

# The Global Computing Power Game: NVIDIA's Profit Structure and China's Domestic Substitution Under the 'Chip Tax'

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## Abstract

The intensifying geopolitical frictions between the United States and China, exemplified by the recent implementation of the 'Chip Tax' and advanced semiconductor export controls, are fundamentally transforming the global artificial intelligence computing power landscape. This paper examines the dual impacts of these measures through an analysis of their influence on NVIDIA's profit structure and the simultaneous acceleration of China's domestic substitution strategy. By adopting a mixed-methods approach that integrates quantitative financial analysis of NVIDIA's filings with the U.S. Securities and Exchange Commission (SEC) and qualitative policy evaluation, this research reveals that U.S. restrictions have imposed substantial yet temporary financial burdens on NVIDIA. These include an inventory charge of \$4.5 billion and a compression of the gross margin by 1,250 basis points in the first quarter of the fiscal year 2026. Concurrently, these policies have served as catalysts, expediting China's development of a parallel semiconductor ecosystem. This is manifested by Cambricon's 4,300% surge in revenue and Huawei's Ascend 910B achieving performance close to that of H2O at 70% of the cost. The study concludes that while the 'Chip Tax' effectively exerts short-term pressure on established players, it inadvertently contributes to the formation of a bifurcated global technology landscape, resulting in a fragmented 'one world, two systems' scenario that may ultimately enhance China's determination for technological self-sufficiency.

## Keywords

geopolitics, export controls, NVIDIA, semiconductor industry, chip tax

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## 1. Introduction

The race for artificial intelligence (AI) supremacy has cemented advanced computing power as the strategic resource of the 21st century, which analysts at Bank of America term the new 'coin of the realm' in geopolitical negotiations (Ma, 2025). Central to this contest is the semiconductor industry, where the U.S. company NVIDIA has achieved a dominant position through its pioneering graphics processing units (GPUs) and comprehensive CUDA software ecosystem. However, this dominance faces unprecedented pressure from escalating U.S.-China tech rivalry. The Biden administration's export controls aimed at curtailing China's access to cutting-edge AI technology have been followed by the Trump administration's unprecedented 'Chip Tax'-a requirement for firms such as NVIDIA to surrender 15% of their sales revenue from approved chips in China in exchange for export licenses (Kurtenbach and Grantham-philips, 2025).

This paper examines the efficacy and consequences of these policies through a focused financial and strategic analysis. This poses a central research question: How is this unique geopolitical intervention reshaping the financial performance of the global technology leader, NVIDIA, and is it effectively curbing China's technological advancement? The analysis demonstrates that while these policies inflict significant short-term financial costs and force strategic pivots, they also accelerate the fragmentation of the global market, potentially creating a more formidable long-term competitor in China.

## 2. Literature Review and Theoretical Framework

This research scrutinizes the 'Chip Tax' within a theoretical framework that amalgamates strategic trade policy, global value chain (GVC) theory, and technological nationalism. Referring to Baldwin's (2019) notion of the 'second unbundling' of GVCs, where geopolitical frictions disrupt highly integrated production networks, the Chip Tax serves as an exemplar of a state-mediated reconfiguration of value chain governance. It functions as a fiscal instrument that monetizes restricted market access while implementing technological containment, which is in line with the emphasis of strategic trade policy on safeguarding competitive advantages in crucial sectors (Porter, 1998).

From the perspective of the GVC, the Chip Tax represents an innovative form of chain governance that integrates market mechanisms with regulatory coercion. It generates artificial scarcity, restructures revenue streams, and introduces a geoeconomic barrier that strengthens the technological hierarchy. Proponents of such interventions contend that they are essential for decelerating knowledge diffusion and safeguarding national security (Lichtenberg, 2025). In contrast, critics assert that such measures frequently expedite the fragmentation they aim to alleviate, stimulating indigenous innovation and promoting parallel supply chains in targeted countries, as evidenced by China's rapid semiconductor substitution endeavors.

The Chip Tax, therefore, serves as a relevant example of contemporary techno-industrial policy: it strikes a balance between revenue extraction and strategic control, mirroring the broader tension between economic interdependence and national security. The subsequent analysis uses NVIDIA's financial performance and China's domestic market response to assess the effectiveness and ramifications of this policy tool within evolving GVC structures.

## 3. Methodology

This study employs a mixed-methods case study approach to provide a holistic analysis of the geopolitical impact on semiconductor industry dynamics.

### 3.1 Quantitative Analysis

The primary quantitative data come from a detailed analysis of NVIDIA's publicly available SEC filings, specifically its 10-Q (quarterly) and 10-K (annual) reports from fiscal year 2025 Q4 to 2026 Q2. This analysis focused on key financial indicators: revenue segmentation, gross margin, inventory levels, cash flow from operations, and shareholder returns. A DuPont analysis was conducted to deconstruct the drivers of NVIDIA's return on equity (ROE). The quantitative analysis enables precise measurement of the financial impact of export controls and the 'Chip Tax' on NVIDIA's profitability and strategic positioning.

### 3.2 Qualitative Analysis

This involves examining official policy documents from Chinese ministries (e.g., MIIT) regarding domestic substitution policies such as 'Computing Vouchers.' Furthermore, analysis of transcripts from NVIDIA's earnings calls and commentary from industry reports (IDC, East Money Net website) provides context for the numerical data. Media reports from credible sources are used to track the evolution of the policy landscape.

### 3.3 Limitations

The main limitation is the reliance on secondary data. The financial health of Chinese competitors is harder to gauge with the same precision because of less transparent reporting for private companies such as Huawei's Ascend. Additionally, the rapidly evolving nature of export control policies means that the analysis captures a snapshot in time rather than a stable regulatory environment.

## 4. Analysis of the NVIDIA Case: A Financial Deep Dive into Geopolitical Disruption

This section employs a rigorous financial statement and DuPont analysis to quantify the precise impact of U.S. export controls and the looming “chip tax” on NVIDIA. The evidence reveals that a company demonstrates remarkable resilience through technological dominance but faces a new reality of increased structural cost and the complete loss of a critical growth market.

### 4.1 Introduction to NVIDIA

#### 4.1.1 Business Overview

NVIDIA Corporation stands as a globally preeminent technology enterprise, celebrated for its trailblazing endeavors in accelerated computing, especially via the development of graphics processing units (GPUs) and parallel processing architectures. These technological breakthroughs have pushed companies toward artificial intelligence (AI), data center operations, and high-performance computing. Situated in Santa Clara, California, NVIDIA capitalizes on its global operational presence to foster advancements across its core business segments, with a strategic focus on AI-driven data center solutions that support contemporary computational workloads.

The company's pivotal platforms, encompassing data center GPUs (such as the H100 and Blackwell architectures), the CUDA software ecosystem, and DGX integrated systems, function as crucial infrastructures for AI training and inference. These technologies prioritize outstanding performance, energy efficiency, and scalability, primarily serving cloud service providers, enterprises, and research institutions. Although NVIDIA has also participated in gaming, professional visualization, and automotive markets, its strategic growth and market differentiation are increasingly dominated by AI-accelerated computing.

#### 4.1.2 Commercialization and Distribution

NVIDIA adopts a multichannel global distribution strategy, directly collaborating with original equipment manufacturers (OEMs), original design manufacturers (ODMs), hyperscale cloud providers, and enterprise clients. Its data center segment, which is pivotal to its AI computing offerings, is highly dependent on partnerships with major cloud infrastructure operators and system integrators. The company sustains these collaborations by coengineering projects and comprehensive developer engagement, guaranteeing the integration of its hardware and software stacks into various AI applications.

#### 4.1.3 Competition

NVIDIA functions within a fiercely competitive and dynamic milieu, engaging in competition with well-established semiconductor enterprises, specialized AI accelerator developers, and in-house silicon undertakings by hyperscalers. The crucial competitive differentiators include computational throughput, power efficiency, architectural innovation, and the sophistication of its AI software ecosystem, especially the CUDA platform. Despite the company's continued preeminence in AI accelerator solutions, consistent pressure from competitors who are developing alternative GPU- and application-specific integrated circuit (ASIC)-based AI chips, as well as from providers of high-performance central processing units (CPUs) adapted for accelerated computing tasks, remains.

#### 4.1.4 Research and Development (R&D)

R&D serves as the cornerstone of NVIDIA's competitive strategy. The firm allocates a considerable amount of investment to silicon design, systems architecture, AI algorithms, and software development to maintain its technological preeminence. Its research priorities are intricately correlated with the changing

computational requirements of AI, concentrating on next-generation GPUs, AI-specific silicon, and full-stack AI solutions. Nevertheless, these endeavors involve substantial risks associated with technical implementation, market acceptance, and regulatory conformity.

#### 4.1.5 Financial Highlights

NVIDIA's common shares are listed and traded on the Nasdaq Global Select Market with the ticker symbol "NVDA." In the fiscal year of 2025 (concluding January 26, 2025), NVIDIA reported a record high total revenue amounting to \$60.9 billion, which represented a notable upsurge compared with the preceding fiscal year. This growth was primarily propelled by the remarkable expansion of its Data Center platform. Moreover, net income in fiscal 2025 also experienced substantial growth.

