Current Situation, Problems and Suggestions of Agricultural Futures Market in China

Chengxuan Jiang^{1,a,*}

¹Business School, University of Nottingham Ningbo China, Ningbo, China a. biycj8@nottingham.edu.cn *corresponding author

Abstract: The agricultural futures market occupies a central position in China's financial landscape, wielding substantial influence over the sustainable development of the national economy. Apart from its core roles in price discovery and risk management for agricultural products, this market acts as a catalyst for efficient allocation of resources and continuous financial innovation. Furthermore, it enhances market liquidity and amplifies China's global economic impact. As China's financial sector matures, the agricultural futures market will continue its dual role of bolstering agricultural prosperity and financial dynamism, despite encountering various challenges. This study explores the present state of China's agricultural futures market, evaluating metrics such as total market turnover and penetration. Analysis identifies several critical issues, including inadequate liquidity, susceptibility to market manipulation, speculative activities, and uncertain economic policies. To address these challenges, the paper proposes targeted strategies. The research outcomes carry significant implications for nurturing the sustainable and resilient growth of China's agricultural futures market.

Keywords: Agricultural futures, China, futures markets.

1. Introduction

The agricultural futures market in China plays a crucial role in its economy, marked by its diverse significance and rapid evolution. Firstly, it functions as a crucial tool for managing risks associated with price fluctuations, benefiting both farmers and agribusinesses through futures contracts that secure future prices.

Additionally, the futures market promotes fair pricing mechanisms for agricultural commodities, supporting informed decision-making among producers, consumers, and governments. This process not only guides rational production and consumption strategies but also influences governmental agricultural policies.

Furthermore, amidst global population growth and increased food demand, the agricultural futures market has expanded significantly in size and trading volume. This growth has attracted a growing number of investors, supported by advances in electronic trading platforms, thereby enhancing market efficiency and accessibility and driving its globalization.

Thus, the agricultural futures market is not only a cornerstone of China's agricultural economy but also a crucial component of the global financial system. Addressing challenges within this market is essential for its sustainable development and broader societal benefits. This article aims to explore

@ 2025 The Authors. This is an open access article distributed under the terms of the Creative Commons Attribution License 4.0 (https://creativecommons.org/licenses/by/4.0/).

the current landscape of the agricultural futures market in China, identify potential challenges, and propose practical solutions to these issues.

2. Current Situation

The dawn of China's agricultural futures market began in the late 1980s and early 1990s, aligning with the gradual shaping of the nation's market-driven economic system and the ongoing reforms spurred by the policy of openness. This era marked the debut of futures markets as an innovative financial tool within China. A crucial landmark arrived in 1990 with the founding of the Zhengzhou Commodity Exchange (ZZME), a pivotal juncture as the country's first futures exchange. This milestone officially set in motion the course of futures trading in China [1].

During subsequent years, China witnessed a significant expansion in its futures market. Successively, the Dalian Commodity Exchange and the Shanghai Futures Exchange were founded, accompanied by the gradual introduction of diverse agricultural futures contracts such as those for corn, soybean, and cotton. Throughout this era, the principal role of China's agricultural futures market evolved to encompass vital functions such as facilitating price discovery mechanisms and providing essential risk management tools tailored for farmers and enterprises alike [2].

Since the dawn of the 21st century, China's agricultural futures trading sector has experienced a gradual evolution, driven by improved regulatory frameworks and the optimization of market mechanisms. The strategic objective of "steady advancement of the futures market" was first outlined in the 2001 Tenth Five-Year Plan. The pivotal moment came with the issuance of the "Guidelines for Further Regulating the Futures Market" by the State Council in 2004. This policy directive not only provided substantial backing for the market's development but also established a robust framework of legal protections to bolster its growth. Consequently, this era saw a marked surge in trading volumes and participant numbers, coupled with significant strides in market liquidity and operational efficiency [3].

Currently, the agricultural futures market in China stands as the second largest globally, trailing only behind the United States. This market features a broad selection of over 30 agricultural futures and options, covering key products like corn, soybeans, wheat, and apples [4].

