

Theoretical Logic of Narrowing the Income Gap Between Urban and Rural Areas Through Live Streaming E-commerce

Zhengrun Jia*

University of Nottingham Ningbo China, Ningbo, 315100, China

*Corresponding author: Zhengrun Jia, 1274609243@qq.com

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Abstract: The urban-rural income gap remains a key global challenge, especially in China. Existing studies lack analysis on live-streaming e-commerce's role in narrowing this gap. This paper first clarifies live-streaming e-commerce's traits (high stickiness, fast sales, low returns) and status (China's 2024 market scale: ~RMB 5.8 trillion). It then notes China's urban-rural income gap widened from RMB 7,238 (2005) to RMB 31,069 (2024), rooted in unbalanced wage/operating income. Theoretical analysis reveals that live-streaming e-commerce narrows this gap by expanding employment to boost rural wage income and fostering industries to increase rural business income, offering developmental insights for emerging economies. This research provides empirical support for narrowing the urban-rural income gap to achieve rural revitalization, while also offering developmental insights for other developing countries.

Keywords: Live-Streaming E-commerce; Urban-Rural Income Gap; Wage Income; Operating Income

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1.Introduction

1.1 Research background

In economic theory, the Kuznets Curve posits that without external intervention, income inequality narrows as the level of economic development advances. However, this is not the case in reality. Income inequality exists in many countries worldwide, among which the urban-rural income gap is extremely significant. Data shows that the contribution of the urban-rural income gap to national income inequality has been on a steady rise: it increased from 38% in 1988 to 43% in 1995, and further rose to 47% in 2002 (Zhang, 2021). Lagakosz (2020) points out that the urban-rural income gap is generally wider in developing countries. Taking Nigeria and India as examples, there are significant urban-rural disparities in areas such as housing, sanitation facilities, electricity access, television ownership, mortality rates, and health indicators. For instance, only 45.9% of rural areas in India have access to toilet facilities, compared to 89.5% in urban areas; in Nigeria, 38.9% of rural areas have access to electricity, while the figure stands at 82.7% in urban areas. Relatively speaking, the urban-rural gap is smaller in developed countries, but differences still exist between nations. For example, the urban-rural wage gap in the United States changed during specific periods, widening from the late 19th century to the pre-World War II era.

As the world's largest developing country, China has a dual urban-rural system, making the issue of urban-rural income gap more prominent. In the early stage of reform and opening-up, rural-focused reforms led to a temporary narrowing of the urban-rural income gap. For most of the subsequent period, the gap fell on the left side of the inverted U-curve and gradually

widened. Since 2012, it has been on the right side of the inverted U-curve, showing a continuous downward trend. Zhang (2021) notes that although the internal income gap within both urban and rural areas has been gradually expanding, and the income gap between urban and rural areas has shown a narrowing trend, the urban-rural gap still occupies an important position and exerts a key impact in the composition of overall income inequality in society.

1.2 significance

Narrowing the urban-rural income gap serves as both a core driver for advancing rural revitalization and a significant contribution by China to addressing global urban-rural development imbalances. These two objectives mutually reinforce each other and hold profound practical significance.

On one hand, narrowing the urban-rural income gap ensures farmers' income growth, making them more willing to invest capital and technology in developing specialty agriculture, rural tourism, and rural e-commerce. Simultaneously, as the income gap narrows, rural employment opportunities and income levels gradually align with urban standards. This attracts groups like college graduates and returning migrant workers to start businesses or seek employment in their hometowns, injecting critical resources such as technology and management into rural areas and avoiding the awkward situation of "no one to carry out rural revitalization."

On the other hand, many developing nations struggle to balance urban-rural development due to vast territories and pronounced regional disparities, often falling into the trap of "the richer the cities, the poorer the countryside." China's practice of narrowing income gaps offers these countries a non-Western model for reference.

Therefore, reducing the urban-rural income gap serves as both a core driver for advancing rural revitalization and a significant contribution from China to addressing global urban-rural development imbalances. These two objectives mutually reinforce each other and hold profound practical significance.

