THE COMMERCE SOCIETY
SHRI RAM COLLEGE OF COMMERCE

RTX 4090

NVIDIA
CORPORATION

BUSINESS MODEL AND OFFERINGS

What does Nvidia do?

NVIDIA pioneered accelerated computing to help solve the most challenging computational problems. Fueled by the sustained demand for exceptional 3D graphics and the scale of the gaming market, NVIDIA has leveraged its GPU architecture to create platforms for scientific computing, artificial intelligence or AI, data science, autonomous vehicles or AV, robotics, and augmented and virtual reality, or AR and VR.

CUSTOMER SEGMENTS

Gamers: Core market demanding high-performance GPUs for immersive gaming.

Professionals: Designers, engineers, and creators needing powerful visual-computing tools.

Data Centres: Large-scale users relying on NVIDIA's chips for accelerated computing.

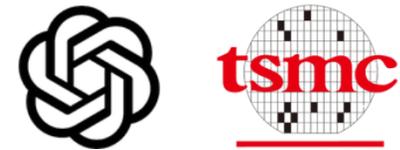**Automakers:** OEMs using NVIDIA platforms for ADAS and autonomous-driving systems.

AI Industry: Researchers and enterprises requiring advanced GPUs for AI development.

Value Proposition

- **Gamers:** Delivers high-performance, realistic graphics with advanced features like ray tracing.
- **Content Creators:** Offers powerful GPU solutions for fast rendering and complex visual workflows.
- **Event Organisers:** Provides reliable high-performance graphics systems for smooth gaming events.
- **Automakers:** Supplies robust in-car computing platforms (e.g., NVIDIA DRIVE) for ADAS and autonomous tech.

Key Partners

Cloud Providers (Microsoft)
Ecosystem & R&D (OpenAI)
Chip Fabrication (TSMC)

Microsoft

tsmc

Revenue Streams

- AI Data Centre
- Gaming Graphics
- Cloud ServicesKey Activities
- Software Optimization
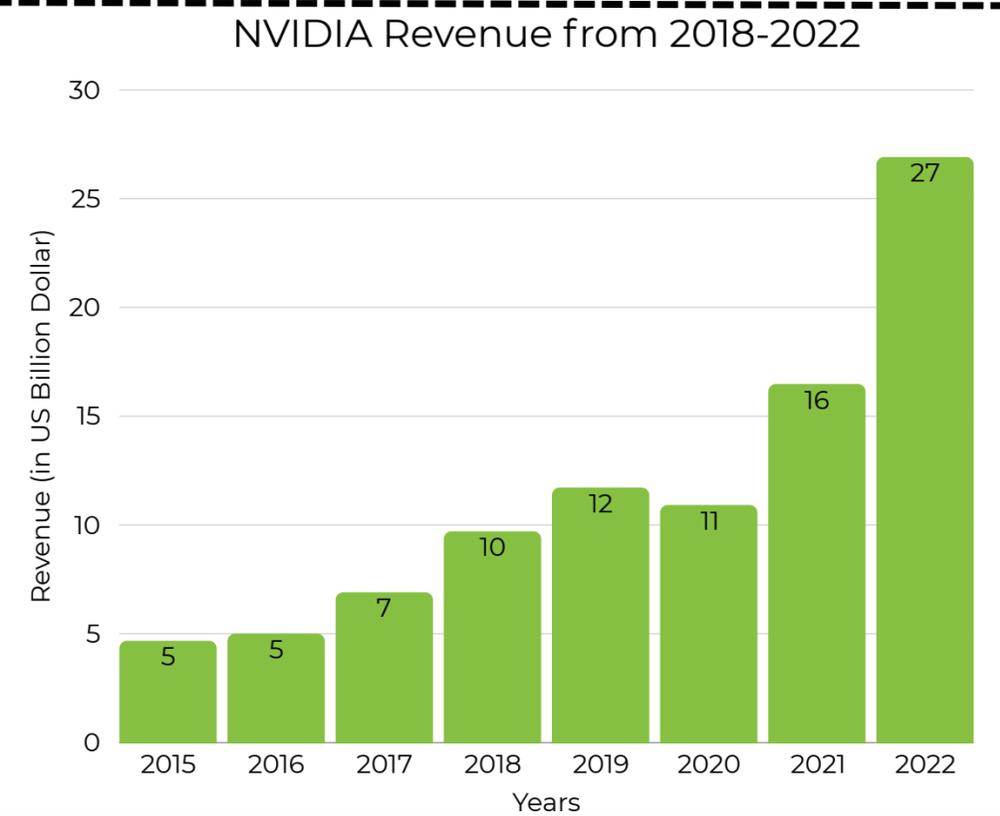- Global Supply Chain Management
- R&D and Architecture Design