### 4.2 Balance sheet analysis: Fortifying Fortress

#### 4.2.1 Asset Quality Analysis

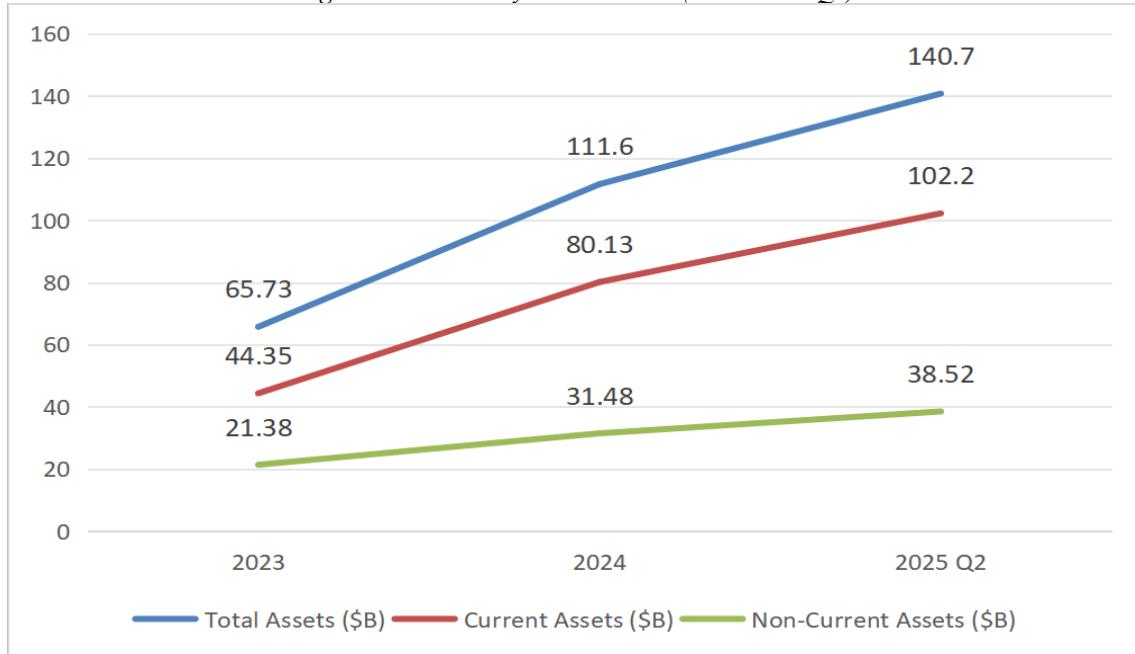
Table 1: NVIDIA CORPORATION Common-Size Consolidated Statement of Financial Position, Assets

	2025 (Q2)	2024	2023
Cash and cash equivalents	8.27%	7.70%	11.07%
Accounts receivable	19.77%	20.67%	15.21%
Inventories	10.64%	9.03%	8.03%
Prepaid expenses and other	1.89%	3.38%	4.68%
Marketable securities (current)	32.09%	31.02%	28.44%
Total Current Assets	72.6%	71.8%	67.5%
Property, plant and equipment, net	6.50%	5.63%	5.95%
Intangible assets, net	0.54%	0.72%	1.69%
Goodwill	4.09%	4.65%	6.74%
Deferred tax assets (noncurrent)	9.65%	9.84%	9.25%
Other noncurrent assets	5.13%	5.76%	6.84%
Total Non-Current Assets	27.4%	28.2%	32.5%
Total Assets	100.0%	100.0%	100.0%

Source: East MoneyNet website

#### Current assets

Figure 1: NVIDIA Key Assets Growth (2023 - 2025 Q2)



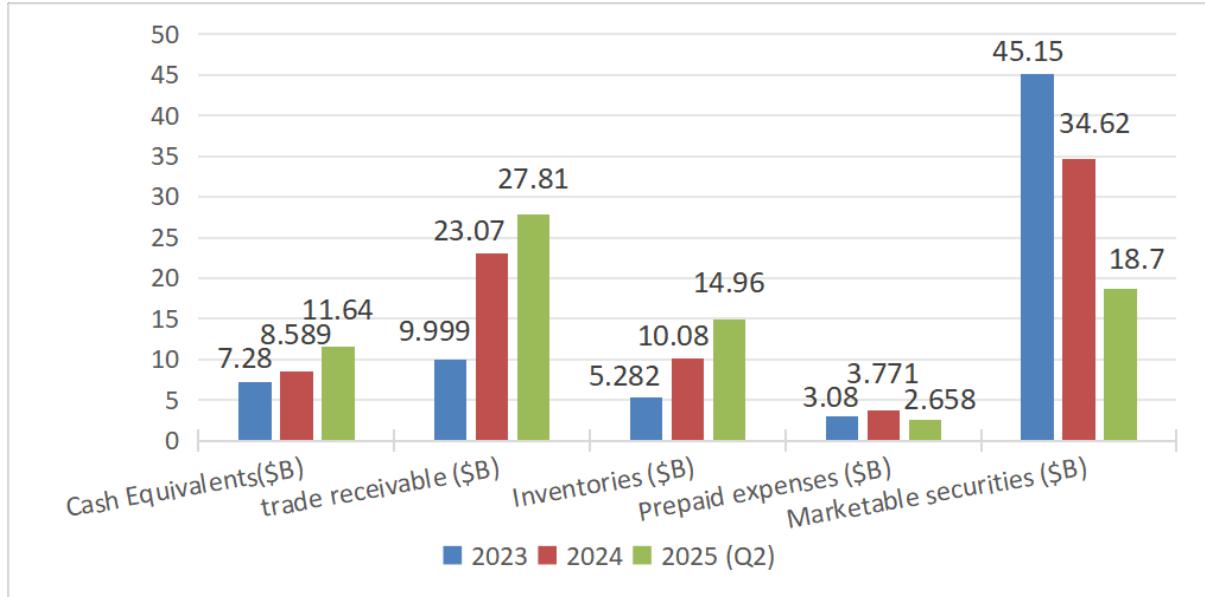
Source: East MoneyNet website

According to Figure 1, the composition of NVIDIA assets reveals that a company is in a phase of

hypergrowth, which is directly fueled by the global AI boom.

As shown in Table 1, current assets dominate the balance sheet, increasing from 67.5% in 2023 to 72.6% in Q2 2025. This shift signifies an intense focus on operational scalability and liquidity to meet explosive demand, a direct outcome of its commanding position in the global computing power game.

*Figure 2: Components of Current Assets (in \$ Billions)*



Source: East MoneyNet website

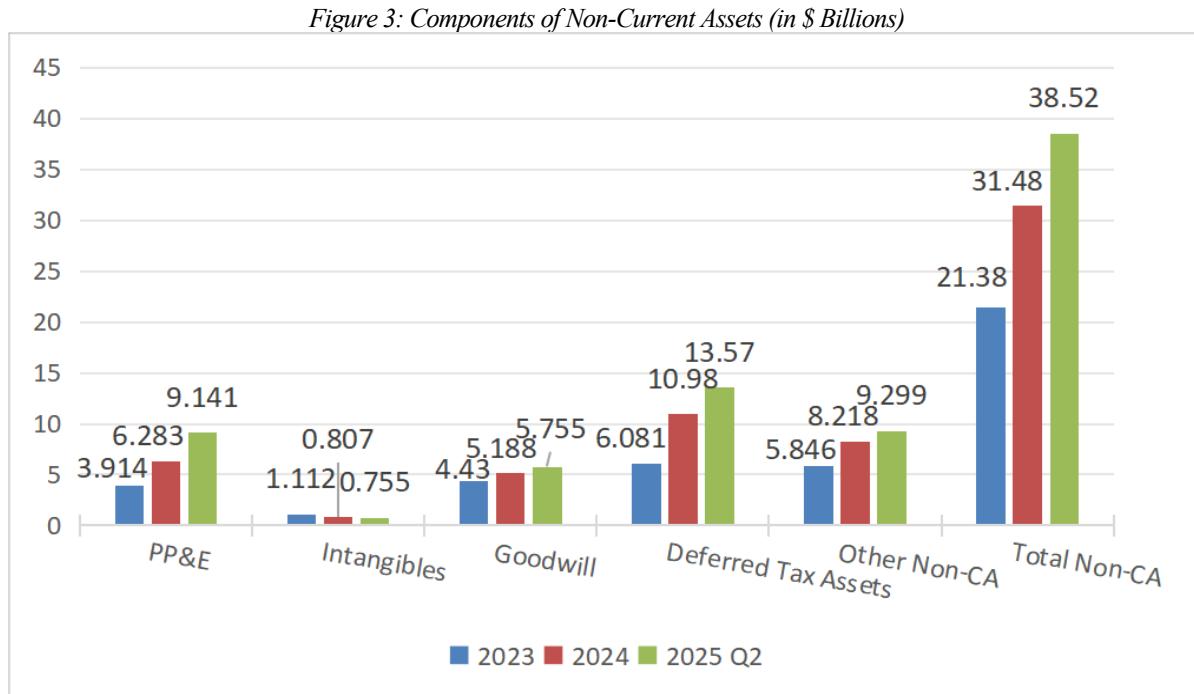
According to Figure 2, the most striking change is in Accounts Receivable, which ballooned from \$10B (15.21%) to \$27.8B (19.77%) of total assets. This surge is a direct consequence of skyrocketing sales to major data center clients purchasing credit. It underscores NVIDIA's immense pricing power but also introduces a concentration of credit risk, potentially linked to the 'Chip Tax', as a significant portion may be owed by large international (including Chinese) cloud providers racing to stockpile computing power before restrictions tighten.

