple, founded in 1976 and headquartered in Cupertino, California, is one of the world's largest technology companies, known for its innovation in personal electronics, software, and services. While Apple primarily focuses on consumer products like the iPhone, MacBook, and iPad, it competes with Dell in the premium laptop and desktop markets. Apple's MacBook Pro and iMac line are rivals to Dell's XPS and Alienware products, especially in creative fields where high-performance computing is critical. Additionally, Apple's growing presence in enterprise IT through its Mac and iPad lines for business, coupled with its ecosystem of software and services, puts it in competition with Dell in offering integrated solutions for businesses. While Apple and Dell target different core markets, they overlap in some areas like high-performance computing and business-oriented solutions.

**Apple
Revenue Breakdown FY2023 (\$383.3B)**



Source: FactSet

Profitability and Ratio Analysis

Dell has lower operating (6.75%) and net margins (3.63%) compared to its peers. This is due to Dell's focus on more capital-intensive products, such as enterprise hardware, which has slimmer margins. Additionally, competitors also focus on premium products with higher margins. This is also shown through a relatively high capex to sales ratio. Dell is reinvesting in growth areas such as AI infrastructure and data centers, which could be a strength as it could lead to Dell being a pioneer in this space. The low return on assets of 3.74% points to less efficiency in asset utilization compared to peers, implying that Dell may face challenges in generating profits from its current asset base.

Company	Oper. Margin	Net Margin	Capex to Sales	ROA (%)
Dell Technologies, Inc	6.75	3.63	3.11	3.74
HP Inc.	7.76	6.10	5.54	8.64
Hewlett Packard Enterprise	8.29	6.96	9.72	3.54
Super Micro Computer, Inc.	8.47	8.09	0.52	17.73
Cisco Systems, Inc.	24.15	19.18	1.25	9.12
Apple Inc.	29.82	25.31	2.86	27.5

Source: FactSet

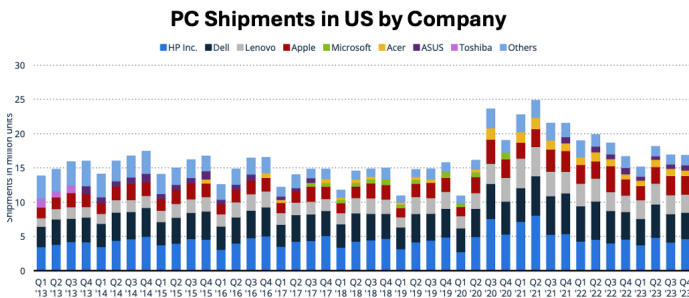
From a valuation perspective, Dell also has a low EV/EBITDA of 7.81 and P/E ratio of 13.23 compared to its competitors. This could suggest that Dell may be undervalued compared to its competitors, offering a more attractive entry point for long-term growth. Dell's dividend yield (0.97%) is also notably lower than competitors, as Dell is focusing more on reinvestment into business growth rather than on immediate shareholder returns.

Company	EV/EBITDA	P/E	Div Yield
Dell Technologies, Inc	7.81	13.23	0.97
HP Inc.	6.72	8.07	3.99
Hewlett Packard Enterprise	5.71	9.99	3.12
Super Micro Computer, Inc.	16.38	40.78	N/A
Cisco Systems, Inc.	13.35	18.85	3.05
Apple Inc.	21.66	27.91	0.55

Source: FactSet

PC Shipments

There was a surge in PC shipments during the COVID-19 pandemic, driven by increased demand for remote work and online learning. Dell benefited from this boom, maintaining a strong market share. However, as the pandemic subsided, PC shipments declined, reflecting a saturated market and reduced need for frequent upgrades. Dell's market share remained stable during the rise and fall, but the overall industry has seen a sharp reduction in shipments post-pandemic as shown in the graph. Market share of Dell's main competitors in this segment like HP and Apple has also remained consistent.

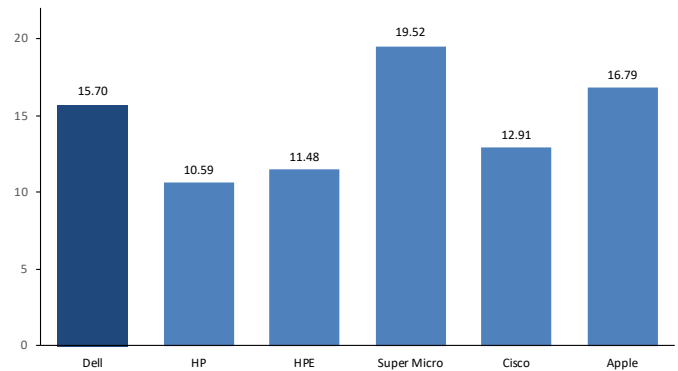


Source: Statista

ESG Analysis

In ESG scoring, a lower score suggests a company is perceived as a lower risk and better positioned. Dell is currently in between its peers, with a score of 15.70, showcasing strong commitments as well as room for improvement. While it performs better than competitors like Apple and Super Micro, it has to catch up with HP and Cisco. Dell is making progress in its ESG initiatives. It uses approximately 96% sustainable materials in its packaging and aims to achieve net-zero emissions by 2050. On the social front, Dell has goals for 50% of its global workforce to be women by 2030 and 25% of its US workforce to identify as Black/African American or Hispanic/Latino. In governance, Dell focuses on leadership diversity, with independent directors forming a significant portion of its board.

ESG Risk Rating



Source: Bloomberg

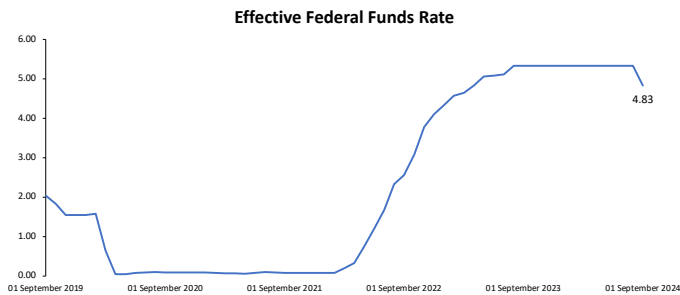
ECONOMIC OUTLOOK

A change in macroeconomic conditions is crucial to Dell's business in the coming years. Throughout FY2024, the effects of the evolving macroeconomic environment including rising interest rates, inflation, and geopolitical concerns continued to impact industry-wide demand as customers were measured in their approach to IT spending, which affected Dell's net revenue. Inflation has played an important role in Dell's margins which have been low due to rising input costs. Therefore, in 2024, Dell implemented several rounds of layoffs as part of a broader effort to tackle increasing input costs amid declining PC sales and economic challenges in the tech industry.

Interest Rates

In 2024, the Federal Reserve has focused on managing inflation while attempting to support economic stability. After a series of rate hikes to curb inflation, the Fed shifted gears in September, cutting interest rates by 50 basis points, bringing the federal funds rate down to a range of 4.75% to 5%. This marked the first rate cut since March 2020, signaling a pivot from aggressive inflation-fighting to preserving the job market and ensuring economic growth. High interest rates created substantial challenges for the technology hardware industry. Higher borrowing costs made it more expensive for companies like Dell to finance operations, delay investments in R&D, reduce capital expenditures, and manage supply chains, leading to slower growth and reduced consumer demand for PCs and other hardware. This decline in discretionary spending and business investment has hit the industry hard, especially following the post-pandemic dip in PC sales. We predict the Fed to further reduce interest rates by 100 bps this year and another 100 next year. This will lead to improved

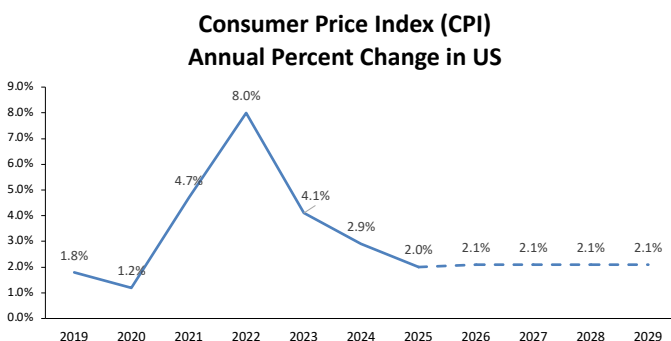
financing conditions for the technology hardware industry, potentially stimulating investment in R&D and innovation, and driving renewed consumer and business demand for hardware products.