Products

Gaming: Enhances gameplay with high-performance GPUs and advanced visual software.
Automotive: Enables real-time perception, mapping, and safe path planning through NVIDIA DRIVE.
Data Centre: Accelerates AI, analytics, graphics, and scientific workloads across large-scale data environments.
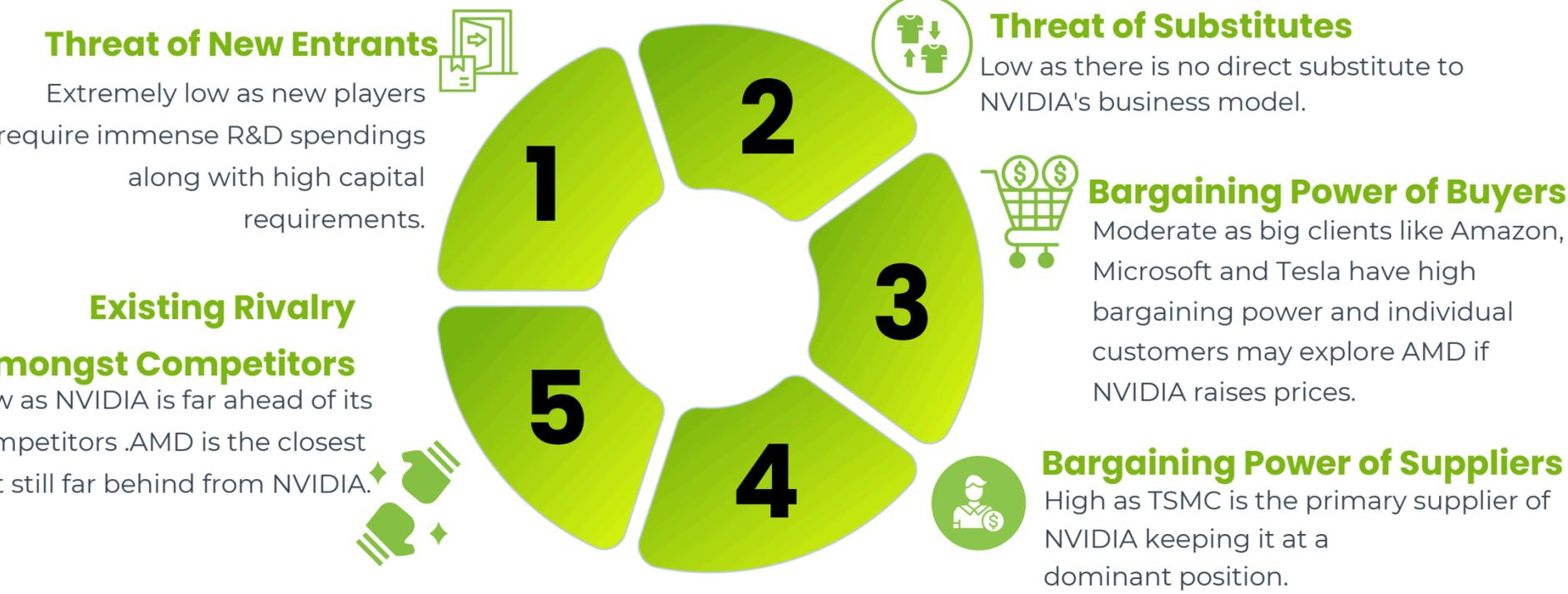**Professional Visualization:** Powers industry software through optimized GPU solutions for creators and engineers.

Key Activities

- **Software Optimization**
- **Global Supply Chain Management**
- **R&D and Architecture Design**

NVIDIA Revenue from 2018-2022

Bar chart, Revenue (in US Billion Dollar) vs Years:
- 2015: 5
- 2016: 5
- 2017: 7
- 2018: 10
- 2019: 12
- 2020: 11
- 2021: 16
- 2022: 27

MARKET ANALYSIS AND COMPETITIVE FACTORS
NVIDIA Porter's 5 Forces Analysis

Threat of New Entrants
Extremely low as new players require immense R&D spendings along with high capital requirements.

Threat of Substitutes
Low as there is no direct substitute to NVIDIA's business model.

Bargaining Power of Buyers
Moderate as big clients like Amazon, Microsoft and Tesla have high bargaining power and individual customers may explore AMD if NVIDIA raises prices.

Existing Rivalry Amongst Competitors
Low as NVIDIA is far ahead of its competitors .AMD is the closest but still far behind from NVIDIA.

Bargaining Power of Suppliers
High as TSMC is the primary supplier of NVIDIA keeping it at a dominant position.

1 2 3 4 5

NVIDIA vs AMD

NVIDIA is currently dominating the GPU market share and has topped its biggest rival AMD because of its investment in R&D and bringing innovations at the right time. The turning point was the launch of the GeForce GTX 900 series in 2014. In Q1 2025, **NVIDIA's share rose to reach 92% of the GPU market, AMD's slice shrank to 8%.** NVIDIA focused on Innovation (NVIDIA's Core Competency) whereas AMD focused on Competition.

