

Research on the Path of Financial Standardization Construction

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ABSTRACT

Financial standards constitute the unified technical requirements within the financial sector, providing rules and guidance for financial activities. The development of financial standardization is not only a critical requirement at this historical stage of China's financial evolution but also a necessary path to regulate and ensure the healthy development of China's financial industry. Compared to the practical advancements in finance, standardization efforts in China's financial sector still exhibit certain deficiencies. Therefore, greater emphasis should be placed on research into financial standardization, and initiatives to strengthen this work must be enhanced. This paper examines the current state of standardization within the financial sector, provides international comparisons, outlines the challenges encountered during China's financial standardization process, and offers insights into the future development of financial standard construction.

KEYWORDS

Standardization; Financial standardization; Standard system

1 Introduction

Standardization refers to activities aimed at achieving optimal order in a specific context by establishing common and repeatable rules for actual or potential problems. This process encompasses the development, issuance, and implementation of standards. Evolved through long-term production practice, it is a discipline whose core principles are unification and specification. Currently, various industries recognize the important role of standardization in sectoral development and have conducted extensive research and applications; the financial field is no exception. Financial standardization is a key driver for the high-quality development of the financial industry. It involves the standardization of financial products and services, the refinement of the financial market system, the standardization of financial risk prevention and control, and standardization in areas such as inclusive finance and fintech. Financial standardization work has been underway in China for over three decades, establishing fundamental processes for creating, promoting, and implementing standards. However, related research remains relatively scarce, and the field is still in a phase of continuous exploration and refinement. Advancing financial standardization, further solidifying the foundational role of financial norms, and accurately identifying service priorities will lead to higher-quality, more efficient modern services, thereby fostering the high-quality and dynamic development of China's finance.

2 Current Development of Financial Standardization in China

The inaugural National Financial Standardization Technical Committee (NBFSTC) was established in 1991, establishing the top-level structure for financial standard-setting. In recent years, the Committee has continuously enhanced its efforts in the top-level design of financial standards, improved coordination and promotion mechanisms, and strengthened the collaborative framework involving the People's Bank of China (PBOC), the National Financial Regulatory Administration (NFRA), the State Administration for Market Regulation (SAMR), and the China Securities Regulatory Commission (CSRC). This has fostered a new financial standard system where the government leads the development of national and industry standards, the market autonomously formulates association standards, and enterprises establish their own standards. The development, revision, implementation, and supervision of various financial industry and national standards have progressed in an orderly and systematic manner, effectively addressing gaps in the field and enabling increasing participation in the development and revision of international financial standards. In 2010, the PBOC compiled and released the "China Financial Standardization Report 2009," summarizing the standardization work within China's financial industry for 2009 and prior years. This was the first publicly released annual report on China's financial standardization work, and such reports have been published annually since. In 2022, the PBOC, together with the SAMR, the former China Banking and Insurance Regulatory Commission (CBIRC), and the CSRC, jointly issued the "Financial Standardization Development Plan for the 14th Five-Year Period." This plan defines the goals, key tasks, and safeguard measures for financial standardization, serving as a guiding document for standardization in the financial field for the new era, succeeding the "Financial Industry Standardization System Construction Development Plan (2016-2020)" from the 13th Five-Year Plan period. According to the NBFSTC website, as of April 18, 2024, China had released 549 financial standards, with 114 under development. The role of standardization in serving the real economy, preventing financial risks, and

deepening financial reform is becoming increasingly prominent.

3 Domestic and International Comparison

Financial standards are playing an increasingly significant role in global financial governance. Internationally, standards are regarded as technical underpinnings for economic activities and social development, forming a crucial aspect of a nation's fundamental institutions. Developed economies, represented by those in Europe and the United States, have achieved considerable progress in financial standardization and are continuously advancing the internationalization and convergence of standards. China also emphasizes the foundational role of standards in modernizing financial governance, actively participates in international standardization activities, and is assuming a growing role in domestic and international standardization efforts. For instance, Chinese experts have played leading roles in developing international standards in areas like mobile payments, blockchain, and sustainable finance, and have spearheaded the development of internationally published standards such as the specification for describing banking products and services and the security objectives for third-party payment service information systems.

