

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@morgancreekcip.com.

Best Regards,

Handwritten signature of Mark W. Yusko

Mark W. Yusko
CEO & CIO

NOTES FROM THE BUND¹

Looking back over 200 years of human history, revolutionary innovations have often accompanied economic and human development that lasts over several decades. The advent of steam engines enabled the mechanization of once-manual processes, catalyzing significant production increases across diverse industries. Subsequently, the introduction of automobiles revolutionized personal transportation, triggering growth in sectors like oil, steel, rubber, and electronics. The widespread adoption of electricity transformed every aspect of human life, laying the foundation for the subsequent rise of the information technology industry. Following this, computers granted unprecedented access to information, serving as catalysts for knowledge dissemination and democratizing innovation. These disruptive inventions, spanning mechanization, transportation, energy, and computing, stand as arguably some of the most important events in human history. The technologies driving these long cycles typically exhibit the following traits:

- Efficiency Enhancement. These technologies deliver huge improvements in efficiency compared to the prior means of production.
- Demand Creation. Introduction of new lifestyles and consumption patterns with scalability that can last decades.
- Infrastructure-like Adoption. These innovations have the potential to benefit many

industries and individuals, instead of being designed for a specific few.

At first glance, Artificial Intelligence (AI) appears to be a promising candidate. Since ChatGPT's debut in 2022, human society has started to step into the grand era of AI. Only two years later, Sora astonished the world by generating lifelike, minute-long videos from basic text prompts. Shortly thereafter, Claude 3 emerged, challenging OpenAI's dominance in large language models. AI's advancement in recent years showcases its efficiency enhancement and the creation of demand. However, infrastructure-like adoption remains a question mark. The feeding of algorithms with extensive datasets, which is crucial for enhancing computational capabilities, depends heavily on a consistent and large-scale supply of electricity. In less than three months this year, Jensen Huang², Sam Altman³, and Elon Musk⁴ have all expressed the same view: AI's future is confronted with a pressing shortage of electricity.

2x the data

will be generated compared to all data produced over the past decade

\$1 trillion investment

in data centers by major tech companies

7x the power

is required by AI center racks compared to traditional ones

15.2% CAGR growth

in global colocation data centers' demand for power

Figure 1: Some Estimated Statistics (Over the next 5 years)⁵

The shared view was largely supported by research. According to the University of Pennsylvania, computers consumed less than 2% of global electricity in 2018, and the figure escalated to approximately 4-6% in 2020. Projections suggest that by 2030, computers will consume up to one-fifth of the world's electricity.⁶ In the United States, electricity consumed by data centers alone is expected to triple to 7.5% of the US total by 2030. That's the equivalent of the electricity usage of approximately 40 million U.S. households (1/3 of the total in the US).⁷ This surge in energy consumption presents a critical challenge for the future of AI.

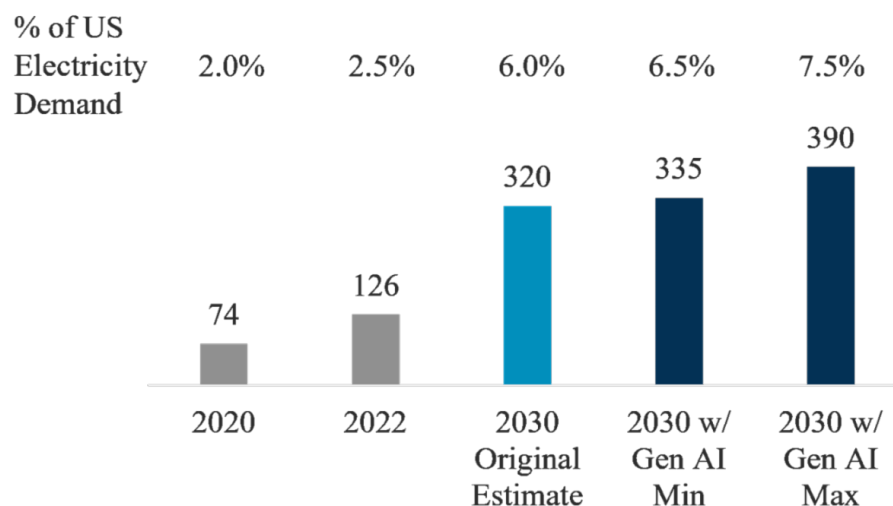


Figure 2: Data Center Electricity Consumption (US, TWhs)⁸

There's no way to get there without a breakthrough. It motivates us to go invest more in fusion.

--- Sam Altman, CEO of OpenAI⁹

Reflecting on these challenges, controlled nuclear fusion emerges as a potential solution. It holds the promise of meeting all three criteria of transformative technologies: efficiency enhancement, demand creation, and broad adoption.

