

The Positioning Dilemma and Transformation Path of China's Personal Pension System: From the Perspective of Path Dependence in Institutional Evolution

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Abstract:

Against the nationwide rollout of China's personal pension system, the prominent contradiction of high account opening volume paired with low contribution rates arises from disputes over its core positioning: whether personal pensions function as a supplementary tier of basic endowment insurance or an independent pillar securing retirees' income. Adopting path dependence theory, this paper establishes a dual analytical framework of tier and pillar to explore how the historical multi-tier pension structure locks institutional design. The research finds that linking participation to basic pension enrollment and taking tax deferral as the primary incentive follow tier-oriented logic, which confines the system to residents with existing pension coverage and excludes massive flexible employees without basic security. To tackle this dilemma, the system ought to transform into an integrated dual-function model that supplements benefits for covered groups and provides basic retirement support for uncovered crowds. Relevant reforms including removing participation thresholds, connecting cross-pillar accounts and designing differentiated incentives are proposed to offer theoretical and practical references for optimizing China's personal pension system.

Keywords:

Personal Pension, Tier and Pillar, Path Dependence, Institutional Transformation, Multi-Tier Endowment Security

1. Introduction

1.1. Research Background and Significance

China has entered a stage of deep population aging. The proportion of residents aged 60 and above exceeded 21% by the end of 2024, imposing long-term financial pressure on the first pillar, namely basic endowment insurance. The second pillar consisting of enterprise annuities and occupational annuities suffers from severe unbalanced development, which only covers staff in government institutions and large state-owned enterprises. Less than 30 million employees participated in enterprise annuities by the end of 2024, accounting for less than 4% of the employed population, failing to satisfy diversified pension demands. The personal pension system launched

pilot programs in 2022 and was fully rolled out nationwide by the end of 2024, marking substantial progress in constructing the third pension pillar. By the third quarter of 2025, the number of personal pension accounts reached 150 million, yet merely 25%–35% of participants made the maximum annual contribution, leaving a large number of dormant accounts. A distinct gap exists between policy expectations and practical operational outcomes. Existing studies mostly attribute the unsatisfactory performance to superficial factors such as low participation willingness, insufficient financial product supply and defective tax preferences, while ignoring the fundamental deviation of institutional positioning. Designed under the tier-oriented logic, the current system over-reliance on basic endowment insurance loses its value as an independent pillar, failing to cover 280 million flexible employees and new-format workers without basic pension coverage. The evolution of personal pension institutions bears typical path dependence characteristics, where the historically formed multi-tier framework locks institutional design thinking and hinders spontaneous functional transformation. Accordingly, this paper analyzes the root causes of positioning dilemmas from the path dependence perspective and puts forward feasible transformation schemes. Theoretically, few existing studies distinguish the positioning differences between “tier” and “pillar”. This paper builds a dual analytical framework, expands the application of path dependence theory in the field of pension institutional changes, and proposes an integrated transformation model of dual functions, making up for the limitations of single-perspective research and enriching the theoretical system of personal pension institutional evolution. Practically, this study provides root-oriented reform plans targeting realistic problems including “high account opening rate but low contribution willingness” and unbalanced coverage. Operable suggestions such as differentiated incentives and inter-pillar account connectivity can serve as references for policy formulation, enabling the third pillar to realize dual functions of filling protection gaps and increasing pension benefits, so as to ease the payment pressure of basic endowment insurance.

1.2. Literature Review

The World Bank first put forward the three-pillar framework in 1994, defining the third pillar as a voluntary personal savings plan, and the OECD has long tracked the operation data of the third pillar across countries[1]. Academic circles have long debated the conceptual boundary between “tier” and “pillar”. Grimmeisen adopted the multiple-streams theory to analyze pension reforms in Central and Eastern European countries, verifying that path dependence exerts profound impacts on institutional changes[2]. According to Xie et al. (2025), the U.S. Individual Retirement Account (IRA) system is highly mature with differentiated account categories, covering over two-fifths of American households and accounting for nearly 40% of residents’ retirement assets, functioning as an independent pension pillar[3]. At the micro level, Marotta found that financial literacy, geographical distribution of financial services and public expectations of public pension reforms jointly affect residents’ participation decisions[4]. Foreign literature forms three research strands including institutional evolution, cross-country comparison and individual participation behaviors, yet lacks systematic analysis of third-pillar positioning deviation from the cognitive conflict between “tier” and “pillar”, leaving room for this paper’s innovation.