China's agricultural futures market plays a crucial role in functions such as discovering prices, hedging risks, and integrating markets. Studies indicate that despite shortcomings in price discovery, the market effectively tracks price fluctuations and serves as a robust risk management tool during significant events like trade disputes, climate crises, and the COVID-19 pandemic. Notably, the apple futures market, launched on the Zhengzhou Commodity Exchange in 2017, has become the leading global contract for fruit futures. Research shows its strong performance in price discovery, risk management, and integration with spot markets, despite occasional periods of high volatility, especially during outbreaks [1].

Regarding the overall turnover of the agricultural market, the combined annual turnover between 2019 and 2020 dropped significantly from 462.49 billion yuan to 4.72 trillion yuan due to the pandemic's impact. However, following the initial containment of the pandemic in 2020-2021, turnover quickly recovered to 1.12 trillion yuan, indicating a stabilization trend in the agricultural options market from 2021 to 2023 (See Figure 1).

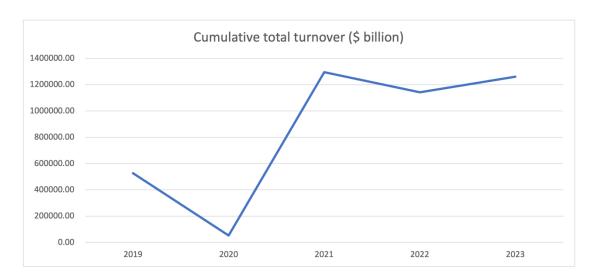


Figure 1: Agricultural futures market turnover

Meanwhile, in terms of market share, the share of the agricultural market in the total financial market is relatively high and stable at 15.91-23.23 percent in 2019-2023 (See Figure 2).

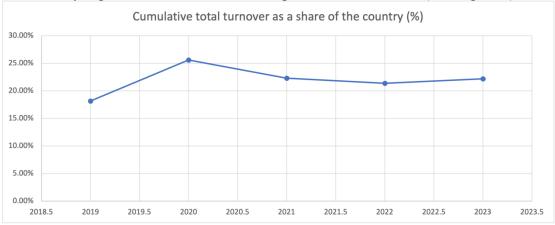


Figure 2: Agricultural markets as a share of financial markets

Furthermore, the Chinese authorities and pertinent regulatory bodies have consistently refined market regulations and policies to enhance market transparency and standardization. A notable example occurred in 2018 when the China Securities Regulatory Commission (CSRC) implemented the Measures for the Supervision and Administration of Futures Companies. These measures aimed to strengthen supervision over operations and management practices in the futures market, thereby protecting the interests of investors [5].

In conclusion, China's agricultural futures market has evolved significantly since its inception, progressively expanding to become a key player on the global agricultural futures platform. This market plays crucial roles in price discovery, risk management, and market integration. With ongoing improvements in market mechanisms and robust policy support, it is well-positioned to sustain strong and stable growth in the foreseeable future.

3. Problems

3.1. Market Illiquidity and Market Manipulation

Currently, China's agricultural futures market faces significant challenges with insufficient liquidity and frequent instances of market manipulation. The lack of liquidity severely limits the market's ability to accurately determine prices and manage risks, reducing its overall effectiveness and attractiveness. Academic research emphasizes a clear shortage of liquidity in China's agricultural futures market, particularly exacerbated during periods of financial market instability [6].

Furthermore, market manipulation is a recurring issue, especially when influential speculators exploit their financial leverage to manipulate prices, disrupting market order and causing considerable price volatility. Studies indicate that such manipulation seriously undermines market fairness, diminishes investor confidence, and increases market instability [7]. These issues not only hinder the market's healthy growth but also pose substantial risks and uncertainties for agricultural producers and consumers, potentially disrupting the efficient functioning of the agricultural supply chain.

