roster of "City + AI" application scenarios. Additionally, the city has established a substantial 100 billion CNY fund dedicated to artificial intelligence.

Overview of the global competition in artificial intelligence

On a global scale, the competition in artificial intelligence has become a pivotal area where countries vie for dominance. Leading technological powers such as the United States, the European Union, and China continue to intensify their investments and strategic positioning in the field of AI.

The United States stands out for its strategic leadership, substantial capital support, and technological edge. Consistently investing in policies and AI research, the country aims to retain its global leadership. In recent years, the U.S. has introduced a series of significant policy documents, emphasizing funding, particularly in technological applications for national defense.

The European Union prioritizes safeguarding fundamental rights and leads the way in establishing regulatory frameworks for artificial intelligence. Its focus lies in preventing potential erosion of human rights due to technological development, exploring the establishment of a regulatory system, and ensuring the safety of artificial intelligence technology and applications within the EU. Additionally, Europe holds significant advantages in applying AI technology to manufacturing and industrial automation.

With abundant data resources, robust technological foundations, and strong policy support, China's AI industry thrives, continuously unveiling innovative application scenarios. The country has shifted its policy focus from industrial development towards technological regulation and governance, emphasizing the balance between technological oversight and industrial growth. Moreover, China actively publishes ethical guidelines and policy documents to ensure that the advancement of artificial intelligence does not compromise national security or societal order.

The development of the artificial intelligence industry in China's major cities

Major cities in China are actively exploring various initiatives to become leaders in global AI development, each following its unique development path.

Beijing, leveraging its vast talent pool, outstanding technical prowess, and innovative atmosphere, has issued multiple policies to encourage the development of the AI industry, striving to position itself as an innovation hub for AI.

Moreover, Shanghai, with a primary advantage in application-driven innovation, extensively applies AI technology across economic, societal, and governance domains within its digital transformation efforts, aspiring to create an artificial intelligence "Shanghai hub".

Shenzhen aims to emerge as a significant player in the global AI arena. The city government has implemented numerous policies and plans, concurrently establishing a 100 billion CNY AI fund to foster a comprehensive development environment. Supported by the electronics and information industry, Shenzhen focuses on achieving breakthroughs in core technologies, accelerating the introduction and development of key industries, and attracting numerous enterprises to participate at various levels of the artificial intelligence industrial chain.

Next steps for Shenzhen

The future of AI development in Shenzhen will revolve around three core directions. Firstly, there's an emphasis on achieving a deeper integration of artificial intelligence technology with the real economy, particularly in industrial manufacturing. This entails adhering to the objective laws of technological development and avoiding excessive exaggeration or speculative practices. The focus should be on enhancing collaborative innovation between foundational research and industrial applications. Additionally, there is a commitment to integrate AI technology with infrastructure construction. This is why it is crucial to leverage industrial funds as well, ensuring continuous updates and iterations to expedite technological maturity.

Secondly, the effective utilization of both market initiative and government guidance is critical. Shenzhen's market-oriented environment, exceptional business atmosphere, and favorable policies play a vital role in sparking innovation among market entities in artificial intelligence. At the market level, it is imperative to fully leverage the advantages brought by major enterprises and platforms in terms of technology, data, and integrated ecosystems. Regarding the government's role, there should be continual increments in investments in new infrastructure, orderly progression in the open sharing of public data, and exploration of cross-border data circulation between Shenzhen and Hong Kong.

In essence, the crux of advancing artificial intelligence hinges on striking a delicate balance between innovation and security. This entails ensuring the safety and sustainability of AI innovation through three primary aspects: rigorous compliance with pertinent legal regulations, emphasis on integrated development, and the exploration of ethical standards alongside policy frameworks.

Based in Shenzhen, Guangdong Province, China Development Institute (CDI) is a non-governmental and market-oriented think tank which was founded in 1989 on approval from the Chinese State Council. CDI develops solutions to public policy challenges through broad-scope and in-depth research to help advance China's reform and opening-up. CDI is committed to providing proactive, innovative and practical research and consultation for China's central and local governments and businesses at home and abroad. Its research and consultation is centered on macro strategy, regional economy, urbanization, industrial development, business strategy and decision-making.

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CDI Held Forum on Sino-British Relations and China's Economic Outlook in Mansion House, London

CDI joined hands with the City of London Corporation and the China Chamber of Commerce in the UK in hosting the forum on Sino-British relations and China's economic outlook on Nov 13, 2023. The forum centered on fostering trust and consensus between China and the UK, delving deep into discussions regarding China's economic growth prospects, opportunities and potential risks for Sino-British relations and financial collaboration.

The forum drew over 200 delegates from government, business, and academic circles. Key speakers included Prof. Fan Gang, President of CDI, and the Lord Mayor of the City of London, Prof. Michael Mainelli. Prof. Fan Gang centered his address on the prospects for China's economic development, emphasizing the progress of China's post-pandemic economy and society while advocating for further openness and collaboration. Lord Mayor Prof. Mainelli also underscored the significance of fostering a stable relationship between China and the UK. He further encouraged active trade and investment interactions, aiming to pave the way for a new chapter in Sino-British relations.

During CDI's visit to the UK, the delegation conducted a series of academic seminars and visited several prominent British institutions, including the City of London Corporation, the Bank of England, Z/Yen Group, Scottish Development International, and the Scottish Financial Enterprise.

News >

Governor of the Hungarian National Bank Dr. György Matolcsy Visited CDI

During his visit to China, Dr. György Matolcsy, Governor of the Hungarian National Bank (MNB) and former Minister of National Economy of Hungary, visited CDI on Oct 31, 2023.