1.3 current status & The work of this study

There is a large body of academic research on the urban-rural income gap, conducted from diverse perspectives. The reform and rights opening-up (or "rights empowerment") of the socialist system with Chinese characteristics have driven economic growth and significantly improved people's living standards. However, the unique dual-system has resulted in the lag of peasants' rights opening-up (or "rights empowerment") behind that of urban residents, which in turn has intensified the dual structure and widened urban-rural inequality (Liu and Li, 2024). Chen et al. (2010) contend that education, particularly the disparity in education investment levels, is the most crucial determinant of the urban-rural income gap. Cai and Yang (2000) suggest that the overall direction of government policies exerts an influence on the evolution of the urban-rural income gap. Huang et al. (2023) point out that the development of the digital economy can significantly narrow the income gap between urban and rural residents in China.

It can be seen that existing research has examined how to narrow the urban-rural income gap from various perspectives, particularly through the lens of e-commerce. However, there remains a lack of literature specifically addressing how live-streaming e-commerce contributes to reducing this gap. This paper, based on the characteristics of live-streaming e-commerce, clarifies the theoretical logic behind its role in bridging the urban-rural income divide, thereby filling a gap in the existing research.

2.Current Development Status of Live E-commerce

2.1 Definition and Feature

Live-streaming e-commerce refers to an e-commerce format that uses live streaming as a channel to achieve marketing goals, and it is a product of the two-way integration of live streaming and e-commerce in the context of the digital era. Live-streaming e-commerce reconstructs the three elements of "people, goods, and venues" by means of live streaming, but its essence remains e-commerce (Zhiyan Consulting, 2023). Live shopping (i.e., live-streaming e-commerce) represents a dynamic evolution of e-commerce, which combines live streaming videos with real-time purchasing functions to provide an interactive experience for viewers—they can directly interact with hosts, ask questions, and make purchases during the live broadcast (Firework, 2025). Mirchandani (2024) notes that compared with traditional e-commerce, live-streaming e-commerce has numerous advantages.

Higher User Stickiness and Conversion Rates: Live shopping delivers an interactive experience that traditional e-commerce cannot match. Viewers spend significantly more time on live streams, with an average duration of 15 to 30 minutes—far longer than the typical 54 seconds they spend on traditional e-commerce platforms (Firework, 2025; Mirchandani, 2024). This enhanced stickiness translates into lower cart abandonment rates and higher conversion rates, with live shopping's conversion rate reaching up to 60%, compared to the 2.5% average of traditional e-commerce (Mirchandani, 2024).

Accelerated Sales: The time required to complete a product sale varies substantially between traditional e-commerce and live-streaming e-commerce. Sales via traditional e-commerce may take hours to months, depending on factors such as brand visibility, search engine optimization (SEO), and market competition (Mirchandani, 2024). In contrast, live-streaming e-commerce typically drives faster sales within minutes to hours, thanks to real-time engagement, product demonstrations, and limited-time offers—elements that create a sense of urgency and encourage immediate purchases (Mirchandani, 2024).

Lower Return Rates: Hosts demonstrate products in detail and answer customer questions in real time, which helps consumers make more informed purchasing decisions. This reduces the average return rate of live-streaming e-commerce to 10%–15%, whereas the return rate of traditional e-commerce ranges from 20% to 30% (Firework, 2025; Mirchandani, 2024).

2.2 Status

In 2024, the market scale of live-streaming e-commerce in China stood at approximately RMB 5.8 trillion, with a Compound Annual Growth Rate (CAGR) of 18.0% projected for the period 2024–2026. For the same year, the Gross Merchandise Volume (GMV) of Kuaishou E-commerce reached RMB 1.3896 trillion, reflecting a year-on-year growth of 17.3%, while the average monthly number of buyers surpassed 143 million. In 2023, key monitored e-commerce platforms conducted a total of over 110 million live-streaming sessions, featuring more than 70 million live-streamed products and engaging over 2.7 million active hosts. By 2024, the number of professional live-stream hosts had increased to 38.8 million, marking a 150% year-on-year growth, and the total number of short video accounts had reached 1.62 billion (China International E-Commerce Center Research Institute, 2025). These data collectively indicate that e-commerce currently serves as a crucial component of both the real economy and the digital economy.