Source: Board of Governors of the Federal Reserve System

Inflation

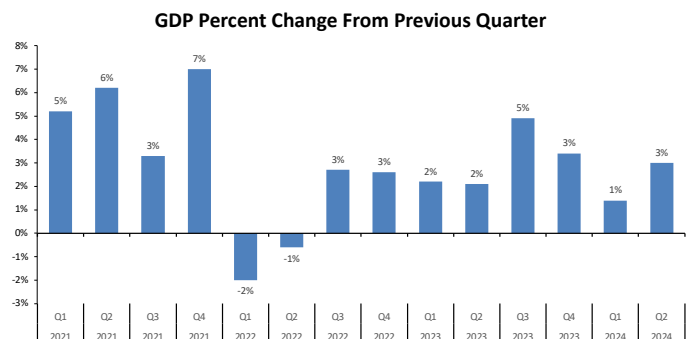
As of September 2024, inflation has significantly cooled, with the Consumer Price Index (CPI) falling to 2.5%, marking a three-year low. This is a dramatic improvement from the 9.1% inflation peak in 2022, reflecting the effects of the Fed's aggressive interest rate hikes over the past two years. Looking ahead, we expect inflation to continue its downward trend and reach the target 2% level, aided by the Fed's recent rate cut and further potential easing expected in the coming months. For companies like Dell, the easing inflation and reduced interest rates could relieve some of the cost pressures associated with high borrowing costs and elevated input prices. However, persistent inflation may still influence consumer spending, especially for discretionary purchases such as PCs and tech hardware. During periods of heightened inflation, Dell has been able to pass increased costs on to consumers through higher prices.



Source: International Monetary Fund

Real GDP

As of September 2024, the U.S. economy has shown resilience, with real GDP growing at an annualized rate of 3.0% in the second quarter, following 1.4% growth in the first quarter. The Fed has shifted towards more accommodative policies, with recent rate cuts aimed at sustaining growth without overheating the economy and impacting the labor market negatively. The Fed's goal is to engineer a soft landing which is historically difficult to achieve, with past tightening cycles leading to recessions about 75% of the time. Should the Fed succeed, companies like Dell could benefit from more stable economic conditions, increased business investment, and renewed consumer demand for technology hardware. However, any disruptions in achieving this could pose risks to growth in the technology sector, making the outlook optimistic.



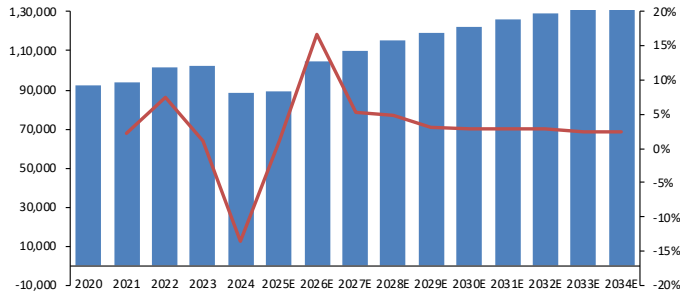
Source: US Bureau of Economic Analysis

VALUATION

Revenue Growth

Based on the growth of Dell's two main segments, we forecast total revenue to grow at a CAGR of 4.7% over the next ten years. We predict that ISG is going to be the main driver of growth, with servers growing at high double digit growth rates. The revenue growth estimates for FY2025 and FY2026 are in line with consensus. We predict FY2025 total revenue to be \$89.5 billion. While we recognize the jump in growth rates from 2024 to 2025, this optimistic outlook is attributed to the growing need for high-performance computing capabilities provided by AI servers. The earnings of Q1 and Q2 FY2025 make us confident in our forecast.

DELL Revenue Growth (\$M)

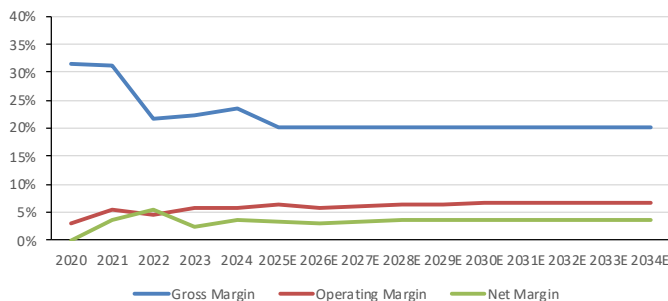


Source: DELL 10-K, HF estimates

Cost Structure Analysis

We assume the gross margin over the next ten years for the products segment to be the average gross margin for products over the last three years which was 24%. Similarly, we assume the gross margin for the Services segment to be 41% over our forecast horizon. Over the last five years, margins have decreased for the Products and Services segment. With Dell's focus being on investment in AI, we expect margins to decrease over the next couple of years and stay around 5% net margin. This is in line with analysts' expectations.

DELL Margins



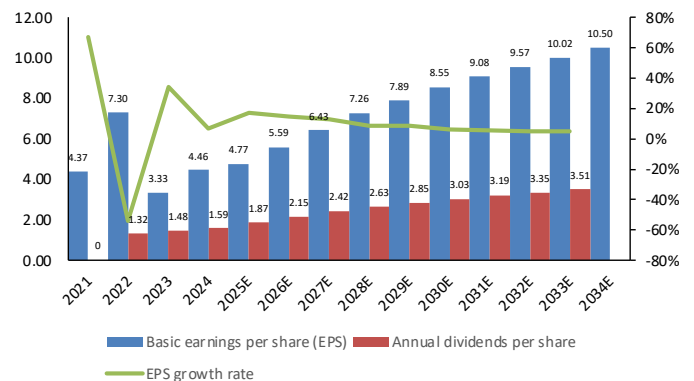
Source: DELL 10-K, HF estimates

Historically, Dell has spent an average of 2.9% of its revenue on research and development and 14.3% on selling, general, and administrative expenses. We predict that these would remain approximately close to that average for our forecast horizon. We assume capital expenditure to be the average of the last three years for FY2025 which is \$2.8 billion. Thereafter, we assume that it will be grow by the inflation rate which is assumed to be 2.5%. We also assume a depreciation rate of 53.2% and amortization expense according to Dell's 10-K.

Dividend and Share Repurchases

Dell began paying dividends in FY2023, marking a significant shift in its capital return strategy. The company initiated its first dividend payout of \$0.33 per share on August 5, 2022, as part of a broader strategy to return capital to shareholders alongside share repurchases. Dell has shown strong performance in terms of EPS, dividends, and share repurchases in fiscal years 2024 and 2025. For FY2024, Dell reported diluted EPS of \$4.36, up 35% year-over-year, despite a 14% decline in overall revenue. In response to its solid cash flow from operations, which totaled \$8.7 billion, Dell increased its annual dividend by 20% to \$1.78 per share, demonstrating confidence in its financial outlook. For FY2025, Dell continues its shareholder returns through a mix of dividends and share repurchases. In Q1 and Q2 FY2025, Dell returned \$1.1 billion and \$1 billion respectively to shareholders, split between dividends and stock repurchases. Therefore, we predict a steady growth in dividends as shown. We use a dividend payout ratio of 36%.

EPS and Dividend Projections



Source: DELL 10-K, HF estimates

WACC Assumptions

We calculated the Weighted Average Cost of Capital (WACC) for Dell to be 8.21%. This is slightly above the 8.00% 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 3.73%, which is the 10-year US Treasury bond yield as of September 20, 2024.

Beta: The beta is assumed to be 1.50, the average of the 2, 3, 4, and 5-year weekly beta for Dell from Bloomberg.

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

Pre-tax cost of debt: We assumed pre-tax cost of debt of 4.80%, the yield to maturity of Dell'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.

Tax rate: The marginal tax rate used for the forecast horizon is 23.50%, which is the marginal tax that Dell's financial statements use for FY2024.

Discounted Cash Flow / Economic Profit

The Discounted Cash Flow (DCF) and Economic Profit (EP) models estimated a share price of \$150.0, representing a 27.5% upside from the current stock price of \$117.5 as of 22 September. The consensus price target is \$147.0 which represents a 25.1% premium. We use this model to make our recommendation as it best represents Dell's value by incorporating growth rates for each revenue segment. We assumed a CV growth of NOPLAT of 1.0%.

Dividend Discount Model (DDM)

The Dividend Discount Model (DDM) estimated a target price of \$64.5, representing a 45.1% discount from the current price. We believe that this model underestimates the value of Dell as it only announced dividends a couple years ago and the current dividend yield is only 1.59%.

Relative Valuation Model

We considered P/E and PEG for our relative valuation models. Our relative P/E valuation model yielded a price of \$99.1, representing a 15.7% downside and our PEG valuation model estimated a price of \$125.6, which is a 6.9% upside from the current price. Our model took into account the following peers in the technology hardware industry: HP, HPE, Apple, Super Micro, and Cisco. Since Dell has diversified revenue streams, it competes with different companies in various segments and therefore this model's limitation is that it is hard to compare it to all competitors since each specialises in different segments. Additionally, it is important to note that the relative valuation model is heavily impacted by the inclusion of Apple. The price from the P/E and PEG relative valuation models without Apple are \$73.8 and \$121.5 respectively.

Sensitivity Analysis

		SGA % of revenue 2025E-2034E							
WACC	149.78	11.28%	12.28%	13.28%	14.28%	15.28%	16.28%	17.28%	
	6.71%	281.73	254.61	227.50	200.39	173.27	146.16	119.05	
	7.21%	255.27	230.45	205.62	180.80	155.97	131.15	106.32	
	7.71%	232.77	209.89	187.01	164.13	141.25	118.37	95.49	
	8.21%	213.40	192.19	170.99	149.78	128.57	107.36	86.15	
	8.71%	196.56	176.80	157.05	137.29	117.53	97.78	78.02	
	9.21%	181.78	163.29	144.81	126.33	107.84	89.36	70.88	
	9.71%	168.70	151.34	133.98	116.62	99.27	81.91	64.55	

Source: HF estimates

The sensitivity analysis for Dell's target price highlights how critical assumptions such as WACC and SG&A expenses significantly impact its valuation. If WACC changes by 1%, the target price could change by \$20-30 dollars. This shows how important beta assumptions are and Dell's beta ranges from 0.96 to 1.55 according to different sources. Additionally, the sensitivity to SG&A as a percentage of revenue shows that higher operating expenses would lower the target price substantially. A more efficient operational structure, with SG&A in the lower range (around 11-12%), would support stronger price outcomes, improving margins and driving the stock toward higher valuations. If we assume the average over the last five years (17.23%), the target price reduces to approximately \$80. However, we assume the average over the last three years (14.28%) for our calculations. These assumptions underline the importance of managing operational costs and capital structure for performance.