Key Competitive Factors in Semiconductor Industry

PERFORMANCE
This is the single biggest differentiator in semiconductors.

ACCESS TO CUSTOMERS AND PARTNERS
If the chips don't integrate with the customer's software stack, they won't adopt it even if performance is good.

PROCESSOR PRICING
Generally high as switching costs are massive.

DISTRIBUTION CHANNELS
Any supply chain disruption (like COVID, Taiwan risk) hits revenue instantly.

TOTAL SYSTEM COSTS
Companies don't solely rely on their chip price but the total cost of the entire system.

STRATEGIC PARTNERSHIPS

1998 – TSMC: Manufacturing partnership to produce NVIDIA GPUs at scale.

2022 – Broad Institute (MIT & Harvard): AI-enabled healthcare solutions using NVIDIA Clara.

2024 – Flipkart: Deployment of NVIDIA NeMo Guardrails to enhance AI safety.

2025 – Microsoft: Integration of NVIDIA microservices and Blackwell platform into Azure AI.

2025 – IBM: Joint development of tools to reduce AI complexity and deliver business-focused AI outcomes.

2017 – Toyota: Use of NVIDIA DRIVE for safer autonomous-driving systems.

2023 – Infosys: Workforce upskilling and AI solution development using NVIDIA's full-stack AI platform.

2024 – Tech Mahindra: Establishment of an NVIDIA-powered CoE for advanced AI and LLM development.

2025 – AWS: Infrastructure support for real-time inference on multi-trillion-parameter LLMs.

CapEx Requirement

10+ GW
Total Planned Compute

$550–600 M
GW Cost

$100 B+
Peak Investment by 2030
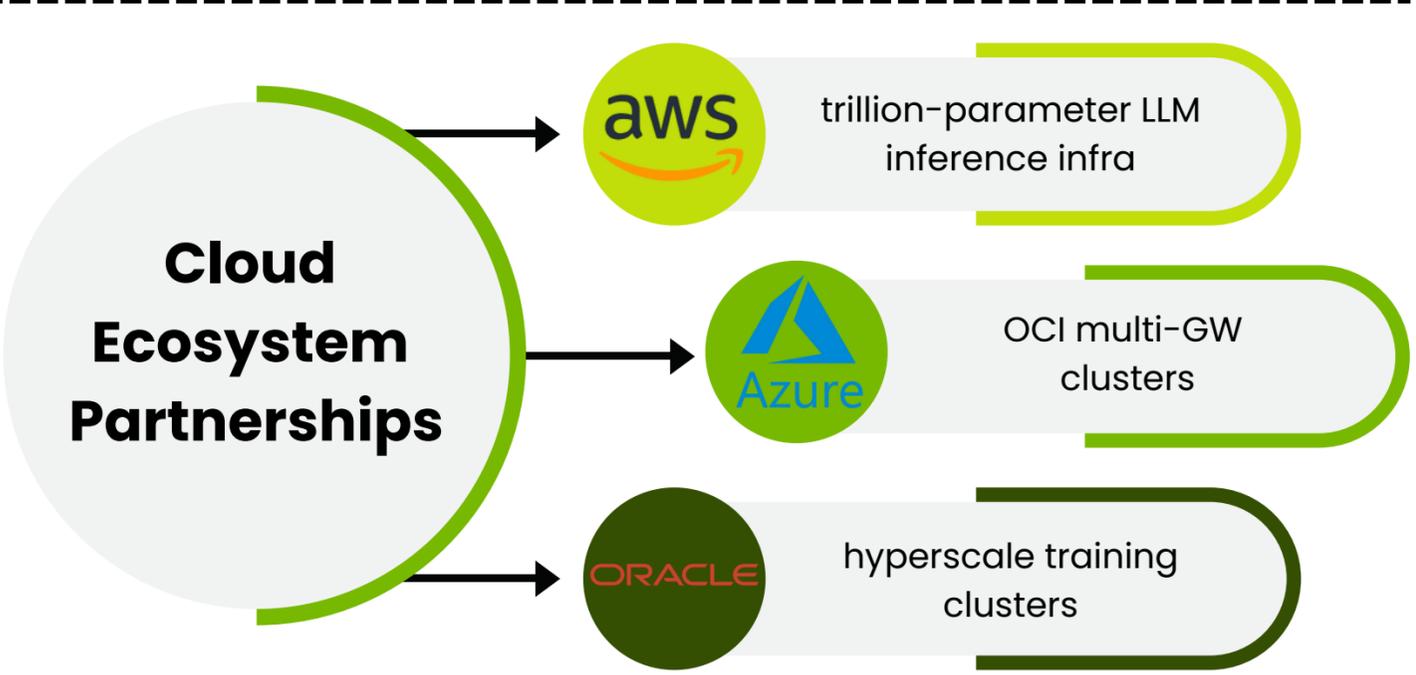
NVIDIA–OpenAI Partnership