2.3 types of live-streaming e-commerce

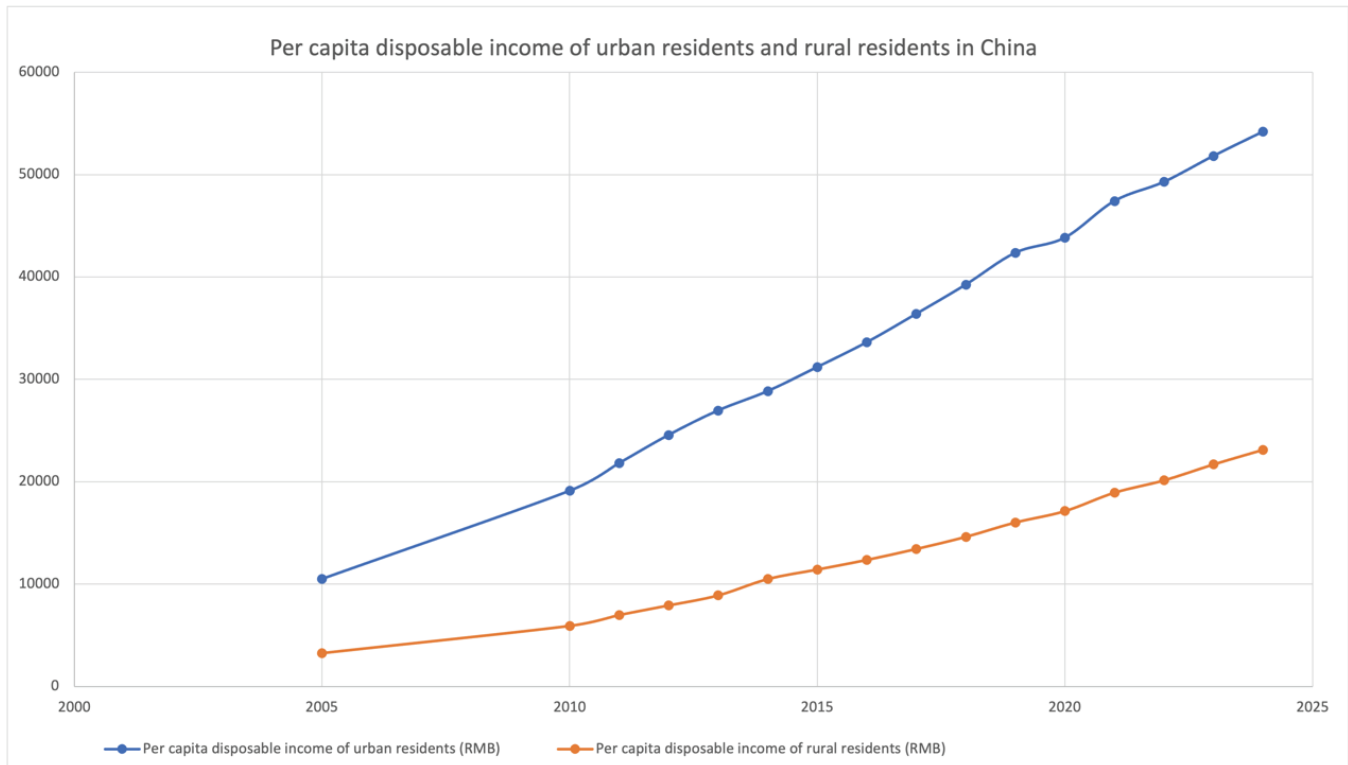
Zou et al. (2023) pointed out that live-streaming e-commerce has expanded cross-regional urban supply chains, particularly in the agricultural and handicraft sectors. By helping agricultural products, rural cultural tourism products, and local specialties in rural areas access broader and more distant markets, live-streaming e-commerce exerts the most direct impact on rural revitalization. Large-scale live broadcasts and the reputation or credibility of hosts have promoted the sales of rural products and increased rural incomes. This is because most fresh agricultural product suppliers are located in central or western China; due to long market distances, these products have a high dependence on cold chain logistics. Such products have strict requirements for timeliness and are constrained by high transportation costs. Under traditional marketing models, most traders—especially farmers—struggle to break through their operational radius, which also explains why many agricultural products in central and western China fail to be sold. Live-streaming e-commerce has broken trade barriers in some industries in underdeveloped regions, effectively expanded the business service radius of these regions, and driven their economic growth. Zhu et al. (2021) noted that since online shopping is not restricted by location or time, it provides equal development opportunities not only in large cities but also in small and even remote towns and villages. Currently, top-tier streamers in China serve suppliers and customers across the country, while grassroots streamers are expanding their businesses in suburban and rural areas. Live-streaming commerce enables cross-regional connection of agricultural products, rural cultural tourism products, and other rural specialty products to broader markets. Through large-scale exposure and the influence of hosts, it promotes the sales of agricultural products and increases farmers' incomes. By linking unequal local products with urban purchasing power, e-commerce and live-streaming have driven significant economic growth; this growth is regarded as “not only an interesting development and employment initiative for rural and remote areas in China, but also likely applicable to other Asian countries with distinct rural characteristics and urban-rural gaps” (Zhou and Yu, 2021). From the perspective of employment, live-streaming e-commerce has also transformed the employment structure in rural and other marginalized areas. For instance, Alibaba's “Rural Live Streaming Initiative” has facilitated the transition of farmers' employment patterns.