Inventories have also grown significantly, from \$5.3B (8.03%) to \$15.0B (10.64%) of assets. This reflects a strategic buildup to secure supply chain capacity against geopolitical disruptions and meet unprecedented orders. For China's domestic substitution path, this highlights the immense inventory buffer NVIDIA has built, making it harder for competitors to capture market share through availability alone.

Critically, the company's liquidity is immense. Cash, cash equivalents, and current marketable securities together constitute over 40% of total assets (\$56.8B). This war provides unparalleled financial resilience to navigate supply chain disruptions, invest aggressively in R&D, and weather geopolitical storms, further widening the moat between NVIDIA and its aspiring challengers.

### **Noncurrent assets**

The story within noncurrent assets is one of strategic investment for long-term dominance.



Source: East MoneyNet website

According to Figure 3, the near-doubling of property, plant, and equipment (PP&E) in absolute terms (from \$3.91B to \$9.14B) highlights massive capital expenditures. This investment is crucial for designing next-generation chips and securing advanced packaging capacity, cementing its technological lead, which is protected by the very 'Chip Tax' that hinders China's access to such technology.

A notable trend is the relative decline in Goodwill and intangible assets. This indicates that NVIDIA's staggering growth is overwhelmingly organic, driven by its internal innovation (e.g., the H100 GPU and CUDA platform) rather than acquisitions. This organic growth model creates a deep and defensible moat that is extremely difficult for competitors, who are cut off from acquiring key foreign tech and must rely on internal, lagging R&D, to replicate.

#### 4.2.2 Capital Structure Analysis

Table 2: Common-size analysis of financial position, liabilities and shareholders' equity

(As a % of Total Assets)	2025 (Q2)	2024	2023
Accounts payable	6.44%	5.65%	4.11%
Other accrued liabilities	10.80%	10.52%	10.16%
Total Current Liabilities	17.20%	16.20%	16.20%
Long-term debt	6.02%	7.58%	12.87%
Other long-term obligations	4.30%	3.80%	3.86%
Total Non-Current Liabilities	11.60%	12.70%	18.40%
Total Liabilities	28.90%	28.90%	34.60%
Total Stockholders' Equity	71.10%	71.10%	65.40%
Total Liabilities and Equity	100.00%	100.00%	100.00%

Source: East MoneyNet website

NVIDIA's capital structure is a testament to a supremely profitable company financing its growth internally, a key feature of its profit structure.

Figure 4: NVIDIA's Soaring Retained Earnings



Source: NVIDIA SEC Filings (10-Q, 10-K)

As shown in Table 2, the most striking feature is the overwhelming dominance of shareholders' equity, which has grown to constitute 71.1% of the company's capital structure. This is the antithesis of a highly leveraged firm.

The driver of this equity explosion is Retained Earnings, as indicated by Figure 4, which grew from \$29.82B (45.4% of assets) in 2023 to a staggering \$88.74B (63.1% of assets) by Q2 2025. This reveals the core of NVIDIA's profit structure: it converts its technological advantage and pricing power into enormous net income, which is then retained to fund R&D, Capex, and operations without needing to take on significant debt or external financing.

Consequently, total liabilities have been squeezed down to just 28.9% of the capital structure. Even more remarkably, the company has effectively deleveraged. Long-term debt has been reduced from 12.87% to just 6.02% of assets. NVIDIA is not using debt to fuel its growth; it uses the massive profits generated from its AI chips.

This self-sustaining capital structure provides a critical strategic advantage in the "Global Computing Power Game." This makes NVIDIA immune to credit market fluctuations and interest rate risks. This presents a daunting challenge for Chinese competitors pursuing a domestic substitution path. They often rely on significant state subsidies or debt to fund capital-intensive R&D and manufacturing, a model that is less efficient, more risky, and subject to political scrutiny, unlike NVIDIA's self-funded, profit-driven engine.

The 'Chip Tax' further widens this gap. While export controls may temporarily hinder NVIDIA's access to a portion of the Chinese market, its robust, equity-financed structure allows it to invest relentlessly in next-generation technologies far beyond the reach of competitors who are simultaneously cut off from advanced foundries and struggle to replicate previous-generation designs. NVIDIA's balance sheet is not just a financial statement; it is the fuel for its flywheel of innovation and the primary barrier to entry for any would-be challenger, fundamentally shaping the reconstruction path of China's domestic substitution efforts.

#### 4.3 Income Statement Analysis: Profitability Under Siege and Resilient Recovery

Table 3: NVIDIA CORPORATION Common-Size Consolidated Income Statement

(As a % of Total Revenue)	2025 Q2	2025 Q1	2024 Q4
Total Revenue	100.00%	100.00%	100.00%
Cost of Goods Sold	27.60%	39.50%	27.00%
Gross Profit	72.40%	60.50%	73.00%
Research & Development Expenses	9.20%	9.10%	9.40%
Selling & Marketing Expenses	2.40%	2.40%	2.50%
Operating Income	60.80%	49.10%	61.10%
Interest Income	1.30%	1.20%	1.30%
Interest Expense	-0.10%	-0.10%	-0.20%
Other Income/(Expense)	4.80%	-0.40%	1.90%
Income Before Taxes	66.80%	49.70%	64.10%
Income Tax Expense	10.20%	7.10%	7.90%
Net Income	56.50%	42.60%	56.20%

Source: East MoneyNet website

As shown in Table 3, NVIDIA demonstrated remarkable revenue resilience, growing from \$39.33 billion in Q4 2024 to \$46.74 billion in Q2 2025, representing a 19% increase over two quarters. This consistent growth occurred amidst significant geopolitical challenges and the impact of the 'Chip Tax' environment, underscoring the company's dominant position in global AI computing markets.

### 4.3.1 Revenue Trajectory: Sustained Growth Despite Headwinds & Profitability Resilience: Remarkable Recovery

The income statement offers the most immediate evidence of geopolitical shock. The core data, displayed in Table 4, illustrate the direct financial impact of the U.S. government's licensing decision on the H2O product. The data reveal a severe yet transient impact, followed by swift recovery driven by unparalleled global demand.

Table 4: NVIDIA Key Income Statement Metrics (GAAP, \$B except EPS)

Metric	FY25 Q4	FY26 Q1	FY26 Q2
Total Revenue (\$B)	39.3	44.1	46.7
Gross Margin (%)	73.00%	60.50%	72.40%
Operating Income (\$B)	26.9	27.9	31.3
Earnings Per Share (\$)	0.76	0.76	1.08

Source: NVIDIA website

The data illustrate a narrative of severe disruption followed by rapid, resilient recovery. The most striking feature is the 1,250 basis point collapse in the gross margin in FY26 Q1, a direct consequence of the \$4.5 billion charge associated with excess H2O inventory and purchase commitments following the export license requirement (NVIDIA 10-Q, Q2 FY26, P. 4). This confirms that geopolitical policy inflicted a deep, immediate financial wound. However, the subsequent rebound in margins to 72.4% in Q2, coupled with continued revenue growth, demonstrates that NVIDIA's monopolistic pricing power and the overwhelming global demand for its Blackwell architecture almost fully offset the loss of the Chinese market in the short term. The stagnation in the Q1 EPS and its powerful Q2 rebound further underscore this "V-shaped" recovery, highlighting that the crisis was transient rather than structural for its core profitability model. The sequential deceleration in revenue growth from Q1 to Q2 (+12% to +6%), however, may signal the beginning of a more permanent drag from the absence of the Chinese market.