Infrastructure Scale
- 10+ GW AI Compute
- 1 GW by 2026

GPU Supply Security
- Locked-In Multi-Cycle Supply
- Next-Gen GPUs (H200/B200)

Economics
- $100B CapEx by 2030
- $550–600M per GW

Cloud Ecosystem Partnerships

- **aws** → trillion-parameter LLM inference infra
- **Azure** → OCI multi-GW clusters
- **ORACLE** → hyperscale training clusters

TECHNOLOGY AND INNOVATION

1. **AI Industry Impact**: AI is driving rapid innovation across sectors and increasing the need for stronger computational power.

2. **Purpose of DGX 2**: DGX 2 is built to handle the rising complexity of deep learning models and large datasets.

3. **16 GPU Integration**: The system unites 16 Tesla V100 GPUs to deliver massive parallel processing for advanced AI training.

4. **NVSwitch Breakthrough**: NVSwitch provides ultra high bandwidth and low latency, removing PCIe limits.

5. **Unified Memory Architecture**: All GPUs share one memory space, allowing them to function as a single powerful processor.

6. **L2 PetaFLOPS Performance**: DGX 2 is the first AI system to reach 2 petaFLOPS, enabling faster training of very large models.

7. **Hardware Software Fusion**: Optimized DGX software combined with advanced hardware maximizes training speed and efficiency.

8. **Enabling Larger AI Models**: Researchers can now train deeper, more complex, and previously untrainable models.

Core Competitive Moats

- Full-stack **control** from silicon to software
- CUDA's unassailable **developer** ecosystem (4M+ developers)
- 18–24-month **architectural cadence** (Hopper → Blackwell → Rubin)
- Omniverse's industrial metaverse **dominance**

NVIDIA's R&D Spend Growth

Bar chart — R&D spend growth (in US Billion Dollar) vs Years: 2020 ≈ 3.9, 2021 ≈ 4.2, 2022 ≈ 5.3, 2023 ≈ 7.3, 2024 ≈ 9.5.
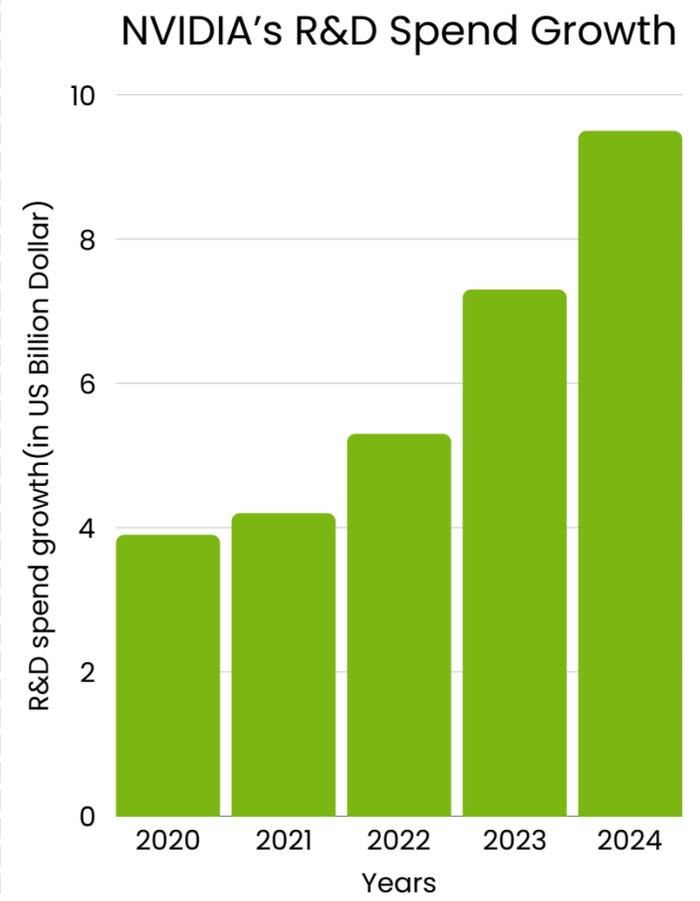
Why will AI Infrastructure spend reach $3–4 Trillion by 2030?

