

April 2025, Vol. 12, No. 2



IMI Newsletter

International Monetary Institute
Renmin University of China

Research

- Macro-Finance Salon No. 245-246, No. 248



International Monetary
Institute of RUC

Research

Macro-Finance Salon

Editor's Note:

The Macro Finance Salon, co-hosted by the School of Finance and the National Academy of Financial Research at Renmin University of China and organized by the International Monetary Institute (IMI), serves as a high-level academic platform. It draws on China's practical experiences and keeps pace with global developments to promote the construction of the Macro Finance discipline and advance theoretical, policy, and strategic research in finance.

Professor Huang Da, the founder of the Macro Finance theoretical framework in China, initiated this discipline in response to the challenges of economic globalization. Over the years, successive generations of scholars have expanded this system, emphasizing the integration of finance with the real economy and macrofinance with microfinance. This framework, rooted in Renmin University's distinctive academic tradition, continues to inspire theoretical innovation and offers valuable guidance for addressing China's financial and economic challenges.

Macro-Finance Salon (No. 245): Artificial Intelligence and the Digital Economy

On the evening of February 26, 2025, the 245th Macro Finance Salon, jointly hosted by the International Monetary Institute (IMI) of Renmin University of China, the Digital Economy Laboratory of Beijing Yanqi Lake Institute of Applied Mathematics, the Shenzhen Institute of Advanced Finance at Renmin University, and the Fintech Research Institute of Renmin University, was held online. The event also marked the inaugural sessions of the BIMSA Intelligent Economy Forum and the Shenzhen Social Science Salon's "DeepSeek: Smart Governance and Socioeconomic Transformation" series.

Researcher Sun Mingming from Beijing Yanqi Lake Institute of Applied Mathematics delivered a keynote report titled *Towards Trustworthy and Reliable Expert-Level AGI*, while Professor Liu Qingfu, a finance PhD supervisor at Fudan University's School of Economics, presented a speech on *Trustworthy AI*

Empowering Quantitative Investment and Intelligent Risk Control. Participants in the panel discussion included Long Fei (Vice Director of Beijing Yanqi Lake Institute of Applied Mathematics and Head of its Digital Economy Laboratory), Xu Junming (General Manager and Director of Xicheng Zhiyuan Private Fund Management), Yao Zeyu (Executive Director and Chief Analyst of Non-Banking Financials & Fintech at CICC Research), and Researcher Zhang Xiaoming from Beijing Yanqi Lake Institute of Applied Mathematics. The session was moderated by Professor Qiu Zhigang, Vice Dean of the Shenzhen Institute of Advanced Finance at Renmin University.

Sun Mingming highlighted the sustained progress in LLM-based AGI, achieved through unified modeling, comprehensive human data utilization, and large-scale deep learning frameworks. However, he noted persistent challenges in professional domains, such as factual inaccuracies, lack of world modeling, and insufficient rationality. Key obstacles to achieving Expert-Level AGI (AGEI) include the absence of expert-grade knowledge systems, inadequate knowledge representation, inefficient reasoning systems, limited integration between LLMs and knowledge systems, and a lack of specialized toolkits. While recent advancements in open knowledge representation and reasoning show promise, Sun emphasized the need to reconstruct System1 and System2 cognitive architectures to enable synergistic collaboration for realizing AGEI.

Professor Liu Qingfu underscored AI's transformative role in finance through computational, perceptual, and cognitive intelligence. He cited applications in robo-advisory services, quantitative investment, and regulatory sandboxes, while advocating for trustworthy AI to enhance financial security and innovation. For China's financial development, he proposed strengthening technological innovation, improving financial services for the real economy, advancing smart regulatory models, and leveraging AI to promote high-level financial openness.

Long Fei emphasized foundational mathematical research as the cornerstone of AI development. Despite AI's rapid advancement, he argued that current systems remain in their infancy, lacking true trustworthiness. Long highlighted emerging opportunities for mathematics in algorithm acceleration (driving progress in optimization theory and numerical analysis) and data privacy (advancing cryptographic techniques like zero-knowledge proofs and homomorphic encryption). He stressed that interdisciplinary collaboration will be critical for future breakthroughs.

Xu Junming outlined three AI-driven trends: (1) divergence between data-parity and data-advantage AI applications, particularly in non-critical financial scenarios like voice assistants; (2) growing importance of unstructured data in vertical fields such as healthcare and law; and (3) platform shifts toward intelligent terminals, embodied AI agents, and autonomous driving systems. He cautioned against valuation bubbles while urging alignment with national strategic priorities.



International Monetary Institute of RUC

Yao Zeyu projected that while large models currently handle non-core financial tasks due to limitations in expertise and regulatory constraints, future synergy between large models (enhancing informational breadth) and specialized models (improving precision) will expand into wealth and asset management. He predicted AI's tripartite impact: democratizing services for long-tail clients, reshaping competition through tech-finance partnerships, and balancing innovation with security in systemic reforms.

