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Key Takeaways

- In the race to be the global leader in artificial intelligence (AI), both the U.S. and China have distinct advantages.
- While the U.S. has the talent, technology and private sector advantage, China's focused state-driven approach and scaling capacity mean the race is still wide open.
- Investors may find opportunities across the AI value chain, including in model development, infrastructure and industries adopting AI at scale.

The race is on to win the competition for artificial intelligence dominance, with both the U.S. and China vying for the trophy. But this is no simple sprint: It's more like multiple races at once, each representing a different part of the AI ecosystem.

By understanding the individual competitions taking place within the overall race, investors will have a better idea of who's leading the pack, who might come out ahead, and how each area may affect their investments. Here's a breakdown:

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ARTIFICIAL INTELLIGENCE

Leading AI: The Race Between the US and China

Artificial intelligence is at the center of a global industrial build-out and a heated geopolitical contest, mainly between the U.S. and China. How do the two superpowers stack up?

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1. Talent Pool

AI innovation starts with people. The U.S. holds a modest advantage on this front, with about 60% of the world's most prestigious AI institutions. Coupled with the ability to offer higher salaries, flexible research environments and a strong venture capital system, U.S. organizations have attracted nearly two-thirds of the world's elite AI researchers.[1]

By contrast, only about 10% of elite AI researchers are currently affiliated with Chinese organizations. However, nearly half of all AI researchers considered within the top 20% of the field were born in China. While the U.S. holds the talent advantage for now, strategic initiatives to attract Chinese researchers living abroad back home, as well as the sheer number of graduates China produces annually, may see China push ahead in both talent quantity and quality.

Score: U.S.: 4 | China: 3.5

2. Government Policy and Regulation

The U.S. largely relies on the private sector to drive AI advancement, although the U.S. government has started taking a more proactive approach: funding programs and tax incentives for AI-related infrastructure and energy construction; AI-related research; workforce development; and recent moves toward deregulation and firmer controls on chip exports.

While U.S. policy relies on the private sector, China's state-directed strategy provides more speed and coordination. Thanks to its highly centralized, top-down approach to AI, China has rapidly built out AI research parks, national compute infrastructure and industry-specific AI deployment programs, tailored to the government's goals.

Score: China: 4.5 | U.S.: 4

3. Private Sector Support and Capital Expenditure

The U.S. leads the world in AI investment, thanks to a robust ecosystem of startups, venture capital firms and the largest publicly traded tech companies. The U.S. accounted for $109 billion in corporate AI investments in 2024 alone, which is nearly as much as the rest of the world combined. Meanwhile, the "big four" U.S. tech firms—in online search, social media, computer software and e-commerce—spend almost six times as much as their Chinese counterparts.

Score: U.S.: 5 | China: 3

4. Model Development and Performance

As of 2024, the U.S. had more than twice as many notable AI model releases as China. In addition, U.S. models consistently excel when evaluated against AI performance benchmarks, especially those that rely on English and high-creativity tasks.

However, the momentum might favor China, which is closing the gap by creating models that have achieved near-parity on many multilingual and STEM-specific tasks. China also uses an "open-source" strategy to make many of its models freely available so it can foster innovation, attract global talent and help Chinese models gain global traction.

Score: U.S.: 4.5 | China: 4

5. Supply Chain Connectivity

Both the U.S. and China rely on chip manufacturing in Taiwan, which produces more than 60% of the world's semiconductors and nearly 90% of the advanced chips required for AI development. While U.S. firms lead in chip design and model development, their dependence on Taiwan for manufacturing creates a strategic chokepoint that could disrupt the supply chain in the event of geopolitical tension.

To overcome AI chip export restrictions driven by the U.S., China has significantly invested in its domestic semiconductor development capabilities. While this may bolster the country's long-term self-sufficiency, it could take years to close the gap in advanced chip manufacturing.

Score: U.S.: 4 | China: 3

6. Scaling Capacity

Computing power, data center infrastructure and energy are all potential limiting factors for a nation's AI capacity. China leads the U.S. in energy production and transmission, and is building more nuclear plants than the rest of the world combined to increase supply.

However, China lacks the access enjoyed by the U.S. to the advanced graphics processing units (GPUs) used for training frontier AI models. In addition, the U.S. is the global data center leader, accounting for more than 60% of global capacity and forecast by Morgan Stanley researchers to represent 65% of global data center growth through the end of this decade.

Score: China: 4 | U.S.: 3.5

Investment Opportunities Across the AI Ecosystem

The race is by no means over. While the U.S. currently leads overall, due to its strong private sector and access to the latest technology, China's rapid progress means it could easily catch up in the coming years. In addition, other regions like South Korea, Europe and the Middle East are increasingly becoming major AI players.

For investors, opportunities span the full value chain across software, hardware and usage. Opportunities include:

1

The intelligence layer

which encompasses the companies developing advanced algorithms and frontier AI models. These companies are responsible for creating the AI capabilities that will determine the pace of what's possible throughout the rest of the ecosystem.

2

The infrastructure layer

which encompasses the companies producing semiconductors, cloud-computing platforms, data centers and the energy infrastructure that powers them all. Like entrepreneurs selling shovels during a gold rush, these players may see their fortunes rise regardless of which AI model or country wins the race.

3

The adoption layer

which encompasses the companies that use AI to create value. With AI predicted to significantly impact operational efficiency across health care, manufacturing, defense and more, these companies will use AI to significantly reduce costs and drive profitability.