The following Figure 5 visualizes this dramatic narrative of shock and recovery, highlighting the direct link between the H2O charge and margin erosion:

Figure 5: NVIDIA Revenue Growth and Gross Margin Impact

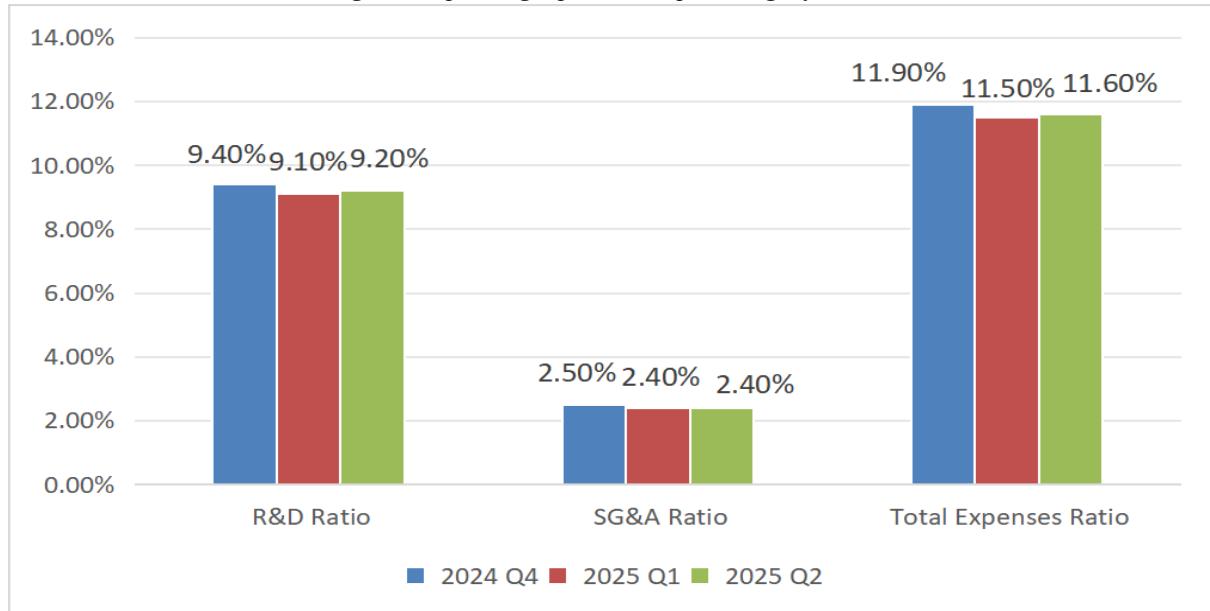


Source: NVIDIA website

The policy inflicted a deep but transient wound. The \$4.5B inventory charge was a direct, one-time financial penalty for NVIDIA's strategic bet on the Chinese market. However, the company's monopolistic technological position (blackwell architecture) allowed it to reallocate inventory and reprice its products elsewhere, facilitating a rapid V-shaped recovery in profitability. The key lingering threat is the structural erosion of margins, as future 'compliant' chips are likely to carry higher relative costs and lower ASPs.

#### 4.3.2 Operating Efficiency and Strategic Stability

Figure 6: Operating expenses as a percentage of revenue



Source: East MoneyNet website

Figure 6 shows that R&D investments remained remarkably stable at 9.1–9.4% of revenue, reflecting NVIDIA's commitment to maintaining technological leadership despite external challenges. The absolute R&D spending grew from \$3.714 billion to \$4.291 billion, demonstrating increased investment in innovation during a period of geopolitical uncertainty.

Selling and marketing expenses maintained consistency at 2.4–2.5% of revenue, indicating efficient go-to-market operations and strong natural demand that requires minimal commercial reinforcement despite market disruptions.

#### 4.4 Cash Flow Statement Analysis: The Unmatched Cash Engine

Table 5: NVIDIA CORPORATION Cash Flow Activities Analysis (\$ Billions)

	2024 Q4	2025 Q1	2025 Q2
Operating Activities (\$B)	16.63	27.41	15.37
Investing Activities (\$B)	-7.198	-5.216	-7.126
Financing Activities (\$B)	-9.948	-15.55	-11.83
Net Change (\$B)	-0.518	6.645	-3.595

Source: East MoneyNet website

##### 4.4.1 Operating Activities: The Engine of Cash Generation

NVIDIA's cash flow from operations demonstrates both immense scale and strategic volatility, reflecting the company's position in global computing power competition. The data in Table 5 show that operating cash flow fluctuated from \$16.63 billion in Q4 2024 to \$27.41 billion in Q1 2025 before being moderated to \$15.37 billion in Q2 2025. This volatility stems primarily from strategic working capital management decisions:

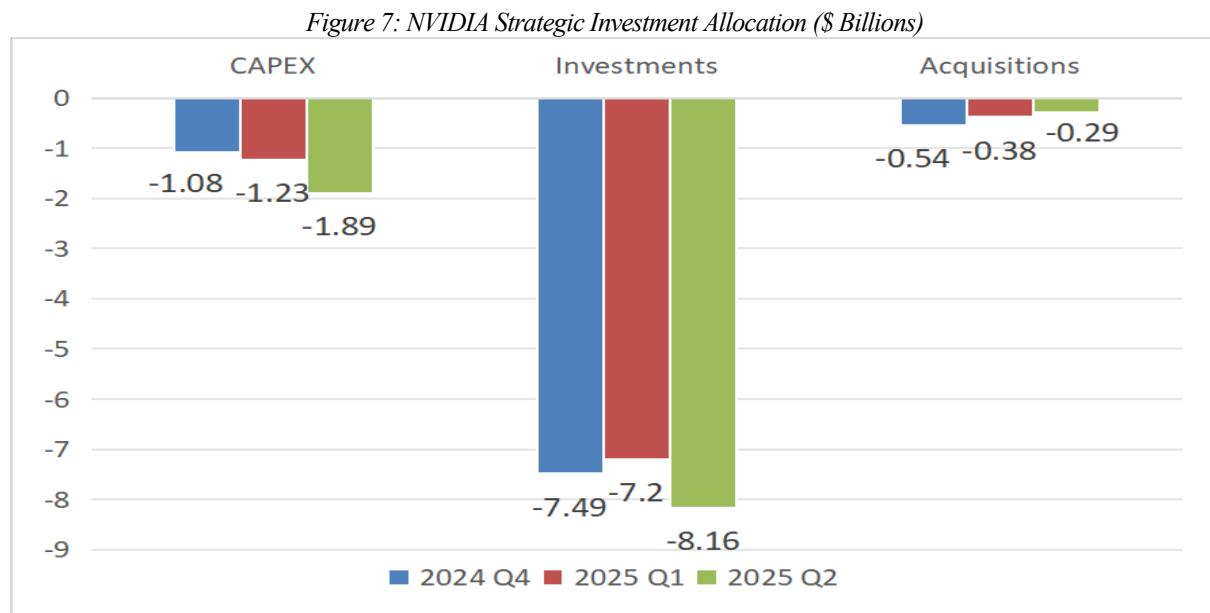
Accounts Receivable Dynamics: Significant \$5.675 billion outflow in Q2 2025, indicating extended payment terms to major cloud providers and AI companies racing to build computational capacity amidst the 'Chip Tax' environment

Inventory strategic build-up: \$3.622 billion in outflow supporting massive production scaling to meet unprecedented AI chip demand

Accrued liability management: \$4.053 billion outflow in Q2, reversing the \$7.128 billion inflow in Q1, reflecting the timing of vendor payments and compensation accruals

Despite this volatility, NVIDIA maintains exceptional cash conversion efficiency, with net income to operating cash flow conversion averaging 85% across the three quarters. This high conversion rate underscores the quality of earnings and operational excellence in navigating complex supply chain dynamics.

#### 4.4.2 Investing Activities: Fueling Technological Leadership



Source: East MoneyNet website

Figure 7 shows that NVIDIA maintains aggressive investment spending with remarkable consistency, demonstrating commitment to long-term technological leadership:

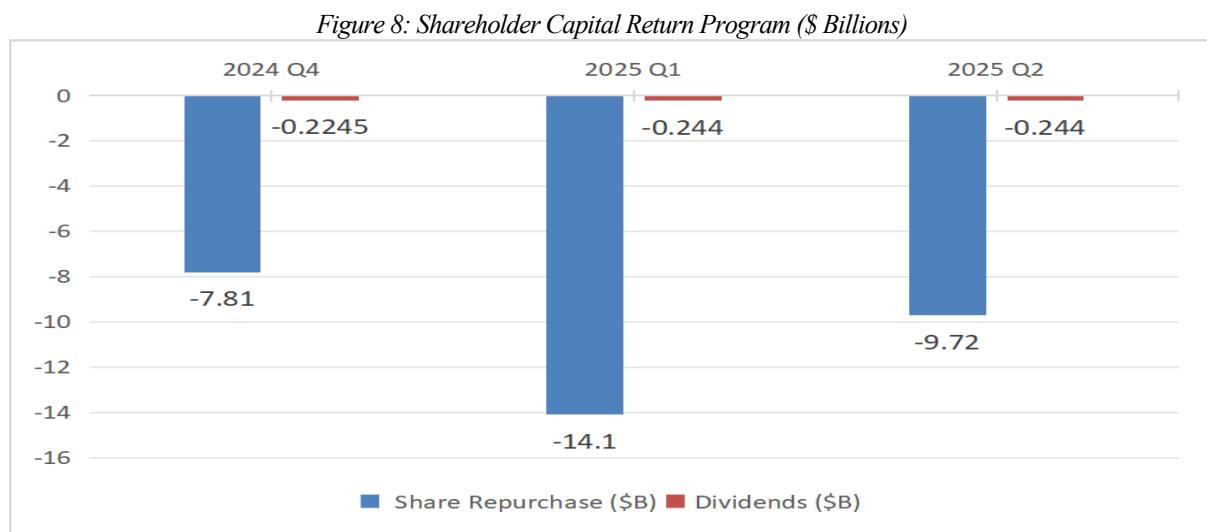
Capital Expenditures (CAPEX): \$1.08--1.89 billion quarterly, primarily supporting advanced packaging capacity expansion and manufacturing technology development.

Strategic Investments: \$7.195--8.158 billion in marketable securities and technology partnerships, ensuring supply chain resilience.

Acquisitions: \$0.294--0.542 billion focused on AI talent acquisition and technology consolidation.