Zhang Xiaoming critiqued AI's current reliance on descriptive qualitative analysis, constrained by limited data diversity and mathematical integration. He advocated for phased advancements in phenomenological modeling, universal law derivation, and risk-quantified decision-making. Highlighting China's manufacturing advantages, Zhang called for prioritized development of industrial-scale AI models tailored to localized scenarios.

Background

The Macro Finance Salon, co-founded by IMI and Renmin University's Monetary Finance Department, serves as an academic platform integrating macro-micro financial theories. Rooted in Professor Huang Da's conceptual framework and systematically elaborated by former PBOC Deputy Governor Chen Yulu in *The Outline of Macro Finance*, the initiative emphasizes the organic integration of financial systems with real economy development.

Macro-Finance Salon (No. 246): Global Medium-Term Economic Development Trends

On the morning of March 4, 2025, the Seminar on Global Medium-Term Economic Development Trends and the 246th Macro Finance Salon, co-hosted by the School of Finance at Renmin University of China, the National Academy of Financial Research at Renmin University, and the IMF China Office, and organized by the International Monetary Institute (IMI) of Renmin University, was successfully held.

Steven Barnett, former Chief Representative of the IMF China Office, and Marshall Mills, current Chief Representative of the IMF China Office, delivered keynote speeches. The event also featured insights from Wei Benhua (former Deputy Administrator of the State Administration of Foreign Exchange and former Executive Director for China at the IMF), Ben Shenglin (Co-Director of IMI and Dean of the International Business School at Zhejiang University), Zhao Xijun (Co-Director of the China Capital Market Research Institute at Renmin University), and Qian Zongxin (Vice Dean of the School of Finance and Deputy Director of the National Academy of Financial Research at Renmin University). The session was moderated by Zhang Zhixiang, former Director-General of the International Department of the People's Bank of China and former Executive Director for China at the IMF.

Steven Barnett, in his keynote speech titled *China's Productivity and Growth Trajectory*, emphasized that China's 20-year WTO membership

exemplifies the inclusive value of multilateral cooperation. By integrating into the global trade system, China not only achieved its own economic takeoff but also fueled global growth. Addressing challenges like economic imbalances and climate change, he argued, requires innovative cooperation mechanisms and adherence to multilateral principles to realize the vision of “making everyone better off.” Barnett stressed that reform remains the engine of growth. Current reforms should shift from “quantity-driven” to “quality-driven” strategies—unlocking the efficiency of existing capital through market mechanisms rather than relying solely on incremental investments. For future development, he proposed strengthening the market’s decisive role in resource allocation, fostering a world-class, rule-of-law-based business environment, promoting fair competition, deepening domestic market integration, and transforming the “growth miracle” into sustainable “development resilience.”

Marshall Mills delivered a keynote speech under the title of “Global Productivity Dilemma and Growth Reconstruction”. He pointed out that the current global economic growth shows a remarkable divergence with an overall slowing-down pace. The “scar effect” brought about by the pandemic has exacerbated the imbalance of economic growth among countries, resulting in different degrees of inflation. The growth model solely driven by capital expansion has hit its bottleneck, and thus the urgent need is to enhance efficiency and promote a structural reform. He emphasized that increasing productivity requires multi-dimensional coordination. In addition to innovation, optimizing resource allocation is equally indispensable. We are facing challenges from internal efficiency and external risks, but there are also positive factors such as structural reform and technological breakthroughs. Many countries are actively exploring the possibilities of AI technology, especially in manufacturing automation and service industry efficiency optimization, which may find new paths of productivity increase.

During the discussion session, Qian Zongxin pointed out that, in the process of globalization and economic development, the path to improving Total Factor Productivity (TFP) has become a core issue. He believed that China’s cooperation model of integrating policy coordination, technological standard co-construction, and market opening-up achieves remarkable results in balancing the goals of efficiency and fairness, which serves as a good example for global governance rule reconstructing.

Zhao Xijun said that the past four decades in China have proved the decisive role of market-oriented reform. In the future, we should build on the success of market-oriented reform, and then strengthen the construction of an innovation system and the reform of distribution systems. He also emphasized the acceleration of institutional construction especially in intellectual property protection and competitive neutrality, so as to provide a sustainable institutional guarantee for technological innovation.

Ben Shenglin pointed out that the four “T”s, namely Technology, Trade,



Trust, and Trump, are shaping the global medium-term economic development. Despite the fluctuations in the global trade environment, the Chinese economy still outperforms the average. At present, China is transforming from a “pace follower” to a “pacemaker”, which requires us to pursue a higher level in originality and innovation.