Mobile phones have become their “new farming tools,” and live streaming has turned into their “new agricultural activity” (Zou et al., 2023).

3. Urban-rural income gap

3.1 Definition and Status

Fig1 Per capita disposable income of urban residents and rural residents in China. Notes: The disposable income of urban residents in China and that of rural residents in China are respectively presented by blue and orange lines. Sources: All data are from the National Bureau of Statistics of China.



As shown in Fig. 1, the gap between the disposable income of urban residents and that of rural residents in China exhibited an expanding trend from 2005 to 2024. With China’s rapid development, both the disposable income of urban residents and that of rural residents have increased steadily year by year; the income gap between urban and rural residents has risen from RMB 7,238 in 2005 to RMB 31,069 in 2024, which directly reflects the expanding trend of the urban-rural income gap. Although the disposable income of China’s urban residents and that of rural residents both increased significantly from 2005 to 2024, the gap between them has grown wider.

3.2 Cause

The per capita disposable income of residents includes wage income, operating income, transfer income, and property income. Among these, wage income and operating income account for 70% to 80% of the total, making them the main components of per capita disposable income.

Liu and Li (2024) explicitly proposed through empirical data that the contribution rate of the wage income gap to the overall urban-rural income gap has remained above 70% over the past decade, making it the most influential factor among all income components. The core logic lies in the systematic differences between urban and rural labor forces in three aspects: “employment structure, human capital, and institutional discrimination,” as well as the disparity in the opening-up of rights between urban and rural areas after reform—urban areas have priority access to rights such as employment and education. These factors have kept farmers in a “passive participation” position in the labor market. Cai and Yang (2000) pointed out that even though the household registration system has been relaxed since 1993, local governments still restrict migrant workers from entering high-wage industries through policies such as “industry access restrictions” and “local employment protection,” forming a “cycle of wage discrimination.” Specifically, farmers find it difficult to accumulate human capital due to low

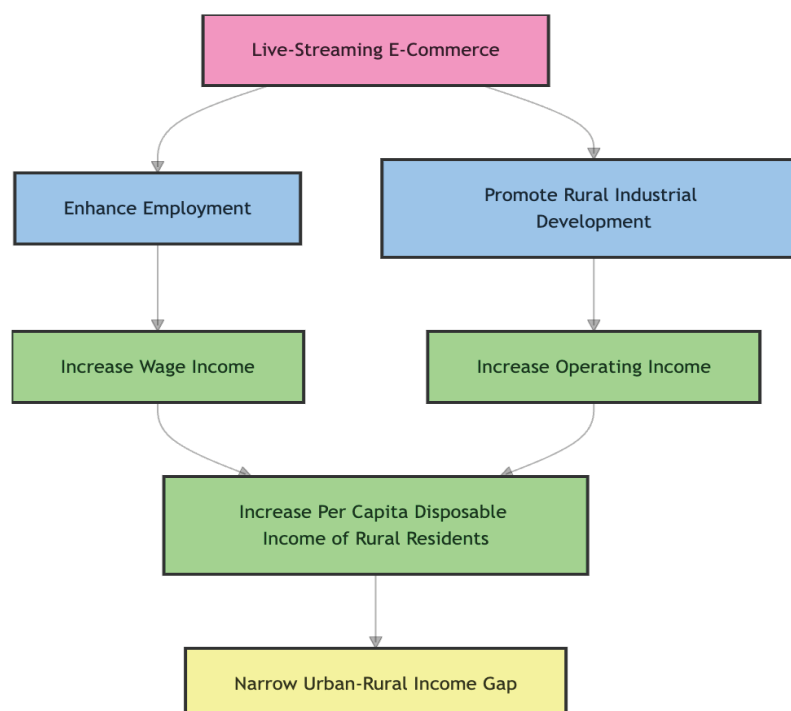
wages, which further deprives them of high-income opportunities.