KEYS TO MONITOR

In assessing Dell's potential for future growth, we have to monitor the following aspects of the Dell's operations:

Shifts in PC demand: After the pandemic, demand for PCs has significantly slowed, with many consumers and businesses delaying upgrades. The upcoming expiration of Windows 10 support in 2025 could trigger a PC refresh cycle. The success of AI-powered PCs remains uncertain and will depend on whether consumers find enough value in the features to justify higher costs. Therefore, monitoring the demand for AI-powered PCs over the next couple of quarters is crucial.

Growth of AI servers: The market for AI servers is rapidly expanding as companies invest heavily in AI. Dell is well-positioned to capture a portion of this market through its partnerships, but whether the demand will sustain long-term and if revenue will be generated remains uncertain. Dell's ability to innovate and scale its AI infrastructure will

be critical to its success in this highly competitive space. Therefore, comparing orders for servers for Dell compared to competitors such as SMCI is crucial.

Managing profitability: Dell has faced pressures on its margins, due to various factors. Despite strong demand, AI servers offer lower margins compared to traditional servers. Maintaining balance between growth in AI and managing margins will be key. AI server margins could compress more if 2025-26 server architectures are slow to adopt liquid cooling, preferring cheaper air-cooled AI servers, and as the supply of industry GPUs improves.

Macroeconomic factors: Dell's growth is also subject to broader economic pressures, including inflation, high interest rates, and rising input costs. These factors have led to delayed IT spending, with companies postponing infrastructure upgrades. Additionally, rising input costs could further squeeze margins, making it important to monitor Dell's cost-management strategies.

Summary

We use the DCF method to make our final recommendation as it provides a detailed analysis by incorporating specific growth rates for revenue segments, thus reflecting Dell's diversified business model more accurately than other valuation methods. We recommend a BUY rating for Dell, with a target price range of \$145-155, showcasing an upside of approximately 27%. With its strong positioning in the expanding AI server market, Dell is expected to cement its market dominance in the industry and enhance its competitive edge.

REFERENCES

1. Dell Technologies, Inc 10-K
2. [Statista](#)
3. StatCounter
4. FactSet
5. Bloomberg Intelligence
6. [Yahoo Finance](#)
7. U.S. Department of Treasury
8. Bureau of Economic Analysis
9. [International Monetary Fund](#)
10. Statista
11. IBIS World
12. NetAdvantage
13. International Data Corporation
14. [Dell Company Website](#)

15. [Dell Performance Review](#)
16. [Dell Press Releases](#)
17. [Board of Governors of the Federal Reserve System](#)
18. [The Street](#)

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Dell Technologies Inc.
Sensitivity Tables

Pretax cost of debt	Cost of equity							
	149.78	8.23%	9.23%	10.23%	11.23%	12.23%	13.23%	14.23%
	1.80%	264.53	229.65	202.07	179.72	161.21	145.64	132.34
	2.80%	244.12	213.48	188.93	168.80	151.99	137.73	125.48
	3.80%	226.17	199.06	177.07	158.86	143.53	130.43	119.11
	4.80%	210.27	186.12	166.32	149.78	135.74	123.67	113.18
	5.80%	196.08	174.45	156.53	141.44	128.55	117.39	107.65
	6.80%	183.35	163.87	147.59	133.77	121.88	111.55	102.47
	7.80%	171.86	154.23	139.38	126.68	115.69	106.09	97.62

WACC	SGA % of revenue 2025E-2034E							
	149.78	11.28%	12.28%	13.28%	14.28%	15.28%	16.28%	17.28%
	6.71%	281.73	254.61	227.50	200.39	173.27	146.16	119.05
	7.21%	255.27	230.45	205.62	180.80	155.97	131.15	106.32
	7.71%	232.77	209.89	187.01	164.13	141.25	118.37	95.49
	8.21%	213.40	192.19	170.99	149.78	128.57	107.36	86.15
	8.71%	196.56	176.80	157.05	137.29	117.53	97.78	78.02
	9.21%	181.78	163.29	144.81	126.33	107.84	89.36	70.88
	9.71%	168.70	151.34	133.98	116.62	99.27	81.91	64.55

Risk-Free Rate	R&D % of revenue 2025E-2034E							
	149.78	1.31%	1.81%	2.31%	2.81%	3.31%	3.81%	4.31%
	2.23%	212.00	199.90	187.80	175.70	163.59	151.49	139.39
	2.73%	200.95	189.40	177.84	166.28	154.72	143.17	131.61
	3.23%	190.86	179.80	168.74	157.68	146.62	135.56	124.50
	3.73%	181.59	170.99	160.38	149.78	139.17	128.57	117.96
	4.23%	173.06	162.87	152.69	142.50	132.32	122.13	111.95
	4.73%	165.17	155.37	145.58	135.78	125.98	116.18	106.38
	5.23%	157.87	148.42	138.98	129.54	120.10	110.66	101.22

CV growth of NOP/LAT	COGS % of revenue 2025E-2034E							
	149.78	72.92%	73.92%	74.92%	75.92%	76.92%	77.92%	78.92%
	-0.50%	133.19	132.39	131.59	130.79	130.00	129.20	128.40
	0.00%	138.30	137.50	136.70	135.90	135.11	134.31	133.51
	0.50%	144.06	143.27	142.47	141.68	140.88	140.08	139.29
	1.00%	150.63	149.84	149.05	148.25	147.46	146.66	145.87
	1.50%	158.18	157.39	156.60	155.80	155.01	154.22	153.42
	2.00%	166.95	166.16	165.37	164.58	163.78	162.99	162.20
	2.50%	177.25	176.46	175.67	174.88	174.09	173.30	172.51

Beta	Normal cash % of revenue							
	149.78	5.33%	6.33%	7.33%	8.33%	9.33%	10.33%	11.33%
	1.20	180.97	179.23	177.49	175.76	174.02	172.28	170.54
	1.30	171.53	169.79	168.06	166.32	164.59	162.85	161.12
	1.40	162.89	161.16	159.43	157.70	155.96	154.23	152.50
	1.50	154.96	153.24	151.51	149.78	148.05	146.32	144.59
	1.60	147.66	145.94	144.21	142.48	140.76	139.03	137.30
	1.70	140.91	139.19	137.46	135.74	134.02	132.29	130.57
	1.80	134.65	132.93	131.21	129.49	127.77	126.04	124.32

Equity risk premium	Effective tax rate							
	149.78	17.50%	19.50%	21.50%	23.50%	25.50%	27.50%	29.50%
	4.25%	172.23	171.04	169.83	168.60	167.35	166.09	164.80
	4.50%	165.53	164.34	163.14	161.91	160.67	159.41	158.13
	4.75%	159.25	158.07	156.87	155.65	154.42	153.17	151.90
	5.00%	153.35	152.18	150.98	149.78	148.55	147.31	146.06
	5.25%	147.80	146.63	145.45	144.25	143.04	141.81	140.57
	5.50%	142.56	141.40	140.23	139.05	137.85	136.63	135.40
	5.75%	137.61	136.47	135.31	134.13	132.95	131.74	130.52