Wei Benhua said that the world faces many uncertainties in the medium term of five years, which highlights the importance of financial and monetary cooperation. By strengthening cooperation with IMF, our financial regional safety net can prevent the spread of local crises. After 40 years of reform and opening up, China has built a strong and healthy economy, and our steady growth will continue to make significant contributions to the global economy.

It is reported that the Macro-Finance Salon is a high-level academic salon jointly launched by the International Monetary Institute (IMI) and the School of Finance of Renmin University of China. Based on China's practices and closely follows international frontiers, the salon aims to promote the construction of the Macro-Finance discipline in the new era, deeply conduct theoretical, policy, and strategic research on Macro-Finance, and build a high-level, specialized, and open academic exchange platform. “Macro-Finance” stems from the idea of combining macro and micro financial theories advocated by Professor Huang Da in the theory, and, in the concept, from the systematic thinking of finance and the real economy as an inalienable organic whole. Chen Yulu, former Deputy Governor of the People's Bank of China, systematically expounded on the basic connotation and methodology of the “Macro-Finance” proposition in “*Macro-Finance Theses*”, laying a theoretical and empirical foundation for constructing the Macro-Finance system framework conducive to the long-term economic growth and growing national competitiveness.

Macro-Finance Salon (No. 248): How to Boost the Internationalization of the RMB Bond Market

On March 25, the 248th “Macro-Finance Salon” was held online, jointly hosted by the School of Finance of Renmin University of China and the National Academy of Financial Research of Renmin University of China, and co-organized by the International Monetary Institute (IMI) of Renmin University of China and the Institute of China Bond of Renmin University of China. Zong Liang, Chief Researcher of Research Institute of the Bank of China delivered a keynote speech. Fan Xiaoyun, Dean of the School of Finance of Nankai University, Lei Chengyao, Professor of the School of Finance of Renmin University of China and Director of the Institute of China Bond, Xia Le, Chief Economist of Banco Bilbao Vizcaya Argentaria, Liu Fan, member of the Climate Investment and Finance Association of the Chinese Society for Environmental Sciences, and Qu Qiang, Assistant Director of IMI, Associate Dean of the School of Journalism and Communication of Minzu University of China, and Researcher at the “Belt and Road” Country and Region Research Center of the National

Ethnic Affairs Commission, jointly attended the seminar on “How to Boost the Internationalization of the RMB Bond Market”.

In his keynote speech, Zong Liang, Chief Researcher of Research Institute of the Bank of China, expounded on the methods of the internationalization of China’s bond market, emphasizing the necessity of learning from international experience and seizing opportunities to make breakthroughs through institutional optimization and innovations. Firstly, the internationalization of the bond market must draw the experience of mature foreign markets, which are characterized by large scale, strong liquidity, high internationalization, sound institutional design, and convenient investment and financing. Secondly, in recent years, the internationalization of China’s bond market has made steady progresses. The issuance scale of the primary market and the connectivity of the secondary market have been significantly improved; Cross-border investment and financing has been facilitated; Innovative products such as green sovereign bonds have helped expand overseas investment, attracting global institutions to increase holdings. Thirdly, the stable domestic economy and high-level financial opening up have brought opportunities for the internationalization of the bond market. Zong argued that we should optimize the top-level design, relax foreign investment access, promote the linkage between onshore and offshore markets, improve the trading mechanism, and strengthen the guiding role of national bonds, so as to enhance the international influence of the Chinese market and build a solid foundation for the internationalization of the RMB bond market.

Fan Xiaoyun, Dean of the School of Finance of Nankai University, made a review of the progress of the internationalization of the RMB and the achievements of the opening up of China’s bond market, where she analyzed the relationship between the opening up of the bond market and currency internationalization. Based on the lessons we can draw from the United States and Japan, Fan explained the challenges and corresponding measures for issues including the construction of autonomous allocation. The opening up of China’s bond market and the internationalization of the RMB have achieved remarkable results. Our market size has ranked second in the world; The structure of “Panda Bond” has been continuously optimized, which enhances our international attractiveness. The experiences of the United States and Japan reveal that success requires relying on currency system strategies and being vigilant against the risks of structural imbalance. Fan pointed out the challenges facing us, including market structure imbalance, distorted credit ratings, dual regulation, and international currency competition. She argued that we should take the construction of a global capital autonomous allocation ecosystem as the core and promote the internationalization of the bond market through measures such as unifying disclosure standards, strengthening rating independence, coordinating the opening up of the bond and foreign exchange markets, and deepening the reform of interest rates and exchange rates.