The consistent quarterly investment outflow of \$5.216--7.198 billion highlights NVIDIA's "reinvest-for-leadership" strategy, which is particularly crucial given the technological barriers created by export controls. This investment intensity creates a formidable barrier for Chinese domestic substitution efforts that must achieve similar scales without access to global capital markets and technology partnerships.

#### 4.4.3 Financing Activities: Strategic Capital Return



According to Figure 8, NVIDIA's financing activities reveal a mature capital allocation strategy focused on shareholder returns:

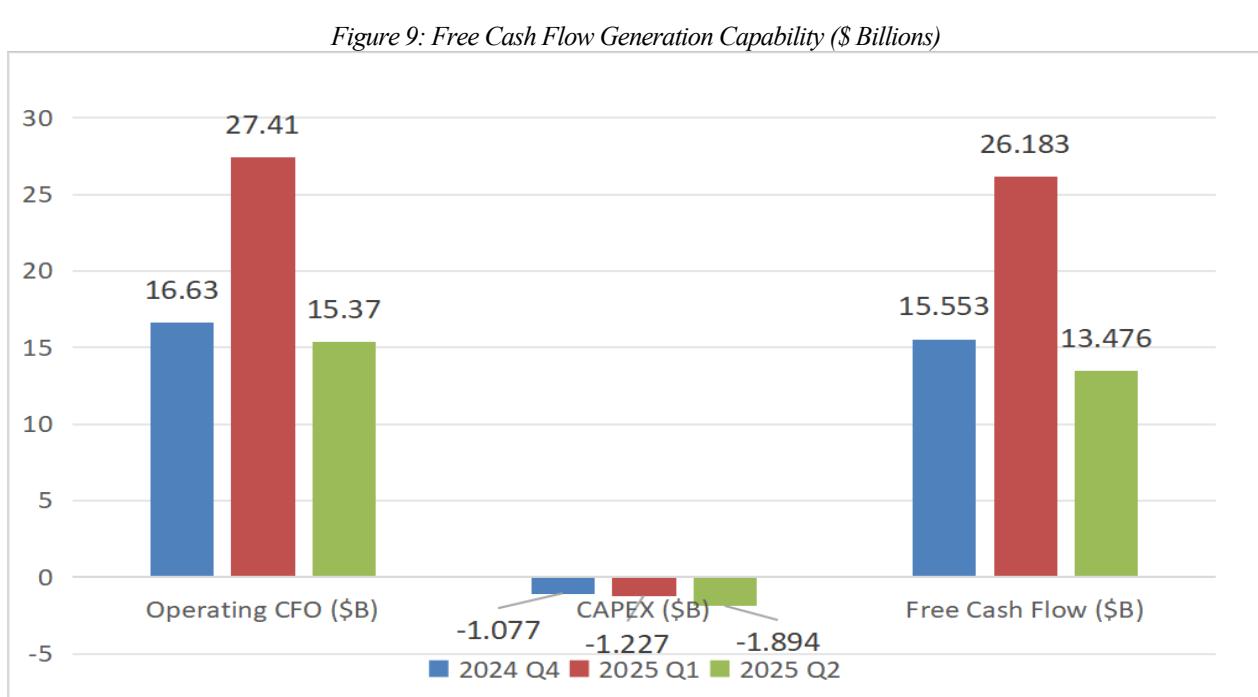
Share Repurchases: \$7.81--14.10 billion quarterly, representing one of the most aggressive buyback programs in technology history.

Dividend Payments: Consistent with \$0.244--0.245 billion quarterly, providing stable income returns.

Net financing outflows: \$9.948--15.55 billion quarterly, reflecting confidence in future cash generation.

The massive \$14.10 billion repurchase in Q1 2025 signals management's strong conviction of NVIDIA's intrinsic value and long-term prospects, despite geopolitical headwinds and market volatility.

#### 4.4.4 Free Cash Flow: The Ultimate Measure of Financial Strength



As shown in Figure 9, NVIDIA maintains extraordinary free cash flow generation capabilities:

Q2 2025: \$13.48 billion (Operating CFO \$15.37B - CAPEX \$1.89B)

Q1 2025: \$26.18 billion (Operating CFO \$27.41B - CAPEX \$1.23B)

Q4 2024: \$15.55 billion (Operating CFO \$16.63B - CAPEX \$1.08B)

The free cash flow margin maintains an outstanding level, ranging from 28.8% to 59.5% of revenue. This offers unparalleled strategic flexibility in the following aspects: sustaining leadership in technology investment, engaging in strategic acquisitions and partnerships, implementing aggressive capital returns to shareholders, and strengthening the balance sheet to counter geopolitical uncertainties.

#### 4.4.5 Cash Position and Liquidity Management

Despite the \$3.60 billion decrease in cash balance from Q1 to Q2 2025, NVIDIA maintains a robust liquidity position with \$11.64 billion in cash and equivalents. This decrease primarily reflects timing differences in working capital cycles and substantial share repurchase activity rather than operational concerns.

### 4.5 Financial Ratio Analysis: NVIDIA's Dominance in the Global Computing Power Game

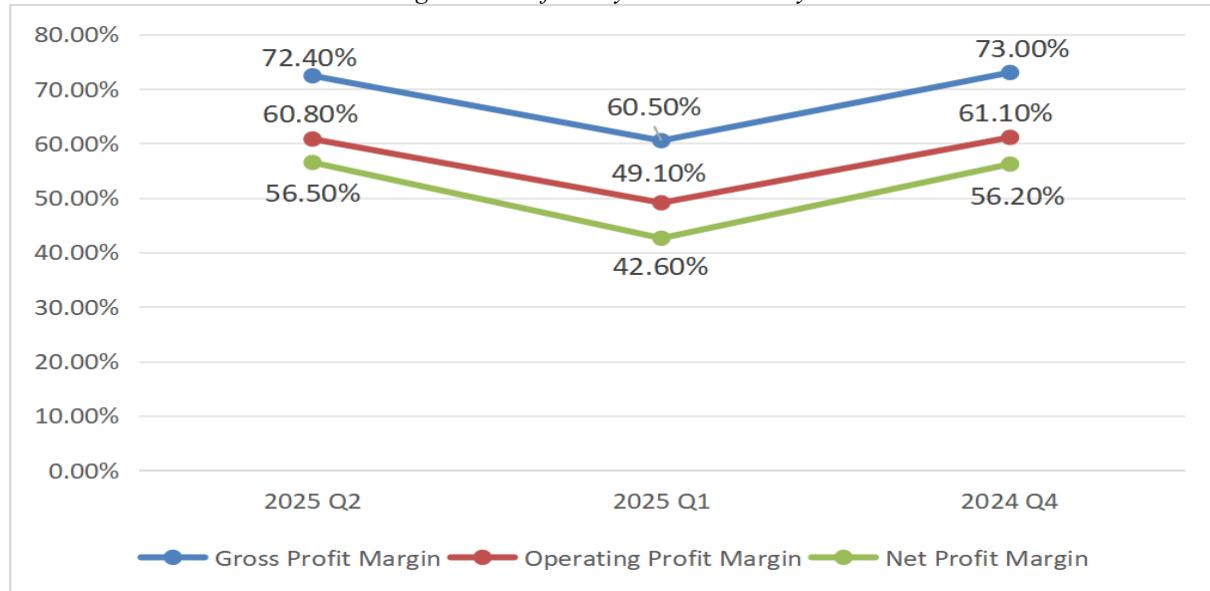
#### 4.5.1 Profitability Ratios

Table 6: NVIDIA CORPORATION Profitability Ratios Analysis

Profitability Ratios	2025 Q2	2025 Q1	2024 Q4
Gross Profit Margin	72.40%	60.50%	73.00%
Operating Profit Margin	60.80%	49.10%	61.10%
Net Profit Margin	56.50%	42.60%	56.20%
Return on R&D Expenses	615%	471%	595%

Source: East MoneyNet website

Figure 10: Profitability ratios trend analysis



Source: East MoneyNet website

NVIDIA's profitability ratios demonstrate exceptional performance despite geopolitical challenges. According to Table 6 and Figure 10, the gross profit margin shows a V-shaped recovery from 60.5% in Q1 2025 to 72.4% in Q2 2025, reflecting the company's ability to rapidly adjust to the 'Chip Tax' impact through strategic pricing and product mix optimization. The operating profit margin of 60.8% in Q2 2025 highlights extraordinary operational efficiency, which is particularly impressive given the massive R&D investments required to maintain technological leadership in AI computing.

Most remarkably, NVIDIA achieves a net profit margin of 56.5%, one of the highest in the technology

sector, demonstrating unparalleled pricing power for its AI accelerators. The return on R&D expenses reaching 615% in Q2 2025 underscores the exceptional effectiveness of NVIDIA's innovation investments, generating \$6.15 in net income for every dollar spent on research and development. This ratio is particularly crucial in the context of the global computing power game, as it shows NVIDIA's ability to convert technological innovation into substantial profits despite export restrictions.