Dell Technologies Inc.
Revenue Decomposition

Fiscal Years Ending 02/02	2020	2021	2022	2023	2024	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
Revenue by Business Segment															
Client Solutions Group	45,838	48,355	61,464	58,213	48,916	51,123	51,500	53,625	55,399	56,914	57,978	59,062	60,168	60,769	61,377
% growth	5.5%	27.1%	-5.3%	-16.0%	4.5%	0.7%	4.1%	3.3%	3.0%	1.9%	1.9%	1.9%	1.9%	1.0%	1.0%
Commercial	34,277	35,396	45,576	45,556	39,814	42,203	44,000	46,200	48,048	49,489	50,479	51,489	52,519	53,044	53,574
% growth	3.3%	28.8%	0.0%	-12.6%	6.0%	8.0%	5.0%	4.0%	3.0%	2.0%	2.0%	2.0%	2.0%	1.0%	1.0%
Consumer	11,561	12,959	15,888	12,657	9,102	8,920	7,500	7,425	7,351	7,424	7,499	7,573	7,649	7,726	7,803
% growth	12.1%	22.6%	-20.3%	-28.1%	-2.0%	-1.0%	-1.0%	-1.0%	-1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Infrastructure Solutions Group	33,969	32,588	34,366	38,356	33,885	34,373	50,000	53,845	57,870	60,243	62,725	65,140	67,668	70,316	73,088
% growth	-4.1%	5.5%	11.6%	-11.7%	1.4%	45.5%	7.7%	7.5%	4.1%	4.1%	3.8%	3.9%	3.9%	3.9%	3.9%
Servers & Networking	17,127	16,497	17,901	20,398	17,624	17,624	33,500	36,850	40,535	42,562	44,690	46,924	49,271	51,734	54,321
% growth	-3.7%	8.5%	13.9%	-13.6%	0.0%	20.0%	10.0%	10.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Storage	16,842	16,091	16,465	17,958	16,261	16,749	16,500	16,995	17,335	17,682	18,035	18,216	18,398	18,582	18,768
% growth	-4.5%	2.3%	9.1%	-9.4%	3.0%	2.0%	3.0%	2.0%	2.0%	2.0%	2.0%	1.0%	1.0%	1.0%	1.0%
Other (VMware Resale, Secureworks, Virtustream)	12,693	13,440	5,388	5,721	5,614	4,000	3,000	2,520	2,167	1,907	1,716	1,631	1,549	1,472	1,398
% growth	5.9%	-59.9%	6.2%	-1.9%	-28.7%	-25.0%	-16.0%	-14.0%	-12.0%	-10.0%	-5.0%	-5.0%	-5.0%	-5.0%	-5.0%
Unallocated transactions and impact of purchasing accou	-346	-159	-21	11	10	7	8	0	0	0	0	0	0	0	0
Total Revenue	92,154	94,224	1,01,197	1,02,301	88,425	89,503	1,04,508	1,09,990	1,15,436	1,19,064	1,22,419	1,25,833	1,29,385	1,32,557	1,35,864
% growth	2.2%	7.4%	1.1%	-13.6%	1.2%	16.8%	5.2%	5.0%	3.1%	2.8%	2.8%	2.8%	2.5%	2.5%	2.5%
Revenue by Geographic Segment															
United States	43,829	45,671	46,752	49,201	43,986	42,974	50,178	52,810	55,425	57,167	58,778	60,417	62,123	63,645	65,233
% growth	4.2%	2.4%	5.2%	-10.6%	-2.3%	16.8%	5.2%	5.0%	3.1%	2.8%	2.8%	2.8%	2.8%	2.5%	2.5%
Foreign Countries	48,325	48,553	54,445	53,100	44,439	46,529	54,330	57,180	60,011	61,897	63,641	65,416	67,263	68,911	70,630
% growth	0.5%	12.1%	-2.5%	-16.3%	4.7%	16.8%	5.2%	5.0%	3.1%	2.8%	2.8%	2.8%	2.5%	2.5%	2.5%
Total	92,154	94,224	1,01,197	1,02,301	88,425	89,503	1,04,508	1,09,990	1,15,436	1,19,064	1,22,419	1,25,833	1,29,385	1,32,557	1,35,864
% growth	2.2%	7.4%	1.1%	-13.6%	1.2%	16.8%	5.2%	5.0%	3.1%	2.8%	2.8%	2.8%	2.5%	2.5%	2.5%
Percentage of Total															
Client Solutions Group	49.7%	51.3%	60.7%	56.9%	55.3%	57.1%	49.3%	48.8%	48.0%	47.8%	47.4%	46.9%	46.5%	45.8%	45.2%
Infrastructure Solutions Group	36.9%	34.6%	34.0%	37.5%	38.3%	38.4%	47.8%	49.0%	50.1%	50.6%	51.2%	51.8%	52.3%	53.0%	53.8%
Other Business (including VMware)	13.8%	14.3%	5.3%	5.6%	6.3%	4.5%	2.9%	2.3%	1.9%	1.6%	1.4%	1.3%	1.2%	1.1%	1.0%
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	47.6%	48.5%	46.2%	48.1%	49.7%	48.0%	48.0%	48.0%	48.0%	48.0%	48.0%	48.0%	48.0%	48.0%	48.0%
Foreign Countries	52.4%	51.5%	53.8%	51.9%	50.3%	52.0%	52.0%	52.0%	52.0%	52.0%	52.0%	52.0%	52.0%	52.0%	52.0%
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%

Dell Technologies Inc.

Income Statement

Fiscal Years Ending 02/02	2020	2021	2022	2023	2024	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
Total revenue	92154	94224	101197	102301	88425	89503	104508	109990	115436	119064	122419	125833	129385	132557	135864
Products revenue	69918	69911	79830	79250	64353	67878	79258	83416	87546	90298	92842	95431	98125	100531	103038
Services revenue	22236	24313	21367	23051	24072	21624	25250	26574	27890	28766	29577	30402	31260	32026	32825
Total cost of net revenue (excluding D&A)	55810	58564	74157	76045	63922	62604	74937	78868	82773	85375	87781	90228	92775	95050	97421
Products cost	47114	49104	62075	62459	49682	50232	60239	63399	66538	68629	70563	72530	74578	76406	78312
Services cost	8696	9460	12082	13586	14240	12372	14699	15470	16236	16746	17218	17698	18198	18644	19109
Gross profit	28933	29417	21891	22686	20869	26899	29571	31122	32663	33689	34639	35605	36610	37507	38443
Depreciation, and amortization expense	6143	5390	4551	3156	3303	3422	3118	3014	3005	3040	3097	3166	3241	3320	3402
Amortization of intangibles	1268	853	598	414	331	654	495	386	230	190	132	132	132	132	132
Selling, general & administrative expense	21319	18998	14655	14136	12857	12781	14924	15706	16484	17002	17481	17969	18476	18929	19401
Research & development expense	4992	5275	2577	2779	2801	2515	2937	3091	3244	3346	3440	3536	3636	3725	3818
Operating income (loss)	2622	5144	4659	5771	5211	7527	8097	8924	9700	10111	10488	10801	11124	11401	11689
Interest & other, net	-2626	-1474	1264	-2546	-1324	-1199	-1182	-1302	-1348	-1397	-1432	-1467	-1503	-1540	-1574
Income before income taxes	-4	3670	5923	3225	3887	6328	6914	7622	8352	8714	9055	9334	9621	9861	10115
Income tax expense (benefit)	-5533	165	981	803	692	1487	1625	1791	1963	2048	2128	2194	2261	2317	2377
Net income (loss)	5529	3505	5707	2422	3195	4841	5289	5831	6390	6667	6927	7141	7360	7543	7738
Less: net income (loss) attributable to non-controlling interests	-913	-255	6	20	16	23	25	28	30	32	33	34	35	36	37
Less: net income attributable to non-controlling interests	0	0	-150	0	0	0	0	0	0	0	0	0	0	0	0
Net income (loss) attributable to Dell Technologies	4616	3250	5563	2442	3211	4864	5315	5859	6420	6698	6960	7175	7396	7579	7775