Lei Chengyao, Professor of the School of Finance of Renmin University of



China and Director of the Institute of China Bond, expounded on the necessity of promoting the internationalization of the RMB bond market. Based on the characteristics and trends of the opening up of our bond market, he pointed out the challenges and proposed possible solutions. He argued that the internationalization of the RMB bond is an important means to promote the internationalization of the RMB. Therefore, it is necessary to improve the institutional design according to the differential demands of foreign investors: Current account investors pay more attention to market liquidity, security, and payment convenience, while pure financial investors focus more on profitability, low volatility, and asset correlation. He pointed out that the opening up of China's bond market shows volatility: Bonds held by foreign institutions have fluctuated and increased, with the total value reaching RMB 4.2 trillion in 2024; Varieties of investments, except for national debt and policy financial bonds, have expanded to interbank negotiable certificates of deposit, but the business is affected by supervision and the international environment dynamics. It is necessary to balance "bringing in" and "going global", coordinate onshore and offshore markets, and clarify the focuses of "Panda Bond" and "Dim Sum Bond". We should optimize the trading mechanism relying on financial infrastructure, improve systems such as taxation to attract foreign investment, and build a high-quality bond market with depth, breadth, and resilience through characteristic paths.

Xia Le, Chief Economist of Banco Bilbao Vizcaya Argentaria, made a review of the internationalization of China's bond market, and proposed the challenges and opportunities facing it. First, the development of China's bond market in Hong Kong has not been steady. Firstly, the "Dim Sum Bond" market enjoyed a rapid growth in Hong Kong in 2013~2014, but encountered a turning point. In 2015, the exchange rate fluctuations of the RMB triggered monetary policy adjustments, resulting in sharp fluctuations in offshore interest rates and impacting bond valuations. Later, although Chinese dollar-denominated bonds filled the financing gap, the repayment dilemma caused by the defaults of real estate enterprises remains unresolved. Secondly, the recent inversion of the China-US interest rate has created new opportunities: Domestic enterprises issue low-interest RMB bonds to make profits, driving the vitality of the offshore market. Looking ahead, the internationalization of the RMB bond market still faces potential challenges from macroeconomic fluctuations. Exchange rate fluctuations and policy adjustments may bring periodic impacts. Xia expressed the hope that policymakers draw lessons from experiences and promote the sustainable development of the internationalization of the RMB bond market through the Hong Kong market.

Liu Fan, member of the Climate Investment and Finance Association of the Chinese Society for Environmental Sciences, highly recognized the progress of the financial infrastructure construction of China's bond market, and shed lights on how to deal with the challenges faced by the internationalization of the RMB bond market. China's bond market infrastructure is globally-leading, with

prominent advantages in custody scale and liquidity. It has fully achieved international standards such as DVP and RTGS, and set the industry benchmarks in the application of block-chain and AI technologies and the information disclosure of green bonds. However, the internationalization process faces key constraints, which include that foreign non-sovereign investors cannot participate in national debt futures trading and primary custody repo business. Coupled with insufficient rating credibility and non-standard information disclosure, the risk hedging ability and investment confidence of foreign investors are prominently restrained. Liu pointed out that China's bond market should build on its leading financial infrastructure and digital innovations, and promote system opening-up to break through bottlenecks including limited risk hedging tools for foreign investors and insufficient rating credibility. By these methods, we can further promote the opening up of China's bond market, and build an international capital allocation platform with resilience and sustainability.

It is reported that the Macro-Finance Salon is a high-level academic salon jointly launched by the International Monetary Institute(IMI) and the School of Finance of Renmin University of China. Based on China's practices and closely follows international frontiers, the salon aims to promote the construction of the Macro-Finance discipline in the new era, deeply conduct theoretical, policy, and strategic research on Macro-Finance, and build a high-level, specialized, and open academic exchange platform. "Macro-Finance" stems from the idea of combining macro and micro financial theories advocated by Professor Huang Da in the theory, and, in the concept, from the systematic thinking of finance and the real economy as an inalienable organic whole. Chen Yulu, former Deputy Governor of the People's Bank of China, systematically expounded on the basic connotation and methodology of the "Macro-Finance" proposition in "*Macro-Finance Theses*", laying a theoretical and empirical foundation for constructing the Macro-Finance system framework conducive to the long-term economic growth and growing national competitiveness.



Journal Name: IMI Newsletter

Frequency of Publication: Quarterly

Publisher: International Monetary Institute, Renmin University of China

Editor-in-Chief: Ben Shenglin

Associate Editors: Song Ke, Qu Qiang

Associate Managing Editor: Li Jingyi

Assistant Editors: Liu Chenyang, Song Lingbo, Peng Yi

Editorial Office: Room 605, Culture Square, Renmin University of China, No. 59 Zhongguancun Avenue, Beijing 100872, China

Tel: 86-10-62516755

Email: imi@ruc.edu.cn

For more information, please visit
<http://www.imi.org.cn/en/>



Weibo



WeChat