3.1 Establishment and Improvement of Standard Systems

Internationally, financial standardization frameworks have been progressively established. A notable example is the International Organization for Standardization (ISO), which introduced the "ISO Strategy 2030" to guide the global community in tackling shared challenges through standardization. In parallel, China has been actively developing its own financial standardization framework. The "Financial Standardization Development Plan for the 14th Five-Year Period" outlines a four-tier architecture, structured as "national standards as the foundation, industry standards as the main body, association standards as supplements, and enterprise standards as extensions." The plan also identifies three overarching goals: "serving the real economy, preventing financial risks, and deepening financial reform."

3.2 Financial Risk Management Standards

Globally, several risk management frameworks are widely recognized, such as the Basel Accords—which set requirements for bank capital adequacy and stress testing—and the risk management principles issued by the International Organization of Securities Commissions (IOSCO). These international standards generally offer high-level principles and frameworks, focusing on the fundamental concepts and essential components of risk management. In China, the "Risk Management Framework for Financial Institutions" (GB/T 42422-2023) was issued as a national standard by the State Administration for Market Regulation and the Standardization Administration of China. This framework is designed to standardize risk management approaches across financial institutions. Its introduction reflects China's systematic effort to develop a dedicated financial risk management standard system, with the aim of making risk management requirements more explicit, practical, and actionable to better align with the needs of the domestic financial market.

3.3 Green Finance Standards

Significant progress has been made internationally in the development and implementation of green finance standards. For instance, the Green Bond Principles (GBP) published by the International Capital Market Association (ICMA) and the Climate Bonds Standard (CBS) developed by the Climate Bonds Initiative (CBI) have gained broad market acceptance. The European Union's "Sustainable Finance Taxonomy" serves as a reference for classifying and issuing green and climate-aligned bonds globally. In China, key green finance references include the "Green Industry Guidance Directory (2019 Edition)" jointly released by seven government bodies, the "Green Bond Endorsed Projects Catalogue" introduced by the People's Bank of China, and the "Green Bond Issuance Guidelines" issued by the National Development and Reform Commission. In addition to supporting clearly defined green sectors, China is also advancing "transition finance" to facilitate the shift of high-carbon industries toward low-carbon operations. Moreover, the scope of green finance is expanding into broader environmental themes such as biodiversity finance and blue finance—aimed at supporting marine conservation and sustainable use—reflecting the ongoing evolution of China's green finance agenda.

3.4 Fintech Standards

The rapid growth of financial technology has intensified the need for standardization, with both international and Chinese authorities seeking to balance innovation with risk control. A distinguishing feature is the differing focus: international bodies tend to prioritize "technology-first" standards, while China places greater emphasis on "scenario-based" standards. Globally, organizations such as ISO/TC 322 are developing technical standards in areas like sustainable finance. In China, three key industry standards have been formulated: the "Fintech Innovation Application Testing Specification" (JR/T 0198-2020), the "General Specification for Fintech Innovation Security" (JR/T 0199-2020), and the "Fintech Innovation Risk Monitoring Specification" (JR/T 0120-2020). At the same time, China is strengthening its

involvement in international standardization work, taking a leading role in developing global standards for mobile payments, blockchain, and green finance.

4 Challenges in Financial Standardization

4.1 Inadequate Development of the Financial Standardization Mechanism

Firstly, the number of mandatory national standards remains relatively low. China's vast territory, significant regional economic disparities, and considerable variations in the development levels of financial institutions make it challenging to impose uniform mandatory regulations. Consequently, the implementation of standards is inconsistent, with some institutions complying perfunctorily. The current scarcity of mandatory national financial standards, compared to the prevalence of recommendatory standards, presents a clear distinction. Making key financial standards mandatory could significantly enhance implementation efficacy and drive the high-quality development of financial standardization in China. Secondly, substantial challenges exist in standard implementation. Taking the enforcement of the mandatory national standard "Technical Specification for Discrimination Ability of RMB Cash Handling Machines" (GB 40560-2021) as an example, its rollout lacked corresponding robust supervision mechanisms and specific regulatory requirements. The absence of concrete benchmarks to assess institutional compliance resulted in largely superficial adherence, highlighting deficiencies in ensuring thorough standard adoption and enforcement.

4.2 Unbalanced and Inadequate Development of the Standard System

Regarding institutional leadership, China's financial standardization is predominantly government-driven, with market organizations and institutions demonstrating relatively weak execution capacity. From an implementation perspective, financial institutions often lack dedicated departments or personnel responsible for standardization. This responsibility is frequently assigned as a secondary duty to staff in general offices or IT departments, who may lack specialized knowledge, potentially leading to misinterpretations or incorrect implementation. Consequently, institutions struggle to effectively integrate standards into daily operations, failing to realize the intended developmental benefits. Currently, standardization is more prevalent in internal control and compliance areas, such as accounting, but remains underutilized in sectors like fintech. While fintech drives innovation, a lack of corresponding guidelines and standards persists, particularly exposing significant gaps in the technological capacity building of financial institutions.