Dell Technologies Inc.
Balance Sheet

<i>Fiscal Years Ending 02/02</i>	2020	2021	2022	2023	2024	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
Cash & cash equivalents	9302	14201	9477	8607	7366	7343	15015	19175	23447	27120	30768	34542	38476	42356	46287
Accounts receivable, net	12484	12788	12912	12482	9343	10599	12376	13025	13670	14100	14497	14901	15322	15698	16089
Due from related party, net	0	0	131	378	0	0	0	0	0	0	0	0	0	0	0
Short-term financing receivables, net	4895	5155	5089	5281	4643	4607	5379	5661	5942	6129	6301	6477	6660	6823	6993
Inventories	3281	3402	5898	4776	3622	4354	5084	5350	5615	5792	5955	6121	6294	6448	6609
Other current assets	6906	8021	11526	10827	10973	10258	11977	12606	13230	13646	14030	14421	14829	15192	15571
Total current assets	36868	43567	45033	42351	35947	37160	49831	55818	61904	66786	71552	76462	81580	86517	91549
Total property, plant, & equipment	14627	15184	12306	13092	13617	16469	19392	22388	25459	28606	31833	35140	38529	42004	45565
Accumulated depreciation & amortization	8572	8753	6891	6883	7185	10607	13725	16739	19744	22784	25881	29047	32288	35608	39011
Property, plant, & equipment, net	6055	6431	5415	6209	6432	5862	5667	5648	5714	5822	5951	6092	6241	6396	6555
Long-term investments	864	1624	1839	1518	1316	1365	1416	1469	1524	1580	1639	1701	1764	1830	1898
Long-term financing receivables, net	4848	5339	5522	5638	5877	5255	6136	6458	6778	6991	7188	7388	7597	7783	7977
Goodwill	41691	40829	19770	19676	19700	19700	19700	19700	19700	19700	19700	19700	19700	19700	19700
Intangible assets, net	18107	14429	7461	6468	5701	5047	4552	4166	3936	3746	3614	3482	3349	3217	3217
Due from related party, net	0	0	710	440	0	0	0	0	0	0	0	0	0	0	0
Operating lease right-of-use assets	1780	1121	871	725	707	644	623	621	628	640	654	670	686	703	720
Deferred tax assets	6231	2525	2513	3015	2919	3281	3676	4112	4589	5087	5605	6138	6688	7252	7830
Other non-current assets	2417	7550	3601	3571	3490	3627	3769	3917	4070	4230	4396	4568	4747	4933	5126
Total assets	118861	123415	92735	89611	82089	81941	95370	101908	108843	114582	120299	126201	132352	138330	144573
Short-term debt	7737	6362	5823	6573	6982	5992	6996	7363	7728	7971	8195	8424	8662	8874	9095
Accounts payable	20065	21696	27143	18598	19389	19968	23315	24538	25753	26563	27311	28073	28865	29573	30311
Due to related party	0	0	1414	2067	0	0	0	0	0	0	0	0	0	0	0
Current operating lease liabilities	432	328	287	260	253	225	217	216	219	223	228	233	239	245	251
Accrued & other current liabilities	9341	9221	7291	8614	6552	6872	8024	8445	8863	9142	9400	9662	9934	10178	10432
Short-term deferred revenue	14881	16525	14261	15542	15318	13905	16236	17088	17934	18498	19019	19549	20101	20594	21108
Total current liabilities	52456	54132	56219	51654	48494	46961	54789	57651	60498	62396	64153	65941	67802	69464	71197
Long-term debt	44319	41622	21131	23015	19012	19703	21223	21851	22555	23100	23647	24209	24795	25348	25959
Long-term deferred revenue	12919	14276	13312	14744	13827	12890	15051	15840	16624	17147	17630	18122	18633	19090	19566
Non-current operating lease liabilities	1360	897	720	630	576	539	521	520	526	536	547	560	574	588	603
Deferred tax liabilities	1293	2053	1870	1655	1487	1107	693	235	-266	-788	-1332	-1891	-2469	-3060	-3667
Other non-current liabilities	2730	2410	1063	938	1002	1039	1078	1118	1160	1203	1248	1295	1343	1393	1445
Total liabilities	115077	115390	94315	92636	84398	82240	93355	97216	101097	103594	105894	108235	110678	112824	115103
Common stock & capital	16091	16849	7898	8424	8926	8926	8926	8926	8926	8926	8926	8926	8926	8926	8926
Treasury stock at cost	65	305	964	3813	5900	7153	8406	9658	10911	12164	13417	14670	15922	17175	18428
Retained earnings (accumulated deficit)	-16891	-13751	-8188	-6732	-4630	-1390	2151	6054	10330	14792	19429	24208	29135	34184	39363
Accumulated other comprehensive income	-709	-314	-431	-1001	-800	-800	-800	-800	-800	-800	-800	-800	-800	-800	-800
Total Dell Technologies Inc. stockholders' equity	-1574	2479	-1685	-3122	-2404	-416	1871	4521	7545	10754	14138	17665	21338	25135	29061
Non-controlling interests	4729	5074	105	97	95	118	143	171	202	233	267	301	336	372	409
Total stockholders' equity	3155	7553	-1580	-3025	-2309	-298	2014	4692	7747	10988	14405	17965	21674	25506	29469
Redeemable shares	629	472	0	0	0	0	0	0	0	0	0	0	0	0	0
Total liabilities & equity (and redeemable shares)	1,18,861	1,23,415	92,735	89,611	82,089	81,941	95,370	1,01,908	1,08,843	1,14,582	1,20,299	1,26,201	1,32,352	1,38,330	1,44,573

Dell Technologies Inc.
Historical Cash Flow Statement

Fiscal Years Ending 02/02	2020	2021	2022	2023	2024
Net income (loss)	5529	3505	5707	2422	3195
Depreciation & amortization	6143	5390	4551	3156	3303
Stock-based compensation expense	1262	1609	1622	931	878
Deferred income taxes	-6339	-399	-365	-717	-91
Other net income adjustments	938	-88	-3130	961	609
Accounts receivable	-286	-396	-2193	113	2977
Financing receivables	-1329	-728	-241	-461	309
Inventories	311	-243	-2514	875	975
Other assets & liabilities	-1559	-1656	-1948	973	-1470
Due from or to related party, net	-	-	479	649	-652
Accounts payable	894	1598	5742	-8546	-335
Deferred revenue	3727	2815	2597	3209	-1022
Net cash flows from operating activities	9291	11407	10307	3565	8676
Investments: purchases	-181	-338	-414	-108	-172
Maturities & sales of equity & other investments	497	169	513	116	226
Capital expenditures	-2576	-2082	-2796	-3003	-2756
Acquisition of businesses & assets, net	-2463	-424	-16	-70	-126
Divestitures of businesses & assets, net	-3	2187	3957	0	0
Other investing activities	40	28	62	41	45
Net cash flows from investing activities	-4686	-460	1306	-3024	-2783
Dividends paid by VMware, Inc. to non-controlling in	0	0	-2240	0	0
Proceeds from the issuance of common stock of su	658	452	334	5	10
Repurchases of parent common stock	-8	-241	-663	-3272	-2080
Repurchases of common stock of subsidiaries	-3574	-1363	-1175	-9	-372
Net transfer of cash, cash equivalents, & restricted c	0	0	-5052	0	0
Payments of dividends to stockholders	0	0	0	-964	-1072
Proceeds from debt	20481	16391	20425	12479	7775
Repayments of debt	-22117	-20919	-26723	-9825	-11246
Debt related costs & other financing activities, net	-71	-270	-1515	-39	-109
Net cash flows from financing activities	-4604	-5950	-16609	-1625	-7094
Effect of exchange rate changes on cash, cash equ	-90	36	-106	-104	-186
Change in cash, cash equivalents, & restricted cash	-89	5033	-5102	-1188	-1387
Cash, cash equivalents, & restricted cash at beginn	10240	10151	15184	10082	8894
Cash, cash equivalents, & restricted cash at end of	10151	15184	10082	8894	7507
Income taxes paid	1414	1421	1257	1208	1379
Interest expense paid	2500	2279	1825	1169	1438

Dell Technologies Inc.
Forecasted Cash Flow Statement

<i>Fiscal Years Ending 02/02</i>	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
Cash at beginning of period	7366	7343	15015	19175	23447	27120	30768	34542	38476	42356
Changes in Operating Activities										
Net Income	4864	5315	5859	6420	6698	6960	7175	7396	7579	7775
Depreciation, amortization, other	3422	3118	3014	3005	3040	3097	3166	3241	3320	3402
Accounts receivable, net	-1256	-1777	-649	-645	-430	-397	-404	-421	-376	-392
Short-term financing receivables, net	36	-772	-282	-280	-187	-173	-176	-183	-163	-170
Inventories	-732	-730	-267	-265	-176	-163	-166	-173	-154	-161
Other current assets	715	-1,720	-628	-624	-416	-385	-391	-407	-364	-379
Long-term financing receivables, net	622	-881	-322	-320	-213	-197	-200	-209	-186	-194
Deferred tax assets	-362	-395	-436	-477	-498	-518	-533	-550	-564	-578
Other non-current assets	-137	-142	-148	-154	-160	-166	-172	-179	-186	-193
Accounts payable	579	3348	1223	1215	809	748	762	793	708	738
Accrued & other current liabilities	320	1,152	421	418	279	258	262	273	244	254
Short-term deferred revenue	-1,413	2,331	852	846	564	521	530	552	493	514
Long-term deferred revenue	-937	2,161	789	784	523	483	492	512	457	476
Deferred tax liabilities	-380	-415	-457	-501	-523	-543	-560	-577	-591	-607
Other non-current liabilities	37	39	40	42	43	45	47	48	50	52
Net cash from operating activities	5379	10632	9010	9464	9354	9572	9829	10115	10266	10536
Changes in Investing Activities										
Long-term investments	-49	-51	-53	-55	-57	-59	-61	-63	-66	-68
Total property, plant, & equipment	-2852	-2923	-2996	-3071	-3148	-3226	-3307	-3390	-3474	-3561
Goodwill	0	0	0	0	0	0	0	0	0	0
Operating lease right-of-use assets	63	21	2	-7	-12	-14	-16	-16	-17	-17
Current operating lease liabilities	-28	-7	-1	3	4	5	5	6	6	6
Non-current operating lease liabilities	-37	-18	-2	6	10	12	13	14	14	15
Intangible assets, net	654	495	386	230	190	132	132	132	132	0
Net cash from investing activities	-2249	-2483	-2663	-2894	-3012	-3151	-3233	-3318	-3405	-3626
Changes in Financing Activities										
Short-term debt	-990	1,005	367	365	243	225	229	238	212	221
Long-term debt	691	1520	628	703	546	546	562	586	554	611
Common stock & capital	0	0	0	0	0	0	0	0	0	0
Due from related party, net (current)	0	0	0	0	0	0	0	0	0	0
Due from related party, net (non current)	0	0	0	0	0	0	0	0	0	0
Due to related party	0	0	0	0	0	0	0	0	0	0
Share repurchases	-1253	-1253	-1253	-1253	-1253	-1253	-1253	-1253	-1253	-1253
Dividends paid	-1624	-1774	-1956	-2143	-2236	-2324	-2395	-2469	-2530	-2596
Non-controlling interests	23	25	28	30	32	33	34	35	36	37
Net cash from financing activities	-3153	-477	-2186	-2298	-2669	-2773	-2823	-2863	-2981	-2979
Change in cash	-23	7672	4161	4272	3673	3649	3773	3934	3880	3931
Cash at end of period	7343	15015	19175	23447	27120	30768	34542	38476	42356	46287

