

MORGAN CREEK

CAPITAL MANAGEMENT

ALTERNATIVE THINKING ABOUT INVESTMENTS

New Asia Perspectives



Welcome to Morgan Creek's New Asia Perspectives, an open forum where we share our proprietary research together with curated articles of interest. We seek to offer a variant interpretation of important political and economic events through an Asian lens by leveraging our team's "on the ground" insights and decades-long experience in covering the region. We disseminate our research through newsletters, webinars and periodic whitepapers. Feel free to forward our research to colleagues you think might be interested and please share any interesting research you come across as well. To offer comments, share research, or learn more about our team and investment offerings, please email chinateam@morgancreekcap.com.

Best Regards,

Handwritten signature of Mark W. Yusko

Mark W. Yusko
CEO & CIO

NOTES FROM THE BUND¹

Imagine a world where a single kilogram of fuel could generate as much energy as 1,000 tons of coal. This is the promise of nuclear energy. Discovered in the early 20th century, nuclear energy has evolved into one of the most important sources of power available today. This alternative to fossil fuels offers high-output and low-carbon benefits. Within nuclear energy, there are two approaches. If we simply visualize power generation as analogous to constructing with Lego blocks: nuclear fission shatters a colossal block into smaller pieces, generating energy, while nuclear fusion combines smaller Lego blocks to make a bigger one, unleashing an even greater amount of energy.

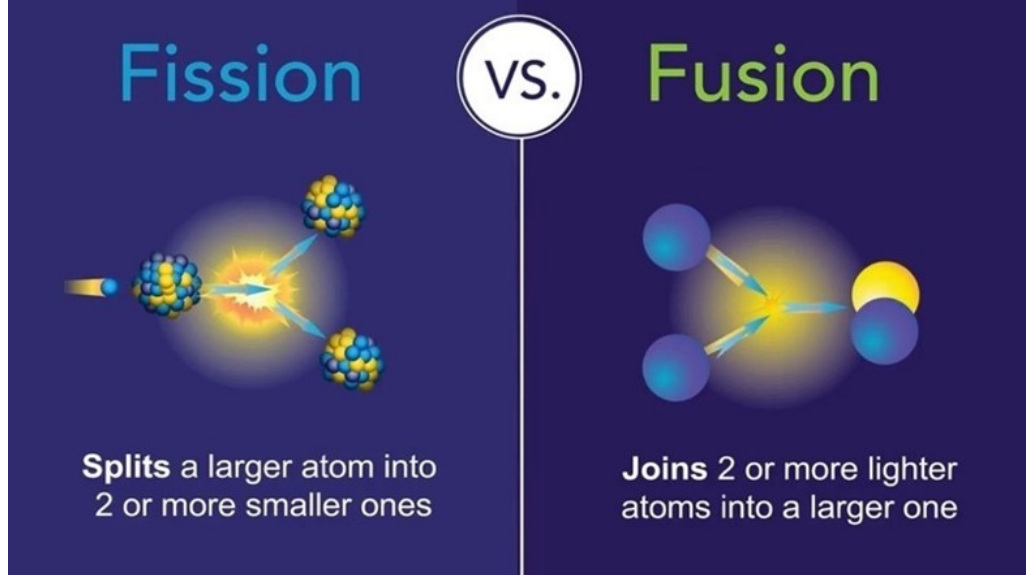


Figure 1: Fission vs. Fusion²

In this section, we will explore the potential of nuclear fusion as a superior energy option. The following parts will dive into the latest breakthrough and China's role in this field.

Two primary reasons underpin the optimism surrounding nuclear fusion: energy density and safety.

Energy density

To put it into perspective, just one gram of fusion fuel, like deuterium and tritium³, has the potential to unleash around 90 terajoules (TJ) of energy through fusion reactions.⁴ In contrast, burning a gram of gasoline only yields about 50 megajoules (MJ) of energy.⁵ This means that the energy density of nuclear fusion is approximately 1.8 billion times greater than that of gasoline combustion. Such a concentration of energy underscores nuclear fusion as a profoundly promising and potentially boundless energy source. As another comparison, in nuclear fusion, the energy released per reaction typically falls within the range of millions of electron volts (MeV), contrasting with nuclear fission, where it typically ranges in the hundreds of MeV.⁶

Safety

Traditional nuclear power plants generate energy through nuclear fission reactions. This involves bombarding heavy elements like Uranium-235 with neutrons, causing them to split into smaller atoms and release more neutrons. These released neutrons then trigger further reactions with Uranium-235, creating a self-sustaining chain reaction. However, if not carefully controlled, this reaction can lead to serious accidents such as core meltdowns or reactor explosions releasing dangerous radioactive materials.⁷ On the other hand, fusion requires extreme conditions like intense heat and pressure found in cores. If these conditions aren't maintained, the fusion reaction stops naturally, similar to how magnets repel each other if not brought close enough. This feature makes fusion inherently safer. Moreover, unlike fission, which produces long-lived radioactive waste, fusion primarily yields helium and neutrons as byproducts. These byproducts are less harmful and decay rapidly, reducing the risk of long-term environmental contamination.