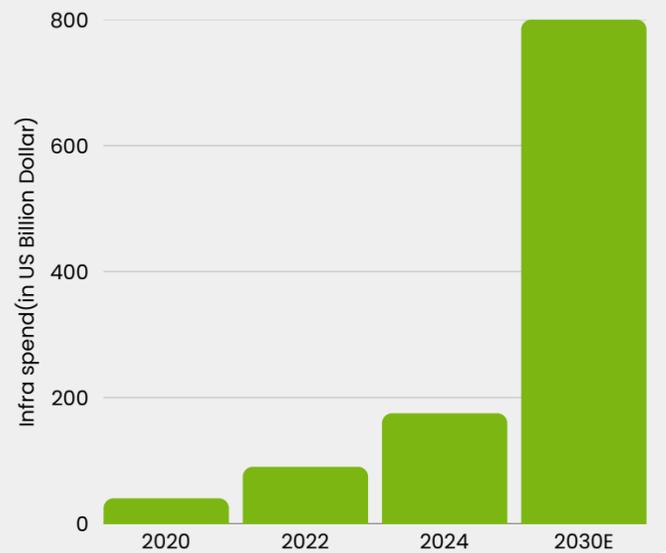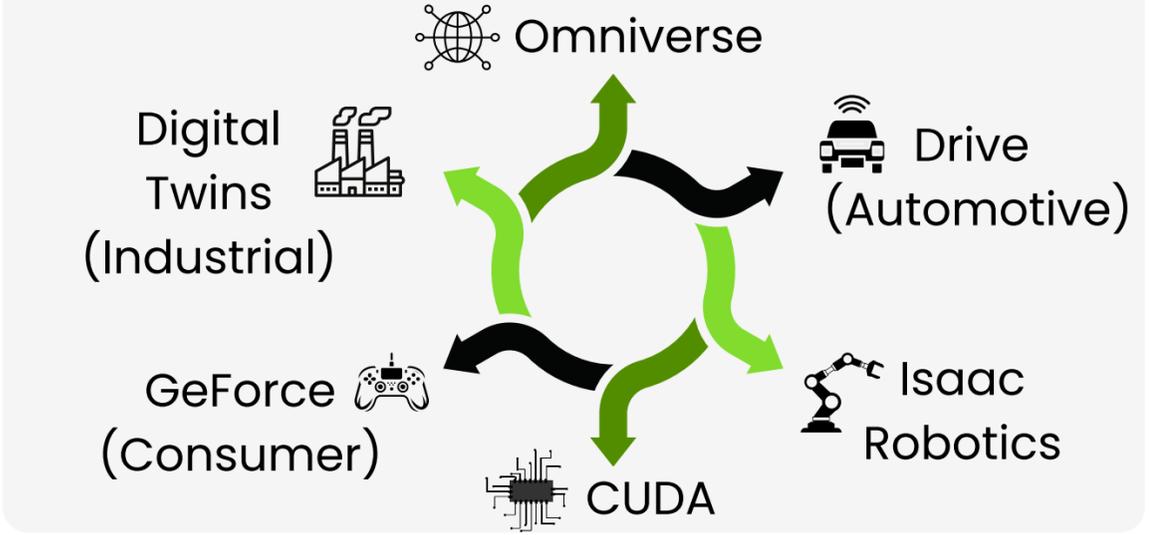| End of Moore's Law	Generative AI at Hyperscalers	Rise of Model Makers	Enterprise AI Adoption	Physical AI Growth
Shift toward GPU-accelerated computing for massive performance gains.	Big platforms adopting GenAI to boost ads, recommendations, and engagement.	Companies like OpenAI and Google driving a new ecosystem of foundation models.	AI assistants speeding up work across coding, design, legal, and operations.	Robotics and automation scaling across industries due to labor gaps.

Bar chart — Infra spend (in US Billion Dollar): 2020 ≈ 40, 2022 ≈ 85, 2024 ≈ 170, 2030E ≈ 800.

NVIDIA's Multi-Platform Innovation Engine

- Omniverse
- Drive (Automotive)
- Isaac Robotics
- CUDA
- GeForce (Consumer)
- Digital Twins (Industrial)

REVENUE

FY2025 Financial Highlights and Current Performance

NVIDIA achieved record-breaking growth, driven by global demand for AI.

$130.5B
Total revenue
+114% vs. prior year

$72.88B
Net Income
Margin: 55.85%

75.0%
Gross Margin
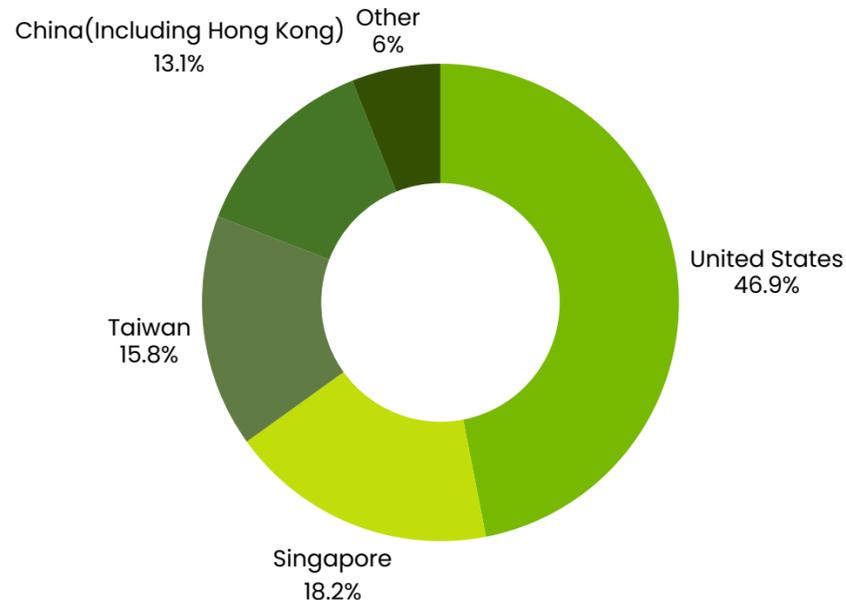for the year ended Jan 26, 2025