Although the global economy has been largely affected by geopolitical tensions and growth slowed, the overall economic development is observed to has been following pervious cycles. Both parties agreed that it is critical for economies to remain vigilant and aware of the global economic cycle while preparing and utilizing policy tools for mitigation. CDI experts also briefly introduced the development of Guangdong-Hong Kong-Macao Greater Bay Area and China's financial sector.

CDI Held Forums on Sino-US Economic Relations with US Think-tanks

On Dec 4, 2023, CDI jointly held China US Bay Area Cooperation Conference with Bay Area Council Economic Institute and Standford Center on China's Economy and Institutions in San Francisco. Experts at the meeting held that despite the differences between China and the US, both countries are facing a series of common challenges, such as public health, climate change, and the stability of industrial chain and supply chain. China and the US should try to promote exchanges and cooperation between the two sides at the sub-national level, especially to strengthen non-governmental exchanges between China's Guangdong-Hong Kong-Macao Greater Bay Area and San Francisco Bay Area. More than 100 experts from the political, business and academic circles of China and the US attended the meeting.

CDI also held the China-US Green Cooperation Forum with Rocky Mountain Institute in Aspen. Experts at the meeting stressed that although China and the US have been competing in terms of economic development and national security in recent years, addressing the global climate change has gradually become the common interest of the two countries, and also the whole world. Both countries should strive to reach consensus and join hands to achieve more economic progress while undertaking climate change mitigation and green transformation.

Insights >

How China Should Navigate Through Economic Challenges

During a recent interview, Prof. FAN Gang, President of China Development Institute, provided perspectives on the development of large enterprises, insights on the importance of fostering private enterprises, and how China should navigate through the economic challenges that it currently faces.

Synergies and Challenges in Diverse Business Scales

Businesses of all scales have the opportunity to innovate in various ways. While small businesses may specialize in specific technological fields, they often struggle to achieve systematic technological development. However, large enterprises tend to integrate multiple technologies to create more comprehensive products. The large enterprises play a distinct and pivotal role in economic modernization, particularly within the innovation ecosystem, as they can catalyze a network of SMEs and integrate them into the innovation chain.

Furthermore, owing to their ample capital and profits, large enterprises are able to make long-term, sustained investments into research and development (R&D), thereby propelling systematic and continuous innovation in fields such as cloud technology and AI. However, the key lies in establishing oligopolistic competition within the industry structure while averting monopolization, and ensuring ample space for innovation for SMEs.

Nurturing Private Enterprises for Economic Progress

When comparing China's private enterprises with state-owned enterprises (SOEs), significant differences exist. Focusing on the development of private enterprises, which are critical to China's economic growth, is crucial.

State-owned enterprises, owing to their close ties with the government and other entities, exhibit relatively low independence. Moreover, they operate under stringent institutional frameworks and scrutiny in decision-making, necessitating cautious consideration for the use of public funds and risk mitigation, thereby limiting their investment in innovation and capacity in risk-taking. In contrast, private enterprises are more responsive to market signals, showcasing greater flexibility and advancement in innovation. Meanwhile, with their own capital at stake, the private enterprises bear the consequences and potential losses of taking risks to invest in innovation, which in turn reinforces the impetus for

success. Therefore, in a market economy, private enterprises exhibit exceptional performance, particularly in high-tech industries.

Despite the significant role they play in the economy, large enterprises are often disadvantaged in terms of market competition, particularly with respect to financing, market access, and policy support. Taking a dialectical view of these realities and avoiding policies that suppress private enterprises is important. The future of China's economy lies in fair policies and programs that foster the development of private enterprises rather than transforming them into SOEs.

Navigating Through Economic Challenges: Insights and Prospects

The biggest economic challenge that China faces is insufficient demand, which has slowed down economic growth. This situation is not the result of a single factor, but stems from multiple causes such as the impact of the pandemic on the industrial chain, unemployment, and decreased expectations for income growth. However, stimulating demand has become particularly difficult in the current economic cycle. Therefore, adept management during economic downturns is crucial for China. The government plays a key role in boosting demand, particularly when private demand is insufficient, and government demand can serve as a supplement. Inadequate future expectations among businesses and residents also contribute significantly to low demand. Under such circumstances, the government should establish more targeted measures to invigorate overall demand rather than merely stimulate consumption. Addressing these challenges requires government wisdom and strategies to effectively manage cyclical economic fluctuations, and more importantly, to guide the economy safely through downturns.

As for the future of the Chinese economy, international perspective suggests that China might echo Japan's "lost 30 years". However, comparative analysis of the two countries reveals certain differences, such as China's current urbanization rate and overall economic development compared to that of Japan in 1991. Japan was already a highly developed economy in 1991 with an urbanization rate of 77.4%, while China is currently at 65.4%. Therefore, China is still in a relatively stable growth phase rather than a continuous decline. Additionally, in terms of government debt ratios, the total debt ratios of China's central and local governments are similar to those of Japan in those years; however, China has a huge amount of state-owned assets and a relatively low gearing ratio, providing room for boosting the economy once state-owned assets are utilized. Last but not least, the vigilance of China towards debt risks in both the financial and residential sectors considerably surpasses that of Japan during the corresponding period.

As a developing country, short-term economic fluctuations are normal. The current downturn in China does not indicate the start of a long-term slump, but is most likely a short-term fluctuation.

Shenzhen Racing into the Era of Artificial Intelligence

Author: Dr. LI Enhan and Ms. ZHUO Shengling, China Token Digital Economic Research Center, CDI

When discussing the rapid advancement of artificial intelligence, it undoubtedly marks the dawn of a new era in technology. Artificial intelligence is poised to become a key force driving a new wave of technological revolution and industrial transformation. Shenzhen has responded to this by releasing a corresponding action plan and the initial