Thus, we believe nuclear fusion is the ultimate energy source, offering exceptionally high energy density and remarkable safety. However, the hurdle lies in attaining controlled fusion. In simpler terms, we lack the feasible tools to kickstart fusion.

ASIA NEWS SPOTLIGHT

Southeast Asia in BRICS is Good for the Global Order: A vital region in the Global South—Southeast Asia—has long been missing from BRICS, a grouping whose acronym stands for founding members Brazil, Russia, India, China and South Africa. As BRICS gelled and grew from its first summit in 2009, the region's states watched from the sidelines. One of them—Indonesia—seriously considered joining last year at the Johannesburg summit, but ultimately chose to stay away. [Read More.](#)

China's CICC Eyes Southeast Asia Expansion in Bid to Ease Domestic Woes: China International Capital Corp (CICC) (3908.HK), opens new tab plans to expand its presence in Southeast Asia by opening offices in countries including Indonesia and Malaysia, said its investment banking head, as a slump in deals at home hurts its prospects. Founded in 1995, the Beijing-based investment bank currently has a presence in seven international financial centers outside of mainland China, including in Hong Kong, New York, London and Singapore. [Read More.](#)

China Focuses on Europe, Southeast Asia with Top-level Visits: European and Southeast Asian countries have accounted for nearly half of diplomatic trips by key Chinese officials since the end of pandemic-era travel restrictions, a Nikkei analysis shows, underscoring the importance of the two regions to Beijing's diplomatic ambitions. Chinese President Xi Jinping just arrived in Kazakhstan this week for a three-day visit through Thursday. Overall, top Chinese leaders and diplomats visited foreign countries 87 times since zero-COVID policies were lifted in January 2023. [Read More.](#)

China's BYD Inaugurates First Plant in Thailand as it Expands Reach into Southeast Asia: Chinese automaker BYD inaugurated its first electric vehicle plant in Thailand on Thursday, part of the company's push into Southeast Asia while it also tackles wealthier markets in the U.S. and Europe. The factory's opening comes on the same day that the European Union is expected to begin imposing higher tariffs on EVs made in China due to concerns over competition from the cheaper-priced imports. [Read More.](#)

Huawei to Transfer Aito Trademarks and Patents it Holds to Seres for \$340 million: Chinese tech giant Huawei will transfer the trademarks and patents it holds related to the Aito brand to its car-making partner Seres Group, reinforcing its commitment about not building cars. A subsidiary of Seres plans to acquire Huawei's trademarks and design patents relating to Aito for RMB 2.5 billion yuan (\$340 million), according to a stock exchange announcement by the Shanghai-listed company yesterday. [Read More.](#)

How Singapore's Clean Energy Drive Can Support Commitment to a Greener Asean Power Grid: At Cop28 last year, 125 countries agreed to triple renewable energy capacity by 2030 and double energy efficiency improvements. Half of the Association of Southeast Asian Nations signed this pledge, but even countries that did not have made national commitments to increase renewable energy and move to net-zero emissions. An Asean power trade will be crucial to ensuring that these commitments are met. [Read More.](#)

China to Meet its 2030 Renewable Energy Target by End of this Year State-owned Researcher: China's solar and wind energy sector will continue to grow at breakneck speed this year, providing the momentum the country needs to meet its 2030 renewable targets six years ahead of schedule, according to a state-owned researcher's forecasts. The country will

add 70 gigawatts (GW) of installed wind power capacity and 190GW of solar capacity by the end of 2024, said a new report by the China Renewable Energy Engineering Institute (CREEI), a research body under the the National Energy Administration (NEA). [Read More.](#)

¹The Bund is a historic waterfront area in central Shanghai, where Morgan Creek’s office is located. From the 1860s to the 1930s, it was the rich and powerful center of the foreign establishment in Shanghai, operating as a legally protected treaty port. The picture above is part of the historical waterfront.

² Source: Fission vs. Fusion: What’s the Difference?, <https://www.youtube.com/>, 2020

³ Note: Currently, the fusion reaction using deuterium and tritium is the predominant form of nuclear fusion, accounting for 65% of the fuel sources used in fusion research and experiments. (${}^2\text{H}+{}^3\text{H}\rightarrow{}^4\text{He}+n+17.6\text{MeV}$)

⁴ Source: How much energy is produced by the fusion of 1 kg of hydrogen?, <https://www.quora.com/>, 2021

⁵ Source: How many kWh can you get from burning 1 litre of gasoline?, <https://www.quora.com/>, 2018

⁶ Source: Wikipedia Mar 8, 2024

⁷ Source: Nuclear Chain Reaction, <https://www.osti.gov/opennet/manhattan-project-history/index.htm>

Important Disclosures

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