Business Segment Performance

The Data Center segment was the dominant growth engine, significantly outpacing all other units (Gaming, Auto, etc.).
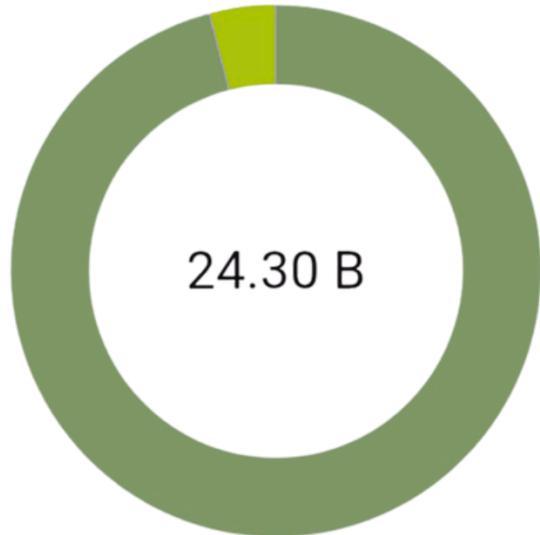
Current Quarter (Q1 FY2026 – April 2025)

Strong momentum continued from the record fiscal year.
· Quarterly Revenue: ~$44.1B
· Data Center Contribution: ~89% of total revenue

By country

The 52-week trading range ($86.62 3 $212.19) reflects the company's significant growth and strong market confidence.

China(Including Hong Kong) 13.1%
Other 6%
United States 46.9%
Taiwan 15.8%
Singapore 18.2%

OWNERSHIP

24.30 B

- Free Float shares — 23.31 B (95.93%)
- Closely held shares — 988.77 M (4.07%)

Revenue breakdown ›

Revenue streams and regions a business earns money from

- Compute & Networking
- Graphics
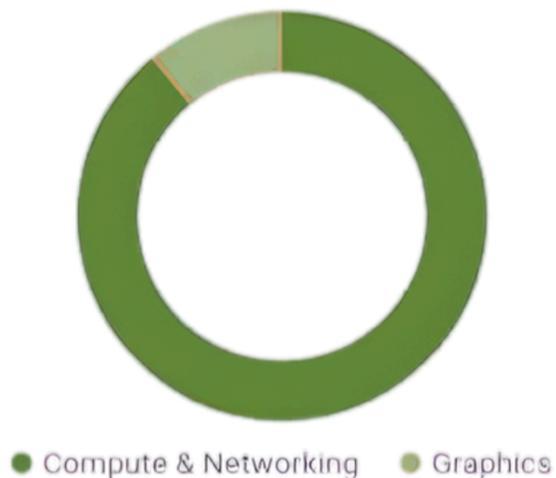
Market Position & Stock Performance (Current to November 2025)

$4.84T
Market Capitalisation
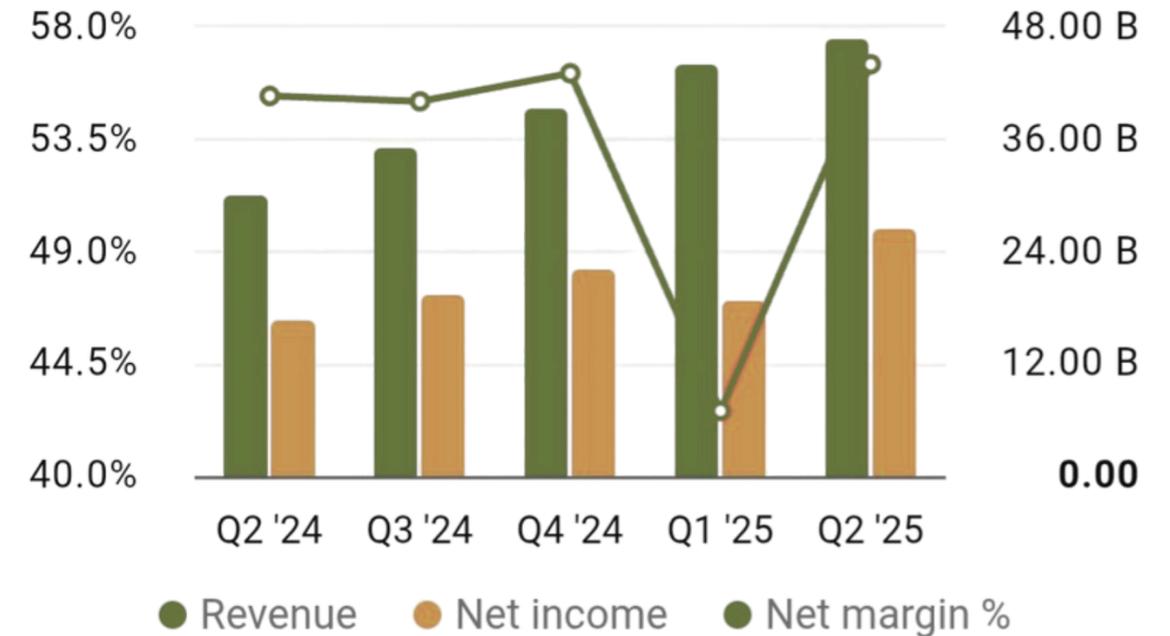Ranking among the world's most valuable companies.