Therefore, proactive steps are essential to improve market liquidity and strengthen regulations against market manipulation. These actions are crucial to promoting fair and stable market development.

3.2. Speculative Behaviour

In China's agricultural futures market, the intensification of speculative activities poses a significant challenge. The widespread prevalence of such practices has led to increased market price instability and heightened overall market risk. Extensive research highlights the pervasive nature of speculative behaviors within this market segment. These actions not only disrupt the customary trading dynamics but also amplify price instability [8]. This heightened instability adversely affects both agricultural producers and consumers, introducing uncertainty throughout the agricultural supply chain and escalating operational risks and expenses. Moreover, the surge in speculative activity has created artificial fluctuations in market supply and demand, thereby distorting price signals. This distortion complicates accurate assessments of market demand for agricultural producers, influencing their production decisions and resource allocation strategies. Consequently, the impacts extend well beyond mere financial volatility, influencing the operational and strategic aspects of agricultural businesses.

3.3. Uncertain Economic Policies

Undoubtedly, the unpredictability surrounding economic policies plays a crucial role in shaping the Chinese agricultural futures market. This uncertainty encompasses the impacts of both domestic policy changes and shifts in global economic policies, affecting market dynamics and potentially causing fluctuations in policy implementation. Studies show that such economic policy uncertainty distinctly weakens China's agricultural futures market, exacerbating market volatility and spreading risks throughout the sector [9]. This volatility becomes particularly evident during periods of trade tensions between China and the United States and adjustments in domestic economic strategies, highlighting how market risks are transmitted tangibly through agricultural futures trading. As a result, these developments not only disrupt market stability but also hinder agricultural product trade and influence price formation. For instance, during the mentioned trade conflicts, China's agricultural futures market saw significant turbulence, characterized by sharp price swings, reduced trading activity, and a notable decline in market confidence [10]. These economic uncertainties add layers of complexity and increase the market's risk profile, thereby further threatening its stability and sustainable growth prospects.

4. Recommendations

4.1. Improving Liquidity and Preventing Market Manipulation

Addressing the issues of liquidity and market manipulation in China's agricultural futures market requires strategic initiatives. Firstly, broadening participation by institutional and global investors is crucial to deepening market activity and reducing the impact of dominant market players. Research emphasizes that a diverse participant base enhances liquidity and stabilizes market dynamics.

Secondly, upgrading market infrastructure and advancing trading technologies are vital for robust and efficient operations. This includes improving trading platforms, speeding up transactions, cutting costs, and diversifying financial products to meet diverse investor demands. These improvements are essential for strengthening market resilience and responsiveness.

Additionally, enhancing market supervision is necessary to monitor large transactions and detect abnormal trading patterns to prevent manipulation. Key actions involve establishing strict regulations, enhancing transparency with real-time market data, and imposing severe penalties for manipulative behavior. These coordinated efforts aim not only to enhance liquidity but also to promote fair and stable market growth.

Implementing these comprehensive measures is expected to significantly enhance market liquidity, reduce manipulation, and reinforce overall market integrity and stability.

4.2. Curbing Speculative Behaviour

To combat the widespread issue of speculative activities in China's agricultural futures market, a set of specific actions can be enacted. Initially, bolstering market oversight is critical, necessitating the establishment and refinement of a robust regulatory framework to counter excessive speculation and market manipulation. Through the implementation of real-time monitoring of trading data, regulatory authorities can promptly detect and address abnormal trading patterns, thereby reducing speculative practices and maintaining orderly market conduct. Enhancing market supervision is crucial for effectively curbing speculative behavior and promoting a stable trading environment.

Furthermore, optimizing market mechanisms entails improving transparency and minimizing information asymmetry. This can be achieved by implementing comprehensive information disclosure protocols aimed at ensuring the accessibility and clarity of market data. Such measures empower investors to make well-informed decisions based on accurate market information, thereby lessening speculative behavior arising from information disparities. Additionally, prudent formulation of trading regulations, including the imposition of trading limits and increased margin requirements, helps to manage excessive speculation and safeguard sustainable market development.