Dell Technologies Inc.
Common Size Income Statement

<i>Fiscal Years Ending 02/02</i>	2020	2021	2022	2023	2024	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
Total 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%
Products revenue	75.87%	74.20%	78.89%	77.47%	72.78%	75.84%	75.84%	75.84%	75.84%	75.84%	75.84%	75.84%	75.84%	75.84%	75.84%
Services revenue	24.13%	25.80%	21.11%	22.53%	27.22%	24.16%	24.16%	24.16%	24.16%	24.16%	24.16%	24.16%	24.16%	24.16%	24.16%
Total cost of net revenue (excluding D&A)	60.56%	62.15%	73.28%	74.33%	72.29%	69.95%	71.70%	71.70%	71.70%	71.70%	71.70%	71.70%	71.70%	71.70%	71.70%
Products cost	51.13%	52.11%	61.34%	61.05%	56.19%	74.00%	74.00%	74.00%	74.00%	74.00%	74.00%	74.00%	74.00%	74.00%	74.00%
Services cost	9.44%	10.04%	11.94%	13.28%	16.10%	12.16%	12.16%	12.16%	12.16%	12.16%	12.16%	12.16%	12.16%	12.16%	12.16%
Gross margin	31.40%	31.22%	21.63%	22.18%	23.60%	30.05%	28.30%	28.30%	28.30%	28.30%	28.30%	28.30%	28.30%	28.30%	28.30%
Depreciation, and amortization expense	6.67%	5.72%	4.50%	3.09%	3.74%	3.82%	2.98%	2.74%	2.60%	2.55%	2.53%	2.52%	2.50%	2.50%	2.50%
Amortization of intangibles	1.38%	0.91%	0.59%	0.40%	0.37%	0.73%	0.47%	0.35%	0.20%	0.16%	0.11%	0.11%	0.10%	0.10%	0.10%
Selling, general & administrative expense	23.13%	20.16%	14.48%	13.82%	14.54%	14.28%	14.28%	14.28%	14.28%	14.28%	14.28%	14.28%	14.28%	14.28%	14.28%
Research & development expense	5.42%	5.60%	2.55%	2.72%	3.17%	2.81%	2.81%	2.81%	2.81%	2.81%	2.81%	2.81%	2.81%	2.81%	2.81%
Operating income (loss)	2.85%	5.46%	4.60%	5.64%	5.89%	8.41%	7.75%	8.11%	8.40%	8.49%	8.57%	8.58%	8.60%	8.60%	8.60%
Interest & other, net	-2.85%	-1.56%	1.25%	-2.49%	-1.50%	-1.34%	-1.13%	-1.18%	-1.17%	-1.17%	-1.17%	-1.17%	-1.16%	-1.16%	-1.16%
Income before income taxes	-6.00%	3.89%	5.85%	3.15%	4.40%	7.07%	6.62%	6.93%	7.24%	7.32%	7.40%	7.42%	7.44%	7.44%	7.44%
Income tax expense (benefit)	6.00%	0.18%	0.97%	0.78%	0.78%	1.66%	1.55%	1.63%	1.70%	1.72%	1.74%	1.74%	1.75%	1.75%	1.75%
Net income (loss)	-0.99%	3.72%	5.64%	2.37%	3.61%	5.41%	5.06%	5.30%	5.54%	5.60%	5.66%	5.67%	5.69%	5.69%	5.70%
Less: net income (loss) attributable to non-controlling interests	0.00%	-0.27%	0.01%	0.02%	0.02%	0.03%	0.02%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%
Less: net income attributable to non-controlling interests of discontinued opera	5.01%	0.00%	-0.15%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Net income (loss) attributable to Dell Technologies Inc.	0.00%	3.45%	5.50%	2.39%	3.63%	5.43%	5.09%	5.33%	5.56%	5.63%	5.69%	5.70%	5.72%	5.72%	5.72%

Dell Technologies Inc.
Common Size Balance Sheet

Fiscal Years Ending 02/02	2020	2021	2022	2023	2024	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
Cash & cash equivalents	10.09%	15.07%	9.36%	8.41%	8.33%	8.20%	14.37%	17.43%	20.31%	22.78%	25.13%	27.45%	29.74%	31.95%	34.07%
Accounts receivable, net	13.55%	13.57%	12.76%	12.20%	10.57%	11.84%	11.84%	11.84%	11.84%	11.84%	11.84%	11.84%	11.84%	11.84%	11.84%
Due from related party, net	0.00%	0.00%	0.13%	0.37%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Short-term financing receivables, net	5.31%	5.47%	5.03%	5.16%	5.25%	5.15%	5.15%	5.15%	5.15%	5.15%	5.15%	5.15%	5.15%	5.15%	5.15%
Inventories	3.56%	3.61%	5.83%	4.67%	4.10%	4.86%	4.86%	4.86%	4.86%	4.86%	4.86%	4.86%	4.86%	4.86%	4.86%
Other current assets	7.49%	8.51%	11.39%	10.58%	12.41%	11.46%	11.46%	11.46%	11.46%	11.46%	11.46%	11.46%	11.46%	11.46%	11.46%
Total current assets	40.01%	46.24%	44.50%	41.40%	40.65%	41.52%	47.68%	50.75%	53.63%	56.09%	58.45%	60.76%	63.05%	65.27%	67.38%
Total property, plant, & equipment	15.87%	16.11%	12.16%	12.80%	15.40%	18.40%	18.56%	20.35%	22.05%	24.03%	26.00%	27.93%	29.78%	31.69%	33.54%
Accumulated depreciation & amortizat	9.30%	9.29%	6.81%	6.73%	8.13%	11.85%	13.13%	15.22%	17.10%	19.14%	21.14%	23.08%	24.96%	26.86%	28.71%
Property, plant & equipment, net	6.57%	6.83%	5.35%	6.07%	7.27%	6.55%	5.42%	5.14%	4.95%	4.89%	4.86%	4.84%	4.82%	4.82%	4.82%
Long-term investments	0.94%	1.72%	1.82%	1.48%	1.49%	1.53%	1.35%	1.34%	1.32%	1.33%	1.34%	1.35%	1.36%	1.38%	1.40%
Long-term financing receivables, net	5.26%	5.67%	5.46%	5.51%	6.65%	5.87%	5.87%	5.87%	5.87%	5.87%	5.87%	5.87%	5.87%	5.87%	5.87%
Goodwill	45.24%	43.33%	19.54%	19.23%	22.28%	22.01%	18.85%	17.91%	17.07%	16.55%	16.09%	15.66%	15.23%	14.86%	14.50%
Intangible assets, net	19.65%	15.31%	7.37%	6.32%	6.45%	5.64%	4.36%	3.79%	3.41%	3.15%	2.95%	2.77%	2.59%	2.43%	2.37%
Due from related party, net	0.00%	0.00%	0.70%	0.43%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Operating lease right-of-use assets	1.93%	1.19%	0.86%	0.71%	0.80%	0.72%	0.60%	0.56%	0.54%	0.54%	0.53%	0.53%	0.53%	0.53%	0.53%
Deferred tax assets	6.76%	2.68%	2.48%	2.95%	3.30%	3.67%	3.52%	3.74%	3.98%	4.27%	4.58%	4.88%	5.17%	5.47%	5.76%
Other non-current assets	2.62%	8.01%	3.56%	3.49%	3.95%	4.05%	3.61%	3.56%	3.53%	3.55%	3.59%	3.63%	3.67%	3.72%	3.77%
Total assets	128.98%	130.98%	91.64%	87.60%	92.83%	91.55%	91.26%	92.65%	94.29%	96.24%	98.27%	100.29%	102.29%	104.36%	106.41%
Short-term debt	8.40%	6.75%	5.75%	6.43%	7.90%	6.69%	6.69%	6.69%	6.69%	6.69%	6.69%	6.69%	6.69%	6.69%	6.69%
Accounts payable	21.77%	23.03%	26.82%	18.18%	21.93%	22.31%	22.31%	22.31%	22.31%	22.31%	22.31%	22.31%	22.31%	22.31%	22.31%
Due to related party	0.00%	0.00%	1.40%	2.02%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Current operating lease liabilities	0.47%	0.35%	0.28%	0.25%	0.29%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%
Accrued & other current liabilities	10.14%	9.79%	7.20%	8.42%	7.41%	7.68%	7.68%	7.68%	7.68%	7.68%	7.68%	7.68%	7.68%	7.68%	7.68%
Short-term deferred revenue	16.15%	17.54%	14.09%	15.19%	17.32%	15.54%	15.54%	15.54%	15.54%	15.54%	15.54%	15.54%	15.54%	15.54%	15.54%
Total current liabilities	56.92%	57.45%	55.55%	50.49%	54.84%	52.47%	52.43%	52.42%	52.41%	52.41%	52.40%	52.40%	52.40%	52.40%	52.40%
Long-term debt	48.09%	44.17%	20.88%	22.50%	21.50%	22.01%	20.31%	19.87%	19.54%	19.40%	19.32%	19.24%	19.16%	19.12%	19.11%
Long-term deferred revenue	14.02%	15.15%	13.15%	14.41%	15.64%	14.40%	14.40%	14.40%	14.40%	14.40%	14.40%	14.40%	14.40%	14.40%	14.40%
Non-current operating lease liabilities	1.48%	0.95%	0.71%	0.62%	0.65%	0.66%	0.66%	0.66%	0.66%	0.66%	0.66%	0.66%	0.66%	0.66%	0.66%
Deferred tax liabilities	1.40%	2.18%	1.85%	1.62%	1.68%	1.72%	1.72%	1.72%	1.72%	1.72%	1.72%	1.72%	1.72%	1.72%	1.72%
Other non-current liabilities	2.96%	2.56%	1.05%	0.92%	1.13%	1.16%	1.03%	1.02%	1.00%	1.01%	1.02%	1.03%	1.04%	1.05%	1.06%
Total liabilities	124.87%	122.46%	93.20%	90.55%	95.45%	91.89%	89.33%	88.39%	87.58%	87.01%	86.50%	86.02%	85.54%	85.11%	84.72%
Common stock & capital	17.46%	17.88%	7.80%	8.23%	10.09%	9.97%	8.54%	8.12%	7.73%	7.50%	7.29%	7.09%	6.90%	6.73%	6.57%
Treasury stock at cost	0.07%	0.32%	0.95%	3.73%	6.67%	7.99%	8.04%	8.78%	9.45%	10.22%	10.96%	11.66%	12.31%	12.96%	13.56%
Retained earnings (accumulated defic	-18.33%	-14.59%	-8.09%	-6.58%	-5.24%	-1.55%	2.06%	5.50%	8.95%	12.42%	15.87%	19.24%	22.52%	25.79%	28.97%
Accumulated other comprehensive inc	-0.77%	-0.33%	-0.43%	-0.98%	-0.90%	-0.89%	-0.77%	-0.73%	-0.69%	-0.67%	-0.65%	-0.64%	-0.62%	-0.60%	-0.59%
Total Dell Technologies Inc. stockhold	-1.71%	2.63%	-1.67%	-3.05%	-2.72%	-0.47%	1.79%	4.11%	6.54%	9.03%	11.55%	14.04%	16.49%	18.96%	21.39%
Non-controlling interests	5.13%	5.39%	0.10%	0.09%	0.11%	0.13%	0.14%	0.16%	0.17%	0.20%	0.22%	0.24%	0.26%	0.28%	0.30%
Total stockholders' equity	3.42%	8.02%	-1.56%	-2.96%	-2.61%	-0.33%	1.93%	4.27%	6.71%	9.23%	11.77%	14.28%	16.75%	19.24%	21.69%
Redeemable shares	0.68%	0.50%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total liabilities & equity (and redeem	128.98%	130.98%	91.64%	87.60%	92.83%	91.55%	91.26%	92.65%	94.29%	96.24%	98.27%	100.29%	102.29%	104.36%	106.41%