Domestic research has advanced alongside the pilot practice of personal pensions. Zhang differentiated the dual positioning of “tier supplement” and “pillar security”, pointing out that the precondition for participation aggravates the imbalance of pension benefit increments[5]. Gao distinguished two development logics: “superimposed multi-tier system” and “independent and complementary multi-pillar system”, clarifying the constraints imposed by the initial institutional environment[6]. Liu et al. empirically evaluated policy implementation effects and advocated coordinated reforms of the whole pension system. Regarding the contradiction of “high account opening rate but low contribution willingness”, scholars summarized its “three-high and three-low” operational characteristics and explained its formation from institutional inertia, income constraints and cognitive bias[7]. Common reform suggestions include enriching pension financial products, realizing connectivity between the second and third pillars and implementing tiered incentives. Though domestic research has entered the stage of mechanism analysis, systematic deconstruction of the conflict between tier and pillar positioning remains insufficient, which this paper further expands.

2. Core Concepts and Theoretical Foundation

2.1. Personal Pension

In accordance with national policy documents, personal pension refers to a supplementary endowment insurance scheme under the third pillar supported by government policies, participated voluntarily by individuals and operated in a market-oriented manner. It adopts an individual account system with an annual contribution ceiling of 12,000 RMB. Participants can independently allocate funds to savings deposits, wealth management products, pension funds and commercial pension insurance, and a unified 3% individual income tax rate applies to withdrawals after retirement. Comparisons with the other two pillars are as follows. The first pillar, basic endowment insurance, is mandatory with joint contributions from employers, individuals and government subsidies, which is guaranteed by the state to secure residents' basic living needs. The second pillar, annuities, only covers formal employees with matching contributions from employers. Differently, personal pensions are fully funded by individuals with voluntary participation and market-oriented investment, featuring higher flexibility.

2.2. Tier Positioning vs. Pillar Positioning

Tier positioning means personal pensions are attached to basic endowment insurance and only open to participants covered by basic pensions, whose core function is to superimpose retirement benefits. Its design logic is dependent: participation thresholds are set and tax deferral serves as the primary incentive, focusing on improving the life quality of groups with existing pension security while ignoring populations without basic protection.

Pillar positioning means personal pensions operate independently of the first and second pillars, targeting flexible employees, individual industrial and commercial households and other uncovered groups, whose core function is to fill pension security gaps. Its design logic is independent and inclusive with no participation preconditions and diversified incentive mechanisms, providing basic post-retirement income for low-income and uninsured populations. The two positioning modes are not mutually

exclusive. An ideal system should integrate dual functions to simultaneously realize supplementary benefit increment and universal basic security.

2.3. Path Dependence Theory

Institutional evolution carries historical inertia. Initial institutional choices generate self-reinforcing effects through cognition, interest distribution and institutional adjustment costs, leading to path lock-in. Born within the multi-tier pension framework, China's personal pension system was initially positioned as a supplementary tier, forming three persistent lock-in effects in the long run: solidified cognition among policy administrators, maintenance of existing interests by financial institutions and covered participants, and high adjustment costs of the established policy framework. Breaking the lock-in effect requires external policy reconstruction to promote the integrated transformation of tier and pillar functions.

2.4. Public Goods Theory

Personal pensions are quasi-public goods. On one hand, they produce positive externalities by alleviating aging pressure and advancing social equity; on the other hand, individual contributions, investment returns and pension benefits are directly linked to personal choices, with exclusive private attributes. If the system prioritizes tier positioning, it leans toward the attribute of private financial products; if prioritizing pillar positioning, the government needs to strengthen public support such as fiscal subsidies and inclusive policies.

3. Institutional Evolution, Current Tier-Oriented Positioning and Operational Dilemmas of Personal Pensions

3.1. Institutional Evolution

The exploration stage spanned from 2000 to 2018. Policies merely stipulated personal savings pensions as supplements to basic insurance without unified institutional arrangements or special incentives, initially shaping its supplementary tier positioning. The pilot stage lasted from 2018 to 2024. Tax-deferred commercial pension insurance pilots were launched, and top-level documents for personal pensions were officially issued in 2022, clarifying its attribute as a supplement to basic endowment insurance and mandating the precondition of holding basic pension insurance accounts. The tier-oriented logic was fully solidified, and problems including dormant accounts and insufficient contributions began to emerge. The nationwide promotion stage started in 2024. While the number of accounts rose rapidly after nationwide rollout, low contribution rates and unbalanced coverage became prominent, fully exposing the positioning contradiction of "adequate supplementary functions yet insufficient pillar functions".

