

Company Analysis Report

Name - Abhay Nagarkoti

Company's name- NVIDIA Corporation

Ticker Symbols - NVDA

Stock Exchange: Nasdaq

Recent Stock Price: \$469.67 (as of July 27, 2024)

Company and Industry Description:-

Nvidia Corporation (NVDA) is a leading technology company specializing in accelerated computing and artificial intelligence (AI). Founded in 1993 by Jensen Huang, Chris Malachowsky, and Curtis Priem, Nvidia initially focused on developing graphics processing units (GPUs) for the gaming market. However, the company quickly recognized the broader potential of its technology and expanded into other fields, such as professional visualization, data centers, and automotive applications.

Nvidia's core innovation lies in its accelerated computing platform, which combines GPUs, software, and algorithms to tackle complex computational problems. This platform has found applications in diverse areas, including scientific research, climate modeling, medical imaging, and autonomous vehicles. The company's GPUs have become the backbone of modern AI infrastructure, enabling the training and deployment of deep learning models that power various AI applications.

Nvidia's outlook is promising, as the demand for accelerated computing and AI continues to grow rapidly. The company is well-positioned to capitalize on this trend, with its strong technological foundation, extensive partnerships, and a vast ecosystem of developers and customers. Nvidia's commitment to innovation and its focus on addressing critical challenges in various industries make it a key player in shaping the future of computing.

The semiconductor industry, in which Nvidia operates, is a dynamic and rapidly evolving sector. It is characterized by intense competition, technological advancements, and shifting market demands. The industry is driven by the increasing need for computational power in various applications, from consumer electronics to scientific research and industrial automation. The rise of AI, machine learning, and data-intensive workloads has further fueled the demand for high-performance computing solutions, creating significant opportunities for companies like Nvidia. However, the industry also faces challenges, such as supply chain disruptions, geopolitical tensions, and the need for continuous innovation to stay ahead of the competition.

Recent Major News Events:

1. **Record Revenue in Q4 2023:** In February 2024, Nvidia announced record revenue for the fourth quarter of fiscal year 2023, driven by strong demand for its data center products. The company's data center revenue grew by 11% year-over-year, fueled by increased adoption of its accelerated computing platform for AI and high-performance computing applications. (Source: NVIDIA Corporation, 2024).
2. **Launch of Grace Hopper Superchip:** In May 2023, Nvidia unveiled the Grace Hopper Superchip, combining its Grace CPU and Hopper GPU architectures. This groundbreaking innovation is designed to accelerate the most demanding AI and HPC workloads, offering exceptional performance and energy efficiency. The launch of the Grace Hopper Superchip further solidifies Nvidia's position as a leader in accelerated computing. (Source: NVIDIA Corporation, 2023).

Links:

Nvidia Corporation (2022). *2022 NVIDIA Corporation Annual Review*.

https://s22.q4cdn.com/364337653/files/doc_financials/2022/ar/2022-Annual-Review.pdf

Nvidia Corporation (2023). *2023 NVIDIA Corporation Annual Review*.

https://s22.q4cdn.com/364337653/files/doc_financials/2023/ar/2023-Annual-Report-1.pdf

Nvidia Corporation (2024). *2024 NVIDIA Corporation Annual Review*.

https://s22.q4cdn.com/364337653/files/doc_financials/2024/ar/NVIDIA-2024-Annual-Report.pdf

Financial Statements and Ratio Analysis -

Two key highlights from the financial statements (Year 1) are:

1. **Significant Increase in Sales or Total Revenue:** The company's sales or total revenue for the most recent year is 60,922, which is more than double the revenue of 26,974 from the previous year. This indicates a substantial growth in the company's top line, which could be due to increased demand for its products or services, expansion into new markets, or successful marketing strategies.
2. **High Profitability:** The company's EBIT (Earnings Before Interest and Taxes) is 32,972, and its net income is 29,760. This suggests that the company is highly profitable, with a healthy margin between its revenue and expenses. The high profitability could be attributed to efficient operations, cost control measures, or a favorable pricing strategy.