Dell Technologies Inc.
Value Driver Estimation

Fiscal Years Ending 02/02	2020	2021	2022	2023	2024	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
NOPLAT:															
Total Revenue	92154	94224	101197	102301	88425	89503	104508	109990	115436	119064	122419	125833	129385	132557	135864
Less: Total cost of sales (excl. D/A)	55810	58564	74157	76045	63922	62604	74937	78868	82773	85375	87781	90228	92775	95050	97421
Less: Selling, general & administrative expense	21319	18998	14655	14136	12857	12781	14924	15706	16484	17002	17481	17969	18476	18929	19401
Less: Research & development expense	4992	5275	2577	2779	2801	2515	2937	3091	3244	3346	3440	3536	3636	3725	3818
Less: Depreciation, and amortization expense	6143	5390	4551	3156	3303	3422	3118	3014	3005	3040	3097	3166	3241	3320	3402
Less: Amortization of intangible assets	1268	853	598	414	331	654	495	386	230	190	132	132	132	132	132
Plus: Implied interest on operating leases	85	54	42	35	34	31	30	30	30	31	31	32	33	34	35
EBITDA	2707	5198	4701	5806	5245	7558	8127	8954	9730	10142	10519	10834	11157	11434	11724
Implied Marginal Tax Rate	38.65%	26.40%	22.40%	22.20%	23.50%	23.50%	23.50%	23.50%	23.50%	23.50%	23.50%	23.50%	23.50%	23.50%	23.50%
Adjusted Taxes															
Provision for income taxes	-5533	165	981	803	692	1487	1625	1791	1963	2048	2128	2194	2261	2317	2377
Plus: Tax Shield on operating lease interest	33	14	9	8	8	7	7	7	7	7	7	8	8	8	8
Less: Tax on interest & other, net	-1015	-389	283	-565	-311	-282	-278	-306	-317	-328	-337	-345	-353	-362	-370
Total adjusted taxes	-4485	568	707	1376	1011	1776	1910	2104	2287	2383	2472	2546	2622	2687	2755
Deferred tax assets	6231	2525	2513	3015	2919	3281	3676	4112	4589	5087	5605	6138	6688	7252	7830
Deferred tax liabilities	1293	2053	1870	1655	1487	1107	693	235	-266	-788	-1332	-1891	-2469	-3060	-3667
Net deferred taxes	4938	472	643	1360	1432	2173	2983	3876	4855	5875	6936	8030	9157	10312	11497
Change in deferred tax assets		-4466	171	717	72	741	810	893	978	1021	1061	1093	1127	1155	1185
NOPLAT	7192	163	4165	5147	4306	6523	7027	7742	8422	8779	9108	9381	9662	9902	10153
Invested Capital (IC):															
Plus: Normal cash	775	1183	789	717	614	612	1251	1597	1953	2259	2563	2877	3205	3528	3856
Plus: Accounts receivable, net	12484	12788	12912	12482	9343	10599	12376	13025	13670	14100	14497	14901	15322	15698	16089
Plus: Due from related party, net	0	0	131	378	0	0	0	0	0	0	0	0	0	0	0
Plus: Short-term financing receivables, net	4895	5155	5089	5281	4643	4607	5379	5661	5942	6129	6301	6477	6660	6823	6993
Plus: Inventories	3281	3402	5898	4776	3622	4354	5084	5350	5615	5792	5955	6121	6294	6448	6609
Plus: Other current assets	6906	8021	11526	10827	10973	10258	11977	12606	13230	13646	14030	14421	14829	15192	15571
Less: Accounts payable	20065	21696	27143	18598	19389	19968	23315	24538	25753	26563	27311	28073	28865	29573	30311
Less: Due to related party	0	0	1414	2067	0	0	0	0	0	0	0	0	0	0	0
Less: Accrued & other current liabilities	9341	9221	7291	8614	6552	6872	8024	8445	8863	9142	9400	9662	9934	10178	10432
Net operating working capital	-1065	-368	497	5182	3254	3589	4728	5257	5794	6220	6636	7064	7510	7938	8376
Plus: Property & equipment, net	6055	6431	5415	6209	6432	5862	5667	5648	5714	5822	5951	6092	6241	6396	6555
Plus: Goodwill	41691	40829	19770	19676	19700	19700	19700	19700	19700	19700	19700	19700	19700	19700	19700
Plus: Intangible assets, net	18107	14429	7461	6468	5701	5047	4552	4166	3936	3746	3614	3482	3349	3217	3217
Plus: Other non current assets	2417	7550	3601	3571	3490	3627	3769	3917	4070	4230	4396	4568	4747	4933	5126
Less: Short-term deferred revenue	14881	16525	14261	15542	15318	13905	16236	17088	17934	18498	19019	19549	20101	20594	21108
Less: Long-term deferred revenue	12919	14276	13312	14744	13827	12890	15051	15840	16624	17147	17630	18122	18633	19090	19566
Plus: PV of operating leases	1780	1121	871	725	707	644	623	621	628	640	654	670	686	703	720
Invested Capital	41185	39191	10042	11545	10139	11675	7751	6380	5284	4714	4302	3904	3499	3203	3021
Free Cash Flow (FCF):															
NOPLAT	7192	163	4165	5147	4306	6523	7027	7742	8422	8779	9108	9381	9662	9902	10153
Change in IC	-1994	-29149	1503	-1406		1536	-3924	-1371	-1096	-570	-412	-397	-406	-296	-183
FCF	2157	33313	3644	5712		4987	10950	9113	9518	9350	9520	9778	10068	10198	10336
Return on Invested Capital (ROIC):															
NOPLAT		163	4165	5147	4306	6523	7027	7742	8422	8779	9108	9381	9662	9902	10153
Beginning IC		41185	39191	10042	11545	10139	11675	7751	6380	5284	4714	4302	3904	3499	3203
ROIC		0.40%	10.63%	51.25%	37.30%	64.34%	60.19%	99.89%	132.00%	166.15%	193.22%	218.08%	247.47%	283.02%	316.98%
Economic Profit (EP):															
Beginning IC		41185	39191	10042	11545	10139	11675	7751	6380	5284	4714	4302	3904	3499	3203
x (ROIC - WACC)	-8.21%	-7.81%	2.42%	43.04%	29.09%	56.13%	51.98%	91.68%	123.79%	157.94%	185.01%	209.87%	239.27%	274.82%	308.77%
EP		-3217	948	4323	3358	5691	6069	7106	7898	8346	8721	9028	9342	9615	9891