3.2. Tier-Oriented Characteristics of the Current System

The current personal pension system is deeply attached to the first pillar, presenting obvious tier-oriented features in its design logic. Firstly, rigid participation thresholds are imposed: only residents covered by urban employee or urban-rural resident basic endowment insurance can open personal pension accounts, directly excluding nearly 30 million uninsured employed populations and fundamentally undermining institutional inclusiveness. Secondly, incentive tools are highly unitary, relying solely on tax deferral preferences that only benefit earners above the individual income tax

threshold, failing to motivate low-income workers with monthly income below 5,000 RMB and flexible employees with volatile income. Thirdly, institutional coverage displays structural imbalance. Actual participants are mainly high-income on-the-job staff in government institutions and state-owned enterprises, while flexible employees account for less than 10% of all participants. The system only realizes supplementary benefit increments for existing covered groups and cannot undertake the independent security pillar function for populations with pension gaps.

3.3. Five Major Operational Dilemmas

First, the core contradiction of “high account opening rate but low contribution willingness”. Among 150 million personal pension accounts, only half recorded actual contributions, and less than 35% of participants made the maximum annual contribution. Most residents opened accounts merely to obtain bank sign-up rewards without endogenous demand for long-term pension savings. This phenomenon stems from positioning mismatch: groups with dual pension security from the first and second pillars lack incentives to save additional funds, while populations with urgent security demands are blocked by participation thresholds. Besides, long-term capital lock-in and insufficient public financial literacy further restrain continuous contributions.

Second, narrow coverage and insufficient inclusiveness. A total of 280 million flexible employees lack accessible channels to join the system, whose resources are overly concentrated on stable staff in formal sectors. This widens pension security gaps between different employment groups and violates the universal coverage goal of the multi-pillar pension system.

Third, poor adaptability of the single incentive system. Tax deferral alone cannot benefit low-income groups without matching fiscal subsidies. Incentive measures only target the contribution stage with no extra rewards for long-term continuous savings, making it difficult to cultivate residents’ regular pension saving habits.

Fourth, homogenized pension financial products. Current products are dominated by low-risk savings and fixed-income wealth management products lacking tiered design. Low-threshold, flexibly withdrawable products suitable for flexible employees and medium-and-long-term high-yield products meeting the value-added demands of high-income groups are scarce. Strict capital withdrawal constraints cannot address residents’ temporary capital demands, reducing participation willingness.

Fifth, backward account management and inter-pillar connection mechanisms. Personal accounts under different financial institutions are isolated with cumbersome transfer procedures. Accounts of the first, second and third pillars operate independently without mutual capital circulation and unified management. Strict withdrawal rules only allow early withdrawals under limited special circumstances, triggering widespread liquidity concerns among residents.

4. Formation Mechanism of Positioning Dilemmas: Three Lock-In Mechanisms of Path Dependence

4.1. Initial Choice Lock-In: The Multi-Tier Framework Lays the Foundation of Supplementary Positioning

China’s pension system construction centers on basic endowment insurance, and the multi-tier framework naturally forms a hierarchical structure of “basic security +

supplementary security”. As the last established third pillar, personal pensions were assigned supplementary functions from the initial institutional design, with all policy rules formulated to attach to the first pillar. Subsequent policy adjustments only optimized pilot scope and product categories without breaking the initial supplementary tier framework, forming path constraints from the source.

4.2. Interest Group Game: Stakeholders Reinforce the Existing Path

First, financial institutions. The current system serves stable high-income groups with low operation costs and steady revenue. Universal participation would bring mass low-value small-sum contributions, raising operation costs and lowering institutional returns, so financial institutions lack motivation to promote institutional transformation.

Second, existing participants. Current tax deferral preferences directly benefit middle-and high-income employees. Expanding coverage may dilute tax incentives, so existing participants strongly demand maintaining the current institutional arrangement.

Third, policy implementation departments. Relying on existing basic pension insurance participant data simplifies policy implementation and quickly boosts account opening statistics. Removing participation thresholds, establishing fiscal subsidy systems and realizing inter-pillar account connectivity will greatly increase costs of policy design, supervision and statistics. Administrative departments tend to implement partial optimizations rather than structural reforms.

Multiple stakeholders jointly maintain the existing path and hinder the transformation toward independent pillar functions.

4.3. Cognitive Solidification: Traditional Thinking Creates Conceptual Constraints

Policy makers have long defined personal pensions as an extra supplementary pension tool without top-level design thinking for an independent security pillar. Residents generally regard personal pensions as an optional supplementary scheme only for households with disposable surplus rather than a rigid pension necessity. Flexible employees fail to recognize that personal pensions can serve as their core retirement security, while low-income groups lack awareness of differentiated subsidy reform directions. Cognitive bias continuously weakens the development space of the system’s pillar functions. The three inter-reinforcing mechanisms including initial framework constraints, interest game and cognitive inertia form solid path lock-in. Spontaneous market adjustments cannot resolve positioning contradictions, and systematic institutional reforms are imperative.