#### 4.5.2 Activity Ratios

Table 7: Activity ratios and the cash conversion cycle

Activity Ratios	2025 Q2	2025 Q1	2024 Q4
Inventory Turnover	0.98	1.62	1.20
Receivables Turnover	1.87	1.95	1.93

Source: East MoneyNet website

Table 8: Cash conversion cycle (days)

Metric	2025 Q2	2025 Q1	2024 Q4
Days Inventory Held	91.80	55.40	75.23
Days Sales Outstanding	48.08	46.16	46.63
Days Payable Outstanding	58.0	35.8	50.1
Cash Conversion Cycle	81.88	65.76	71.76

Source: East MoneyNet website

From Table 7, NVIDIA's activity ratios reveal sophisticated working capital management amidst rapid growth. The inventory turnover of 0.98 in Q2 2025 reflects a significant slowdown from the previous quarter, indicating a substantial inventory buildup to meet unprecedented AI chip demand while managing supply chain constraints exacerbated by geopolitical factors. The slight decrease in receivable turnover to 1.87 indicates extended payment terms to major cloud providers, particularly those racing to build computational capacity before potential further export restrictions.

Most notably, Table 8 shows that NVIDIA maintains a positive cash conversion cycle of 81.88 days in Q2 2025, an increase from the previous quarter. This lengthening cycle, driven primarily by the sharp rise in days inventory held, suggests that the company is carrying higher inventory levels relative to its cost of sales. This shift reflects NVIDIA's strategic positioning to fulfill demand amidst supply chain complexities, even as it utilizes its bargaining power to maintain a payable period longer than its collection period.

#### 4.5.3 Liquidity Ratios

Table 9: NVIDIA CORPORATION Liquidity Ratios Analysis

Liquidity Ratios	2025 Q2	2025 Q1	2024 Q4
Current Ratio	4.21	3.39	4.44
Quick Ratio	3.60	2.96	3.88
Cash Ratio	0.63	1.03	0.92

Source: East MoneyNet website

Table 9 shows that NVIDIA maintains exceptional liquidity, with a current ratio of 4.21 and a quick ratio of 3.60 in Q2 2025, significantly exceeding industry averages. These ratios demonstrate a company's strong ability to meet short-term obligations and provide financial resilience against geopolitical uncertainties and market fluctuations. The cash ratio of 0.63 indicates that its cash and equivalents can cover 63% of its current liabilities, suggesting strong short-term solvency. Within the semiconductor industry, where

typical cash ratios range from 0.5 to 1.0, NVIDIA's ratio positions it in the upper mid-range, surpassing peers like AMD, which has a ratio of approximately 0.4. However, potential challenges, such as a 24% revenue decline from China and significant capital expenditures for projects like the GB300 chip, may affect future cash reserves and warrant ongoing monitoring.

#### 4.5.4 Leverage and Coverage Ratios

Table 10: NVIDIA CORPORATION Leverage and Coverage Ratios

Leverage Ratios	2025 Q2	2025 Q1	2024
Debt to Equity	0.41	0.49	0.41
Debt to Capital	0.29	0.33	0.29
Interest Coverage	414x	339x	375x

Source: East MoneyNet website

According to Table 10, NVIDIA demonstrates conservative financial leverage with a debt-to-equity ratio of 0.41 in Q2 2025, which is lower than that of industry peers. This prudent capital structure provides tremendous financial flexibility and reduces vulnerability to interest rate fluctuations and credit market disruptions. The exceptionally high interest coverage ratio of 414 times indicates an enormous capacity to service debt obligations from operating earnings, providing creditors with exceptional security.

The debt-to-capital ratio of 0.29 reflects NVIDIA's preference for equity financing and internal cash generation over debt, which is particularly advantageous in the current high-interest rate environment. This conservative approach provides strategic advantages in global computing power competition, as it allows NVIDIA to maintain investment capacity during market downturns, while competitors may face financing constraints.

#### 4.6 DuPont Analysis: Deconstructing the Source of Resilience

Table 11: Table: DuPont analysis - secondary decomposition

DuPont Analysis - Primary Decomposition

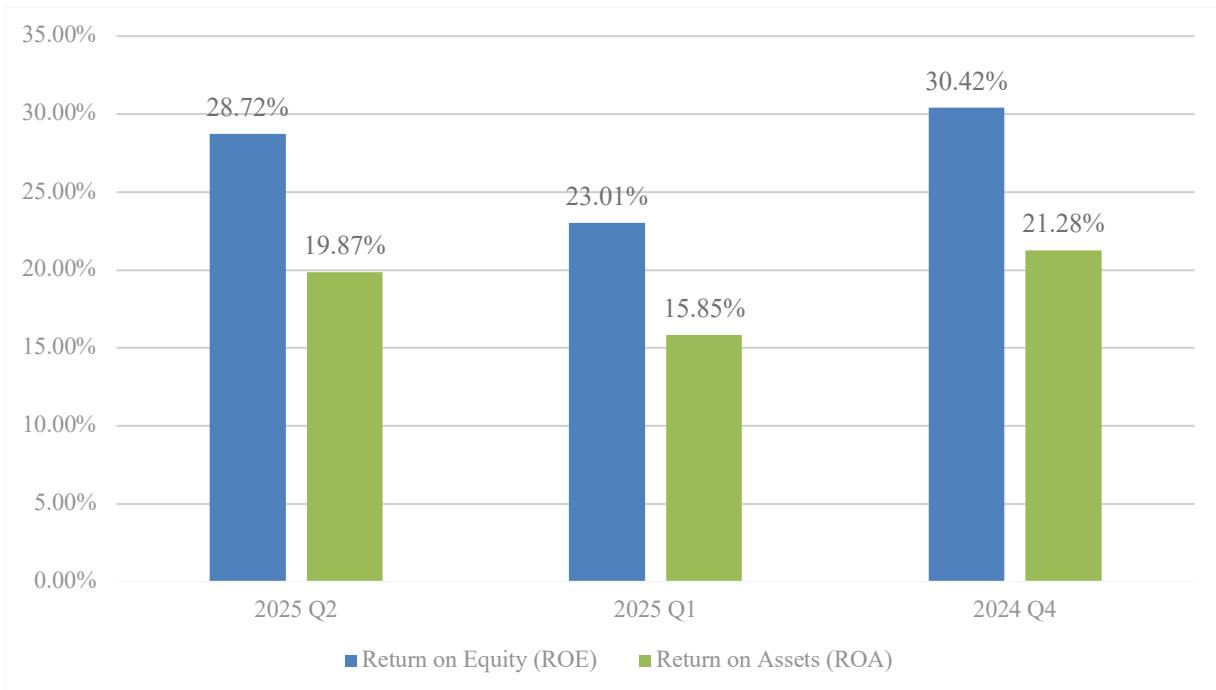
DuPont Components	2025 Q2	2025 Q1	2024 Q4
ROE	28.72%	23.01%	30.42%
= Return on Assets (ROA)	19.87%	15.85%	21.28%
× Financial Leverage	1.45x	1.45x	1.43x

DuPont analysis - secondary decomposition

DuPont Components	2025 Q2	2025 Q1	2024 Q4
ROA	19.87%	15.85%	21.28%
= Net Profit Margin	56.53%	42.62%	56.17%
× Total Asset Turnover	0.35x	0.37x	0.38x

Source: East MoneyNet website

Figure 11: DuPont analysis component comparison



Source: East MoneyNet website

#### 4.6.1 Dupont Analysis Interpretation

As shown in Table 11 and Figure 11, NVIDIA demonstrates strong profitability through the DuPont analysis framework, with ROE reaching 28.72% in Q2 2025. This exceptional performance stems from the powerful combination of high profit margins and efficient asset utilization, despite moderate financial leverage.

The V-shaped recovery in both ROE and ROA from Q1--Q2 2025 highlights NVIDIA's remarkable resilience in navigating the 'Chip Tax' challenges. The temporary compression in Q1 2025 (ROE 23.01%, ROA 15.85%) resulted primarily from the \$4.5 billion inventory charge related to export-restricted products, whereas the rapid recovery to the Q2 2025 level demonstrated the company's ability to reallocate resources and optimize operations.

The financial leverage ratio remains stable and conservative at 1.45x in Q2 2025, indicating NVIDIA's preference for equity financing and internal cash generation rather than debt. This conservative approach provides strategic advantages in the current high interest rate environment and offers flexibility amid geopolitical uncertainties.

The asset turnover ratio of 0.35x in Q2 2025, while seemingly modest, is efficient given the capital-intensive nature of semiconductor manufacturing and the massive scale of NVIDIA's operations. This ratio reflects a balanced asset utilization despite the company's rapid expansion of production capacity to meet AI chip demand.

#### 4.7 Summary and Strategic Outlook

NVIDIA's financial and strategic performance amid geopolitical pressures and the implementation of the "Chip Tax" illustrate a complex interplay of resilience, adaptation, and sustained competitive dominance in the global AI computing sector. The following synthesis integrates insights from profitability, cash flow management, financial ratios, and DuPont analysis to present a holistic assessment of NVIDIA's position and broader implications for the high-tech landscape.