Lastly, educating investors and enhancing their awareness of risks and investment strategies is essential. By promoting educational programs focused on improving risk management and fostering prudent investment practices, investors can gain a deeper understanding of the dynamics of the futures market and avoid uninformed speculation. Educational initiatives for investors play a crucial role in reducing speculative activities and strengthening market resilience in the long run.

4.3. Reducing Economic Policy Uncertainty

To mitigate the adverse effects of uncertainty in China's agricultural futures market due to economic policy, several strategies can be implemented. Firstly, the government ought to prioritize transparency in policy making, proactively disclosing changes and ensuring consistency and predictability. Regular updates on economic policies and market regulations will empower stakeholders to anticipate changes, preemptively strategize responses, and diminish market volatility and risk stemming from policy

uncertainties. Enhanced transparency is pivotal in curbing market fluctuations and bolstering confidence.

Secondly, effective communication channels between the government and market participants should be fortified. This facilitates timely understanding of market dynamics and needs, enabling swift adjustments to policies. Conducting policy hearings and market seminars to solicit feedback from stakeholders ensures that policy formulation remains informed and rational, thereby reducing uncertainties arising from policy shifts.

Moreover, bolstering macroeconomic oversight is crucial to maintaining a stable economic climate and mitigating external economic uncertainties' impact on the market. Particularly amidst global economic fluctuations and trade disputes, proactive governmental measures are imperative to stabilize domestic markets and shield the agricultural futures sector from external shocks. A stable macroeconomic environment is indispensable for fostering market health.

Lastly, fostering international cooperation is essential to stabilize trade relations and buffer against global market uncertainties affecting domestic markets. Strengthening ties with key trading partners will stabilize the agricultural trade landscape and ensure sustained market growth and stability.

5. Conclusion

Ultimately, addressing the challenges within China's agricultural futures market necessitates broad societal engagement and commitment. Effective resolution demands collaborative efforts involving governmental bodies, businesses, the public, and other stakeholders. By fostering such cooperation, we can effectively tackle the issues facing China's agricultural futures market and foster its sustained, robust growth. This, in turn, will bolster the steady advancement of China's agricultural economy. Our aspiration is that these endeavors will significantly bolster the development of China's agricultural futures market.

References

- [1] Hou, X., et al. (2022). The trilogy of the Chinese apple futures market: Price discovery, risk-hedging and cointegration. Sustainability, 14(19), 12864.
- [2] Yang, J., Li, Z., & Wang, T. (2020). Price discovery in Chinese agricultural futures markets: A comprehensive look. Journal of Futures Markets, 41(4), 536-555.
- [3] Li, J., & Zhang, J. (2015). The current situation, problems, and countermeasures in the development of China's agricultural futures market. Financial Education Research, (04), 74-80.
- [4] Chen, Z., Yan, B., & Kang, H. (2022). Price bubbles of agricultural commodities: Evidence from China's futures market. Empirical Economics, 64(1), 195-222.
- [5] Li, X., & Ma, W. (2023). Analysis of the current situation, problems, and countermeasures in the development of China's agricultural futures market. Applied Economics and Policy Studies, 804-814.
- [6] Xu, Y., et al. (2022). Liquidity of China's agricultural futures market: Measurement and cross-market dependence. China Agricultural Economic Review, 14(2), 443-463.
- [7] Cai, S. (2016). Introduction to the development path of China's agricultural futures market. Social Sciences Academic Press, 2016(03).
- [8] Hu, X., et al. (2024). Extreme risk spillovers between US and Chinese agricultural futures markets in crises: A dependence-switching copula-covar model. PLOS ONE, 19(3).
- [9] Lyu, Y., et al. (2021). Economic uncertainty shocks and China's commodity futures returns: A time-varying perspective. Resources Policy, 70, 101979.
- [10] Tan, Y., & Yang, S. (2024). Challenges and countermeasures for China's food security under the background of risk superposition. Journal of South China Agricultural University