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I. Current Seascape

Nvidia treads a turbulent seascape characterized by geopolitical factors, sole-source manufacturing, and known/unknown competition. To better illustrate the seascape:

Geopolitical Dynamics

The ongoing tensions between the United States and China exert a significant impact on Nvidia's growth trajectory. Several critical facets are susceptible to these geopolitical currents:

- 1. The potential escalation of export controls and sanctions by the United States poses a threat to Nvidia's expansion in the Chinese market.
- 2. The continuity of Nvidia's supply chain, particularly its reliance on TSMC, faces disruption due to the ongoing tensions involving Taiwan, China, and the United States.

Single-Source Manufacturing

Nvidia's heavy dependence on TSMC as its primary chip supplier, a cornerstone of its GPU dominance, leaves the company exposed to external vulnerabilities. This single-source approach heightens the company's susceptibility to various threats, including those arising from the current geopolitical climate. Furthermore, in the realm of business, relying solely on one source is inherently unreliable and laden with associated risks.

Competition (Known and Unknown)

While Intel currently stands as Nvidia's primary competitor, the ever-evolving tech landscape introduces the potential for emerging competition, notably from China amidst this ongoing technological rivalry. Such developments could erode Nvidia's market share within China, adding another layer of complexity to its competitive seascape.

This seascape gives rise to:

Strategic Opportunities

a. Al and Machine Learning: Nvidia's strong presence in Al and machine learning research positions it well to capitalize on the ongoing rapid growth in this field. The company has the opportunity to extend its Al portfolio and create novel Al-driven solutions across diverse sectors such as healthcare, autonomous vehicles, and finance.

- b. Autonomous Vehicles: With its DRIVE platform, Nvidia has a strong footprint in the autonomous vehicle industry. To enhance self-driving technology, the corporation may continue to innovate and partner with automakers.
- c. Cloud Computing: Demand for data centers and high-performance computing is increasing, particularly with the increased use of cloud services. Nvidia will be able to continue providing GPUs and other technology to data center operators and cloud providers.

Strategic Challenges

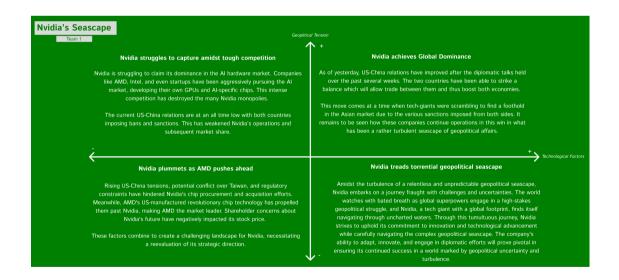
- a. Heavy Regulations: The acquisition of ARM Holdings was subject to regulatory scrutiny, and similar issues may arise in the future. For the corporation, navigating various regulatory frameworks can be a big task.
- b. Supply Chain Disruptions: High demand for computer chips in industries such as automobile and Al makes procurement of raw materials a major concern for Nvidia.
- c. Competition: Direct competitors AMD and Intel, can capture the market if they have a technological edge over Nvidia in the future.
- d. Environmental Concerns: As a manufacturer, Nvidia should address the energy consumption for manufacturing and shipping and also the disposal of electronic waste.

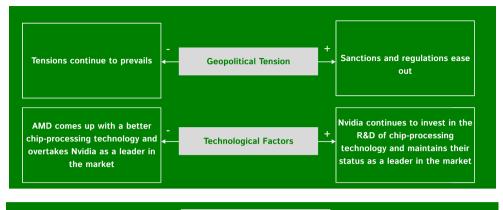
II. STEEP Analysis

Social Factors	 a. Global Geopolitical Tensions: The case highlights the potential for global conflicts and tensions, particularly between the US and China. These tensions can have a significant impact on Nvidia's operations, given its global presence. b. Market Demand: Social trends(demand for advanced gaming and Al technologies) influence Nvidia's sales and growth opportunities.
Technological Factors	 a. GPU Technology: The rapid advancement of technology(Al and autonomous vehicles) creates both opportunities and challenges for the company. b. ASML's Lithography Technology: Nvidia's reliance on ASML's technology for chip manufacturing is a critical technological factor. Any disruptions in ASML's operations could affect Nvidia.
Economic Factors	a. Market Volatility: The case mentions Nvidia's stock price decline in 2018 due to factors like cryptocurrency demand and the Chinese economy slowdown. Economic fluctuations can impact Nvidia's financial performance. b. US-China Trade Relations: Economic relations between the US and China, including sanctions and export controls, have direct consequences on Nvidia's access to markets and technology.
Environmental Factors	a. Supply Chain Sustainability: Environmental concerns, such as sustainability and energy efficiency, play a role in Nvidia's manufacturing

	processes and product development. b. Climate Change Regulations: Environmental regulations can impact Nvidia's operations, especially in terms of energy consumption and compliance with environmental standards.
Political Factors	 a. Geopolitical Tensions: Political dynamics, such as the US-China relationship and Taiwan's role in chip manufacturing, have a significant influence on Nvidia's supply chain and market access. b. Govt Regulatory Actions: The case mentions the US government imposing sanctions on China and the potential impact on Nvidia's ability to operate in certain markets.