4.3 Scarcity and Insufficient Capability of Professional Research Institutions

The PBOC, as the primary body implementing the national financial standardization strategy, bears the responsibility for organizing, coordinating, and managing these efforts as mandated by the State Council. However, in practice, staff at the grassroots levels of the central bank often lack familiarity with standardization, significantly impeding the promotion and implementation of related work—a situation misaligned with the strategic national importance of standardization. Concerning standard-setting entities, the scope is broad, ranging from national bodies to individual financial institutions, all capable of developing standardized documents that conform to international norms while suiting local conditions. Nonetheless, with the progression of global standardization, China's demand for high-caliber standardization talent is intensifying. These professionals require not only expertise in domestic and international standardization landscapes but also interdisciplinary knowledge beyond finance. Presently, such talent is critically scarce.

5 Recommendations

5.1 Improve and Refine the Financial Industry Standard System

Clarify and promote the primary responsibility for standardization work, establishing effective linkage mechanisms among all relevant entities and departments. Actively foster coordination among government bodies, financial institutions, fintech enterprises, and experts with strong theoretical and technical backgrounds to conduct focused research on standardization in the digital era. Grounded in empirical studies of financial markets and aligned with major domestic and international trends, leverage advanced theories and experiences to formulate standardization plans tailored to local and industry-specific contexts. Encourage financial institutions to establish formal standardization leadership structures, constitute dedicated working groups, delineate detailed implementation rules, assign responsibilities to specific functional units and individuals, and create dedicated positions for financial standardization. Motivate more institutions to develop enterprise standards based on their comparative advantages, explore diverse pathways for leveraging standardization to foster development and progress, and thereby enhance overall sector capabilities.

5.2 Promote the Digital Transformation of Financial Standardization Work

Leveraging the context of China's rapidly growing digital economy, financial enterprises are encouraged to strengthen technical reserves and knowledge accumulation for standard digitization. Based on a realistic assessment of their standards and operational needs, they should actively pursue exploration and research into financial standard digitization. Initiatives should include building a comprehensive financial standardization service platform, optimizing the full-text public disclosure system for financial standards, and accelerating the development of information service platforms such as financial standard terminology databases. Fostering effective technical sharing communities will elevate basic research related to standard digitization from isolated efforts to a collaborative, scientific stage. The development of machine-readable and open-source standards should be prioritized to propel the transformation of financial standardization work towards digitalization, networking, and intelligentization. Implementing standardization tools, including online learning platforms, can further facilitate the online management of the entire financial standard lifecycle.

5.3 Enhance the Standardization Capabilities of Institutions and Personnel

Advocate for financial institutions to clearly designate departments responsible for standardization, staff them with qualified personnel, and establish robust standardization work systems. Encourage increased resource allocation to bolster standardization capabilities. Develop and refine supporting guidelines and standards for institutional standardization work, providing clear direction for their activities. Implement specialized capacity-building programs for small and medium-sized financial institutions, offering targeted training to enhance their ability to execute financial standardization effectively. Establish and improve a sustainable training system for financial standardization talent, and explore dedicated career development mechanisms within the field. Construct a multi-level training framework for practitioners to elevate the industry's overall standardization competence. Institute professional competency evaluation and incentive mechanisms for financial standardization specialists. Promote the development of a financial standardization expert database, cultivating a cohort of composite experts who are proficient in financial business and well-versed in standardization principles and practices.

6 Conclusion

Amid accelerating globalization and digitalization in financial markets, financial standardization has emerged as a pivotal factor in promoting the industry's healthy and efficient development. Through an in-depth examination of the path towards financial standardization, this paper has identified key challenges, including evolving technical architectures, the need for interdisciplinary talent, and the complexities of data governance, and has proposed corresponding strategies. Looking forward, financial standardization is a long-term and demanding endeavor requiring concerted efforts from the government, financial institutions, industry associations, academic bodies, and other stakeholders. Only through the continuous optimization of the financial standardization pathway can the stability and efficient operation of financial markets be ensured, thereby providing robust support for the sustained and healthy development of the economy.

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