##### 4.7.1 Summary: NVIDIA's Unassailable Position in the Computing Power Race

NVIDIA has established an exceptionally strong financial and competitive position in the global AI computing landscape, demonstrating remarkable resilience despite geopolitical headwinds and the 'Chip Tax'

constraints. The company's financial performance reveals several key strengths:

**Profitability Powerhouse:** Extraordinary profit margins (56.53% net margin) and return metrics (28.72% ROE) provide massive resources for continued innovation and market expansion

**Financial Resilience:** Conservative leverage (1.45x), strong liquidity (current ratio of 4.21), and robust cash generation create a fortress balance sheet

**Operational Excellence:** A positive cash conversion cycle and efficient asset utilization demonstrate effective operational management amidst strategic inventory buildup

**Strategic Adaptability:** Rapid recovery from geopolitical challenges through product mix optimization and market reallocation

**Innovation Leadership:** Exceptional R&D effectiveness (615% return) ensures continued technological advancement

#### **4.7.2 Strategic Outlook: Navigating the Computing Power Game**

Near-Term Prospects (2025--2026):

Continued AI Dominance: Sustained leadership in AI accelerator markets despite export restrictions

Capacity expansion: Ongoing investments in advanced packaging and manufacturing capabilities

Market Diversification: Strategic focus on nonrestricted markets and customer segments

Technology Advancement: Continued innovation in next-generation AI architectures

Medium-term challenges (2026--2028):

Geopolitical evolution: Adapting to evolving export control regimes and trade policies

Competitive Response: Addressing emerging competition from both traditional players and domestic Chinese efforts

Technology Transitions: Navigating architectural shifts in AI computing paradigms

Supply Chain Resilience: Managing complex global supply chain dependencies

Long-term strategic imperative:

Technology Leadership Maintenance: Continuing aggressive R&D investment to maintain architectural advantages

Global Market Access: Strategic navigation of geopolitical constraints to maximize addressable market

Ecosystem development: Expansion of software and platform capabilities to create deeper customer lock-in

Strategic partnerships: Selective collaborations to address market access challenges and technology gaps

Talent Acquisition: Continued focus on attracting and retaining world-class engineering talent

#### **4.7.3 Implications for China's Domestic Substitution Path**

The financial analysis reveals the immense challenges facing Chinese domestic substitution efforts:

**Profitability Gap:** A 56.53% net margin and 28.72% ROE create virtually insurmountable resource advantages for NVIDIA

**Technology Distance:** Exceptional R&D efficiency (615% return) accelerates NVIDIA's innovation pace

**Scale Disadvantages:** A massive production scale and customer relationships create significant barriers to entry

Ecosystem limitations: Limited access to global technology partnerships and talent networks

Financial Constraints: Capital market restrictions and higher funding costs limit investment capacity

Conclusion:

NVIDIA's performance underscores the ability of a technologically superior firm with sound financial management to navigate significant geopolitical disruptions. However, the loss of the Chinese market—a historic growth driver—introduces persistent revenue headwinds such that even high profitability cannot be fully offset. A company's future success will hinge on its ability to sustain innovation, diversify market exposure, and adapt to evolving trade policies.

For competitors, particularly in China, NVIDIA's integrated model of deep innovation, financial strength, and ecosystem control sets a high benchmark. The global computing power game is no longer merely a race for technical performance; it is increasingly a contest of financial endurance, strategic agility, and geopolitical foresight. In this reconfigured landscape, NVIDIA remains the incumbent to catch, but the race is unfolding in a fractured and politically contested field.

## 5. The Evolving Competitive Landscape of AI Chips

The global AI semiconductor market has become a battleground for technological supremacy, with NVIDIA facing challenges from both Western competitors and emerging Chinese domestic players. While NVIDIA has long dominated the sector with its GPUs and CUDA ecosystem, its position is being challenged on multiple fronts. Moreover, China's tech giants are accelerating their domestic chip development in response to U.S. export controls, creating a fragmented global market structure.

### 5.1 NVIDIA's Western Competitors

Broadcom has emerged as a formidable challenger to NVIDIA's dominance in the AI accelerator space. The company's strategy focuses on application-specific integrated circuits (ASICs), which offer superior efficiency for niche workloads compared with NVIDIA's general-purpose GPUs. This approach has garnered significant traction among hyperscalers, exemplified by Broadcom's recent contracts to codesign AI chips, signaling a pivotal shift in market dynamics.

The Intel represents another potential challenger with its AI accelerator offerings. Despite controlling only 8–12% of the AI accelerator market, Intel's oneAPI initiative aims to create an open ecosystem that reduces dependency on NVIDIA's CUDA platform. However, NVIDIA's software ecosystem remains a formidable barrier to entry, as it reduces the complexity of AI development and creates substantial switching costs for most organizations.

Table 12: Comparative Analysis of Major AI Chip Competitors

Vendor	Market Position	Key Products	Competitive Advantage	Strategic Challenges
NVIDIA	Market leader (80%+)	H100, H200, H2O, Blackwell B200	CUDA ecosystem dominance, Full-stack solution	Export restrictions, Geopolitical tensions
Broadcom	Growing challenger	Custom ASICs	Tailored solutions for hyperscalers	Limited ecosystem beyond custom designs
Intel	Strategic challenger (8-12% share)	Gaudi 3, Falcon Shores	oneAPI ecosystem, Hybrid architecture	Late to market, Ecosystem development
Chinese Players	Domestic substitution	Ascend 910C, Siyuan 590	Price advantage, Policy support	Technology lag, Ecosystem maturity

Source: Compiled from market analysis and performance data presented in DING (2025), Paoli (2025), and industry reports cited in Seitz (2025) and Graham (2025a, 2025b).

## 5.2 The Chinese Competitive Landscape

China's semiconductor industry has experienced remarkable growth despite stringent U.S. export controls. Cambricon, a Beijing-based AI chip designer, posted record profits in the first half of 2025, with revenue increasing approximately 4,300% annually to 2.88 billion Chinese yuan (\$402.7 million) (Paoli, 2025). This explosive growth reflects China's concerted push for semiconductor self-sufficiency amid geopolitical tensions. While Cambricon's revenue remains modest compared with that of NVIDIA, it signals the rapid emergence of viable domestic alternatives in the Chinese market.

With its Ascend series of AI chips, Huawei has made significant strides. The Ascend 910B utilizes China's 7 nm (N+2) process from SMIC and delivers performance approaching NVIDIA's H2O in inference tasks. Huawei has also developed a comprehensive software ecosystem around its hardware, with the CANN (compute architecture for neural networks) and MindSpore frameworks forming an integrated stack from chips to the cloud (Ding, 2025).

The competitive dynamics between NVIDIA and Chinese manufacturers reflect a complex interplay of performance, the ecosystem, and geopolitics. While Chinese chips still trail NVIDIA's offerings in terms of raw performance and software maturity, they offer compelling price–performance ratios at approximately 70% of H2O's cost while delivering 85% of its performance in certain scenarios (Paoli, 2025). This has enabled Chinese manufacturers to capture growing portions of the domestic market, particularly in sectors prioritized for import substitution.

## 6. H2O Ban and China's Domestic Substitution Efforts

### 6.1 Implications of China's H2O Restrictions

In response to what Chinese officials termed “improper remarks” from the U.S. Commerce Secretary Howard Lutnick, China implemented restrictions on the sale of NVIDIA's H2O chips within its domestic market (Graham, 2025a). H2O, specifically designed by NVIDIA as a compliance-optimized variant for the Chinese market under Biden-era export restrictions, suddenly became subject to Chinese governmental disapproval. This move was underpinned by significant public security concerns amplified by the Chinese state media. An article published by “Yuyuan Tantian”, a social media account affiliated with CCTV, concluded that the H2O chips were “neither environmentally friendly, nor advanced, nor safe,” and explicitly advised Chinese consumers that they “certainly have the option not to buy it” (Azer News, 2025). These public criticisms, following closely after the official cyberspace administration's meeting with NVIDIA, reflected broader anxieties about potential backdoor security risks-hidden methods of bypassing normal authentication or security controls.

The impact on NVIDIA was immediate and substantial. The company reported no H2O sales to China-based customers in its second-quarter 2025 earnings, with the chief financial officer Colette Kress estimating potential revenues of \$2 billion to \$5 billion for the chips if “geopolitical issues reside” (Paoli, 2025). NVIDIA had previously warned that in the absence of U.S. chip export restrictions, its top-line guidance would have been \$8 billion higher (Paoli, 2025). The restrictions also forced NVIDIA to take significant charges related to H2O inventory and purchase commitments. However, this situation has proven dynamic. By late July 2025, the U.S. administration had reversed its position and agreed to allow NVIDIA to resume H2O sales to China, leading the company to place a substantial new chip order with TSMC (Seitz, 2025). This policy flexibility demonstrates the ongoing negotiation between economic interests and national security concerns in shaping the semiconductor trade(NVIDIA Corporation, 2024-2025).

For Chinese technology companies, the H2O restriction accelerated the shift toward domestic alternatives that had already been underway. Major Chinese tech firms such as ByteDance and Tencent have already implemented strategies to reduce dependency on NVIDIA products (Ding, 2025). This transition was facilitated by rapid improvements in domestic chip performance-Huawei's Ascend 910B now delivers inference efficiency approaching H2O at 70% of the cost, whereas Cambricon's Siyuan 590 shows improved processing speeds in specific tasks.