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ASIA NEWS SPOTLIGHT

China-financed Laos Railway Expands Beijing's Reach in Southeast Asia: As Beijing weaves its web of roads and railways through Southeast Asia, a massive Chinese-financed infrastructure project in Laos is quietly reshaping the region's geopolitical landscape. The \$6 billion China-Laos railway, which opened in December 2021 and will soon provide a direct route from Kunming, China, to the Gulf of Thailand through connections with previously existing rail lines in those countries, stands as a symbol of Beijing's ambitious regional expansion strategy. [Read More.](#)

China Issues Rare Earth Regulations to further Protect Domestic Supply: China has unveiled a list of rare earth regulations aimed at protecting supplies in the name of national security, laying out rules on the mining, smelting and trade in the critical materials used to make products from magnets in electric vehicles to consumer electronics. The regulations, issued by the State Council or cabinet on Saturday, say rare earth resources belong to the state, and that the government will oversee the development of the industry around rare earths - a group of 17 minerals of which China has in recent years become the world's dominant producer, accounting for nearly 90% of global refined output. [Read More.](#)

China Focus - China's First Commercial Spacecraft Launch Site Ready for Operations: China's first commercial spacecraft launch site is ready for operations in south China's Hainan Province as of Sunday, having completed a rocket launch simulation rehearsal using its two launch pads. According to the Hainan International Commercial Aerospace Launch Co., Ltd. (HICAL), which built and operates the launch site, the exercises performed using the launch pads included water spraying and deluge system cooling, as well as a rocket lifting arm erection test. [Read More.](#)

From Tokenization to AI - How is Southeast Asia's fintech industry evolving?: Southeast Asia's Fintech industry is at a critical juncture, balancing innovation with regulatory challenges and market pressures. Stephanie Magnus, Principal at our Financial Services Regulatory and Fintech Practice Groups, provides her insights on the rapidly changing Fintech landscape in Southeast Asia in an interview with Asian Legal Business. [Read More.](#)

Strengthening the ICT Foundation in the Asia-Pacific Region and Embracing the Digital Future: ICT is a key driver in Asia Pacific's digital economy, with a strong CAGR of 13% from 2020 to 2025, ahead of other regions. This has sparked not only lifestyle changes and new businesses, but also has impacted social welfare and daily life in Asia Pacific countries. Think of reduced unemployment rate (the regional average stands at 3.1%

in 2024, much lower than the global rate of 5.2%), the emergence of new types of labour (15% of Indonesia’s urban population are new types of labour, according to Huawei’s insights), asset appreciation, low carbon emissions, and rural revitalization (Thailand is doing live streaming to sell its agricultural products), to name a few. [Read More.](#)

Pakistan, China Pool Efforts to Upgrade CPEC for Socio-economic Development, says Pakistani Expert: As the China-Pakistan Economic Corridor (CPEC) entered the second phase, a Pakistani expert said that Pakistan and China are all set to pool efforts to reinvigorate and upgrade CPEC for socio-economic development, taking the all-weather strategic cooperative partnership to new heights. CPEC, a flagship project of the China-proposed Belt and Road Initiative (BRI), is one-of-a-kind to transform the economic landscape and bring opportunities to the South Asian country, said Hassan Daud Butt, former project director of CPEC at the then Ministry of Planning, Development and Reforms, and zhjiasenior advisor at the China Study Center of the Sustainable Development Policy Institute, an Islamabad-based think tank. [Read More.](#)

China’s Energy Use Per Person Surpasses Europe’s for First Time: China’s energy use per person surpassed Europe’s for the first time last year as demand from technology and manufacturing industries continued to climb. The country ramped up coal-fired generation, but also added more renewable capacity than the rest of the world combined, according to the Energy Institute’s annual Statistical Review. That means the carbon intensity of its energy is actually falling. [Read More.](#)

Asia’s Shift to Green Energy - ‘The Newspapers Are Asking Questions’: When it comes to bringing sustainability to the Southeast Asian energy sector, Heng Dean Law knows that the opportunities are there. It’s just a matter of managing availability, supply and demand. “You need to connect places where you have the renewables to the places of demand, and usually they’re not next door,” Law said. Law is the managing director of the Singapore-based climate change investment and advisory firm Pollination. He spoke to NPF’s International Trade Fellows about things to keep in mind for their stories on renewable energy in Southeast Asia. [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.

²Source: With AI forcing data centers to consume more energy, software that hunts for clean electricity across the globe gains currency, <https://fortune.com/>, Feb 26, 2024

³Source: OpenAI CEO Altman says at Davos future AI depends on energy breakthrough, <https://www.reuters.com/>, Jan 16, 2024

⁴Source: How AI Is Sparking a Change in Power, <https://www.barrons.com/>, Mar 14, 2024

⁵Source: 2024 Business and earnings outlook, <https://www.constellation.com/>

⁶Source: The hidden costs of AI: Impending energy and resource strain, <https://penntoday.upenn.edu/>, Mar 8, 2024

⁷Source: AI Boom Could Slow U.S. Clean Grid Ambitions, <https://oilprice.com/>, Jan 26, 2024

⁸Source: The impact of Electricity - BCG on Energy, <https://www.linkedin.com/>, Sep, 2024

⁹Source: OpenAI CEO Altman says at Davos future AI depends on energy breakthrough, <https://www.reuters.com/>, Jan 16, 2024

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Morgan Creek Capital Management | 301 W. Barbee Chapel Road Suite 200 | Chapel Hill,
NC 27517 US

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