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

Risk-Free Rate	3.73%
Beta	1.50
Equity Risk Premium	5.00%
Cost of Equity	11.23%

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	3.73%
Implied Default Premium	1.07%
Pre-Tax Cost of Debt	4.80%
Marginal Tax Rate	24%
After-Tax Cost of Debt	3.67%

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

Total Shares Outstanding	705
Current Stock Price	\$117.50
MV of Equity	82,837.50

MV Weights

60.00%

Market Value of Debt:

Short-Term Debt	48494
Long-Term Debt	5900
PV of Operating Leases	829
MV of Total Debt	55,223.00

40.00%

Market Value of the Firm**1,38,060.50**

100.00%

Estimated WACC

8.21%

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

Key Inputs:

CV Growth of NOPLAT	1.00%
CV Year ROIC	316.98%
WACC	8.21%
Cost of Equity	11.23%

<i>Fiscal Years Ending 02/02</i>	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
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DCF Model:

Free Cash Flow (FCF)	4987	10950	9113	9518	9350	9520	9778	10068	10198	10336
Continuing Value (CV)										140441
PV of FCF	4609	9352	7193	6943	6303	5931	5630	5357	5014	69056

Value of Operating Assets:	125387
Non-Operating Adjustments	
Plus: Excess Cash	0
Plus: Long term investments	1316
Less: Short term debt	-6982
Less: Long term debt	-19012
Less: PV of operating leases	-829
Less: Non-controlling interests	-95
Value of Equity	99785
Shares Outstanding	705
Intrinsic Value of Last FYE	\$ 141.54
Implied Price as of Today	\$ 149.78

EP Model:

Economic Profit (EP)	5691	6069	7106	7898	8346	8721	9028	9342	9615	9891
Continuing Value (CV)										137238
PV of EP	5259	5183	5609	5761	5626	5433	5198	4971	4728	67481

Total PV of EP	115248
Invested Capital (last FYE)	10139
Value of Operating Assets:	125387
Non-Operating Adjustments	
Plus: Excess Cash	0
Plus: Long term investments	1316
Less: Short term debt	-6982
Less: Long term debt	-19012
Less: PV of operating leases	-829
Less: Non-controlling interests	-95
Value of Equity	99785
Shares Outstanding	705
Intrinsic Value of Last FYE	\$ 141.54
Implied Price as of Today	\$ 149.78

Dell Technologies Inc.*Dividend Discount Model (DDM) or Fundamental P/E Valuation Model*

<i>Fiscal Years Ending</i>	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
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EPS	\$ 6.76	\$ 7.29	\$ 8.14	\$ 9.02	\$ 9.52	\$ 9.99	\$ 10.39	\$ 10.80	\$ 11.16	\$ 11.53
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Key Assumptions

CV growth of EPS	2.00%
CV Year ROE	30.34%
Cost of Equity	11.23%

Future Cash Flows

P/E Multiple (CV Year)										10.12
EPS (CV Year)										\$ 11.53
Future Stock Price										\$ 116.67
Dividends Per Share	2.26	2.43	2.72	3.01	3.18	3.33	3.47	3.61	3.73	
Discounted Cash Flows	2.03	1.97	1.97	1.97	1.87	1.76	1.65	1.54	1.43	44.77

Intrinsic Value as of Last FYE	\$ 60.94
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Implied Price as of Today	\$ 64.49
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Dell Technologies Inc.*Relative Valuation Models*

Ticker	Company	Price	EPS	EPS	P/E 25	P/E 26	Est. 5yr	PEG 25	PEG 26
			2025E	2026E			EPS gr.		
HPQ	HP Inc.	\$34.18	\$3.62	\$3.88	9.44	8.81	4.0	2.36	2.20
HPE	Hewlett Packard Enterprise	\$17.60	\$2.09	\$2.24	8.42	7.86	2.0	4.21	3.93
AAPL	Apple Inc.	\$220.91	\$7.46	\$8.37	29.61	26.39	10.0	2.96	2.64
SMCI	Super Micro Computer, Inc.	\$409.87	\$33.67	\$43.67	12.17	9.39	60.0	0.20	0.16
CSCO	Cisco Systems, Inc.	\$48.70	\$3.57	\$3.86	13.64	12.62	4.0	3.38	3.13
				Average	14.66	13.01		2.62	2.41

DELL	Dell Technologies Inc.	\$117.50	\$6.76	\$7.29	17.4	16.1	7.1	2.5	2.3
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Implied Relative Value:

P/E (EPS25)	\$ 99.07
P/E (EPS26)	\$ 94.80
PEG (EPS25)	\$ 125.56
PEG (EPS26)	\$ 124.38

Dell Technologies Inc.
Key Management Ratios

Fiscal Years Ending 02/02	2020	2021	2022	2023	2024	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
Liquidity Ratios:															
Current Ratio (CA/CL)	0.70	0.80	0.80	0.82	0.74	0.79	0.91	0.97	1.02	1.07	1.12	1.16	1.20	1.25	1.29
Quick Ratio ((CA-Inv)/CL)	0.64	0.74	0.70	0.73	0.67	0.70	0.82	0.88	0.93	0.98	1.02	1.07	1.11	1.15	1.19
Cash Ratio (Cash + Mkt. Sec)/CL)	0.18	0.26	0.17	0.17	0.15	0.16	0.27	0.33	0.39	0.43	0.48	0.52	0.57	0.61	0.65
Asset-Management Ratios:															
Asset Turnover (Net Sales/Avg. Total Assets)		0.76	0.87	1.11	1.19	1.08	1.01	1.06	1.04	1.03	1.01	0.99	0.97	0.96	0.94
Inventory Turnover (COGS/Avg. Inv)		16.70	12.59	13.89	18.11	16.03	13.27	14.36	14.38	14.51	14.54	14.54	14.54	14.56	14.56
Accounts Recievable Turnover (Sales/Avg. AR)		7.29	7.33	7.97	9.37	8.87	7.79	8.23	8.24	8.31	8.33	8.33	8.33	8.34	8.34
Financial Leverage Ratios:															
Debt-to-Equity Ratio (ST debt+LT debt/TSE)	16.50	6.35	-17.06	-9.78	-11.26	-86.12	14.01	6.23	3.91	2.83	2.21	1.82	1.54	1.34	1.19
Debt-to-Asset Ratio (ST debt+LT debt/Assets)	0.44	0.39	0.29	0.33	0.32	0.31	0.30	0.29	0.28	0.27	0.26	0.26	0.25	0.25	0.24
Profitability Ratios:															
Return on Equity (NI/Beg TSE)		111.1%	75.6%	-153.3%	-105.6%	-209.7%	-1772.7%	289.5%	136.2%	86.1%	63.0%	49.6%	41.0%	34.8%	30.3%
Return on Assets (NI/Total Assets)		2.8%	6.2%	2.7%	3.9%	5.9%	5.5%	5.7%	5.9%	5.8%	5.8%	5.7%	5.6%	5.5%	5.4%
Gross Profit Margin (Gross Profit/Sales)	60.6%	62.2%	73.3%	74.3%	72.3%	69.9%	71.7%	71.7%	71.7%	71.7%	71.7%	71.7%	71.7%	71.7%	71.7%
Operating Profit Margin (Oper. Profit/Sales)	2.8%	5.5%	4.6%	5.6%	5.9%	8.4%	7.7%	8.1%	8.4%	8.5%	8.6%	8.6%	8.6%	8.6%	8.6%
Net Profit Margin (Net Income/Sales)	6.0%	3.7%	5.6%	2.4%	3.6%	5.4%	5.1%	5.3%	5.5%	5.6%	5.7%	5.7%	5.7%	5.7%	5.7%
Payout Policy Ratios:															
Dividend Payout Ratio (Dividend/EPS)	0.0%	0.0%	0.0%	39.6%	33.2%	33.4%	33.4%	33.4%	33.4%	33.4%	33.4%	33.4%	33.4%	33.4%	33.4%
Retention Ratio (1-(Dividend/EPS))	100.0%	100.0%	100.0%	60.4%	66.8%	66.6%	66.6%	66.6%	66.6%	66.6%	66.6%	66.6%	66.6%	66.6%	66.6%
Total Payout Ratio ((Dividends + Repurchases)/NI)	0.1%	6.9%	11.6%	174.9%	98.7%	59.4%	57.2%	55.0%	53.2%	52.3%	51.6%	51.1%	50.6%	50.2%	49.7%

Dell Technologies Inc.*Effects of Share Repurchases on Common Stock Account and Number of Shares Outstanding*

Cost of Equity: 11.23%

Current Stock Price: \$117.50

Fiscal Years Ending 02/02	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
Share Repurchases (\$)	1,253	1,253	1,253	1,253	1,253	1,253	1,253	1,253	1,253	1,253
Expected Price of Repurchased Shares:	\$ 117.50	\$ 128.83	\$ 141.25	\$ 154.86	\$ 169.79	\$ 186.16	\$ 204.10	\$ 223.78	\$ 245.35	\$ 269.00
Number of Shares Repurchased:	11	10	9	8	7	7	6	6	5	5
Shares Outstanding (beginning of the year)	705	694	685	676	668	660	654	647	642	637
Less: Shares Repurchased in Treasury	11	10	9	8	7	7	6	6	5	5
Shares Outstanding (end of the year)	694	685	676	668	660	654	647	642	637	632