## 6.2 China's Domestic Substitution Ecosystem

China's response to H2O restrictions exemplifies its broader strategy of achieving semiconductor self-sufficiency through coordinated investment, policy support, and ecosystem development. The National Integrated Circuit Industry Investment Fund (commonly known as the "Big Fund") has played a pivotal role in this effort. The third phase of the fund, established in 2024 with a capitalization of 344 billion yuan (\$47.5 billion), exceeded the combined total of its two predecessors (Wang et al., 2023).

China's substitution strategy not only extends to the hardware domain but also encompasses software ecosystems and technical standards. This comprehensive approach is in line with what DING (2025) refers to as China's "three-pronged strategy", which consists of substantial investment, architectural innovation, and ecosystem development. Their research **verified** that China's global market share in mature node chip production increased from 19% in 2015 to 33% in 2023, with the Association of Southeast Asian Nations (ASEAN) emerging as a crucial export market. Moreover, in 2022, half of the global RISC-V chip shipments were from China, which indicates its advancements in alternative architectures that circumvent current technological limitations.

DeepSeek, a prominent Chinese AI research firm, has developed innovative encoding schemes that are more compatible with the advantages of Chinese chips (Paoli, 2025). The adoption of customized formats has enhanced the inference efficiency of domestic chips and reduced memory consumption, thus overcoming the previous limitations where domestic chips faced difficulties in fully leveraging their computing capabilities when running mainstream large-scale models.

Table 13: China's Key Domestic AI Chip Alternatives to NVIDIA

Company	Flagship Product	Performance Highlights	Key Advantages	Primary Applications
Huawei	Ascend 910B	Approaching H2O inference performance	Comprehensive software ecosystem, Strong government support	Cloud AI training, Inference
Cambricon	Siyuan 590	Competitive processing speeds in specific tasks	Specialized architecture, Price competitiveness	Edge computing, Surveillance
MetaX	New H2O alternative	Greater memory capacity	Direct H2O replacement	Data centers, Cloud computing
Alibaba	Proprietary AI chip	Broader range of AI inference tasks	Customization for Chinese market	E-commerce, Cloud services
Biren	BR100 series	PCIe 4.0 interface, 256 TOPS INT8	Innovative architecture	Enterprise AI applications

Source: Developed on the basis of product specifications and performance metrics reported in Paoli (2025), strategic analysis from DING (2025), and the broader context of China's substitution ecosystem as outlined by Wang et al. (2023).

The collaboration between Chinese chip designers and AI companies has created a self-reinforcing innovation cycle. Practical implementations demonstrate the effectiveness of this approach—the Southeast China Computing Center successfully deployed full-parameter inference services using Cambricon's Siyuan 590 chips, achieving 85% of the performance of NVIDIA's H2O at 60% of the hardware procurement cost (Ding, 2025).

## 7. The Global Computing Power Game Under the "Chip Tax"

### 7.1 The Concept of the "Chip Tax" and Its Implications

The term "chip tax" metaphorically describes the economic and strategic costs imposed by dominant semiconductor players through their control of critical technologies and ecosystems. NVIDIA's CUDA platform represents a prime example of this dynamic—while providing tremendous value through its comprehensive software ecosystem, it simultaneously creates significant switching costs and vendor lock-in that effectively tax users who wish to alternative solutions (Chow and Zhang, 2025). This ecosystem advantage has allowed NVIDIA to maintain premium pricing power despite growing competition.

The chip tax extends beyond direct economic costs to encompass geopolitical dependencies and national security concerns. The United States' deployment of export controls against China illustrates how semiconductor dominance can be weaponized for strategic purposes. The recent allegations regarding potential backdoors in H2O chips, as highlighted by the Chinese state media, exemplify the extreme manifestation of such control—where technological dependency could be exploited for surveillance or disruption, thereby increasing the implicit “cost” and risk of reliance on foreign core technologies (Azer News, 2025). This dynamic fuels the impetus for technological decoupling. In October 2022, the Biden administration issued the “Implementation of Additional Export Controls” interim final rule, which restricts exports of advanced chips while prohibiting U.S. equipment and materials from supporting China’s independent development of advanced chips (Ding, 2025). These controls were further expanded to include AI chips and the equipment needed to manufacture them, creating significant hurdles for China’s semiconductor ambitions.

China’s response to the “chip tax” has been a determined push for technological self-reliance and ecosystem development. The country is pursuing a multipronged strategy that includes massive investment in domestic semiconductor capabilities, focused research on alternative architectures such as RISC-V, and the development of open software ecosystems that reduce dependency on Western-controlled platforms (Wang et al., 2023). This approach recognizes that true independence requires not only manufacturing capability but also control over the underlying standards and ecosystems that define technological development.

## 7.2 The Geopolitical Economy of Semiconductor Competition

The competition for computing power supremacy is fundamentally reshaping global semiconductor value chains. The United States has pursued a “small yard, high fence” approach to export controls, focusing restrictions on a narrow set of critical technologies while building alliances with partners to enforce these controls (Ding, 2025). This strategy has involved pressuring allies such as Japan and the Netherlands to deepen their own export controls and expand their scope, effectively creating a coordinated technology containment regime.

China’s strategy emphasizes mature-node dominance and architectural innovation to bypass current technological constraints. With access to advanced semiconductor nodes restricted, China has focused on mature nodes (28 nm and above) where it can achieve greater self-sufficiency. Data show that China’s global share of mature-node chip production increased from 19% in 2015 to 33% in 2023, with ASEAN countries emerging as a key export market (Ding, 2025). This approach allows China to leverage its manufacturing scale while developing next-generation technologies that reduce dependency on Western-dominated architectures.

The competition is driving innovation in alternative computing architectures that could redefine the technological landscape. Chiplet technology—which breaks large chips into smaller modular components—has gained significant traction in China, as it reduces manufacturing complexity and cost while increasing yield rates (Ding, 2025). Similarly, the RISC-V open-source instruction set architecture has emerged as a promising alternative to proprietary architectures, with China accounting for half of the global RISC-V chip shipments in 2022. These architectural innovations could disrupt the current market structure and reduce the “chip tax” imposed by dominant players.

## 7.3 Future Trajectories and Market Evolution

The global computing power game is likely to produce an increasingly bifurcated market structure with competing technological ecosystems. This “one world, two systems” outcome would see Western and Chinese technology stacks developing in parallel with limited interoperability (Chow and Zhang, 2025). The Chinese ecosystem would leverage the country’s massive domestic market and manufacturing scale, whereas the Western system would maintain advantages in cutting-edge innovation and global alliance networks. This division would force other countries to make difficult choices about which technological sphere to align with, with economic and strategic implications extending far beyond the semiconductor sector.

The evolution of this competition will be significantly influenced by emerging technologies that could redefine the competitive landscape. Quantum computing, neuromorphic chips, and photonics-based computing represent potential paradigm shifts that might reduce the importance of current semiconductor technology. China is making substantial investments in these frontier areas, recognizing that leadership in next-generation computing technologies could enable it to overcome current limitations and establish a sustainable competitive advantage independent of Western restrictions (Wang et al., 2023).

The long-term outcome of the global computing power game will depend on the ability of each side to leverage its distinctive advantages while addressing its weaknesses. For the United States and its allies, this means maintaining technological leadership while ensuring supply chain resilience and preventing critical know-how from leaking to competitors (Graham, 2025b). For China, the challenge involves achieving breakthrough innovations despite restricted access to global knowledge networks while building self-sufficient ecosystems that can support continued technological advancement (Ding, 2025). The resolution of this competition will shape the global balance of power and the future of technological development for decades to come.

## 8. Conclusion

This research indicates that geopolitical policies can indeed exert shocks on even the most preeminent technology enterprises, imposing substantial financial burdens and compelling strategic readjustments. NVIDIA's case showcases remarkable resilience, as manifested by its V-shaped recovery from a 1,250-point basis compression of the gross margin and the maintenance of a 56.53% net profit margin. Nevertheless, its profitability has been structurally affected by the complete loss of a crucial growth market. The inventory charge of \$4.5 billion associated with H2O chips and the estimated forgone revenue of \$8 billion underscore the significant economic costs of these policies for U.S. technology leaders.

However, the primary objective of curtailing China's advances in AI has proven more complex and challenging than might have been initially anticipated. The U.S. policies have functioned less as a means of suppression and more as a catalyst for the establishment of a distinct, state-supported competitive ecosystem. The emergence of this bifurcated technological scenario, where Chinese firms such as Cambricon have achieved 4,300% revenue growth and Huawei's Ascend 910B can deliver 85% H2O performance at 70% cost, represents the defining consequence of the current technology war. China's response has been characterized by large-scale coordinated investments (including the third phase \$47.5 billion of the "Big Fund"), architectural innovations centered around RISC-V and chiplet technologies, and the development of domestic software ecosystems.

The "Chip Tax" emerges as a crude measure that raises fundamental queries regarding the long-term strategic prudence of current approaches. Future policies must confront a challenging question: Is the short-term objective of decelerating China's progress worth the long-term risk of nurturing a technologically independent and ultimately more competitive rival? NVIDIA's financial statements offer the initial chapter of this narrative, demonstrating remarkable resilience yet also heightened susceptibility to geopolitical shocks. Nevertheless, the ultimate outcome of this high-stakes geopolitical gamble remains undetermined, as both ecosystems continue to evolve in response to these artificial restrictions on technological exchange and market access.

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