Operating income was once the core income source for rural residents and a key force in narrowing the urban-rural gap in the early stage of reform. However, with institutional biases and changes in the industrial structure, its function of “narrowing the gap” has gradually weakened. Cai and Yang (2000) focused on analyzing the early reform stage from 1979 to 1985: during this period, the household contract responsibility system was implemented in rural areas, granting farmers independent management rights over land, which led to a significant increase in farmers’ operating income. After 1985, the urban-rural difference in operating income underwent a fundamental reversal—its function of “narrowing the gap” gradually disappeared and even became a driver of the expanding gap. There are two main reasons for this. First, the profit margin of agricultural operations has declined. Liu and Li (2024) noted that with the rise in agricultural production costs (the average total cost per mu of three major grain crops increased by 40.6% from 2011 to 2020), the net profit from agricultural production dropped significantly. Specifically, the net profit from grain production was negative for four consecutive years from 2016 to 2019; in 2020, the average net profit per mu of the three major grain crops was only RMB 47.14, and the cost-profit rate fell to 4.21%. Second, there has been an opening-up of operating rights in urban areas. Cai and Yang (2000) mentioned that after 1986, urban reform accelerated, and the non-public sector of the economy gained equal legal status. Urban self-employed individuals were allowed to enter high-benefit fields such as industry and services, while also enjoying policy support in areas like credit and taxation. This “disparity in the opening-up of rights” enabled the operating income of urban residents to catch up rapidly.

Therefore, to narrow the urban-rural income gap, attention must be paid simultaneously to the imbalance between urban and rural wage income and operating income.

4.Theoretical Logic

Live-streaming e-commerce acts on the rural economy through two major pathways. On one hand, the expansion of its industrial scale and the demand for supporting services can enhance the employment level in rural areas, directly driving the growth of rural residents’ wage income. On the other hand, as a new sales channel and industrial empowerment tool, it can promote the development of rural characteristic industries and the extension of value chains, thereby boosting the operating income of rural residents (especially business entities). The dual growth of wage income and operating income jointly drives an increase in the per capita disposable income of rural residents, and ultimately has a positive impact on narrowing the urban-rural income gap.



4.1 The impact of live streaming e-commerce on rural employment and entrepreneurship

Live-streaming e-commerce, as an important new form of rural e-commerce, relies on digital technologies and platform ecosystems to play a significant role in solving rural employment problems and optimizing the employment structure.

I. Expand Employment Scale, Covering the Entire Industry Chain and Special Groups

Centered on the production of physical products, live-streaming e-commerce can drive employment in multiple upstream and downstream links. From product design and raw material supply in the production process, to marketing, photography, and operation related to live streaming, and then to service links such as logistics and distribution, packaging, and after-sales, it can create direct and indirect employment positions. In addition, live-streaming e-commerce also accommodates the employment of special groups. First, it has relatively flexible requirements for skills, education, and physical conditions, providing a low-threshold employment path for rural vulnerable groups. Second, it also drives women's employment. The 2019 Report on Women's Entrepreneurship and Employment jointly released by China Women's University and Alibaba Research Institute pointed out that the average transaction amount of female store owners on the Taobao platform exceeded 200,000 yuan in 2018, an increase of more than 100% compared with 2014, and the growth rate was 30% higher than that of male store owners. Third, it promotes the employment of people with disabilities. People with disabilities can achieve home-based employment and entrepreneurship through e-commerce live-streaming platforms.

II. Form Localized, On-Site, and Cluster Employment Effects

Yuan (2020) pointed out that the rise of e-commerce platforms has provided new employment space for migrant workers, and a large number of rural laborers' non-agricultural employment has shown a localized trend. Moreover, live-streaming e-commerce reduces the geographical threshold for employment and promotes the sinking of employment opportunities to grassroots levels such as towns and villages. In addition, employment and entrepreneurship driven by e-commerce show cluster characteristics. Centering on the core e-commerce industry, upstream and downstream supporting enterprises, service institutions, and employed people gather in the same region, forming a complete "production-sales-service" system.