$199.05
Stock Price
Per share as of November 10, 2025.

48.26%
Year-to-Date Return
Reflecting strong market confidence.

GROWTH AND PROFITABILITY

- Revenue
- Net income
- Net margin %

Q2 '24 | Q3 '24 | Q4 '24 | Q1 '25 | Q2 '25

FY 2026 Guidance & Catalysts

Financial position analysis (Quarterly)

Short term | Long term
- Assets
- Liabilities

Financial Projections

- **Revenue:** $54.0B (±2%)
- **GROSS MARGIN:** 73.5% (±0.5%) NON-GAAP
- **KEY ASSUMPTION:** "CHINA ZERO" SHIPMENT BASELINE DUE TO EXPORT RESTRICTIONS.

Growth Catalysts

- Full-scale production of Blackwell AI platform.
- Massive **$500B** AI chip backlog ensuring multi-year visibility.
- Explosive 46% QoQ growth in networking revenue.

NVIDIA Revenue Breakdown by Geography (TTM as of Q3 FY2026)

Geography	Revenue (Billion USD)
United States	$103.3B
Taiwan	$34.8B
Singapore	$33.2B
China	$16.8B
Other	$6.8B

NVIDIA's revenue breakdown by geography

Strategic Growth Pillars

- AI & Data Center (88% of Revenue)
- Selling complete "AI factories."
- Leadership with Blackwell Ultra & Rubin.

Technology Innovation

- **Full-Stack:** Hardware + software advantage.
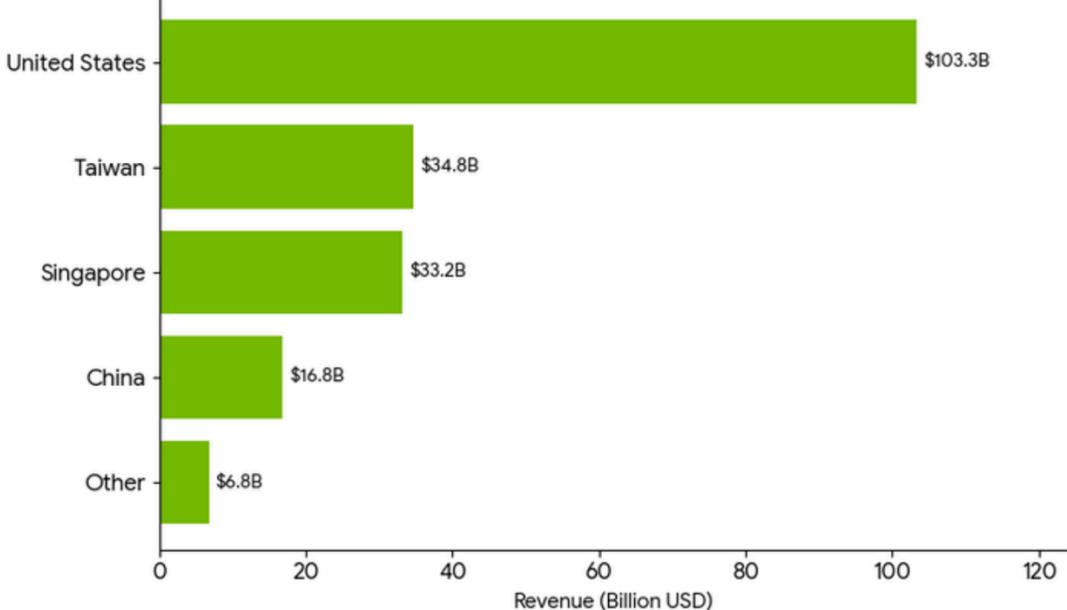- **Performance:** Leadership in AI inferencing

Market Diversification

- **Global Build-out:** U.S., Europe, Saudi Arabia, UAE.
- **New Sectors:** Automotive & robotics.