5. Optimization Paths for Transforming Personal Pensions into an Integrated Tier-and-Pillar System

5.1. Restructure Institutional Positioning and Abolish Participation Preconditions

The mandatory rule requiring basic endowment insurance coverage for account opening shall be completely abolished to realize voluntary universal participation, incorporating flexible employees, new-format workers and individual industrial and commercial households into institutional coverage. The dual positioning of the system shall be clarified: for groups covered by the first and second pillars, the supplementary benefit increment function shall be retained; for uninsured populations,

the system shall undertake the function of a basic retirement security pillar. Synchronized nationwide policy popularization shall be carried out to break the solidified cognition that “personal pensions merely serve as supplementary security” and disseminate the value of its independent security function.

5.2. Establish a Differentiated and Diversified Incentive System

The single tax deferral model shall be abandoned, and a combined incentive system of “fiscal subsidies + tax preferences” shall be constructed. For low-income groups and flexible employees with annual income below 60,000 RMB, tiered fiscal subsidies shall be issued proportionally to actual contributions, with additional long-term saving rewards for continuous contributions over five years to offset the lack of tax deduction benefits. For middle-income earners above the tax threshold, pre-tax deduction policies shall be retained and the annual tax preference quota moderately raised. For high-income groups, flexible contribution ceilings with gradient tax reductions shall be permitted to boost long-term large-sum contribution willingness.

5.3. Build a Unified Account Management Platform and Realize Inter-Pillar Account Connectivity

A nationwide integrated digital personal pension account system shall be constructed to simplify online and offline account opening, fund transfer and inquiry procedures, lowering participation barriers for middle-aged and elderly residents as well as rural populations. Capital circulation channels among the first, second and third pillars shall be opened, allowing free transfer of enterprise and occupational annuity funds to personal pension accounts for unified investment management. Seamless account connection shall be guaranteed for participants who enroll in basic endowment insurance later. Liquidity constraints shall be moderately relaxed. Based on retirement withdrawal rules, early withdrawal scenarios including critical illness, children’s education and housing rigid demand shall be expanded, permitting partial temporary fund withdrawals to ease residents’ liquidity worries.

5.4. Develop Tiered Pension Financial Products and Improve Full-Process Supervision

Financial institutions shall be guided to develop differentiated adaptive products. Low-threshold monthly flexible contribution products with partial withdrawal functions shall be launched for flexible employees; stable principal-guaranteed pension savings products shall be developed for low-income groups; medium-and-long-term equity pension investment products shall be designed for high-income groups to eliminate product homogenization. The supervision system shall be strengthened. Financial institutions shall be mandated to fully disclose product risks, returns and fees, and a pension financial risk reserve fund shall be established. Propaganda guidance shall be standardized to prohibit one-sided overstatement of steady returns and protect participants’ right to know. A dynamic product elimination mechanism shall be built to continuously optimize the supply quality of pension financial products.

6. Conclusions

Faced with deepening population aging, China’s multi-pillar pension system is confronted with prominent structural defects brought by the path-locked single-tier positioning of personal pensions, manifested as the imbalance of “high account

opening rate but low contribution willingness”, insufficient inclusiveness and mismatched supporting policies. Only by breaking the institutional inertia formed by the long-term “supplementary tier” logic can the personal pension system realize its dual value of supplementing retirement benefits and filling pension security gaps. Centered on the integrated transformation of tier and pillar functions, this paper puts forward systematic reform measures covering institutional positioning, differentiated incentive policies, unified inter-pillar account management and differentiated pension financial product supervision. Removing the basic endowment insurance participation threshold can expand coverage to massive flexible employees; the combined fiscal and tax incentives can stimulate sustained savings of low- and middle-income groups; integrated account platforms and relaxed withdrawal rules can ease residents’ liquidity worries; and categorized pension products together with strict risk supervision can raise public recognition of the system. If these reform paths are fully implemented, the path dependence restricting the development of personal pensions will be effectively eliminated, the operational dilemmas of the third pillar will be fundamentally resolved, and a fair, inclusive and sustainable personal pension mechanism will be established. In the long run, the dual-function personal pension system can share the financial pressure of the first pillar, make up for the insufficient coverage of the second pillar, improve the overall security level of retirees, and provide solid institutional support for coping with population aging and advancing common prosperity for all people.

Conflicts of Interest

The author declares that there is no conflict of interest regarding the publication of this article.

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