III. Attract a Large Number of Young Laborers to Return to Their Hometowns for Employment and Entrepreneurship

Yuan (2020) pointed out that the necessary conditions for entrepreneurship on e-commerce platforms are having internet skills or being familiar with smartphone applications, which are exactly the strengths of young people, and there is no minimum threshold requirement for monetary capital investment, thus attracting a large number of young people to return to their hometowns for employment and entrepreneurship. For example, Pu'er City actively encourages the development of rural e-commerce live streaming, courtyard economy, family farms, creative agricultural characteristic industries, etc., and increases support for returned migrant workers, college graduates, veterans, and others to start businesses and find employment in their hometowns. According to statistics from the People's Government of Yunnan Province, as of the end of May 2024, Pu'er City had issued 462 million yuan in entrepreneurial guaranteed loans, driving 5,127 jobs, and issued 152 million yuan in Yunnan Entrepreneurship Loans, driving 1,190 jobs.

4.2 The impact of live streaming e-commerce on rural industries

In promoting the development of rural industries, the core advantages of live-streaming e-commerce lie in reducing information asymmetry, optimizing value chains, stimulating the demand side, and lowering entry barriers.

I. Reduce Information Asymmetry and Solve Agricultural Product Transaction Difficulties

Zan and Wang (2020) pointed out that real-time live streaming of the entire process of agricultural product seedling cultivation, fertilization, harvesting, and packaging allows consumers to directly observe the production environment and the use of input materials. This is equivalent to "real-time monitoring," which alleviates the asymmetry of quality information and enhances the credibility of agricultural products. Li et al. (2023) noted that with multi-dimensional information provided by "hosts (sufficient professional knowledge), co-viewers (similar needs), and guest speakers (high reliability)," the difficulty for consumers to judge the quality and uses of agricultural products is reduced, and decision-making uncertainty is minimized. Zeng et al. (2022) indicated that through "production traceability" and "operation demonstrations" in live streaming scenarios, the production process of agricultural products is made transparent. This eliminates consumers' doubts about the "authenticity of products" and lays a trust foundation for value transmission.

II. Optimize Value Chains and Transform Long Chains into Short Chains

Both Zan and Wang (2020) and Zeng et al. (2022) pointed out that live-streaming e-commerce eliminates the intermediate links of the traditional “producer - buyer - wholesaler - retailer” model, realizing short-chain transactions of “producer - host - consumer.” This compresses circulation links and reduces physical costs and transaction costs. At the same time, live streaming showcases the value of products, helping high-quality agricultural products achieve “high quality for high price” and increasing industrial returns.

III. Stimulate the Demand Side and Provide Stable Market Support for Rural Industries

Li et al. (2023) proposed that the group effect drives the consumption of agricultural products. The “information effect” (consumers are willing to accept information from hosts, co-viewers, and guest speakers) reduces decision-making difficulty, while the “normative effect” (consumers learn the propositions of hosts, co-viewers, and guest speakers) promotes conformity-based purchases.

In addition, “enhanced stickiness through attitude intermediaries” also drives agricultural product consumption. Through “affective attitudes” (reducing anxiety and enhancing a sense of belonging) and “instrumental attitudes” (efficiently evaluating products and meeting social image needs), the group effect is transformed into long-term consumption stickiness. Zeng et al. (2022) suggested that “multi-dimensional value output” enhances demand stickiness. For example, interactive companionship (emotional value) and rural scene displays (cultural value) in live streaming enable consumers to not only purchase products but also obtain additional value, forming stable consumer communities.

5. Conclusion

This paper concludes that live-streaming e-commerce can narrow China’s urban-rural income gap through two key pathways. It expands rural employment (covering the whole industry chain and special groups, forming localized cluster employment, and attracting young people back home) to boost rural residents’ wage income, and promotes rural industrial development (reducing information asymmetry, optimizing value chains, and stimulating demand) to increase their operating income, with the dual income growth narrowing the gap.

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Conflict of Interests

The authors declare that there is no conflict of interest regarding the publication of this paper.

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