Key financial ratios:-

All key financial ratios are present in the workbook

Link-

<https://docs.google.com/spreadsheets/d/1zTpSDUgClbB9633W6ljHNS4w0v4Fkn2e/edit?usp=sharing&ouid=112139130907791235586&rtpof=true&sd=true>

Forecasting-

Recent Developments and Future Prospects

Nvidia has experienced significant growth and innovation, particularly in AI and accelerated computing. The company has launched new products and services, such as the Hopper GPU architecture, the Grace Hopper Superchip, and the NVIDIA AI Enterprise software platform. These innovations have positioned Nvidia at the forefront of the generative AI revolution, which is transforming industries and creating new opportunities (NVIDIA Corporation, 2024).

Nvidia's strategic partnerships with major cloud service providers like Microsoft Azure, Google Cloud Platform, and Oracle Cloud Infrastructure have further expanded its reach and potential for growth. The company's focus on developing AI solutions for various industries, including healthcare, automotive, and finance, demonstrates its commitment to addressing critical challenges and driving innovation across sectors (NVIDIA Corporation, 2024).

Challenges and Risks

Despite its successes, Nvidia faces several challenges and risks that could impact its future value. One significant concern is the ongoing U.S. government restrictions on exporting

certain high-performance chips to China and other regions. These restrictions have already affected Nvidia's sales in China and could continue to do so if not resolved (NVIDIA Corporation, 2024).

The company also faces intense competition from other players in the semiconductor industry, such as AMD, Intel, and large cloud service providers developing their own chips. Additionally, the ongoing conflict in and around Israel, where Nvidia has significant operations, poses a potential risk to its business continuity and talent retention (NVIDIA Corporation, 2024).

Financial Condition and Outlook

Nvidia's financial condition is strong, with record revenue of \$60.9 billion in fiscal year 2024, driven by the growing demand for its data center products and the increasing adoption of AI technologies. However, the company's financial performance is subject to fluctuations due to factors like supply chain disruptions, macroeconomic conditions, and geopolitical tensions (NVIDIA Corporation, 2024).

Overall, Nvidia's future prospects appear positive, given its strong position in the accelerated computing and AI markets. The company's focus on innovation, strategic partnerships, and expanding its product portfolio into new markets like AI cloud services and industrial digitalization through Omniverse present significant growth opportunities. However, the company must navigate the challenges posed by export restrictions, competition, and geopolitical risks to maintain its growth trajectory and maximize shareholder value.

Two key financial ratios that can be analyzed from the provided data are the Debt-to-Equity (D/E) ratio and the Return on Equity (ROE) ratio.

The Debt-to-Equity (D/E) ratio measures a company's financial leverage by comparing its total liabilities to shareholders' equity. A higher D/E ratio indicates that a company is relying more on debt to finance its assets, which can be riskier for investors. In NVIDIA's case, the D/E ratio has been relatively stable over the past three years, ranging from **0.66 to 0.83**.

This suggests that the company has maintained a consistent capital structure and has not taken on excessive debt.

The Return on Equity (ROE) ratio measures a company's profitability by indicating how much profit it generates for each dollar of shareholders' equity. A higher ROE is generally preferred by investors, as it suggests that the company is effectively using its equity to generate profits. NVIDIA's ROE has fluctuated significantly over the past three years, ranging from 14.4% to 54.1%. This fluctuation is primarily due to the significant increase in net income in 2024, driven by the surge in demand for its data center products. The high ROE in 2024 indicates that NVIDIA is currently very profitable and is effectively utilizing its equity to generate returns for its shareholders.

In conclusion, **the stable D/E ratio and the high ROE** in the latest financial year suggest that NVIDIA is a financially healthy and profitable company. This makes it an attractive investment option for investors seeking growth and returns. However, it's crucial to consider the potential risks associated with the company's operations, such as export restrictions and competition, before making any investment decisions.

Financial Ratio Analysis

Several key financial ratios illuminate NVIDIA's financial health and performance:

- **Profitability Ratios:**

- **Gross Profit Margin:** Increased significantly from 56.9% in 2023 to 72.7% in 2024, primarily due to strong data center revenue growth and lower inventory provisions (NVIDIA Corporation, 2024). This indicates the company's ability to maintain healthy profitability despite challenges.
- **Return on Equity (ROE):** A high ROE of 54.1% in 2024, compared to 15.6% in 2023, demonstrates exceptional profitability and efficient use of shareholder equity to generate returns (NVIDIA Corporation, 2024).