III. Scenario Mapping

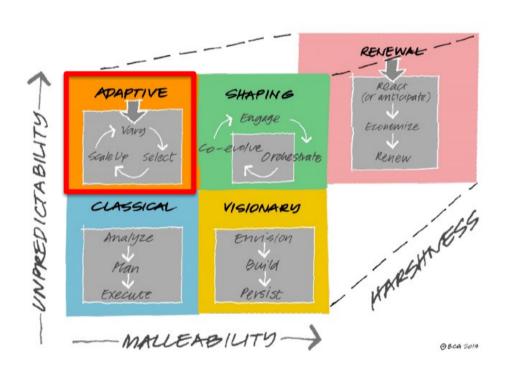




Opportunity & Threat

- Biggest Threat: Escalated US-China Tensions block Nvidia's global supply-chain
 - Nvidia will face challenges in meeting demand thus harming its reputation, revenue, and market share
 - Global economy and tech sector will be impacted by Nvidia's supply chain disruptions
 - Geopolitical unrest and supply chain issues can cause stock price volatility for Nvidia and other tech companies
- Biggest Opportunity: Increase R&D and expand market segments in AI & datacenters
 - NVIDIA is a leader in GPU and CPU technology.
 - The company has the capability to expand into emerging markets like Al and data centers.
 - This diversification strengthens NVIDIA's ability to address potential future STEEP crises effectively

IV. NVIDIA's Adaptive Position



NVIDIA currently holds the adaptive position on the strategy palette.

Rationale:

- In 2017, NVIDIA experienced soaring sales due to its capabilities in the cryptocurrency mining sector.
 However, in 2018, the downfall of the cryptocurrency market resulted in the downfall of NVIDIA by a 50% stock price fall.
- Nonetheless, NVIDIA quickly overcame the downfall by identifying new options quickly entering into new markets, and ADAPTING its market to include data centers and artificial intelligence.
- For this, Nvidia is in the adaptive strategic response because the company recognizes the need to adapt to changing circumstances in order to maintain its competitive advantage.
- Nvidia understands that competitive advantage is transitory and that value migrates quickly as
 customers' wants and needs change, competitors move quickly to capitalize on these shifts, and
 governments intervene to change the geopolitical landscape in profound ways.

V. Move or Stay?

What Should NVIDIA do next - Move to Shaping Position

- 1. NVIDIA has been affected due to *unpredictable* industry fluctuations as well as geopolitical issues.
- 2. There is a high unpredictability in terms of future opportunities and in response to this NVIDIA must *maintain high malleability* and try to dominate prospective future markets.
- 3. It is important for NVIDIA to identify new market segments early enough to diversify its revenue sources.
- 4. This will enable NVIDIA to continue the intelligent building of its existing opportunities while having a disciplined exploration of new future opportunities.
- 5. NVIDIA will be able to capture new future markets before others and thus mitigate the risks due to uncertain future conditions.
- 6. In order to outperform its rivals, Nvidia is committed to identifying new horizons of growth and jumping S-curves faster than the competition. This is a crucial aspect of the **shaping strategy** palette since it entails establishing new markets or sectors by producing ground-breaking goods or services that provide clients with a distinctive value proposition.

VI. Recommendations

The recommendation is based on situational analysis, STEEP analysis, careful consideration of scenario mapping, and strategic analysis.

- 1. **Counter supply chain disruption** Double down on innovation, invest in R&D, and expand into emerging Al and autonomous vehicle markets. Strengthen global partnerships to ensure a stable supply chain.
- 2. **To counter geopolitical conflicts** Diversify markets beyond China, explore alternative suppliers to reduce reliance on ASML, and engage in diplomacy to mitigate geopolitical tensions.
- 3. **To counter environmental regulations** Embrace sustainability, invest in green technologies, and position Nvidia as a leader in environmentally friendly products. Seek government incentives and partnerships in the green tech sector.
- 4. **To counter market uncertainty** Focus on cost efficiency, diversify product offerings, and maintain a flexible approach to adapt to changing economic conditions. Prioritize risk management and cash reserves.
- 5. Partnerships to offset potential uncertainties A partnership between Nvidia and Tesla has the capacity to lead dramatic change in the automobile sector through the combination of their respective capabilities, aligning with global environmental goals and tackling significant political and economic issues. Accordingly, Nvidia and Tesla can engage in diplomatic activities, using their experience and power to advance trade laws that support transparent collaboration and fair trade behavior.