CHALLENGES, LONG-TERM TRAJECTORY & INVESTMENT CASE

Challenges

- China risk & customer concentration
- In-house chip competition
- Margin pressure

Mitigation Strategies

- Diversification & China-zero plan
- Direct sales & rapid innovation
- High-value rack-scale focus

Long-Term Trajectory (2026 –2030)

Opportunity

- Data Center TAM: >$1 trillion by 2028, $1.7 trillion by 2035
- Growth drivers: Generative AI, robotics, edge computing

Moat

- Economies of scale, software ecosystem, brand equity
- IP portfolio, customer switching costs

Investment Conclusion: BUY for Long-Term Investors

Base Case

$234 Price Target

- Gradual market erosion
- Moderate margin compression
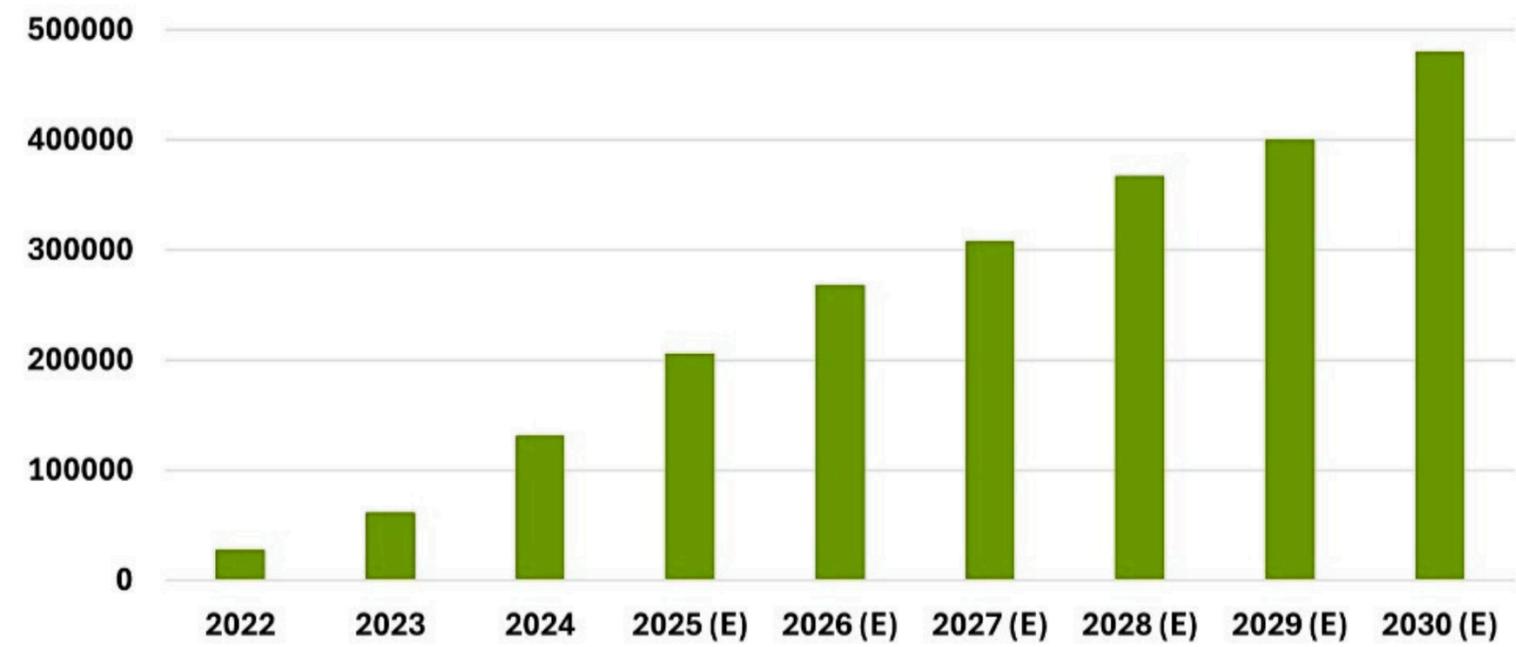- 15320% earnings growth.

Bull Case

$350 Price Target

- Success in software/robotics
- Maintained margins
- 25330% earnings growth.

Key Metrics

- Data Center growth
- Margins
- Non-DC progress
- Competitive landscape

NVIDIA Annual Revenue and Forecast in millions (2022–2030)

This chart shows Nvidia's impressive historical and projected revenue growth. Starting from around $27,000 million in 2022, the revenue is forecasted to grow exponentially, reaching nearly $500,000 million by 2030. This indicates massive and accelerating growth expectations for the company.

THANK
YOU