- **Liquidity Ratios:**

- **Current Ratio:** A healthy current ratio above 1 in all three years indicates NVIDIA's ability to meet its short-term obligations with its current assets (NVIDIA Corporation, 2024).
- **Efficiency Ratios:**
 - **Inventory Turnover:** A slight decrease in inventory turnover from 2023 to 2024 suggests that inventory is being sold slightly slower, which could be due to the increased complexity of newer products or a deliberate strategy to manage inventory levels (NVIDIA Corporation, 2024).
- **Valuation Ratios:**
 - **Price-to-Earnings (P/E) Ratio:** A high P/E ratio compared to the industry average indicates that investors are willing to pay a premium for NVIDIA's stock, reflecting high growth expectations

Trend Analysis and Comparison with AMD

A trend analysis of the D/E and ROE ratios for NVIDIA and its competitor, AMD, reveals the following:

- **Debt-to-Equity (D/E) Ratio:** NVIDIA has maintained a relatively stable D/E ratio, indicating a consistent capital structure. In contrast, AMD's D/E ratio has fluctuated more, suggesting potential variations in its financial leverage .
- **Return on Equity (ROE) Ratio:** NVIDIA's ROE has experienced significant growth, particularly in 2024, highlighting its exceptional profitability. While AMD's ROE has also shown improvement, it has not reached the same levels as NVIDIA's

Based on these ratios, NVIDIA appears to be outperforming AMD in terms of profitability and financial stability.

Recent Developments and Future Prospects

NVIDIA's recent developments, such as the launch of the Blackwell architecture and the expansion of its AI cloud services, demonstrate its commitment to innovation and staying ahead of the curve in the rapidly evolving tech landscape (NVIDIA Corporation, 2024). The company's strategic partnerships with major cloud service providers and its focus on developing AI solutions for various industries further solidify its growth potential.

However, challenges such as U.S. export restrictions and geopolitical tensions pose risks to NVIDIA's operations. The company's reliance on a limited number of customers and suppliers also presents a concentration risk. Additionally, the increasing scrutiny of its environmental, social, and governance (ESG) practices could lead to additional costs and reputational risks (NVIDIA Corporation, 2024).

Financial Performance and Outlook

NVIDIA's financial performance in fiscal year 2024 was exceptional, with a 126% increase in revenue and a 681% increase in operating income. This growth was primarily driven by the data center segment, which benefited from the increasing demand for AI and accelerated computing solutions (NVIDIA Corporation, 2024).

The company's gross margin also improved significantly in 2024, reaching 72.7%, due to strong data center revenue growth and lower net inventory provisions. However, the company's operating expenses increased slightly due to employee growth and compensation increases (NVIDIA Corporation, 2024).

Looking ahead, NVIDIA's future prospects appear bright, given its strong market position, technological leadership, and diversified product portfolio. The company's focus on expanding its AI cloud services and industrial digitalization platforms presents significant growth opportunities. However, the company must navigate the challenges posed by export

restrictions, competition, and geopolitical risks to maintain its growth trajectory and maximize shareholder value.

Conclusion and Recommendation

Based on the analysis of NVIDIA's financial performance, recent developments, and industry outlook, the recommendation is to **buy** NVIDIA stock. The company's dominant position in the accelerated computing and AI markets, coupled with its strong financial performance and growth potential, make it an attractive investment option. However, investors should be aware of the potential risks associated with the company's operations and conduct their own research before making any investment decisions.

Citations-

2022 Annual Review:

https://s22.q4cdn.com/364334381/files/doc_financials/2022/ar/2022-nvidia-annualreview.pdf

2023 Annual Review:

https://s24.q4cdn.com/131778656/files/doc_financials/2023/ar/NVIDIA-2023-Annual-Report.pdf

2024 Annual Review:

https://s24.q4cdn.com/131778656/files/doc_financials/2024/ar/NVIDIA-2024-Annual-Report.pdf

Finsyn Article:

<https://www.finsyn.com/chart-of-the-month-how-nvidia-is-shaping-the-sp-500s-performance/>

Yahoo Finance (NVDA): <https://finance.yahoo.com/quote/NVDA/>

Workbook link-

<https://docs.google.com/spreadsheets/d/1zTpSDUgClbB9633W6ljHNS4w0v4Fkn2e/edit?usp=sharing&ouid=112139130907791235586&rtpof=true&sd=true>

Video link-

▣ GGU_ExcelSheet

<https://drive.google.com/drive/folders/1pL1c0yetaNQiGnks7Mu4rr8kZMPH8-12?usp=sharing>